

GEI Consultants

Geotechnical
Environmental
Water Resources
Ecological

# Phase IV Remedial Activity Completion Report

## Operable Unit No. 1
## 60 North Clinton Avenue and 66 North Clinton Avenue Properties

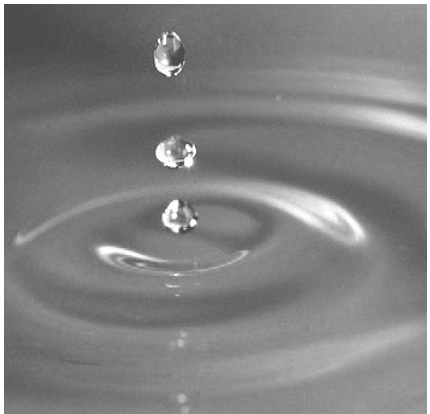
# Bay Shore/Brightwaters Former MGP Site

Town of Islip, Hamlet of Bay Shore
Suffolk County, New York
Site ID # 152172
NYSDEC Consent Index No. D1-0001-98-11

**Submitted to:**
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September 7, 2012
Project # 093180-1-1115



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# CERTIFICATIONS

I, Brandon Nathe, am currently a registered professional engineer licensed by the State of New York, I had primary direct responsibility for implementation of the remedial program activities, and I certify that the Phase IV Remedial Design Report was implemented and that all construction activities were completed in substantial conformance with the Department-approved Phase IV Remedial Design Report.

I certify that all information and statements in this certification form are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law. I, Brandon Nathe, of GEI Consultants, Inc., am certifying as Owner's Designated Site Representative.




September 7, 2012
Date

Brandon Nathe
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# Abbreviations and Acronyms

| | |
|---|---|
| AMS | Air Monitoring Station |
| bgs | Below Ground Surface |
| BTEX | Benzene, Toluene, Ethylbenzene, Xylene |
| CAMP | Community Air Monitoring Plan |
| CCR | Construction Completion Report |
| CERCLA | Comprehensive Environmental Response, Compensation and Liability Act |
| CKD | Cement Kiln Dust |
| Clean Water | Clean Water of New York |
| Creamer | Creamer Environmental Inc. |
| D&B | Dvirka and Bartilucci |
| DER | Department of Environmental Remediation |
| DGA | Dense Grade Aggregate |
| DNAPL | Dense Non-Aqueous Phase Liquid |
| EPA | United States Environmental Protection Agency |
| EZ | Exclusion Zone |
| F&N | Fenley & Nicol Environmental Inc. |
| Frac | Fractionation |
| FER | Final Engineering Report |
| GEI | GEI Consultants, Inc. |
| HASP | Health and Safety Plan |
| IRM | Interim Remedial Measure |
| ISCO | In-Situ Chemical Oxidation |
| LILCO | Long Island Lighting Company |
| LIPA | Long Island Power Authority |
| LIRR | Long Island Railroad |
| MGP | Manufactured Gas Plant |
| NELAP | National Environmental Laboratory Accreditation Program |
| NAPL | Non-Aqueous Phase Liquid |
| NTUs | Nephelometric Turbidity Units |
| NYCRR | New York Codes, Rules, and Regulations |
| NYSDEC | New York State Department of Environmental Conservation |
| NYSDOH | New York State Department of Health |
| NYSDOT | New York State Department of Transportation |
| OSHA | Occupational Safety and Health Administration |

# Abbreviations and Acronyms (continued)

| | |
|---|---|
| OU | Operable Unit |
| OM&M | Operations, Maintenance, and Monitoring |
| $PM_{10}$ | Particulate Matter less than 10 Micrometers in Size |
| PAH | Polycyclic Aromatic Hydrocarbon |
| PCBs | Polychlorinated Biphenyls |
| PPE | Personal Protective Equipment |
| PVC | Polyvinyl Chloride |
| RCA | Recycled Concrete Aggregate |
| RAP | Remedial Action Plan |
| RAO | Remedial Action Objective |
| RCRA | Resource Conservation and Recovery Act |
| RDW | Remediation Derived Waste |
| RDR | Remedial Design Report |
| RI | Remedial Investigation |
| RIR | Remedial Investigation Report |
| SCH | Schedule |
| SARA | Superfund Amendments and Reauthorization Act |
| SCGs | Standards, Criteria, and Guidance |
| SCOs | Soil Cleanup Objective |
| SVOCs | Semivolatile Organic Compounds |
| TFS | Temporary Fabric Structure |
| TVOCs | Total Volatile Organic Compounds |
| VMS | Vapor Management System |
| VOCs | Volatile Organic Compounds |
| **MEASUREMENTS** | |
| cfm | cubic feet per minute |
| ppmv | parts per million volume |
| µµg/L | micrograms per liter |

# 1. Background and Site Description

National Grid entered into Order on Consent, Index Number D1-0001-98-11 (the Order) with the New York State Department of Environmental Conservation (NYSDEC) in March 1999 to investigate and remediate the Bay Shore/Brightwaters former Manufactured Gas Plant (MGP) Site located in Bay Shore, Suffolk County New York (the Site). A Remedial Action Plan (RAP) for Operable Unit No. 1 (OU-1) of the Site was approved by the NYSDEC in August 2004. The implementation of the remedial activities for OU-1 has been divided into five phases:

- Phase I – Subsurface Containment Barrier Wall Installation
- Phase 1A – Groundwater Treatment and Dense Non-Aqueous Phase Liquid (DNAPL) Recovery
- Phase II – Shallow Soil Excavation
- Phase III – In-Situ Chemical Oxidation (ISCO)
- Phase IV – Shallow Excavation and Groundwater Treatment

GEI Consultants, Inc. (GEI), on behalf of National Grid, has prepared this Phase IV Construction Completion Report (CCR) to document the Phase IV remedial activities completed on OU-1 by National Grid from the winter of 2009 through the spring of 2010. The Phase IV remedial activities were conducted at 60 North Clinton Avenue (the former King Bear property) and 66 North Clinton Avenue (the former Summer's Lumber property). **Figure 1** depicts the former MGP Site and the Phase IV properties. In February 2009, NYSDEC approved the reconfiguration of the boundaries of OU-1 to include portions of the 60 North Clinton Avenue and 66 North Clinton Avenue properties. These National Grid-owned properties were originally designated as part of OU-2. This change was designed to refine the areas where OU-1 and OU-2 overlapped and designate areas involved with portions of the OU-1 remedy (i.e., barrier wall installation, source removal, ISCO) as part of OU-1 remedial work and not OU-2.

The Phase IV remedial activities included the excavation and off site disposal of shallow suspected MGP-related source material and groundwater treatment utilizing oxygen injection technology. These remedial activities were performed to address impacts identified outside of the subsurface containment barrier wall in accordance with the February 18, 2010 NYSDEC-approved *Phase IV Remedial Design Report, 100% Submission, Former King Bear/Summer's Lumber Properties, Operable Unit No. 1, Town of Islip, Bay Shore, Suffolk County, New York, NYSDEC Consent Index No. D1-0001-98-11* (Phase IV RDR).

The remedial activities described in this CCR have been performed in conformance with the Order signed by National Grid and NYSDEC, the factors set forth in Title 6 of the New York Code of Rules and Regulations Part 375 (6 NYCRR Part 375) for remedial measures, NYSDEC *DER-10* [Department of Environmental Remediation] *Technical Guidance for Site Investigation and Remediation*, dated June 18, 2010. The remedial activities were conducted under the approval and oversight of the NYSDEC and the New York State Department of Health (NYSDOH).

## 1.1 Site Description and History

The Bay Shore Former MGP Site is located in the County of Suffolk, Bay Shore, Town of Islip. The Bay Shore Former MGP Site is currently divided into four OUs as depicted in **Figure 1**. OU-1 consists of the former MGP main operations area and the parcels immediately downgradient and to the west of the main operations area. OU-2 includes the off-site groundwater plume extending south of OU-1. OU-3 is located west of OU-1 and includes the Brightwaters Yard and the associated downgradient groundwater plume. OU-4 is located approximately 350 feet east of OU-1 and includes the former cesspool and pond area and the downgradient Watchogue Creek/Crum's Brook.

OU-1 encompasses approximately eight acres and currently includes the following:

- The Bay Shore Former MGP Site, formerly the main operations area of the MGP, currently owned by National Grid.
- A decommissioned Long Island Power Authority (LIPA) electric substation and a storage building located in northern portion of the Site.
- An active National Grid natural gas regulator station location in the northern portion of the Site.
- The southern portion of OU-1 north of the Long Island Rail Road (LIRR) is currently vacant.
- The off site area south of the LIRR, north of Union Boulevard, east of North Clinton Avenue and west of Fifth Avenue that includes a mixture of commercial and residential uses. The parcel immediately south of LIRR on the east side of North Clinton Avenue, known as OU-1 South, is owned by National Grid and is currently occupied by the groundwater treatment building installed as part of the Phase IA RDR activities. The parcels immediately south of LIRR on the west side of North Clinton Avenue, 60 North Clinton Avenue and 66 North Clinton Avenue, are owned by National Grid and are the location of the Phase IV remedial activities discussed in this CCR. The remaining off site adjacent parcels are owned by others.
- A large portion of the Bay Shore West Parcel is currently vacant, with a small area used for storage purposes by National Grid Gas Operations.

The overall layout of OU-1 and the 60 North Clinton Avenue, and 66 North Clinton Avenue properties is depicted in **Figures 1 and 2,** respectively. Properties surrounding the 60 North Clinton Avenue and 66 North Clinton Avenue properties include the following:

- North – LIRR and the Bay Shore West Parcel and the National Grid Brightwaters Yard beyond, which is a mixture of private residences and small commercial businesses.
- East – North Clinton Avenue. East of North Clinton Avenue is the groundwater treatment building on OU-1 South.
- South – Union Boulevard. The parcels south of Union Boulevard are private residences.
- West – Immediately west are private residences.

In this CCR, the "On-Site Area" refers to the 60 North Clinton Avenue and 66 North Clinton Avenue properties.

The Bay Shore MGP began operations in the late 1880s. The plant was operated by Mutual Gas and Light Company, the Suffolk Gas and Electric Light Company, and later the Long Island Lighting Company (LILCO) in 1918. LILCO operated the plant from 1918 to approximately 1973 when most of the facilities were demolished. In 1998, KeySpan Corporation acquired the former MGP property through a merger of LILCO and the Brooklyn Union Gas Company. In 2007, National Grid acquired the former MGP property through the acquisition of KeySpan Corporation. A more detailed summary of the operating history of the Bay Shore Former MGP Site is included in the remedial investigation reports that have been prepared for the Site. These reports are entitled *Bay Shore/Brightwaters Former Manufactured Gas Plant Site, Remedial Investigation Report, Bay Shore, New York* dated April 2002 and *Bay Shore/Brightwaters Former Manufactured Gas Plant Site, Final Remedial Investigation Report, Bay Shore, New York* dated January 2003. Both Remedial Investigation Reports (RIRs) were prepared by Dvirka and Bartilucci (D&B).

## 1.2 Conceptual Site Model

Based on the results of all investigations conducted on the two properties, it was concluded that three separate areas of impacts were present.

- A thin lens of non-aqueous phase liquid (NAPL)-coated soil less than 1-foot thick was present at approximately 9 feet below ground surface (bgs) adjacent to the subsurface barrier wall on the 66 North Clinton Avenue property. These impacts appeared to be related to the former light oil recovery system which operated in this portion of the Site.
- Analytical soil impacts (primarily benzo[a]pyrene) were present in the southeast corner of the on-site Area (60 North Clinton Avenue property) downgradient of the

former cesspool on this property. Groundwater impacts observed in this area (primarily Benzene, Toluene, Ethylbenzene, Xylene [BTEX] and naphthalene) are likely the results of the upgradient NAPL-coated soils on the 66 North Clinton Avenue property and potential transport of impacted groundwater from the western portion of the OU-1 main MGP Site further upgradient.

- Groundwater impacts consisting of low levels of n-propylbenzene and 1,2,4-trimethylbenzene were present along the western boundary of the 66 North Clinton Avenue property. These impacts do not appear related to the former MGP Site and appear to be gasoline-related and likely the result of historic operations on this portion of the property. Although these impacts are most likely not related to the MGP Site, they were addressed through the implementation of the Phase IV remedial action.
- Soil impacts above the Commercial Restricted Use Soil Cleanup Objectives (SCOs) were detected in eight samples along the eastern side of the 60 North Clinton Avenue property. The impacted soils are present between 7 and 12 feet bgs and the area is covered with an asphalt parking lot. The impacts are limited to three polycyclic aromatic hydrocarbons (PAHs), benz[a]anthracene, dibenz[a,h]anthracene, and benzo[a]pyrene. These PAHS do not readily dissolve in groundwater and were not detected in groundwater samples at or downgradient of these locations.

# 2. Description of Site Remedy

## 2.1 Remedial Action Objectives

Based on the results of the remedial investigation (RI) and subsequent investigations, a site remedy was developed to meet the site-specific remedial action objectives (RAOs) and Remedial Action Goal identified in the RAP. The RAOs from the RAP which are applicable to the Phase IV remedial activities were modified to the following in the Phase IV RDR.

### *2.1.1 Groundwater RAOs*

RAOs for Public Health Protection

- Prevent, to the extent practicable, contact with, or ingestion of groundwater with MGP-related contaminant levels exceeding class GA standards.

RAOs for Environmental Protection

- Remove/treat, to the extent practicable, MGP-related source material which may impact groundwater.

### *2.1.2 Soil RAO*

RAOs for Public Health Protection

- Prevent, to the extent practicable, ingestion/direct contact with MGP-related soil contamination.

## 2.2 Description of Selected Remedy

### *2.2.1 Summary of Remedial Action Plan*

In compliance with the Order, National Grid retained GEI to prepare a RAP to evaluate on- and off site potential remedial measures to address the presence of impacts noted during the performance of the RIs. The results of this evaluation were documented in the RAP dated August 2004. The results of the RAP were utilized by NYSDEC to select the following remedy for OU-1:

- Excavating contaminant source materials in the unsaturated zone to an approximate depth of 8 feet bgs in the On-Site MGP Site Area.
- Excavating contaminant source materials in four “hot spot” areas to an average depth of 25 feet bgs based on field conditions.

- Off site disposal of excavated impacted soil at a permitted facility for thermal desorption.
- Backfill of excavated areas to pre-remedial grades with approved backfill materials.
- Use of ISCO to treat/destroy residual source material (where applicable).
- Construction of a subsurface containment barrier system at the downgradient edge of the OU to contain DNAPL. The containment system will be used to create a treatment zone immediately upgradient of the barrier.
- Recovering NAPL via extraction wells along the upgradient perimeter of the containment barrier, where practicable.
- Instituting long-term monitoring, operation and maintenance of the containment/treatment system.
- Developing institutional and/or engineering controls to manage future subsurface disturbance and resultant potential exposure pathways.

### *2.2.2 Remedial Action Goals*

The RAP established the following goals for the OU-1 remedy implemented as part of the Phase I and II work:

The NYSDEC remedial program identifies the goal for site remediation under 6 NYCRR Sub-Part 375-2.8(a) as:

> "…restore that site to pre-disposal conditions, to the extent feasible. At a minimum, the remedy selected shall eliminate or mitigate all significant threats to the public health and to the environment presented by contaminants disposed at the site through the proper application of scientific and engineering principles and in a manner not inconsistent with the national oil and hazardous substances pollution contingency plan as set forth in section 105 of CERCLA [Comprehensive Environmental Response, Compensation and Liability Act], as amended as by SARA [Superfund Amendments and Reauthorization Act]."

Where restoration to pre-disposal conditions is not feasible, the NYSDEC may approve an alternative criteria based on the site conditions (6 NYCRR Sub-Part 375-2-8(b)(1)). This could include the application of one of the Soil Cleanup Objectives listed in Table 375-6.8(a) (Unrestricted Use) or Table 375-6.8(b) (Restricted Use). Alternatively, the responsible party may "propose site-specific soil cleanup objectives which are protective of public health and the environment based upon other information."

Based on these criteria, the goals for the Phase IV remedy were to remove the MGP-related source material via excavation where present and accessible, to the extent practicable, and treat residual impacts through the use of oxygen injection. MGP-related source material is defined as materials containing or saturated with NAPL or product related to the former MGP operations. MGP-impacted materials are defined as materials which do not contain

NAPL or product, but exhibit MGP-related sheens, staining, odors, or analytical sampling results which do not meet the Commercial Use SCOs for soils.

### *2.2.3 Summary of Phase IV Remedy*

The Phase IV remedy is presented in the NYSDEC-approved Phase IV RDR dated February 18, 2010. The Phase IV Remedy includes the following elements of the OU-1 Remedy in the NYSDEC-approved RAP.

- Excavating contaminant source materials to an approximate depth of 10 feet bgs.
- Off site disposal of excavated impacted soil at a permitted facility for thermal desorption.
- Backfill of excavated area to pre-remedial grades with approved backfill materials.
- Construction of a groundwater treatment system to be installed at the downgradient edge of the On-Site Area to extend treatment outside the barrier wall to the west.
- Instituting long-term monitoring, operation and maintenance of the treatment system.

Two Standards, Criteria, and Guidance (SCGs) were applied to the On-Site Area, 6 NYCRR Part 375 for shallow accessible soils and a site-specific soil cleanup objective of removing source material which could contribute to groundwater contamination, where present and accessible. Specifically, the Commercial Use SCOs listed in Table 375-6.8(b) were applied to shallow subsurface soils at the Site and under the existing building and asphalt parking lot on the 60 North Clinton Avenue property. For the purposes of the Phase IV Remedy, shallow subsurface soils were defined as soil above the seasonally high water table. The goal of the removal of source material which could contribute to groundwater contamination, where present and accessible, was applied to the impacts observed at the 66 North Clinton Avenue property.

# 3. Interim Remedial Measures

The Phase IV Remedy for the Site was performed as a single project, and no interim remedial measures (IRMs), OUs or separate construction contracts were performed.

# 4. Description of Remedial Actions Performed

Remedial activities completed at the On-Site Area were conducted in accordance with the NYSDEC-approved Phase IV Remedial Design Report for OU-1 of the Bay Shore Brightwaters former MGP Site (February 18, 2010). All deviations from the Phase IV Remedial Design Report are noted below.

## 4.1 Governing Documents

This CCR section has been prepared to summarize the regulatory compliance, and construction documents that were developed to support the implementation of the IRM in OU-3 and the Phase IV Remedial Action.

### *4.1.1 Site Specific Health & Safety Plan (HASP)*

All remedial work performed under this remedial action was in full compliance with governmental requirements, including site and worker safety requirements mandated by Federal Occupational Safety and Health Administration (OSHA).

GEI served as the Site Health and Safety Officer for National Grid. National Grid's Excavation Contractor, Creamer Environmental Inc. (Creamer), was responsible for construction personnel health and safety during the excavation portion of the work. Fenley & Nicol Environmental Inc. (F&N) was responsible for construction personnel health and safety during the system installation. Work was performed under the Bay Shore Generic HASP dated July 2009 and the Excavation Contractor Site-Specific HASP dated July 15, 2009.

### *4.1.2 Waste Management Plan*

During the implementation of remedial construction activities, the Excavation Contractor was required to coordinate and manage transportation and disposal of generated wastes to National Grid-approved disposal facilities. Remediation derived waste (RDW) generated during remedial activities included excavated impacted soils, dewatering water, rinse-waters from decontamination procedures, spent personal protective equipment (PPE), incidental water generated during site activities, spent carbon associated with the vapor management system (VMS) and miscellaneous refuse.

Solid, liquid, and hazardous waste treatment/disposal facilities were approved by National Grid prior to use. Disposal facilities were reviewed by National Grid for permitting and licensing requirements, licenses and regulatory enforcement status.

#### 4.1.2.1 Disposal Record Keeping

A Manifest Form accompanied each load and was signed by an approved agent for National Grid and the truck driver before the material left the On-Site Area; and by a representative of disposal facility when the load was received. A copy of the signed Manifest was maintained on file in the Excavation Contractor administrative trailer by the Engineer (GEI) and is provided in **Appendix A**.

#### 4.1.2.2 Material Shipping Procedures

Waste transporters, properly permitted by the NYSDOT (New York State Department of Transportation), were utilized to ship the impacted soils to approved disposal facilities. The Excavation Contractor managed all disposal documentation including, but not limited to, all necessary manifests, bill-of-ladings, weight tickets, and certificates of treatment/destruction. Copies of the transporters permits are included in **Appendix A**.

Transport trucks entered the On-Site Area and were either directed to the temporary fabric structure (TFS) in the exclusion zone (EZ) where they were loaded or to the support zone. Upon entry to the On-Site Area, the trucks were inspected to ensure the proper placards, decals, and permits were displayed. Transport truck beds were lined with plastic truck liners prior to material being placed in the bed. All loaded trucks leaving the EZ followed the Decontamination Plan. All material transportation vehicles leaving the On-Site Area were covered with tarps and securely fastened. Transport trucks utilized the most direct hauling route between the Site and the disposal facility, and as specified in the Traffic Control Plan.

Individual waste streams were handled as follows.

#### 4.1.2.3 Impacted Soils and Bulky Waste

All impacted soils and bulky waste were excavated and processed as discussed in subsequent sections. All processed materials were transported to Bay Shore Soil Management, LLC (formerly ESMI of New Jersey) located in Keasbey, New Jersey.

#### 4.1.2.4 Uncontaminated Bulky Waste

No uncontaminated bulky waste (i.e., asphalt pavement sections, concrete, and debris) was separately handled or disposed of during this IRM.

#### 4.1.2.5 Decontamination Water and Impacted Groundwater

Dewatering was required during the backfill activities. Standing water displaced as backfilling was performed and removed from the excavations using a series of 3-inch centrifugal pumps placed within the excavation during backfill. Water from the excavations and decontamination were contained in two 20,000-gallon fractionation (frac) tanks. Approximately 37,309 gallons of fluids were collected and treated off site at Clean Water of

New York (Clean Water) located in Staten Island, New York. Electronic copies of the manifests issued by Clean Water are located in **Appendix A**.

#### 4.1.2.6 Soil Disposal Characterization Analyses

GEI collected waste characterization samples on February 17, 2010 from three direct push geoprobe borings within the proposed excavation area. These samples collected from MGP-impacted materials were analyzed in accordance with the receiving facilities' guidelines and all Local, State, and Federal laws. The pre-characterization soil analysis results are provided in **Appendix B**.

### *4.1.3 Erosion and Sediment Control Plan*

The erosion and sediment controls for all remedial construction were performed in conformance with requirements presented in the New York State Guidelines for Urban Erosion and Sediment Control, and the site-specific Erosion and Sediment Control Plan as provided in the February 18, 2010 Phase IV RDR, and Final Design Submittal dated March 12, 2010.

### *4.1.4 Community Air Monitoring Plan (CAMP)*

The CAMP work plan was provided in **Appendix E** of the Phase IV RDR. The CAMP monitoring network consisted of four real-time air monitoring stations (AMS-1 through AMS-4) using the AirLogics® SolarLite, LLC Perimeter Air Monitoring System and one meteorological station for determining and recording wind direction. The real time stations recorded total volatile organic compound (TVOC) and particulate matter less than 10 micrometers in size ($PM_{10}$) concentrations along the On-Site Area perimeter. The real time stations were operated during remedial activities from October 19, 2009 to September 21, 2010 during the OU-3 LIRR Excavation/Temporary Track Relocation IRM and the Phase IV remedial activities. The Phase IV excavation activities took place between March 6, 2010 and April 9, 2010.

Shallow trenching and injection well installation was conducted from December 8, 2009 to February 4, 2010 during installation of the oxygen injection system. Tripod mounted monitoring stations were used upwind and downwind of the work zone during this work. Realtime monitoring using the AirLogics® SolarLite, LLC Perimeter AMS was also conducted in this area as part of the CAMP for the OU-3 LIRR Excavation/Temporary Track Relocation IRM during the same period. The real-time CAMP data from this monitoring is included in the Construction Completion Report for the OU-3 LIRR Excavation/Temporary Track Relocation IRM.

Volatile organic compound (VOC) samples were collected over an 8-hour period once per week using laboratory certified-clean SUMMA® canisters, and submitted for laboratory

analysis on a weekly basis at upwind and downwind real time station locations during the excavation. Air samples were analyzed for VOCs and naphthalene by United States Environmental Protection Agency (EPA) Method TO-15 by Air Toxics Ltd., a NYSDOH-approved National Environmental Laboratory Accreditation Program (NELAP) laboratory (NY NELAP No. 11291). These sample results were compared to the results of the 2009 background samples taken in OU-3 prior to Phase I of the OU-3 LIRR Excavation/Temporary Track Relocation IRM to comparatively confirm the veracity of real-time air monitoring results collected throughout the project.

The CAMP Work Plan established a contingency plan that used a three-tiered classification in order to provide an early warning system and mitigation procedures to prevent emissions from intrusive activities at the On-Site Area. The 15-minute average action levels from the NYSDEC/NYSDOH-approved CAMP Work Plan are provided below:

| Target | Action Level |
|---|---|
| TVOCs | 5.0 ppmv |
| TVOCs (maximum allowable concentration) | 25 ppmv |
| Particulate Matter ($PM_{10}$) | 150 ug/$m^3$ |

ppmv – parts per million volume
ug/$m^3$ – micrograms per cubic meter
Target concentrations were averaged over a 15-minute period

An alert was issued to National Grid and the construction manager (GEI) if concentrations were elevated to near action levels for a 15-minute period and were potentially attributed to MGP-impacted materials generated during ground-intrusive activities. The warning system is provided below:

Site Condition 1: Normal or ambient air conditions where all target concentrations (e.g., TVOCs, $PM_{10}$, etc.) were less than 75 percent of the action level. No action required, continue monitoring.

Site Condition 2: Concentration of at least one target was greater than or equal to Site Condition 1, but less than the action level. [Implement response actions in the CAMP Work Plan].

Site Condition 3: Concentration of at least one target was greater than or equal to the action level. [Implement response actions in the CAMP Work Plan].

When elevated concentrations were present (preliminary Site Condition 2 or Site Condition 3), GEI notified the site construction manager (GEI). A summary of the CAMP activities performed during the IRM is included in **Appendix C**.

### 4.1.5 Contractors Submittals

The Excavation Contractor submitted a Project Operations Plan for Phase 1 and 2 of the OU-3 LIRR Excavation/Temporary Track Relocation IRM in September 2009. This Project Operations Plan was revised and resubmitted in February 2010 for the specific conditions of the Phase IV remedial action, along with various other required technical submittals. The Engineer reviewed all plans and submittals for this remedial project and confirmed that they were in compliance with the Phase IV RDR. All remedial documents were submitted to NYSDEC and NYSDOH in a timely manner and prior to the start of work.

### 4.1.6 Community Participation Plan

Numerous community relations activities are conducted by National Grid for the former Bay Shore/Brightwaters MGP Site on a regular basis. These activities are summarized below.

- Maintenance of the Bay Shore MGP Site web site (www.bayshoreworksmgp.com) which is updated weekly with a description of remedial work completed in the preceding week, the planned work for the next two weeks, and notices of any anticipated community impacts as necessary.
- Distribution of Fact Sheets on a quarterly basis to the Site's mailing list reporting on remedial progress in all four OUs.
- Participation in ongoing discussions and meetings with individual community members, Summit Council members and MGP Task Force on issues associated with the remedial program.
- Conducting annual, quarterly, and monthly groundwater sampling and analysis.
- Preparation of a quarterly Operations, Maintenance, and Monitoring (OM&M) reports summarizing all groundwater monitoring data and all remediation systems OM&M data.

Information specific to the Phase IV remedial action was provided to the community via each of the forums specified above.

Site work commenced at 0730 Monday through Friday with no heavy truck traffic until 0800. During working hours, the Excavation Contractor and System Installation Contractor made every effort to minimize potential nuisance community impacts. These include, but are not limited to, noise and traffic concerns associated with the execution of the remedy.

## 4.2 Remedial Program Elements

### 4.2.1 Contractors and Consultants

The Engineer (GEI), under contract to National Grid, served as the Engineer of Record for the Phase IV remedial action and acted as National Grid's representative on site. The

Engineer was responsible for engineering design, oversight of contractors to ensure compliance with Contract Documents, implementation of the CAMP, collection of analytical samples, maintenance of sampling logs, meteorological logs, and Contractor invoice and change order review on behalf of National Grid. GEI also served as the Site Health and Safety Officer for National Grid.

The Excavation Contractor, Creamer, was contracted by National Grid, to implement the excavation scope of work specified in the approved work plan and contract documents. These responsibilities included compliance with all applicable OSHA health and safety regulations, construction personnel health and safety, implementation of appropriate emission control measures, traffic control, site security, excavation, material handling, and transport and disposal activities associated with the Phase IV remedial action.

The System Installation Contractor, F&N, was contracted by GEI to install the oxygen injection system as specified in the approved work plan and contract documents. These responsibilities included compliance with all applicable OSHA health and safety regulations, construction personnel health and safety, implementation of appropriate emission control measures, traffic control, site security, trench excavation, well installation, and material handling activities associated with system installation.

The following are the key personnel or agencies involved with the Phase IV remedial action.

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Brandon Nathe, P.E.
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Documentation of agency approvals of the Phase 1 RDR is included in **Appendix D**.

### *4.2.2 Site Preparation*

Site preparation activities necessary to provide support for the work included utility markouts, site survey, the establishment of work zones, support facilities, decontamination facilities, erosion control measures, and installation of temporary security fencing around the work area and staging area.

The Excavation Contractor contacted New York City-Long Island One Call to request that all utilities on the surface roads adjacent to the On-Site Area were located and marked.

Additionally, a private utility locator service was contracted to identify any utilities on the On-Site Area.

Monitoring well cluster OZMW-22 was abandoned prior to beginning excavation and re-installed following excavation activities. Monitoring wells were abandoned per the 2003 NYSDEC *Groundwater Monitoring Well Decommissioning Procedures*.

Prior to the start of work, the Excavation Contractor conducted an external pre-construction survey and inspection of adjacent properties to document existing conditions. The survey was conducted under the oversight of the Engineer and the findings reviewed and approved by the Engineer and National Grid prior to mobilization. KS Engineers, P.C., a New York State licensed surveyor, performed a surveying event on March 8, 2010 to establish a temporary baseline grid and benchmarks for the remedial work. Subsequent confirmation surveying events were performed on March 18 and 29, 2010. The surveys were established in English Units (feet) in the following datums:

- Horizontal: New York State Plane Coordinate System Long Island 3104;
- Vertical: North American Vertical Datum 1988, NAVD88.

The Excavation Contractor mobilized to the Site for Phase I OU-3 LIRR Excavation/Temporary Track Relocation IRM on October 15, 2009. During this mobilization, the TFS was constructed and heavy equipment was mobilized to the On-Site Area. Privacy fencing was installed on the existing fencing as well. On February 18-19, 2010, a new security fence with privacy screen was installed along the eastern property boundary at 66 North Clinton Avenue and the existing fence was removed to allow access to the excavation area. The System Installation Contractor mobilized to the On-Site Area to begin installation of the oxygen injection system on November 24, 2009. The Excavation Contractor mobilized to begin the Phase IV excavation work on April 8, 2010. Site preparation activities were conducted, including the construction of the temporary haul roads, mobilization of heavy equipment and excavation support system, erosion and sediment controls, relocation of the decontamination pad, and other essential construction support facilities.

Soil erosion and sediment control measures were installed prior to excavation and maintained throughout the project in accordance with the Erosion and Sediment Control Plan in the RDR. The work area during the system installation changed daily and consisted of a section of trench that the System Contractor could excavate, place continuous oxygen supply lines, and backfill in a single workday. This reduced the need for erosion control, security, and other overnight safety measures during the system trenching. The Excavation Contractor was utilizing a portion of the On-Site Area for the TFS for the Phase I OU-3 LIRR Excavation/Temporary Track Relocation IRM during the installation of the system.

Temporary construction fencing and barriers were placed to separate the work areas for the System Installation Contractor and the Excavation Contractor during the system installation.

Following preparation of the On-Site Area, a decontamination/anti-traction pad was constructed and utilized at the southern edge of the 66 North Clinton Avenue property prior to exiting onto Union Boulevard through the 60 North Clinton Avenue property.

### *4.2.3 Site Security*

An 8-foot high odor control/privacy fence with two access gates was erected to enclose and control access to the On-Site Area for the duration of the remedy, and a Site Security Plan was implemented and is included in the RDR. Temporary fencing was constructed around the perimeter of the system installation work areas and open trenches. Privacy screen was placed over the 8-foot tall, chain-linked fence which aided in controlling dust and odors generated from the excavation. Site security during the Phase IV remedial action was controlled via Excavation Contractor and National Grid specific locks.

Additionally, the building on 60 North Clinton Avenue was equipped with security cameras that cover the perimeter of the 60 North Clinton Avenue and 66 North Clinton Avenue properties.

All vehicles and/or equipment left in the work area were secured at the end of each working day and remained inside the perimeter fence on the On-Site Area or within the fenced in area of the Brightwaters Yard in OU-3.

### *4.2.4 Odor and Dust Control*

Odors and dust were controlled using several methods during the excavation by application of Rusmar non-scented AC-645 Long Duration Odor Suppressant Foam, water, Piian odor neutralizing agents, activated carbon TIGG Unit and plastic sheeting. A Rusmar PFC-NTC/8 unit was used during the excavation and transportation of material to the TFS. Foam was applied liberally and nearly on a continuous basis to the exposed excavation, the excavator bucket, and on top of the site haul truck. A Piian industrial vaporizer system was also used to aid in controlling any fugitive odors. The Piian system was installed adjacent to the open excavation cells via a 4-inch polyvinyl chloride (PVC) pipe. Water was used to control nuisance dust from exiting the On-Site Area perimeter. This was generally applied by hand nozzles. Plastic sheeting was used to cover side slopes that were exposed for extended periods (e.g. greater than 12 hours). Although it was best work practice to attempt to complete each excavation cell in a work shift, on several occasions' plastic sheeting was utilized to cover cells overnight when excavation could not be completed by the end of a work shift or in areas outside of the excavation cells where backfill was not practical until

completion of the adjacent excavation cells. Plastic sheeting was also used to cover the stockpiled material inside the TFS at the end of the shift when needed.

During construction hours, a VMS was operated in conjunction with the TFS. This consisted of 20,000 cubic feet per meter (cfm) blower to collect and treat vapors and emissions from within the TFS. Air was passed through a TIGG unit that housed a bed of activated carbon and then exhausted to the atmosphere. The air handling and treatment system allowed personnel to work in limited PPE inside the TFS and also control odors and vapors from the staged material. Air monitoring was performed by the Excavation Contractor several times a day on the interior of the TFS and on the exhaust of the VMS to ensure the unit was operating properly.

No public odor complaints were received for the duration of the project.

### *4.2.5 CAMP Results*

A detailed presentation of the CAMP results during the excavation is provided in the *Community Air Monitoring Summary Report,* **Appendix C**. A summary of the key findings is provided below.

There were no readings of TVOCs or $PM_{10}$ above the action level for a 15-minute average that were associated with MGP-impacted materials during ground intrusive activities or handling of excavated impacted materials.

CAMP monitoring recorded a number of $PM_{10}$ concentrations that were measured above the action level for over a 15-minute average associated with exhaust from construction equipment, site maintenance, or from traffic associated with off site activities and/or North Clinton Avenue and Union Boulevard. A number of these $PM_{10}$ concentrations occurred at times when there were no construction-related activities, or were due to third party sources that were not related to intrusive activities.

No public odor complaints were received for the duration of the project.

Ambient air analytical testing results show that only low levels of VOCs common to both petroleum products and exhaust were detected. The VOC concentrations during the remedial activities were typically in the range of background VOC concentrations found in the NYSDOH study and site background VOC levels measured at the Site in 2009. The laboratory results were used to confirm the effectiveness of real-time fixed station TVOC monitoring data.

The CAMP was successful at monitoring ambient air conditions at the On-Site Area perimeter and documenting that the contractor's remedial activities did not affect ambient air

at the On-Site Area perimeter. The CAMP also provided the framework to monitor concentrations of TVOC and $PM_{10}$, along with weather data and site activities, in order to determine if readings were related to site activities and, if needed, alert National Grid and its subcontractors to rapidly enact mitigation techniques. The CAMP data demonstrated that the methods and soil management practices implemented by National Grid and its subcontractors were effective in controlling off site emissions of TVOC and $PM_{10}$ for the duration of the remedial activities.

### *4.2.6 Reporting*

All daily reports and weekly progress meeting minutes are included in electronic format in **Appendix E**. The digital photograph log is included in electronic format in **Appendix F**.

## 4.3 Contaminated Materials Removal

The On-Site Area was remediated in accordance with the remedy presented in the NYSDEC-approved February 2010 Phase IV RDR and the March 12, 2010 Design Drawings. The following are the components of the selected remedy.

The selected remedy consisted of the excavation of shallow MGP-impacted source material soil which could contribute to groundwater contamination and the installation of an oxygen injection groundwater treatment system at the downgradient edge of the 66 North Clinton Avenue property to extend treatment to the west outside the subsurface barrier wall. The system installation and the excavation were performed separately as described below. The following sections describe the work performed as part of the remedy as well as the field observations. Electronic versions of the final As-Built drawings issued are included in **Appendix G**.

### *4.3.1 Soil Excavation*

The planned extent of the excavation was established based on the existing On-Site Area data and field observations and the analytical results from pre-design investigation. The excavation was approximately 111 feet long by 35 feet wide and 10 feet deep.
The Phase IV excavation area was further segregated into discrete excavation cells via a slide rail shoring system. Each cell was excavated in-the-wet and backfilled prior to proceeding to the next cell to control odors and to limit the potential for recontamination of clean areas via contact with adjacent areas to be excavated. The Phase IV area was divided into 13 cells; each cell was approximately 15 feet by 20 feet. A four foot cut was extended beyond the excavation limits set in the work plan to remove the additional surcharge from beyond the shoring system line and allow for deeper excavation up to two feet beyond the planned excavation depth. This cut was also installed to identify the location of the existing subsurface barrier wall and extended a minimum of five feet to the east of subsurface barrier

wall to prevent additional surcharge on the sheet piles during excavation. At the southeast corner of the excavation (Box 9), the existing sheet pile was internally braced and used in conjunction with the slide rail system to excavate to the 10-foot depth. The configuration of the cells and the over excavation areas are presented on Creamer drawing number ES-1 from the approved excavation support plan submittal in **Appendix H**.

The excavation below the water table was conducted in-the-wet similar to the previous excavations at OU-1 during Phase II. Groundwater from excavated materials was allowed to gravity-drain back into the excavation prior to the excavated materials being loaded into a transfer truck for movement to the TFS. Excavations proceeded from the northeast at Cell 1 and generally moved southwest across the excavation in general accordance with the excavation sequence on drawing number ES-1. The only deviation was during the excavation of the Cell 11, which was excavated prior to Cells 8 through 10. This was to accommodate the installation of the additional bracing for the existing sheet piles prior to excavation of Cell 9. A summary of the excavation sequence is presented below.

| Date | Excavation Cell |
|---|---|
| March 10, 2010 | Cell 1 |
| March 11, 2010 | Cell 2 |
| March 12, 2010 | Cell 3 |
| March 16, 2010 | Cell 4 |
| March 17, 2010 | Cell 5 |
| March 19, 2010 | Cell 6 |
| March 22, 2010 | Cells 7 and 11 |
| March 23, 2010 | Cell 9 Bracing Installation |
| March 24-25, 2010 | Cells 8, 9, and 10 |
| March 26, 2010 | Cells 12 and 13 |

Although the excavation was conducted in-the-wet, the collection of dewatering fluids was necessary during portions of the excavation and backfill operations. Temporary sump dewatering was performed following heavy rain events on March 13-14, 2010 to remove excess stormwater and during backfilling operations. Dewatering fluids were pumped into a frac tank and stored at a designated location within the project limits until being transported off site for treatment.

### *4.3.2 System Trenching*

System trenches were excavated as depicted on **Figure 2** and were approximately 2 feet in width by 3 feet deep. Trenching, supply line installation and backfill activities were sequenced to minimize or eliminate open excavation areas at the end of each workday. Excavated material generated during trenching activities was reused as backfill within the

trench, or was loaded into the TFS and mixed with excavated soils for subsequent removal from the On-Site Area by the Excavation Contractor. This material was removed during the Phase I OU-3 LIRR Excavation/Temporary Track Relocation IRM. Any excavations remaining open overnight were secured.

## 4.4 Waste Disposal

### *4.4.1 Soil*

Excavated materials were transported via a 30-ton off-road haul truck to a negative-air TFS. The impacted soils were then stabilized using cement kiln dust (CKD). The CKD material was used to stabilize the amount of moisture contained within the excavated materials. After a suitable amount was stabilized, the dried material was then loaded into trucks for off site thermal desorption and disposal.

Once a truck was filled with excavated material, spray-on odor suppressing materials such as Rusmar Foam or Biosolve® was used to reduce potential VOC emissions during transit, as necessary. A solid truck tarp was then employed over the truck bed and secured on all sides. The truck then exited the excavation area and proceeded immediately to a decontamination pad. Following decontamination, the truck then proceeded directly to Bay Shore Soil Management, LLC (formerly ESMI of New Jersey) located in Keasbey, New Jersey. A total of 3,439.31 tons of impacted soil was excavated and transported off site for treatment.

All waste handled by Bay Shore Soil Management, LLC was disposed of in accordance with all required and applicable state and federal laws and regulations. Electronic copies of the certificates of disposal, manifests, and weight tickets obtained from Bay Shore Soil Management, LLC are included in **Appendix A**. A summary table of the quantity of soil removed from the On-Site Area each day is also presented in **Appendix A**. Soil characterization data are attached in **Appendix B**.

### *4.4.2 Wastewater*

Water from the excavations and decontamination were contained in (2) 20,000 gallon frac tanks. Approximately 37,309 gallons of fluids were collected and treated off site at Clean Water. Electronic copies of the manifests issued by Clean Water are located in **Appendix A**.

Following completion of the Phase IV excavation, the frac tanks were used for Phase II and III of the OU-3 LIRR Excavation/Temporary Track Relocation IRM. Solid materials at the bottom of the frac tanks were removed at the completion of Phase III of the OU-3 LIRR Excavation/Temporary Track Relocation IRM and combined with the impacted material disposed of off site during that project.

## 4.5 Imported Backfill

The backfill used at the On-Site Area consisted of several different sizes and types. Dense Grade Aggregate (DGA), ¾-inch Gravel, and common fill all were obtained from local NYSDOT-approved sources (NYSDOT Facility #10293 sources #8-10R and 10-194F).

Approximately 1,181 tons of poorly-graded sand with silt (common fill), approximately 1,123 tons of ¾-inch Gravel; and approximately 362 tons of Dense Grade Aggregate were obtained from Watral Brothers Inc., in North Bay Shore, New York.

The excavation was backfilled with a combined total of approximately 1,458 cubic yards of ¾-inch gravel to 1 foot above the seasonal high water table, common fill material to within approximately one-foot of grade, DGA to surface, and was completed with approximately 4 inches of asphalt to match the existing grade. A demarcation barrier consisting of orange construction fencing was installed to segregate the bottom of the common fill from the top of the 3/4 stone backfill.

A series of monitoring wells, installed for potential additional remedial actions, were placed in the high permeable ¾-inch gravel as described in the RDR and are depicted on **Figure 2**.

Analytical testing was performed on the common fill backfill. Three samples were collected and analyzed for VOCs via EPA Method 8260, semivolatile organic compounds (SVOCs) via EPA Method 8270, polychlorinated biphenyls (PCBs) via EPA Method 8082, Resource Conservation and Recovery Act (RCRA) list of metals via EPA 6000/7000 series methods, and total cyanide via EPA Method 9014. The analytical results of the samples of the borrow source are included in **Appendix I**.

Common fill and DGA were placed in lifts and compacted. Gravel backfill under the water was placed and compacted using an excavator bucket. Common fill and DGA were spread out in 12-inch lifts and compacted using a plate compactor to an elevation that was 2-feet above the top of the existing Waterloo sheetpiles form the subsurface barrier wall. Compaction was not performed within 2-feet of the existing Waterloo sheetpiles. A walk behind articulated trench roller was used to compact common fill and DGA from 2-feet above the top of the existing Waterloo sheetpiles to grade. The relative density of the compacted materials was visually inspected and evaluated manually. No specific compaction requirements were required for the backfill material on the On-Site Area.

System trenches were backfilled using bedding sand around the system piping and native materials to 4- to 6-inches bgs. The final 4- to 6-inches was backfilled with recycled concrete aggregate (RCA) to match the adjacent site grade. Backfill was compacted in the trenches in 6- to 12- inch lifts with a vibratory plate compactor.

## 4.6 Remedial Performance/Documentation Sampling

The extent of excavation required to meet the Commercial Use SCOs was determined via delineation soil sampling prior to the implementation of the Phase IV excavation. The results of the delineation soil sampling and the resultant excavation limits were presented in the NYSDEC-approved February 2009 Phase IV RDR. Based on the density of sampling during this investigation, documentation sampling of the excavation limits was not required during excavation.

## 4.7 Oxygen Injection System Installation

### *4.7.1 Trenching*

An electrical line was installed within the system trench in accordance with code to provide power to the oxygen injection system. All electrical work performed was conducted by a licensed electrician and conducted in accordance with all applicable Federal, State, and local laws and local building codes.

### *4.7.2 Monitoring Well Installation*

At the request of the NYSDEC, two additional groundwater monitoring well clusters, OU2MW-54 and OU2MW-57, were installed down-gradient of the treatment line on the south side of Union Boulevard and on the southeast corner of the 60 North Clinton Avenue property respectively. The monitoring well clusters included three to four screen depths for monitoring the oxygen injection system performance throughout the vertical extent of the aquifer. In addition to these additional monitoring well clusters, the shallow and intermediate monitoring wells from the OZMW-22 monitoring well cluster were re-installed at the completion of the excavation activities to provide an upgradient data point north of the oxygen injection line and to monitor groundwater within and beneath the excavation.

The monitoring well construction details are included in **Table 1** for the new wells and those installed previously as part of the pre-design investigation and OU-2 Remedial Design Document field work. Monitoring wells installed at the water table have a 10-foot PVC screen interval and monitoring wells installed below the water table have a 5-foot PVC screen interval. The well logs for these monitoring well clusters are included in **Appendix J**.

### *4.7.3 Oxygen Injection Well Installation*

Injection wells were installed in accordance with the design document in **Appendix H**. The oxygen injection wells were installed in the bottom of the trenches at a depth of about 3-feet below grade, using a Geoprobe® rig. The System Installation Contractor constructed each oxygen injection to the specifications depicted on the design drawing in **Appendix H**. In general, the wells were constructed as follows:

- Injection points were constructed with 1-inch diameter Schedule (SCH) 40 PVC riser.
- Injection point screens were constructed with a 1-foot-long, 1-inch-diameter PVC sump fitted to a 1-inch-diameter, 1-foot-long, 0.010-slot SCH 40 PVC screen threaded to the riser.
- The 1-inch PVC riser was attached to a 1-inch to ¾-inch threaded tee at approximately 2-feet bgs.
- The ¾-inch threaded tee was attached to a ¾-inch threaded barb.
- The annular space was filled with #00 Silica Sand to at least 1 foot above the screen interval followed by a minimum 2-foot-thick bentonite seal, followed by Portland cement/bentonite grout to 3 feet below grade and native material to grade.

The injection well construction details are included **Table 2**.

### *4.7.4 Well Development*

Each injection well was developed after completion by alternately surging and pumping utilizing a peristaltic pump for a maximum of 1 hour or until the turbidity of the development water was less than 50 nephelometric turbidity units (NTUs). Each monitoring well was developed after completion by alternately surging and pumping utilizing a whale pump for a maximum of 1 hour or until the turbidity of the development water was less than 50 NTUs. A field turbidity meter was used to monitor NTU levels. Purge water from the well development was collected and pumped into the frac tank on site for disposal.

## 4.8 Phase III Injection Well Installation

Prior to the start of excavation, National Grid installed three injection wells upgradient of the Phase IV excavation area to support potential future Phase III ISCO injections. The injection wells (SIW-1 through SIW-3) are identified in **Figure 2** and the construction details are included in **Table 1.** Soil samples were collected from the screen interval of each location during installation and the analytical results are presented in **Table 3.** The groundwater results for these wells are presented in **Table 4.**

## 4.9 Contamination Remaining at the Site

### *4.9.1 Soil*

The results of the delineation soil sampling were presented in the NYSDEC-approved February 2009 Phase IV RDR. Based on this soil sampling and the limits of the excavation, a summary of soil impacts remaining at the On-Site Area is provided in **Figure 3**.

Soil impacts remaining on the 66 North Clinton Avenue property are limited to a portion of the property located northwest of the Phase IV excavation limits. All subsurface soils within the upper 7 feet on the 66 North Clinton Avenue property meet the Commercial Use SCOs. Subsurface soils between 7 feet and 12 feet bgs in the three borings in this area property do not meet the Commercial Use SCOs. Impacts not meeting the Commercial Use SCOs were limited to detections of benzo[a]pyrene in this 5-foot zone. Benzo[a]pyrene does not readily dissolve in groundwater and is not detected in groundwater samples at or downgradient of these locations.

Soil impacts remaining on the 60 North Clinton Avenue property are limited to the Southeast portion of the property. All subsurface soils within the upper 7 feet on the 60 North Clinton Avenue property meet the Commercial Use SCOs. Subsurface soils between 7 feet and 11 feet bgs in the southeast corner of the property do not meet the Commercial Use SCOs. Impacts not meeting the Commercial Use SCOs were limited to detections of benz[a]anthracene, dibenz[a,h]anthracene, and benzo[a]pyrene in this 4-foot zone. These PAHs do not readily dissolve in groundwater and are not detected in groundwater samples at or downgradient of these locations.

### *4.9.2 Groundwater*

The groundwater results for the monitoring wells associated with the OU-1 Phase IV remediation are included in the quarterly OM&M reports prepared for the Site. A summary of the BTEX and total PAH results for these wells are presented in **Figure 4**.

The groundwater concentrations of BTEX and total PAHs at the OZMW-22 cluster following the completion of the Phase IV excavation did not decrease immediately. The initial post excavation concentrations of BTEX and total PAHs at monitoring well OZMW-22S/22SR were relatively similar to the pre-excavation concentrations during the first two groundwater sampling rounds post excavation. In October 2010, the concentrations decreased sharply for both BTEX and total PAHs, and continued to remain at those lower levels (1,251 micrograms per liter [µg/L] BTEX and 6 µg/L total PAHs) during the January 2011 sampling event.

An initial increase in BTEX and total PAH concentrations were observed at OZMW-22I/22IR. Initial concentrations for BTEX and total PAH increased from 8 µg/L and 7 µg/L in December 2009 to 564 µg/L and 220 µg/L, respectively. The concentrations of both BTEX and total PAHs decreased steadily through 2010. In January 2011, the concentrations of BTEX and total PAHs had decreased to 15 µg/L and 1 µg/L, respectively.

Downgradient of the oxygen injection system, BTEX and total PAHs were not detected at the following monitoring wells during the first quarter sampling event in 2011:

- OU2MW-48, OU2MW-48I, OU2MW-48I2, OU2MW-48D
- OU2MW-49, OU2MW-49I, OU2MW-49I2, OU2MW-49D
- OU2MW-57I2
- OU2MW-54S, OU2MW-54I, OU2MW-54I2, OU2MW-54D
- BBMW-23I, BBMW-23D, BBMW-23D2.

At the remaining monitoring wells downgradient of the oxygen injection system, the concentrations of BTEX, and total PAHs decreased significantly following the start of the system in January 2010, and completion of the excavation in April 2010. The concentrations of BTEX and total PAHs at monitoring well OU2MW-57S have decreased from 2,082 µg/L and 375 µg/L in June 2010 to 242 µg/L and 3 µg/L in February 2011, respectively. At monitoring well OU2MW-57I, the concentrations of BTEX and total PAHs have decreased from 4,716 µg/L and 72 µg/L in June 2010 to 32 µg/L and non-detect in February 2011, respectively. At monitoring well BBMW-23S, the concentrations of BTEX and total PAHs have decreased during the last three sampling events. BTEX and total PAH concentrations have decreased from recent high concetrations of 11,441 µg/L and 2,292 µg/L in June 2010 to 4,327 µg/L and 71 µg/L in March 2011, respectively.

## 4.10 Deviations from the Phase IV RDR

There were no significant deviations from the NYSDEC-approved February 2009 Phase IV RDR.

## 4.11 Restoration

Site restoration activities included all work performed to restore the On-Site Area to pre-remedial conditions following remedial construction. Although some minor improvements were made including a new fence installation, smoothing of the road grade, nuisance vegetation removal and minor drainage improvements, the improvements did not significantly change site topography, and hydrology.

Vertical riser pipes were placed into the backfill of the excavation to allow the introduction of ORC® or equivalent to be introduced into the gravel backfill below the water table at a later date, if necessary. Based on the concentrations of groundwater to date and the performance of the oxygen injection system, further treatment in this area does not appear necessary.

# 5. Conclusion and Recommendations

Soil impacts have been reduced to meet the Unrestricted Use or Commercial Use SCOs over the majority of the two properties. The only remaining soil impacts which do not meet the Commercial Use SCOs are limited to a 4-foot zone beginning at 7 feet bgs in the southeast corner of the 60 North Clinton Avenue property and a similar 5-foot zone beginning at 7 feet bgs northwest of the excavation on the 60 North Clinton Avenue property. National Grid will continue to monitor the groundwater data from monitoring wells located within the former source area on the 66 North Clinton Avenue property and downgradient of the oxygen injection system. The groundwater data will continue to be presented in the quarterly OM&M reports.

The NYSDEC approved RAP called for the use of ISCO to address residual impacts that were not removed by direct excavation. This included impacts located outside the subsurface barrier wall. Based on the excavations completed during Phase IV and the results of recent groundwater sampling in the former source area and downgradient of the oxygen injection system, additional treatment via ISCO does not appear necessary in this area at this time.

National Grid will prepare a Final Engineering Report (FER) at the completion of all remedial activities in OU-1. The FER will include the site management plan and institutional controls such as environmental land use restrictions and/or deed restrictions for the 60 North Clinton Avenue and 66 North Clinton Avenue properties, as needed.

# Tables

**Table 1**
**Monitoring Well Construction Summary**
**OU-1 Phase IV Construction Completion Report**
**Bay Shore/Brightwaters Former MGP Site**

| Monitoring Well ID | Location | Screen Interval (Feet bgs) | Well Diameter (inches) | Screen Length (feet) | Slot Size (inches) | Filter Material | Filter Pack (feet bgs) | Bentonite Seal (feet bgs) | Installation Program |
|---|---|---|---|---|---|---|---|---|---|
| OU2MW-48S | 60 N. Clinton Avenue | 3-13 | 2 | 10 | 0.02 | #2 Morie Sand | 1.5-13 | 0.5-1.5 | OU-2 RDD |
| OU2MW-48I | 60 N. Clinton Avenue | 25-30 | 2 | 5 | 0.02 | #2 Morie Sand | 23-30 | 21-23 | OU-2 RDD |
| OU2MW-48I2 | 60 N. Clinton Avenue | 45-50 | 2 | 5 | 0.02 | #2 Morie Sand | 43-50 | 41-50 | OU-2 RDD |
| OU2MW-48D | 60 N. Clinton Avenue | 65-70 | 2 | 5 | 0.02 | #2 Morie Sand | 63-70 | 61-63 | OU-2 RDD |
| OU2MW-49S | 60 N. Clinton Avenue | 3-13 | 2 | 10 | 0.02 | #2 Morie Sand | 1.5-13 | 0.5-1.5 | OU-2 RDD |
| OU2MW-49I | 60 N. Clinton Avenue | 25-30 | 2 | 5 | 0.02 | #2 Morie Sand | 23-30 | 21-23 | OU-2 RDD |
| OU2MW-49I2 | 60 N. Clinton Avenue | 45-50 | 2 | 5 | 0.02 | #2 Morie Sand | 43-50 | 41-43 | OU-2 RDD |
| OU2MW-49D | 60 N. Clinton Avenue | 63-68 | 2 | 5 | 0.02 | #2 Morie Sand | 61-68 | 59-61 | OU-2 RDD |
| OU2MW-54S | Union Boulevard - South ROW | 5-15 | 2 | 10 | 0.02 | #2 Morie Sand | 3-15 | 1-3 | Phase IV RDR |
| OU2MW-54I | Union Boulevard - South ROW | 25-30 | 2 | 5 | 0.02 | #2 Morie Sand | 23-30 | 21-23 | Phase IV RDR |
| OU2MW-54I2 | Union Boulevard - South ROW | 40-45 | 2 | 5 | 0.02 | #2 Morie Sand | 38-45 | 36-38 | Phase IV RDR |
| OU2MW-54D | Union Boulevard - South ROW | 60-65 | 2 | 5 | 0.02 | #2 Morie Sand | 58-65 | 56-58 | Phase IV RDR |
| OU2MW-57S | 60 N. Clinton Avenue | 5-15 | 2 | 10 | 0.02 | #2 Morie Sand | 3-15 | 1-3 | Phase IV RDR |
| OU2MW-57I | 60 N. Clinton Avenue | 20-30 | 2 | 10 | 0.02 | #2 Morie Sand | 18-30 | 16-18 | Phase IV RDR |
| OU2MW-57I2 | 60 N. Clinton Avenue | 35-45 | 2 | 10 | 0.02 | #2 Morie Sand | 33-45 | 31-33 | Phase IV RDR |
| OZMW-22SR | 66 N. Clinton Avenue | 5-15 | 2 | 10 | 0.02 | #2 Morie Sand | 1-12 | 8-12 | Phase IV RDR |
| OZMW-22IR | 66 N. Clinton Avenue | 20-30 | 2 | 10 | 0.02 | #2 Morie Sand | 1-12 | 8-12 | Phase IV RDR |
| SIW-1 | 66 N. Clinton Avenue | 7-12 | 2 | 5 | 0.02 | #2 Morie Sand | 7-12 | 2-4 | Phase IV RDR |
| | | | | | 0.02 | #00 Morie Sand | 6-7 | | |
| SIW-2 | 66 N. Clinton Avenue | 7-12 | 2 | 5 | 0.02 | #2 Morie Sand | 7-12 | 2-4 | Phase IV RDR |
| | | | | | 0.02 | #00 Morie Sand | 6-7 | | |
| SIW-3 | 66 N. Clinton Avenue | 7-12 | 2 | 5 | 0.02 | #2 Morie Sand | 7-12 | 2-4 | Phase IV RDR |
| | | | | | 0.02 | #00 Morie Sand | 6-7 | | |

***Notes:***

RDD - Remedial Design Document

bgs - below ground surface

ROW - Right of Way

RDD indicates monitoring wells that were installed as part of the work proposed in the *Remedial Design Document Bay Shore/Brightwaters Former MGP Site, OU-2, Bay Shore, NY*

Phase IV RDR indicates monitoring wells that were installed as part of the work proposed in the *Phase IV Remedial Design Report, 100% Submission, Bay Shore/Brightwaters Former MGP Site, OU-1, Bay Shore, NY*

**Table 2**
**Injection Well Construction Details**
**OU-1 Phase IV Construction Completion Report**
**Bay Shore/Brightwaters Former MGP Site**

| Injection Well ID | Screen Interval (Feet bgs) | Well Diameter (inches) | Screen Length (feet) | Slot Size (inches) | Filter Material | Filter Pack (feet bgs) | Bentonite Seal (feet bgs) | 1 Foot Sump (feet bgs) |
|---|---|---|---|---|---|---|---|---|
| **INJECTION BANK 1** | | | | | | | | |
| 1A | 24-25 | 1 | 1 | 0.01 | #00 Morie Sand | 22-26 | 20-22 | 25-26 |
| 1B | 34-35 | 1 | 1 | 0.01 | #00 Morie Sand | 32-36 | 30-32 | 35-36 |
| 2A | 24-25 | 1 | 1 | 0.01 | #00 Morie Sand | 22-26 | 20-22 | 25-26 |
| 2B | 34-35 | 1 | 1 | 0.01 | #00 Morie Sand | 32-36 | 30-32 | 35-36 |
| 3A | 24-25 | 1 | 1 | 0.01 | #00 Morie Sand | 22-26 | 20-22 | 25-26 |
| 3B | 34-35 | 1 | 1 | 0.01 | #00 Morie Sand | 32-36 | 30-32 | 35-36 |
| 4A | 24-25 | 1 | 1 | 0.01 | #00 Morie Sand | 22-26 | 20-22 | 25-26 |
| 4B | 34-35 | 1 | 1 | 0.01 | #00 Morie Sand | 32-36 | 30-32 | 35-36 |
| 5A | 24-25 | 1 | 1 | 0.01 | #00 Morie Sand | 22-26 | 20-22 | 25-26 |
| 5B | 34-35 | 1 | 1 | 0.01 | #00 Morie Sand | 32-36 | 30-32 | 35-36 |
| **INJECTION BANK 2** | | | | | | | | |
| 6 | 25 | 1 | 1 | 0.01 | #00 Morie Sand | 22-26 | 20-22 | 25-26 |
| 7 | 25 | 1 | 1 | 0.01 | #00 Morie Sand | 22-26 | 20-22 | 25-26 |
| 8 | 25 | 1 | 1 | 0.01 | #00 Morie Sand | 22-26 | 20-22 | 25-26 |
| 9 | 25 | 1 | 1 | 0.01 | #00 Morie Sand | 22-26 | 20-22 | 25-26 |
| 10 | 25 | 1 | 1 | 0.01 | #00 Morie Sand | 22-26 | 20-22 | 25-26 |
| 11 | 25 | 1 | 1 | 0.01 | #00 Morie Sand | 22-26 | 20-22 | 25-26 |
| 12 | 25 | 1 | 1 | 0.01 | #00 Morie Sand | 22-26 | 20-22 | 25-26 |
| 13 | 25 | 1 | 1 | 0.01 | #00 Morie Sand | 22-26 | 20-22 | 25-26 |
| 14 | 25 | 1 | 1 | 0.01 | #00 Morie Sand | 22-26 | 20-22 | 25-26 |

***Notes:***

bgs - below ground surface

Validated

**Table 3**
**Soil Analytical Results**
**OU-1 Phase IV Construction Completion Report**
**Bay Shore/Brightwaters Former MGP Site**

| Location Name | | | SIW-1 | SIW-2 | SIW-3 | OU2MW-54 | OU2MW-54 |
|---|---|---|---|---|---|---|---|
| Sample Name | | | SIW-1 | SIW-2 | SIW-3 | OU2MW-54 (12-14) | OU2MW-54 (26-28) |
| Start Depth | | | 7 | 7 | 7 | 12 | 26 |
| End Depth | | | 12 | 12 | 12 | 14 | 28 |
| Depth Unit | | | ft | ft | ft | ft | ft |
| Sample Date | | | 12/28/2009 | 12/28/2009 | 12/28/2009 | 1/20/2010 | 1/20/2010 |
| Parent Sample Code | | | | | | | |
| Analyte | 6 NYCRR 375 SCO UNRESTRICTED USE | 6 NYCRR 375 SCO RESTRICTED USE COMM | | | | | |
| ***BTEX (mg/kg)*** | | | | | | | |
| Benzene | 0.06 | 44 | 0.011 U | 0.012 U | 0.011 UJ | 0.012 U | 0.012 U |
| Toluene | 0.7 | 500 | **0.009 J** | **0.003 J** | 0.011 UJ | 0.012 U | 0.012 U |
| Ethylbenzene | 1 | 390 | **14** | **1.3** | **2 J** | 0.012 U | 0.012 U |
| m,p-Xylene | NE | NE | **10** | **2.3** | **2.7 J** | 0.012 U | 0.012 U |
| o-Xylene | NE | NE | **3.2 J** | **1** | **1.4 J** | 0.012 U | 0.012 U |
| Total BTEX | NE | NE | **27.209** | **4.603** | **6.1** | ND | ND |
| ***Other VOCs (mg/kg)*** | | | | | | | |
| Acetaldehyde | NE | NE | 0.011 U | 0.012 U | 0.011 UJ | 0.012 UJ | 0.012 UJ |
| Acetone | 0.05 | 500 | **0.011** | **0.01 J** | **0.01 J** | 0.012 U | 0.012 U |
| Allyl chloride(Chloropropene,3-) | NE | NE | 0.011 U | 0.012 U | 0.011 UJ | 0.012 U | 0.012 U |
| Bromodichloromethane | NE | NE | 0.011 U | 0.012 U | 0.011 UJ | 0.012 U | 0.012 U |
| Bromoform | NE | NE | 0.011 U | 0.012 U | 0.011 UJ | 0.012 U | 0.012 U |
| Bromomethane | NE | NE | 0.011 U | 0.012 U | 0.011 UJ | 0.012 U | 0.012 U |
| 1,3-Butadiene | NE | NE | R | R | R | 0.012 U | 0.012 U |
| 2-Butanone (Methyl ethyl ketone) | 0.12 | 500 | 0.011 U | 0.012 U | 0.011 UJ | 0.012 U | 0.012 U |
| Carbon disulfide | NE | NE | 0.011 U | 0.012 U | 0.011 UJ | 0.012 U | 0.012 U |
| Carbon tetrachloride | 0.76 | 22 | 0.011 U | 0.012 U | 0.011 UJ | 0.012 U | 0.012 U |
| Chlorobenzene | 1.1 | 500 | 0.011 U | 0.012 U | 0.011 UJ | 0.012 U | 0.012 U |
| Chloroethane | NE | NE | 0.011 U | 0.012 U | 0.011 UJ | 0.012 U | 0.012 U |
| Chloroform | 0.37 | 350 | 0.011 U | 0.012 U | 0.011 UJ | 0.012 U | 0.012 U |
| Chloromethane | NE | NE | 0.011 UJ | 0.012 UJ | 0.011 UJ | 0.012 U | 0.012 U |
| Chlorotoluene | NE | NE | 0.011 UJ | 0.012 UJ | 0.011 UJ | 0.012 U | 0.012 U |
| Cryofluorane(Freon-114) | NE | NE | 0.011 U | 0.012 U | 0.011 UJ | 0.012 U | 0.012 U |
| Cyclohexane | NE | NE | 0.011 U | 0.012 U | 0.011 UJ | 0.012 U | 0.012 U |
| Dibromochloromethane | NE | NE | 0.011 U | 0.012 U | 0.011 UJ | 0.012 U | 0.012 U |
| 1,2-Dibromoethane | NE | NE | 0.011 U | 0.012 U | 0.011 UJ | 0.012 U | 0.012 U |
| 1,2-Dichlorobenzene | 1.1 | 500 | 0.011 UJ | 0.012 U | 2.9 U | 0.012 U | 0.012 U |
| 1,3-Dichlorobenzene | 2.4 | 280 | 0.011 UJ | 0.012 U | 2.9 U | 0.012 U | 0.012 U |
| 1,4-Dichlorobenzene | 1.8 | 130 | 0.011 UJ | 0.012 U | 2.9 U | 0.012 U | 0.012 U |
| Dichlorodifluoromethane | NE | NE | 0.011 U | 0.012 U | 0.011 UJ | 0.012 U | 0.012 U |
| 1,1-Dichloroethane | 0.27 | 240 | 0.011 U | 0.012 U | 0.011 UJ | 0.012 U | 0.012 U |
| 1,2-Dichloroethane | 0.02 | 30 | 0.011 U | 0.012 U | 0.011 UJ | 0.012 U | 0.012 U |
| cis-1,2-Dichloroethene | 0.25 | 500 | 0.011 U | 0.012 U | 0.011 UJ | 0.012 U | 0.012 U |
| trans-1,2-Dichloroethene | 0.19 | 500 | 0.011 U | 0.012 U | 0.011 UJ | 0.012 U | 0.012 U |

**Table 3**
**Soil Analytical Results**
**OU-1 Phase IV Construction Completion Report**
**Bay Shore/Brightwaters Former MGP Site**

| Location Name | | | SIW-1 | SIW-2 | SIW-3 | OU2MW-54 | OU2MW-54 |
|---|---|---|---|---|---|---|---|
| Sample Name | | | SIW-1 | SIW-2 | SIW-3 | OU2MW-54 (12-14) | OU2MW-54 (26-28) |
| Start Depth | | | 7 | 7 | 7 | 12 | 26 |
| End Depth | | | 12 | 12 | 12 | 14 | 28 |
| Depth Unit | | | ft | ft | ft | ft | ft |
| Sample Date | | | 12/28/2009 | 12/28/2009 | 12/28/2009 | 1/20/2010 | 1/20/2010 |
| Parent Sample Code | | | | | | | |
| Analyte | 6 NYCRR 375 SCO UNRESTRICTED USE | 6 NYCRR 375 SCO RESTRICTED USE COMM | | | | | |
| 1,1-Dichloroethene | 0.33 | 500 | 0.011 U | 0.012 U | 0.011 UJ | 0.012 U | 0.012 U |
| 1,2-Dichloropropane | NE | NE | 0.011 U | 0.012 U | 0.011 UJ | 0.012 U | 0.012 U |
| cis-1,3-Dichloropropene | NE | NE | 0.011 U | 0.012 U | 0.011 UJ | 0.012 U | 0.012 U |
| trans-1,3-Dichloropropene | NE | NE | 0.011 U | 0.012 U | 0.011 UJ | 0.012 U | 0.012 U |
| 1,4-Dioxane | 0.1 | 130 | R | R | R | R | R |
| Ethanol | NE | NE | R | R | R | R | R |
| n-Heptane | NE | NE | **0.12 J** | 0.012 UJ | **0.13 J** | 0.012 U | 0.012 U |
| Hexachlorobutadiene | NE | NE | 0.011 UJ | 0.012 U | 2.9 U | 0.012 U | 0.012 U |
| n-Hexane | NE | NE | 0.011 U | 0.012 U | 0.011 UJ | 0.012 U | 0.012 U |
| 2-Hexanone | NE | NE | 0.011 U | 0.012 U | 0.011 UJ | 0.012 U | 0.012 U |
| Isopropyl benzene | NE | NE | **3.7 J** | **0.11** | **6.3 J** | 0.012 U | 0.012 U |
| Methyl tert-butyl ether | 0.93 | 500 | 0.011 U | 0.012 U | 0.011 UJ | 0.012 U | 0.012 U |
| 4-Methyl-2-pentanone | NE | NE | 0.011 U | 0.012 U | 0.011 UJ | 0.012 U | 0.012 U |
| Methylene chloride | 0.05 | 500 | 0.011 U | 0.012 U | 0.011 UJ | 0.012 UJ | 0.012 UJ |
| Naphthalene | 12 | 500 | **33** | **2.1** | **17** | 0.012 U | 0.012 U |
| 2-Propanol (Isopropyl Alcohol) | NE | NE | R | R | R | R | R |
| n-Propylbenzene | 3.9 | 500 | **2.4 J** | **0.059** | **5.2 J** | 0.012 U | 0.012 U |
| Styrene | NE | NE | 0.011 U | 0.012 U | 0.011 UJ | 0.012 U | 0.012 U |
| 1,1,1,2-Tetrachloroethane | NE | NE | 0.011 U | 0.012 U | 0.011 UJ | 0.012 U | 0.012 U |
| 1,1,2,2-Tetrachloroethane | NE | NE | 0.011 UJ | 0.012 U | 2.9 U | 0.012 U | 0.012 U |
| Tetrachloroethene | 1.3 | 150 | 0.011 U | 0.012 U | 0.011 UJ | 0.012 U | 0.012 U |
| Tetrahydrofuran | NE | NE | 0.011 U | 0.012 U | 0.011 UJ | 0.012 U | 0.012 U |
| 1,1,2-Trichloro-1,2,2-trifluoroethane(Freon-113) | NE | NE | 0.011 U | 0.012 U | 0.011 UJ | 0.012 U | 0.012 U |
| 1,2,4-Trichlorobenzene | NE | NE | 0.011 UJ | 0.012 U | 2.9 U | 0.012 U | 0.012 U |
| 1,1,1-Trichloroethane | 0.68 | 500 | 0.011 U | 0.012 U | 0.011 UJ | 0.012 U | 0.012 U |
| 1,1,2-Trichloroethane | NE | NE | 0.011 U | 0.012 U | 0.011 UJ | 0.012 U | 0.012 U |
| Trichloroethene | 0.47 | 200 | 0.011 U | 0.012 U | 0.011 UJ | 0.012 U | 0.012 U |
| Trichlorofluoromethane | NE | NE | 0.011 U | 0.012 U | 0.011 UJ | 0.012 U | 0.012 U |
| 1,2,4-Trimethylbenzene | 3.6 | 190 | **22** | **1** | **12 J** | 0.012 U | 0.012 U |
| 1,3,5-Trimethylbenzene/P-ethyltoluene | 8.4 | 190 | **16** | **0.49** | **24 J** | 0.012 U | 0.012 U |
| 2,2,4-Trimethylpentane | NE | NE | 0.011 U | 0.012 U | 0.011 UJ | 0.012 U | 0.012 U |
| Vinyl acetate | NE | NE | 0.011 U | 0.012 U | 0.011 UJ | 0.012 U | 0.012 U |
| Vinyl chloride | 0.02 | 13 | 0.011 U | 0.012 U | 0.011 UJ | 0.012 U | 0.012 U |
| ***Non-carcinogenic PAHs (mg/kg)*** | | | | | | | |
| Acenaphthene | 20 | 500 | **1.5 J** | **3 J** | **1.9** | 0.4 U | 0.39 U |

**Table 3**
**Soil Analytical Results**
**OU-1 Phase IV Construction Completion Report**
**Bay Shore/Brightwaters Former MGP Site**

| Location Name | | | SIW-1 | SIW-2 | SIW-3 | OU2MW-54 | OU2MW-54 |
|---|---|---|---|---|---|---|---|
| Sample Name | | | SIW-1 | SIW-2 | SIW-3 | OU2MW-54 (12-14) | OU2MW-54 (26-28) |
| Start Depth | | | 7 | 7 | 7 | 12 | 26 |
| End Depth | | | 12 | 12 | 12 | 14 | 28 |
| Depth Unit | | | ft | ft | ft | ft | ft |
| Sample Date | | | 12/28/2009 | 12/28/2009 | 12/28/2009 | 1/20/2010 | 1/20/2010 |
| Parent Sample Code | | | | | | | |
| Analyte | 6 NYCRR 375 SCO UNRESTRICTED USE | 6 NYCRR 375 SCO RESTRICTED USE COMM | | | | | |
| Acenaphthylene | 100 | 500 | **0.97** | 41 U | **4** | 0.4 U | 0.39 U |
| Anthracene | 100 | 500 | **3.4 J** | **4.2 J** | **3.8 J** | 0.4 U | 0.39 U |
| Benzo[g,h,i]perylene | 100 | 500 | **0.39** | **0.39 J** | **0.43 J** | 0.4 U | 0.39 U |
| Fluoranthene | 100 | 500 | **3.7 J** | **4.9 J** | **5 J** | 0.4 U | 0.39 U |
| Fluorene | 30 | 500 | **3.2** | **6.9 J** | **5.1** | 0.4 U | 0.39 U |
| 2-Methylnaphthalene | NE | NE | **31** | **68** | **42** | 0.4 U | 0.39 U |
| Naphthalene | 12 | 500 | **63** | **260** | **190** | 0.4 U | 0.39 U |
| Phenanthrene | 100 | 500 | **10** | **11 J** | **9.5 J** | 0.4 U | 0.39 U |
| Pyrene | 100 | 500 | **3.5 J** | **3 J** | **3.9** | 0.4 U | 0.39 U |
| ***Carcinogenic PAHs (mg/kg)*** | | | | | | | |
| Benz[a]anthracene | 1 | 5.6 | **2.1** | **2.6 J** | **2.6** | 0.4 U | 0.39 U |
| Benzo[a]pyrene | 1 | 1 | **1.4** | **1.7** | **1.8 J** | 0.4 U | 0.39 U |
| Benzo[b]fluoranthene | 1 | 5.6 | **0.95** | **0.94** | **1.4 J** | 0.4 U | 0.39 U |
| Benzo[k]fluoranthene | 0.8 | 56 | **0.71** | **1.1** | **0.9 J** | 0.4 U | 0.39 U |
| Chrysene | 1 | 56 | **2** | **1.9 J** | **2.2** | 0.4 U | 0.39 U |
| Dibenz[a,h]anthracene | 0.33 | 0.56 | **0.16 J** | **0.18 J** | **0.2 J** | 0.4 U | 0.39 U |
| Indeno[1,2,3-cd]pyrene | 0.5 | 5.6 | **0.34 J** | **0.35 J** | **0.38 J** | 0.4 U | 0.39 U |
| Total PAHs | NE | NE | **128.32** | **370.16** | **275.11** | ND | ND |
| ***Other SVOCs (mg/kg)*** | | | | | | | |
| Bis(chloroisopropyl)ether | NE | NE | 0.37 UJ | 0.41 UJ | 0.38 UJ | 0.4 U | 0.39 U |
| Bis(2-chloroethyl)ether | NE | NE | 0.37 U | 0.41 U | 0.38 UJ | 0.4 U | 0.39 U |
| Bis(2-chloroethoxy)methane | NE | NE | 0.37 U | 0.41 UJ | 0.38 U | 0.4 U | 0.39 U |
| Bis(2-ethylhexyl)phthalate | NE | NE | 0.37 U | 0.41 UJ | 0.38 U | 0.4 U | 0.39 U |
| 4-Bromophenyl phenyl ether | NE | NE | 0.37 UJ | 0.41 UJ | 0.38 UJ | 0.4 U | 0.39 U |
| Butyl benzyl phthalate | NE | NE | 0.37 U | 0.41 UJ | 0.38 U | 0.4 U | 0.39 U |
| Carbazole | NE | NE | 0.37 UJ | 0.41 UJ | 0.38 UJ | 0.4 U | 0.39 U |
| 4-Chloro-3-methylphenol | NE | NE | 0.37 U | 0.41 UJ | 0.38 UJ | 0.4 U | 0.39 U |
| 4-Chloroaniline | NE | NE | 0.37 U | 0.41 UJ | 0.38 UJ | 0.4 U | 0.39 U |
| 2-Chloronaphthalene | NE | NE | 0.37 U | 0.41 UJ | 0.38 U | 0.4 U | 0.39 U |
| 2-Chlorophenol | NE | NE | 0.37 U | 0.41 U | 0.38 U | 0.4 U | 0.39 U |
| 4-Chlorophenyl phenyl ether | NE | NE | 0.37 U | 0.41 UJ | 0.38 U | 0.4 U | 0.39 U |
| Dibenzofuran | 7 | 350 | **0.67** | **1.8 J** | **1** | 0.4 U | 0.39 U |
| 1,2-Dichlorobenzene | 1.1 | 500 | 0.37 U | 0.41 U | 0.38 U | 0.4 U | 0.39 U |
| 1,3-Dichlorobenzene | 2.4 | 280 | 0.37 U | 0.41 U | 0.38 U | 0.4 U | 0.39 U |
| 1,4-Dichlorobenzene | 1.8 | 130 | 0.37 U | 0.41 U | 0.38 U | 0.4 U | 0.39 U |

**Table 3**
**Soil Analytical Results**
**OU-1 Phase IV Construction Completion Report**
**Bay Shore/Brightwaters Former MGP Site**

| Location Name | | | SIW-1 | SIW-2 | SIW-3 | OU2MW-54 | OU2MW-54 |
|---|---|---|---|---|---|---|---|
| Sample Name | | | SIW-1 | SIW-2 | SIW-3 | OU2MW-54 (12-14) | OU2MW-54 (26-28) |
| Start Depth | | | 7 | 7 | 7 | 12 | 26 |
| End Depth | | | 12 | 12 | 12 | 14 | 28 |
| Depth Unit | | | ft | ft | ft | ft | ft |
| Sample Date | | | 12/28/2009 | 12/28/2009 | 12/28/2009 | 1/20/2010 | 1/20/2010 |
| Parent Sample Code | | | | | | | |
| Analyte | 6 NYCRR 375 SCO UNRESTRICTED USE | 6 NYCRR 375 SCO RESTRICTED USE COMM | | | | | |
| 3,3-Dichlorobenzidine | NE | NE | 0.37 UJ | 0.41 UJ | 0.38 UJ | 0.4 U | 0.39 U |
| 2,4-Dichlorophenol | NE | NE | 0.37 U | 0.41 UJ | 0.38 UJ | 0.4 U | 0.39 U |
| Diethyl phthalate | NE | NE | 0.37 U | 0.41 UJ | 0.38 U | 0.4 U | 0.39 U |
| Dimethyl phthalate | NE | NE | 0.37 U | 0.41 UJ | 0.38 U | 0.4 U | 0.39 U |
| 2,4-Dimethylphenol | NE | NE | 0.37 U | 0.41 UJ | 0.38 UJ | 0.4 U | 0.39 U |
| Di-n-butyl phthalate | NE | NE | 0.37 UJ | 0.41 UJ | 0.38 UJ | 0.4 U | 0.39 U |
| 4,6-Dinitro-2-methylphenol | NE | NE | 0.92 UJ | 1 UJ | 0.95 UJ | 1 U | 0.98 U |
| 2,4-Dinitrophenol | NE | NE | 0.92 U | 1 UJ | 0.95 U | 1 UJ | 0.98 UJ |
| 2,4-Dinitrotoluene | NE | NE | 0.37 U | 0.41 UJ | 0.38 U | 0.4 U | 0.39 U |
| 2,6-Dinitrotoluene | NE | NE | 0.37 U | 0.41 UJ | 0.38 U | 0.4 U | 0.39 U |
| Di-n-octyl phthalate | NE | NE | 0.37 U | 0.41 U | 0.38 UJ | 0.4 U | 0.39 U |
| Hexachlorobenzene | 0.33 | 6 | 0.37 UJ | 0.41 UJ | 0.38 UJ | 0.4 U | 0.39 U |
| Hexachlorobutadiene | NE | NE | 0.37 U | 0.41 UJ | 0.38 UJ | 0.4 U | 0.39 U |
| Hexachlorocyclopentadiene | NE | NE | 0.37 U | 0.41 UJ | 0.38 U | 0.4 U | 0.39 U |
| Hexachloroethane | NE | NE | 0.37 U | 0.41 U | 0.38 U | 0.4 U | 0.39 U |
| Isophorone | NE | NE | 0.37 U | 0.41 UJ | 0.38 UJ | 0.4 U | 0.39 U |
| 2-Methylphenol (o-Cresol) | 0.33 | 500 | 0.37 U | 0.41 U | 0.38 U | 0.4 U | 0.39 U |
| 4-Methylphenol (p-Cresol) | 0.33 | 500 | 0.37 U | 0.41 U | 0.38 U | 0.4 U | 0.39 U |
| 2-Nitroaniline | NE | NE | 0.92 U | 1 UJ | 0.95 U | 1 U | 0.98 U |
| 3-Nitroaniline | NE | NE | 0.92 U | 1 UJ | 0.95 U | 1 U | 0.98 U |
| 4-Nitroaniline | NE | NE | 0.92 U | 1 UJ | 0.95 U | 1 U | 0.98 U |
| Nitrobenzene | NE | NE | 0.37 U | 0.41 UJ | 0.38 UJ | 0.4 U | 0.39 U |
| 2-Nitrophenol | NE | NE | 0.37 U | 0.41 UJ | 0.38 UJ | 0.4 U | 0.39 U |
| 4-Nitrophenol | NE | NE | 0.92 U | 1 UJ | 0.95 U | 1 UJ | 0.98 UJ |
| N-Nitrosodi-n-propylamine | NE | NE | 0.37 U | 0.41 U | 0.38 U | 0.4 U | 0.39 U |
| N-Nitrosodiphenylamine | NE | NE | 0.37 UJ | 0.41 UJ | 0.38 UJ | 0.4 U | 0.39 U |
| Pentachlorophenol | 0.8 | 6.7 | 0.92 UJ | 1 UJ | 0.95 UJ | 1 UJ | 0.98 UJ |
| Phenol | 0.33 | 500 | 0.37 U | 0.41 U | 0.38 U | 0.4 U | 0.39 U |
| 1,2,4-Trichlorobenzene | NE | NE | 0.37 U | 0.41 UJ | 0.38 UJ | 0.4 U | 0.39 U |
| 2,4,5-Trichlorophenol | NE | NE | 0.92 U | 1 UJ | 0.95 U | 1 U | 0.98 U |
| 2,4,6-Trichlorophenol | NE | NE | 0.37 U | 0.41 UJ | 0.38 U | 0.4 U | 0.39 U |
| ***Other (%)*** | | | | | | | |
| Percent Moisture | NE | NE | **9.8** | **18.9** | **13** | **18.5** | **15.7** |

Validated

**Table 3**
**Soil Analytical Results**
**OU-1 Phase IV Construction Completion Report**
**Bay Shore/Brightwaters Former MGP Site**

| Location Name | | | OU2MW-54 | OU2MW-54 | OU2MW-54 |
|---|---|---|---|---|---|
| Sample Name | | | DUPKB/SL12010 | OU2MW-54 (41-43) | OU2MW-54 (62-64) |
| Start Depth | | | 26 | 41 | 62 |
| End Depth | | | 28 | 43 | 64 |
| Depth Unit | | | ft | ft | ft |
| Sample Date | | | 1/20/2010 | 1/20/2010 | 1/21/2010 |
| Parent Sample Code | | | OU2MW-54 (26-28) | | |
| Analyte | 6 NYCRR 375 SCO UNRESTRICTED USE | 6 NYCRR 375 SCO RESTRICTED USE COMM | | | |
| ***BTEX (mg/kg)*** | | | | | |
| Benzene | 0.06 | 44 | 0.012 U | 0.012 U | 0.012 U |
| Toluene | 0.7 | 500 | 0.012 U | 0.012 U | 0.012 U |
| Ethylbenzene | 1 | 390 | 0.012 U | 0.012 U | 0.012 U |
| m,p-Xylene | NE | NE | 0.012 U | 0.012 U | 0.012 U |
| o-Xylene | NE | NE | 0.012 U | 0.012 U | 0.012 U |
| Total BTEX | NE | NE | ND | ND | ND |
| ***Other VOCs (mg/kg)*** | | | | | |
| Acetaldehyde | NE | NE | 0.012 UJ | 0.012 UJ | 0.012 UJ |
| Acetone | 0.05 | 500 | 0.012 U | 0.012 U | 0.012 U |
| Allyl chloride(Chloropropene,3-) | NE | NE | 0.012 U | 0.012 U | 0.012 U |
| Bromodichloromethane | NE | NE | 0.012 U | 0.012 U | 0.012 U |
| Bromoform | NE | NE | 0.012 U | 0.012 U | 0.012 U |
| Bromomethane | NE | NE | 0.012 U | 0.012 U | 0.012 U |
| 1,3-Butadiene | NE | NE | 0.012 U | 0.012 U | 0.012 U |
| 2-Butanone (Methyl ethyl ketone) | 0.12 | 500 | 0.012 U | 0.012 U | 0.012 U |
| Carbon disulfide | NE | NE | 0.012 U | 0.012 U | 0.012 U |
| Carbon tetrachloride | 0.76 | 22 | 0.012 U | 0.012 U | 0.012 U |
| Chlorobenzene | 1.1 | 500 | 0.012 U | 0.012 U | 0.012 U |
| Chloroethane | NE | NE | 0.012 U | 0.012 U | 0.012 U |
| Chloroform | 0.37 | 350 | 0.012 U | 0.012 U | 0.012 U |
| Chloromethane | NE | NE | 0.012 U | 0.012 U | 0.012 U |
| Chlorotoluene | NE | NE | 0.012 U | 0.012 U | 0.012 U |
| Cryofluorane(Freon-114) | NE | NE | 0.012 U | 0.012 U | 0.012 U |
| Cyclohexane | NE | NE | 0.012 U | 0.012 U | 0.012 U |
| Dibromochloromethane | NE | NE | 0.012 U | 0.012 U | 0.012 U |
| 1,2-Dibromoethane | NE | NE | 0.012 U | 0.012 U | 0.012 U |
| 1,2-Dichlorobenzene | 1.1 | 500 | 0.012 U | 0.012 U | 0.012 U |
| 1,3-Dichlorobenzene | 2.4 | 280 | 0.012 U | 0.012 U | 0.012 U |
| 1,4-Dichlorobenzene | 1.8 | 130 | 0.012 U | 0.012 U | 0.012 U |
| Dichlorodifluoromethane | NE | NE | 0.012 U | 0.012 U | 0.012 U |
| 1,1-Dichloroethane | 0.27 | 240 | 0.012 U | 0.012 U | 0.012 U |
| 1,2-Dichloroethane | 0.02 | 30 | 0.012 U | 0.012 U | 0.012 U |
| cis-1,2-Dichloroethene | 0.25 | 500 | 0.012 U | 0.012 U | 0.012 U |
| trans-1,2-Dichloroethene | 0.19 | 500 | 0.012 U | 0.012 U | 0.012 U |

**Table 3**
**Soil Analytical Results**
**OU-1 Phase IV Construction Completion Report**
**Bay Shore/Brightwaters Former MGP Site**

| Location Name | | | OU2MW-54 | OU2MW-54 | OU2MW-54 |
|---|---|---|---|---|---|
| Sample Name | | | DUPKB/SL12010 | OU2MW-54 (41-43) | OU2MW-54 (62-64) |
| Start Depth | | | 26 | 41 | 62 |
| End Depth | | | 28 | 43 | 64 |
| Depth Unit | | | ft | ft | ft |
| Sample Date | | | 1/20/2010 | 1/20/2010 | 1/21/2010 |
| Parent Sample Code | | | OU2MW-54 (26-28) | | |
| Analyte | 6 NYCRR 375 SCO UNRESTRICTED USE | 6 NYCRR 375 SCO RESTRICTED USE COMM | | | |
| 1,1-Dichloroethene | 0.33 | 500 | 0.012 U | 0.012 U | 0.012 U |
| 1,2-Dichloropropane | NE | NE | 0.012 U | 0.012 U | 0.012 U |
| cis-1,3-Dichloropropene | NE | NE | 0.012 U | 0.012 U | 0.012 U |
| trans-1,3-Dichloropropene | NE | NE | 0.012 U | 0.012 U | 0.012 U |
| 1,4-Dioxane | 0.1 | 130 | R | R | R |
| Ethanol | NE | NE | R | R | R |
| n-Heptane | NE | NE | 0.012 U | 0.012 U | 0.012 U |
| Hexachlorobutadiene | NE | NE | 0.012 U | 0.012 U | 0.012 U |
| n-Hexane | NE | NE | 0.012 U | 0.012 U | 0.012 U |
| 2-Hexanone | NE | NE | 0.012 U | 0.012 U | 0.012 U |
| Isopropyl benzene | NE | NE | 0.012 U | 0.012 U | 0.012 U |
| Methyl tert-butyl ether | 0.93 | 500 | 0.012 U | 0.012 U | 0.012 U |
| 4-Methyl-2-pentanone | NE | NE | 0.012 U | 0.012 U | 0.012 U |
| Methylene chloride | 0.05 | 500 | 0.012 UJ | 0.012 UJ | 0.012 UJ |
| Naphthalene | 12 | 500 | 0.012 U | 0.012 U | 0.012 U |
| 2-Propanol (Isopropyl Alcohol) | NE | NE | R | R | R |
| n-Propylbenzene | 3.9 | 500 | 0.012 U | 0.012 U | 0.012 U |
| Styrene | NE | NE | 0.012 U | 0.012 U | 0.012 U |
| 1,1,1,2-Tetrachloroethane | NE | NE | 0.012 U | 0.012 U | 0.012 U |
| 1,1,2,2-Tetrachloroethane | NE | NE | 0.012 U | 0.012 U | 0.012 U |
| Tetrachloroethene | 1.3 | 150 | 0.012 U | 0.012 U | 0.012 U |
| Tetrahydrofuran | NE | NE | 0.012 U | 0.012 U | 0.012 U |
| 1,1,2-Trichloro-1,2,2-trifluoroethane(Freon-113) | NE | NE | 0.012 U | 0.012 U | 0.012 U |
| 1,2,4-Trichlorobenzene | NE | NE | 0.012 U | 0.012 U | 0.012 U |
| 1,1,1-Trichloroethane | 0.68 | 500 | 0.012 U | 0.012 U | 0.012 U |
| 1,1,2-Trichloroethane | NE | NE | 0.012 U | 0.012 U | 0.012 U |
| Trichloroethene | 0.47 | 200 | 0.012 U | 0.012 U | 0.012 U |
| Trichlorofluoromethane | NE | NE | 0.012 U | 0.012 U | 0.012 U |
| 1,2,4-Trimethylbenzene | 3.6 | 190 | 0.012 U | 0.012 U | 0.012 U |
| 1,3,5-Trimethylbenzene/P-ethyltoluene | 8.4 | 190 | 0.012 U | 0.012 U | 0.012 U |
| 2,2,4-Trimethylpentane | NE | NE | 0.012 U | 0.012 U | 0.012 U |
| Vinyl acetate | NE | NE | 0.012 U | 0.012 U | 0.012 U |
| Vinyl chloride | 0.02 | 13 | 0.012 U | 0.012 U | 0.012 U |
| ***Non-carcinogenic PAHs (mg/kg)*** | | | | | |
| Acenaphthene | 20 | 500 | 0.39 U | 0.4 U | 0.4 U |

**Table 3**
**Soil Analytical Results**
**OU-1 Phase IV Construction Completion Report**
**Bay Shore/Brightwaters Former MGP Site**

| Location Name | | | OU2MW-54 | OU2MW-54 | OU2MW-54 |
|---|---|---|---|---|---|
| Sample Name | | | DUPKB/SL12010 | OU2MW-54 (41-43) | OU2MW-54 (62-64) |
| Start Depth | | | 26 | 41 | 62 |
| End Depth | | | 28 | 43 | 64 |
| Depth Unit | | | ft | ft | ft |
| Sample Date | | | 1/20/2010 | 1/20/2010 | 1/21/2010 |
| Parent Sample Code | | | OU2MW-54 (26-28) | | |
| Analyte | 6 NYCRR 375 SCO UNRESTRICTED USE | 6 NYCRR 375 SCO RESTRICTED USE COMM | | | |
| Acenaphthylene | 100 | 500 | 0.39 U | 0.4 U | 0.4 U |
| Anthracene | 100 | 500 | 0.39 U | 0.4 U | 0.4 U |
| Benzo[g,h,i]perylene | 100 | 500 | 0.39 U | 0.4 U | 0.4 U |
| Fluoranthene | 100 | 500 | 0.39 U | 0.4 U | 0.4 U |
| Fluorene | 30 | 500 | 0.39 U | 0.4 U | 0.4 U |
| 2-Methylnaphthalene | NE | NE | 0.39 U | 0.4 U | 0.4 U |
| Naphthalene | 12 | 500 | 0.39 U | 0.4 U | 0.4 U |
| Phenanthrene | 100 | 500 | 0.39 U | 0.4 U | 0.4 U |
| Pyrene | 100 | 500 | 0.39 U | 0.4 U | 0.4 U |
| ***Carcinogenic PAHs (mg/kg)*** | | | | | |
| Benz[a]anthracene | 1 | 5.6 | 0.39 U | 0.4 U | 0.4 U |
| Benzo[a]pyrene | 1 | 1 | 0.39 U | 0.4 U | 0.4 U |
| Benzo[b]fluoranthene | 1 | 5.6 | 0.39 U | 0.4 U | 0.4 U |
| Benzo[k]fluoranthene | 0.8 | 56 | 0.39 U | 0.4 U | 0.4 U |
| Chrysene | 1 | 56 | 0.39 U | 0.4 U | 0.4 U |
| Dibenz[a,h]anthracene | 0.33 | 0.56 | 0.39 U | 0.4 U | 0.4 U |
| Indeno[1,2,3-cd]pyrene | 0.5 | 5.6 | 0.39 U | 0.4 U | 0.4 U |
| Total PAHs | NE | NE | ND | ND | ND |
| ***Other SVOCs (mg/kg)*** | | | | | |
| Bis(chloroisopropyl)ether | NE | NE | 0.39 U | 0.4 U | 0.4 U |
| Bis(2-chloroethyl)ether | NE | NE | 0.39 U | 0.4 U | 0.4 U |
| Bis(2-chloroethoxy)methane | NE | NE | 0.39 U | 0.4 U | 0.4 U |
| Bis(2-ethylhexyl)phthalate | NE | NE | 0.39 U | 0.4 U | 0.4 U |
| 4-Bromophenyl phenyl ether | NE | NE | 0.39 U | 0.4 U | 0.4 U |
| Butyl benzyl phthalate | NE | NE | 0.39 U | 0.4 U | 0.4 U |
| Carbazole | NE | NE | 0.39 U | 0.4 U | 0.4 U |
| 4-Chloro-3-methylphenol | NE | NE | 0.39 U | 0.4 U | 0.4 U |
| 4-Chloroaniline | NE | NE | 0.39 U | 0.4 U | 0.4 U |
| 2-Chloronaphthalene | NE | NE | 0.39 U | 0.4 U | 0.4 U |
| 2-Chlorophenol | NE | NE | 0.39 U | 0.4 U | 0.4 U |
| 4-Chlorophenyl phenyl ether | NE | NE | 0.39 U | 0.4 U | 0.4 U |
| Dibenzofuran | 7 | 350 | 0.39 U | 0.4 U | 0.4 U |
| 1,2-Dichlorobenzene | 1.1 | 500 | 0.39 U | 0.4 U | 0.4 U |
| 1,3-Dichlorobenzene | 2.4 | 280 | 0.39 U | 0.4 U | 0.4 U |
| 1,4-Dichlorobenzene | 1.8 | 130 | 0.39 U | 0.4 U | 0.4 U |

**Table 3**
**Soil Analytical Results**
**OU-1 Phase IV Construction Completion Report**
**Bay Shore/Brightwaters Former MGP Site**

| Location Name | | | OU2MW-54 | OU2MW-54 | OU2MW-54 |
|---|---|---|---|---|---|
| Sample Name | | | DUPKB/SL12010 | OU2MW-54 (41-43) | OU2MW-54 (62-64) |
| Start Depth | | | 26 | 41 | 62 |
| End Depth | | | 28 | 43 | 64 |
| Depth Unit | | | ft | ft | ft |
| Sample Date | | | 1/20/2010 | 1/20/2010 | 1/21/2010 |
| Parent Sample Code | | | OU2MW-54 (26-28) | | |
| Analyte | 6 NYCRR 375 SCO UNRESTRICTED USE | 6 NYCRR 375 SCO RESTRICTED USE COMM | | | |
| 3,3-Dichlorobenzidine | NE | NE | 0.39 U | 0.4 U | 0.4 U |
| 2,4-Dichlorophenol | NE | NE | 0.39 U | 0.4 U | 0.4 U |
| Diethyl phthalate | NE | NE | 0.39 U | 0.4 U | 0.4 U |
| Dimethyl phthalate | NE | NE | 0.39 U | 0.4 U | 0.4 U |
| 2,4-Dimethylphenol | NE | NE | 0.39 U | 0.4 U | 0.4 U |
| Di-n-butyl phthalate | NE | NE | 0.39 U | 0.4 U | **0.12 J** |
| 4,6-Dinitro-2-methylphenol | NE | NE | 0.97 U | 1 U | 1 U |
| 2,4-Dinitrophenol | NE | NE | 0.97 UJ | 1 UJ | 1 UJ |
| 2,4-Dinitrotoluene | NE | NE | 0.39 U | 0.4 U | 0.4 U |
| 2,6-Dinitrotoluene | NE | NE | 0.39 U | 0.4 U | 0.4 U |
| Di-n-octyl phthalate | NE | NE | 0.39 U | 0.4 U | 0.4 U |
| Hexachlorobenzene | 0.33 | 6 | 0.39 U | 0.4 U | 0.4 U |
| Hexachlorobutadiene | NE | NE | 0.39 U | 0.4 U | 0.4 U |
| Hexachlorocyclopentadiene | NE | NE | 0.39 U | 0.4 U | 0.4 U |
| Hexachloroethane | NE | NE | 0.39 U | 0.4 U | 0.4 U |
| Isophorone | NE | NE | 0.39 U | 0.4 U | 0.4 U |
| 2-Methylphenol (o-Cresol) | 0.33 | 500 | 0.39 U | 0.4 U | 0.4 U |
| 4-Methylphenol (p-Cresol) | 0.33 | 500 | 0.39 U | 0.4 U | 0.4 U |
| 2-Nitroaniline | NE | NE | 0.97 U | 1 U | 1 U |
| 3-Nitroaniline | NE | NE | 0.97 U | 1 U | 1 U |
| 4-Nitroaniline | NE | NE | 0.97 U | 1 U | 1 U |
| Nitrobenzene | NE | NE | 0.39 U | 0.4 U | 0.4 U |
| 2-Nitrophenol | NE | NE | 0.39 U | 0.4 U | 0.4 U |
| 4-Nitrophenol | NE | NE | 0.97 UJ | 1 UJ | 1 UJ |
| N-Nitrosodi-n-propylamine | NE | NE | 0.39 U | 0.4 U | 0.4 U |
| N-Nitrosodiphenylamine | NE | NE | 0.39 U | 0.4 U | 0.4 U |
| Pentachlorophenol | 0.8 | 6.7 | 0.97 UJ | 1 UJ | 1 UJ |
| Phenol | 0.33 | 500 | 0.39 U | 0.4 U | 0.4 U |
| 1,2,4-Trichlorobenzene | NE | NE | 0.39 U | 0.4 U | 0.4 U |
| 2,4,5-Trichlorophenol | NE | NE | 0.97 U | 1 U | 1 U |
| 2,4,6-Trichlorophenol | NE | NE | 0.39 U | 0.4 U | 0.4 U |
| ***Other (%)*** | | | | | |
| Percent Moisture | NE | NE | **14.6** | **18.3** | **18.2** |

**Table 3**
**Soil Analytical Results**
**OU-1 Phase IV Construction Completion Report**
**Bay Shore/Brightwaters Former MGP Site**

**Notes:**

mg/kg - milligrams/kilogram or parts per million (ppm)
BTEX - benzene, toluene, ethylbenzene, and xylenes
VOCs - volatile organic compounds
PAHs - polycyclic aromatic hydrocarbons
SVOCs - semivolatile organic compounds
Total BTEX and Total PAHs are calculated using detects only.

6 NYCRR - New York State Register and Official Compilation of Codes, Rules and Regulations of the State of New York

6 NYCRR 375 SCO UNRESTRICTED USE - regulatory comparison against NYCRR, Chapter IV, Part 375-6 Unrestricted Use Soil Cleanup Objectives
6 NYCRR 375 SCO RESTRICTED USE COMM - regulatory comparison against NYCRR, Chapter IV, Part 375-6 Restricted Use Industrial Soil Cleanup Objectives

NE - not established
NA - not analyzed
ND - not detected; total concentration is listed as ND because no compounds were detected in the group

Bolding indicates a detected concentration
Gray shading and bolding indicates that the detected result value exceeds established 6 NYCRR SCO UNRESTRICTED

Yellow shading and bolding indicates that the detected result value exceeds established 6 NYCRR SCO UNRESTRICTED and 6 NYCRR SCO COMMERCIAL

**Validation Qualifiers:**

J - estimated value
U - indicates not detected to the reporting limit for organic analysis and the method detection limit for inorganic analysis
UJ - not detected at or above the reporting limit shown and the reporting limit is estimated
R - rejected

Validated

**Table 4**
**Groundwater Analytical Results**
**OU-1 Phase IV Construction Completion Report**
**Bay Shore/Brighwaters Former MGP Site**

| Location Name | | SIW-1 | SIW-2 | SIW-3 |
|---|---|---|---|---|
| Sample Name | | SIW-1 | SIW-2 | SIW-3 |
| Screen Interval (ft bgs) | | 7-12 | 7-12 | 7-12 |
| Sample Date | | 6/18/2010 | 6/18/2010 | 6/18/2010 |
| Analyte | NYS AWQS | | | |
| ***BTEX (ug/L)*** | | | | |
| Benzene | 1 | **16** | **1 J** | **10** |
| Toluene | 5 | **63** | **3 J** | **7** |
| Ethylbenzene | 5 | **4100** | **2400** | **760** |
| m,p-Xylene | 5 | **2900** | **3500** | **630** |
| o-Xylene | 5 | **1800** | **1300** | **370** |
| Total BTEX | NE | **8879** | **7204** | **1777** |
| ***Other VOCs (ug/L)*** | | | | |
| Acetaldehyde | 8* | 10 UJ | 10 U | 10 U |
| Acetone | 50* | 10 UJ | **4 J** | 10 U |
| Allyl chloride(Chloropropene,3-) | 5 | 10 U | 10 U | 10 U |
| Bromodichloromethane | 50* | 10 U | 10 U | 10 U |
| Bromoform | 50* | 10 UJ | 10 U | 10 U |
| Bromomethane | 5 | 10 U | 10 U | 10 U |
| 1,3-Butadiene | NE | 10 U | 10 UJ | 10 UJ |
| 2-Butanone (Methyl ethyl ketone) | 50* | **11 J** | 10 U | 10 U |
| Carbon disulfide | 60* | 10 U | 10 U | 10 U |
| Carbon tetrachloride | 5 | 10 U | 10 U | 10 U |
| Chlorobenzene | 5 | 10 U | 10 U | 10 U |
| Chloroethane | 5 | 10 U | 10 U | 10 U |
| Chloroform | 7 | 10 U | 10 U | 10 U |
| Chloromethane | 5 | 10 U | 10 UJ | 10 UJ |
| Chlorotoluene | 5 | 10 U | 10 U | 10 U |
| Cryofluorane(Freon-114) | NE | 10 UJ | 10 UJ | 10 U |
| Cyclohexane | NE | **8** | 10 UJ | 10 UJ |
| Dibromochloromethane | 50* | 10 U | 10 U | 10 U |
| 1,2-Dibromoethane | 0.0006 | 10 U | 10 U | 10 U |
| 1,2-Dichlorobenzene | 3 | 10 U | 10 U | 10 U |
| 1,3-Dichlorobenzene | 3 | 10 U | 10 U | 10 U |
| 1,4-Dichlorobenzene | 3 | 10 U | 10 U | 10 U |
| Dichlorodifluoromethane | 5 | 10 UJ | 10 UJ | 10 UJ |
| 1,1-Dichloroethane | 5 | 10 U | 10 U | 10 U |
| 1,2-Dichloroethane | 0.6 | 10 U | 10 U | 10 U |
| cis-1,2-Dichloroethene | 5 | **2 J** | 10 U | 10 U |
| trans-1,2-Dichloroethene | 5 | 10 U | 10 U | 10 U |
| 1,1-Dichloroethene | 0.07 | 10 U | 10 U | 10 U |
| 1,2-Dichloropropane | 1 | 10 U | 10 U | 10 U |
| cis-1,3-Dichloropropene | 0.4 | 10 U | 10 U | 10 U |
| trans-1,3-Dichloropropene | 0.4 | 10 U | 10 U | 10 U |
| 1,4-Dioxane | NE | R | R | R |
| Ethanol | NE | R | R | R |
| n-Heptane | NE | 10 U | 10 UJ | 10 UJ |
| Hexachlorobutadiene | 0.5 | 10 U | 10 U | 10 U |
| n-Hexane | NE | 10 U | **2 J** | **2 J** |
| 2-Hexanone | 50* | 10 U | 10 U | 10 U |
| Isopropyl benzene | 5 | **200 J** | **130** | **140** |
| Methyl tert-butyl ether | 10* | 10 U | 10 U | 10 U |
| 4-Methyl-2-pentanone | NE | 10 U | 10 U | 10 U |
| Methylene chloride | 5 | 10 U | 10 U | 10 U |
| Naphthalene | 10* | **2300 J** | **880 J** | **600 J** |
| 2-Propanol (Isopropyl Alcohol) | NE | R | R | R |
| n-Propylbenzene | 5 | **99** | **63** | **74** |
| Styrene | 5 | 10 U | 10 U | 10 U |
| 1,1,1,2-Tetrachloroethane | 5 | 10 U | 10 U | 10 U |
| 1,1,2,2-Tetrachloroethane | 5 | 10 U | 10 U | 10 U |
| Tetrachloroethene | 5 | 10 UJ | 10 U | 10 U |
| Tetrahydrofuran | 50* | 10 UJ | 10 U | 10 U |
| 1,1,2-Trichloro-1,2,2-trifluoroethane(Freon-113) | 5 | 10 U | 10 U | 10 UJ |

**Table 4**
**Groundwater Analytical Results**
**OU-1 Phase IV Construction Completion Report**
**Bay Shore/Brighwaters Former MGP Site**

| Location Name | | SIW-1 | SIW-2 | SIW-3 |
|---|---|---|---|---|
| Sample Name | | SIW-1 | SIW-2 | SIW-3 |
| Screen Interval (ft bgs) | | 7-12 | 7-12 | 7-12 |
| Sample Date | | 6/18/2010 | 6/18/2010 | 6/18/2010 |
| Analyte | NYS AWQS | | | |
| 1,2,4-Trichlorobenzene | 5 | 10 U | 10 U | 10 U |
| 1,1,1-Trichloroethane | 5 | 10 U | 10 U | 10 U |
| 1,1,2-Trichloroethane | 1 | 10 U | 10 U | 10 U |
| Trichloroethene | 5 | 10 U | 10 U | 10 U |
| Trichlorofluoromethane | 5 | 10 U | 10 U | 10 U |
| 1,2,4-Trimethylbenzene | 5 | **920** | **540** | **630** |
| 1,3,5-Trimethylbenzene/P-ethyltoluene | 5 | **490 J** | **690** | **720** |
| 2,2,4-Trimethylpentane | NE | 10 U | 10 UJ | 10 UJ |
| Vinyl acetate | NE | 10 U | 10 U | 10 U |
| Vinyl chloride | 2 | 10 U | 10 U | 10 U |
| ***Non-carcinogenic PAHs (ug/L)*** | | | | |
| Acenaphthene | 20* | **36** | **7** | **14** |
| Acenaphthylene | NE | **5** | **4 J** | **3 J** |
| Anthracene | 50* | **4 J** | **2 J** | **2 J** |
| Benzo[g,h,i]perylene | NE | 10 U | 10 U | 10 U |
| Fluoranthene | 50* | 10 U | 10 U | 10 U |
| Fluorene | 50* | **21** | **6** | **7** |
| 2-Methylnaphthalene | NE | **160 J** | **120** | **150** |
| Naphthalene | 10* | **1900** | **700** | **440** |
| Phenanthrene | 50* | **37** | **8** | **9** |
| Pyrene | 50* | 10 U | 10 U | 10 U |
| ***Carcinogenic PAHs (ug/L)*** | | | | |
| Benz[a]anthracene | 0.002* | 10 U | 10 U | 10 U |
| Benzo[a]pyrene | ND | 10 U | 10 U | 10 U |
| Benzo[b]fluoranthene | 0.002* | 10 U | 10 U | 10 U |
| Benzo[k]fluoranthene | 0.002* | 10 U | 10 U | 10 U |
| Chrysene | 0.002* | 10 U | 10 U | 10 U |
| Dibenz[a,h]anthracene | NE | 10 U | 10 U | 10 U |
| Indeno[1,2,3-cd]pyrene | 0.002* | 10 U | 10 U | 10 U |
| Total PAHs | NE | **2163** | **847** | **625** |

**Notes:**

ug/L - micrograms per liter or parts per billion (ppb)
BTEX - benzene, toluene, ethylbenzene, and xylenes
PAHs - polycyclic aromatic hydrocarbons
Total BTEX and Total PAHs are calculated using detects only.
ft bgs - feet below ground surface

NYS AWQS - New York State Ambient Water Quality Standards and Guidance Values for GA groundwater
* indicates the value is a guidance value and not a standard

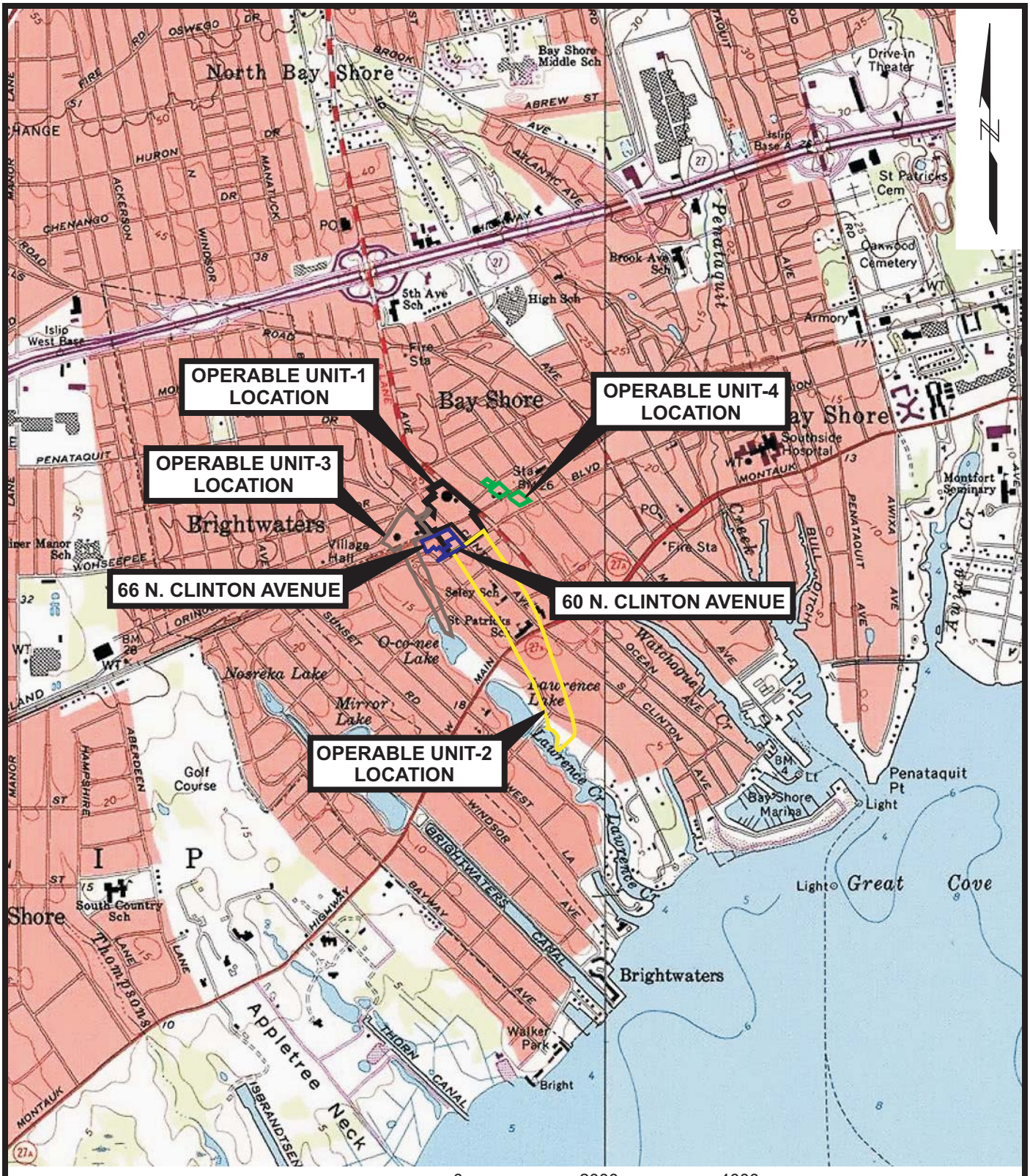
NE - not established
NA - not analyzed
ND - not detected; total concentration is listed as ND because no compounds were detected in the group

Bolding indicates a detected concentration
Gray shading indicates that the detected result value exceeds NYS AWQS

**Validation Qualifiers:**

J - estimated value
U - indicates not detected to the reporting limit for organic analysis and the method detection limit for inorganic analysis
UJ - not detected at or above the reporting limit shown and the reporting limit is estimated
R - rejected

# Figures




SOURCE: Map created with TOPO! ® ©2001 National Geographic (www.nationalgeographic.com/topo)

0 2000 4000

SCALE, FEET

PHASE IV CONSTRUCTION COMPLETION REPORT
60 N. CLINTON AVENUE & 66 N. CLINTON AVENUE
BAY SHORE/BRIGHTWATERS FORMER MGP SITE
BAY SHORE, NEW YORK

nationalgrid

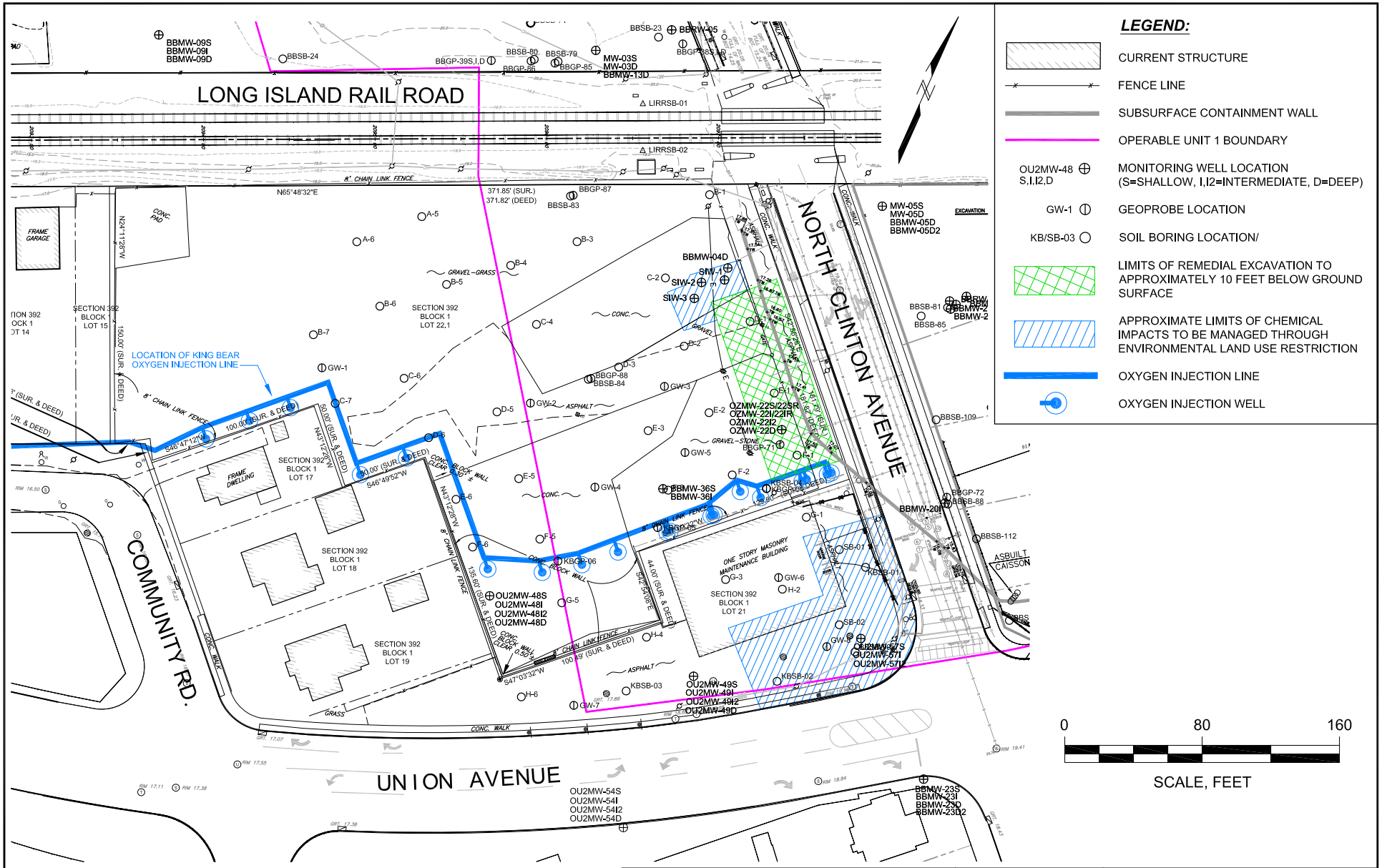
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**SITE LOCATION MAP**

September 2012 Figure 1

I:\Project\National Grid\Bay Shore\OU-1\60 & 66 N Clinton Avenue\Phase IV Construction Completion\Drawings\2011-09\BAY SHORE-Ph IV Location.cdr




## LEGEND:

- CURRENT STRUCTURE
- FENCE LINE
- SUBSURFACE CONTAINMENT WALL
- OPERABLE UNIT 1 BOUNDARY
- OU2MW-48 S,I,I2,D — MONITORING WELL LOCATION (S=SHALLOW, I,I2=INTERMEDIATE, D=DEEP)
- GW-1 — GEOPROBE LOCATION
- KB/SB-03 — SOIL BORING LOCATION/
- LIMITS OF REMEDIAL EXCAVATION TO APPROXIMATELY 10 FEET BELOW GROUND SURFACE
- APPROXIMATE LIMITS OF CHEMICAL IMPACTS TO BE MANAGED THROUGH ENVIRONMENTAL LAND USE RESTRICTION
- OXYGEN INJECTION LINE
- OXYGEN INJECTION WELL

**SOURCE:**

PLAN BASED ON MAP PREPARED BY KS ENGINEERS, P.C., 24 COMMERCE STREET, NEWARK, N.J. 07102, TITLED *BOUNDARY AND TOPOGRAPHIC SURVEY, PORTION OF SEC. 392, BLOCK 1 SUFFOLK COUNTY, NEW YORK,* SCALE 1"=30', DATED 7/09/09.

PHASE IV CONSTRUCTION COMPLETION REPORT
60 N. CLINTON AVENUE AND 66 N. CLINTON AVENUE
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BAY SHORE, NEW YORK

nationalgrid

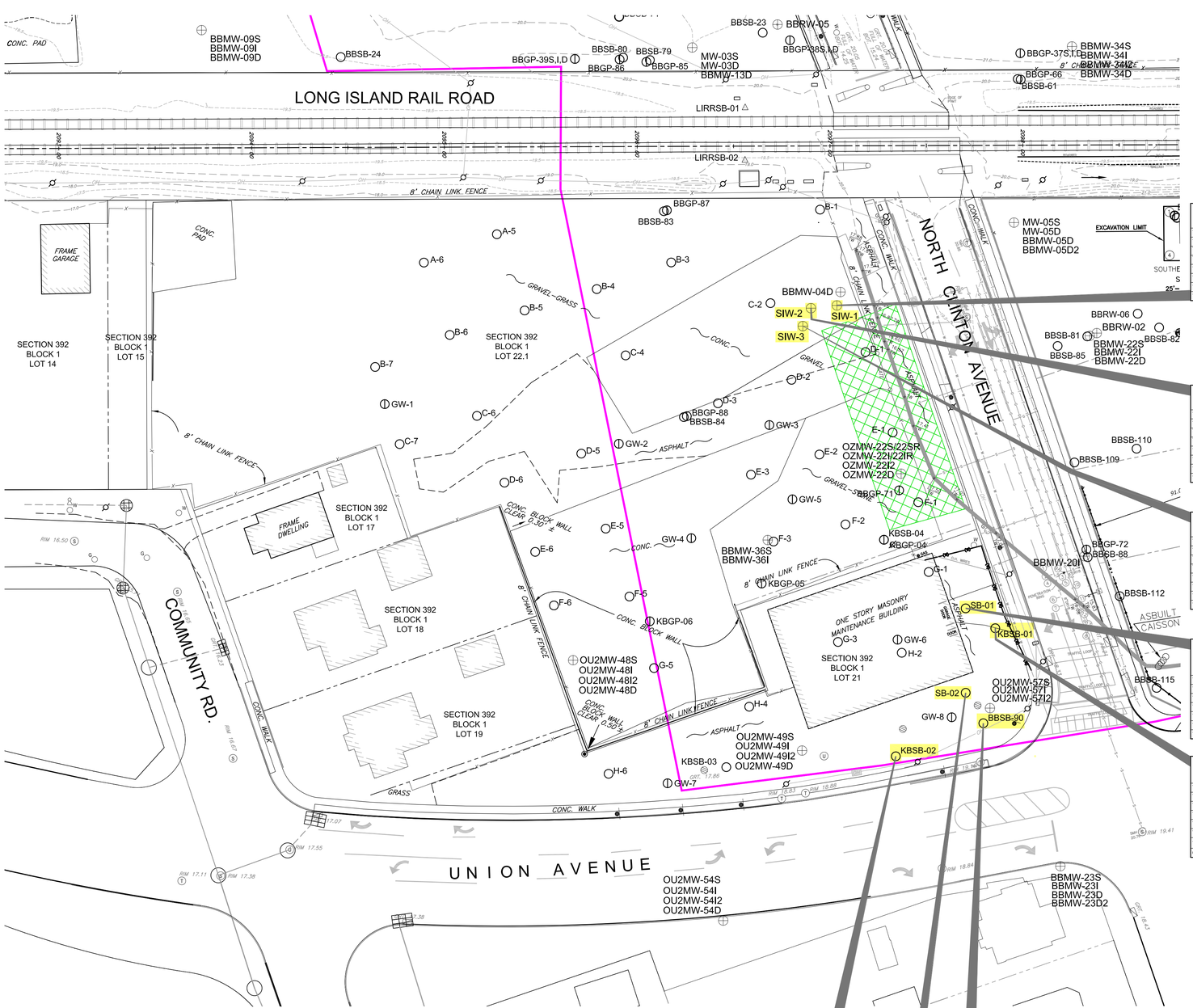
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**PHASE IV REMEDIAL ACTION SUMMARY**

September 2012 Figure 2

I:\Project\National Grid\Bay Shore\OU-1\60 & 66 N Clinton Avenue\Phase IV Construction Completion\Drawings\2011-09\Bay Shore-RA Summary.dwg




***LEGEND:***

- CURRENT STRUCTURE
- FENCE LINE
- SUBSURFACE CONTAINMENT WALL
- OPERABLE UNIT 1 BOUNDARY
- OU2MW-48 S,I,I2,D — MONITORING WELL LOCATION (S=SHALLOW, I, I2=INTERMEDIATE, D=DEEP
- GW-1 — GEOPROBE LOCATION
- A-5 — SOIL BORING LOCATION/
- LIMITS OF REMEDIAL EXCAVATION TO APPROXIMATELY 10 FEET BELOW GROUND SURFACE
- 6NYCRR 375 SCO UNRESTRICTED USE — CHAPTER VI, SUBPART 375-6; REMEDIAL PROGRAM SOIL CLEANUP OBJECTIVES (SCO) (UNRESTRICTED USE)
- NE — NOT ESTABLISHED
- NA — NOT ANALYZED
- mg/kg — MILLIGRAMS PER KILOGRAM
- J — ESTIMATED VALUE
- U — INDICATES NOT DETECTED AT OR ABOVE THE REPORTING LIMIT SHOWN
- UJ — INDICATES NOT DETECTED AT OR ABOVE THE REPORTING LIMIT SHOWN, AND THE REPORTING LIMIT IS ESTIMATED
- VOCs — VOLATILE ORGANIC COMPOUNDS
- SVOCs — SEMIVOLATILE ORGANIC COMPOUNDS
- BTEX — BENZENE, TOLUENE, ETHYLBENZENE AND XYLENE
- PAHs — POLYCYCLIC AROMATIC HYDROCARBONS
- **BOLD** — INDICATES DETECTED RESULT
- BOLD — INDICATES THAT ONE OR MORE COMPOUNDS DETECTED EXCEEDS 6NYCRR PART 375 UNRESTRICTED USE CRITERIA
- BOLD / SB-01 — INDICATES THAT ONE OR MORE COMPOUNDS DETECTED EXCEEDS 6NYCRR PART 375 UNRESTRICTED USE AND COMMERCIAL USE CRITERIA

| Sample Name: / Sample Interval (feet): / Sample Date: | 6 NYCRR 375 SCO UNRESTRICTED USE | 6 NYCRR 375 SCO RESTRICTED USE COMMERCIAL | SIW-1 7 - 12 12/28/2009 |
|---|---|---|---|
| Total BTEX | NE | NE | **27.209** |
| Total Other VOCs | NE | NE | **77.231** |
| Total Non-carcinogenic PAHs | NE | NE | **120.66** |
| Total Carcinogenic PAHs | NE | NE | **7.66** |
| Total PAHs | NE | NE | **128.32** |
| Total Other SVOCs | NE | NE | **0.67** |
| Total Petroleum Hydrocarbons | NE | NE | **NA** |
| Total Cyanide | 27 | 27 | **NA** |

| Sample Name: / Sample Interval (feet): / Sample Date: | 6 NYCRR 375 SCO UNRESTRICTED USE | 6 NYCRR 375 SCO RESTRICTED USE COMMERCIAL | SIW-2 7 - 12 12/28/2009 |
|---|---|---|---|
| Total BTEX | NE | NE | **4.603** |
| Total Other VOCs | NE | NE | **3.769** |
| Total Non-carcinogenic PAHs | NE | NE | **361.39** |
| Total Carcinogenic PAHs | NE | NE | **8.77** |
| Total PAHs | NE | NE | **370.16** |
| Total Other SVOCs | NE | NE | **1.8** |
| Total Petroleum Hydrocarbons | NE | NE | **NA** |
| Total Cyanide | 27 | 27 | **NA** |

| Sample Name: / Sample Interval (feet): / Sample Date: | 6 NYCRR 375 SCO UNRESTRICTED USE | 6 NYCRR 375 SCO RESTRICTED USE COMMERCIAL | SIW-3 7 - 12 12/28/2009 |
|---|---|---|---|
| Total BTEX | NE | NE | **6.1** |
| Total Other VOCs | NE | NE | **64.64** |
| Total Non-carcinogenic PAHs | NE | NE | **265.63** |
| Total Carcinogenic PAHs | NE | NE | **9.48** |
| Total PAHs | NE | NE | **275.11** |
| Total Other SVOCs | NE | NE | **1** |
| Total Petroleum Hydrocarbons | NE | NE | **NA** |
| Total Cyanide | 27 | 27 | **NA** |

| Sample Name: / Sample Interval (feet): / Sample Date: | 6 NYCRR 375 SCO UNRESTRICTED USE | 6 NYCRR 375 SCO RESTRICTED USE COMMERCIAL | KB/SL SB-01 (5-7) 6/1/2009 | KB/SL SB-01 (8-10) 6/1/2009 | KB/SL SB-01 (14-16) 6/1/2009 | KB/SL SB-01 (27-29) 6/1/2009 |
|---|---|---|---|---|---|---|
| Total BTEX | NE | NE | 0 | **3.6** | 0 | 0 |
| Total Other VOCs | NE | NE | **0.003** | **316** | **0.021** | **0.023** |
| Total Non-carcinogenic PAHs | NE | NE | **1.56** | **85.76** | 0 | 0 |
| Total PAHs | NE | NE | **2.036** | **92.14** | 0 | 0 |
| Total Other SVOCs | NE | NE | 0 | **0.45** | 0 | 0 |
| Total Petroleum Hydrocarbons | NE | NE | NA | NA | NA | NA |
| Total Cyanide | 27 | 27 | NA | NA | NA | NA |

| Sample Name: / Sample Interval (feet): / Sample Date: | 6 NYCRR 375 SCO UNRESTRICTED USE | 6 NYCRR 375 SCO RESTRICTED USE COMMERCIAL | KBSB-01 9 - 11 ft 6/21/2004 | KBSB-01 20 - 22 ft 6/21/2004 | KBSB-01 37 - 39 ft 6/21/2004 | KBSB-01 64 - 66 ft 6/21/2004 | KBSB-01 76 - 78 ft 6/22/2004 |
|---|---|---|---|---|---|---|---|
| Total BTEX | NE | NE | **7.641** | **0.062** | **0.021** | **0.003** | 0 |
| Total Other VOCs | NE | NE | **0.04** | **0.016** | **0.001** | 0 | 0 |
| Total Non-carcinogenic PAHs | NE | NE | **121.31** | **0.526** | **0.4** | 0 | **1.111** |
| Total Carcinogenic PAHs | NE | NE | **11.16** | 0 | 0 | 0 | **0.26** |
| Total PAHs | NE | NE | **132.47** | **0.526** | **0.4** | 0 | **1.371** |
| Total Other SVOCs | NE | NE | 0 | 0 | 0 | 0 | 0 |
| Total Petroleum Hydrocarbons | NE | NE | NA | NA | NA | NA | NA |
| Cyanide, Total | 27 | 27 | 0.58 U | 0.58 U | 0.61 U | 0.62 U | 0.62 U |

| Sample Name: / Sample Interval (feet): / Sample Date: | 6 NYCRR 375 SCO UNRESTRICTED USE | 6 NYCRR 375 SCO RESTRICTED USE COMMERCIAL | KBSB-02 7 - 8 ft 6/21/2004 | KBSB-02 9 - 11 ft 6/21/2004 | KBSB-02 38 - 40 ft 6/21/2004 | KBSB-02 68 - 70 ft 6/21/2004 |
|---|---|---|---|---|---|---|
| Total BTEX | NE | NE | **0.007** | 0 | 0 | 0 |
| Total Other VOCs | NE | NE | **0.029** | **0.036** | **0.02** | 0 |
| Total Non-carcinogenic PAHs | NE | NE | **100.8** | **2.089** | 0 | 0 |
| Total Carcinogenic PAHs | NE | NE | **30.7** | 0 | 0 | 0 |
| Total PAHs | NE | NE | **131.5** | **2.089** | 0 | 0 |
| Total Other SVOCs | NE | NE | **0.12** | 0 | 0 | 0 |
| Total Petroleum Hydrocarbons | NE | NE | NA | NA | NA | NA |
| Cyanide, Total | 27 | 27 | 0.58 U | 0.62 U | 0.62 U | 0.63 U |

| Sample Name: / Sample Interval (feet): / Sample Date: | 6 NYCRR 375 SCO UNRESTRICTED USE | 6 NYCRR 375 SCO RESTRICTED USE COMMERCIAL | BBSB-90 (8-10) 4/8/2002 | BBSB-90 (12-14) 4/8/2002 | BBSB-90 (48-50) 4/8/2002 | BBSB-90 (72-74) 4/8/2002 |
|---|---|---|---|---|---|---|
| Total BTEX | NE | NE | **0.089** | 0 | 0 | 0 |
| Total Other VOCs | NE | NE | NA | NA | NA | NA |
| Total Non-carcinogenic PAHs | NE | NE | **57.48** | **0.448** | 0 | 0 |
| Total Carcinogenic PAHs | NE | NE | **15.4** | 0 | 0 | 0 |
| Total PAHs | NE | NE | **72.88** | **0.448** | 0 | 0 |
| Total Other SVOCs | NE | NE | NA | NA | NA | NA |
| Total Petroleum Hydrocarbons | NE | NE | NA | NA | NA | NA |
| Total Cyanide | 27 | 27 | NA | NA | NA | NA |

| Sample Name: / Sample Interval (feet): / Sample Date: | 6 NYCRR 375 SCO UNRESTRICTED USE | 6 NYCRR 375 SCO RESTRICTED USE COMMERCIAL | KB/SL SB-02 (4.5-6.5) 6/1/2009 | KB/SL SB-02 (7-9) 6/1/2009 | KB/SL SB-02 (28-30) 6/1/2009 |
|---|---|---|---|---|---|
| Total BTEX | NE | NE | 0 | **3.3** | 0 |
| Total Other VOCs | NE | NE | **0.029** | **15.446** | **0.012** |
| Total Non-carcinogenic PAHs | NE | NE | **2.78** | **33.13** | **1.06** |
| Total PAHs | NE | NE | **3.76** | **41.45** | **1.06** |
| Total Other SVOCs | NE | NE | **0.29** | **0.5** | **0.307** |
| Total Petroleum Hydrocarbons | NE | NE | NA | NA | NA |
| Total Cyanide | 27 | 27 | NA | NA | NA |

0 30 60
SCALE, FEET

***SOURCE:***
PLAN BASED ON MAP PREPARED BY KS ENGINEERS, P.C., 24 COMMERCE STREET, NEWARK, N.J. 07102, TITLED *BOUNDARY AND TOPOGRAPHIC SURVEY, PORTION OF SEC. 392, BLOCK 1 SUFFOLK COUNTY, NEW YORK,* SCALE 1"=30', DATED 7/09/09.

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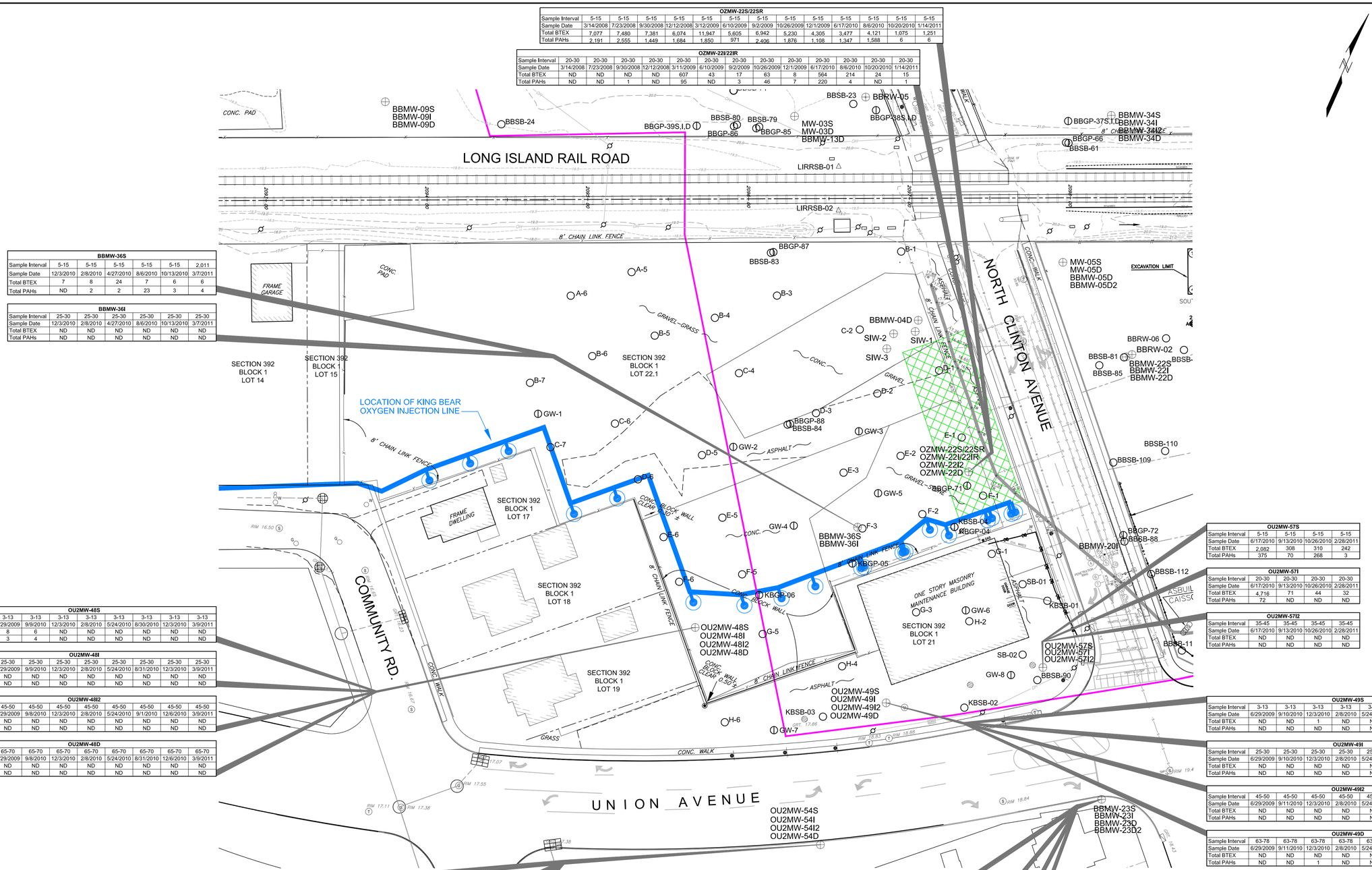
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**SOIL IMPACTS REMAINING POST EXCAVATION**

September 2012 — Figure 3

I:\Project\National Grid\Bay Shore\OU-1\60 & 66 N Clinton Avenue\Phase IV Construction Completion\Drawings\2011-09\ Bay Shore-Analytical.dwg \Sep 04, 2012




**OZMW-22S/22SR**

| Sample Interval | 5-15 | 5-15 | 5-15 | 5-15 | 5-15 | 5-15 | 5-15 | 5-15 | 5-15 | 5-15 | 5-15 | 5-15 | 5-15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample Date | 3/14/2008 | 7/23/2008 | 9/30/2008 | 12/12/2008 | 3/12/2009 | 6/10/2009 | 9/2/2009 | 10/26/2009 | 12/1/2009 | 6/17/2010 | 8/6/2010 | 10/20/2010 | 1/14/2011 |
| Total BTEX | 7,077 | 7,480 | 7,381 | 6,074 | 11,947 | 5,605 | 6,942 | 5,230 | 4,305 | 3,477 | 4,121 | 1,075 | 1,251 |
| Total PAHs | 2,191 | 2,555 | 1,449 | 1,684 | 1,850 | 971 | 2,406 | 1,876 | 1,108 | 1,347 | 1,588 | 6 | 6 |

**OZMW-22I/22IR**

| Sample Interval | 20-30 | 20-30 | 20-30 | 20-30 | 20-30 | 20-30 | 20-30 | 20-30 | 20-30 | 20-30 | 20-30 | 20-30 | 20-30 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample Date | 3/14/2008 | 7/23/2008 | 9/30/2008 | 12/12/2008 | 3/11/2009 | 6/10/2009 | 9/2/2009 | 10/26/2009 | 12/1/2009 | 6/17/2010 | 8/6/2010 | 10/20/2010 | 1/14/2011 |
| Total BTEX | ND | ND | ND | ND | 607 | 43 | 17 | 63 | 8 | 564 | 214 | 24 | 15 |
| Total PAHs | ND | ND | 1 | ND | 95 | ND | 3 | 46 | 7 | 220 | 4 | ND | 1 |

**BBMW-36S**

| Sample Interval | 5-15 | 5-15 | 5-15 | 5-15 | 5-15 | 2,011 |
|---|---|---|---|---|---|---|
| Sample Date | 12/3/2010 | 2/8/2010 | 4/27/2010 | 8/6/2010 | 10/13/2010 | 3/7/2011 |
| Total BTEX | 7 | 8 | 24 | 7 | 6 | 6 |
| Total PAHs | ND | 2 | 2 | 23 | 3 | 4 |

**BBMW-36I**

| Sample Interval | 25-30 | 25-30 | 25-30 | 25-30 | 25-30 | 25-30 |
|---|---|---|---|---|---|---|
| Sample Date | 12/3/2010 | 2/8/2010 | 4/27/2010 | 8/6/2010 | 10/13/2010 | 3/7/2011 |
| Total BTEX | ND | ND | ND | ND | ND | ND |
| Total PAHs | ND | ND | ND | ND | ND | ND |

**OU2MW-48S**

| Sample Interval | 3-13 | 3-13 | 3-13 | 3-13 | 3-13 | 3-13 | 3-13 | 3-13 |
|---|---|---|---|---|---|---|---|---|
| Sample Date | 6/29/2009 | 9/9/2010 | 12/3/2010 | 2/8/2010 | 5/24/2010 | 8/30/2010 | 12/3/2010 | 3/9/2011 |
| Total BTEX | 8 | 6 | ND | ND | ND | ND | ND | ND |
| Total PAHs | 3 | 4 | ND | ND | ND | ND | ND | ND |

**OU2MW-48I**

| Sample Interval | 25-30 | 25-30 | 25-30 | 25-30 | 25-30 | 25-30 | 25-30 | 25-30 |
|---|---|---|---|---|---|---|---|---|
| Sample Date | 6/29/2009 | 9/9/2010 | 12/3/2010 | 2/8/2010 | 5/24/2010 | 8/31/2010 | 12/3/2010 | 3/9/2011 |
| Total BTEX | ND | ND | ND | ND | ND | ND | ND | ND |
| Total PAHs | ND | ND | ND | ND | ND | ND | ND | ND |

**OU2MW-48I2**

| Sample Interval | 45-50 | 45-50 | 45-50 | 45-50 | 45-50 | 45-50 | 45-50 | 45-50 |
|---|---|---|---|---|---|---|---|---|
| Sample Date | 6/29/2009 | 9/8/2010 | 12/3/2010 | 2/8/2010 | 5/24/2010 | 9/1/2010 | 12/6/2010 | 3/9/2011 |
| Total BTEX | ND | ND | ND | ND | ND | ND | ND | ND |
| Total PAHs | ND | ND | ND | ND | ND | ND | ND | ND |

**OU2MW-48D**

| Sample Interval | 65-70 | 65-70 | 65-70 | 65-70 | 65-70 | 65-70 | 65-70 | 65-70 |
|---|---|---|---|---|---|---|---|---|
| Sample Date | 6/29/2009 | 9/8/2010 | 12/3/2010 | 2/8/2010 | 5/24/2010 | 8/31/2010 | 12/6/2010 | 3/9/2011 |
| Total BTEX | ND | ND | ND | ND | ND | ND | ND | ND |
| Total PAHs | ND | ND | ND | ND | ND | ND | ND | ND |

**OU2MW-54S**

| Sample Interval | 5.0 - 15.0 | 5.0 - 15.0 | 5.0 - 15.0 | 5.0 - 15.0 | 5.0 - 15.0 |
|---|---|---|---|---|---|
| Sample Date | 4/2/2010 | 4/28/2010 | 8/20/2010 | 12/6/2010 | 3/9/2011 |
| Total BTEX | 86 | 59 | 4 | ND | ND |
| Total PAHs | ND | 10 | ND | ND | ND |

**OU2MW-54I**

| Sample Interval | 20.0 - 25.0 | 20.0 - 25.0 | 20.0 - 25.0 | 20.0 - 25.0 | 20.0 - 25.0 |
|---|---|---|---|---|---|
| Sample Date | 4/2/2010 | 4/28/2010 | 8/20/2010 | 12/6/2010 | 3/9/2011 |
| Total BTEX | ND | ND | ND | ND | ND |
| Total PAHs | ND | ND | ND | ND | ND |

**OU2MW-54I2**

| Sample Interval | 40.0 - 45.0 | 40.0 - 45.0 | 40.0 - 45.0 | 40.0 - 45.0 | 40.0 - 45.0 |
|---|---|---|---|---|---|
| Sample Date | 4/2/2010 | 4/28/2010 | 8/20/2010 | 12/6/2010 | 3/9/2011 |
| Total BTEX | ND | ND | ND | ND | ND |
| Total PAHs | ND | ND | ND | ND | ND |

**OU2MW-54D**

| Sample Interval | 60.0 - 65.0 | 60.0 - 65.0 | 60.0 - 65.0 | 60.0 - 65.0 | 60.0 - 65.0 |
|---|---|---|---|---|---|
| Sample Date | 4/2/2010 | 4/28/2010 | 8/20/2010 | 12/6/2010 | 3/9/2011 |
| Total BTEX | ND | ND | ND | ND | ND |
| Total PAHs | ND | ND | ND | ND | ND |

**BBMW-23S**

| Sample Interval | 5.0 - 15.0 | 5.0 - 15.0 | 5.0 - 15.0 | 5.0 - 15.0 | 5.0 - 15.0 | 5.0 - 15.0 | 5.0 - 15.0 | 5.0 - 15.0 | 5.0 - 15.0 | 5.0 - 15.0 | 5.0 - 15.0 | 5.0 - 15.0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample Date | 10/27/2009 | 11/24/2009 | 12/30/2009 | 1/28/2010 | 2/19/2010 | 3/24/2010 | 4/22/2010 | 5/19/2010 | 6/22/2010 | 9/2/2010 | 11/29/2010 | 3/3/2011 |
| Total BTEX | 13,978 | 7,775 | 7,779 | 4,638 | 10,970 | 9,643 | 10,533 | 9,208 | 11,441 | 6,213 | 4,890 | 4,327 |
| Total PAHs | 3,815 | 2,384 | 2,697 | 1,552 | 2,459 | 1,571 | 1,999 | 1,302 | 2,292 | 948 | 976 | 71 |

**BBMW-23I**

| Sample Interval | 33.0 - 43.0 | 33.0 - 43.0 | 33.0 - 43.0 | 33.0 - 43.0 | 33.0 - 43.0 | 33.0 - 43.0 | 33.0 - 43.0 | 33.0 - 43.0 | 33.0 - 43.0 | 33.0 - 43.0 | 33.0 - 43.0 | 33.0 - 43.0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample Date | 10/27/2009 | 11/24/2009 | 12/30/2009 | 1/29/2010 | 2/19/2010 | 3/24/2010 | 4/22/2010 | 5/19/2010 | 6/22/2010 | 9/2/2010 | 11/29/2010 | 3/3/2011 |
| Total BTEX | 67 | 221 | 115 | 40 | 3 | ND | 1,265 | 41 | 6 | ND | 3 | ND |
| Total PAHs | 57 | ND | 237 | 40 | ND | 2 | 97 | ND | 1 | ND | ND | ND |

**BBMW-23D**

| Sample Interval | 49.5 - 59.5 | 49.5 - 59.5 | 49.5 - 59.5 | 49.5 - 59.5 | 49.5 - 59.5 | 49.5 - 59.5 | 49.5 - 59.5 | 49.5 - 59.5 | 49.5 - 59.5 | 49.5 - 59.5 | 49.5 - 59.5 | 49.5 - 59.5 | 49.5 - 59.5 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample Date | 10/27/2009 | 11/24/2009 | 12/30/2009 | 1/28/2010 | 2/19/2010 | 3/24/2010 | 4/22/2010 | 5/19/2010 | 6/22/2010 | 9/2/2010 | 11/29/2010 | 3/3/2011 | |
| Total BTEX | 9 | 3 | 3 | 3 | 3 | 2 | 1 | 1 | 1 | ND | 1 | ND | |
| Total PAHs | 37 | ND | 27 | ND | ND | 5 | ND | ND | 14 | 15 | 12 | ND | |

**BBMW-23D2**

| Sample Interval | 63.0 - 73.0 | 63.0 - 73.0 | 63.0 - 73.0 | 63.0 - 73.0 | 63.0 - 73.0 | 63.0 - 73.0 | 63.0 - 73.0 | 63.0 - 73.0 | 63.0 - 73.0 | 63.0 - 73.0 | 63.0 - 73.0 | 63.0 - 73.0 | 63.0 - 73.0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample Date | 10/27/2009 | 11/24/2009 | 12/30/2009 | 1/28/2010 | 2/19/2010 | 3/24/2010 | 4/22/2010 | 5/19/2010 | 6/22/2010 | 9/2/2010 | 11/29/2010 | 3/3/2011 | |
| Total BTEX | 6 | ND | ND | ND | ND | ND | ND | ND | ND | 1 | ND | ND | |
| Total PAHs | 6 | ND | ND | ND | ND | ND | ND | ND | ND | 1 | ND | ND | |

**OU2MW-57S**

| Sample Interval | 5-15 | 5-15 | 5-15 | 5-15 |
|---|---|---|---|---|
| Sample Date | 6/17/2010 | 9/13/2010 | 10/26/2010 | 2/28/2011 |
| Total BTEX | 2,082 | 308 | 310 | 242 |
| Total PAHs | 375 | 70 | 268 | 3 |

**OU2MW-57I**

| Sample Interval | 20-30 | 20-30 | 20-30 | 20-30 |
|---|---|---|---|---|
| Sample Date | 6/17/2010 | 9/13/2010 | 10/26/2010 | 2/28/2011 |
| Total BTEX | 4,716 | 71 | 44 | 32 |
| Total PAHs | 72 | ND | ND | ND |

**OU2MW-57I2**

| Sample Interval | 35-45 | 35-45 | 35-45 | 35-45 |
|---|---|---|---|---|
| Sample Date | 6/17/2010 | 9/13/2010 | 10/26/2010 | 2/28/2011 |
| Total BTEX | ND | ND | ND | ND |
| Total PAHs | ND | ND | ND | ND |

**OU2MW-49S**

| Sample Interval | 3-13 | 3-13 | 3-13 | 3-13 | 3-13 | 3-13 | 3-13 | 3-13 |
|---|---|---|---|---|---|---|---|---|
| Sample Date | 6/29/2009 | 9/10/2010 | 12/3/2010 | 2/8/2010 | 5/24/2010 | 8/24/2010 | 10/22/2010 | 2/1/2011 |
| Total BTEX | ND | ND | 1 | ND | ND | ND | ND | ND |
| Total PAHs | ND | ND | ND | ND | ND | ND | ND | ND |

**OU2MW-49I**

| Sample Interval | 25-30 | 25-30 | 25-30 | 25-30 | 25-30 | 25-30 | 25-30 | 25-30 |
|---|---|---|---|---|---|---|---|---|
| Sample Date | 6/29/2009 | 9/10/2010 | 12/3/2010 | 2/8/2010 | 5/24/2010 | 8/24/2010 | 10/27/2010 | 1/31/2011 |
| Total BTEX | ND | ND | ND | ND | ND | ND | ND | ND |
| Total PAHs | ND | ND | ND | ND | ND | ND | ND | ND |

**OU2MW-49I2**

| Sample Interval | 45-50 | 45-50 | 45-50 | 45-50 | 45-50 | 45-50 | 45-50 | 45-50 |
|---|---|---|---|---|---|---|---|---|
| Sample Date | 6/29/2009 | 9/11/2010 | 12/3/2010 | 2/8/2010 | 5/24/2010 | 8/24/2010 | 10/22/2010 | 1/31/2011 |
| Total BTEX | ND | ND | ND | ND | ND | ND | ND | ND |
| Total PAHs | ND | ND | ND | ND | ND | ND | ND | ND |

**OU2MW-49D**

| Sample Interval | 63-78 | 63-78 | 63-78 | 63-78 | 63-78 | 63-78 | 63-78 |
|---|---|---|---|---|---|---|---|
| Sample Date | 6/29/2009 | 9/11/2010 | 12/3/2010 | 2/8/2010 | 5/24/2010 | 8/24/2010 | 10/27/2010 | 1/31/2011 |
| Total BTEX | ND | ND | ND | ND | ND | ND | ND | ND |
| Total PAHs | ND | ND | 1 | ND | ND | ND | ND | ND |

***LEGEND:***

- CURRENT STRUCTURE
- FENCE LINE
- SUBSURFACE CONTAINMENT WALL
- OPERABLE UNIT 1 BOUNDARY
- OXYGEN INJECTION LINE
- OXYGEN INJECTION WELL
- OU2MW-48 S,I,I2,D — MONITORING WELL LOCATION (S=SHALLOW, I, I2=INTERMEDIATE, D=DEEP
- GW-1 — GEOPROBE LOCATION
- A-5 — SOIL BORING LOCATION
- LIMITS OF REMEDIAL EXCAVATION TO APPROXIMATELY 10 FEET BELOW GROUND SURFACE
- ug/L — MICROGRAMS PER LITER
- ND — NON DETECT
- BTEX — BENZENE, TOLUENE ETHYLBENZENE, XYLENE
- PAHS — POLYCYCLIC AROMATIC HYDROCARBONS

***NOTE:***
SAMPLE INTERVALS LISTED ARE DEPTH BELOW GROUND SURFACE IN FEET.

***SOURCE:***
PLAN BASED ON MAP PREPARED BY KS ENGINEERS, P.C., 24 COMMERCE STREET, NEWARK, N.J. 07102, TITLED *BOUNDARY AND TOPOGRAPHIC SURVEY, PORTION OF SEC. 392, BLOCK 1 SUFFOLK COUNTY, NEW YORK,* SCALE 1"=30', DATED 7/09/09.

0 30 60
SCALE, FEET

PHASE IV CONSTRUCTION COMPLETION REPORT
60 N. CLINTON AVENUE AND 66 N. CLINTON AVENUE
BAY SHORE/BRIGHTWATERS FORMER MGP SITE
BAY SHORE, NEW YORK

nationalgrid

PROJECT 093180-1-1115

GEI Consultants
110 WALT WHITMAN ROAD
SUITE 204
HUNTINGTON STATION, NY 11746

**GROUNDWATER IMPACTS POST EXCAVATION AND GROUNDWATER TREATMENT**

September 2012 — Figure 4

I:\Project\National Grid\Bay Shore\OU-1\60 & 66 N Clinton Avenue\Phase IV Construction Completion\Drawings\2011-09\ Bay Shore-Analytical.dwg \Sep 04, 2012

# Appendix A

## Manifests, Disposal Documentation (electronic only)

# Bayshore Soil Management Summary Report

75 Crows Mill Rd. Keasbey NJ, 08832
P: 732.738.6000 F: 732.738.0620

National Grid Bay Shore Former MGP, Brightwaters NY
Phase IV Remedy

| PROJECT TOTALS | TOTAL LOADS: 113 | TOTAL TONNAGE: 3439.31 |
|---|---|---|
| 3/9/2010 | **Total Loads: 4** | **Total Tonnage: 113.59** |
| 3/11/2010 | **Total Loads: 4** | **Total Tonnage: 124.34** |
| 3/12/2010 | **Total Loads: 4** | **Total Tonnage: 127.94** |
| 3/15/2010 | **Total Loads: 6** | **Total Tonnage: 192.09** |
| 3/17/2010 | **Total Loads: 4** | **Total Tonnage: 133.36** |
| 3/18/2010 | **Total Loads: 8** | **Total Tonnage: 273.53** |
| 3/19/2010 | **Total Loads: 8** | **Total Tonnage: 254.96** |
| 3/23/2010 | **Total Loads: 8** | **Total Tonnage: 247.92** |
| 3/24/2010 | **Total Loads: 7** | **Total Tonnage: 180.17** |
| 3/25/2010 | **Total Loads: 10** | **Total Tonnage: 310.13** |
| 3/29/2010 | **Total Loads: 10** | **Total Tonnage: 299.00** |
| 3/30/2010 | **Total Loads: 10** | **Total Tonnage: 296.97** |
| 3/31/2010 | **Total Loads: 8** | **Total Tonnage: 240.72** |
| 4/2/2010 | **Total Loads: 6** | **Total Tonnage: 159.86** |
| 4/5/2010 | **Total Loads: 10** | **Total Tonnage: 296.05** |
| 4/6/2010 | **Total Loads: 6** | **Total Tonnage: 188.68** |

# Acknowledgment of Treatment and Recycling

Bayshore Soil Management, LLC hereby acknowledges

***The Treatment***

Of 113.59 tons of

Coal Tar Contaminated Soil
(Received on 3/9/10)

From the **National Grid Bay Shore Former MGP, Brightwaters, NY**

**Bayshore Soil Management, LLC.**

**March 12, 2010**
AIR: Facility ID Number 18437; Permit PCP070003
CLASS B: Facility ID Number 132397: Permit CBG060002
Keasbey, New Jersey

Certificate Number 2709-463-030910

Creamer Environmental
Disposal Vehicle Inspection Checklist
National Grid Bayshore NY Job # 09-2096

Date 3-9-10
Location OU1 - Fenlon/Nicol Pile

| Load # | Time | Truck # | Manifest / Bill of Lading # | License Plate # | Driver's Name | Insurance Card | | Tires OK | | Tailgate OK | | Tarp OK | | Deconed | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Yes | No | Yes | No | Yes | No | Yes | No | Yes | No |
| 1 | 7:30 | 876 | 043647 | AL 772N | Roger | — | | — | | — | | — | | — | |
| 2 | 7:45 | 844 | 043648 | Am 235m | Heriberto | — | | — | | — | | — | | — | |
| 3 | 1330 | 876 | 043649 | AL 772N | Roger | / | | — | | — | | — | | — | |
| 4 | 1035 | 844 | 043650 | Am 235m | Heriberto | — | | — | | — | | — | | — | |
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**NON-HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|
| 2709_488 | | 855-621-6345 | E 043649 |

**GENERATOR**

5. Generator's Name and Mailing Address: National Grid (NG), 175 East Old Country Road, Hicksville, NY 11801

Generator's Site Address (if different than mailing address): NG Bayshore PMGP_OU5 Site Schools Drive, Brightwaters, NY 11718

Generator's Phone: 516-545-2596

6. Transporter 1 Company Name: J & O Trucking — U.S. EPA ID Number: NJ[illegible]

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address: Bayshore Soil Management, LLC, 79 Crows Mill Rd, Keasbey, NJ 08832 — U.S. EPA ID Number: NJ[illegible]

Facility's Phone: 732-738-2000

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| 1. | Non-Hazardous MGP soil for Thermal Desorption Only | | | 25 | T | |
| 2. | | | | | | |
| 3. | | | | | | |
| 4. | | | | | | |

13. Special Handling Instructions and Additional Information

**14. GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shuck Agent for National Grid — Signature: [signature] — Month: 3 Day: 9 Year: 16

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Roger Mosen — Signature: [signature] — Month: 3 Day: 9 Year: 16

Transporter 2 Printed/Typed Name — Signature — Month Day Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month Day Year

AM2554 # 8949

| NON-HAZARDOUS WASTE MANIFEST | 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|---|
| | 2709_A53 | | 855-691-8146 | E 043650 |

**GENERATOR**

5. Generator's Name and Mailing Address
National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801
Generator's Phone: 516-545-5000

Generator's Site Address (if different than mailing address)
NG Bayshore FMGP_OU3 Old Orchard Drive
Brightwaters, NY 11718

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJR000225567

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
Bayshore Soil Management, LLC.
75 Crows Mill Rd
Keasbey, NJ 08832
Facility's Phone: 732-738-6800
U.S. EPA ID Number: NJD129061822

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| | Non-Hazardous MGP Soil for Thermal Disorption Only | | | 28 | T | |
| | 2. | | | | | |
| | 3. | | | | | |
| | 4. | | | | | |

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shack Agent for National Grid — Signature — Month: 3 — Day: 9 — Year: 10

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Heather Keenan — Signature — Month: 3 — Day: 9 — Year: 10

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month — Day — Year

**NON-HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|
| 2705 452 | | 631-231-5145 | E 043647 |

**GENERATOR**

5. Generator's Name and Mailing Address
Westchester Gold (WG)
175 East Old Country Road
Hicksville, NY 11801
516-645-2626
Generator's Phone:

Generator's Site Address (if different than mailing address)
WG Bayshore Range Golf One Officers Drive
Bayshore, NY 11706

6. Transporter 1 Company Name
J & D Trucking
U.S. EPA ID Number
NJR000022657

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
Bayshore Golf Management, LLC
75 Crows Mill Rd
Keasbey, NJ 08832
732-738-8000
Facility's Phone:
U.S. EPA ID Number
NJR000031922

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| 1. | Non-Hazardous Soil for Thermal Desorption Unit | | | 25 | T | |
| 2. | | | | | | |
| 3. | | | | | | |
| 4. | | | | | | |

13. Special Handling Instructions and Additional Information

**14. GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Sheehy Agent For National Grid
Signature:
Month: 3 Day: 9 Year: 10

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Roger Mason
Signature:
Month: 3 Day: 9 Year: 10

Transporter 2 Printed/Typed Name:
Signature:
Month: Day: Year:

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

17c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name:
Signature:
Month: Day: Year:

AM235M

| NON-HAZARDOUS WASTE MANIFEST | 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|---|
| | 2709_353 | | 516-991-6146 | E 043648 |

**GENERATOR**

5. Generator's Name and Mailing Address
National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801
Generator's Phone: 516-545-3666

Generator's Site Address (if different than mailing address)
NG Bayshore FMGP_OU3 Gas Cutback Site
Brightwaters, NY 11718

6. Transporter 1 Company Name: J & J Trucking — U.S. EPA ID Number: NJR000029587

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address: Bayshore Soil Management, LLC
79 Crows Mill Rd
Keasbey, NJ 08832
Facility's Phone: 732-738-6000
U.S. EPA ID Number: NJD236081532

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| | 1. Non-Hazardous MGP Soil for Thermal Disruption Only | | | 25 | T | |
| | 2. | | | | | |
| | 3. | | | | | |
| | 4. | | | | | |

13. Special Handling Instructions and Additional Information

**14. GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shortt Agent for National Grid — Signature: [signature] — Month: 3 — Day: 9 — Year: 10

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Honberto Ramos — Signature: [signature] — Month: 3 — Day: 9 — Year: 10

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month — Day — Year

# Acknowledgment of Treatment and Recycling

Bayshore Soil Management, LLC hereby acknowledges

***The Treatment***

Of 124.34 tons of

Coal Tar Contaminated Soil
(Received on 3/11/10)

From the **National Grid Bay Shore Former MGP, Brightwaters, NY**

**Bayshore Soil Management, LLC.**

**March 15, 2010**
AIR: Facility ID Number 18437; Permit PCP070003
CLASS B: Facility ID Number 132397: Permit CBG060002
Keasbey, New Jersey

Certificate Number 2709-463-031110

Creamer Environmental

Disposal Vehicle Inspection Checklist

National Grid Bayshore NY Job # 09-2096

Date 3-11-10

Location Tent

| Load # | Time | Truck # | Manifest / Bill of Lading # | License Plate # | Driver's Name | Insurance Card | | Tires OK | | Tailgate OK | | Tarp OK | | Deconed | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Yes | No | Yes | No | Yes | No | Yes | No | Yes | No |
| 1 | 730 | 876 | 043651 | AL772W | Roger | — | | — | | — | | — | | — | |
| 2 | 755 | 201 | 043652 | AL5587 | Hugo | — | | — | | — | | — | | — | |
| 3 | 730 | 876 | 043653 | AL772N | Robert | — | | — | | — | | — | | — | |
| 4 | 800 | 201 | 043654 | AL5587 | Hugo | — | | — | | — | | — | | — | |
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**NON-HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|
| 2709_463 | | 855-621-6145 | E 043654 |

**GENERATOR**

5. Generator's Name and Mailing Address
National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801
Generator's Phone: [illegible]

Generator's Site Address (if different than mailing address)
NG Bayonne FMGP GLO Gas Offices Drive
Bayonne, NY 11716

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJR000028057

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address: Keystone Soil Management, LLC.
75 Crows Mill Rd
Keasbey, NJ 08832
Facility's Phone: 732-738-9000
U.S. EPA ID Number: NJ1265001522

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| | Non-Hazardous MGP Soil for Thermal Disorption Only | | | 25 | T | |
| | 2. | | | | | |
| | 3. | | | | | |
| | 4. | | | | | |

13. Special Handling Instructions and Additional Information

**14. GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shortt Brent for National Grid — Signature — Month / Day / Year

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Hugo Rojas — Signature: Hugo Rojas — Month / Day / Year

Transporter 2 Printed/Typed Name — Signature — Month / Day / Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month / Day / Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in item 17a

Printed/Typed Name — Signature — Month / Day / Year

| NON-HAZARDOUS WASTE MANIFEST | 1. Generator ID Number 2709_457 | 2. Page 1 of | 3. Emergency Response Phone 855-621-5143 | 4. Waste Tracking Number E 043653 |
|---|---|---|---|---|

**GENERATOR**

5. Generator's Name and Mailing Address
National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801

Generator's Site Address (if different than mailing address)
NG Bayshore FMGP_OU5 Ore Grinder Area
Brightwaters, NY 11718

Generator's Phone: 516-545-3555

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJR000128957

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address: Keystone Soil Management, LLC.
79 Cedar Mill Rd
Keasbey, NJ 08832

U.S. EPA ID Number: NJD2980016552

Facility's Phone: 732-738-5000

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| | Non-Hazardous MGP Soil for Thermal Discription Only | | | 25 | T | |
| | 2. | | | | | |
| | 3. | | | | | |
| | 4. | | | | | |

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name | Signature | Month 3 | Day 11 | Year 10

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Tom Shell Agent for National Grid | Signature | Month 3 | Day 11 | Year 10

Transporter 2 Printed/Typed Name: Roger Nelson | Signature | Month | Day | Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) | Month | Day | Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name | Signature | Month | Day | Year

| NON-HAZARDOUS WASTE MANIFEST | 1. Generator ID Number 3709_403 | 2. Page 1 of 33 | 3. Emergency Response Phone 631-231-2145 | 4. Waste Tracking Number E 043651 |
|---|---|---|---|---|

**GENERATOR**

5. Generator's Name and Mailing Address: National Grid (JAS), 175 East Old Country Road, Hicksville, NY 11801
Generator's Phone: 516-545-2295

Generator's Site Address (if different than mailing address): NG Substation FLASP_033 One Orlando Drive, Edgewater, NY 11716

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJR000328687

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address: Cyntech Soil Management, LLC, 75 Cross Mill Rd, Kenvey, NJ 08832 — U.S. EPA ID Number: NJ1229071922
Facility's Phone: 732-726-6200

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| | Non-Hazardous MGP Soil for Thermal Desorption Only | | | 25 | T | |
| | 2. | | | | | |
| | 3. | | | | | |
| | 4. | | | | | |

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tim Shaw for National Grid — Signature — Month: 3 — Day: 11 — Year: 10

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Roger Mason — Signature — Month: 3 — Day: 11 — Year: 10

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month — Day — Year

| NON-HAZARDOUS WASTE MANIFEST | 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|---|
| | 2709 [illegible] | [illegible] | 800-69-9145 | E 043652 |

**GENERATOR**

5. Generator's Name and Mailing Address
National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801
Generator's Phone: 516-545-5576

Generator's Site Address (if different than mailing address)
NG Bayside FMGP OU5 Cnr. Clintons Drive
Flushing, NY 11355

6. Transporter 1 Company Name
J & D Trucking

U.S. EPA ID Number
NJR000128637

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address
Bayshore Soil Management, LLC.
70 Crows Mill Rd
Keasbey, NJ 08832

U.S. EPA ID Number
NJD225921620

Facility's Phone: 732-738-5000

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| | Non-Hazardous MGP Soil for Thermal Disoption Only | | | 25 | T | |
| | 2. | | | | | |
| | 3. | | | | | |
| | 4. | | | | | |

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shock Agent for National Grid
Signature:
Month: 2 Day: 11 Year: 16

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Hugo Reyes
Signature: Hugo Reyes
Month: 2 Day: 11 Year: 16

Transporter 2 Printed/Typed Name
Signature
Month Day Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

17c. Signature of Alternate Facility (or Generator)
Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name
Signature
Month Day Year

169-BLC-O 5 11977 (Rev. 8/06)

**GENERATOR'S/SHIPPER'S INITIAL COPY**

# Acknowledgment of Treatment and Recycling

Bayshore Soil Management, LLC hereby acknowledges

***The Treatment***

Of 127.94 tons of

Coal Tar Contaminated Soil
(Received on 3/12/10)

From the **National Grid Bay Shore Former MGP, Brightwaters, NY**

**Bayshore Soil Management, LLC.**

**March 15, 2010**
AIR: Facility ID Number 18437; Permit PCP070003
CLASS B: Facility ID Number 132397: Permit CBG060002
Keasbey, New Jersey

Certificate Number 2709-463-031210

**NON-HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|
| 2700_423 | | 631-391-5345 | E 043658 |

**GENERATOR**

5. Generator's Name and Mailing Address
National Grid (PSE)
175 East Old Country Road
Hicksville, NY 11801

Generator's Site Address (if different than mailing address)
175 Clayton Place (Old Carlisle Drive
Brightwaters, NY 11718

Generator's Phone: 631-755-6000

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJR000032987

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address: Clearstone Soil Management, LLC
75 Crows Mill Rd
Keasbey, NJ 08832

U.S. EPA ID Number: NJ1222001522

Facility's Phone: 732-738-6000

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| | Non-Hazardous MSP Soil for Thermal Disoption Only | | | 25 | T | |
| | 2. | | | | | |
| | 3. | | | | | |
| | 4. | | | | | |

13. Special Handling Instructions and Additional Information

**14. GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shook Agent for National Grid — Signature: [signature] — Month: 3 — Day: 17 — Year: 16

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: David Franco — Signature: [signature] — Month: 3 — Day: 17 — Year: 16

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month — Day — Year

| NON-HAZARDOUS WASTE MANIFEST | 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|---|
| | 2308_467 | | 866-591-5145 | E 043657 |

**GENERATOR**

5. Generator's Name and Mailing Address: National Grid (NG), 175 East Old Country Road, Hicksville, NY 11801

Generator's Site Address (if different than mailing address): NG Bayshore PMGP_Dig One Offshore Drive, Brightwaters, NY 11718

Generator's Phone: 516-545-2555

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJ[illegible]

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address: Bayshore Soil Management, LLC, 75 Crows Mill Rd, Keasbey, NJ 08832 — U.S. EPA ID Number: NJ[illegible]

Facility's Phone: 732-738-8000

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| | Non-Hazardous Mud Soil for Thermal Desorption Only | | | 25 | T | |
| | 2. | | | | | |
| | 3. | | | | | |
| | 4. | | | | | |

13. Special Handling Instructions and Additional Information

**14. GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: [illegible] Signature: [signature] Month: 3 Day: 17 Year: 16

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: [illegible] Signature: [signature] Month: 3 Day: 17 Year: 16

Transporter 2 Printed/Typed Name Signature Month Day Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name Signature Month Day Year

**NON-HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|
| 2709_463 | | 855-691-5145 | E 043655 |

**5. Generator's Name and Mailing Address**
National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801

Generator's Phone: 516-545-2585

**Generator's Site Address (if different than mailing address)**
NG Bayshore FMGP_OU3 One Orinoco Drive
Brightwaters, NY 11718

**6. Transporter 1 Company Name**
J & D Trucking

**U.S. EPA ID Number**
NJF000025957

**7. Transporter 2 Company Name**

**U.S. EPA ID Number**

**8. Designated Facility Name and Site Address**
Bayshore Soil Management, LLC.
75 Crows Mill Rd
Keasbey, NJ 08832

Facility's Phone: 732-738-6000

**U.S. EPA ID Number**
NJ1225001522

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| | Non-Hazardous MGP Soil for Thermal Disorption Only | | | 25 | T | |
| | 2. | | | | | |
| | 3. | | | | | |
| | 4. | | | | | |

**13. Special Handling Instructions and Additional Information**

**14. GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shortt Agent For National Grid — Signature: T Shortt — Month: 3 — Day: 12 — Year: 10

**15. International Shipments** ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

**16. Transporter Acknowledgment of Receipt of Materials**

Transporter 1 Printed/Typed Name: David Fiocco — Signature: — Month: 3 — Day: 12 — Year: 10

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

**17. Discrepancy**

**17a. Discrepancy Indication Space** ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

**17b. Alternate Facility (or Generator)** — U.S. EPA ID Number

Facility's Phone:

**17c. Signature of Alternate Facility (or Generator)** — Month — Day — Year

**18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a**

Printed/Typed Name — Signature — Month — Day — Year

GENERATOR — INT'L — TRANSPORTER — DESIGNATED FACILITY

| NON-HAZARDOUS WASTE MANIFEST | 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|---|
| | 3709_463 | | 855-691-8145 | E 043656 |

**5. Generator's Name and Mailing Address**
National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801
Generator's Phone: 516-545-2000

**Generator's Site Address (if different than mailing address)**
NS Bayshore FMGP_OU3 One Odnoco Drive
Brightwaters, NY 11718

**6. Transporter 1 Company Name**
J & D Trucking
U.S. EPA ID Number: NJR000029587

**7. Transporter 2 Company Name**
U.S. EPA ID Number:

**8. Designated Facility Name and Site Address**
Bayshore Soil Management, LLC.
75 Crows Mill Rd
Keasbey, NJ 08832
Facility's Phone: 732-738-6000
U.S. EPA ID Number: NJ1225001522

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| | Non-Hazardous MGP Soil for Thermal Disorption Only | | | 25 | T | |
| | 2. | | | | | |
| | 3. | | | | | |
| | 4. | | | | | |

**13. Special Handling Instructions and Additional Information**

**14. GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Short Agent For National Grid
Signature:
Month: 3 Day: 17 Year: 16

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Mike Calistra
Signature:
Month: 3 Day: 17 Year: 16

Transporter 2 Printed/Typed Name:
Signature:
Month: Day: Year:

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator)
U.S. EPA ID Number:
Facility's Phone:

17c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name:
Signature:
Month: Day: Year:

Creamer Environmental
Disposal Vehicle Inspection Checklist
National Grid Bayshore NY Job # 09-2096

Date 3-12-10
Location Tent

| Load # | Time | Truck # | Manifest / Bill of Lading # | License Plate # | Driver's Name | Insurance Card | | Tires OK | | Tailgate OK | | Tarp OK | | Deconed | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Yes | No | Yes | No | Yes | No | Yes | No | Yes | No |
| 1 | 730 | 869 | 043655 | AM193E | David | — | | — | | — | | — | | — | |
| 2 | 730 | 878 | 043656 | AL774N | Mike | — | | — | | — | | — | | — | |
| 3 | 1PM | 878 | 043657 | AL774N | Mike | — | | — | | — | | — | | — | |
| 4 | 115PM | 879 | 043658 | AM193E | Dave | — | | — | | — | | — | | — | |
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| 30 | | | | | | | | | | | | | | | |

# Acknowledgment of Treatment and Recycling

Bayshore Soil Management, LLC hereby acknowledges

***The Treatment***

Of 192.09 tons of

Coal Tar Contaminated Soil
(Received on 3/15/10)

From the **National Grid Bay Shore Former MGP, Brightwaters, NY**

**Bayshore Soil Management, LLC.**

**March 16, 2010**
AIR: Facility ID Number 18437; Permit PCP070003
CLASS B: Facility ID Number 132397: Permit CBG060002
Keasbey, New Jersey

Certificate Number 2709-463-031510

Creamer Environmental
Disposal Vehicle Inspection Checklist
National Grid Bayshore NY Job # 09-2096

Date 3-15-10
Location Tent

| Load # | Time | Truck # | Manifest / Bill of Lading # | License Plate # | Driver's Name | Insurance Card | | Tires OK | | Tailgate OK | | Tarp OK | | Deconed | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Yes | No | Yes | No | Yes | No | Yes | No | Yes | No |
| 1 | | 201 | 043659 | AV5582 | Hugo | — | | — | | — | | — | | — | |
| 2 | | 200 | 043660 | AV5397 | Louise | — | | — | | — | | — | | — | |
| 3 | | 891 | 043661 | AV569T | Alex | — | | — | | — | | — | | — | |
| 4 | | 201 | 043667 | AV5587 | Hugo | — | | — | | — | | — | | — | |
| 5 | | 200 | 043663 | AV5582 | Louis | — | | — | | — | | — | | — | |
| 6 | | 891 | 043664 | AV5397 | Alex | — | | — | | — | | — | | — | |
| 7 | | | | | | | | | | | | | | | |
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| 30 | | | | | | | | | | | | | | | |

**NON-HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|
| [illegible] | [illegible] | [illegible] | E 043659 |

**GENERATOR**

5. Generator's Name and Mailing Address: National Grid (NG) 175 East Old Country Road Hicksville, NY 11801

Generator's Site Address (if different than mailing address): NG Daystrom FMGP_OU5 Dre Cement Silos Edgewater, NY 11715

Generator's Phone: 516-545-2500

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJD[illegible]

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address: Clearwater Soil Management, LLC. 75 Crows Mill Rd Keasbey, NJ 08832 — U.S. EPA ID Number: NJD[illegible]

Facility's Phone: 732-738-0000

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| | 1. Non-Hazardous MGP Soil for Thermal Desorption Only | | | 25 | | |
| | 2. | | | | | |
| | 3. | | | | | |
| | 4. | | | | | |

13. Special Handling Instructions and Additional Information

**14. GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shortt Agent for National Grid — Signature: [signature] — Month: 3 — Day: 17 — Year: 16

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: [illegible] — Signature: [signature] — Month: 3 — Day: 17 — Year: 16

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month — Day — Year

| NON-HAZARDOUS WASTE MANIFEST | 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|---|
| | [illegible] | | [illegible] | E 043660 |

**GENERATOR**

5. Generator's Name and Mailing Address
Adams Oil (NJ)
175 East Old Country Road
Hicksville, NY 11801

Generator's Site Address (if different than mailing address)
MG Bayonne FKRP_DUS Gas Odessa Site
Bayonne, NJ 07002

Generator's Phone: [illegible]

6. Transporter 1 Company Name
J & D Trucking

U.S. EPA ID Number
[illegible]

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address
Clearview Soil Management, LLC.
75 Cross Hill Rd
Keasbey, NJ 08832

U.S. EPA ID Number
[illegible]

Facility's Phone: 732-738-6000

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| 1. | Non-Hazardous MGP Soil for Thermal Desorption Only | | | 25 | T | |
| 2. | | | | | | |
| 3. | | | | | | |
| 4. | | | | | | |

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shock Agent for Adams Oil | Signature: [signature] | Month: 3 | Day: 13 | Year: 16

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: [illegible] | Signature: [signature] | Month: 3 | Day: 13 | Year: 16

Transporter 2 Printed/Typed Name | Signature | Month | Day | Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) | U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) | Month | Day | Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name | Signature | Month | Day | Year

| NON-HAZARDOUS WASTE MANIFEST | 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|---|
| | [illegible] | | [illegible] | E 043661 |

**GENERATOR**

5. Generator's Name and Mailing Address
[illegible]
[illegible] East Old Country Road
Hicksville, NY 11801

Generator's Site Address (if different than mailing address)
[illegible]
[illegible], NY 11735

Generator's Phone: 516-349-2665

6. Transporter 1 Company Name: [illegible] Trucking — U.S. EPA ID Number: [illegible]

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address: Keasbey Soil Management, LLC
79 Cross Mill Rd
Keasbey, NJ 08832

U.S. EPA ID Number: NJD[illegible]

Facility's Phone: 732-735-5000

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| 1. | Non-Hazardous Soil for Thermal Desorption Only | | | 25 | | |
| 2. | | | | | | |
| 3. | | | | | | |
| 4. | | | | | | |

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shark Agent For Mr. Kirkland — Signature: [signature] — Month: 3 — Day: 13 — Year: 1[illegible]

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: [illegible] — Signature: [signature] — Month: 3 — Day: 13 — Year: 1[illegible]

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month — Day — Year

AL 55852

**NON-HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|
| 2709_462 | | 855-691-6145 | E 043662 |

**GENERATOR**

5. Generator's Name and Mailing Address
National Grid (NG)
175 East Old Country Road
Hicksville NY 11801
Generator's Phone: 516-545-2555

Generator's Site Address (if different than mailing address)
NG Bayshore FMGP_GUS Gas Offices Bldg
Englewaters, NY 11716

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJT000[illegible]

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
Bayshore Soil Management, LLC.
75 Crows Mill Rd
Keasbey, NJ 08832
Facility's Phone: 732-738-6000 — U.S. EPA ID Number: NJ1230015822

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| | Non-Hazardous MGP Soil for Thermal Desorption Only | | | 25 | T | |
| | 2. | | | | | |
| | 3. | | | | | |
| | 4. | | | | | |

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shenk Agent For National Grid — Signature: [signature] — Month: 2 — Day: 15 — Year: 10

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. — Port of entry/exit:
Transporter Signature (for exports only): — Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Hugo Royes — Signature: Hugo Royes — Month: 2 — Day: 15 — Year: 10

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month — Day — Year

**NON-HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|
| 2720_452 | | 855-483-6148 | NJ 043663 |

**GENERATOR**

5. Generator's Name and Mailing Address
Generator's Site Address (if different than mailing address)
Generator's Phone: 516-546-2665

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address: Clean Earth Soil Management, LLC. 75 Crows Mill Rd Keasbey, NJ 08832 — U.S. EPA ID Number
Facility's Phone: 732-738-6060

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| 1. | Non-Hazardous Solid Soil for Thermal Desorption Only | | | 25 | T | |
| 2. | | | | | | |
| 3. | | | | | | |
| 4. | | | | | | |

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Dan Short Asst Fac Maint Lead — Signature — Month: 3 — Day: 13 — Year: 16

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Luis Pichardo — Signature — Month: 3 — Day: 13 — Year: 16

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month — Day — Year

| NON-HAZARDOUS WASTE MANIFEST | 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|---|
| | 2703_465 | | 855-691-6345 | E 043664 |

**GENERATOR**

5. Generator's Name and Mailing Address
National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801
Generator's Phone: 516-545-2800

Generator's Site Address (if different than mailing address)
NG Bayonne FMGP_Old Gas Office Area
Bayonne, NJ 11716

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJR000022557

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
Keyshore Soil Management, LLC.
79 Crewe Mill Rd
Keasbey, NJ 08832
Facility's Phone: 732-738-5000
U.S. EPA ID Number: NJ1225301572

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| | Non-Hazardous MGP Soil for Thermal Desorption Only | | | 25 | T | |
| | 2. | | | | | |
| | 3. | | | | | |
| | 4. | | | | | |

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Sheets Agent for National Grid — Signature — Month: 3 — Day: 17 — Year: 16

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name — Signature — Month: 3 — Day: 17 — Year: 16

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month — Day — Year

# Acknowledgment of Treatment and Recycling

Bayshore Soil Management, LLC hereby acknowledges

***The Treatment***

Of 133.36 tons of

Coal Tar Contaminated Soil
(Received on 3/17/10)

From the **National Grid Bay Shore Former MGP, Brightwaters, NY**

**Bayshore Soil Management, LLC.**

**March 18, 2010**
AIR: Facility ID Number 18437; Permit PCP070003
CLASS B: Facility ID Number 132397: Permit CBG060002
Keasbey, New Jersey

Certificate Number 2709-463-031710

Creamer Environmental

Disposal Vehicle Inspection Checklist

National Grid Bayshore NY Job # 09-2096

Date 3-17-10

Location TENT

| Load # | Time | Truck # | Manifest / Bill of Lading # | License Plate # | Driver's Name | Insurance Card | | Tires OK | | Tailgate OK | | Tarp OK | | Deconed | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Yes | No | Yes | No | Yes | No | Yes | No | Yes | No |
| 1 | | 578 | 013665 | AL774N | MIKE | — | | — | | — | | — | | — | |
| 2 | | 569 | 013666 | AM193E | DAVE | — | | — | | — | | — | | — | |
| 3 | | 564 | 013667 | AM193E | DAVE | — | | — | | — | | — | | — | |
| 4 | | 578 | 013668 | AL774N | MIKE | — | — | — | | — | | — | | — | |
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| 30 | | | | | | | | | | | | | | | |

| NON-HAZARDOUS WASTE MANIFEST | 1. Generator ID Number 2709_ASC | 2. Page 1 of | 3. Emergency Response Phone 631-231-6145 | 4. Waste Tracking Number E 043667 |
|---|---|---|---|---|

5. Generator's Name and Mailing Address: National Grid NGS, 175 East Old Country Road, Hicksville, NY 11801
Generator's Phone: 516-545-2632

Generator's Site Address (if different than mailing address): NG Bayshore PWSP_CUB One Edison Dve, Brightwaters, NY 11718

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJT000522557

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address: Clean Soil Management, LLC, 75 Crows Mill Rd, Keasbey, NJ 08832
Facility's Phone: 732-738-6800 — U.S. EPA ID Number: NJD982271552

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| | 1. Non-Hazardous Soil for Treatment Disposal Only | | | 25 | T | |
| | 2. | | | | | |
| | 3. | | | | | |
| | 4. | | | | | |

13. Special Handling Instructions and Additional Information

**GENERATOR**

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tyler Shultz for National Grid — Signature: [signature] — Month: 3 — Day: 12 — Year: 16

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: [illegible] — Signature: [signature] — Month: 3 — Day: 12 — Year: 16

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month — Day — Year

| NON-HAZARDOUS WASTE MANIFEST | 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|---|
| | 3769_455 | 35 | 1-800-424-9346 | E 043668 |

**GENERATOR**

5. Generator's Name and Mailing Address
National Grid (WB)
175 East Old Country Road
Hicksville, NY 11801

Generator's Site Address (if different than mailing address)
NB Bayshore FRSEP_OU3 Dre Grnwtr Extr
Brightwaters, NY 11718

Generator's Phone: 345-3595

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJR000022697

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
Keystone Soil Management, LLC
75 Crows Mill Rd
Keasbey, NJ 08832

U.S. EPA ID Number: NJD982001923

Facility's Phone: 732-738-8400

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| | 1. Non-Hazardous USGP Soil for Thermal Desorption Only | | | 25 | T | |
| | 2. | | | | | |
| | 3. | | | | | |
| | 4. | | | | | |

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shutt for National Grid — Signature: [signature] — Month: 3 — Day: 17 — Year: 10

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: [illegible] — Signature: [signature] — Month: 3 — Day: 17 — Year: 10

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month — Day — Year

**NON-HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|
| 3709_467 | | 855-691-5145 | E 043665 |

**GENERATOR**

5. Generator's Name and Mailing Address: National Grid (DCS), 175 East Old Country Road, Hicksville, NY 11801
Generator's Phone: 516-545-2676

Generator's Site Address (if different than mailing address): MG Baystate PMGP, DUS One Cross Dock, Brightwaters, NY 11718

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJ0000225697

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address: Keystone Soil Management, LLC, 75 Cross Hill Rd, Keasbey, NJ 08832
Facility's Phone: 732-738-5000 — U.S. EPA ID Number: NJD980991552

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| 1. | Non-hazardous MGP soil for thermal desorption only | | | 25 | T | |
| 2. | | | | | | |
| 3. | | | | | | |
| 4. | | | | | | |

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shad for National Grid — Signature — Month: 3 — Day: 17 — Year: 16

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name — Signature — Month: 3 — Day: 17 — Year: 16

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month — Day — Year

**NON-HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|
| 2709_462 | | 855-691-3145 | E 043666 |

**5. Generator's Name and Mailing Address**
National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801

**Generator's Site Address (if different than mailing address)**
NG Bayshore FMGP_OU5 One Orisbay Drive
Brightwaters, NY 11718

Generator's Phone: 516-545-2705

**6. Transporter 1 Company Name**: J & D Trucking — **U.S. EPA ID Number**: NJFCCC2557

**7. Transporter 2 Company Name** — **U.S. EPA ID Number**

**8. Designated Facility Name and Site Address**
Bayshore Soil Management, LLC
73 Crows Mill Rd
Keasbey, NJ 08832

**U.S. EPA ID Number**: NJD986601622

Facility's Phone: 732-738-6000

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| | 1. Non-Hazardous MGP Soil for Thermal Disorption Only | | | 35 | T | |
| | 2. | | | | | |
| | 3. | | | | | |
| | 4. | | | | | |

**13. Special Handling Instructions and Additional Information**

**14. GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Stuart for Norman Ford — Signature: [signature] — Month: 12 — Day: 12 — Year: 16

**INT'L**

**15. International Shipments** ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

**16. Transporter Acknowledgment of Receipt of Materials**

Transporter 1 Printed/Typed Name: J&D Trucking — Signature: [signature] — Month: 12 — Day: 12 — Year: 16

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

**DESIGNATED FACILITY**

**17. Discrepancy**

**17a. Discrepancy Indication Space** ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

**17b. Alternate Facility (or Generator)** — **U.S. EPA ID Number**

Facility's Phone:

**17c. Signature of Alternate Facility (or Generator)** — Month — Day — Year

**18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a**

Printed/Typed Name — Signature — Month — Day — Year

# Acknowledgment of Treatment and Recycling

Bayshore Soil Management, LLC hereby acknowledges

***The Treatment***

Of 273.53 tons of

Coal Tar Contaminated Soil
(Received on 3/18/10)

From the **National Grid Bay Shore Former MGP, Brightwaters, NY**

**Bayshore Soil Management, LLC.**

**March 19, 2010**
AIR: Facility ID Number 18437; Permit PCP070003
CLASS B: Facility ID Number 132397: Permit CBG060002
Keasbey, New Jersey

Certificate Number 2709-463-031810

Creamer Environmental
Disposal Vehicle Inspection Checklist
National Grid Bayshore NY Job # 09-2096

Date 3-18-10
Location TENT

| Load # | Time | Truck # | Manifest / Bill of Lading # | License Plate # | Driver's Name | Insurance Card | | Tires OK | | Tailgate OK | | Tarp OK | | Deconed | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Yes | No | Yes | No | Yes | No | Yes | No | Yes | No |
| 1 | | 202 | 043706 | AL5577 | JUAN | — | | — | | — | | — | | — | |
| 2 | | 206 | 043707 | AL5592 | Louise | — | | — | | — | | — | | — | |
| 3 | | 81 | 043705 | AL6593 | Steve | — | | — | | — | | — | | — | |
| 4 | | 201 | 043670 | AL5552 | Hugo | — | | — | | — | | — | | — | |
| 5 | | 207 | 043671 | AL5577 | JUAN | — | | — | | — | | — | | — | |
| 6 | | 200 | 043672 | AL5592 | Louis | — | | — | | — | | — | | — | |
| 7 | | 81 | 043673 | AL6593 | Steve | — | | — | | — | | — | | — | |
| 8 | | 201 | 043674 | AL5582 | Hugo | — | | — | | — | | — | | — | |
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| 27 | | | | | | | | | | | | | | | |
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| 29 | | | | | | | | | | | | | | | |
| 30 | | | | | | | | | | | | | | | |

| NON-HAZARDOUS WASTE MANIFEST | 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|---|
| | 2708_469 | | 631-591-5145 | E 043670 |

**GENERATOR**

5. Generator's Name and Mailing Address
National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801
Generator's Phone: 516-545-2205

Generator's Site Address (if different than mailing address)
NG Bayshore FMGP_OU5 Ore Offices Site
Brightwaters, NY 11718

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJR000122957

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
Bayshore Soil Management, LLC
75 Crows Mill Rd
Keasbey, NJ 08832
Facility's Phone: 732-735-6000
U.S. EPA ID Number: NJD2980[illegible]592

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| | Non-Hazardous MGP Soil for Thermal Desorption Only | | | 25 | T | |
| | 2. | | | | | |
| | 3. | | | | | |
| | 4. | | | | | |

13. Special Handling Instructions and Additional Information

14. GE[illegible] described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Signature: Tom Mahoney — Month: 3 Day: 19 Year: 10

☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
[illegible]only): Date leaving U.S.:

[illegible]ent of Receipt of Materials

[illegible]yped Name: Hugo Rojas — Signature: Hugo Rojas — Month: 3 Day: 19 Year: 10

[illegible]2 Printed/Typed Name — Signature — Month — Day — Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month — Day — Year

AL5517E #202

**NON-HAZARDOUS WASTE MANIFEST**

1. Generator ID Number: 2765_485
2. Page 1 of
3. Emergency Response Phone: 855-691-9145
4. Waste Tracking Number: E 043671

**GENERATOR**

5. Generator's Name and Mailing Address: National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801
Generator's Phone: 516-545-2588

Generator's Site Address (if different than mailing address): NG Bayonne FMGP_QLD One Odgen Drive
Bayonne, NY 11716

6. Transporter 1 Company Name: J & D Trucking
U.S. EPA ID Number: NJ[illegible]

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address: Keystone Soil Management, LLC.
75 Crows Mill Rd
Keasbey, NJ 08832
U.S. EPA ID Number: NJ[illegible]
Facility's Phone: 732-738-6000

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| 1 | Non-Hazardous MGP Soil for Thermal Desorption Only | | | 25 | T | |
| 2. | | | | | | |
| 3. | | | | | | |
| 4. | | | | | | |

13. Special Handling Instructions and Additional Information

**14. GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tim Short
Signature:
Month: 3 Day: 19 Year: 16

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: JUAN C SANCHEZ
Signature:
Month: 3 Day: 19 Year: 16

Transporter 2 Printed/Typed Name
Signature
Month Day Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

17b. Alternate Facility (or Generator) Manifest Reference Number:
U.S. EPA ID Number
Facility's Phone:

17c. Signature of Alternate Facility (or Generator)
Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name
Signature
Month Day Year

**NON-HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|
| 2709_463 | | 631-691-5145 | E 043672 |

5. Generator's Name and Mailing Address
National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801
Generator's Phone: 516-545-3000

Generator's Site Address (if different than mailing address)
NG Bayshore FMGP_013 Site Ottawa Drive
Brightwaters, NY 11718

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJR000022957

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
Bayshore Soil Management, LLC.
75 Crows Mill Rd
Keasbey, NJ 08832
Facility's Phone: 732-738-6200
U.S. EPA ID Number: NJ1225301522

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| | Non-Hazardous MGP Soil for Thermal Disception Only | | | 35 | T | |
| | 2. | | | | | |
| | 3. | | | | | |
| | 4. | | | | | |

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Joseph Ryan for National Grid — Signature — Month: 3 — Day: 15 — Year: 16

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. — Port of entry/exit:
Transporter Signature (for exports only): — Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name — Signature — Month: 3 — Day: 15 — Year: 16

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month — Day — Year

| NON-HAZARDOUS WASTE MANIFEST | 1. Generator ID Number 2709_468 | 2. Page 1 of | 3. Emergency Response Phone 855-691-5145 | 4. Waste Tracking Number E 043673 |
|---|---|---|---|---|

5. Generator's Name and Mailing Address: National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801
Generator's Phone: 516-545-2555

Generator's Site Address (if different than mailing address): NG Bayshore FMGP_OU3 Site Orchard Drive
Brightwaters, NY 11718

6. Transporter 1 Company Name: T & D Trucking — U.S. EPA ID Number: NJA000229267

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address: Bayshore Soil Management, LLC.
75 Crows Mill Rd
Keasbey, NJ 08832
Facility's Phone: 732-738-6000 — U.S. EPA ID Number: NJD[illegible]

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| | Non-Hazardous Waste Soil for Thermal Desorption Only | | | 25 | T | |
| | 2. | | | | | |
| | 3. | | | | | |
| | 4. | | | | | |

13. Special Handling Instructions and Additional Information

14. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Timothy Hunter for National Grid — Signature — Month: 3 — Day: 15 — Year: 16

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Steve Tilcox — Signature — Month: 3 — Day: 15 — Year: 16

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month — Day — Year

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

**NON-HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|
| 2709_453 | | 855-891-5145 | E 043674 |

**5. Generator's Name and Mailing Address**
National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801

Generator's Phone: 516-545-2500

**Generator's Site Address (if different than mailing address)**
NG Bayshore FMGP_OU3 One Orinoco Drive
Brightwaters, NY 11718

**6. Transporter 1 Company Name**
J & D Trucking

U.S. EPA ID Number: NJR000229957

**7. Transporter 2 Company Name**

U.S. EPA ID Number:

**8. Designated Facility Name and Site Address**
Bayshore Soil Management, LLC
75 Crows Mill Rd
Keasbey, NJ 08832

Facility's Phone: 732-738-6000

U.S. EPA ID Number: NJD982981922

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| 1 | Non-Hazardous MGP Soil for Thermal Disorption Only | | | 25 | T | |
| 2. | | | | | | |
| 3. | | | | | | |
| 4. | | | | | | |

GENERATOR

**13. Special Handling Instructions and Additional Information**

**14. GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tim Shook Asst Tow National Grid | Signature | Month 3 | Day 15 | Year 10

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Hugo Rojas | Signature: Hugo Rojas | Month 3 | Day 15 | Year 10

Transporter 2 Printed/Typed Name | Signature | Month | Day | Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) | U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) | Month | Day | Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name | Signature | Month | Day | Year

TRANSPORTER #2

| NON-HAZARDOUS WASTE MANIFEST | 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|---|
| | 2709_463 | | 855-681-5145 | E 043706 |

**5. Generator's Name and Mailing Address**
National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801
Generator's Phone: 516-545-2555

**Generator's Site Address (if different than mailing address)**
NG Bayshore FMGP_OU2 One Orboon Drive
Brightwaters, NY 11718

**6. Transporter 1 Company Name**: J & D Trucking — **U.S. EPA ID Number**: NJR000229967

**7. Transporter 2 Company Name** — **U.S. EPA ID Number**

**8. Designated Facility Name and Site Address**
Bayshore Soil Management, LLC.
75 Crows Mill Rd
Keasbey, NJ 08832
Facility's Phone: 732-726-8000
**U.S. EPA ID Number**: NJ1229601522

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| | Non-Hazardous MGP Soil for Thermal Disorption Only | | | 25 | T | |
| | 2. | | | | | |
| | 3. | | | | | |
| | 4. | | | | | |

**13. Special Handling Instructions and Additional Information**

**14. GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Non Shook Agent For National Grid — Signature: [signature] — Month: 5 — Day: 19 — Year: 16

**15. International Shipments** ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

**16. Transporter Acknowledgment of Receipt of Materials**

Transporter 1 Printed/Typed Name: JUAN C. SANCHEZ. — Signature: [signature] — Month: 5 — Day: 19 — Year: 16

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

**17. Discrepancy**

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

**18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a**

Printed/Typed Name — Signature — Month — Day — Year

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

| NON-HAZARDOUS WASTE MANIFEST | 1. Generator ID Number 2708_463 | 2. Page 1 of | 3. Emergency Response Phone 866-831-5145 | 4. Waste Tracking Number E 043707 |
|---|---|---|---|---|

**GENERATOR**

5. Generator's Name and Mailing Address: National Grid (NG) 175 East Old Country Road Hicksville, NY 11801

Generator's Site Address (if different than mailing address): NG Bayshore PKADP_GUS One Odessa Drive Brightwaters, NY 11718

Generator's Phone: 516-545-2666

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJR000088697

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address: Bayshore Soil Management, LLC. 75 Crows Mill Rd Keasbey, NJ 08832 — U.S. EPA ID Number: NJD2250015322

Facility's Phone: 732-738-6000

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| | 1. Non-Hazardous Material for Thermal Desorption Only | | | 25 | T | |
| | 2. | | | | | |
| | 3. | | | | | |
| | 4. | | | | | |

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shook Agent for National Grid — Signature — Month: 3 — Day: 18 — Year: 10

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: [illegible] — Signature — Month: 3 — Day: 18 — Year: 10

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month — Day — Year

| NON-HAZARDOUS WASTE MANIFEST | 1. Generator ID Number 2709_451 | 2. Page 1 of | 3. Emergency Response Phone 855-627-6745 | 4. Waste Tracking Number E 043708 |
|---|---|---|---|---|

5. Generator's Name and Mailing Address
National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801
Generator's Phone: 516-545-5000

Generator's Site Address (if different than mailing address)
NG Bayshore FlexSP_SUS Site Cross Bay
Brightwaters, NY 11718

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJP000329567

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
Bayshore Soil Management, LLC
75 Cross Mill Rd
Keasbey, NJ 08832
USA — U.S. EPA ID Number: NJ1229001552

| ing Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|
| ious MGP Soil for Thermal Disruption Only | | | 28 | T | |
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Handling Instructions and Additional Information

**ENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

| ator's/Offeror's Printed/Typed Name | Signature | Month | Day | Year |
|---|---|---|---|---|
| Jim Short Agent for National Grid | | 5 | 15 | 16 |

International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

| Transporter 1 Printed/Typed Name | Signature | Month | Day | Year |
|---|---|---|---|---|
| Steve Tribol | | 5 | 15 | 16 |
| Transporter 2 Printed/Typed Name | Signature | Month | Day | Year |
| | | | | |

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

| Printed/Typed Name | Signature | Month | Day | Year |
|---|---|---|---|---|
| | | | | |

# Acknowledgment of Treatment and Recycling

Bayshore Soil Management, LLC hereby acknowledges

***The Treatment***

Of 254.96 tons of

Coal Tar Contaminated Soil
(Received on 3/19/10)

From the **National Grid Bay Shore Former MGP, Brightwaters, NY**

**Bayshore Soil Management, LLC.**

**March 22, 2010**
AIR: Facility ID Number 18437; Permit PCP070003
CLASS B: Facility ID Number 132397: Permit CBG060002
Keasbey, New Jersey

Certificate Number 2709-463-031910

Creamer Environmental

Disposal Vehicle Inspection Checklist

National Grid Bayshore NY Job # 09-2096

Date 3-19-10

Location TENT + FRAC

| Load # | Time | Truck # | Manifest / Bill of Lading # | License Plate # | Driver's Name | Insurance Card | | Tires OK | | Tailgate OK | | Tarp OK | | Deconed | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Yes | No | Yes | No | Yes | No | Yes | No | Yes | No |
| 1 | [illegible] | AM503 | 31910-01 | 74397-PA | CMILOS | — | | — | | — | | — | # | — | |
| 2 | | 207 | 043698 | AL5577 | JUAN | — | | — | | — | | — | | — | |
| 3 | | 200 | 043699 | AL5597 | Louise | — | | — | | — | | — | | — | |
| 4 | | 201 | 043700 | AL5587 | Hugo | — | | — | | — | | — | | — | |
| 5 | | 206 | 043701 | AM489A | ESLY | — | | — | | — | | — | | — | |
| 6 | | 207 | 043702 | AL5577 | JUAN | — | | — | | — | | — | | — | |
| 7 | | 206 | 043703 | AM489A | ESLY | — | | — | | — | | — | | — | |
| 8 | | 200 | 043704 | AL5597 | Louise | — | | — | | — | | — | | — | |
| 9 | | 201 | 043705 | AL5587 | Hugo | — | | — | | — | | — | | — | |
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AL5572 # 202

**NON-HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|
| 2709_463 | | 855-691-5145 | E 043698 |

**GENERATOR**

5. Generator's Name and Mailing Address
National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801
Generator's Phone: 516-545-3565

Generator's Site Address (if different than mailing address)
NG Bayshore FMGP_OLB 000 Orinoco Drive
Brightwaters, NY 11718

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJF000726557

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
Bayshore Soil Management, LLC
75 Crows Mill Rd
Keasbey, NJ 08832
Facility's Phone: 732-738-6000
U.S. EPA ID Number: NJ1226001622

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| | Non-Hazardous MGP Soil for Thermal Disorption Only | | | 26 | T | |
| | 2. | | | | | |
| | 3. | | | | | |
| | 4. | | | | | |

13. Special Handling Instructions and Additional Information

**INT'L**

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shank Agent For National Grid — Signature: T Shank — Month: 03 — Day: 19 — Year: 10

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: JUAN C. SANCHEZ — Signature: [signature] — Month: 03 — Day: 19 — Year: 10

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month — Day — Year

| NON-HAZARDOUS WASTE MANIFEST | 1. Generator ID Number 2709_455 | 2. Page 1 of | 3. Emergency Response Phone 855-831-6145 | 4. Waste Tracking Number E 043699 |
|---|---|---|---|---|

**GENERATOR**

5. Generator's Name and Mailing Address: National Grid (NG), 175 East Old Country Road, Hicksville, NY 11801
Generator's Phone: 516-545-2635

Generator's Site Address (if different than mailing address): NG Bayshore PMGP_2415 Orville Drive, Bohemia, NY 11716

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJR000128967

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address: Keystone Soil Management, LLC, 75 Crows Mill Rd, Keasbey, NJ 08832
Facility's Phone: 732-735-9300 — U.S. EPA ID Number: NJD986601502

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| | Non-Hazardous MGP Soil for Thermal Desorption Only | | | 25 | T | |
| | 2. | | | | | |
| | 3. | | | | | |
| | 4. | | | | | |

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shaw Agent for National Grid — Signature — Month: 3 — Day: 19 — Year: 10

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name — Signature — Month: 3 — Day: 19 — Year: 10

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month — Day — Year

**NON-HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|
| 2709_463 | | 855-691-5145 | E 043700 |

**5. Generator's Name and Mailing Address**
National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801
Generator's Phone: 845-2500

**Generator's Site Address (if different than mailing address)**
NG Bayshore FMGP_OU3 One Orinoco Drive
Brightwaters, NY 11718

**6. Transporter 1 Company Name**: J & D Trucking — **U.S. EPA ID Number**: NJR000329567

**7. Transporter 2 Company Name** — **U.S. EPA ID Number**

**8. Designated Facility Name and Site Address**
Bayshore Soil Management, LLC.
75 Crows Mill Rd
Keasbey, NJ 08832
Facility's Phone: 732-738-6000
**U.S. EPA ID Number**: NJD2500015322

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| | Non-Hazardous MGP Soil for Thermal Disorption Only | | | 25 | T | |
| | 2. | | | | | |
| | 3. | | | | | |
| | 4. | | | | | |

GENERATOR

**13. Special Handling Instructions and Additional Information**

**14. GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shevlin Agent for National Grid — Signature: [signature] — Month: 03 — Day: 19 — Year: 10

INT'L

**15. International Shipments** ☐ Import to U.S. ☐ Export from U.S. — Port of entry/exit:
Transporter Signature (for exports only): — Date leaving U.S.:

TRANSPORTER

**16. Transporter Acknowledgment of Receipt of Materials**

Transporter 1 Printed/Typed Name: Hugo Reyes — Signature: Hugo Reyes — Month: 03 — Day: 19 — Year: 10

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

DESIGNATED FACILITY

**17. Discrepancy**

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

**18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a**

Printed/Typed Name — Signature — Month — Day — Year

**NON-HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|
| 2709_463 | | 855-691-9145 | E 043701 |

**GENERATOR**

5. Generator's Name and Mailing Address: National Grid (NG), 175 East Old Country Road, Hicksville NY 11801
Generator's Phone: 516-545-2526

Generator's Site Address (if different than mailing address): NG Bayshore FinGP_OU3 Gas Cutback Sites, Brightwaters, NY 11718

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NYR000029587

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address: Bayshore Soil Management, LLC, 75 Crows Mill Rd, Keasbey, NJ 08832
Facility's Phone: 732-738-6000 — U.S. EPA ID Number: NJD982091523

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| | 1. Non-Hazardous Soil for Thermal Desorption Unit | | | 25 | T | |
| | 2. | | | | | |
| | 3. | | | | | |
| | 4. | | | | | |

13. Special Handling Instructions and Additional Information

**14. GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Short Non Hazardous Soil — Signature: [signature] — Month: 3 Day: 19 Year: 16

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Eric Lopez 396-JMH491 — Signature: [signature] — Month: 3 Day: 19 Year: 16

Transporter 2 Printed/Typed Name — Signature — Month: Day: Year:

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month: Day: Year:

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month: Day: Year:

AL5372 #202

| NON-HAZARDOUS WASTE MANIFEST | 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|---|
| | 2709_463 | | 631-681-5145 | E 043702 |

**GENERATOR**

5. Generator's Name and Mailing Address
National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801
Generator's Phone: 516-545-5500

Generator's Site Address (if different than mailing address)
NG Bayshore FMGP_OU3 One Orinoco Drive
Brightwaters, NY 11718

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJR000020487

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
Bayshore Soil Management, LLC.
75 Crows Mill Rd
Keasbey, NJ 08832
Facility's Phone: 732-738-6000
U.S. EPA ID Number: NJR225001522

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| | Non-Hazardous MGP Soil for Thermal Disorption Only | | | 25 | T | |
| | 2. | | | | | |
| | 3. | | | | | |
| | 4. | | | | | |

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Sheet Agent for National Grid — Signature: [signature] — Month: 3 — Day: 14 — Year: 16

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: JUAN C. SANCHEZ — Signature: [signature] — Month: 3 — Day: 14 — Year: 16

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in item 17a

Printed/Typed Name — Signature — Month — Day — Year

**NON-HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|
| 2709_453 | | 855-691-5145 | E 043703 |

**5. Generator's Name and Mailing Address**
National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801

Generator's Phone: 516-545-2555

**Generator's Site Address (if different than mailing address)**
NG Bayshore PMGP_OU3 One Orinoco Drive
Brightwaters, NY 11718

**6. Transporter 1 Company Name**
J & D Trucking

U.S. EPA ID Number: NJT000025967

**7. Transporter 2 Company Name**

U.S. EPA ID Number:

**8. Designated Facility Name and Site Address**
Bayshore Soil Management, LLC.
75 Crows Mill Rd
Keasbey, NJ 08832

U.S. EPA ID Number: NJ1225001522

Facility's Phone: 732-759-6000

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| | Non-Hazardous MGP Soil for Thermal Discription Only | | | 25 | T | |
| | 2. | | | | | |
| | 3. | | | | | |
| | 4. | | | | | |

**13. Special Handling Instructions and Additional Information**

**14. GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shank Agent for National Grid — Signature: [signature] — Month: 3 — Day: 19 — Year: 16

**15. International Shipments** ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

**16. Transporter Acknowledgment of Receipt of Materials**

Transporter 1 Printed/Typed Name: J&J Trucking 206-AM4878 — Signature: [signature] — Month: 3 — Day: 19 — Year: 16

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

**17. Discrepancy**

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

**18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a**

Printed/Typed Name — Signature — Month — Day — Year

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

| NON-HAZARDOUS WASTE MANIFEST | 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|---|
| | 2709_463 | | 866-691-0145 | E 043704 |

**GENERATOR**

5. Generator's Name and Mailing Address
National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801
Generator's Phone: 516-545-6355

Generator's Site Address (if different than mailing address)
NG Bayswater FMGP, CUP One Odessa Drive
Bayswater, NY 11716

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJR000028567

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
Bayshore Soil Management, LLC
75 Crows Mill Rd
Keasbey, NJ 08832
Facility's Phone: 732-738-8000
U.S. EPA ID Number: NJ1286001522

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| | Non-Hazardous MGP Soil for Thermal Disorption Only | | | 25 | T | |
| | 2. | | | | | |
| | 3. | | | | | |
| | 4. | | | | | |

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shock Agent For National Grid — Signature: [signature] — Month: 3 — Day: 19 — Year: 10

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Louis Palmieri — Signature: [signature] — Month: 3 — Day: 19 — Year: 10

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month — Day — Year

| NON-HAZARDOUS WASTE MANIFEST | 1. Generator ID Number 2709_463 | 2. Page 1 of | 3. Emergency Response Phone 855-891-5145 | 4. Waste Tracking Number E 043705 |
|---|---|---|---|---|

5. Generator's Name and Mailing Address: National Grid (NG), 175 East Old Country Road, Hicksville, NY 11801
Generator's Phone: 516-545-2586

Generator's Site Address (if different than mailing address): WB Bayshore FINGP_GUS One Offshore Drive, Brightwaters, NY 11718

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJP000029967

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address: Bayshore Soil Management, LLC, 75 Crows Mill Rd, Keasbey, NJ 08832 — U.S. EPA ID Number: NJ1229001322
Facility's Phone: 732-738-5300

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| | 1. Non-Hazardous MGP Soil for Thermal Desorption Only | | | 25 | T | |
| | 2. | | | | | |
| | 3. | | | | | |
| | 4. | | | | | |

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shack dom' For National Grid — Signature: [signature] — Month: 3 — Day: 19 — Year: 10

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. — Port of entry/exit:
Transporter Signature (for exports only): — Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Hugo Vargas — Signature: [signature] — Month: 3 — Day: 19 — Year: 10

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month — Day — Year

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

# Acknowledgment of Treatment and Recycling

Bayshore Soil Management, LLC hereby acknowledges

***The Treatment***

Of 247.92 tons of

Coal Tar Contaminated Soil
(Received on 3/23/10)

From the **National Grid Bay Shore Former MGP, Brightwaters, NY**

**Bayshore Soil Management, LLC.**

**March 24, 2010**
AIR: Facility ID Number 18437; Permit PCP070003
CLASS B: Facility ID Number 132397: Permit CBG060002
Keasbey, New Jersey

Certificate Number 2709-463-032310

Creamer Environmental
Disposal Vehicle Inspection Checklist
National Grid Bayshore NY Job # 09-2096

Date 3-23-10
Location TENT

| Load # | Time | Truck # | Manifest / Bill of Lading # | License Plate # | Driver's Name | Insurance Card | | Tires OK | | Tailgate OK | | Tarp OK | | Deconed | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Yes | No | Yes | No | Yes | No | Yes | No | Yes | No |
| 1 | | 201 | 043669 | AL5587 | Hugo | — | | — | | — | | — | | — | |
| 2 | | 207 | 043691 | AL5577 | JUAN | — | * | — | | — | | — | | — | |
| 3 | | 200 | 043697 | AL5597 | Luis | — | | — | | — | | — | | — | |
| 4 | | 81 | 043693 | AL659B | Steve | — | | — | | — | | — | | — | |
| 5 | | 207 | 043694 | AL5577 | JUAN | — | | — | | — | | — | | — | |
| 6 | | 81 | 043695 | AL659B | Steve | — | | — | | — | | — | | — | |
| 7 | | 825 | 043696 | AM234M | Luis | — | | — | | — | | — | | — | |
| 8 | | 201 | 043697 | AL5587 | Hugo | — | | — | | — | | — | | — | |
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| 30 | | | | | | | | | | | | | | | |

| NON-HAZARDOUS WASTE MANIFEST | 1. Generator ID Number 2709_453 | 2. Page 1 of | 3. Emergency Response Phone 855-691-5145 | 4. Waste Tracking Number E 043669 |
|---|---|---|---|---|

5. Generator's Name and Mailing Address: National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801

Generator's Site Address (if different than mailing address): NG Bayshore FMGP_OUS One Clinton Drive
Brightwaters, NY 11718

Generator's Phone: 516-545-2668

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJR000128967

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address: Bayshore Soil Management, LLC.
75 Crows Mill Rd
Keasbey, NJ 08832

U.S. EPA ID Number: NJD980881582

Facility's Phone: 732-738-6000

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| | 1. Non-Hazardous MGP Soil for Thermal Desorption Only | | | 25 | T | |
| | 2. | | | | | |
| | 3. | | | | | |
| | 4. | | | | | |

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shirt — Signature — Month: 3 Day: 23 Year: 16

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Hugo Reyes — Signature: Hugo Reyes — Month: 3 Day: 23 Year: 16

Transporter 2 Printed/Typed Name — Signature — Month Day Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month Day Year

AL557Z #202

**NON-HAZARDOUS WASTE MANIFEST**

1. Generator ID Number: 2709_463
2. Page 1 of
3. Emergency Response Phone: 855-591-5145
4. Waste Tracking Number: E 043691

GENERATOR

5. Generator's Name and Mailing Address: National Grid (NG), 175 East Old Country Road, Hicksville, NY 11801
Generator's Phone: 516-545-2556
Generator's Site Address (if different than mailing address): NG Bayside FMGP_OU5 One Grimes Drive, Brightwaters, NY 11718

6. Transporter 1 Company Name: J & D Trucking
U.S. EPA ID Number:

7. Transporter 2 Company Name
U.S. EPA ID Number: NJR000028027

8. Designated Facility Name and Site Address: Bayshore Soil Management, LLC, 75 Crows Mill Rd, Keasbey, NJ 08832
U.S. EPA ID Number:
Facility's Phone: 732-735-5300
U.S. EPA ID Number: NJD122681532

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| 1. | Non-Hazardous MGP Soil for Thermal Desorption Only | | | 25 | T | |
| 2. | | | | | | |
| 3. | | | | | | |
| 4. | | | | | | |

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.
Generator's/Offeror's Printed/Typed Name: Lori Shook Agent For National Grid
Signature:
Month 3 Day 23 Year 10

International Shipments: ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Date leaving U.S.:

Transporter Signature (for exports only):

Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: JUAN C SANCHEZ.
Signature:
Month 3 Day 23 Year 10

Transporter 2 Printed/Typed Name
Signature
Month Day Year

Discrepancy
Discrepancy Indication Space: ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Alternate Facility (or Generator)
Manifest Reference Number:
U.S. EPA ID Number
Phone:

Signature of Alternate Facility (or Generator)
Month Day Year

Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a
Printed Name
Signature
Month Day Year

EQF 11977 (Rev. 8/06)

| NON-HAZARDOUS WASTE MANIFEST | 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|---|
| | 2708_452 | | 855-[illegible]-6145 | E 043692 |

5. Generator's Name and Mailing Address
National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801
Generator's Phone: 516-545-2555

Generator's Site Address (if different than mailing address)
NG Bayshore FMGP_OU5 One Clinton Drive
Brightwaters, NY 11718

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJR000025667

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
Bayshore Soil Management, LLC.
75 Crows Mill Rd
Keasbey, NJ 08832
Facility's Phone: 732-738-6000
U.S. EPA ID Number: NJ1229001522

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| | Non-Hazardous MGP Soil for Thermal Desorption Only | | | 25 | T | |
| | 2. | | | | | |
| | 3. | | | | | |
| | 4. | | | | | |

13. Special Handling Instructions and Additional Information

GENERATOR

14. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.
Generator's/Offeror's Printed/Typed Name: Tom Shock Agent For National Grid — Signature: T Shock — Month 3 Day 23 Year 16

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Louis Palumbo — Signature — Month 3 Day 23 Year 16
Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

17. Discrepancy
17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
17b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:
17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a
Printed/Typed Name — Signature — Month Day Year

**NON-HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|
| 2708_453 | | 855-691-5145 | E 043693 |

**5. Generator's Name and Mailing Address**
National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801

Generator's Phone: 516-545-2686

**Generator's Site Address (if different than mailing address)**
NG Bayshore FMGP_OU3 One Ontario Drive
Brightwaters, NY 11718

**6. Transporter 1 Company Name** J & D Trucking — **U.S. EPA ID Number** NJR000228857

**7. Transporter 2 Company Name** — **U.S. EPA ID Number**

**8. Designated Facility Name and Site Address**
Bayshore Soil Management, LLC.
75 Crows Mill Rd
Keasbey, NJ 08832

**U.S. EPA ID Number** NJD980641293

Facility's Phone: 732-738-6000

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| | Non-Hazardous MGP Soil for Thermal Disorption Only | | | 25 | T | |
| | 2. | | | | | |
| | 3. | | | | | |
| | 4. | | | | | |

**13. Special Handling Instructions and Additional Information**

**14. GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Short Agent for National Grid — Signature: [signature] — Month: 3 — Day: 22 — Year: 10

**15. International Shipments** ☐ Import to U.S. ☐ Export from U.S. — Port of entry/exit:

Transporter Signature (for exports only): — Date leaving U.S.:

**16. Transporter Acknowledgment of Receipt of Materials**

Transporter 1 Printed/Typed Name: Steve Tuozzi — Signature: [signature] — Month: 3 — Day: 22 — Year: 10

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

**17. Discrepancy**

**17a. Discrepancy Indication Space** ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

**17b. Alternate Facility (or Generator)** — **U.S. EPA ID Number**

Facility's Phone:

**17c. Signature of Alternate Facility (or Generator)** — Month — Day — Year

**18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a**

Printed/Typed Name — Signature — Month — Day — Year

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

AL5572 #202

**NON-HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|
| 2702_463 | | 855-891-5145 | E 043694 |

**GENERATOR**

5. Generator's Name and Mailing Address
National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801
Generator's Phone: 516-545-2266

Generator's Site Address (if different than mailing address)
NG Bayshore FMGP_OUS One Orinoco Drive
Brightwaters, NY 11718

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJR000029567

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
Bayshore Soil Management, LLC.
75 Crows Mill Rd
Keasbey, NJ 08832
Facility's Phone: 732-738-6000
U.S. EPA ID Number: NJ1285001522

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| | Non-Hazardous MCP Soil for Thermal Disruption Only | | | 25 | T | |
| | 2. | | | | | |
| | 3. | | | | | |
| | 4. | | | | | |

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shook Agent for National Grid — Signature — Month: 3 — Day: 23 — Year: 16

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: JUAN C. SANCHEZ — Signature — Month: 3 — Day: 23 — Year: 16

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month — Day — Year

| NON-HAZARDOUS WASTE MANIFEST | 1. Generator ID Number 2709_455 | 2. Page 1 of | 3. Emergency Response Phone 855-691-6146 | 4. Waste Tracking Number E 043695 |
|---|---|---|---|---|

5. Generator's Name and Mailing Address: National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801

Generator's Site Address (if different than mailing address): NG Bayshore PMGP_OU3 One Edmore Drive
Brightwaters, NY 11718

Generator's Phone: 516-545-2587

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJR000029967

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address: Bayshore Soil Management, LLC.
75 Crows Mill Rd
Keasbey, NJ 08832

Facility's Phone: 732-738-6000 — U.S. EPA ID Number: NJ1265011322

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| | 1. NON-HAZARDOUS Solid Soil for Thermal Desorption Only | | | 25 | T | |
| | 2. | | | | | |
| | 3. | | | | | |
| | 4. | | | | | |

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: John Shaw Agent for National Grid — Signature — Month: 3 — Day: 21 — Year: 16

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Steve Trivedi — Signature — Month: 3 — Day: 22 — Year: 16

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month — Day — Year

| NON-HAZARDOUS WASTE MANIFEST | 1. Generator ID Number 2709_453 | 2. Page 1 of | 3. Emergency Response Phone 855-691-5145 | 4. Waste Tracking Number E 043696 |
|---|---|---|---|---|

**GENERATOR**

5. Generator's Name and Mailing Address
National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801

Generator's Site Address (if different than mailing address)
NG Bayswater FMGP_OU5 One Crimson Drive
Edgewater, NY 11716

Generator's Phone: 516-545-2365

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJR000129567

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
Bayshore Soil Management, LLC
75 Crows Mill Rd
Keasbey, NJ 08832

U.S. EPA ID Number: NJ1229001522

Facility's Phone: 732-738-9000

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| | Non-Hazardous MGP Soil for Thermal Disorption Only | | | 25 | T | |
| | 2. | | | | | |
| | 3. | | | | | |
| | 4. | | | | | |

13. Special Handling Instructions and Additional Information

**14. GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shook Agent For National Grid — Signature: [signature] — Month: 3 — Day: 23 — Year: 10

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

| Printed/Typed Name | Signature | Month | Day | Year |
|---|---|---|---|---|
| Tom Pinkerton | [signature] | 3 | 23 | 10 |
| Transporter 2 Printed/Typed Name | Signature | Month | Day | Year |
| | | | | |

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

| 17c. Signature of Alternate Facility (or Generator) | Month | Day | Year |
|---|---|---|---|
| | | | |

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

| Printed/Typed Name | Signature | Month | Day | Year |
|---|---|---|---|---|
| | | | | |

| NON-HAZARDOUS WASTE MANIFEST | 1. Generator ID Number 2709_453 | 2. Page 1 of | 3. Emergency Response Phone 855-691-5145 | 4. Waste Tracking Number E 043697 |
|---|---|---|---|---|

**GENERATOR**

5. Generator's Name and Mailing Address: National Grid (NG), 175 East Old Country Road, Hicksville, NY 11801
Generator's Phone: 516-945-3585

Generator's Site Address (if different than mailing address): NG Bayswater FMGP_OUS One Crinoco Drive, Brightwaters, NY 11718

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJR000029957

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address: Keyshore Soil Management, LLC, 75 Crows Mill Rd, Keasbey, NJ 08832
Facility's Phone: 732-738-9000 — U.S. EPA ID Number: NJ1229011522

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| | Non-Hazardous MGP Soil for Thermal Desorption Only | | | 25 | T | |
| | 2. | | | | | |
| | 3. | | | | | |
| | 4. | | | | | |

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Thomas Shirk Agent For National Grid — Signature: [signature] — Month: 3 — Day: 23 — Year: 16

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Hugo Reyes — Signature: Hugo Reyes — Month: 3 — Day: 23 — Year: 16

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month — Day — Year

# Acknowledgment of Treatment and Recycling

Bayshore Soil Management, LLC hereby acknowledges

***The Treatment***

Of 180.17 tons of

Coal Tar Contaminated Soil
(Received on 3/24/10)

From the **National Grid Bay Shore Former MGP, Brightwaters, NY**

**Bayshore Soil Management, LLC.**

**March 25, 2010**
AIR: Facility ID Number 18437; Permit PCP070003
CLASS B: Facility ID Number 132397: Permit CBG060002
Keasbey, New Jersey

Certificate Number 2709-463-032410

Creamer Environmental
Disposal Vehicle Inspection Checklist
National Grid Bayshore NY Job # 09-2096

Date 3-24-10
Location Tent

| Load # | Time | Truck # | Manifest / Bill of Lading # | License Plate # | Driver's Name | Insurance Card | | Tires OK | | Tailgate OK | | Tarp OK | | Deconed | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Yes | No | Yes | No | Yes | No | Yes | No | Yes | No |
| 1 | | 893 | 043685 | AL864U | Hugo | — | | — | | — | | — | | — | |
| 2 | | 876 | 043686 | AL777N | Roger | — | | — | | — | | — | | — | |
| 3 | | 81 | 043687 | AL6593 | Steve | — | | — | | — | | — | | — | |
| 4 | | 876 | 043688 | AL777N | Reuben | — | | — | | — | | — | | — | |
| 5 | | 893 | 043689 | AL864U | Hugo | — | | — | | — | | — | | — | |
| 6 | | 81 | 043690 | AL6593 | Steve | — | | — | | — | | — | | — | |
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**NON-HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|
| 2709_463 | | 855-691-6145 | E 043685 |

**GENERATOR**

5. Generator's Name and Mailing Address: National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801

Generator's Phone: 516-545-2666

Generator's Site Address (if different than mailing address)
NG Bayshore PMGP_GU3 Oak Corrosion Dock
Brightwaters, NY 11718

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJR000022567

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address: Keystone Soil Management, LLC.
75 Cross Mill Rd
Keasbey, NJ 08832

Facility's Phone: 732-738-5030

U.S. EPA ID Number: NJD982591532

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| | 1. Non-Hazardous MGP Soil for Thermal Desorption Only | | | 25 | T | |
| | 2. | | | | | |
| | 3. | | | | | |
| | 4. | | | | | |

13. Special Handling Instructions and Additional Information

**14. GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shock Agent For National Grid — Signature: T Shock — Month: 2 — Day: 14 — Year: 16

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name — Signature — Month: 2 — Day: 14 — Year: 16

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month — Day — Year

**NON-HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|
| 2708_463 | | 631-391-5145 | E 043686 |

**GENERATOR**

5. Generator's Name and Mailing Address
National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801
Generator's Phone: 718-345-2060

Generator's Site Address (if different than mailing address)
NG Bayshore FMGP_OU3 One Odell Plaza
Yonkers, NY 10701

6. Transporter 1 Company Name
J & D Trucking
U.S. EPA ID Number
NJR000155937

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
Bayshore Soil Management, LLC
75 Crows Mill Rd
Keasbey, NJ 08832
732-738-6200
Facility's Phone:
U.S. EPA ID Number
NJ2082201522

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| | Non-Hazardous MGP Soil for Thermal Disorption Only | | | 25 | T | |
| | 2. | | | | | |
| | 3. | | | | | |
| | 4. | | | | | |

13. Special Handling Instructions and Additional Information

**14. GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shortt Agent For National Grid
Signature:
Month: 3 Day: 24 Year: 16

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Roger Mesen
Signature:
Month: 3 Day: 24 Year: 16

Transporter 2 Printed/Typed Name
Signature
Month Day Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator)
U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator)
Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name
Signature
Month Day Year

**NON-HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|
| 2708_45* | | 585-691-6145 | E 043687 |

**5. Generator's Name and Mailing Address**
National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801

Generator's Phone: 516-545-2686

**Generator's Site Address (if different than mailing address)**
NG Bayonne FMGP_OLD Gas Odorize Bldg
Bayonne, NY 11715

**6. Transporter 1 Company Name** J & D Trucking — **U.S. EPA ID Number** NJRQ0528987

**7. Transporter 2 Company Name** — **U.S. EPA ID Number**

**8. Designated Facility Name and Site Address** Bayshore Soil Management, LLC.
75 Crows Mill Rd
Keasbey, NJ 08832

Facility's Phone: 732-738-8990

**U.S. EPA ID Number** NJD982601522

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| 1. | Non-Hazardous Solid Soil for Thermal Desorption Only | | | 25 | T | |
| 2. | | | | | | |
| 3. | | | | | | |
| 4. | | | | | | |

**13. Special Handling Instructions and Additional Information**

**14. GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shook Agent for National Grid — Signature — Month: 5 — Day: 31 — Year:

**15. International Shipments** ☐ Import to U.S. ☐ Export from U.S. — Port of entry/exit:

Transporter Signature (for exports only): — Date leaving U.S.:

**16. Transporter Acknowledgment of Receipt of Materials**

Transporter 1 Printed/Typed Name: Steve Tolcott — Signature — Month — Day — Year

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

**17. Discrepancy**

**17a. Discrepancy Indication Space** ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

**17b. Alternate Facility (or Generator)** — **U.S. EPA ID Number**

Facility's Phone:

**17c. Signature of Alternate Facility (or Generator)** — Month — Day — Year

**18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a**

Printed/Typed Name — Signature — Month — Day — Year

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

| NON-HAZARDOUS WASTE MANIFEST | 1. Generator ID Number 2709_458 | 2. Page 1 of | 3. Emergency Response Phone 855-691-3145 | 4. Waste Tracking Number E 043688 |
|---|---|---|---|---|

5. Generator's Name and Mailing Address
National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801

Generator's Site Address (if different than mailing address)
NG Bayshore FMGP_SLC Gas Holder Site
Brightwaters, NY 11718

Generator's Phone: 516-545-2555

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJR000123957

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
Bayshore Soil Management, LLC.
75 Lowes Mill Rd
Keasbey, NJ 08832

U.S. EPA ID Number: NJ1234001822

Facility's Phone: 732-738-6000

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| | Non-Hazardous MGP Soil for Thermal Disorption Only | | | 25 | T | |
| | 2. | | | | | |
| | 3. | | | | | |
| | 4. | | | | | |

13. Special Handling Instructions and Additional Information

**14. GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shick Agent For National Grid — Signature — Month 3 Day 31 Year 16

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Roger Alesen — Signature — Month 3 Day 31 Year 16

Transporter 2 Printed/Typed Name — Signature — Month Day Year

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month Day Year

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

| NON-HAZARDOUS WASTE MANIFEST | 1. Generator ID Number 3708_463 | 2. Page 1 of | 3. Emergency Response Phone 877-891-8345 | 4. Waste Tracking Number E 043689 |
|---|---|---|---|---|

5. Generator's Name and Mailing Address: National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801

Generator's Site Address (if different than mailing address): NG Bayshore FMSP_GUS One Clinton Drive
Brightwaters, NY 11718

Generator's Phone: 516-545-2266

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJT000228257

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address: Bayshore Soil Management, LLC.
75 Crows Mill Rd
Keasbey, NJ 08832

U.S. EPA ID Number: NJD982087332

Facility's Phone: 732-738-6000

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| 1. | Non-hazardous MGP soils for Thermal Desorption only | | | 25 | T | |
| 2. | | | | | | |
| 3. | | | | | | |
| 4. | | | | | | |

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shook Signature: T Shook Month: 3 Day: 31 Year: 10

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: [illegible] Signature: [illegible] Month: 3 Day: 31 Year: 10

Transporter 2 Printed/Typed Name Signature Month Day Year

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name Signature Month Day Year

| NON-HAZARDOUS WASTE MANIFEST | 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|---|
| | 2709_453 | | 855-691-6145 | E 043690 |

5. Generator's Name and Mailing Address
National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801
Generator's Phone: 516-545-2255

Generator's Site Address (if different than mailing address)
NG Bayshore FMGP_OU3 One Orinoco Drive
Brightwaters, NY 11718

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJR000029967

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
Bayshore Soil Management, LLC.
75 Crows Mill Rd
Keasbey, NJ 08832
Facility's Phone: 732-738-6000

U.S. EPA ID Number: NJ1226001522

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| | Non-Hazardous MGP Soil for Thermal Disorption Only | | | 25 | T | |
| | 2. | | | | | |
| | 3. | | | | | |
| | 4. | | | | | |

13. Special Handling Instructions and Additional Information

**14. GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shock Mgr for National Grid — Signature — Month: 3 — Day: 31 — Year: 16

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Steve Tripodi — Signature — Month: 3 — Day: 31 — Year: 16

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month — Day — Year

# Acknowledgment of Treatment and Recycling

Bayshore Soil Management, LLC hereby acknowledges

***The Treatment***

Of 310.13 tons of

Coal Tar Contaminated Soil
(Received on 3/25/10)

From the **National Grid Bay Shore Former MGP, Brightwaters, NY**

**Bayshore Soil Management, LLC.**

**March 26, 2010**
AIR: Facility ID Number 18437; Permit PCP070003
CLASS B: Facility ID Number 132397: Permit CBG060002
Keasbey, New Jersey

Certificate Number 2709-463-032510

Creamer Environmental
Disposal Vehicle Inspection Checklist
National Grid Bayshore NY Job # 09-2096

Date 3-25-10
Location TENT & FRAC TANK

| Load # | Time | Truck # | Manifest / Bill of Lading # | License Plate # | Driver's Name | Insurance Card | | Tires OK | | Tailgate OK | | Tarp OK | | Deconed | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Yes | No | Yes | No | Yes | No | Yes | No | Yes | No |
| 1 | WATER | T-104 | 3251 0-01 | 36710 PA | JUAN | — | | — | | — | | — | | — | |
| 2 | | 876 | 043675 | AL 778N | ROGER | — | | — | | — | | — | | — | |
| 3 | | 894 | 043676 | AL8634 | ERIC | — | | — | | — | | — | | — | |
| 4 | | 879 | 043677 | AL 777N | RODOLFO | — | | — | | — | | — | | — | |
| 5 | | 201 | 043678 | AL 5587 | HUGO | — | | — | | — | | — | | — | |
| 6 | | 891 | 043679 | AL 569T | ALEX | — | | — | | — | | — | | — | |
| 7 | | 876 | 043680 | AL 778N | ROGER | — | | — | | — | | — | | — | |
| 8 | | 894 | 043681 | AL8634 | ERICK | — | | — | | — | | — | | — | |
| 9 | | 879 | 043682 | AL 777N | RODOLFO | — | | — | | — | | — | | — | |
| 10 | WATER | WM501 | 32510-02 | 69588-PA | JUAN | — | | — | | — | | — | | — | |
| 11 | | 201 | 043683 | AL5587 | HUGO | — | | — | | — | | — | | — | |
| 12 | | 891 | 043684 | AL569T | ALEX | — | | — | | — | | — | | — | |
| 13 | | | | | | | | | | | | | | | |
| 14 | | | | | | | | | | | | | | | |
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| 30 | | | | | | | | | | | | | | | |

509.94

| NON-HAZARDOUS WASTE MANIFEST | 1. Generator ID Number 2709_453 | 2. Page 1 of | 3. Emergency Response Phone 855-621-5145 | 4. Waste Tracking Number E 043675 |
|---|---|---|---|---|

5. Generator's Name and Mailing Address
National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801
516-545-2585
Generator's Phone:

Generator's Site Address (if different than mailing address)
185 Sagamore Pkwy_Olin One Odessa Site
Brightwaters, NY 11718

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJR000168807

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
Keyshore Soil Management, LLC.
75 Crows Mill Rd
Keasbey, NJ 08832
732-738-6000
Facility's Phone:
U.S. EPA ID Number: NJD982001522

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| 1. | Non-Hazardous MGP Soil for Thermal Desorption Only | | | 20 | T | |
| 2. | | | | | | |
| 3. | | | | | | |
| 4. | | | | | | |

13. Special Handling Instructions and Additional Information

14. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shoit Agent For National Grid — Signature: [signature] — Month: 3 — Day: 25 — Year: 16

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Roger Megan — Signature: [signature] — Month: 3 — Day: 25 — Year: 16

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month — Day — Year

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

334 A15(21)

| NON-HAZARDOUS WASTE MANIFEST | 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|---|
| | 2700_483 | | 855-881-9140 | E 043676 |

**5. Generator's Name and Mailing Address**
National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801
Generator's Phone: 516-545-2535

**Generator's Site Address (if different than mailing address)**
NG Keyspan FMGP_GUS One Edwards Drive
Edgewater, NY 11715

**6. Transporter 1 Company Name**
J & D Trucking

**U.S. EPA ID Number**
NJT000232557

**7. Transporter 2 Company Name**

**U.S. EPA ID Number**

**8. Designated Facility Name and Site Address**
Keystone Soil Management, LLC.
75 Crows Mill Rd
Keasbey, NJ 08832
Facility's Phone: 732-738-6500

**U.S. EPA ID Number**
NJ1228001522

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| | Non-Hazardous MGP Soil for Thermal Disorption Only | | | 25 | T | |
| | 2. | | | | | |
| | 3. | | | | | |
| | 4. | | | | | |

**13. Special Handling Instructions and Additional Information**

**14. GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shock Agent For National Grid | Signature | Month: 3 | Day: 25 | Year: 16

**15. International Shipments** ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

**16. Transporter Acknowledgment of Receipt of Materials**

Transporter 1 Printed/Typed Name | Signature | Month: 3 | Day: 25 | Year: 16

Transporter 2 Printed/Typed Name | Signature | Month | Day | Year

**17. Discrepancy**

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) | U.S. EPA ID Number
Facility's Phone:

17c. Signature of Alternate Facility (or Generator) | Month | Day | Year

**18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a**

Printed/Typed Name | Signature | Month | Day | Year

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

| NON-HAZARDOUS WASTE MANIFEST | 1. Generator ID Number 2709_452 | 2. Page 1 of | 3. Emergency Response Phone 855-831-5148 | 4. Waste Tracking Number E 043677 |
|---|---|---|---|---|

5. Generator's Name and Mailing Address: National Grid (Gas)
175 East Old Country Road
Hicksville, NY 11801

Generator's Site Address (if different than mailing address)
NG Seaford FMGP_GUS (see Orders D-xx
Englewood, NY 11716

Generator's Phone: 516-545-2556

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJR000029587

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address: Keystone Soil Management, LLC.
75 Groves Mill Rd
Keasbey, NJ 08832

U.S. EPA ID Number: NJD [illegible]

Facility's Phone: 732-735-6000

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| | 1. Non-Hazardous MGP Soil for Thermal Desorption Only | | | 25 | T | |
| | 2. | | | | | |
| | 3. | | | | | |
| | 4. | | | | | |

13. Special Handling Instructions and Additional Information

**14. GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shirk Agent for National Grid — Signature: [signature] — Month: 9 — Day: 22 — Year: 16

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. — Port of entry/exit:
Transporter Signature (for exports only): — Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Waldo Aguirre — Signature: [signature] — Month: 9 — Day: 22 — Year: 16

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month — Day — Year

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

| NON-HAZARDOUS WASTE MANIFEST | 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|---|
| | 2709_463 | | 631-691-5145 | E 043679 |

**GENERATOR**

5. Generator's Name and Mailing Address
National Grid (NE)
175 East Old Country Road
Hicksville, NY 11801
Generator's Phone: 516-545-2000

Generator's Site Address (if different than mailing address)
MG Bayshore FMGP_GUS One Orinoco Drive
Brightwaters, NY 11718

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJT000029957

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
Bayshore Soil Management, LLC.
75 Crows Mill Rd
Keasbey, NJ 08832
Facility's Phone: 732-738-6000
U.S. EPA ID Number: NJD982601522

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| | Non-Hazardous MGP Soil for Thermal Disorption Only | | | 25 | T | |
| | 2. | | | | | |
| | 3. | | | | | |
| | 4. | | | | | |

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shed Agent For National Grid — Signature: [signature] — Month: 3 — Day: 23 — Year: 16

**INTL**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Hugo Rojas — Signature: Hugo Rojas — Month: 3 — Day: 23 — Year: 16

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month — Day — Year

| NON-HAZARDOUS WASTE MANIFEST | 1. Generator ID Number 2709_462 | 2. Page 1 of | 3. Emergency Response Phone 855-691-5145 | 4. Waste Tracking Number E 043679 |
|---|---|---|---|---|

**GENERATOR**

5. Generator's Name and Mailing Address
National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801

Generator's Site Address (if different than mailing address)
NG Bayshore FMGP_OUS Gas Cylinder Bldg
Brightwaters, NY 11718

Generator's Phone: 516-545-2500

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJ[illegible]

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
Bayshore Soil Management, LLC.
75 Crows Mill Rd
Keasbey, NJ 08832

U.S. EPA ID Number: NJ1250001622

Facility's Phone: 732-738-8000

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| | 1. Non-Hazardous MGP Soil for Thermal Desorption Only | | | 25 | T | |
| | 2. | | | | | |
| | 3. | | | | | |
| | 4. | | | | | |

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Spock Agent For National Grid — Signature: [signature] — Month: 3 — Day: 6 — Year: 10

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name — Signature — Month — Day — Year

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month — Day — Year

**NON-HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|
| 2708_468 | | 855-691-5142 | E 043680 |

**GENERATOR**

5. Generator's Name and Mailing Address
National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801
Generator's Phone: 516-545-2758

Generator's Site Address (if different than mailing address)
NG Bayonne FMGP_OU3 Cor. Lincoln Blvd
Bayonne, NY 11716

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJR000028967

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
Clean Earth Soil Management, LLC.
75 Crows Mill Rd
Keasbey, NJ 08832
Facility's Phone: 732-738-6000
U.S. EPA ID Number: NJD982081522

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| | Non-Hazardous MGP Soil for Thermal Disorption Only | | | 26 | T | |
| | 2. | | | | | |
| | 3. | | | | | |
| | 4. | | | | | |

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shook Agent for National Grid — Signature: [signature] — Month: 3 — Day: 02 — Year: 16

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Roger M — Signature: [signature] — Month: 3 — Day: 2 — Year: 16

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in item 17a

Printed/Typed Name — Signature — Month — Day — Year

| NON-HAZARDOUS WASTE MANIFEST | 1. Generator ID Number 2705_163 | 2. Page 1 of | 3. Emergency Response Phone 888-621-6145 | 4. Waste Tracking Number E 043681 |
|---|---|---|---|---|

5. Generator's Name and Mailing Address: National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801

Generator's Phone: 516-545-2586

Generator's Site Address (if different than mailing address): NG Bayswater FMGP_OU3 Gas Offices Site
Brightwaters, NY 11718

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJR000129957

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address: Keyshore Soil Management, LLC.
75 Crows Mill Rd
Keasbey, NJ 08832

Facility's Phone: 732-736-6000

U.S. EPA ID Number: NJ1232734532

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| 1. | Non-Hazardous MGP Soil for Thermal Desorption Only | | | 25 | | |
| 2. | | | | | | |
| 3. | | | | | | |
| 4. | | | | | | |

13. Special Handling Instructions and Additional Information

14. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shark Agent for National Grid — Signature — Month: 5 — Day: 12 — Year: 16

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name — Signature — Month: 5 — Day: 12 — Year: 16

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month — Day — Year

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

**NON-HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|
| 3708_468 | | 631-691-8145 | E 043682 |

**GENERATOR**

5. Generator's Name and Mailing Address
National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801
Generator's Phone: 516-545-3000

Generator's Site Address (if different than mailing address)
NG Bayshore EMEP 2345 Orville Drive
Bohemia, NY 11716

6. Transporter 1 Company Name
J & D Trucking
U.S. EPA ID Number
NJD987228857

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
Bayshore Soil Management, LLC.
75 Crows Mill Rd
Keasbey, NJ 08832
U.S. EPA ID Number
NJD095031532
Facility's Phone: 732-738-6300

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| | Non-Hazardous MGP Soil for Thermal Desorption Only | | | 26 | T | |
| 2. | | | | | | |
| 3. | | | | | | |
| 4. | | | | | | |

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.
Generator's/Offeror's Printed/Typed Name: Tom Shuck Agent For National Grid
Signature: Tom Shuck
Month: 5 Day: 23 Year: 10

**INT'L**
15. International Shipments ☐ Import to U.S. ☐ Export from U.S.
Port of entry/exit:
Transporter Signature (for exports only):
Date leaving U.S.:

**TRANSPORTER**
16. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Signature: Month: 5 Day: 23 Year: 10
Transporter 2 Printed/Typed Name: Signature: Month: Day: Year:

**DESIGNATED FACILITY**
17. Discrepancy
17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
17b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:
17c. Signature of Alternate Facility (or Generator) Month: Day: Year:

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a
Printed/Typed Name: Signature: Month: Day: Year:

| NON-HAZARDOUS WASTE MANIFEST | 1. Generator ID Number 2709_463 | 2. Page 1 of | 3. Emergency Response Phone 855-891-5145 | 4. Waste Tracking Number E 043683 |
|---|---|---|---|---|

5. Generator's Name and Mailing Address: National Grid (NG) 175 East Old Country Road Hicksville NY 11801

Generator's Site Address (if different than mailing address): NG Bayshore MGP_OU3 and Source Site Brightwaters, NY 11718

Generator's Phone: 516-545-2889

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJT0548[illegible]

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address: Clean Earth Soil Management, LLC. 75 Crows Mill Rd Keasbey, NJ 08832 — U.S. EPA ID Number: NJ[illegible]

Facility's Phone: 732-738-5000

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| | Non-Hazardous MGP Soil for Material Disruption Only | | | 40 | T | |
| | 2. | | | | | |
| | 3. | | | | | |
| | 4. | | | | | |

13. Special Handling Instructions and Additional Information

14. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Short Agent for National Grid — Signature: [signature] — Month: 3 Day: 7 Year: 16

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Hugo Reyes — Signature: Hugo Reyes — Month: 3 Day: 7 Year: 16

Transporter 2 Printed/Typed Name — Signature — Month Day Year

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month Day Year

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

| NON-HAZARDOUS WASTE MANIFEST | 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|---|
| | 2708_451 | | 855-291-6145 | E 043684 |

**5. Generator's Name and Mailing Address**
National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801
Generator's Phone: 516-545-2555

**Generator's Site Address (if different than mailing address)**
NG Bayonne FMGP_OUS Gas Control Office
Bayonne, NJ 07115

**6. Transporter 1 Company Name**
J & D Trucking

**U.S. EPA ID Number**
NYR000025957

**7. Transporter 2 Company Name**

**U.S. EPA ID Number**

**8. Designated Facility Name and Site Address**
Bayshore Soil Management, LLC.
75 Crows Mill Rd
Keasbey, NJ 08832
Facility's Phone: 732-738-6000

**U.S. EPA ID Number**
NJ0236210322

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| | Non-Hazardous MGP Soil for Thermal Desorption Only | | | 25 | T | |
| | 2. | | | | | |
| | 3. | | | | | |
| | 4. | | | | | |

**13. Special Handling Instructions and Additional Information**

**14. GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shook Agent for National Grid
Signature:
Month: 3 Day: 22 Year: 12

**15. International Shipments** ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

**16. Transporter Acknowledgment of Receipt of Materials**

Transporter 1 Printed/Typed Name:
Signature:
Month: 3 Day: 22 Year: 12

Transporter 2 Printed/Typed Name:
Signature:
Month: Day: Year:

**17. Discrepancy**

**17a. Discrepancy Indication Space** ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

**17b. Alternate Facility (or Generator)**

U.S. EPA ID Number

Facility's Phone:

**17c. Signature of Alternate Facility (or Generator)**

Month: Day: Year:

**18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a**

Printed/Typed Name:
Signature:
Month: Day: Year:

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

# Acknowledgment of Treatment and Recycling

Bayshore Soil Management, LLC hereby acknowledges

***The Treatment***

Of 299.00 tons of

Coal Tar Contaminated Soil
(Received on 3/29/10)

From the **National Grid Bay Shore Former MGP, Brightwaters, NY**

**Bayshore Soil Management, LLC.**

**March 30, 2010**
AIR: Facility ID Number 18437; Permit PCP070003
CLASS B: Facility ID Number 132397: Permit CBG060002
Keasbey, New Jersey

Certificate Number 2709-463-032910

Creamer Environmental
Disposal Vehicle Inspection Checklist
National Grid Bayshore NY Job # 09-2096

Date 3-29-10
Location TENT

| Load # | Time | Truck # | Manifest / Bill of Lading # | License Plate # | Driver's Name | Insurance Card | | Tires OK | | Tailgate OK | | Tarp OK | | Deconed | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Yes | No | Yes | No | Yes | No | Yes | No | Yes | No |
| 1 | | 888 | 055987 | AM354H | Leo | — | | — | | — | | — | | — | |
| 2 | | 876 | 055983 | AU77JN | Roger | — | | — | | — | | — | | — | |
| 3 | | 869 | 055984 | AM193E | Alex | — | | — | | — | | — | | — | |
| 4 | | 844 | 055985 | AU863U | Enick | — | | — | | — | | — | | — | |
| 5 | | 879 | 055986 | AU77JN | Roger | — | | — | | — | | — | | — | |
| 6 | | 876 | 055987 | AL77JN | Roger | — | | — | | — | | — | | — | |
| 7 | | 888 | 055988 | AM354H | Leo | — | | — | | — | | — | | — | |
| 8 | | 869 | 055989 | AM193E | Alex | — | | — | | — | | — | | — | |
| 9 | | [illegible] | [illegible]990 | AU77JN | Roger | — | | — | | — | | — | | — | |
| 10 | | 844 | 055991 | AU863U | Enick | — | | — | | — | | — | | — | |
| 11 | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | |
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Creamer Environmental

Disposal Vehicle Inspection Checklist

National Grid Bayshore NY Job # 09-2096

Date 3-29-10

Location TENT

| Load # | Time | Truck # | Manifest / Bill of Lading # | License Plate # | Driver's Name | Insurance Card | | Tires OK | | Tailgate OK | | Tarp OK | | Deconed | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Yes | No | Yes | No | Yes | No | Yes | No | Yes | No |
| 1 | | 588 | 055982 | AM354H | Leo | — | | — | | — | | — | | — | |
| 2 | | 876 | 055983 | AU777N | Roger | — | | — | | — | | — | | — | |
| 3 | | 869 | 055984 | AM193E | Alex | — | | — | | — | | — | | — | |
| 4 | | 844 | 055985 | AU863L | Enick | — | | — | | — | | — | | — | |
| 5 | | 819 | 055986 | AU777N | Rolkfo | — | | — | | — | | — | | — | |
| 6 | | 876 | 055987 | AL777N | Roger | — | | — | | — | | — | | — | |
| 7 | | 588 | 055988 | AM354A | Leo | — | | — | | — | | — | | — | |
| 8 | | 569 | 055989 | AM193E | Alex | — | | — | | — | | — | | — | |
| 9 | | [illegible] | 055990 | AU777N | Rolkfo | — | | — | | — | | — | | — | |
| 10 | | 8[illegible] | 055991 | AU863L | Enick | — | | — | | — | | — | | — | |
| 11 | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | |
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| 29 | | | | | | | | | | | | | | | |
| 30 | | | | | | | | | | | | | | | |

**NON-HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|
| 2709_453 | | 845-691-8145 | E 055982 |

**GENERATOR**

5. Generator's Name and Mailing Address: National Grid (NG), 175 East Old Country Road, Hicksville, NY 11801

Generator's Site Address (if different than mailing address): NG Bayonne, FKRP, Old Gas Distribute Office, Bayonne, NJ 07002

Generator's Phone: 516-545-4000

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJR000088857

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address: Bayonne Soil Management, LLC, 75 Crows Mill Rd, Keasbey, NJ 08832 — U.S. EPA ID Number: NJD982591520

Facility's Phone: 732-738-6000

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| 1 | Non-Hazardous MGP Soil for Thermal Desorption Only | | | 26 | T | |
| 2. | | | | | | |
| 3. | | | | | | |
| 4. | | | | | | |

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shark Agent for National Grid — Signature: [signature] — Month: 7 — Day: 29 — Year: 16

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. — Port of entry/exit:

Transporter Signature (for exports only): — Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Kinnear Transport — Signature: [signature] — Month: 7 — Day: 29 — Year: 16

Transporter 2 Printed/Typed Name: Truck # 800 — Signature — Month — Day — Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month — Day — Year

**NON-HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|
| 2709_463 | | 855-691-6148 | E 055983 |

**GENERATOR**

5. Generator's Name and Mailing Address
National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801

Generator's Site Address (if different than mailing address)
NG Response PASP_SUB Gas Division Only
Englewood, NY 11795

Generator's Phone:

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJR000328057

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address: Keystone Soil Management, LLC.
79 Crows Mill Rd
Keasbey, NJ 08832

U.S. EPA ID Number: NJD982901022

Facility's Phone: 732-738-5000

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| 1 | Non-Hazardous MGP Soil for Thermal Disruption Only | | | 22 | T | |
| 2. | | | | | | |
| 3. | | | | | | |
| 4. | | | | | | |

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Stark Agent For Natural Grid — Signature — Month 2 Day 10 Year 16

**INT'L**

15. International Shipments ☑ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Roger Neer — Signature — Month 2 Day 10 Year 16

Transporter 2 Printed/Typed Name — Signature — Month Day Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month Day Year

**NON-HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|
| 2709 433 | | 800-591-0146 | E 055984 |

5. Generator's Name and Mailing Address
National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801

Generator's Site Address (if different than mailing address)
WG Bayonne PMGP OLD One Division Drive
Bayonne, NJ 07115

Generator's Phone: 516-545-2155

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJT000228557

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
Bayonne Soil Management, LLC
75 Owens Mill Rd
Keasbey, NJ 08832

U.S. EPA ID Number: NJ1222201522

Facility's Phone: 732-738-6000

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| 1 | Non-Hazardous MGP Soil for Thermal Desorption Only | | | 26 | T | |
| 2. | | | | | | |
| 3. | | | | | | |
| 4. | | | | | | |

13. Special Handling Instructions and Additional Information

**14. GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Don Shook Agent for National Grid — Signature: [signature] — Month: 3 — Day: 29 — Year: 16

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name — Signature — Month: 3 — Day: 29 — Year: 16

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month — Day — Year

| NON-HAZARDOUS WASTE MANIFEST | 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|---|
| | 3708_083 | | 866-691-5145 | E 055985 |

**5. Generator's Name and Mailing Address**
National Grid (MS)
175 East Old Country Road
Hicksville, NY 11801

**Generator's Site Address (if different than mailing address)**
MS Bayonne PWSF_GCS Gas Control Desk
Bayonne, NY 07002

Generator's Phone: 516-545-2550

**6. Transporter 1 Company Name**
J & D Trucking

U.S. EPA ID Number: NJR000028967

**7. Transporter 2 Company Name**

U.S. EPA ID Number

**8. Designated Facility Name and Site Address**
Keystone Soil Management, LLC.
75 Crows Mill Rd
Keasbey, NJ 08832

U.S. EPA ID Number: NJ1259911620

Facility's Phone: 732-738-8000

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| 1. | Non-Hazardous MGP Soil for Thermal Disorption Only | | | 20 | T | |
| 2. | | | | | | |
| 3. | | | | | | |
| 4. | | | | | | |

**13. Special Handling Instructions and Additional Information**

**14. GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Walter National Grid | Signature | Month 3 | Day 29 | Year 10

**15. International Shipments** ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

**16. Transporter Acknowledgment of Receipt of Materials**

Transporter 1 Printed/Typed Name | Signature | Month 3 | Day 29 | Year 10

Transporter 2 Printed/Typed Name | Signature | Month | Day | Year

**17. Discrepancy**

**17a. Discrepancy Indication Space** ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

**17b. Alternate Facility (or Generator)** U.S. EPA ID Number

Facility's Phone:

**17c. Signature of Alternate Facility (or Generator)** | Month | Day | Year

**18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a**

Printed/Typed Name | Signature | Month | Day | Year

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

| NON-HAZARDOUS WASTE MANIFEST | 1. Generator ID Number 2709_353 | 2. Page 1 of | 3. Emergency Response Phone 855-891-5145 | 4. Waste Tracking Number E 059985 |
|---|---|---|---|---|

**GENERATOR**

5. Generator's Name and Mailing Address: National Grid (NE) 175 East Old Country Road Hicksville, NY 11801

Generator's Site Address (if different than mailing address): 142 Seaview Pkwy (Old Colonial Drive) Englewood, NY 11779

Generator's Phone: 516-545-2565

6. Transporter 1 Company Name: T & D Trucking — U.S. EPA ID Number: NJR000022997

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address: Bayshore Soil Management, LLC. 75 Cross Mill Rd Keasbey, NJ 08832 — U.S. EPA ID Number: NJD2980[illegible]22

Facility's Phone: 732-738-6000

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| 1. | Non-Hazardous Soil for Thermal Desorption Only | | | 25 | T | |
| 2. | | | | | | |
| 3. | | | | | | |
| 4. | | | | | | |

13. Special Handling Instructions and Additional Information

**14. GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shorb Agent for National Grid — Signature: [signature] — Month 3 Day 29 Year 16

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Waldo Aguirre — Signature: [signature] — Month 3 Day 29 Year 16

Transporter 2 Printed/Typed Name — Signature — Month Day Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month Day Year

| NON-HAZARDOUS WASTE MANIFEST | 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|---|
| | 2709 453 | | 845-621-6143 | E 055987 |

**5. Generator's Name and Mailing Address**

National Grid (NE)
175 East Old Country Road
Hicksville, NY 11801

Generator's Phone: 516-545-2000

**Generator's Site Address (if different than mailing address)**

NG Bayshore FMGP_GW3 Unit Effluent Line
Brightwaters, NY 11718

**6. Transporter 1 Company Name**: J & D Trucking — **U.S. EPA ID Number**: NJD000726687

**7. Transporter 2 Company Name** — **U.S. EPA ID Number**

**8. Designated Facility Name and Site Address**: Bayshore Soil Management, LLC.
79 Crows Mill Rd
Keasbey, NJ 08832

Facility's Phone: 732-738-5000 — **U.S. EPA ID Number**: NJ1229821533

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| 1 | Non-Hazardous MGP Soil for Thermal Disorption Only | | | 25 | T | |
| 2. | | | | | | |
| 3. | | | | | | |
| 4. | | | | | | |

**13. Special Handling Instructions and Additional Information**

**14. GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shank Agent for National Grid — Signature: [signature] — Month: 3 — Day: 29 — Year: 10

**15. International Shipments** ☐ Import to U.S. ☐ Export from U.S. — Port of entry/exit:

Transporter Signature (for exports only): — Date leaving U.S.:

**16. Transporter Acknowledgment of Receipt of Materials**

Transporter 1 Printed/Typed Name: Roger M — Signature: [signature] — Month: 3 — Day: 29 — Year: 10

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

**17. Discrepancy**

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

**18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a**

Printed/Typed Name — Signature — Month — Day — Year

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

**NON-HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|
| 2709_459 | | 888-891-5145 | E |

**GENERATOR**

5. Generator's Name and Mailing Address
National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801

Generator's Site Address (if different than mailing address)
NG Bayshore PWSF_QUS One Orlando Drive
Bridgewater, NY 11776

Generator's Phone: 516-545-2566

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJPG000229657

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
Bayshore Soil Management, LLC.
75 Crows Mill Rd
Keasbey, NJ 08832

U.S. EPA ID Number: NJ1230001522

Facility's Phone: 732-735-6000

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| 1. | Non-Hazardous MGP Soil for Thermal Disorption Only | | | 25 | T | |
| 2. | | | | | | |
| 3. | | | | | | |
| 4. | | | | | | |

13. Special Handling Instructions and Additional Information

**14. GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shick Agent For National Grid — Signature — Month: 3 — Day: 29 — Year: 10

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Rumbaw T 888 605 — Signature — Month: 3 — Day: 29 — Year: 10

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month — Day — Year

| NON-HAZARDOUS WASTE MANIFEST | 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|---|
| | 2709 453 | | 516-691-5145 | E 055399 |

**GENERATOR**

5. Generator's Name and Mailing Address
National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801
Generator's Phone: 516-545-3515

Generator's Site Address (if different than mailing address)
NG Bayshore FMGP_OU3 Old Dennison Gas
Brightwaters, NY 11718

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJR000029587

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
Bayshore Soil Management, LLC.
75 Crows Mill Rd
Keasbey, NJ 08832
Facility's Phone: 732-738-8300

U.S. EPA ID Number: NJ1728001522

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| 1 | Non-Hazardous MGP Soil for Thermal Desorption Only | | | 35 | T | |
| 2. | | | | | | |
| 3. | | | | | | |
| 4. | | | | | | |

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Sheck Agent for National Grid — Signature: [signature] — Month: 3 — Day: 29 — Year: 16

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name — Signature — Month: 3 — Day: 29 — Year: 16

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month — Day — Year

**NON-HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|
| 2795_483 | | 888-621-8148 | E 055990 |

**GENERATOR**

5. Generator's Name and Mailing Address
National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801

Generator's Site Address (if different than mailing address)
NG Bayshore FWDP_NJG Inv. Oberle Dave
Bridgewater, NY 11716

Generator's Phone: 516-545-2596

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJD082202957

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address: Bayshore Soil Management, LLC.
75 Crows Mill Rd
Keasbey, NJ 08832

U.S. EPA ID Number: NJD982031522

Facility's Phone: 732-738-6000

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| 1. | Non-Hazardous (NS) Soil for Thermal Desorption only | | | 28 | T | |
| 2. | | | | | | |
| 3. | | | | | | |
| 4. | | | | | | |

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: John Shrek Agent for National Grid — Signature — Month: 3 — Day: 29 — Year: 16

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Rodolfo Aguirre — Signature — Month: 3 — Day: 29 — Year: 16

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month — Day — Year

AM A28620

| NON-HAZARDOUS WASTE MANIFEST | 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|---|
| | 2709_453 | 1 | 800-591-8740 | E 855991 |

**GENERATOR**

5. Generator's Name and Mailing Address
National Grid (GE)
175 East Old Country Road
Hicksville, NY 11801

Generator's Site Address (if different than mailing address)
NG Bayside FMGP (GE) One Census Drive
Bayside, NY 11359

Generator's Phone: 516-545-2000

6. Transporter 1 Company Name: J & D Trucking (Subcontractor)
U.S. EPA ID Number: NJP000228557

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address: Lakeshore Soil Management, LLC.
79 Crows Mill Rd
Keasbey, NJ 08832
U.S. EPA ID Number: NJH2300152

Facility's Phone: 732-738-9700

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| 1 | Non-Hazardous MGP Soil for Thermal Desorption Only | | | 25 | T | |
| 2. | | | | | | |
| 3. | | | | | | |
| 4. | | | | | | |

13. Special Handling Instructions and Additional Information

**14. GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Stock Agent For National Grid | Signature: T Stock | Month: 3 | Day: 29 | Year: 10

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Eric Smith AD 8/29 | Signature | Month: 3 | Day: 29 | Year: 10

Transporter 2 Printed/Typed Name | Signature | Month | Day | Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) | U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) | Month | Day | Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name | Signature | Month | Day | Year

# Acknowledgment of Treatment and Recycling

Bayshore Soil Management, LLC hereby acknowledges

***The Treatment***

Of 299.00 tons of

Coal Tar Contaminated Soil
(Received on 3/29/10)

From the **National Grid Bay Shore Former MGP, Brightwaters, NY**

**Bayshore Soil Management, LLC.**

**March 30, 2010**
AIR: Facility ID Number 18437; Permit PCP070003
CLASS B: Facility ID Number 132397: Permit CBG060002
Keasbey, New Jersey

Certificate Number 2709-463-032910

**CEI- National Grid Bay Shore Former MGP site**

| Job_Name | Datetime | CustomerID | Location | SiteStreet | SiteCity | SiteState | Sitetype | WasteCode | TicketNumber | ManifestNum | TruckId | WeightGros | WeightNet | ons | RATE | TRANS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2709-463 | 3/29/2010 | CEI10 | National Grid Bay Shore Former MGP site | One Orinoco Drive | Brightwaters | NY | Coal Tar contaminated soils | CT01 | 27082095 | E055983 | AL772N 876 | 87580 | 61840 | 30.92 | | |
| 2709-463 | 3/29/2010 | CEI10 | National Grid Bay Shore Former MGP site | One Orinoco Drive | Brightwaters | NY | Coal Tar contaminated soils | CT01 | 27082096 | E055982 | AM354H 888 | 91500 | 65260 | 32.63 | | |
| 2709-463 | 3/29/2010 | CEI10 | National Grid Bay Shore Former MGP site | One Orinoco Drive | Brightwaters | NY | Coal Tar contaminated soils | CT01 | 27082097 | E055984 | AM193E 869 | 85880 | 59480 | 29.74 | | |
| 2709-463 | 3/29/2010 | CEI10 | National Grid Bay Shore Former MGP site | One Orinoco Drive | Brightwaters | NY | Coal Tar contaminated soils | CT01 | 27082099 | E055985 | AL863U 894 | 82900 | 57380 | 28.69 | | |
| 2709-463 | 3/29/2010 | CEI10 | National Grid Bay Shore Former MGP site | One Orinoco Drive | Brightwaters | NY | Coal Tar contaminated soils | CT01 | 27082100 | E055986 | AL777N 879 | 90960 | 65020 | 32.51 | | |
| 2709-463 | 3/29/2010 | CEI10 | National Grid Bay Shore Former MGP site | One Orinoco Drive | Brightwaters | NY | Coal Tar contaminated soils | CT01 | 27082115 | E055987 | AL772N 876 | 85480 | 59740 | 29.87 | | |
| 2709-463 | 3/29/2010 | CEI10 | National Grid Bay Shore Former MGP site | One Orinoco Drive | Brightwaters | NY | Coal Tar contaminated soils | CT01 | 27082116 | E055989 | AM193E 869 | 80820 | 54420 | 27.21 | | |
| 2709-463 | 3/29/2010 | CEI10 | National Grid Bay Shore Former MGP site | One Orinoco Drive | Brightwaters | NY | Coal Tar contaminated soils | CT01 | 27082117 | E055988 | AM354H 888 | 85760 | 59520 | 29.76 | | |
| 2709-463 | 3/29/2010 | CEI10 | National Grid Bay Shore Former MGP site | One Orinoco Drive | Brightwaters | NY | Coal Tar contaminated soils | CT01 | 27082119 | E055990 | AL777N 879 | 86500 | 60560 | 30.28 | | |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2709-463 | 3/29/2010 | CEI10 | National Grid Bay Shore Former MGP site | One Orinoco Drive | Brightwaters | NY | Coal Tar contaminated soils | CT01 | 27082122 | E055991 | AL863U 894 | 80300 | 54780 | 27.39 | | |
| | | | | | | | | | 10 | | | | 598000 | 299 | | |

Bayshore Recycling Inc.
75 Crows Mill Road, P.O. Box 290
Keasbey, N.J. 08832

Facility ID#: 132397

**TICKET NUMBER**

270082095

BILL TO

BSM2709463
BSM CREAMER ENVIRONMENTAL
NG BAY SHORE FMGP

BSM CREAMER ENVIRONMENTAL

PO#

| DATE | ENTRY TIME | OPER. | EXIT TIME | OPER. | GROSS WEIGHT | TARE WEIGHT | NET WEIGHT |
|---|---|---|---|---|---|---|---|
| 03/29/2010 | 10:14 | | 10:15 | | ( 87580 LB) | ( 25740 LB) | ( 61840 LB |
| | | | | | Scale 01 | | |
| 0015894 | Scale 01 | | | | ( 43.79 T) | ( 12.87 T) | ( 30.92 T |

| VEHICLE NUMBER | VEHICLE TYPE | PLATE NUMBER | HAULER / TRANSACTION TYPE |
|---|---|---|---|
| AL772N | TRI-AXLE 25 | 876 | RAINBOW |
| | | | Norma |

| QUANTITY | WC | DESCRIPTION / ORIGIN | UNITS | UNIT PRICE | AMOUNT |
|---|---|---|---|---|---|
| 30.9200 | 27 | ID 27<br>NEW YORK<br>LONG ISLAND | TON<br>100.00% | | |

I hereby certify that the above material is not a hazardous waste and the information provided on this form is true to the best of my knowledge.

DRIVER NAME Roger SIGNATURE

Bayshore Recycling Inc.
75 Crows Mill Road, P.O. Box 290
Keasbey, N.J. 08832

Facility ID#: 132397

**TICKET NUMBER**

27002096

BILL TO

BSM2709463
BSM CREAMER ENVIRONMENTAL
NG BAY SHORE FMGP

BSM CREAMER ENVIRONMENTAL

PO#

| DATE | ENTRY TIME | OPER. | EXIT TIME | OPER. | GROSS WEIGHT | TARE WEIGHT | NET WEIGHT |
|---|---|---|---|---|---|---|---|
| 03/29/2010 | 10:18 | | 10:18 | | ( 91500 LB) | ( 26240 LB) | ( 65260 LB) |
| 00158945 | Scale 01 | | | | Scale 01 ( 45.75 T) | ( 13.12 T) | ( 32.63 T) |

| VEHICLE NUMBER | VEHICLE TYPE | PLATE NUMBER | HAULER / TRANSACTION TYPE |
|---|---|---|---|
| AM354H | TRI-AXLE 25 | 888 | RAINBOW Norma |

| QUANTITY | WC | DESCRIPTION / ORIGIN | UNITS | UNIT PRICE | AMOUNT |
|---|---|---|---|---|---|
| 32.6300 | 27 | ID 27<br>NEW YORK<br>LONG ISLAND | TON<br>100.00% | | |

I hereby certify that the above material is not a hazardous waste and the information provided on this form is true to the best of my knowledge.

DRIVER NAME

SIGNATURE

Bayshore Recycling Inc.
75 Crows Mill Road, P.O. Box 290
Keasbey, N.J. 08832

Facility ID#: 132397

**TICKET NUMBER**

27082097

BILL TO

BSM2709463
BSM CREAMER ENVIRONMENTAL
NG BAY SHORE FMGP

BSM CREAMER ENVIRONMENTAL

PO#

| DATE | ENTRY TIME | OPER | EXIT TIME | OPER | GROSS WEIGHT | TARE WEIGHT | NET WEIGHT |
|---|---|---|---|---|---|---|---|
| 03/29/2010 | 10:20 | | 10:21 | | ( 85880 LB) | ( 26400 LB) | ( 59480 LB |
| 0015894 | 7 Scale 01 | | | | Scale 01 ( 42.94 T) | ( 13.20 T) | ( 29.74 T |

| VEHICLE NUMBER | VEHICLE TYPE | PLATE NUMBER | HAULER / TRANSACTION TYPE |
|---|---|---|---|
| AM193E | TRI-AXLE 25 | 869 | NICHOLAS LLC |

Norma

| QUANTITY | WC | DESCRIPTION / ORIGIN | UNITS | UNIT PRICE | AMOUNT |
|---|---|---|---|---|---|
| 29.7400 | 27 | ID 27<br>NEW YORK<br>LONG ISLAND | TON<br>100.00% | | |

I hereby certify that the above material is not a hazardous waste and the information provided on this form is true to the best of my knowledge.

DRIVER NAME

SIGNATURE

Bayshore Recycling Inc.
75 Crows Mill Road, P.O. Box 290
Keasbey, N.J. 08832

Facility ID#: 132397

**TICKET NUMBER**

27082099

BILL TO

BSM2709463
BSM CREAMER ENVIRONMENTAL
NG BAY SHORE FMGP

BSM CREAMER ENVIRONMENTAL

PO#

| DATE | ENTRY TIME | OPER | EXIT TIME | OPER | GROSS WEIGHT | TARE WEIGHT | NET WEIGHT |
|---|---|---|---|---|---|---|---|
| 03/29/2010 | 10:32 | | 10:32 | | ( 82900 LB) | ( 25520 LB) | ( 57380 LB |
| 00158948 | Scale 01 | | | | Scale 01 | | |
| | | | | | ( 41.45 T) | ( 12.76 T) | ( 28.69 T |

| VEHICLE NUMBER | VEHICLE TYPE | PLATE NUMBER | HAULER / TRANSACTION TYPE |
|---|---|---|---|
| AL863U | TRI-AXLE 25 | 894 | RAINBOW |

Norma

| QUANTITY | WC | DESCRIPTION / ORIGIN | UNITS | UNIT PRICE | AMOUNT |
|---|---|---|---|---|---|
| 28.6900 | 27 | ID 27<br>NEW YORK<br>LONG ISLAND | TON<br>100.00% | | |

I hereby certify that the above material is not a hazardous waste and the information provided on this form is true to the best of my knowledge.

DRIVER NAME _____ SIGNATURE _____

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2709-463 | 3/29/2010 | CEI10 | National Grid Bay Shore Former MGP site | One Orinoco Drive | Brightwaters | NY | Coal Tar contaminated soils | CT01 | 27082122 | E055991 | AL863U 894 | 80300 | 54780 | 27.39 | | |
| | | | | | | | | | 10 | | | | 598000 | 299 | | |

Bayshore Recycling Inc.
75 Crows Mill Road, P.O. Box 290
Keasbey, N.J. 08832

Facility ID#: 132397

**TICKET NUMBER**

270082095

BILL TO

BSM2709463
BSM CREAMER ENVIRONMENTAL
NG BAY SHORE FMGP

BSM CREAMER ENVIRONMENTAL

PO#

| DATE | ENTRY TIME | OPER. | EXIT TIME | OPER. | GROSS WEIGHT | TARE WEIGHT | NET WEIGHT |
|---|---|---|---|---|---|---|---|
| 03/29/2010 | 10:14 | | 10:15 | | ( 87580 LB) | ( 25740 LB) | ( 61840 LB |
| | | | | | Scale 01 | | |
| 0015894 | Scale 01 | | | | ( 43.79 T) | ( 12.87 T) | ( 30.92 T |

| VEHICLE NUMBER | VEHICLE TYPE | PLATE NUMBER | HAULER / TRANSACTION TYPE |
|---|---|---|---|
| AL772N | TRI-AXLE 25 | 876 | RAINBOW |
| | | | Norma |

| QUANTITY | WC | DESCRIPTION / ORIGIN | UNITS | UNIT PRICE | AMOUNT |
|---|---|---|---|---|---|
| 30.9200 | 27 | ID 27<br>NEW YORK<br>LONG ISLAND | TON<br>100.00% | | |

I hereby certify that the above material is not a hazardous waste and the information provided on this form is true to the best of my knowledge.

DRIVER NAME Roger SIGNATURE

Bayshore Recycling Inc.
75 Crows Mill Road, P.O. Box 290
Keasbey, N.J. 08832

Facility ID#: 132397

**TICKET NUMBER**

27002096

BILL TO

BSM2709463
BSM CREAMER ENVIRONMENTAL
NG BAY SHORE FMGP

BSM CREAMER ENVIRONMENTAL

PO#

| DATE | ENTRY TIME | OPER. | EXIT TIME | OPER. | GROSS WEIGHT | TARE WEIGHT | NET WEIGHT |
|---|---|---|---|---|---|---|---|
| 03/29/2010 | 10:18 | | 10:18 | | ( 91500 LB) | ( 26240 LB) | ( 65260 LB) |
| 00158945 | Scale 01 | | | | Scale 01 ( 45.75 T) | ( 13.12 T) | ( 32.63 T) |

| VEHICLE NUMBER | VEHICLE TYPE | PLATE NUMBER | HAULER / TRANSACTION TYPE |
|---|---|---|---|
| AM354H | TRI-AXLE 25 | 888 | RAINBOW Norma |

| QUANTITY | WC | DESCRIPTION / ORIGIN | UNITS | UNIT PRICE | AMOUNT |
|---|---|---|---|---|---|
| 32.6300 | 27 | ID 27<br>NEW YORK<br>LONG ISLAND | TON<br>100.00% | | |

I hereby certify that the above material is not a hazardous waste and the information provided on this form is true to the best of my knowledge.

DRIVER NAME

SIGNATURE

Bayshore Recycling Inc.
75 Crows Mill Road, P.O. Box 290
Keasbey, N.J. 08832

Facility ID#: 132397

**TICKET NUMBER**

27082097

BILL TO

BSM2709463
BSM CREAMER ENVIRONMENTAL
NG BAY SHORE FMGP

BSM CREAMER ENVIRONMENTAL

PO#

| DATE | ENTRY TIME | OPER | EXIT TIME | OPER | GROSS WEIGHT | TARE WEIGHT | NET WEIGHT |
|---|---|---|---|---|---|---|---|
| 03/29/2010 | 10:20 | | 10:21 | | ( 85880 LB) | ( 26400 LB) | ( 59480 LB |
| 0015894 | 7 Scale 01 | | | | Scale 01 ( 42.94 T) | ( 13.20 T) | ( 29.74 T |

| VEHICLE NUMBER | VEHICLE TYPE | PLATE NUMBER | HAULER / TRANSACTION TYPE |
|---|---|---|---|
| AM193E | TRI-AXLE 25 | 869 | NICHOLAS LLC |

Norma

| QUANTITY | WC | DESCRIPTION / ORIGIN | UNITS | UNIT PRICE | AMOUNT |
|---|---|---|---|---|---|
| 29.7400 | 27 | ID 27<br>NEW YORK<br>LONG ISLAND | TON<br>100.00% | | |

I hereby certify that the above material is not a hazardous waste and the information provided on this form is true to the best of my knowledge.

DRIVER NAME

SIGNATURE

Bayshore Recycling Inc.
75 Crows Mill Road, P.O. Box 290
Keasbey, N.J. 08832

Facility ID#: 132397

**TICKET NUMBER**

27082099

BILL TO

BSM2709463
BSM CREAMER ENVIRONMENTAL
NG BAY SHORE FMGP

BSM CREAMER ENVIRONMENTAL

PO#

| DATE | ENTRY TIME | OPER | EXIT TIME | OPER | GROSS WEIGHT | TARE WEIGHT | NET WEIGHT |
|---|---|---|---|---|---|---|---|
| 03/29/2010 | 10:32 | | 10:32 | | ( 82900 LB) | ( 25520 LB) | ( 57380 LB |
| 00158948 | Scale 01 | | | | Scale 01 | | |
| | | | | | ( 41.45 T) | ( 12.76 T) | ( 28.69 T |

| VEHICLE NUMBER | VEHICLE TYPE | PLATE NUMBER | HAULER / TRANSACTION TYPE |
|---|---|---|---|
| AL863U | TRI-AXLE 25 | 894 | RAINBOW |

Norma

| QUANTITY | WC | DESCRIPTION / ORIGIN | UNITS | UNIT PRICE | AMOUNT |
|---|---|---|---|---|---|
| 28.6900 | 27 | ID 27<br>NEW YORK<br>LONG ISLAND | TON<br>100.00% | | |

I hereby certify that the above material is not a hazardous waste and the information provided on this form is true to the best of my knowledge.

DRIVER NAME _____ SIGNATURE _____

Bayshore Recycling Inc.
75 Crows Mill Road, P.O. Box 290
Keasbey, N.J. 08832

Facility ID#: 132397

**TICKET NUMBER**

27082100

BILL TO

BSM2709463
BSM CREAMER ENVIRONMENTAL
NG BAY SHORE FMGP

BSM CREAMER ENVIRONMENTAL

PO#

| DATE | ENTRY TIME | OPER | EXIT TIME | OPER | GROSS WEIGHT | TARE WEIGHT | NET WEIGHT |
|---|---|---|---|---|---|---|---|
| 03/29/2010 | 10:35 | | 10:36 | | ( 90960 LB) Scale 01 | ( 25940 LB) | ( 65020 LB |
| 00158948 | Scale 01 | | | | ( 45.48 T) | ( 12.97 T) | ( 32.51 T |

| VEHICLE NUMBER | VEHICLE TYPE | PLATE NUMBER | HAULER / TRANSACTION TYPE |
|---|---|---|---|
| AL777N | TRI-AXLE 25 | 879 | RAINBOW Norma |

| QUANTITY | WO | DESCRIPTION / ORIGIN | UNITS | UNIT PRICE | AMOUNT |
|---|---|---|---|---|---|
| 32.5100 | 27 | ID 27<br>NEW YORK<br>LONG ISLAND | TON<br>100.00% | | |

I hereby certify that the above material is not a hazardous waste and the information provided on this form is true to the best of my knowledge.

DRIVER NAME

SIGNATURE

Bayshore Recycling Inc.
75 Crows Mill Road, P.O. Box 290
Keasbey, N.J. 08832

Facility ID#: 132397

**TICKET NUMBER**

27082100

BILL TO

BSM2709463
BSM CREAMER ENVIRONMENTAL
NG BAY SHORE FMGP

BSM CREAMER ENVIRONMENTAL

PO#

| DATE | ENTRY TIME | OPER | EXIT TIME | OPER | GROSS WEIGHT | TARE WEIGHT | NET WEIGHT |
|---|---|---|---|---|---|---|---|
| 03/29/2010 | 10:35 | | 10:36 | | ( 90960 LB) Scale 01 | ( 25940 LB) | ( 65020 LB |
| 00158948 | Scale 01 | | | | ( 45.48 T) | ( 12.97 T) | ( 32.51 T |

| VEHICLE NUMBER | VEHICLE TYPE | PLATE NUMBER | HAULER / TRANSACTION TYPE |
|---|---|---|---|
| AL777N | TRI-AXLE 25 | 879 | RAINBOW Norma |

| QUANTITY | WO | DESCRIPTION / ORIGIN | UNITS | UNIT PRICE | AMOUNT |
|---|---|---|---|---|---|
| 32.5100 | 27 | ID 27<br>NEW YORK<br>LONG ISLAND | TON<br>100.00% | | |

I hereby certify that the above material is not a hazardous waste and the information provided on this form is true to the best of my knowledge.

DRIVER NAME

SIGNATURE

Bayshore Recycling Inc.
75 Crows Mill Road, P.O. Box 290
Keasbey, N.J. 08832

Facility ID#: 132397

**TICKET NUMBER**

27082115

BILL TO

BSM2709463
BSM CREAMER ENVIRONMENTAL
NG BAY SHORE FMGP

BSM CREAMER ENVIRONMENTAL

PO#

| DATE | ENTRY TIME | OPER | EXIT TIME | OPER | GROSS WEIGHT | TARE WEIGHT | NET WEIGHT |
|---|---|---|---|---|---|---|---|
| 03/29/2010 | 15:13 | | 15:14 | | ( 85480 LB) | ( 25740 LB) | ( 59740 LB) |
| 00158985 | Scale 01 | | | | Scale 01<br>( 42.74 T) | ( 12.87 T) | ( 29.87 T) |

| VEHICLE NUMBER | VEHICLE TYPE | PLATE NUMBER | HAULER / TRANSACTION TYPE |
|---|---|---|---|
| AL772N | TRI-AXLE 25 | 876 | RAINBOW Norma |

| QUANTITY | WC | DESCRIPTION / ORIGIN | UNITS | UNIT PRICE | AMOUNT |
|---|---|---|---|---|---|
| 29.8700 | 27 | ID 27<br>NEW YORK<br>LONG ISLAND | TON<br>100.00% | | |

I hereby certify that the above material is not a hazardous waste and the information provided on this form is true to the best of my knowledge.

DRIVER NAME Roger

SIGNATURE

Bayshore Recycling Inc.
75 Crows Mill Road, P.O. Box 290
Keasbey, N.J. 08832

Facility ID#: 132397

**TICKET NUMBER**

27082116

BILL TO

BSM2709463
BSM CREAMER ENVIRONMENTAL
NG BAY SHORE FMGP

BSM CREAMER ENVIRONMENTAL

PO#

| DATE | ENTRY TIME | OPER | EXIT TIME | OPER | GROSS WEIGHT | TARE WEIGHT | NET WEIGHT |
|---|---|---|---|---|---|---|---|
| 03/29/2010 | 15:16 | | 15:16 | | ( 80820 LB) | ( 26400 LB) | ( 54420 LB) |
| 00158985 | Scale 01 | | | | Scale 01<br>( 40.41 T) | ( 13.20 T) | ( 27.21 T) |

| VEHICLE NUMBER | VEHICLE TYPE | PLATE NUMBER | HAULER / TRANSACTION TYPE |
|---|---|---|---|
| AM193E | TRI-AXLE 25 | 869 | NICHOLAS LLC<br>Normal |

| QUANTITY | WC | DESCRIPTION / ORIGIN | UNITS | UNIT PRICE | AMOUNT |
|---|---|---|---|---|---|
| 27.2100 | 27 | ID 27<br>NEW YORK<br>LONG ISLAND | TON<br>100.00% | | |

I hereby certify that the above material is not a hazardous waste and the information provided on this form is true to the best of my knowledge.

DRIVER NAME
PRINT

SIGNATURE

Bayshore Recycling Inc.
75 Crows Mill Road, P.O. Box 290
Keasbey, N.J. 08832

Facility ID#: 132397

**TICKET NUMBER**

27082117

BILL TO

BSM2709463
BSM CREAMER ENVIRONMENTAL
NG BAY SHORE FMGP

BSM CREAMER ENVIRONMENTAL

PO#

| DATE | ENTRY TIME | OPER | EXIT TIME | OPER | GROSS WEIGHT | TARE WEIGHT | NET WEIGHT |
|---|---|---|---|---|---|---|---|
| 03/29/2010 | 15:19 | | 15:19 | | ( 85760 LB) | ( 26240 LB) | ( 59520 LB |
| 00158987 | Scale 01 | | | | Scale 01<br>( 42.88 T) | ( 13.12 T) | ( 29.76 T |

| VEHICLE NUMBER | VEHICLE TYPE | PLATE NUMBER | HAULER / TRANSACTION TYPE |
|---|---|---|---|
| AM354H | TRI-AXLE 25 | 888 | RAINBOW<br>Normal |

| QUANTITY | WC | DESCRIPTION / ORIGIN | UNITS | UNIT PRICE | AMOUNT |
|---|---|---|---|---|---|
| 29.7600 | 27 | ID 27<br>NEW YORK<br>LONG ISLAND | TON<br>100.00% | | |

I hereby certify that the above material is not a hazardous waste and the information provided on this form is true to the best of my knowledge.

DRIVER NAME

Bayshore Recycling Inc.
75 Crows Mill Road, P.O. Box 290
Keasbey, N.J. 08832

Facility ID#: 132397

**TICKET NUMBER**

27082119

BILL TO

BSM2709463
BSM CREAMER ENVIRONMENTAL
NG BAY SHORE FMGP

BSM CREAMER ENVIRONMENTAL

PO#

| DATE | ENTRY TIME | OPER. | EXIT TIME | OPER. | GROSS WEIGHT | TARE WEIGHT | NET WEIGHT |
|---|---|---|---|---|---|---|---|
| 03/29/2010 | 15:24 | | 15:25 | | ( 86500 LB) | ( 25940 LB) | ( 60560 LB |
| 0015899 | Scale 01 | | | | Scale 01<br>( 43.25 T) | ( 12.97 T) | ( 30.28 T |

| VEHICLE NUMBER | VEHICLE TYPE | PLATE NUMBER | HAULER / TRANSACTION TYPE |
|---|---|---|---|
| AL777N | TRI-AXLE 25 | 879 | RAINBOW<br>Norma |

| QUANTITY | WC | DESCRIPTION / ORIGIN | UNITS | UNIT PRICE | AMOUNT |
|---|---|---|---|---|---|
| 30.2800 | 27 | ID 27<br>NEW YORK<br>LONG ISLAND | TON<br>100.00% | | |

I hereby certify that the above material is not a hazardous waste and the information provided on this form is true to the best of my knowledge.

DRIVER NAME

SIGNATURE

Bayshore Recycling Inc.
75 Crows Mill Road, P.O. Box 290
Keasbey, N.J. 08832

Facility ID#: 132397

**TICKET NUMBER**

27082122

BILL TO

BSM2709463
BSM CREAMER ENVIRONMENTAL
NG BAY SHORE FMGP

BSM CREAMER ENVIRONMENTAL

PO#

| DATE | ENTRY TIME | OPER. | EXIT TIME | OPER. | GROSS WEIGHT | TARE WEIGHT | NET WEIGHT * |
|---|---|---|---|---|---|---|---|
| 03/29/2010 | 15:42 | | 15:42 | | ( 80300 LB) | ( 25520 LB) | ( 54780 LB |
| 00158994 | Scale 01 | | | | Scale 01 ( 40.15 T) | ( 12.76 T) | ( 27.39 T |

| VEHICLE NUMBER | VEHICLE TYPE | PLATE NUMBER | HAULER / TRANSACTION TYPE |
|---|---|---|---|
| AL863U | TRI-AXLE 25 | 894 | RAINBOW Norma |

| QUANTITY | WC | DESCRIPTION / ORIGIN | UNITS | UNIT PRICE | AMOUNT |
|---|---|---|---|---|---|
| 27.3900 | 27 | ID 27<br>NEW YORK<br>LONG ISLAND | TON<br>100.00% | | |

I hereby certify that the above material is not a hazardous waste and the information provided on this form is true to the best of my knowledge.

DRIVER NAME _____ SIGNATURE

AL 772U

**NON-HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|
| 2709_463 | | 866-691-5145 | E 055983 |

**GENERATOR**

5. Generator's Name and Mailing Address
National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801
Generator's Phone: 718-040-5000

Generator's Site Address (if different than mailing address)
NG Bayshore FMGP_OU3 One Orinoco Drive
Brightwaters, NY 11718

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJR000029967

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Bayshore Soil Management, LLC.
75 Crows Mill Rd.
Keasbey, NJ 08832
Facility's Phone: 732-738-6000
U.S. EPA ID Number: NJ1225001522

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| 1 | Non-Hazardous MGP Soil for Thermal Disorption Only | | | 25 | T | |
| 2. | | | | | | 30.92 |
| 3. | | | | | | |
| 4. | | | | | | |

13. Special Handling Instructions and Additional Information

14. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shack Agent For National Grid — Signature: [signature] — Month 3 Day 29 Year 10

**INT'L**

15. International Shipments ☑ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Roger Meseñ — Signature: [signature] — Month 3 Day 29 Year 10

Transporter 2 Printed/Typed Name — Signature — Month Day Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number: 27882095

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: [signature] — Signature: [signature] — Month 3 Day 29 Year 10

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DESIGNATED FACILITY TO GENERATOR

**NON-HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|
| 2708_453 | | 866-691-5145 | E 055982 |

**GENERATOR**

5. Generator's Name and Mailing Address: National Grid (NG), 175 East Old Country Road, Hicksville, NY 11801
Generator's Phone: 516-545-2585

Generator's Site Address (if different than mailing address): NG Bayshore FMGP_OU3 One Orinoco Drive, Brightwaters, NY 11718

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJR000029967

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address: Bayshore Soil Management, LLC., 75 Crows Mill Rd, Keasbey, NJ 08832 — U.S. EPA ID Number: NJ1225001522
Facility's Phone: 732-738-5000

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| 1. | Non-Hazardous MGP Soil for Thermal Desorption Only | | | 25 | T | |
| 2. | | | | | | 32.63 |
| 3. | | | | | | |
| 4. | | | | | | |

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.
Generator's/Offeror's Printed/Typed Name: Tom Shock Agent For National Grid — Signature: [signature] — Month 3 Day 29 Year 10

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Rainbow Transport — Signature: [signature] — Month 3 Day 29 Year 10
Transporter 2 Printed/Typed Name: Truck # 888 — Signature: — Month Day Year

**DESIGNATED FACILITY**

17. Discrepancy
17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number: 27082096
Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a
Printed/Typed Name: [signature] — Signature: [signature] — Month 3 Day 29 Year 10

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DESIGNATED FACILITY TO GENERATOR

**NON-HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|
| 2709_453 | | 866-691-5145 | E 055984 |

**GENERATOR**

5. Generator's Name and Mailing Address: National Grid (NG), 175 East Old Country Road, Hicksville, NY 11801
Generator's Phone: 516-545-2586

Generator's Site Address (if different than mailing address): NG Bayshore FMGP_GUS One Orinoco Drive, Brightwaters, NY 11718

6. Transporter 1 Company Name: J & D Trucking 869 AM 1936 — U.S. EPA ID Number: NJR000029967

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address: Bayshore Soil Management, LLC., 75 Crows Mill Rd, Keasbey, NJ 08832 — U.S. EPA ID Number: NJ1225001522
Facility's Phone: 732-738-6000

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| 1. | Non-Hazardous MGP Soil for Thermal Disorption Only | | | 25 | T | |
| 2. | | | | | | 29.74 |
| 3. | | | | | | |
| 4. | | | | | | |

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.
Generator's/Offeror's Printed/Typed Name: Tom Shock Agent For National Grid — Signature: [signature] — Month 3 Day 29 Year 10

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Alex B. — Signature: [signature] — Month 3 Day 29 Year 10
Transporter 2 Printed/Typed Name — Signature — Month Day Year

**DESIGNATED FACILITY**

17. Discrepancy
17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number: 2706297
Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a
Printed/Typed Name: [signature] — Signature: [signature] — Month 3 Day 29 Year 10

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DESIGNATED FACILITY TO GENERATOR

894 AL8631

| NON-HAZARDOUS WASTE MANIFEST | 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|---|
| | 2709_463 | | 855-691-5145 | E 055985 |

5. Generator's Name and Mailing Address
National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801
Generator's Phone: 516-545-2000

Generator's Site Address (if different than mailing address)
NG Bayshore FMGP_OU3 One Orinoco Drive
Brightwaters, NY 11718

6. Transporter 1 Company Name: J & D Trucking (Rainbow). U.S. EPA ID Number: NJR000029967

7. Transporter 2 Company Name: U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Bayshore Soil Management, LLC.
75 Crows Mill Rd
Keasbey, NJ 08832
Facility's Phone: 732-738-6000
U.S. EPA ID Number: NJ1225001532

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| 1 | Non-Hazardous MGP Soil for Thermal Disorption Only | | | 25 | T | |
| 2. | | | | | | 28.69 |
| 3. | | | | | | |
| 4. | | | | | | |

13. Special Handling Instructions and Additional Information

14. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.
Generator's/Offeror's Printed/Typed Name: J Shook Agent For National Grid Signature: J Shook Month: 3 Day: 29 Year: 10

INT'L
15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER
16. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Eric Rojas. AL8631 Signature: Month: 3 Day: 29 Year: 10
Transporter 2 Printed/Typed Name: Signature: Month: Day: Year:

DESIGNATED FACILITY
17. Discrepancy
17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
17b. Alternate Facility (or Generator) U.S. EPA ID Number: 27082099
Facility's Phone:
17c. Signature of Alternate Facility (or Generator) Month: Day: Year:

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a
Printed/Typed Name: Signature: Month: 3 Day: 29 Year: 10

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DESIGNATED FACILITY TO GENERATOR

NON-HAZARDOUS WASTE MANIFEST

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|
| 2709_463 | | 855-691-5145 | E 055986 |

5. Generator's Name and Mailing Address
National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801

Generator's Site Address (if different than mailing address)
NG Bayshore FMGP_OU3 One Ormoco Drive
Brightwaters, NY 11718

Generator's Phone: 516-545-2585

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJR000029967

7. Transporter 2 Company Name — U.S. EPA ID Number

# 879 AL777N

8. Designated Facility Name and Site Address
Bayshore Soil Management, LLC.
75 Crows Mill Rd
Keasbey, NJ 08832

U.S. EPA ID Number: NJ1225001522

Facility's Phone: 732-738-6000

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| 1. | Non-Hazardous MGP Soil for Thermal Disorption Only | | | 25 | T | |
| 2. | | | | | | 32.51 |
| 3. | | | | | | |
| 4. | | | | | | |

13. Special Handling Instructions and Additional Information

14. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shack Agent For National Grid — Signature — Month 3 Day 29 Year 10

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name — Signature — Month 3 Day 29 Year 10

Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number: 270824OO

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month 3 Day 29 Year 10

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DESIGNATED FACILITY TO GENERATOR

AL772N

**NON-HAZARDOUS WASTE MANIFEST**

1. Generator ID Number: 2709_453
2. Page 1 of
3. Emergency Response Phone: 855-691-5145
4. Waste Tracking Number: E 055987

5. Generator's Name and Mailing Address
National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801
Generator's Phone: 516-545-2500

Generator's Site Address (if different than mailing address)
NG Bayshore FMGP_OU3 One Orinoco Drive
Brightwaters, NY 11718

6. Transporter 1 Company Name: J & D Trucking
U.S. EPA ID Number: NJR000029957

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
Bayshore Soil Management, LLC.
75 Crows Mill Rd
Keasbey, NJ 08832
Facility's Phone: 732-738-6000
U.S. EPA ID Number: NJ1225001522

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt/Vol. | |
|---|---|---|---|---|---|---|
| 1 | Non-Hazardous MGP Soil for Thermal Disorption Only | | | 25 | T | |
| 2. | | | | | | 29.87 |
| 3. | | | | | | |
| 4. | | | | | | |

13. Special Handling Instructions and Additional Information

14. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.
Generator's/Offeror's Printed/Typed Name: Tom Shock Agent For National Grid
Signature:
Month: 3 Day: 29 Year: 16

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Roger M.
Signature:
Month: 3 Day: 29 Year: 16
Transporter 2 Printed/Typed Name
Signature
Month Day Year

17. Discrepancy
17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

17b. Alternate Facility (or Generator)
U.S. EPA ID Number: 2706215
Facility's Phone:

17c. Signature of Alternate Facility (or Generator)
Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a
Printed/Typed Name:
Signature:
Month: 3 Day: 30 Year: 16

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

169-BLC-O 5 11977 (Rev. 8/06)

DESIGNATED FACILITY TO GENERATOR

| NON-HAZARDOUS WASTE MANIFEST | 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|---|
| | 2709_463 | | 866-691-5145 | E 055989 |

5. Generator's Name and Mailing Address
National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801
Generator's Phone: 516-545-2500

Generator's Site Address (if different than mailing address)
NG Bayshore FMGP_OU3 One Orinoco Drive
Brightwaters, NY 11718

6. Transporter 1 Company Name: J & D Trucking — 869 AM 193E — U.S. EPA ID Number: NJR000029967

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
Bayshore Soil Management, LLC.
75 Crows Mill Rd
Keasbey, NJ 08832
Facility's Phone: 732-738-6000
U.S. EPA ID Number: NJ1225001522

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| | 1 Non-Hazardous MGP Soil for Thermal Disorption Only | | | 25 | T | |
| | 2. | | | | | 27.21 |
| | 3. | | | | | |
| | 4. | | | | | |

13. Special Handling Instructions and Additional Information

14. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.
Generator's/Offeror's Printed/Typed Name: Tom Shock Agent For National Grid — Signature — Month 3 Day 29 Year 10

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Alex Berard — Signature — Month 3 Day 29 Year 10
Transporter 2 Printed/Typed Name — Signature — Month Day Year

17. Discrepancy
17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number: 2708216
Facility's Phone:
17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a
Printed/Typed Name — Signature — Month 3 Day 29 Year 10

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

**NON-HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|
| 2709_463 | | 855-691-5145 | E 055988 |

**GENERATOR**

5. Generator's Name and Mailing Address
National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801

Generator's Site Address (if different than mailing address)
NG Bayshore FMGP_OUS One Orinoco Drive
Brightwaters, NY 11718

Generator's Phone: 516-545-2585

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJR000029967

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
Bayshore Soil Management, LLC.
75 Crowe Mill Rd
Keasbey, NJ 08832

U.S. EPA ID Number: NJ1225001622

Facility's Phone: 732-738-6000

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| 1. | Non-Hazardous MGP Soil for Thermal Disruption Only | | | 25 | T | |
| 2. | | | | | | 29.76 |
| 3. | | | | | | |
| 4. | | | | | | |

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shatt Agent For National Grid — Signature — Month 3 Day 29 Year

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Rainbow T 888 605 — Signature — Month 3 Day 29 Year 10

Transporter 2 Printed/Typed Name — Signature — Month Day Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number: 2708217

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month 3 Day 29 Year 10

169-BLC-O 5 11977 (Rev. 8/06)

DESIGNATED FACILITY TO GENERATOR

**NON-HAZARDOUS WASTE MANIFEST**

1. Generator ID Number: 2709_463
2. Page 1 of
3. Emergency Response Phone: 866-691-5145
4. Waste Tracking Number: E 055990

5. Generator's Name and Mailing Address: National Grid (NG), 175 East Old Country Road, Hicksville, NY 11801
Generator's Site Address (if different than mailing address): NG Bayshore FMGP_OU3 One Orinoco Drive, Brightwaters, NY 11718
Generator's Phone: 516-545-2586

6. Transporter 1 Company Name: J & D Trucking
U.S. EPA ID Number: NJR000029967

7. Transporter 2 Company Name: Lambert #879 ALXZZN
U.S. EPA ID Number:

8. Designated Facility Name and Site Address: Bayshore Soil Management, LLC., 75 Crows Mill Rd, Keasbey, NJ 08832
U.S. EPA ID Number: NJ1229001522
Facility's Phone: 732-738-6000

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| 1. | Non-Hazardous MGP Soil for Thermal Disoption Only | | | 25 | T | |
| 2. | | | | | | 30.28 |
| 3. | | | | | | |
| 4. | | | | | | |

13. Special Handling Instructions and Additional Information

14. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.
Generator's/Offeror's Printed/Typed Name: Tom Shack Agent For National Grid
Signature: T Shack
Month 3 Day 29 Year 10

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Signature: Month 3 Day 29 Year 10
Transporter 2 Printed/Typed Name: Signature: Month Day Year

17. Discrepancy
17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
17b. Alternate Facility (or Generator) U.S. EPA ID Number: 270219
Facility's Phone:
17c. Signature of Alternate Facility (or Generator) Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a
Printed/Typed Name: VM Signature: VM Month 3 Day 29 Year 10

GENERATOR — INT'L — TRANSPORTER — DESIGNATED FACILITY

894 A18631

| NON-HAZARDOUS WASTE MANIFEST | 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|---|
| | 2709_463 | | 855-691-5145 | E 055991 |

**5. Generator's Name and Mailing Address**
National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801
Generator's Phone: ~~516-545-2500~~

**Generator's Site Address (if different than mailing address)**
NG Bayshore FMGP_OUS One Grimaco Drive
Brightwaters, NY 11718

**6. Transporter 1 Company Name**
J & D Trucking (Rainbow)

**U.S. EPA ID Number**
NJR000029967

**7. Transporter 2 Company Name**

**U.S. EPA ID Number**

**8. Designated Facility Name and Site Address**
Bayshore Soil Management, LLC.
75 Crows Mill Rd
Keasbey, NJ 08832
Facility's Phone: 732-738-6000

**U.S. EPA ID Number**
NJ1225001622

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| | 1Non-Hazardous MGP Soil for Thermal Disorption Only | | | 25 | T | |
| | 2. | | | | | 27.39 |
| | 3. | | | | | |
| | 4. | | | | | |

**13. Special Handling Instructions and Additional Information**

**14. GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shock Agent For National Grid | Signature: T. Shock | Month: 3 | Day: 29 | Year: 10

**INT'L**

**15. International Shipments** ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

**16. Transporter Acknowledgment of Receipt of Materials**

Transporter 1 Printed/Typed Name: Eric Rojas A18631 | Signature | Month: 3 | Day: 29 | Year: 10

Transporter 2 Printed/Typed Name | Signature | Month | Day | Year

**DESIGNATED FACILITY**

**17. Discrepancy**

**17a. Discrepancy Indication Space** ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

**17b. Alternate Facility (or Generator)**

Facility's Phone:

U.S. EPA ID Number: 27082122

**17c. Signature of Alternate Facility (or Generator)** | Month | Day | Year

**18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a**

Printed/Typed Name: [illegible] | Signature: [illegible] | Month: 3 | Day: 29 | Year: 10

# Acknowledgment of Treatment and Recycling

Bayshore Soil Management, LLC hereby acknowledges

***The Treatment***

Of 296.97 tons of

Coal Tar Contaminated Soil
(Received on 3/30/10)

From the **National Grid Bay Shore Former MGP, Brightwaters, NY**

**Bayshore Soil Management, LLC.**

**March 31, 2010**
AIR: Facility ID Number 18437; Permit PCP070003
CLASS B: Facility ID Number 132397: Permit CBG060002
Keasbey, New Jersey

Certificate Number 2709-463-033010

**CEI- National Grid Bay Shore Former MGP site**

| Job_Name | Datetime | CustomerID | Location | SiteStreet | SiteCity | SiteState | Sitetype | WasteCo | TicketNumber | ManafestNum | TruckId | WeightGros | WeightNet | Tons | RATE | TRANS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2709-463 | 3/30/2010 | CEI10 | National Grid Bay Shore Former MGP site | One Orinoco Drive | Brightwaters | NY | Coal Tar contaminated soils | CT01 | 27082157 | E056000 | AL772N 876 | 88800 | 63060 | 31.53 | | |
| 2709-463 | 3/30/2010 | CEI10 | National Grid Bay Shore Former MGP site | One Orinoco Drive | Brightwaters | NY | Coal Tar contaminated soils | CT01 | 27082167 | E055999 | AJ560T 826 | 81500 | 55220 | 27.61 | | |
| 2709-463 | 3/30/2010 | CEI10 | National Grid Bay Shore Former MGP site | One Orinoco Drive | Brightwaters | NY | Coal Tar contaminated soils | CT01 | 27082170 | E055997 | AL777N 879 | 88940 | 63000 | 31.5 | | |
| 2709-463 | 3/30/2010 | CEI10 | National Grid Bay Shore Former MGP site | One Orinoco Drive | Brightwaters | NY | Coal Tar contaminated soils | CT01 | 27082171 | E055998 | AL659B 81 | 88440 | 62200 | 31.1 | | |
| 2709-463 | 3/30/2010 | CEI10 | National Grid Bay Shore Former MGP site | One Orinoco Drive | Brightwaters | NY | Coal Tar contaminated soils | CT01 | 27082177 | E055996 | AL863U 894 | 79000 | 53480 | 26.74 | | |
| 2709-463 | 3/30/2010 | CEI10 | National Grid Bay Shore Former MGP site | One Orinoco Drive | Brightwaters | NY | Coal Tar contaminated soils | CT01 | 27082203 | E055995 | AL772N 876 | 82940 | 57200 | 28.6 | | |
| 2709-463 | 3/30/2010 | CEI10 | National Grid Bay Shore Former MGP site | One Orinoco Drive | Brightwaters | NY | Coal Tar contaminated soils | CT01 | 27082206 | E055994 | AJ560T 826 | 87460 | 61180 | 30.59 | | |
| 2709-463 | 3/30/2010 | CEI10 | National Grid Bay Shore Former MGP site | One Orinoco Drive | Brightwaters | NY | Coal Tar contaminated soils | CT01 | 27082207 | E055992 | AL659B 81 | 87880 | 61640 | 30.82 | | |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2709-463 | 3/30/2010 | CEI10 | National Grid Bay Shore Former MGP site | One Orinoco Drive | Brightwaters | NY | Coal Tar contaminated soils | CT01 | 27082209 | E055981 | AL863U 894 | 83240 | 57720 | 28.86 | | |
| 2709-463 | 3/30/2010 | CEI10 | National Grid Bay Shore Former MGP site | One Orinoco Drive | Brightwaters | NY | Coal Tar contaminated soils | CT01 | 27082212 | E055993 | AL777N 879 | 85180 | 59240 | 29.62 | | |
| | | | | | | | | | 10 | | | | 593940 | 296.97 | | |

Bayshore Recycling Inc.
75 Crows Mill Road, P.O. Box 290
Keasbey, N.J. 08832

Facility ID#: 132397

**TICKET NUMBER**

27082157

BILL TO

BSM2709463
BSM CREAMER ENVIRONMENTAL
NG BAY SHORE FMGP

BSM CREAMER ENVIRONMENTAL

PO#

| DATE | ENTRY TIME | OPER. | EXIT TIME | OPER. | GROSS WEIGHT | TARE WEIGHT | NET WEIGHT |
|---|---|---|---|---|---|---|---|
| 03/30/2010 | 10:09 | | 10:09 | | ( 80800 LB) | ( 25740 LB) | ( 63060 LB |
| 00159040 | Scale 01 | | | | Scale 01<br>( 44.40 T) | ( 12.87 T) | ( 31.53 T |

| VEHICLE NUMBER | VEHICLE TYPE | PLATE NUMBER | HAULER / TRANSACTION TYPE |
|---|---|---|---|
| AL772N | TRI-AXLE 25 | 876 | RAINBOW Norma |

| QUANTITY | WC | DESCRIPTION / ORIGIN | UNITS | UNIT PRICE | AMOUNT |
|---|---|---|---|---|---|
| 31.5300 | 27 | ID 27<br>NEW YORK<br>LONG ISLAND | TON<br>100.00% | | |

I hereby certify that the above material is not a hazardous waste and the information provided on this form is true to the best of my knowledge.

DRIVER NAME PRINT Roger SIGNATURE _____

Bayshore Recycling Inc.
75 Crows Mill Road, P.O. Box 290
Keasbey, N.J. 08832

Facility ID#: 132397

**TICKET NUMBER**

27002167

BILL TO

BSM2709463
BSM CREAMER ENVIRONMENTAL
NG BAY SHORE FMGP

BSM CREAMER ENVIRONMENTAL

PO#

| DATE | ENTRY TIME | OPER. | EXIT TIME | OPER. | GROSS WEIGHT | TARE WEIGHT | NET WEIGHT |
|---|---|---|---|---|---|---|---|
| 03/30/2010 | 10:41 | | 10:41 | | ( 81500 LB) | ( 26280 LB) | ( 55220 LB |
| 0015905 | Scale 01 | | | | Scale 01 ( 40.75 T) | ( 13.14 T) | ( 27.61 T |

| VEHICLE NUMBER | VEHICLE TYPE | PLATE NUMBER | HAULER / TRANSACTION TYPE |
|---|---|---|---|
| AJ560T | TRI-AXLE 25 | 826 | NJF Norma |

| QUANTITY | WC | DESCRIPTION / ORIGIN | UNITS | UNIT PRICE | AMOUNT |
|---|---|---|---|---|---|
| 27.6100 | 27 | ID 27<br>NEW YORK<br>LONG ISLAND | TON<br>100.00% | | |

I hereby certify that the above material is not a hazardous waste and the information provided on this form is true to the best of my knowledge.

DRIVER NAME PRINT Abdo Soo SIGNATURE _____

Bayshore Recycling Inc.
75 Crows Mill Road, P.O. Box 290
Keasbey, N.J. 08832

Facility ID#: 132397

**TICKET NUMBER**

27082170

BILL TO

BSM2709463
BSM CREAMER ENVIRONMENTAL
NG BAY SHORE FMGP

BSM CREAMER ENVIRONMENTAL

PO#

| DATE | ENTRY TIME | OPER. | EXIT TIME | OPER. | GROSS WEIGHT | TARE WEIGHT | NET WEIGHT |
|---|---|---|---|---|---|---|---|
| 03/30/2010 | 10:47 | | 10:48 | | ( 88940 LB) | ( 25940 LB) | ( 63000 LB |
| 0015905 | Scale 01 | | | | Scale 01 ( 44.47 T) | ( 12.97 T) | ( 31.50 T |

| VEHICLE NUMBER | VEHICLE TYPE | PLATE NUMBER | HAULER / TRANSACTION TYPE |
|---|---|---|---|
| AL777N | TRI-AXLE 25 | 879 | RAINBOW Normal |

| QUANTITY | WC | DESCRIPTION / ORIGIN | UNITS | UNIT PRICE | AMOUNT |
|---|---|---|---|---|---|
| 31.5000 | 27 | ID 27<br>NEW YORK<br>LONG ISLAND | TON<br>100.00% | | |

I hereby certify that the above material is not a hazardous waste and the information provided on this form is true to the best of my knowledge.

DRIVER NAME
PRINT _____ SIGNATURE _____

Bayshore Recycling Inc.
[illegible] Crows Mill Road, P.O. Box 290
Keasbey, N.J. 08832

Facility ID#: 132397

**TICKET NUMBER**

27082171

BILL TO

BSM2709463
BSM CREAMER ENVIRONMENTAL
NG BAY SHORE FMGP

BSM CREAMER ENVIRONMENTAL

PO#

| DATE | ENTRY TIME | OPER | EXIT TIME | OPER | GROSS WEIGHT | TARE WEIGHT | NET WEIGHT |
|---|---|---|---|---|---|---|---|
| 03/30/2010 | 10:52 | | 10:53 | | ( 88440 LB) | ( 26240 LB) | ( 62200 LB |
| | | | | | Scale 01 | | |
| 00159057 | Scale 01 | | | | ( 44.22 T) | ( 13.12 T) | ( 31.10 T |

| VEHICLE NUMBER | VEHICLE TYPE | PLATE NUMBER | HAULER / TRANSACTION TYPE |
|---|---|---|---|
| AL659B | TRI-AXLE 25 | 81 | RAINBOW |
| | | | Norma |

| QUANTITY | WC | DESCRIPTION / ORIGIN | UNITS | UNIT PRICE | AMOUNT |
|---|---|---|---|---|---|
| 31.1000 | 27 | ID 27<br>NEW YORK<br>LONG ISLAND | TON<br>100.00% | | |

I hereby certify that the above material is not a hazardous waste and the information provided on this form is true to the best of my knowledge.

DRIVER NAME
PRINT _____ SIGNATURE _____

Bayshore Recycling Inc.
75 Crows Mill Road, P.O. Box 290
Keasbey, N.J. 08832

Facility ID#: 132397

**TICKET NUMBER**

27082177

BILL TO

BSM2709463
BSM CREAMER ENVIRONMENTAL
NG BAY SHORE FMGP

BSM CREAMER ENVIRONMENTAL

PO#

| DATE | ENTRY TIME | OPER. | EXIT TIME | OPER. | GROSS WEIGHT | TARE WEIGHT | NET WEIGHT |
|---|---|---|---|---|---|---|---|
| 03/30/2010 | 11:24 | | 11:25 | | ( 79000 LB) | ( 25520 LB) | ( 53480 LB |
| 0015906 | 7 Scale 01 | | | | Scale 01<br>( 39.50 T) | ( 12.76 T) | ( 26.74 T |

| VEHICLE NUMBER | VEHICLE TYPE | PLATE NUMBER | HAULER / TRANSACTION TYPE |
|---|---|---|---|
| AL863U | TRI-AXLE 25 | 894 | RAINBOW<br>Norma |

| QUANTITY | WC | DESCRIPTION / ORIGIN | UNITS | UNIT PRICE | AMOUNT |
|---|---|---|---|---|---|
| 26.7400 | 27 | ID 27<br>NEW YORK<br>LONG ISLAND | TON<br>100.00% | | |

I hereby certify that the above material is not a hazardous waste and the information provided on this form is true to the best of my knowledge.

DRIVER NAME
PRINT _____ SIGNATURE _____

Bayshore Recycling Inc.
Crows Mill Road, P.O. Box 290
Keasbey, N.J. 08832

Facility ID#: 132397

**TICKET NUMBER**

27082203

BILL TO

BSM2709463
BSM CREAMER ENVIRONMENTAL
NG BAY SHORE FMGP

BSM CREAMER ENVIRONMENTAL

PO#

| DATE | ENTRY TIME | OPER. | EXIT TIME | OPER. | GROSS WEIGHT | TARE WEIGHT | NET WEIGHT * |
|---|---|---|---|---|---|---|---|
| 03/30/2010 | 14:34 | | 14:35 | | ( 82940 LB) | ( 25740 LB) | ( 57200 LB |
| | | | | | Scale 01 | | |
| 00159096 | Scale 01 | | | | ( 41.47 T) | ( 12.87 T) | ( 28.60 T |

| VEHICLE NUMBER | VEHICLE TYPE | PLATE NUMBER | HAULER / TRANSACTION TYPE |
|---|---|---|---|
| AL772N | TRI-AXLE 25 | 876 | RAINBOW |
| | | | Norma |

| QUANTITY | WC | DESCRIPTION / ORIGIN | UNITS | UNIT PRICE | AMOUNT |
|---|---|---|---|---|---|
| 28.6000 | 27 | ID 27<br>NEW YORK<br>LONG ISLAND | TON<br>100.00% | | |

I hereby certify that the above material is not a hazardous waste and the information provided on this form is true to the best of my knowledge.

DRIVER NAME
PRINT Roger

SIGNATURE

Bayshore Recycling Inc.
75 Crows Mill Road, P.O. Box 290
Keasbey, N.J. 08832

Facility ID#: 132397

**TICKET NUMBER**

27082206

BILL TO

BSM2709463
BSM CREAMER ENVIRONMENTAL
NG BAY SHORE FMGP

BSM CREAMER ENVIRONMENTAL

PO#

| DATE | ENTRY TIME | OPER. | EXIT TIME | OPER. | GROSS WEIGHT | TARE WEIGHT | NET WEIGHT |
|---|---|---|---|---|---|---|---|
| 03/30/2010 | 14:57 | | 14:58 | | ( 87460 LB) | ( 26280 LB) | ( 61180 LB |
| 00159099 | Scale 01 | | | | Scale 01<br>( 43.73 T) | ( 13.14 T) | ( 30.59 T |

| VEHICLE NUMBER | VEHICLE TYPE | PLATE NUMBER | HAULER / TRANSACTION TYPE |
|---|---|---|---|
| AJ560T | TRI-AXLE 25 | 826 | NJF<br>Norma |

| QUANTITY | WC | DESCRIPTION / ORIGIN | UNITS | UNIT PRICE | AMOUNT |
|---|---|---|---|---|---|
| 30.5900 | 27 | ID 27<br>NEW YORK<br>LONG ISLAND | TON<br>100.00% | | |

I hereby certify that the above material is not a hazardous waste and the information provided on this form is true to the best of my knowledge.

DRIVER NAME
PRINT _____ SIGNATURE _____

Bayshore Recycling Inc.
75 Crows Mill Road, P.O. Box 290
Keasbey, N.J. 08832

Facility ID#: 132397

**TICKET NUMBER**

27082207

BILL TO

BSM2709463
BSM CREAMER ENVIRONMENTAL
NG BAY SHORE FMGP

BSM CREAMER ENVIRONMENTAL

PO#

| DATE | ENTRY TIME | OPER. | EXIT TIME | OPER. | GROSS WEIGHT | TARE WEIGHT | NET WEIGHT * |
|---|---|---|---|---|---|---|---|
| 03/30/2010 | 15:15 | | 15:15 | | ( 87880 LB) | ( 26240 LB) | ( 61640 LB |
| 00159100 | Scale 01 | | | | Scale 01 | | |
| | | | | | ( 43.94 T) | ( 13.12 T) | ( 30.82 T |

| VEHICLE NUMBER | VEHICLE TYPE | PLATE NUMBER | HAULER / TRANSACTION TYPE |
|---|---|---|---|
| AL659B | TRI-AXLE 25 | 81 | RAINBOW Norma |

| QUANTITY | WC | DESCRIPTION / ORIGIN | UNITS | UNIT PRICE | AMOUNT |
|---|---|---|---|---|---|
| 30.8200 | 27 | ID 27<br>NEW YORK<br>LONG ISLAND | TON<br>100.00% | | |

I hereby certify that the above material is not a hazardous waste and the information provided on this form is true to the best of my knowledge.

DRIVER NAME PRINT _____ SIGNATURE

Bayshore Recycling Inc.
75 Crows Mill Road, P.O. Box 290
Keasbey, N.J. 08832

Facility ID#: 132397

**TICKET NUMBER**

27082209

BILL TO

BSM2709463
BSM CREAMER ENVIRONMENTAL
NG BAY SHORE FMGP

BSM CREAMER ENVIRONMENTAL

PO#

| DATE | ENTRY TIME | OPER. | EXIT TIME | OPER. | GROSS WEIGHT | TARE WEIGHT | NET WEIGHT |
|---|---|---|---|---|---|---|---|
| 03/30/2010 | 15:46 | | 15:47 | | ( 83240 LB) | ( 25520 LB) | ( 57720 LB |
| 00159103 | Scale 01 | | | | Scale 01 ( 41.62 T) | ( 12.76 T) | ( 28.86 T |

| VEHICLE NUMBER | VEHICLE TYPE | PLATE NUMBER | HAULER / TRANSACTION TYPE |
|---|---|---|---|
| AL863U | TRI-AXLE 25 | 894 | RAINBOW Norma |

| QUANTITY | WC | DESCRIPTION / ORIGIN | UNITS | UNIT PRICE | AMOUNT |
|---|---|---|---|---|---|
| 28.8600 | 27 | ID,27<br>NEW YORK<br>LONG ISLAND | TON<br>100.00% | | |

I hereby certify that the above material is not a hazardous waste and the information provided on this form is true to the best of my knowledge.

DRIVER NAME
PRINT _____ SIGNATURE

Bayshore Recycling Inc.
75 Crows Mill Road, P.O. Box 290
Keasbey, N.J. 08832

Facility ID#: 132397

**TICKET NUMBER**

27082212

BILL TO

BSM2709463
BSM CREAMER ENVIRONMENTAL
NG BAY SHORE FMGP

BSM CREAMER ENVIRONMENTAL

PO#

| DATE | ENTRY TIME | OPER. | EXIT TIME | OPER. | GROSS WEIGHT | TARE WEIGHT | NET WEIGHT |
|---|---|---|---|---|---|---|---|
| 03/30/2010<br>00159106 | 16:29<br>Scale 01 | | 16:29 | | ( 85180 LB)<br>( 42.59 T) | ( 25940 LB)<br>( 12.97 T) | ( 59240 LB<br>( 29.62 T |

| VEHICLE NUMBER | VEHICLE TYPE | PLATE NUMBER | HAULER / TRANSACTION TYPE |
|---|---|---|---|
| AL777N | TRI-AXLE 25 | 879 | RAINBOW<br>Norma |

| QUANTITY | WC | DESCRIPTION / ORIGIN | UNITS | UNIT PRICE | AMOUNT |
|---|---|---|---|---|---|
| 29.6200 | 27 | ID 27<br>NEW YORK<br>LONG ISLAND | TON<br>100.00% | | |

I hereby certify that the above material is not a hazardous waste and the information provided on this form is true to the best of my knowledge.

DRIVER NAME
PRINT _____ SIGNATURE _____

AL772 N

**NON-HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|
| 2709_453 | | 855-691-5145 | E 056000 |

**GENERATOR**

5. Generator's Name and Mailing Address: National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801

Generator's Site Address (if different than mailing address): NG Bayshore FMGP_OU3 One Orinoco Drive
Brightwaters, NY 11718

Generator's Phone: 516-545-2585

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJR000029967

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address: Bayshore Soil Management, LLC.
75 Crows Mill Rd
Keasbey, NJ 08832 — U.S. EPA ID Number: NJH225001522

Facility's Phone: 732-738-6000

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| 1. | Non-Hazardous MGP Soil for Thermal Disorption Only | | | 25 | T | |
| 2. | | | | | | 31.53 |
| 3. | | | | | | |
| 4. | | | | | | |

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shock Agent For National Grid — Signature: T Shock — Month 3 Day 30 Year 10

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Roger M — Signature: — Month 3 Day 30 Year 10

Transporter 2 Printed/Typed Name — Signature — Month Day Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number: 27082457

Facility's Phone: — Month Day Year

17c. Signature of Alternate Facility (or Generator)

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month 3 Day 30 Year 10

169-BLC-O 5 11977 (Rev. 8/06)

DESIGNATED FACILITY TO GENERATOR

AJ560T

**NON-HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|
| 2709_453 | | 866-691-5145 | E 055999 |

**GENERATOR**

5. Generator's Name and Mailing Address
National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801
Generator's Phone: 516-545-2000

Generator's Site Address (if different than mailing address)
NG Bayshore FMGP_OU3 One Orinoco Drive
Brightwaters, NY 11718

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJR000029967

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Bayshore Soil Management, LLC.
75 Crows Mill Rd
Keasbey, NJ 08832
Facility's Phone: 732-738-6000
U.S. EPA ID Number: NJ1225001522

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. |
|---|---|---|---|---|---|
| 1 | Non-Hazardous MGP Soil for Thermal Disorption Only | | | 25 | T |
| 2. | | | | | 2761 |
| 3. | | | | | |
| 4. | | | | | |

13. Special Handling Instructions and Additional Information

14. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.
Generator's/Offeror's Printed/Typed Name: Tom Shock Agent For National Grid — Signature: T. Shock — Month 3 Day 30 Year 10

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Clyde Seward — Signature — Month 3 Day 30 Year 10
Transporter 2 Printed/Typed Name — Signature — Month Day Year

**DESIGNATED FACILITY**

17. Discrepancy
17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number: 27082167
Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a
Printed/Typed Name — Signature — Month 3 Day 30 Year 10

169-BLC-O 5 11977 (Rev. 8/06)

DESIGNATED FACILITY TO GENERATOR

**NON-HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|
| 2709_453 | | 866-691-5145 | E 055997 |

**GENERATOR**

5. Generator's Name and Mailing Address
National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801

Generator's Site Address (if different than mailing address)
NG Bayshore FMGP_OU3 One Orinoco Drive
Brightwaters, NY 11718

Generator's Phone: 516-545-2000

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJR000029967

7. Transporter 2 Company Name: Rainbow #879 AL777N — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Bayshore Soil Management, LLC.
75 Crows Mill Rd
Keasbey, NJ 08832

U.S. EPA ID Number: NJ1225001522

Facility's Phone: 732-738-6000

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. |
|---|---|---|---|---|---|
| 1 | Non-Hazardous MGP Soil for Thermal Disorption Only | | | 25 | T |
| 2. | | | | | 31.50 |
| 3. | | | | | |
| 4. | | | | | |

13. Special Handling Instructions and Additional Information

14. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shock Agent For National Grid — Signature: T Shock — Month / Day / Year:

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name — Signature — Month / Day / Year: 03 / 30 / 10

Transporter 2 Printed/Typed Name — Signature — Month / Day / Year:

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number: 27082170

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month / Day / Year:

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: TA — Signature: TA — Month / Day / Year: 3 / 30 / 10

AL 659B

**NON-HAZARDOUS WASTE MANIFEST**

1. Generator ID Number: 2709_463
2. Page 1 of
3. Emergency Response Phone: 855-691-5145
4. Waste Tracking Number: E 055998

5. Generator's Name and Mailing Address: National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801

Generator's Site Address (if different than mailing address): NG Bayshore FMGP_OU3 One Orinoco Drive
Brightwaters, NY 11718

Generator's Phone: 516-545-2586

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJR000029967

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address: Bayshore Soil Management, LLC.
75 Crows Mill Rd
Keasbey, NJ 08832

U.S. EPA ID Number: NJ1225001522

Facility's Phone: 732-738-5000

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| 1 | Non-Hazardous MGP Soil for Thermal Disorption Only | | | 25 | T | 3110 |
| 2. | | | | | | |
| 3. | | | | | | |
| 4. | | | | | | |

13. Special Handling Instructions and Additional Information

14. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shalk Agent For National Grid — Signature: T. Shalk — Month / Day / Year:

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Steve Twood — Signature: — Month: 3 Day: 30 Year: 10

Transporter 2 Printed/Typed Name — Signature — Month: 3 Day: 30 Year: 10

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number: 27082171

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month / Day / Year:

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month: 3 Day: 30 Year: 10

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

169-BLC-O 5 11977 (Rev. 8/06)

DESIGNATED FACILITY TO GENERATOR

894 AL8636.

**NON-HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|
| 2709_463 | | 855-691-5145 | E 055996 |

**GENERATOR**

5. Generator's Name and Mailing Address: National Grid (NG), 175 East Old Country Road, Hicksville, NY 11801

Generator's Site Address (if different than mailing address): NG Bayshore FMGP_OU3 One Orinoco Drive, Brightwaters, NY 11718

Generator's Phone: 516-545-2586

6. Transporter 1 Company Name: J & D Trucking (Rambaw). U.S. EPA ID Number: NJR000028967

7. Transporter 2 Company Name: U.S. EPA ID Number:

8. Designated Facility Name and Site Address: Bayshore Soil Management, LLC, 75 Crows Mill Rd, Keasbey, NJ 08832. U.S. EPA ID Number: NJ1225001522

Facility's Phone: 732-738-5000

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| 1. | Non-Hazardous MGP Soil for Thermal Disorption Only | | | 25 | T | |
| 2. | | | | | | 2674 |
| 3. | | | | | | |
| 4. | | | | | | |

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shock Agent For National Grid — Signature: T Shock — Month 3 Day 30 Year 10

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Eric Bright AL8636 — Signature: — Month 3 Day 30 Year 10

Transporter 2 Printed/Typed Name: — Signature: — Month Day Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number: 2708 2177

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: — Signature: — Month 3 Day 30 Year 10

169-BLC-O 5 11977 (Rev. 8/06)

DESIGNATED FACILITY TO GENERATOR

AL772N

**NON-HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|
| 2709_463 | | 855-691-5145 | E 055995 |

**GENERATOR**

5. Generator's Name and Mailing Address
National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801
Generator's Phone: 516-545-2000

Generator's Site Address (if different than mailing address)
NG Bayshore FMGP_OU3 One Orinoco Drive
Brightwaters, NY 11718

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJR000029967

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Bayshore Soil Management, LLC.
75 Crows Mill Rd
Keasbey, NJ 08832
Facility's Phone: 732-738-5000
U.S. EPA ID Number: NJ1222001522

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. |
|---|---|---|---|---|---|
| 1 | Non-Hazardous MGP Soil for Thermal Disorption Only | | | 25 | T |
| 2. | | | | | 2860 |
| 3. | | | | | |
| 4. | | | | | |

13. Special Handling Instructions and Additional Information

14. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.
Generator's/Offeror's Printed/Typed Name: Tom Shock Agent For National Grid — Signature: [signature] — Month 3 Day 30 Year 10

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Roger M. — Signature: [signature] — Month Day Year
Transporter 2 Printed/Typed Name — Signature — Month Day Year

**DESIGNATED FACILITY**

17. Discrepancy
17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
17b. Alternate Facility (or Generator) — U.S. EPA ID Number: 27082203
Facility's Phone:
17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a
Printed/Typed Name: [signature] — Signature: [signature] — Month 3 Day 30 Year 10

DESIGNATED FACILITY TO GENERATOR

169-BLC-O 5 11977 (Rev. 8/06)

AJ560T

**NON-HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|
| 2709_453 | | 866-591-5145 | E 055994 |

**GENERATOR**

5. Generator's Name and Mailing Address
National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801

Generator's Phone: 516-545-2585

Generator's Site Address (if different than mailing address)
NG Bayshore FMGP_OU3 One Crimson Drive
Brightwaters, NY 11718

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJR000029957

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
Bayshore Soil Management, LLC.
75 Crows Mill Rd
Keasbey, NJ 08832

Facility's Phone: 732-738-6000

U.S. EPA ID Number: NJ1225001522

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| 1 | Non-Hazardous MGP Soil for Thermal Desorption Only | | | 25 | T | |
| 2. | | | | | | 30,59 |
| 3. | | | | | | |
| 4. | | | | | | |

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shack Agent For National Grid — Signature: T Shack — Month: 3 — Day: 30 — Year: 10

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. — Port of entry/exit:

Transporter Signature (for exports only): — Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Clyde — Signature — Month: 3 — Day: 30 — Year: 10

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number: 2708226

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: MC — Signature: MC — Month: 3 — Day: 30 — Year: 11

169-BLC-O 5 11977 (Rev. 8/06)

DESIGNATED FACILITY TO GENERATOR

**NON-HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|
| 2709_463 | | 855-691-5145 | E 055992 |

**GENERATOR**

5. Generator's Name and Mailing Address: National Grid (NG), 175 East Old Country Road, Hicksville, NY 11801
Generator's Phone: 516-545-2555

Generator's Site Address (if different than mailing address): NG Bayshore FMGP_OU3 One Ormoco Drive, Brightwaters, NY 11718

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJR000029967

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address: Bayshore Soil Management, LLC., 75 Crows Mill Rd, Keasbey, NJ 08832 — U.S. EPA ID Number: NJ1225001522
Facility's Phone: 732-738-6000

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| 1. | Non-Hazardous MGP Soil for Thermal Disorption Only | | | 25 | T | |
| 2. | | | | | | 3082 |
| 3. | | | | | | |
| 4. | | | | | | |

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shuck Agent For National Grid — Signature: T Shuck — Month: 3 — Day: 30 — Year: 10

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. — Port of entry/exit:
Transporter Signature (for exports only): — Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Steve Tripodi — Signature: — Month: 3 — Day: 30 — Year: 10

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number: 27082207
Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month: 3 — Day: 30 — Year: 10

894 AJ 8634

| NON-HAZARDOUS WASTE MANIFEST | 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|---|
| | 2709_463 | | 866-691-5145 | E 055981 |

**GENERATOR**

5. Generator's Name and Mailing Address
National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801
Generator's Phone: ~~516-545-2500~~

Generator's Site Address (if different than mailing address)
NG Bayshore FMGP_OU3 One Orinoco Drive
Brightwaters, NY 11718

6. Transporter 1 Company Name: J & D Trucking (Rainbow) — U.S. EPA ID Number: NJR000029957

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Bayshore Soil Management, LLC.
75 Crows Mill Rd
Keasbey, NJ 08832
Facility's Phone: 732-738-6000

U.S. EPA ID Number: NJ1225001522

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| 1 | Non-Hazardous MGP Soil for Thermal Disorption Only | | | 25 | T | 28.86 |
| 2. | | | | | | |
| 3. | | | | | | |
| 4. | | | | | | |

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shock Agent For National Grid — Signature: [signature] — Month 3 Day 30 Year 10

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Eric Rojas 894. — Signature: [signature] — Month 3 Day 30 Year 10

Transporter 2 Printed/Typed Name — Signature — Month Day Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number: 2708220 P

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: [signature] — Signature: [signature] — Month 3 Day 30 Year 10

**NON-HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|
| 2709_453 | | 855-691-5145 | E 055993 |

**GENERATOR**

5. Generator's Name and Mailing Address
National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801
Generator's Phone: 516-545-2000

Generator's Site Address (if different than mailing address)
NG Bayshore FMGP_OU3 One Orinoco Drive
Brightwaters, NY 11718

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJR000029967

7. Transporter 2 Company Name: Raimondi T. #879 A1777N — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Bayshore Soil Management, LLC.
75 Crows Mill Rd
Keasbey, NJ 08832
Facility's Phone: 732-738-6000
U.S. EPA ID Number: NJ1225001522

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. |
|---|---|---|---|---|---|
| | 1Non-Hazardous MGP Soil for Thermal Disorption Only | | | 25 | T |
| | 2. | | | | |
| | 3. | | | | |
| | 4. | | | | |

2962

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shock Agent for National Grid — Signature: T Shock — Month: 3 — Day: 30 — Year: 10

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. — Port of entry/exit:
Transporter Signature (for exports only): — Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name — Signature — Month: 3 — Day: 30 — Year: 10

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number: 27082212
Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: MM — Signature: MM — Month: 3 — Day: 30 — Year: 10

# Acknowledgment of Treatment and Recycling

Bayshore Soil Management, LLC hereby acknowledges

***The Treatment***

Of 296.97 tons of

Coal Tar Contaminated Soil
(Received on 3/30/10)

From the **National Grid Bay Shore Former MGP, Brightwaters, NY**

**Bayshore Soil Management, LLC.**

**March 31, 2010**
AIR: Facility ID Number 18437; Permit PCP070003
CLASS B: Facility ID Number 132397: Permit CBG060002
Keasbey, New Jersey

Certificate Number 2709-463-033010

Creamer Environmental

Disposal Vehicle Inspection Checklist

National Grid Bayshore NY Job # 09-2096

Date 3-30-10

Location TENT

| Load # | Time | Truck # | Manifest / Bill of Lading # | License Plate # | Driver's Name | Insurance Card | | Tires OK | | Tailgate OK | | Tarp OK | | Deconed | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Yes | No | Yes | No | Yes | No | Yes | No | Yes | No |
| 1 | | 816 | 056000 | AL7721N | Ritten | — | | — | | — | | — | | — | |
| 2 | | 806 | 055999 | AJ5600 | Click | — | | — | | — | | — | | — | |
| 3 | | 81 | 055998 | AL6593 | Steve | — | | — | | — | | — | | — | |
| 4 | | 819 | 055997 | AL7721N | Roderick | — | | — | | — | | — | | — | |
| 5 | | 814 | 055996 | AL8634 | Enick | — | | — | | — | | — | | — | |
| 6 | | 816 | 055995 | AL7721N | Noorn | — | | — | | — | | — | | — | |
| 7 | | 806 | 055994 | AJ5600 | Click | — | | — | | — | | — | | — | |
| 8 | | 819 | 055993 | AL7721N | Roderick | — | | — | | — | | — | | — | |
| 9 | | 81 | 055992 | AL6593 | Steve | — | | — | | — | | — | | — | |
| 10 | | 814 | 055991 | AL8634 | Enick | — | | — | | — | | — | | — | |
| 11 | | | | | | | | | | | | | | | |
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| 21 | | | | | | | | | | | | | | | |
| 22 | | | | | | | | | | | | | | | |
| 23 | | | | | | | | | | | | | | | |
| 24 | | | | | | | | | | | | | | | |
| 25 | | | | | | | | | | | | | | | |
| 26 | | | | | | | | | | | | | | | |
| 27 | | | | | | | | | | | | | | | |
| 28 | | | | | | | | | | | | | | | |
| 29 | | | | | | | | | | | | | | | |
| 30 | | | | | | | | | | | | | | | |

**NON-HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|
| 2709_353 | | 732-591-5145 | F 855393 |

**GENERATOR**

5. Generator's Name and Mailing Address
National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801
Generator's Phone: 516-545-2000

Generator's Site Address (if different than mailing address)
NG Bayshore Fleet_GUS One Orlando Drive
Bridgewater, NY 11779

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJT000228587

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address: Bayshore Soil Management, LLC.
79 Crows Mill Rd
Keasbey, NJ 08832
Facility's Phone: 732-738-6000 — U.S. EPA ID Number: NJD982001622

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| 1. | Non-Hazardous MGP Soil for Thermal Disorption Only | | | 25 | T | |
| 2. | | | | | | |
| 3. | | | | | | |
| 4. | | | | | | |

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: John Shock Agent for National Grid — Signature — Month 3 — Day 30 — Year 12

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. — Port of entry/exit:
Transporter Signature (for exports only): — Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Robert Quinn — Signature — Month 3 — Day 30 — Year 12

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month — Day — Year

| NON-HAZARDOUS WASTE MANIFEST | 1. Generator ID Number 2709_453 | 2. Page 1 of | 3. Emergency Response Phone 866-291-6145 | 4. Waste Tracking Number E 055992 |
|---|---|---|---|---|

**GENERATOR**

5. Generator's Name and Mailing Address
National Grid (NG)
175 East Old Country Road
Hicksville, NY 11501

Generator's Site Address (if different than mailing address)
NG Bayonne FMGP_GAS One Gibbons Drive
Bridgewater, NY 11776

Generator's Phone: 516-545-2555

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJR000028407

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address: Keystone Soil Management, LLC.
75 Cows Mill Rd
Keasbey, NJ 08832

U.S. EPA ID Number: NJD982011522

Facility's Phone: 732-738-6000

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| 1. | Non-Hazardous MGP Soil for Thermal Desorption Only | | | 25 | T | |
| 2. | | | | | | |
| 3. | | | | | | |
| 4. | | | | | | |

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shirvell for National Grid — Signature — Month: 3 — Day: 30 — Year: 16

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Steve Tripoli — Signature — Month: 3 — Day: 30 — Year: 16

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month — Day — Year

894 AD 8/6

**NON-HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|
| 2703_453 | | [illegible] | E 055981 |

**GENERATOR**

5. Generator's Name and Mailing Address
National Grid (MP)
175 East Old Country Road
Hicksville, NY 11801
Generator's Phone: 516-545-2355

Generator's Site Address (if different than mailing address)
NG Bayonne MGP_OU3 Gas Odorizer Bldg
Bayonne, NY 11779

6. Transporter 1 Company Name: J & D Trucking (Rahway). U.S. EPA ID Number: NJR000022657

7. Transporter 2 Company Name: U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Keystone Soil Management, LLC.
75 Crows Mill Rd
Keasbey, NJ 08832
Facility's Phone: 732-738-6000
U.S. EPA ID Number: NJH025671922

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| 1 | Non-Hazardous MGP Soil for Thermal Desorption Only | | | 25 | T | |
| 2. | | | | | | |
| 3. | | | | | | |
| 4. | | | | | | |

13. Special Handling Instructions and Additional Information

**14. GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shook Agent For National Grid | Signature: [signature] | Month: 7 | Day: 26 | Year: 17

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Eric Ross 894. | Signature: [signature] | Month: 7 | Day: 26 | Year: 17

Transporter 2 Printed/Typed Name: | Signature: | Month: | Day: | Year:

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: Signature: Month: Day: Year:

**NON-HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|
| 2709_463 | | 516-697-5143 | E 055995 |

**GENERATOR**

5. Generator's Name and Mailing Address
National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801

Generator's Site Address (if different than mailing address)
NG Bayshore MGP_OU3 One Johnson Ave
Bayshore, NY 11719

Generator's Phone: 516-545-2000

6. Transporter 1 Company Name
J & D Trucking

U.S. EPA ID Number
NJHD000[illegible]

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address
Bayshore Soil Management, LLC
75 Crows Mill Rd
Keasbey, NJ 08832

U.S. EPA ID Number
NJD[illegible]

Facility's Phone: 732-738-6000

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| 1 | Non-Hazardous MGP Soil for Thermal Disorption Only | | | 25 | T | |
| 2. | | | | | | |
| 3. | | | | | | |
| 4. | | | | | | |

13. Special Handling Instructions and Additional Information

**INT'L**

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shook Agent for National Grid
Signature:
Month 3 Day 30 Year 16

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Roger M.
Signature:
Month 3 Day 3 Year

Transporter 2 Printed/Typed Name
Signature
Month Day Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator)
U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator)
Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name
Signature
Month Day Year

169-BLC-O 5 11977 (Rev. 8/06)

GENERATOR'S/SHIPPER'S INITIAL COPY

NJ 560T

**NON-HAZARDOUS WASTE MANIFEST**

1. Generator ID Number: 3709_453
2. Page 1 of
3. Emergency Response Phone: 888-891-5145
4. Waste Tracking Number: E 065994

5. Generator's Name and Mailing Address: National Grid (NG) 175 East Old Country Road Hicksville, NY 11801
Generator's Site Address (if different than mailing address): NG Bayonne MGP, 0.05 Acre Access Drive Bayonne, NY 11718
Generator's Phone: 516-545-2555

6. Transporter 1 Company Name: J & D Trucking
U.S. EPA ID Number: NJ7000125557

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address: Waylinx Soil Management, LLC. 75 Cross Mill Rd Kearsley, NJ 08332
U.S. EPA ID Number: NJ1225801532
Facility's Phone: 732-738-5000

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. |
|---|---|---|---|---|---|
| GENERATOR | 1. Non-Hazardous MGP Soil for Thermal Disception Only | | | 20 | T |
| | 2. | | | | |
| | 3. | | | | |
| | 4. | | | | |

13. Special Handling Instructions and Additional Information

14. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.
Generator's/Offeror's Printed/Typed Name: Tom Heck Agent for National Grid
Signature
Month 3 Day 30 Year 10

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER / INT'L

16. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name
Signature
Month 3 Day 30 Year 10
Transporter 2 Printed/Typed Name
Signature
Month Day Year

17. Discrepancy
17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
17b. Alternate Facility (or Generator) Manifest Reference Number:
U.S. EPA ID Number
Facility's Phone:
17c. Signature of Alternate Facility (or Generator)
Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a
Printed/Typed Name
Signature
Month Day Year

3LC-O 5 11977 (Rev. 8/06)

GENERATOR'S/SHIPPER'S INITIAL COPY

**NON-HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|
| 2702_455 | | 855-832-6145 | E 055998 |

**GENERATOR**

5. Generator's Name and Mailing Address: National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801

Generator's Site Address (if different than mailing address): NG Bayside FMGP_OU3 One Bridge Drive
Bayswater, NY 11776

Generator's Phone: 516-545-2585

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJR000128967

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address: Keystone Soil Management, LLC.
75 Cross Mill Rd
Passaic, NJ 07055

U.S. EPA ID Number: NJD982601520

Facility's Phone: 732-799-6000

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| 1. | Non-Hazardous MGP Soil for Thermal Desorption Only | | | 25 | T | |
| 2. | | | | | | |
| 3. | | | | | | |
| 4. | | | | | | |

13. Special Handling Instructions and Additional Information

**14. GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shortt Agent For National Grid — Signature: T Shortt — Month: 3 — Day: 30 — Year: 10

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Steve Trieod — Signature — Month: 3 — Day: 30 — Year: 10

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

17b. Alternate Facility (or Generator) — Manifest Reference Number: — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month — Day — Year

**NON-HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|
| 2709_152 | | 888-891-0140 | E 055997 |

**GENERATOR**

5. Generator's Name and Mailing Address
National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801

Generator's Site Address (if different than mailing address)
NG Bayonne FMGP_DUS Oil Gas Corp (Dist
Bayonne, NY 11775

Generator's Phone: 516-545-2295

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJT000220267

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
Keystone Soil Management, LLC.
75 Crows Mill Rd
Keasbey, NJ 08832

U.S. EPA ID Number: NJD982591522

Facility's Phone: 732-738-6000

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| 1 | Non-Hazardous MGP Soil for Thermal Disorption Only | | | 25 | T | |
| 2. | | | | | | |
| 3. | | | | | | |
| 4. | | | | | | |

13. Special Handling Instructions and Additional Information

**INT'L**

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shock Hazard for Waterville Signature: T Shock Month: 03 Day: 30 Year: 10

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Roberto Negrine Signature: Month: 03 Day: 30 Year: 10

Transporter 2 Printed/Typed Name: Signature: Month: Day: Year:

**DESIGNATED FACILITY**

17. Discrepancy — Month: 6 Day: Year:

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☒ Partial Rejection ☐ Full Rejection

17b. Alternate Facility (or Generator) — Manifest Reference Number: — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month: Day: Year:

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: Signature: Month: Day: Year:

894 AJ 8634

**NON-HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|
| 2709_462 | | 888-691-8145 | E 055996 |

**GENERATOR**

5. Generator's Name and Mailing Address
National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801
Generator's Phone: 516-545-2586

Generator's Site Address (if different than mailing address)
WS Bayshore FMGP_OU3 One Limtree Drive
Brightwaters, NY 11718

6. Transporter 1 Company Name: J & D Trucking (Brambles) — U.S. EPA ID Number: NJR000022997

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Bayshore Soil Management, LLC.
75 Crows Mill Rd
Keasbey, NJ 08832
Facility's Phone: 732-738-6000 — U.S. EPA ID Number: NJ1225001522

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| 1. | Non-Hazardous MGP Soil for Thermal Disorption Only | | | 25 | T | |
| 2. | | | | | | |
| 3. | | | | | | |
| 4. | | | | | | |

13. Special Handling Instructions and Additional Information

**14. GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shork Agent For National Grid — Signature — Month: 3 Day: 31 Year:

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Eric Bongi AJ 8634 — Signature — Month: 3 Day: 30 Year: 10

Transporter 2 Printed/Typed Name — Signature — Month Day Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month Day Year

11977 (Rev. 8/06)

GENERATOR'S/SHIPPER'S INITIAL COPY

| NON-HAZARDOUS WASTE MANIFEST | 1. Generator ID Number 2702_463 | 2. Page 1 of | 3. Emergency Response Phone 866-891-6145 | 4. Waste Tracking Number E 056000 |
|---|---|---|---|---|

5. Generator's Name and Mailing Address: National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801

Generator's Site Address (if different than mailing address): NG Bayshore FMGP_GUS Gas Drive/Co Drive
Brightwaters, NY 11718

Generator's Phone: 516-545-2566

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJR000029367

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address: Bayshore Soil Management, LLC.
75 Crows Mill Rd
Keasbey, NJ 08832

U.S. EPA ID Number: NJ1225001522

Facility's Phone: 732-738-6000

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| 1 | Non-Hazardous MGP Soil for Thermal Disorption Only | | | 28 | T | |
| 2. | | | | | | |
| 3. | | | | | | |
| 4. | | | | | | |

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Slack — Signature — Month: 3 — Day: 30 — Year: 10

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Roger M — Signature — Month: 3 — Day: 30 — Year: 10

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month — Day — Year

**NON-HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|
| 270452 | | 866-928-0543 | E 055999 |

**GENERATOR**

5. Generator's Name and Mailing Address
National Grid (NY)
175 East Old Country Road
Hicksville, NY 11801
Generator's Phone: 718-643-4000

Generator's Site Address (if different than mailing address)
142 Bayshore Road (US Gov Onsite Dr#)
Bridgehampton, NY 11932

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJT000288527

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address: Keystone Soil Management, LLC
75 Crows Mill Rd
Keasbey, NJ 08832
Facility's Phone: 732-738-6000 — U.S. EPA ID Number: NJR000031922

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| 1. | Non-Hazardous MGP Soil for Thermal Dissipation Only | | | 25 | T | |
| 2. | | | | | | |
| 3. | | | | | | |
| 4. | | | | | | |

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shook Agent for National Grid — Signature: T Shook — Month: 5 — Day: 12 — Year: 16

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. — Port of entry/exit:
Transporter Signature (for exports only): — Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Mike Ryan — Signature — Month: 5 — Day: 12 — Year: 16

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month — Day — Year

# Acknowledgment of Treatment and Recycling

Bayshore Soil Management, LLC hereby acknowledges

***The Treatment***

Of 240.72 tons of

Coal Tar Contaminated Soil
(Received on 3/31/10)

From the **National Grid Bay Shore Former MGP, Brightwaters, NY**

**Bayshore Soil Management, LLC.**

**April 1, 2010**
AIR: Facility ID Number 18437; Permit PCP070003
CLASS B: Facility ID Number 132397: Permit CBG060002
Keasbey, New Jersey

Certificate Number 2709-463-033110

**CEI- National Grid Bay Shore Former MGP site**

| Job_Name | Datetime | CustomerID | Location | SiteStreet | SiteCity | SiteState | SiteType | WasteCod | TicketNumber | ManafestNum | TruckId | WeightGros | WeightNet | Tons | RATE | TRANS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2709-463 | 3/31/2010 | CEI10 | National Grid Bay Shore Former MGP site | One Orinoco Drive | Brightwaters | NY | Coal Tar contaminated soils | CT01 | 27082247 | E055947 | AL864U 893 | 72660 | 47280 | 23.64 | | |
| 2709-463 | 3/31/2010 | CEI10 | National Grid Bay Shore Former MGP site | One Orinoco Drive | Brightwaters | NY | Coal Tar contaminated soils | CT01 | 27082254 | E055949 | AL569T 891 | 87460 | 60560 | 30.28 | | |
| 2709-463 | 3/31/2010 | CEI10 | National Grid Bay Shore Former MGP site | One Orinoco Drive | Brightwaters | NY | Coal Tar contaminated soils | CT01 | 27082257 | E055948 | AJ560T 826 | 83660 | 57380 | 28.69 | | |
| 2709-463 | 3/31/2010 | CEI10 | National Grid Bay Shore Former MGP site | One Orinoco Drive | Brightwaters | NY | Coal Tar contaminated soils | CT01 | 27082258 | E055950 | AL659B 81 | 87420 | 61180 | 30.59 | | |
| 2709-463 | 3/31/2010 | CEI10 | National Grid Bay Shore Former MGP site | One Orinoco Drive | Brightwaters | NY | Coal Tar contaminated soils | CT01 | 27082325 | E055951 | AL864U 893 | 83440 | 58060 | 29.03 | | |
| 2709-463 | 3/31/2010 | CEI10 | National Grid Bay Shore Former MGP site | One Orinoco Drive | Brightwaters | NY | Coal Tar contaminated soils | CT01 | 27082338 | E055952 | AL569T 891 | 92120 | 65220 | 32.61 | | |
| 2709-463 | 3/31/2010 | CEI10 | National Grid Bay Shore Former MGP site | One Orinoco Drive | Brightwaters | NY | Coal Tar contaminated soils | CT01 | 27082340 | E055953 | AL659B 81 | 93940 | 67700 | 33.85 | | |
| 2709-463 | 3/31/2010 | CEI10 | National Grid Bay Shore Former MGP site | One Orinoco Drive | Brightwaters | NY | Coal Tar contaminated soils | CT01 | 27082345 | E055954 | AJ560T 826 | 90340 | 64060 | 32.03 | | |


8
481440
240.72

Bayshore Recycling Inc.
75 Cheesequake Mill Road, P.O. Box 290
Keasbey, N.J. 08832

Facility ID#: 132397

**TICKET NUMBER**

27082247

BILL TO

BSM2709463
BSM CREAMER ENVIRONMENTAL
NG BAY SHORE FMGP

BSM CREAMER ENVIRONMENTAL

PO#

| DATE | ENTRY TIME | OPER. | EXIT TIME | OPER. | GROSS WEIGHT | TARE WEIGHT | NET WEIGHT |
|---|---|---|---|---|---|---|---|
| 03/31/2010 | 09:46 | | 09:46 | | ( 72660 LB) | ( 25380 LB) | ( 47280 LB |
| 00159146 | Scale 01 | | | | Scale 01 ( 36.33 T) | ( 12.69 T) | ( 23.64 T |

| VEHICLE NUMBER | VEHICLE TYPE | PLATE NUMBER | HAULER / TRANSACTION TYPE |
|---|---|---|---|
| AL864U | TRI-AXLE 25 | 893 | RAINBOW Norma |

| QUANTITY | WC | DESCRIPTION / ORIGIN | UNITS | UNIT PRICE | AMOUNT |
|---|---|---|---|---|---|
| 23.6400 | 27 | ID 27<br>NEW YORK<br>LONG ISLAND | TON<br>100.00% | | |

I hereby certify that the above material is not a hazardous waste and the information provided on this form is true to the best of my knowledge.

DRIVER NAME
PRINT _____ SIGNATURE _____

Bayshore Recycling Inc.
75 Crows Mill Road, P.O. Box 290
Keasbey, N.J. 08832

Facility ID#: 132397

**TICKET NUMBER**

27082254

BILL TO

BSM2709463
BSM CREAMER ENVIRONMENTAL
NG BAY SHORE FMGP

BSM CREAMER ENVIRONMENTAL

PO#

| DATE | ENTRY TIME | OPER. | EXIT TIME | OPER. | GROSS WEIGHT | TARE WEIGHT | NET WEIGHT * |
|---|---|---|---|---|---|---|---|
| 03/31/2010 | 10:05 | | 10:05 | | ( 87460 LB) | ( 26900 LB) | ( 60560 LB |
| 00159153 | Scale 01 | | | | Scale 01<br>( 43.73 T) | ( 13.45 T) | ( 30.28 T |

| VEHICLE NUMBER | VEHICLE TYPE | PLATE NUMBER | HAULER / TRANSACTION TYPE |
|---|---|---|---|
| AL569T | TRI-AXLE 25 | 891 | RAINBOW<br>Norma |

| QUANTITY | WC | DESCRIPTION / ORIGIN | UNITS | UNIT PRICE | AMOUNT |
|---|---|---|---|---|---|
| 30.2800 | 27 | ID 27<br>NEW YORK<br>LONG ISLAND | TON<br>100.00% | | |

I hereby certify that the above material is not a hazardous waste and the information provided on this form is true to the best of my knowledge.

DRIVER NAME PRINT

SIGNATURE

Bayshore Recycling Inc.
75 Crows Mill Road, P.O. Box 290
Keasbey, N.J. 08832

Facility ID#: 132397

**TICKET NUMBER**

27082257

BILL TO

BSM2709463
BSM CREAMER ENVIRONMENTAL
NG BAY SHORE FMGP

BSM CREAMER ENVIRONMENTAL

PO#

| DATE | ENTRY TIME | OPER. | EXIT TIME | OPER. | GROSS WEIGHT | TARE WEIGHT | NET WEIGHT |
|---|---|---|---|---|---|---|---|
| 03/31/2010 | 10:16 | | 10:16 | | ( 83660 LB) | ( 26280 LB) | ( 57380 LB |
| | | | | | Scale 01 | | |
| 00159159 | Scale 01 | | | | ( 41.83 T) | ( 13.14 T) | ( 28.69 T |

| VEHICLE NUMBER | VEHICLE TYPE | PLATE NUMBER | HAULER / TRANSACTION TYPE |
|---|---|---|---|
| AJ560T | TRI-AXLE 25 | 826 | NJF |
| | | | Norma |

| QUANTITY | WC | DESCRIPTION / ORIGIN | UNITS | UNIT PRICE | AMOUNT |
|---|---|---|---|---|---|
| 28.6900 | 27 | ID 27<br>NEW YORK<br>LONG ISLAND | TON<br>100.00% | | |

I hereby certify that the above material is not a hazardous waste and the information provided on this form is true to the best of my knowledge.

DRIVER NAME PRINT Ivan Sa SIGNATURE

Bayshore Recycling Inc.
75 Crows Mill Road, P.O. Box 290
Keasbey, N.J. 08832

Facility ID#: 132397

**TICKET NUMBER**

27082258

BILL TO

BSM2709463
BSM CREAMER ENVIRONMENTAL
NG BAY SHORE FMGP

BSM CREAMER ENVIRONMENTAL

PO#

| DATE | ENTRY TIME | OPER. | EXIT TIME | OPER. | GROSS WEIGHT | TARE WEIGHT | NET WEIGHT * |
|---|---|---|---|---|---|---|---|
| 03/31/2010 | 10:18 | | 10:18 | | ( 87420 LB) | ( 26240 LB) | ( 61180 LB |
| 00159160 | Scale 01 | | | | Scale 01 ( 43.71 T) | ( 13.12 T) | ( 30.59 T |

| VEHICLE NUMBER | VEHICLE TYPE | PLATE NUMBER | HAULER / TRANSACTION TYPE |
|---|---|---|---|
| AL659B | TRI-AXLE 25 | 81 | RAINBOW Norma |

| QUANTITY | WC | DESCRIPTION / ORIGIN | UNITS | UNIT PRICE | AMOUNT |
|---|---|---|---|---|---|
| 30.5900 | 27 | ID 27<br>NEW YORK<br>LONG ISLAND | TON<br>100.00% | | |

I hereby certify that the above material is not a hazardous waste and the information provided on this form is true to the best of my knowledge.

DRIVER NAME PRINT _____ SIGNATURE _____

Bayshore Recycling Inc.
[illegible] Crows Mill Road, P.O. Box 290
Keasbey, N.J. 08832

Facility ID#: 132397

**TICKET NUMBER**

27082325

BILL TO

BSM2709463
BSM CREAMER ENVIRONMENTAL
NG BAY SHORE FMGP

BSM CREAMER ENVIRONMENTAL

PO#

| DATE | ENTRY TIME | OPER. | EXIT TIME | OPER. | GROSS WEIGHT | TARE WEIGHT | NET WEIGHT |
|---|---|---|---|---|---|---|---|
| 03/31/2010 | 14:53 | | 14:53 | | ( 83440 LB) Scale 01 | ( 25380 LB) | ( 58060 LB |
| 00159243 Scale 01 | | | | | ( 41.72 T) | ( 12.69 T) | ( 29.03 T |

| VEHICLE NUMBER | VEHICLE TYPE | PLATE NUMBER | HAULER / TRANSACTION TYPE |
|---|---|---|---|
| AL864U | TRI-AXLE 25 | 893 | RAINBOW Norma |

| QUANTITY | WC | DESCRIPTION / ORIGIN | UNITS | UNIT PRICE | AMOUNT |
|---|---|---|---|---|---|
| 29.0300 | 27 | ID 27<br>NEW YORK<br>LONG ISLAND | TON<br>100.00% | | |

I hereby certify that the above material is not a hazardous waste and the information provided on this form is true to the best of my knowledge.

DRIVER NAME
PRINT _____ SIGNATURE Thomas Landrum

Bayshore Recycling Inc.
75 Crows Mill Road, P.O. Box 290
Keasbey, N.J. 08832

Facility ID#: 132397

**TICKET NUMBER**

27082338

BILL TO

BSM2709463
BSM CREAMER ENVIRONMENTAL
NG BAY SHORE FMGP

BSM CREAMER ENVIRONMENTAL

PO#

| DATE | ENTRY TIME | OPER. | EXIT TIME | OPER. | GROSS WEIGHT | TARE WEIGHT | NET WEIGHT |
|---|---|---|---|---|---|---|---|
| 03/31/2010 | 15:23 | | 15:24 | | ( 92120 LB) | ( 26900 LB) | ( 65220 LB |
| 0015926 | Scale 01 | | | | Scale 01 ( 46.06 T) | ( 13.45 T) | ( 32.61 T |

| VEHICLE NUMBER | VEHICLE TYPE | PLATE NUMBER | HAULER / TRANSACTION TYPE |
|---|---|---|---|
| AL569T | TRI-AXLE 25 | 891 | RAINBOW Norma |

| QUANTITY | WC | DESCRIPTION / ORIGIN | UNITS | UNIT PRICE | AMOUNT |
|---|---|---|---|---|---|
| 32.6100 | 27 | ID 27<br>NEW YORK<br>LONG ISLAND | TON<br>100.00% | | |

I hereby certify that the above material is not a hazardous waste and the information provided on this form is true to the best of my knowledge.

DRIVER NAME
PRINT Alex D SIGNATURE

-Bayshore Recycling Inc.
75 Crows Mill Road, P.O. Box 290
Keasbey, N.J. 08832

Facility ID#: 132397

**TICKET NUMBER**

27082340

BILL TO

BSM2709463
BSM CREAMER ENVIRONMENTAL
NG BAY SHORE FMGP

BSM CREAMER ENVIRONMENTAL

DO#

| DATE | ENTRY TIME | OPER. | EXIT TIME | OPER. | GROSS WEIGHT | TARE WEIGHT | NET WEIGHT |
|---|---|---|---|---|---|---|---|
| 03/31/2010 | 15:26 | | 15:27 | | ( 93940 LB) Scale 01 | ( 26240 LB) | ( 67700 LB |

| VEHICLE NUMBER | VEHICLE TYPE | PLATE NUMBER | ( 46.97 T) | HAULER (TRANSACTION TYPE | 33.85 T |
|---|---|---|---|---|---|
| AL659B | TRI-AXLE 25 | 81 | RAINBOW | | |

| QUANTITY | WC | DESCRIPTION / ORIGIN | UNITS | UNIT PRICE | AMOUNT |
|---|---|---|---|---|---|
| 33.8500 | 27 | ID 27<br>NEW YORK<br>LONG ISLAND | TON<br>100.00% | | |

I hereby certify that the above material is not a hazardous waste and the information provided on this form is true to the best of my knowledge.

DRIVER NAME PRINT S Tipod SIGNATURE _____

Bayshore Recycling Inc.
75 Crows Mill Road, P.O. Box 290
Keasbey, N.J. 08832

Facility ID#: 132397

**TICKET NUMBER**

27082345

BILL TO

BSM2709463
BSM CREAMER ENVIRONMENTAL
NG BAY SHORE FMGP

BSM CREAMER ENVIRONMENTAL

PO#

| DATE | ENTRY TIME | OPER. | EXIT TIME | OPER. | GROSS WEIGHT | TARE WEIGHT | NET WEIGHT |
|---|---|---|---|---|---|---|---|
| 03/31/2010 | 15:38 | | 15:38 | | ( 90340 LB) | ( 26280 LB) | ( 64060 LB |
| 0015927 | Scale 01 | | | | Scale 01 ( 45.17 T) | ( 13.14 T) | ( 32.03 T |

| VEHICLE NUMBER | VEHICLE TYPE | PLATE NUMBER | HAULER / TRANSACTION TYPE |
|---|---|---|---|
| AJ560T | TRI-AXLE 25 | 826 | NJF Norma |

| QUANTITY | WC | DESCRIPTION / ORIGIN | UNITS | UNIT PRICE | AMOUNT |
|---|---|---|---|---|---|
| 32.0300 | 27 | ID 27<br>NEW YORK<br>LONG ISLAND | TON<br>100.00% | | |

I hereby certify that the above material is not a hazardous waste and the information provided on this form is true to the best of my knowledge.

DRIVER NAME
PRINT _____ SIGNATURE _____

AL 864U TRK #893

**NON-HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|
| 2709_463 | | 855-691-5145 | E 055947 |

**GENERATOR**

5. Generator's Name and Mailing Address
National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801
Generator's Phone: 516-545-2586

Generator's Site Address (if different than mailing address)
NG Bayshore FMGP_OU3 One Orinoco Drive
Brightwaters, NY 11718

6. Transporter 1 Company Name: J & D Trucking
U.S. EPA ID Number: NJR000029967

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
Bayshore Soil Management, LLC.
75 Crows Mill Rd
Keasbey, NJ 08832
Facility's Phone: 732-738-6000
U.S. EPA ID Number: NJ1225001522

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| | 1 Non-Hazardous MGP Soil for Thermal Diesorption Only | | | 25 | T | |
| | 2. | | | | | 2364 |
| | 3. | | | | | |
| | 4. | | | | | |

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shock Agent For National Grid
Signature:
Month: 3 Day: 31 Year: 10

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: RAINBOW Hugo Larrahondo
Signature:
Month: 3 Day: 31 Year: 10

Transporter 2 Printed/Typed Name:
Signature:
Month: Day: Year:

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator)
U.S. EPA ID Number: 27082247
Facility's Phone:

17c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name:
Signature:
Month: 3 Day: 31 Year: 10

**NON-HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|
| 2709_463 | | 856-691-5145 | E 055949 |

**GENERATOR**

5. Generator's Name and Mailing Address
National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801
Generator's Phone: 718-545-6000

Generator's Site Address (if different than mailing address)
NG Bayshore FMGP_OU3 One Orinoco Drive
Brightwaters, NY 11718

6. Transporter 1 Company Name: J & D Trucking 891, AL5697 — U.S. EPA ID Number: NJR000029967

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
Bayshore Soil Management, LLC.
75 Crows Mill Rd
Keasbey, NJ 08832
Facility's Phone: 732-738-6000

U.S. EPA ID Number: NJ1225001522

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| 1 | Non-Hazardous MGP Soil for Thermal Disorption Only | | | 25 | T | |
| 2. | | | | | | 3028 |
| 3. | | | | | | |
| 4. | | | | | | |

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shack Agent For National Grid — Signature: T Shack — Month 3 Day 31 Year 10

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Alex Berard — Signature: [signature] — Month 3 Day 31 Year 10

Transporter 2 Printed/Typed Name — Signature — Month Day Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number: 27082254
Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: TR — Signature: TR — Month 3 Day 31 Year 10

169-BLC-O 5 11977 (Rev. 8/06)

**DESIGNATED FACILITY TO GENERATOR**

A0356OT

| NON-HAZARDOUS WASTE MANIFEST | 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|---|
| | 2709_453 | | 855-691-5145 | E 055948 |

**GENERATOR**

5. Generator's Name and Mailing Address: National Grid (NG), 175 East Old Country Road, Hicksville, NY 11801
Generator's Phone: 516-545-2586

Generator's Site Address (if different than mailing address): NG Bayshore FMGP_OU3 One Orinoco Drive, Brightwaters, NY 11718

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJR000023957

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address: Bayshore Soil Management, LLC., 75 Crows Mill Rd, Keasbey, NJ 08832 — U.S. EPA ID Number: NJ1225001522
Facility's Phone: 732-738-5000

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| 1. | Non-Hazardous MGP Soil for Thermal Disorption Only | | | 25 | T | 28.69 |
| 2. | | | | | | |
| 3. | | | | | | |
| 4. | | | | | | |

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: TomShock Agent For National Grid — Signature: T Shock — Month 3 Day 31 Year 10

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Clyde Seward — Signature — Month 3 Day 31 Year 10

Transporter 2 Printed/Typed Name — Signature — Month Day Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number: 27082257
Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month 3 Day 31 Year 10

**NON-HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|
| 2709_463 | | 855-691-5145 | E 055950 |

**GENERATOR**

5. Generator's Name and Mailing Address
National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801

Generator's Site Address (if different than mailing address)
NG Bayshore FMGP_OUS One Orinoco Drive
Brightwaters, NY 11718

Generator's Phone: 516-545-2586

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJR000029967

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
Bayshore Soil Management, LLC.
75 Crows Mill Rd
Keasbey, NJ 08832

U.S. EPA ID Number: NJ1225001522

Facility's Phone: 732-738-6000

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| 1. | Non-Hazardous MGP Soil for Thermal Disorption Only | | | 25 | T | 30.59 |
| 2. | | | | | | |
| 3. | | | | | | |
| 4. | | | | | | |

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Jon Shock Agent For National Grid — Signature: [signature] — Month 3 Day 31 Year 10

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Steve Twardi — Signature: [signature] — Month 3 Day 31 Year 10

Transporter 2 Printed/Typed Name — Signature — Month Day Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number: 27082258

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: [signature] — Signature: [signature] — Month 3 Day 31 Year 10

**NON-HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|
| 2709_453 | | 866-691-5145 | E 055952 |

5. Generator's Name and Mailing Address: National Grid (NG), 175 East Old Country Road, Hicksville, NY 11801
Generator's Phone: 516-545-2585

Generator's Site Address (if different than mailing address): NG Bayshore FMGP_OU3 One Orinoco Drive, Brightwaters, NY 11718

6. Transporter 1 Company Name: J & D Trucking — 891 AL569T — U.S. EPA ID Number: NJR000029967

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address: Bayshore Soil Management, LLC., 75 Crows Mill Rd, Keasbey, NJ 08832 — U.S. EPA ID Number: NJ1225001522
Facility's Phone: 732-738-6000

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. |
|---|---|---|---|---|---|
| 1 | Non-Hazardous MGP Soil for Thermal Desorption Only | | | 25 | T |
| 2. | | | | | 32.61 |
| 3. | | | | | |
| 4. | | | | | |

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shack Agent For National Grid — Signature: T Shack — Month 3 Day 31 Year 10

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Alex Benoit — Signature — Month 3 Day 31 Year 10

Transporter 2 Printed/Typed Name — Signature — Month Day Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number: D108233S6
Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month 3 Day 31 Year 10

169-BLC-O 5 11977 (Rev. 8/06)

**DESIGNATED FACILITY TO GENERATOR**

AJ560T

**NON-HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|
| 2709_463 | | 866-691-5145 | E 055954 |

**GENERATOR**

5. Generator's Name and Mailing Address: National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801

Generator's Site Address (if different than mailing address): NG Bayshore FMGP_GU3 One Ontioca Drive
Brightwaters, NY 11718

Generator's Phone: 516-545-2586

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJR000029957

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address: Bayshore Soil Management, LLC.
75 Crows Mill Rd
Keasbey, NJ 08832

U.S. EPA ID Number: NJ1225001522

Facility's Phone: 732-738-6000

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| 1 | Non-Hazardous MGP Soil for Thermal Disorption Only | | | 25 | T | |
| 2. | | | | | | 3203 |
| 3. | | | | | | |
| 4. | | | | | | |

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shock Agent For National Grid — Signature: T Shock — Month: 3 — Day: 31 — Year: 10

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Clyde Sellers — Signature — Month: 3 — Day: 31 — Year: 10

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number: 2708234S

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month: 3 — Day: 31 — Year: 10

# Acknowledgment of Treatment and Recycling

Bayshore Soil Management, LLC hereby acknowledges

***The Treatment***

Of 240.72 tons of

Coal Tar Contaminated Soil
(Received on 3/31/10)

From the **National Grid Bay Shore Former MGP, Brightwaters, NY**

**Bayshore Soil Management, LLC.**

April 1, 2010
AIR: Facility ID Number 18437; Permit PCP070003
CLASS B: Facility ID Number 132397: Permit CBG060002
Keasbey, New Jersey

Certificate Number 2709-463-033110

Creamer Environmental

Disposal Vehicle Inspection Checklist

National Grid Bayshore NY Job # 09-2096

Date 3-31-10

Location Tent

| Load # | Time | Truck # | Manifest / Bill of Lading # | License Plate # | Driver's Name | Insurance Card | | Tires OK | | Tailgate OK | | Tarp OK | | Deconed | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Yes | No | Yes | No | Yes | No | Yes | No | Yes | No |
| 1 | | 593 | 055947 | AL564U | Lloyd | — | | — | | — | | — | | — | |
| 2 | | 586 | 055948 | AJ56CT | Clyde | — | | — | | — | | — | | — | |
| 3 | | 591 | 055949 | AL569T | Alex | — | | — | | — | | — | | — | |
| 4 | | 91 | 055950 | ALG59B | Steve | — | | — | | — | | — | | — | |
| 5 | | 593 | 055951 | AL564U | Hugo | — | | — | | — | | — | | — | |
| 6 | | 591 | 055952 | AL569T | Alex | — | | — | | — | | — | | — | |
| 7 | | 91 | 055953 | ALG59B | Steve | — | | — | | — | | — | | — | |
| 8 | | 586 | 055954 | AJ56CT | Clyde | — | | — | | — | | — | | — | |
| 9 | | | | | | | | | | | | | | | |
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| 29 | | | | | | | | | | | | | | | |
| 30 | | | | | | | | | | | | | | | |

**NON-HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|
| 2703_163 | | [illegible] | E 053947 |

**GENERATOR**

5. Generator's Name and Mailing Address
Natural Gas (NG)
175 East Old Country Road
Hicksville, NY 11801
Generator's Phone: 516-545-2586

Generator's Site Address (if different than mailing address)
US Gypsum EMGP Qus One Ontario Cnt
Bridgewater, NY [illegible]

6. Transporter 1 Company Name
L.D Trucking
U.S. EPA ID Number [illegible]

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
Sayreville Soil Management, LLC
75 Crows Mill Rd
Keasbey, NJ 08832
Facility's Phone: 732-738-5200
U.S. EPA ID Number NJD982561522

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| 1. | Non-Hazardous Mat. Soil for Thermal Disorption Only | | | 35 | T | |
| 2. | | | | | | |
| 3. | | | | | | |
| 4. | | | | | | |

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.
Generator's/Offeror's Printed/Typed Name: Tom Stock Agent For National Grid
Signature: T Stock
Month 3 Day 31 Year 16

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: L.D Trucking
Signature: [illegible]
Month 3 Day 31 Year 16
Transporter 2 Printed/Typed Name
Signature
Month Day Year

**DESIGNATED FACILITY**

17. Discrepancy
17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
17b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:
17c. Signature of Alternate Facility (or Generator)
Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a
Printed/Typed Name
Signature
Month Day Year

**NON-HAZARDOUS WASTE MANIFEST**

1. Generator ID Number: 2703_452
2. Page 1 of
3. Emergency Response Phone: 518-691-5145
4. Waste Tracking Number: E 055948

5. Generator's Name and Mailing Address: National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801

Generator's Site Address (if different than mailing address): NG Bayswater PWGS, Old Rte Cornaga Drive
Edgemere, NY 11692

Generator's Phone: 516-545-2382

6. Transporter 1 Company Name: J & D Trucking
U.S. EPA ID Number: NYR000228627

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address: Bayshore Soil Management, LLC
75 Crows Mill Rd
Keasbey, NJ 08832
U.S. EPA ID Number: NJ1230015622

Facility's Phone: 732-738-6000

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| 1. | Non-Hazardous MGP Soil for Thermal Desorption Only | | | 25 | T | |
| 2. | | | | | | |
| 3. | | | | | | |
| 4. | | | | | | |

13. Special Handling Instructions and Additional Information

GENERATOR

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shuck Agent for National Grid
Signature: T Shuck
Month: 3 Day: 31 Year: 10

INT'L

15. International Shipments ☑ Import to U.S. ☐ Export from U.S.
Port of entry/exit:
Transporter Signature (for exports only):
Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name
Signature
Month: 3 Day: 31 Year: 10

Transporter 2 Printed/Typed Name
Signature
Month Day Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

17b. Alternate Facility (or Generator)
Manifest Reference Number:
U.S. EPA ID Number
Facility's Phone:

17c. Signature of Alternate Facility (or Generator)
Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name
Signature
Month Day Year

**NON-HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|
| 3709_462 | | 908-521-5145 | E 055949 |

**GENERATOR**

5. Generator's Name and Mailing Address
National Grid (NGS)
175 East Old Country Road
Hicksville, NY 11801
Generator's Phone: [illegible]

Generator's Site Address (if different than mailing address)
W2 Bayshore MGP Old Gas Holder Site
Brightwaters, NY 11718

6. Transporter 1 Company Name: J & D Trucking
U.S. EPA ID Number: NJR000226957

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address: Bayshore Soil Management, LLC
75 Crows Mill Rd
Keasbey, NJ 08832
Facility's Phone: 732-738-6000
U.S. EPA ID Number: NJD982587932

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| 1. | Non-Hazardous MGP Soil for Thermal Desorption Only | | | 25 | T | |
| 2. | | | | | | |
| 3. | | | | | | |
| 4. | | | | | | |

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.
Generator's/Offeror's Printed/Typed Name: Tom Shack Agent for National Grid
Signature: T Shack
Month: 3 Day: 31 Year: 17

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name
Signature
Month: 3 Day: 31 Year: 17
Transporter 2 Printed/Typed Name
Signature
Month Day Year

**DESIGNATED FACILITY**

17. Discrepancy
17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
17b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:
17c. Signature of Alternate Facility (or Generator)
Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a
Printed/Typed Name
Signature
Month Day Year

| NON-HAZARDOUS WASTE MANIFEST | 1. Generator ID Number 2709_453 | 2. Page 1 of | 3. Emergency Response Phone 800-691-8145 | 4. Waste Tracking Number E 055350 |
|---|---|---|---|---|

**GENERATOR**

5. Generator's Name and Mailing Address
National Grid (NE)
175 East Old Country Road
Hicksville, NY 11801

Generator's Site Address (if different than mailing address)
NE Bay State FENCP_GUS Gas Dispatch Drive
Bridgewater, MA 02715

Generator's Phone: 516-545-2926

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: MAR000028027

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address: Bayshore Soil Management, LLC.
79 Crows Mill Rd
Keasbey, NJ 08832

U.S. EPA ID Number: NJD981021912

Facility's Phone: 732-738-8000

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| 1. | Non-Hazardous Media Soil for Thermal Desorption Only | | | 25 | | |
| 2. | | | | | | |
| 3. | | | | | | |
| 4. | | | | | | |

13. Special Handling Instructions and Additional Information

**14. GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shark Agent For National Grid — Signature: [signature] — Month: 3 — Day: 31 — Year: 16

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Kevin Tufford — Signature: [signature] — Month: 3 — Day: 31 — Year: 16

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month — Day — Year

| NON-HAZARDOUS WASTE MANIFEST | 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|---|
| | 2708_AE2 | 1 | 855-891-8346 | E 055951 |

**5. Generator's Name and Mailing Address**

National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801

Generator's Phone:

**Generator's Site Address (if different than mailing address)**

WS Bayshore FMGP_OU5 One Orlando Lane
Bayshore, NY 11706

**6. Transporter 1 Company Name**

J & D Trucking

U.S. EPA ID Number: NJP000023987

**7. Transporter 2 Company Name**

U.S. EPA ID Number:

**8. Designated Facility Name and Site Address**

Bayshore Soil Management, LLC
75 Crows Mill Rd
Keasbey, NJ 08832

U.S. EPA ID Number: NJD128621522

Facility's Phone: 732-793-6000

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| 1 | Non-Hazardous MGP Soil for Thermal Disruption Only | | | 35 | T | |
| 2. | | | | | | |
| 3. | | | | | | |
| 4. | | | | | | |

**13. Special Handling Instructions and Additional Information**

**14. GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shock Agent for National Grid | Signature: T Shock | Month: 3 | Day: 31 | Year: 16

**15. International Shipments** ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

**16. Transporter Acknowledgment of Receipt of Materials**

Transporter 1 Printed/Typed Name | Signature | Month: 3 | Day: 31 | Year: 16

Transporter 2 Printed/Typed Name | Signature | Month | Day | Year

**17. Discrepancy**

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) | U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) | Month | Day | Year

**18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a**

Printed/Typed Name | Signature | Month | Day | Year

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

**NON-HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|
| 2988_AES | | 631-591-6145 | E 055952 |

**GENERATOR**

5. Generator's Name and Mailing Address
National Grid (SBC)
175 East Old Country Road
Hicksville, NY 11801
Generator's Phone: 516-545-2585

Generator's Site Address (if different than mailing address)
WB Bayshore FMGP_OU5 Site Contact Only
Brightwaters, NY 11718

6. Transporter 1 Company Name
S.D Trucking
U.S. EPA ID Number NJT000529557

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
Keystone Soil Management, LLC.
75 Crows Mill Rd
Keasbey, NJ 08832
U.S. EPA ID Number NJ1265011922
Facility's Phone: 732-738-5300

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| 1. | Non-Hazardous MGP Soil for Thermal Desorption Only | | | 25 | T | |
| 2. | | | | | | |
| 3. | | | | | | |
| 4. | | | | | | |

13. Special Handling Instructions and Additional Information

**INT'L**

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.
Generator's/Offeror's Printed/Typed Name: Tom Shock Agent For National Grid
Signature: T. Shock
Month 3 Day 31 Year 10

15. International Shipments ☐ Import to U.S. ☐ Export from U.S.
Transporter Signature (for exports only): Port of entry/exit: Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: [illegible] Signature: [illegible] Month 3 Day 31 Year 10
Transporter 2 Printed/Typed Name: Signature: Month Day Year

**DESIGNATED FACILITY**

17. Discrepancy
17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
17b. Alternate Facility (or Generator) Manifest Reference Number:
U.S. EPA ID Number
Facility's Phone:
17c. Signature of Alternate Facility (or Generator) Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a
Printed/Typed Name: Signature: Month Day Year

69-BLC-O 5 11977 (Rev. 8/06)

GENERATOR'S/SHIPPER'S INITIAL COPY

| NON-HAZARDOUS WASTE MANIFEST | 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|---|
| | 2709_453 | | 866-691-5145 | E 055953 |

**5. Generator's Name and Mailing Address**
National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801
Generator's Phone: 516-545-2500

**Generator's Site Address (if different than mailing address)**
NG Bayshore FMGP_OU5 One Orinoco Drive
Brightwaters, NY 11718

**6. Transporter 1 Company Name**
J & D Trucking
U.S. EPA ID Number: NJF000029257

**7. Transporter 2 Company Name**
U.S. EPA ID Number

**8. Designated Facility Name and Site Address**
Bayshore Soil Management, LLC.
75 Crows Mill Rd
Keasbey, NJ 08832
Facility's Phone: 732-738-9000
U.S. EPA ID Number: NJD982001832

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| | 1 Non-Hazardous MGP Soil for Thermal Desorption Only | | | 25 | T | |
| | 2. | | | | | |
| | 3. | | | | | |
| | 4. | | | | | |

**13. Special Handling Instructions and Additional Information**

**14. GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shack Agent For National Grid
Signature: T Shack
Month: 3 Day: 31 Year: 16

**15. International Shipments** ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

**16. Transporter Acknowledgment of Receipt of Materials**

Transporter 1 Printed/Typed Name: Steve Tricoli
Signature:
Month: 3 Day: 31 Year: 16

Transporter 2 Printed/Typed Name
Signature
Month Day Year

**17. Discrepancy**

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

17c. Signature of Alternate Facility (or Generator)
Month Day Year

**18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a**

Printed/Typed Name
Signature
Month Day Year

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

| NON-HAZARDOUS WASTE MANIFEST | 1. Generator ID Number 2709_462 | 2. Page 1 of | 3. Emergency Response Phone 516-231-6146 | 4. Waste Tracking Number E 055954 |
|---|---|---|---|---|

**GENERATOR**

5. Generator's Name and Mailing Address: National Grid (NG), 175 East Old Country Road, Hicksville, NY 11801
Generator's Phone: 516-545-2598

Generator's Site Address (if different than mailing address): NG Keyspan 41GR_GUS Gas Utilities Office, Brightwaters NY 11718

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJR000023257

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address: Bayshore Soil Management, LLC, 75 Crows Mill Rd, Keasbey, NJ 08832
Facility's Phone: 732-738-8000 — U.S. EPA ID Number: NJ1225071522

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| 1 | Non-Hazardous MGP Soil for Thermal Desorption Only | | | 25 | T | |
| 2. | | | | | | |
| 3. | | | | | | |
| 4. | | | | | | |

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shuck Agent For National Grid — Signature: [signature] — Month: 3 — Day: 31 — Year: 16

**INT'L**

15. International Shipments ☑ Import to U.S. ☐ Export from U.S. — Port of entry/exit:
Transporter Signature (for exports only): — Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: [illegible] — Signature: [signature] — Month: 3 — Day: 31 — Year: 16

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month — Day — Year

# Acknowledgment of Treatment and Recycling

Bayshore Soil Management, LLC hereby acknowledges

***The Treatment***

Of 159.86 tons of

Coal Tar Contaminated Soil
(Received on 4/2/10)

From the **National Grid Bay Shore Former MGP, Brightwaters, NY**

**Bayshore Soil Management, LLC.**

April 5, 2010
AIR: Facility ID Number 18437; Permit PCP070003
CLASS B: Facility ID Number 132397: Permit CBG060002
Keasbey, New Jersey

Certificate Number 2709-463-040210

**CEI- National Grid Bay Shore Former MGP site**

| Job_Name | Datetime | CustomerID | Location | SiteStreet | SiteCity | SiteState | Sitetype | WasteCode | TicketNumber | ManafestNum | TruckId | VeightGros | WeightNet | Tons | RATE | TRANS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2709-463 | 4/2/2010 | CEI10 | National Grid Bay Shore Former MGP site | One Orinoco Drive | Brightwaters | NY | Coal Tar contaminated soils | CT01 | 27082525 | E055966 | AJ560T 826 | 81120 | 54840 | 27.42 | | |
| 2709-463 | 4/2/2010 | CEI10 | National Grid Bay Shore Former MGP site | One Orinoco Drive | Brightwaters | NY | Coal Tar contaminated soils | CT01 | 27082528 | E055965 | AM286B 882 | 81700 | 54480 | 27.24 | | |
| 2709-463 | 4/2/2010 | CEI10 | National Grid Bay Shore Former MGP site | One Orinoco Drive | Brightwaters | NY | Coal Tar contaminated soils | CT01 | 27082541 | E055967 | AL659B 81 | 85960 | 59720 | 29.86 | | |
| 2709-463 | 4/2/2010 | CEI10 | National Grid Bay Shore Former MGP site | One Orinoco Drive | Brightwaters | NY | Coal Tar contaminated soils | CT01 | 27082609 | E055968 | AJ560T 826 | 81920 | 55640 | 27.82 | | |
| 2709-463 | 4/2/2010 | CEI10 | National Grid Bay Shore Former MGP site | One Orinoco Drive | Brightwaters | NY | Coal Tar contaminated soils | CT01 | 27082624 | E055969 | AM286B 882 | 74400 | 47180 | 23.59 | | |
| 2709-463 | 4/2/2010 | CEI10 | National Grid Bay Shore Former MGP site | One Orinoco Drive | Brightwaters | NY | Coal Tar contaminated soils | CT01 | 27082626 | E055970 | AL659B 81 | 74100 | 47860 | 23.93 | | |
| | | | | | | | | | | | | | 47860 | 159.86 | | |

Bayshore Recycling Inc.
75 Crows Mill Road, P.O. Box 290
Keasbey, N.J. 08832

Facility ID#: 132397

**TICKET NUMBER**

27082525

BILL TO

BSM2709463
BSM CREAMER ENVIRONMENTAL
NG BAY SHORE FMGP

BSM CREAMER ENVIRONMENTAL

PO#

| DATE | ENTRY TIME | OPER. | EXIT TIME | OPER. | GROSS WEIGHT | TARE WEIGHT | NET WEIGHT |
|---|---|---|---|---|---|---|---|
| 04/02/2010 | 09:26 | | 09:26 | | ( 81120 LB) | ( 26280 LB) | ( 54840 LB |
| 00159603 | Scale 01 | | | | Scale 01 ( 40.56 T) | ( 13.14 T) | ( 27.42 T |

| VEHICLE NUMBER | VEHICLE TYPE | PLATE NUMBER | HAULER / TRANSACTION TYPE |
|---|---|---|---|
| AJ560T | TRI-AXLE 25 | 826 | NJF Norma |

| QUANTITY | WC | DESCRIPTION / ORIGIN | UNITS | UNIT PRICE | AMOUNT |
|---|---|---|---|---|---|
| 27.4200 | 27 | ID 27<br>NEW YORK<br>LONG ISLAND | TON<br>100.00% | | |

I hereby certify that the above material is not a hazardous waste and the information provided on this form is true to the best of my knowledge.

DRIVER NAME
PRINT _____ SIGNATURE _____

Bayshore Recycling Inc.
75 Crows Mill Road, P.O. Box 290
Keasbey, N.J. 08832

Facility ID#: 132397

**TICKET NUMBER**

27002528

BILL TO

BSM2709463
BSM CREAMER ENVIRONMENTAL
NG BAY SHORE FMGP

BSM CREAMER ENVIRONMENTAL

PO#

| DATE | ENTRY TIME | OPER. | EXIT TIME | OPER. | GROSS WEIGHT | TARE WEIGHT | NET WEIGHT |
|---|---|---|---|---|---|---|---|
| 04/02/2010 | 09:20 | | 09:32 | | ( 81700 LB) | ( 27220 LB) | ( 54480 LB |
| 0015960 | Scale 01 | | Scale 02 | | Scale 01 ( 40.85 T) | Scale 02 ( 13.61 T) | ( 27.24 T |

| VEHICLE NUMBER | VEHICLE TYPE | PLATE NUMBER | HAULER / TRANSACTION TYPE |
|---|---|---|---|
| AM286B | TRI-AXLE 25 | 802 | RAINBOW Norma |

| QUANTITY | WC | DESCRIPTION / ORIGIN | UNITS | UNIT PRICE | AMOUNT |
|---|---|---|---|---|---|
| 27.2400 | 27 | ID 27<br>NEW YORK<br>LONG ISLAND | TON<br>100.00% | | |

I hereby certify that the above material is not a hazardous waste and the information provided on this form is true to the best of my knowledge.

DRIVER NAME
PRINT _____ SIGNATURE Mark _____

Bayshore Recycling Inc.
75 Crows Mill Road, P.O. Box 290
Keasbey, N.J. 08832

Facility ID#: 132397

**TICKET NUMBER**

27082541

BILL TO

BSM2709463
BSM CREAMER ENVIRONMENTAL
NG BAY SHORE FMGP

BSM CREAMER ENVIRONMENTAL

PO#

| DATE | ENTRY TIME | OPER. | EXIT TIME | OPER. | GROSS WEIGHT | TARE WEIGHT | NET WEIGHT |
|---|---|---|---|---|---|---|---|
| 04/02/2010 | 10:25 | | 10:25 | | ( 85960 LB) | ( 26240 LB) | ( 59720 LB |
| 0015963 | Scale 01 | | | | Scale 01 ( 42.98 T) | ( 13.12 T) | ( 29.86 T |

| VEHICLE NUMBER | VEHICLE TYPE | PLATE NUMBER | HAULER / TRANSACTION TYPE |
|---|---|---|---|
| AL659B | TRI-AXLE 25 | 81 | RAINBOW Norma |

| QUANTITY | WC | DESCRIPTION / ORIGIN | UNITS | UNIT PRICE | AMOUNT |
|---|---|---|---|---|---|
| 29.8600 | 27 | ID 27<br>NEW YORK<br>LONG ISLAND | TON<br>100.00% | | |

I hereby certify that the above material is not a hazardous waste and the information provided on this form is true to the best of my knowledge.

DRIVER NAME
PRINT _____ SIGNATURE _____

Bayshore Recycling Inc.
75 Crows Mill Road, P.O. Box 290
Keasbey, N.J. 08832

Facility ID#: 132397

**TICKET NUMBER**

27002609

BILL TO

BSM2709463
BSM CREAMER ENVIRONMENTAL
NG BAY SHORE FMGP

BSM CREAMER ENVIRONMENTAL

PO#

| DATE | ENTRY TIME | OPER. | EXIT TIME | OPER. | GROSS WEIGHT | TARE WEIGHT | NET WEIGHT |
|---|---|---|---|---|---|---|---|
| 04/02/2010 | 14:46 | | 14:47 | | ( 81920 LB) | ( 26280 LB) | ( 55640 LB |
| 00159750 | Scale 01 | | | | Scale 01 ( 40.96 T) | ( 13.14 T) | ( 27.82 T |

| VEHICLE NUMBER | VEHICLE TYPE | PLATE NUMBER | HAULER / TRANSACTION TYPE |
|---|---|---|---|
| AJ560T | TRI-AXLE 25 | 826 | NJF Norma |

| QUANTITY | WC | DESCRIPTION / ORIGIN | UNITS | UNIT PRICE | AMOUNT |
|---|---|---|---|---|---|
| 27.8200 | 27 | ID 27<br>NEW YORK<br>LONG ISLAND | TON<br>100.00% | | |

I hereby certify that the above material is not a hazardous waste and the information provided on this form is true to the best of my knowledge.

DRIVER NAME
PRINT _____ SIGNATURE _____

Bayshore Recycling Inc.
75 Crows Mill Road, P.O. Box 290
Keasbey, N.J. 08832

Facility ID#: 132397

**TICKET NUMBER**

27082624

BSM CREAMER ENVIRONMENTAL

BILL TO

BSM2709463
BSM CREAMER ENVIRONMENTAL
NG BAY SHORE FMGP

PO#

| DATE | ENTRY TIME | OPER. | EXIT TIME | OPER. | GROSS WEIGHT | TARE WEIGHT | NET WEIGHT |
|---|---|---|---|---|---|---|---|
| 04/02/2010 | 15:05 | | 15:05 | | ( 74400 LB) | ( 27220 LB) | ( 47180 LB |
| 00159777 | Scale 01 | | | | Scale 01 ( 37.20 T) | ( 13.61 T) | ( 23.59 T |

| VEHICLE NUMBER | VEHICLE TYPE | PLATE NUMBER | HAULER / TRANSACTION TYPE |
|---|---|---|---|
| AM286B | TRI-AXLE 25 | 882 | RAINBOW Norma |

| QUANTITY | WC | DESCRIPTION / ORIGIN | UNITS | UNIT PRICE | AMOUNT |
|---|---|---|---|---|---|
| 23.5900 | 27 | ID: 27<br>NEW YORK<br>LONG ISLAND | TON<br>100.00% | | |

I hereby certify that the above material is not a hazardous waste and the information provided on this form is true to the best of my knowledge.

DRIVER NAME
PRINT _____ SIGNATURE _____

Bayshore Recycling Inc.
75 Crows Mill Road, P.O. Box 290
Keasbey, N.J. 08832

Facility ID#: 132397

**TICKET NUMBER**

27082626

BILL TO

BSM2709463
BSM CREAMER ENVIRONMENTAL
NG BAY SHORE FMGP

BSM CREAMER ENVIRONMENTAL

PO#

| DATE | ENTRY TIME | OPER. | EXIT TIME | OPER. | GROSS WEIGHT | TARE WEIGHT | NET WEIGHT |
|---|---|---|---|---|---|---|---|
| 04/02/2010 | 16:17 | | 16:17 | | ( 74100 LB) | ( 26240 LB) | ( 47860 LB |
| 0015977 | Scale 01 | | | | Scale 01 ( 37.05 T) | ( 13.12 T) | ( 23.93 T |

| VEHICLE NUMBER | VEHICLE TYPE | PLATE NUMBER | HAULER / TRANSACTION TYPE |
|---|---|---|---|
| AL659B | TRI-AXLE 25 | 81 | RAINBOW Norma |

| QUANTITY | WC | DESCRIPTION / ORIGIN | UNITS | UNIT PRICE | AMOUNT |
|---|---|---|---|---|---|
| 23.9300 | 27 | ID 27<br>NEW YORK<br>LONG ISLAND | TON<br>100.00% | | |

I hereby certify that the above material is not a hazardous waste and the information provided on this form is true to the best of my knowledge.

DRIVER NAME
PRINT _____ SIGNATURE _____

AJS60T

**NON-HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|
| 2709_463 | | 855-691-5145 | E 055966 |

**GENERATOR**

5. Generator's Name and Mailing Address: National Grid (NG), 175 East Old Country Road, Hicksville, NY 11801
Generator's Phone: 516-545-2566

Generator's Site Address (if different than mailing address): NG Bayshore FMGP_OU3 One Orinoco Drive, Brightwaters, NY 11718

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJR000029967

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address: Bayshore Soil Management, LLC., 75 Crows Mill Rd, Keasbey, NJ 08832 — U.S. EPA ID Number: NJ1225001522
Facility's Phone: 732-738-6000

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| 1. | Non-Hazardous MGP Soil for Thermal Disorption Only | | | 25 | T | |
| 2. | | | | | | |
| 3. | | | | | | |
| 4. | | | | | | |

2742

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.
Generator's/Offeror's Printed/Typed Name: Tom Shock Agent For National Grid — Signature: T Shock — Month 4 Day 2 Year 10

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name — Signature — Month 4 Day 2 Year 10
Transporter 2 Printed/Typed Name — Signature — Month Day Year

**DESIGNATED FACILITY**

17. Discrepancy
17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
17b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:
17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a
Printed/Typed Name — Signature — Month 4 Day 2 Year 10

**NON-HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|
| 2709_463 | | 855-691-5145 | E 055965 |

**GENERATOR**

5. Generator's Name and Mailing Address
National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801
Generator's Phone: ~~516-545-2000~~

Generator's Site Address (if different than mailing address)
NG Bayshore FMGP_OUS One Orinoco Drive
Brightwaters, NY 11718

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJR000029967

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
Bayshore Soil Management, LLC
75 Crows Mill Rd
Keasbey, NJ 08832
Facility's Phone: 732-738-6000
U.S. EPA ID Number: NJ1225001522

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| 1 | Non-Hazardous MGP Soil for Thermal Disorption Only | | | 25 | T | |
| 2. | | | | | | 2224 |
| 3. | | | | | | |
| 4. | | | | | | |

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.
Generator's/Offeror's Printed/Typed Name: Tom Shock Agent for National Grid — Signature: T Shock — Month 4 Day 7 Year 10

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Rainbow Mark Zuckerman — Signature: Mark Zuckerman — Month 4 Day 7 Year 10
Transporter 2 Printed/Typed Name — Signature — Month Day Year

**DESIGNATED FACILITY**

17. Discrepancy
17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number: 27082528
Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a
Printed/Typed Name — Signature — Month 4 Day 8 Year 10

AL 6593

**NON-HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|
| 2709_463 | | 866-691-5145 | E 055967 |

**GENERATOR**

5. Generator's Name and Mailing Address
National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801

Generator's Site Address (if different than mailing address)
NG Bayshore FMGP_OU3 One Orinoco Drive
Brightwaters, NY 11718

Generator's Phone: ~~516-545-5000~~

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJR000029967

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address: Bayshore Soil Management, LLC.
75 Crows Mill Rd
Keasbey, NJ 08832

U.S. EPA ID Number: NJ1225001522

Facility's Phone: 732-738-6000

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| | 1 Non-Hazardous MGP Soil for Thermal Disorption Only | | | 25 | T | |
| | 2. | | | | | 29.86 |
| | 3. | | | | | |
| | 4. | | | | | |

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shock Agent For National Grid — Signature: T Shock — Month 5 Day 2 Year 10

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Steve Tripodi — Signature — Month 5 Day 2 Year 10

Transporter 2 Printed/Typed Name — Signature — Month Day Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number: 270625 41

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month 5 Day 12 Year 10

**NON-HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|
| 2709_463 | | 855-691-5145 | E 055968 |

**GENERATOR**

5. Generator's Name and Mailing Address
National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801

Generator's Phone: 516-545-2586

Generator's Site Address (if different than mailing address)
NG Bayshore FMGP_OU3 One Orinoco Drive
Brightwaters, NY 11718

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJR000029967

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Bayshore Soil Management, LLC.
75 Crows Mill Rd
Keasbey, NJ 08832

Facility's Phone: 732-738-6000

U.S. EPA ID Number: NJ1225001522

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. |
|---|---|---|---|---|---|
| 1 | Non-Hazardous MGP Soil for Thermal Disorption Only | | | 25 | T |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |

2782

13. Special Handling Instructions and Additional Information

**14. GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shock Agent For National Grid — Signature: T Shock — Month: 4 Day: 7 Year: 10

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name — Signature — Month: 4 Day: 7 Year: 10

Transporter 2 Printed/Typed Name — Signature — Month Day Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number: 2708-2609

Facility's Phone:

17c Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month: 4 Day: 12 Year: 10

169-BLC-O 5 11977 (Rev. 8/06)

DESIGNATED FACILITY TO GENERATOR

AM256B

**NON-HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|
| 2709_453 | | 866-691-5145 | E 055969 |

**GENERATOR**

5. Generator's Name and Mailing Address
National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801
Generator's Phone: 516-545-2500

Generator's Site Address (if different than mailing address)
NG Bayshore FMGP_OU3 One Orinoco Drive
Brightwaters, NY 11718

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJR000029967

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address: Bayshore Soil Management, LLC
75 Crows Mill Rd
Keasbey, NJ 08832
Facility's Phone: 732-738-6000
U.S. EPA ID Number: NJ1226001522

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| | 1 Non-Hazardous MGP Soil for Thermal Disorption Only | | | 25 | T | |
| | 2. | | | | | 2359 |
| | 3. | | | | | |
| | 4. | | | | | |

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shock Agent For National Grid — Signature: [signature] — Month: 4 Day: 7 Year: 10

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: MARK Zuckerman Rainbow — Signature: [signature] — Month: 4 Day: 7 Year: 10

Transporter 2 Printed/Typed Name — Signature — Month: Day: Year:

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number: 270826245

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month: Day: Year:

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: [signature] — Signature: [signature] — Month: 4 Day: 7 Year: 10

AL 659 B

**NON-HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|
| 2709_463 | | 866-691-5145 | E 055970 |

**GENERATOR**

5. Generator's Name and Mailing Address: National Grid (NG), 175 East Old Country Road, Hicksville, NY 11801
Generator's Phone: 516-545-2586

Generator's Site Address (if different than mailing address): NG Bayshore FMGP_OU3 One Orinoco Drive, Brightwaters, NY 11718

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJR000029957

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address: Bayshore Soil Management, LLC, 75 Crows Mill Rd, Keasbey, NJ 08832
Facility's Phone: 732-738-6000 — U.S. EPA ID Number: NJ1225001522

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| 1. | Non-Hazardous MGP Soil for Thermal Disorption Only | | | 25 | T | |
| 2. | | | | | | 2393 |
| 3. | | | | | | |
| 4. | | | | | | |

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shock Agent For National Grid — Signature: T Shock — Month: 4 — Day: 7 — Year: 10

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. — Port of entry/exit:
Transporter Signature (for exports only): — Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Steve Tripodi — Signature: [signature] — Month: 4 — Day: 7 — Year: 10

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number: 270826 26

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: [signature] — Signature: [signature] — Month: 4 — Day: 24 — Year: 10

# Acknowledgment of Treatment and Recycling

Bayshore Soil Management, LLC hereby acknowledges

***The Treatment***

Of 296.05 tons of

Coal Tar Contaminated Soil
(Received on 4/5/10)

From the **National Grid Bay Shore Former MGP, Brightwaters, NY**

**Bayshore Soil Management, LLC.**

April 8, 2010
AIR: Facility ID Number 18437; Permit PCP070003
CLASS B: Facility ID Number 132397: Permit CBG060002
Keasbey, New Jersey

Certificate Number 2709-463-040510

**CEI- National Grid Bay Shore Former MGP site**

| Job_Name | Datetime | CustomerID | Location | SiteStreet | SiteCity | SiteState | Sitetype | WasteCode | TicketNumbe | ManafestNun | TruckId | VeightGros | WeightNet | Tons | RATE | TRANS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2709-463 | 4/5/2010 | CEI10 | National Grid Bay Shore Former MGP site | One Orinoco Drive | Brightwaters | NY | Coal Tar contaminated soils | CT01 | 27082676 | E055955 | AL558Z 201 | 77600 | 50960 | 25.48 | | |
| 2709-463 | 4/5/2010 | CEI10 | National Grid Bay Shore Former MGP site | One Orinoco Drive | Brightwaters | NY | Coal Tar contaminated soils | CT01 | 27082677 | E055958 | AL772N 876 | 83000 | 57260 | 28.63 | | |
| 2709-463 | 4/5/2010 | CEI10 | National Grid Bay Shore Former MGP site | One Orinoco Drive | Brightwaters | NY | Coal Tar contaminated soils | CT01 | 27082678 | E055956 | AL569T 891 | 83300 | 56400 | 28.2 | | |
| 2709-463 | 4/5/2010 | CEI10 | National Grid Bay Shore Former MGP site | One Orinoco Drive | Brightwaters | NY | Coal Tar contaminated soils | CT01 | 27082681 | E055957 | AL777N 879 | 79180 | 53240 | 26.62 | | |
| 2709-463 | 4/5/2010 | CEI10 | National Grid Bay Shore Former MGP site | One Orinoco Drive | Brightwaters | NY | Coal Tar contaminated soils | CT01 | 27082684 | E055959 | AL863U 894 | 79520 | 54000 | 27 | | |
| 2709-463 | 4/5/2010 | CEI10 | National Grid Bay Shore Former MGP site | One Orinoco Drive | Brightwaters | NY | Coal Tar contaminated soils | CT01 | 27082757 | E055960 | AL558Z 201 | 88100 | 61460 | 30.73 | | |
| 2709-463 | 4/5/2010 | CEI10 | National Grid Bay Shore Former MGP site | One Orinoco Drive | Brightwaters | NY | Coal Tar contaminated soils | CT01 | 27082758 | E055962 | AL772N 876 | 89960 | 64220 | 32.11 | | |
| 2709-463 | 4/5/2010 | CEI10 | National Grid Bay Shore Former MGP site | One Orinoco Drive | Brightwaters | NY | Coal Tar contaminated soils | CT01 | 27082759 | E055963 | AL777N 879 | 91720 | 65780 | 32.89 | | |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2709-463 | 4/5/2010 | CEI10 | National Grid Bay Shore Former MGP site | One Orinoco Drive | Brightwaters | NY | Coal Tar contaminated soils | CT01 | 27082763 | E055961 | AL569T 891 | 87480 | 60580 | 30.29 | | |
| 2709-463 | 4/5/2010 | CEI10 | National Grid Bay Shore Former MGP site | One Orinoco Drive | Brightwaters | NY | Coal Tar contaminated soils | CT01 | 27082767 | E055964 | AL863U 894 | 93720 | 68200 | 34.1 | | |
| | | | | | | | | | 10 | | | | 592100 | 296.05 | | |

Bayshore Recycling Inc.
75 Owens Mill Road, P.O. Box 290
Keasbey, N.J. 08832

Facility ID#: 132397

**TICKET NUMBER**

27082676

BILL TO

BSM2709463
BSM CREAMER ENVIRONMENTAL
NG BAY SHORE FMGP

BSM CREAMER ENVIRONMENTAL

PO#

| DATE | ENTRY TIME | OPER. | EXIT TIME | OPER. | GROSS WEIGHT | TARE WEIGHT | NET WEIGHT |
|---|---|---|---|---|---|---|---|
| 04/05/2010 | 09:56 | | 09:57 | | ( 77600 LB) | ( 26640 LB) | ( 50960 LB |
| | | | | | Scale 01 | | |
| 00159938 | Scale 01 | | | | ( 38.80 T) | ( 13.32 T) | ( 25.48 T |

| VEHICLE NUMBER | VEHICLE TYPE | PLATE NUMBER | HAULER / TRANSACTION TYPE |
|---|---|---|---|
| AL558Z | TRI-AXLE 25 | 201 | RAINBOW |
| | | | Norma |

| QUANTITY | WC | DESCRIPTION / ORIGIN | UNITS | UNIT PRICE | AMOUNT |
|---|---|---|---|---|---|
| 25.4800 | 27 | ID 27<br>NEW YORK<br>LONG ISLAND | TON<br>100.00% | | |

I hereby certify that the above material is not a hazardous waste and the information provided on this form is true to the best of my knowledge.

DRIVER NAME
PRINT

SIGNATURE

Bayshore Recycling Inc.
75 Crows Mill Road, P.O. Box 290
Keasbey, N.J. 08832

Facility ID#: 132397

**TICKET NUMBER**

27082677

BILL TO

BSM2709463
BSM CREAMER ENVIRONMENTAL
NG BAY SHORE FMGP

BSM CREAMER ENVIRONMENTAL

PO#

| DATE | ENTRY TIME | OPER. | EXIT TIME | OPER. | GROSS WEIGHT | TARE WEIGHT | NET WEIGHT * |
|---|---|---|---|---|---|---|---|
| 04/05/2010 | 09:58 | | 09:58 | | ( 83000 LB) | ( 25740 LB) | ( 57260 LB |
| 0015993 | Scale 0 | | | | Scale 01 | | |
| | | | | | ( 41.50 T) | ( 12.87 T) | ( 28.63 T |

| VEHICLE NUMBER | VEHICLE TYPE | PLATE NUMBER | HAULER / TRANSACTION TYPE |
|---|---|---|---|
| AL772N | TRI-AXLE 25 | 876 | RAINBOW Norma |

| QUANTITY | WC | DESCRIPTION / ORIGIN | UNITS | UNIT PRICE | AMOUNT |
|---|---|---|---|---|---|
| 28.630 | 0 27 | ID 27<br>NEW YORK<br>LONG ISLAND | TON<br>100.00% | | |

I hereby certify that the above material is not a hazardous waste and the information provided on this form is true to the best of my knowledge.

DRIVER NAME PRINT Roger SIGNATURE

Bayshore Recycling Inc.
75 Crows Mill Road, P.O. Box 290
Keasbey, N.J. 08832

Facility ID#: 132397

**TICKET NUMBER**

27002678

BILL TO

BSM2709463
BSM CREAMER ENVIRONMENTAL
NG BAY SHORE FMGP

BSM CREAMER ENVIRONMENTAL

PO#

| DATE | ENTRY TIME | OPER. | EXIT TIME | OPER. | GROSS WEIGHT | TARE WEIGHT | NET WEIGHT |
|---|---|---|---|---|---|---|---|
| 04/05/2010 | 09:59 | | 09:59 | | ( 83300 LB | ( 26900 LB | ( 56400 LB |
| 00159935 | Scale 01 | | | | Scale 01 | | |
| | | | | | ( 41.65 T | ( 13.45 T | ( 28.20 T |

| VEHICLE NUMBER | VEHICLE TYPE | PLATE NUMBER | HAULER / TRANSACTION TYPE |
|---|---|---|---|
| AL569T | TRI-AXLE 25 | 891 | RAINBOW |
| | | | Norma |

| QUANTITY | WC | DESCRIPTION / ORIGIN | UNITS | UNIT PRICE | AMOUNT |
|---|---|---|---|---|---|
| 28.2000 | 27 | ID 27<br>NEW YORK<br>LONG ISLAND | TON<br>100.00% | | |

I hereby certify that the above material is not a hazardous waste and the information provided on this form is true to the best of my knowledge.

DRIVER NAME
PRINT _____ SIGNATURE _____

Bayshore Recycling Inc.
75 Crows Mill Road, P.O. Box 290
Keasbey, N.J. 08832

Facility ID#: 132397

**TICKET NUMBER**

27082681

BILL TO

BSM2709463
BSM CREAMER ENVIRONMENTAL
NB BAY SHORE FMGP

BSM CREAMER ENVIRONMENTAL

PO#

| DATE | ENTRY TIME | OPER. | EXIT TIME | OPER. | GROSS WEIGHT | TARE WEIGHT | NET WEIGHT |
|---|---|---|---|---|---|---|---|
| 04/05/2010 | 10:03 | | 10:04 | | ( 79180 LB) | ( 25940 LB) | ( 53240 LB |
| 00159940 | Scale 01 | | | | Scale 01 ( 39.59 T) | ( 12.97 T) | ( 26.62 T |

| VEHICLE NUMBER | VEHICLE TYPE | PLATE NUMBER | HAULER / TRANSACTION TYPE |
|---|---|---|---|
| AL777N | TRI-AXLE 25 | 879 | RAINBOW Norma |

| QUANTITY | WC | DESCRIPTION / ORIGIN | UNITS | UNIT PRICE | AMOUNT |
|---|---|---|---|---|---|
| 26.62 | 00 27 | ID 27<br>NEW YORK<br>LONG ISLAND | TON<br>100.00% | | |

I hereby certify that the above material is not a hazardous waste and the information provided on this form is true to the best of my knowledge.

DRIVER NAME
PRINT

SIGNATURE

Bayshore Recycling Inc.
75 Crows Mill Road, P.O. Box 290
Keasbey, N.J. 08832

Facility ID#: 132397

**TICKET NUMBER**

27082684

BILL TO

BSM2709463
BSM CREAMER ENVIRONMENTAL
NG BAY SHORE FMGP

BSM CREAMER ENVIRONMENTAL

PO#

| DATE | ENTRY TIME | OPER. | EXIT TIME | OPER. | GROSS WEIGHT | TARE WEIGHT | NET WEIGHT |
|---|---|---|---|---|---|---|---|
| 04/05/2010 | 10:11 | | 10:11 | | ( 79520 LB) | ( 25520 LB) | ( 54000 LB |
| 0015994 | Scale 01 | | | | Scale 01 ( 39.76 T) | ( 12.76 T) | ( 27.00 T |

| VEHICLE NUMBER | VEHICLE TYPE | PLATE NUMBER | HAULER / TRANSACTION TYPE |
|---|---|---|---|
| AL863U | TRI-AXLE 25 | 894 | RAINBOW Norma |

| QUANTITY | WC | DESCRIPTION / ORIGIN | UNITS | UNIT PRICE | AMOUNT |
|---|---|---|---|---|---|
| 27.0000 | 27 | ID 27<br>NEW YORK<br>LONG ISLAND | TON<br>100.00% | | |

I hereby certify that the above material is not a hazardous waste and the information provided on this form is true to the best of my knowledge.

DRIVER NAME
PRINT _____ SIGNATURE _____

Bayshore Recycling Inc.
575 Crows Mill Road, P.O. Box 290
Keasbey, N.J. 08832

Facility ID#: 132397

**TICKET NUMBER**

27082757

BILL TO

BSM2709463
BSM CREAMER ENVIRONMENTAL
NG BAY SHORE FMGP

BSM CREAMER ENVIRONMENTAL

PO#

| DATE | ENTRY TIME | OPER. | EXIT TIME | OPER. | GROSS WEIGHT | TARE WEIGHT | NET WEIGHT |
|---|---|---|---|---|---|---|---|
| 04/05/2010 | 15:02 | | 15:03 | | ( 88100 LB | ( 26640 LB | ( 61460 LB |
| 00160079 | Scale 01 | | | | Scale 01 ( 44.05 T | ( 13.32 T | ( 30.72 T |

| VEHICLE NUMBER | VEHICLE TYPE | PLATE NUMBER | HAULER / TRANSACTION TYPE |
|---|---|---|---|
| AL558Z | TRI-AXLE 25 | 201 | RAINBOW Norma |

| QUANTITY | WC | DESCRIPTION / ORIGIN | UNITS | UNIT PRICE | AMOUNT |
|---|---|---|---|---|---|
| 30.7300 | 27 | ID 27<br>NEW YORK<br>LONG ISLAND | TON<br>100.00% | | |

I hereby certify that the above material is not a hazardous waste and the information provided on this form is true to the best of my knowledge.

DRIVER NAME
PRINT _____ SIGNATURE _____

Bayshore Recycling Inc.
75 Crows Mill Road, P.O. Box 290
Keasbey, N.J. 08832

Facility ID#: 132397

**TICKET NUMBER**

27082758

BSM CREAMER ENVIRONMENTAL

PO#

BILL TO

BSM2709463
BSM CREAMER ENVIRONMENTAL
NG BAY SHORE FMGP

| DATE | ENTRY TIME | OPER. | EXIT TIME | OPER. | GROSS WEIGHT | TARE WEIGHT | NET WEIGHT |
|---|---|---|---|---|---|---|---|
| 04/05/2010 | 15:03 | | 15:04 | | ( 89960 LB | ( 25740 LB | ( 64220 LB |
| 00160000 | Scale 01 | | | | Scale 01 ( 44.98 T | ( 12.87 T | ( 32.11 T |

| VEHICLE NUMBER | VEHICLE TYPE | PLATE NUMBER | HAULER / TRANSACTION TYPE |
|---|---|---|---|
| AL772N | TRI-AXLE 25 | 876 | RAINBOW Norma |

| QUANTITY | WC | DESCRIPTION / ORIGIN | UNITS | UNIT PRICE | AMOUNT |
|---|---|---|---|---|---|
| 32.1100 | 27 | ID 27<br>NEW YORK<br>LONG ISLAND | TON<br>100.00% | | |

I hereby certify that the above material is not a hazardous waste and the information provided on this form is true to the best of my knowledge.

DRIVER NAME
PRINT Roger SIGNATURE

Bayshore Recycling Inc.
75 Crows Mill Road, P.O. Box 290
Keasbey, N.J. 08832

Facility ID#: 132397

**TICKET NUMBER**

27002759

BILL TO

BSM2709463
BSM CREAMER ENVIRONMENTAL
NG BAY SHORE FNGP

BSM CREAMER ENVIRONMENTAL

PO#

| DATE | ENTRY TIME | OPER. | EXIT TIME | OPER. | GROSS WEIGHT | TARE WEIGHT | NET WEIGHT |
|---|---|---|---|---|---|---|---|
| 04/05/2010 | 15:05 | | 15:05 | | 91720 LB | 25940 LB | 65780 LB |
| 00160008 | Scale 01 | | | | Scale 01 | | |
| | | | | | ( 45.86 T) | ( 12.97 T) | ( 32.89 T) |

| VEHICLE NUMBER | VEHICLE TYPE | PLATE NUMBER | HAULER / TRANSACTION TYPE |
|---|---|---|---|
| AL777N | TRI-AXLE 25 | 879 | RAINBOW Norma |

| QUANTITY | WC | DESCRIPTION / ORIGIN | UNITS | UNIT PRICE | AMOUNT |
|---|---|---|---|---|---|
| 32.8900 | 27 | ID 27<br>NEW YORK<br>LONG ISLAND | TON<br>100.00% | | |

I hereby certify that the above material is not a hazardous waste and the information provided on this form is true to the best of my knowledge.

DRIVER NAME
PRINT _____ SIGNATURE _____

Bayshore Recycling Inc.
75 Crows Mill Road, P.O. Box 290
Keasbey, N.J. 08832

Facility ID#: 132397

**TICKET NUMBER**

27082763

BSM CREAMER ENVIRONMENTAL

PO#

BILL TO

BSM2709463
BSM CREAMER ENVIRONMENTAL
NG BAY SHORE FMGP

| DATE | ENTRY TIME | OPER. | EXIT TIME | OPER. | GROSS WEIGHT | TARE WEIGHT | NET WEIGHT |
|---|---|---|---|---|---|---|---|
| 04/05/2010 | 15:24 | | 15:24 | | ( 87480 LB) | ( 26900 LB) | ( 60580 LB |
| 00160008 | Scale 01 | | | | Scale 01 | | |
| | | | | | ( 43.74 T) | ( 13.45 T) | ( 30.29 T |

| VEHICLE NUMBER | VEHICLE TYPE | PLATE NUMBER | HAULER / TRANSACTION TYPE |
|---|---|---|---|
| AL569T | TRI-AXLE 25 | 891 | RAINBOW Norma |

| QUANTITY | WC | DESCRIPTION / ORIGIN | UNITS | UNIT PRICE | AMOUNT |
|---|---|---|---|---|---|
| 30.2900 | 27 | ID 27<br>NEW YORK<br>LONG ISLAND | TON<br>100.00% | | |

I hereby certify that the above material is not a hazardous waste and the information provided on this form is true to the best of my knowledge.

DRIVER NAME
PRINT _____ SIGNATURE _____

Bayshore Recycling Inc.
75 Crows Mill Road, P.O. Box 290
Keasbey, N.J. 08832

Facility ID#: 132397

**TICKET NUMBER**

27082767

BILL TO

BSM2709463
BSM CREAMER ENVIRONMENTAL
NG BAY SHORE FMGP

BSM CREAMER ENVIRONMENTAL

PO#

| DATE | ENTRY TIME | OPER. | EXIT TIME | OPER. | GROSS WEIGHT | TARE WEIGHT | NET WEIGHT |
|---|---|---|---|---|---|---|---|
| 04/05/2010 | 15:48 | | 15:48 | | ( 93720 LB) | ( 25520 LB) | ( 68200 LB |
| 00160093 | Scale 01 | | | | Scale 01<br>( 46.86 T) | ( 12.76 T) | ( 34.10 T |

| VEHICLE NUMBER | VEHICLE TYPE | PLATE NUMBER | HAULER / TRANSACTION TYPE |
|---|---|---|---|
| AL863U | TRI-AXLE 25 | 894 | RAINBOW<br>Norma |

| QUANTITY | WC | DESCRIPTION / ORIGIN | UNITS | UNIT PRICE | AMOUNT |
|---|---|---|---|---|---|
| 34.1000 | 27 | ID 27<br>NEW YORK<br>LONG ISLAND | TON<br>100.00% | | |

I hereby certify that the above material is not a hazardous waste and the information provided on this form is true to the best of my knowledge.

DRIVER NAME PRINT _____ SIGNATURE _____

AL5582

**NON-HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|
| 2709_463 | | 855-691-5145 | E 055955 |

**GENERATOR**

5. Generator's Name and Mailing Address
National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801

Generator's Site Address (if different than mailing address)
NG Bayshore FMGP_OU3 One Orinoco Drive
Brightwaters, NY 11718

Generator's Phone: ~~516-545-2500~~

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJR000029957

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
Bayshore Soil Management, LLC
75 Crows Mill Rd
Keasbey, NJ 08832

U.S. EPA ID Number: NJ1225001522

Facility's Phone: 732-738-6000

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| | 1 Non-Hazardous MGP Soil for Thermal Disorption Only | | | 25 | T | |
| | 2. | | | 2548 | | |
| | 3. | | | | | |
| | 4. | | | | | |

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shock Agent For National Grid — Signature: T Shock — Month 4 Day 5 Year 10

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Hugo Rojas — Signature: Hugo Rojas — Month 4 Day 5 Year 10

Transporter 2 Printed/Typed Name — Signature — Month Day Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number: 27602676

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18 Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: VM — Signature: VM — Month 4 Day 5 Year 10

169-BLC-O 5 11977 (Rev. 8/06)

DESIGNATED FACILITY TO GENERATOR

AL 772 N

**NON-HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|
| 2709_453 | | 855-691-5145 | E 055958 |

**GENERATOR**

5. Generator's Name and Mailing Address: National Grid (NG), 175 East Old Country Road, Hicksville, NY 11801
Generator's Phone: 516-545-2555

Generator's Site Address (if different than mailing address): NG Bayshore FMGP_OU3 One Orinoco Drive, Brightwaters, NY 11718

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJR000029967

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address: Bayshore Soil Management, LLC, 75 Crows Mill Rd, Keasbey, NJ 08832 — U.S. EPA ID Number: NJ1225001522
Facility's Phone: 732-738-6000

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. |
|---|---|---|---|---|---|
| 1. | Non-Hazardous MGP Soil for Thermal Desorption Only | | | 25 | T |
| 2. | | | | 2863 | |
| 3. | | | | | |
| 4. | | | | | |

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.
Generator's/Offeror's Printed/Typed Name: Tom Shock Agent for National Grid — Signature: [signature] — Month 4 Day 5 Year 10

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Roger Mesen — Signature: [signature] — Month 4 Day 5 Year 10
Transporter 2 Printed/Typed Name — Signature — Month Day Year

**DESIGNATED FACILITY**

17. Discrepancy
17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number: 27082677
Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a
Printed/Typed Name: [illegible] — Signature: [signature] — Month 4 Day 5 Year 10

169-BLC-O 5 11977 (Rev. 8/06)

DESIGNATED FACILITY TO GENERATOR

**NON-HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|
| 2709_463 | | 866-691-5145 | E 055956 |

**GENERATOR**

5. Generator's Name and Mailing Address: National Grid (NG), 175 East Old Country Road, Hicksville, NY 11801
Generator's Phone: 516-545-2586

Generator's Site Address (if different than mailing address): NG Bayshore FMGP_OU3 One Crinoos Drive, Brightwaters, NY 11718

6. Transporter 1 Company Name: J & D Trucking — 891 AL569T — U.S. EPA ID Number: NJR000022957

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address: Bayshore Soil Management, LLC., 75 Crows Mill Rd, Keasbey, NJ 08832
Facility's Phone: 732-738-6000 — U.S. EPA ID Number: NJ1229001522

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| 1. | Non-Hazardous MGP Soil for Thermal Disorption Only | | | 25 | T | |
| 2. | | | | | | |
| 3. | | | | | | |
| 4. | | | | | | |

28.20

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shock Agent For national Grid — Signature: T. Shock — Month 4 Day 5 Year 10

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Joe Berroca — Signature — Month 4 Day 5 Year 10

Transporter 2 Printed/Typed Name — Signature — Month Day Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number: 2706278

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month Day Year

**NON-HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|
| 2709_463 | | 855-691-5145 | E 055957 |

**GENERATOR**

5. Generator's Name and Mailing Address
National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801
Generator's Phone: 516-545-2005

Generator's Site Address (if different than mailing address)
NG Bayshore FMGP_OU3 One Orinoco Drive
Brightwaters, NY 11718

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJR000029967

7. Transporter 2 Company Name: Rainbow T #373 A1772N — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Bayshore Soil Management, LLC
75 Crows Mill Rd
Keasbey, NJ 08832
Facility's Phone: 732-738-6000

U.S. EPA ID Number: NJ1225001522

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| 1 | Non-Hazardous MGP Soil for Thermal Disorption Only | | | 25 | T | 2662 |
| 2. | | | | | | |
| 3. | | | | | | |
| 4. | | | | | | |

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shock Agent For National Grid — Signature: [signature] — Month 4 Day 5 Year 10

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name — Signature — Month 4 Day 5 Year 10

Transporter 2 Printed/Typed Name — Signature — Month Day Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number: 27082681

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: [signature] — Signature: [signature] — Month 4 Day 5 Year 10

169-BLC-O 5 11977 (Rev. 8/06)

DESIGNATED FACILITY TO GENERATOR

894 AL8631U.

| NON-HAZARDOUS WASTE MANIFEST | 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|---|
| | 2709_453 | | 866-691-5145 | E 055959 |

**GENERATOR**

5. Generator's Name and Mailing Address
National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801
Generator's Phone: ~~516-545-2000~~

Generator's Site Address (if different than mailing address)
NG Bayshore FMGP_OU3 One Orinoco Drive
Brightwaters, NY 11718

6. Transporter 1 Company Name
J & D Trucking (Rainbow).
U.S. EPA ID Number
NJR000029967

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
Bayshore Soil Management, LLC.
75 Crows Mill Rd
Keasbey, NJ 08832
Facility's Phone: 732-738-6000
U.S. EPA ID Number
NJ1225001522

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. |
|---|---|---|---|---|---|
| 1 | Non-Hazardous MGP Soil for Thermal Disorption Only | | | 25 | T |
| 2. | | | | 27 | |
| 3. | | | | | |
| 4. | | | | | |

13. Special Handling Instructions and Additional Information

14. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.
Generator's/Offeror's Printed/Typed Name: Tom Shock Agent For National Grid
Signature: [signature]
Month 4 Day 5 Year 10

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Eric Rojas, 894
Signature: [signature]
Month 4 Day 5 Year 10
Transporter 2 Printed/Typed Name:
Signature:
Month Day Year

**DESIGNATED FACILITY**

17. Discrepancy
17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

17b. Alternate Facility (or Generator)
U.S. EPA ID Number
2708 2684
Facility's Phone:

17c. Signature of Alternate Facility (or Generator)
Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a
Printed/Typed Name: [signature]
Signature: [signature]
Month 4 Day 6 Year 0

AL 3582

**NON-HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|
| 2709_463 | | 866-691-5145 | E 055960 |

**GENERATOR**

5. Generator's Name and Mailing Address: National Grid (NG), 175 East Old Country Road, Hicksville, NY 11801
Generator's Phone: 516-545-2586

Generator's Site Address (if different than mailing address): NG Bayshore FMGP_GU3 One Orinoco Drive, Brightwaters, NY 11718

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJR000029967

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address: Bayshore Soil Management, LLC, 75 Crows Mill Rd, Keasbey, NJ 08832
Facility's Phone: 732-738-6000 — U.S. EPA ID Number: NJ1225001522

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| 1. | Non-Hazardous MGP Soil for Thermal Disorption Only | | | 25 | T | |
| 2. | | | | | | 3073 |
| 3. | | | | | | |
| 4. | | | | | | |

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.
Generator's/Offeror's Printed/Typed Name: Tom Shock Agent For National Grid — Signature: T Shock — Month 4 Day 5 Year 10

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Hugo Rojas — Signature: Hugo Rojas — Month 4 Day 5 Year 10
Transporter 2 Printed/Typed Name: — Signature: — Month Day Year

**DESIGNATED FACILITY**

17. Discrepancy
17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
17b. Alternate Facility (or Generator) — U.S. EPA ID Number: 7108257
Facility's Phone:
17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a
Printed/Typed Name: — Signature: — Month 4 Day 5 Year 10

169-BLC-O 5 11977 (Rev. 8/06)

DESIGNATED FACILITY TO GENERATOR

**NON-HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|
| 2709_463 | | 855-691-5145 | E 055962 |

**GENERATOR**

5. Generator's Name and Mailing Address: National Grid (NG), 175 East Old Country Road, Hicksville, NY 11801
Generator's Phone: 516-545-2555

Generator's Site Address (if different than mailing address): NG Bayshore FMGP_OU3 One Ormsco Drive, Brightwaters, NY 11718

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJR000029967

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address: Bayshore Soil Management, LLC., 75 Crowe Mill Rd, Keasbey, NJ 08832 — U.S. EPA ID Number: NJH225001522
Facility's Phone: 732-738-6000

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. |
|---|---|---|---|---|---|
| 1. | Non-Hazardous MGP Soil for Thermal Disorption Only | | | 25 | T |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |

3211

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shock Agent For National Grid — Signature: T Shock — Month: 4 Day: 5 Year: 10

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Roger Mesen — Signature — Month: 4 Day: 5 Year: 10

Transporter 2 Printed/Typed Name — Signature — Month Day Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number: 2706 2756
Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month: 4 Day: 5 Year: 10

| NON-HAZARDOUS WASTE MANIFEST | 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|---|
| | 2709_463 | | 866-691-5145 | E 055963 |

**GENERATOR**

5. Generator's Name and Mailing Address
National Grid (NG)
175 East Old Country Road
Hicksville, NY 11601
Generator's Phone: 516-545-2500

Generator's Site Address (if different than mailing address)
NG Bayshore FMGP_OU3 One Ormoco Drive
Brightwaters, NY 11718

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJR000029967

7. Transporter 2 Company Name: Weimbow T. #879 AL XXX N — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Bayshore Soil Management, LLC.
75 Crows Mill Rd
Keasbey, NJ 08832
Facility's Phone: 732-738-6000
U.S. EPA ID Number: NJ1225001522

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| 1 | Non-Hazardous MGP Soil for Thermal Disorption Only | | | 25 | T | |
| 2. | | | | | | 32.89 |
| 3. | | | | | | |
| 4. | | | | | | |

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.
Generator's/Offeror's Printed/Typed Name: Tom Shack Agent For National Grid — Signature: [signature] — Month 4 Day 5 Year 10

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name — Signature — Month 4 Day 5 Year 10
Transporter 2 Printed/Typed Name — Signature — Month Day Year

**DESIGNATED FACILITY**

17. Discrepancy
17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
17b. Alternate Facility (or Generator) — U.S. EPA ID Number: 2768759
Facility's Phone:
17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a
Printed/Typed Name: [signature] — Signature: [signature] — Month 4 Day 5 Year 10

| NON-HAZARDOUS WASTE MANIFEST | 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|---|
| | 2709_463 | | 866-691-5145 | E 055961 |

**GENERATOR**

5. Generator's Name and Mailing Address
National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801
Generator's Phone: ~~516-545-2000~~

Generator's Site Address (if different than mailing address)
NG Bayshore FMGP_OU3 One Orinoco Drive
Brightwaters, NY 11718

6. Transporter 1 Company Name: J & D Trucking 891 ALS69T — U.S. EPA ID Number: NJR000029967

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
Bayshore Soil Management, LLC.
75 Crows Mill Rd
Keasbey, NJ 08832
Facility's Phone: 732-738-5000
U.S. EPA ID Number: NJ1225001522

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| | 1 Non-Hazardous MGP Soil for Thermal Disorption Only | | | 25 | T | |
| | 2. | | | | | 3029 |
| | 3. | | | | | |
| | 4. | | | | | |

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shock Agent for National Grid — Signature: T Shock — Month 4 Day 5 Year 16

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Alex Bernard — Signature: Alex B. — Month 4 Day 5 Year 16

Transporter 2 Printed/Typed Name — Signature — Month Day Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number: 27002763

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: [illegible] — Signature: [illegible] — Month 4 Day 5 Year 16

894 A28630

**NON-HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|
| 2709_463 | | 866-691-5145 | E 055964 |

**GENERATOR**

5. Generator's Name and Mailing Address
National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801
Generator's Phone: 516-545-2586

Generator's Site Address (if different than mailing address)
NG Bayshore FMGP_GUS One Orinoco Drive
Brightwaters, NY 11718

6. Transporter 1 Company Name: J & D Trucking Rainbow — U.S. EPA ID Number: NJR000023967

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Bayshore Soil Management, LLC.
75 Crows Mill Rd
Keasbey, NJ 08832
Facility's Phone: 732-738-6000
U.S. EPA ID Number: NJ1228001522

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| 1 | Non-Hazardous MGP Soil for Thermal Disorption Only | | | 25 | T | |
| 2. | | | | | | 34.10 |
| 3. | | | | | | |
| 4. | | | | | | |

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shock Agent For National Grid — Signature: T Shock — Month: 4 Day: 5 Year: 10

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Eric Rojas — Signature: — Month: 4 Day: 5 Year: 10

Transporter 2 Printed/Typed Name — Signature — Month Day Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number: 07082767

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: VM — Signature: VM — Month: 4 Day: 5 Year: 10

# Acknowledgment of Treatment and Recycling

Bayshore Soil Management, LLC hereby acknowledges

***The Treatment***

Of 188.68 tons of

Coal Tar Contaminated Soil
(Received on 4/6/10)

From the **National Grid Bay Shore Former MGP, Brightwaters, NY**

**Bayshore Soil Management, LLC.**

April 8, 2010
AIR: Facility ID Number 18437; Permit PCP070003
CLASS B: Facility ID Number 132397: Permit CBG060002
Keasbey, New Jersey

Certificate Number 2709-463-040610

**CEI- National Grid Bay Shore Former MGP site**

| Job_Name | Datetime | CustomerID | Location | SiteStreet | SiteCity | SiteState | Sitetype | WasteCode | TicketNumber | ManafestNum | TruckId | WeightGros | WeightNet | Tons | RATE | TRANS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2709-463 | 4/6/2010 | CEI10 | National Grid Bay Shore Former MGP site | One Orinoco Drive | Brightwaters | NY | Coal Tar contaminated soils | CT01 | 27082822 | E056001 | AM489A 206 | 88640 | 60580 | 30.29 | | |
| 2709-463 | 4/6/2010 | CEI10 | National Grid Bay Shore Former MGP site | One Orinoco Drive | Brightwaters | NY | Coal Tar contaminated soils | CT01 | 27082833 | E056002 | AL558Z 201 | 89860 | 63220 | 31.61 | | |
| 2709-463 | 4/6/2010 | CEI10 | National Grid Bay Shore Former MGP site | One Orinoco Drive | Brightwaters | NY | Coal Tar contaminated soils | CT01 | 27082839 | E056003 | AL659B 81 | 89360 | 63120 | 31.56 | | |
| 2709-463 | 4/6/2010 | CEI10 | National Grid Bay Shore Former MGP site | One Orinoco Drive | Brightwaters | NY | Coal Tar contaminated soils | CT01 | 27082917 | E056004 | AM489A 206 | 89720 | 61660 | 30.83 | | |
| 2709-463 | 4/6/2010 | CEI10 | National Grid Bay Shore Former MGP site | One Orinoco Drive | Brightwaters | NY | Coal Tar contaminated soils | CT01 | 27082929 | E056005 | AL558Z 201 | 88320 | 61680 | 30.84 | | |
| 2709-463 | 4/6/2010 | CEI10 | National Grid Bay Shore Former MGP site | One Orinoco Drive | Brightwaters | NY | Coal Tar contaminated soils | CT01 | 27082935 | E056006 | AL659B 81 | 93340 | 67100 | 33.55 | | |
| | | | | | | | | | 6 | | | | 377360 | 188.68 | | |

Bayshore Recycling Inc.
75 Crows Mill Road, P.O. Box 290
Keasbey, N.J. 08832

Facility ID#: 132397

**TICKET NUMBER**

27082822

BILL TO

BSM2709463
BSM CREAMER ENVIRONMENTAL
NG BAY SHORE FMGP

BSM CREAMER ENVIRONMENTAL

PO#

| DATE | ENTRY TIME | OPER. | EXIT TIME | OPER. | GROSS WEIGHT | TARE WEIGHT | NET WEIGHT |
|---|---|---|---|---|---|---|---|
| 04/06/2010 | 09:35 | | 09:36 | | ( 88640 LB) | ( 28060 LB) | ( 60580 LB |
| | | | | | Scale 01 | | |
| 00160186 | Scale 01 | | | | ( 44.32 T) | ( 14.03 T) | ( 30.29 T |

| VEHICLE NUMBER | VEHICLE TYPE | PLATE NUMBER | HAULER / TRANSACTION TYPE |
|---|---|---|---|
| AM489A | TRI-AXLE 25 | 206 | NICHOLAS LLC Norma |

| QUANTITY | WC | DESCRIPTION / ORIGIN | UNITS | UNIT PRICE | AMOUNT |
|---|---|---|---|---|---|
| 30.2900 | 27 | ID 27<br>NEW YORK<br>LONG ISLAND | TON<br>100.00% | | |

I hereby certify that the above material is not a hazardous waste and the information provided on this form is true to the best of my knowledge.

DRIVER NAME
PRINT

SIGNATURE

Bayshore Recycling Inc.
75 Crows Mill Road, P.O. Box 290
Keasbey, N.J. 08832

Facility ID#: 132397

**TICKET NUMBER**

27082833

BILL TO

BSM2709463
BSM CREAMER ENVIRONMENTAL
NG BAY SHORE FMGP

BSM CREAMER ENVIRONMENTAL

PO#

| DATE | ENTRY TIME | OPER. | EXIT TIME | OPER. | GROSS WEIGHT | TARE WEIGHT | NET WEIGHT |
|---|---|---|---|---|---|---|---|
| 04/06/2010 | 10:06 | | 10:07 | | ( 89860 LB | ( 26640 LB | ( 63220 LB |
| 00160203 | Scale 01 | | | | Scale 01 | | |
| | | | | | ( 44.93 T | ( 13.32 T | ( 31.61 T |

| VEHICLE NUMBER | VEHICLE TYPE | PLATE NUMBER | HAULER / TRANSACTION TYPE |
|---|---|---|---|
| AL558Z | TRI-AXLE 25 | 201 | RAINBOW Norma |

| QUANTITY | WC | DESCRIPTION / ORIGIN | UNITS | UNIT PRICE | AMOUNT |
|---|---|---|---|---|---|
| 31.61 | 00 27 | ID 27<br>NEW YORK<br>LONG ISLAND | TON<br>100.00% | | |

I hereby certify that the above material is not a hazardous waste and the information provided on this form is true to the best of my knowledge.

DRIVER NAME
PRINT _____ SIGNATURE _____

Bayshore Recycling Inc.
75 Crows Mill Road, P.O. Box 290
Keasbey, N.J. 08832

Facility ID#: 132397

**TICKET NUMBER**

27082839

BILL TO

BSM2709463
BSM CREAMER ENVIRONMENTAL
NG BAY SHORE FMSP

BSM CREAMER ENVIRONMENTAL

PO#

| DATE | ENTRY TIME | OPER. | EXIT TIME | OPER. | GROSS WEIGHT | TARE WEIGHT | NET WEIGHT |
|---|---|---|---|---|---|---|---|
| 04/06/2010 | 10:32 | | 10:32 | | ( 89360 LB) | ( 26240 LB) | ( 63120 LB |
| 0016021 | Scale 01 | | | | Scale 01 ( 44.68 T) | ( 13.12 T) | ( 31.56 T |

| VEHICLE NUMBER | VEHICLE TYPE | PLATE NUMBER | HAULER / TRANSACTION TYPE |
|---|---|---|---|
| AL659B | TRI-AXLE 25 | 81 | RAINBOW Norma |

| QUANTITY | WC | DESCRIPTION / ORIGIN | UNITS | UNIT PRICE | AMOUNT |
|---|---|---|---|---|---|
| 31.5600 | 27 | ID 27<br>NEW YORK<br>LONG ISLAND | TON<br>100.00% | | |

I hereby certify that the above material is not a hazardous waste and the information provided on this form is true to the best of my knowledge.

DRIVER NAME
PRINT _____ SIGNATURE Steve

Bayshore Recycling Inc.
75 Crows Mill Road, P.O. Box 290
Keasbey, N.J. 08832

Facility ID#: 132397

**TICKET NUMBER**

27082917

BILL TO

BSM2709463
BSM CREAMER ENVIRONMENTAL
NG BAY SHORE FMGP

BSM CREAMER ENVIRONMENTAL

PO#

| DATE | ENTRY TIME | OPER. | EXIT TIME | OPER. | GROSS WEIGHT | TARE WEIGHT | NET WEIGHT |
|---|---|---|---|---|---|---|---|
| 04/06/2010<br>00160327 | 14:01<br>Scale 01 | | 14:02 | | ( 89720 LB)<br>Scale 01<br>( 44.86 T) | ( 28060 LB)<br>( 14.03 T) | ( 61660 LB)<br>( 30.83 T) |

| VEHICLE NUMBER | VEHICLE TYPE | PLATE NUMBER | HAULER / TRANSACTION TYPE |
|---|---|---|---|
| AM409A | TRI-AXLE 25 | 206 | NICHOLAS LLC<br>Norma |

| QUANTITY | WC | DESCRIPTION / ORIGIN | UNITS | UNIT PRICE | AMOUNT |
|---|---|---|---|---|---|
| 30.8300 | 27 | ID 27<br>NEW YORK<br>LONG ISLAND | TON<br>100.00% | | |

I hereby certify that the above material is not a hazardous waste and the information provided on this form is true to the best of my knowledge.

DRIVER NAME
PRINT _____ SIGNATURE _____

Bayshore Recycling Inc.
75 Crows Mill Road, P.O. Box 290
Keasbey, N.J. 08832

Facility ID#: 132397

**TICKET NUMBER**

27002929

BILL TO

BSM2709463
BSM CREAMER ENVIRONMENTAL
NG BAY SHORE FMGP

BSM CREAMER ENVIRONMENTAL

PO#

| DATE | ENTRY TIME | OPER. | EXIT TIME | OPER. | GROSS WEIGHT | TARE WEIGHT | NET WEIGHT |
|---|---|---|---|---|---|---|---|
| 04/06/2010 | 14:52 | | 14:52 | | ( 88320 LB) | ( 26640 LB) | ( 61680 LB |
| 00160350 | Scale 01 | | | | Scale 01 ( 44.16 T) | ( 13.32 T) | ( 30.84 T |

| VEHICLE NUMBER | VEHICLE TYPE | PLATE NUMBER | HAULER / TRANSACTION TYPE |
|---|---|---|---|
| AL558Z | TRI-AXLE 25 | 201 | RAINBOW Norma |

| QUANTITY | WC | DESCRIPTION / ORIGIN | UNITS | UNIT PRICE | AMOUNT |
|---|---|---|---|---|---|
| 30.8400 | 27 | ID 27<br>NEW YORK<br>LONG ISLAND | TON<br>100.00% | | |

I hereby certify that the above material is not a hazardous waste and the information provided on this form is true to the best of my knowledge.

DRIVER NAME
PRINT

SIGNATURE

Bayshore Recycling Inc.
75 Crows Mill Road, P.O. Box 290
Keasbey, N.J. 08832

Facility ID#: 132397

**TICKET NUMBER**

27002935

BILL TO

BSM2709463
BSM CREAMER ENVIRONMENTAL
NG BAY SHORE FMGP

BSM CREAMER ENVIRONMENTAL

PO#

| DATE | ENTRY TIME | OPER. | EXIT TIME | OPER. | GROSS WEIGHT | TARE WEIGHT | NET WEIGHT |
|---|---|---|---|---|---|---|---|
| 04/06/2010 | 15:17 | | 15:17 | | ( 93340 LB) Scale 01 | ( 26240 LB) | ( 67100 LB |
| | | | | | ( 46.67 T) | | 33.55 T |

| VEHICLE NUMBER | VEHICLE TYPE | PLATE NUMBER | HAULER / TRANSACTION TYPE |
|---|---|---|---|
| AL659B | TRI-AXLE 25 | 81 | RAINBOW |

| QUANTITY | WC | DESCRIPTION / ORIGIN | UNITS | UNIT PRICE | AMOUNT |
|---|---|---|---|---|---|
| 33.5500 | 27 | ID 27<br>NEW YORK<br>LONG ISLAND | TON<br>100.00% | | |

I hereby certify that the above material is not a hazardous waste and the information provided on this form is true to the best of my knowledge.

DRIVER NAME
PRINT _____ SIGNATURE

**NON-HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|
| 2709_463 | | 855-691-5145 | E 056001 |

**GENERATOR**

5. Generator's Name and Mailing Address
National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801
Generator's Phone: ~~516-545-2000~~ Bill Ryan

Generator's Site Address (if different than mailing address)
NG Bayshore FMGP_OU3 One Orinoco Drive
Brightwaters, NY 11718

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJR000029957

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address: Bayshore Soil Management, LLC.
75 Crows Mill Rd
Keasbey, NJ 08832
Facility's Phone: 732-738-5000 — U.S. EPA ID Number: NJ1225001522

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| 1 | Non-Hazardous MGP Soil for Thermal Disorption Only | | | 25 | T | 3029 |
| 2 | | | | | | |
| 3 | | | | | | |
| 4 | | | | | | |

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.
Generator's/Offeror's Printed/Typed Name: Tom Shock Agent For National Grid — Signature: T Shock — Month 4 Day 6 Year 10

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Esly Palacio AM489A-206 — Signature — Month 4 Day 6 Year 10
Transporter 2 Printed/Typed Name: Esly Palacio — Signature — Month 4 Day 6 Year 10

**DESIGNATED FACILITY**

17. Discrepancy
17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
17b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:
17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a
Printed/Typed Name — Signature — Month 9 Day 6 Year 10

LSSBZ

**NON-HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|
| 2709_463 | | 855-691-5145 | E 056002 |

**GENERATOR**

5. Generator's Name and Mailing Address: National Grid (NG), 175 East Old Country Road, Hicksville, NY 11801

Generator's Site Address (if different than mailing address): NG Bayshore FMGP_OU3 One Orinoco Drive, Brightwaters, NY 11718

Generator's Phone: 516-545-2585 Bill Ryan

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJR000029957

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address: Bayshore Soil Management, LLC., 75 Crows Mill Rd, Keasbey, NJ 08832 — U.S. EPA ID Number: NJ1225001522

Facility's Phone: 732-738-6000

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| 1 | Non-Hazardous MGP Soil for Thermal Disorption Only | | | 25 | T | |
| 2 | | | | | | 3161 |
| 3 | | | | | | |
| 4 | | | | | | |

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shock Agent for national Grid — Signature: T Shock — Month 4 Day 6 Year 10

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Hugo Reyes — Signature: Hugo Reyes — Month 4 Day 6 Year 10

Transporter 2 Printed/Typed Name — Signature — Month Day Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number: 27082833

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month 4 Day 6 Year 10

169-BLC-O 5 11977 (Rev. 8/06)

DESIGNATED FACILITY TO GENERATOR

**NON-HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|
| 2709_463 | | 866-691-5145 | E 056003 |

**GENERATOR**

5. Generator's Name and Mailing Address
National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801

Generator's Site Address (if different than mailing address)
NG Bayshore FMGP_OU3 One Orinoco Drive
Brightwaters, NY 11718

Generator's Phone: ~~516-545-2500~~ Bill Ryan

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJR000029957

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address: Bayshore Soil Management, LLC.
75 Crows Mill Rd
Keasbey, NJ 08832
U.S. EPA ID Number: NJ1225001522

Facility's Phone: 732-738-5000

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| 1 | Non-Hazardous MGP Soil for Thermal Disorption Only | | | 25 | T | |
| 2. | | | | | | 31,56 |
| 3. | | | | | | |
| 4. | | | | | | |

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shock Agent For National Grid — Signature: [signature] — Month 4 Day 6 Year 10

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Steve Tripodi — Signature: [signature] — Month 4 Day 6 Year 10

Transporter 2 Printed/Typed Name — Signature — Month Day Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number: 27082839

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: [signature] — Signature: [signature] — Month 4 Day 6 Year 10

| NON-HAZARDOUS WASTE MANIFEST | 1. Generator ID Number 2709_453 | 2. Page 1 of | 3. Emergency Response Phone 866-691-5145 | 4. Waste Tracking Number E 056004 |
|---|---|---|---|---|

**GENERATOR**

5. Generator's Name and Mailing Address: National Grid (NG), 175 East Old Country Road, Hicksville, NY 11801

Generator's Site Address (if different than mailing address): NG Bayshore FMGP_OU3 One Ontario Drive, Brightwaters, NY 11718

Generator's Phone: 516-545-2566 Bill Ryan

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJR000029967

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address: Bayshore Soil Management, LLC, 75 Crows Mill Rd, Keasbey, NJ 08832 — U.S. EPA ID Number: NJ1225001522

Facility's Phone: 732-738-6000

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| 1. | Non-Hazardous MGP Soil for Thermal Disorption Only | | | 25 | T | |
| 2. | | | | | | 3083 |
| 3. | | | | | | |
| 4. | | | | | | |

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shock Agent For National Grid — Signature: T Shock — Month 4 Day 6 Year 10

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Esly Palacio AM489A-206 — Signature — Month 4 Day 6 Year 10

Transporter 2 Printed/Typed Name: Esly Palacio. — Signature — Month 4 Day 6 Year 10

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number: 2708917

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month 4 Day 6 Year 10

AL 5582

**NON-HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|
| 2709_463 | | 866-691-5145 | E 056005 |

**GENERATOR**

5. Generator's Name and Mailing Address
National Grid (NG)
175 East Old Country Road
Hicksville, NY 11801
Generator's Phone: 718-040-2000 Bill Ryan

Generator's Site Address (if different than mailing address)
NG Bayshore FMGP_OU3 One Ormoco Drive
Brightwaters, NY 11718

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJR000029967

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Bayshore Soil Management, LLC.
75 Crows Mill Rd
Keasbey, NJ 08832
Facility's Phone: 732-738-6000
U.S. EPA ID Number: NJ1225001522

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| 1 | Non-Hazardous MGP Soil for Thermal Disorption Only | | | 25 | T | |
| 2. | | | | | | 3084 |
| 3. | | | | | | |
| 4. | | | | | | |

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tim Shock Agent For National Grid — Signature: T. Shock — Month: 4 Day: 6 Year: 10

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Hugo Rojas — Signature: Hugo Rojas — Month: 4 Day: 6 Year: 10

Transporter 2 Printed/Typed Name — Signature — Month Day Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number: 27082929

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: VMK — Signature: VMK — Month: 4 Day: 6 Year: 10

169-BLC-O 5 11977 (Rev. 8/06)

DESIGNATED FACILITY TO GENERATOR

AL6895B

**NON-HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|
| 2709_463 | | 855-691-5145 | E 056006 |

**GENERATOR**

5. Generator's Name and Mailing Address: National Grid (NG), 175 East Old Country Road, Hicksville, NY 11801

Generator's Site Address (if different than mailing address): NG Bayshore FMGP_OU3 One Ormoco Drive, Brightwaters, NY 11718

Generator's Phone: 516-645-2586 Bill Ryan

6. Transporter 1 Company Name: J & D Trucking — U.S. EPA ID Number: NJR000029967

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address: Bayshore Soil Management, LLC, 75 Crows Mill Rd, Keasbey, NJ 08832 — U.S. EPA ID Number: NJ1229001522

Facility's Phone: 732-738-6000

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| 1 | Non-Hazardous MGP Soil for Thermal Disorption Only | | | 25 | T | |
| 2 | | | | | | 33.55 |
| 3 | | | | | | |
| 4 | | | | | | |

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Tom Shock Agent For National Grid — Signature: T Shock — Month: 4 Day: 6 Year: 10

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Steve Tripodi — Signature — Month: 4 Day: 6 Year: 10

Transporter 2 Printed/Typed Name — Signature — Month Day Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number: 270829 35

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month: 4 Day: 6 Year: 10

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF SOLID & HAZARDOUS MATERIALS

# PART 364
# WASTE TRANSPORTER PERMIT NO. NJ-471

Pursuant to Article 27,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

**PERMIT ISSUED TO:**

J & D TRUCKING, INC.
3526 NORTHWEST BOULEVARD
VINELAND, NJ 08360

CONTACT NAME: WILLIAM L. DURHAM, JR.
COUNTY: OUT OF STATE
TELEPHONE NO: (856)691-5145

**PERMIT TYPE:**

☐ NEW
☐ RENEWAL
■ MODIFICATION

EFFECTIVE DATE: 07/23/2009
EXPIRATION DATE: **01/20/2010**
US EPA ID NUMBER: NJR000029967

**AUTHORIZED WASTE TYPES BY DESTINATION FACILITY:**
The Permittee is Authorized to Transport the Following Waste Type(s) to the Destination Facility listed :

| Destination Facility | Location | Waste Type(s) |
|---|---|---|
| A&M COMPOSTING | MANHEIM , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil |
| BELLMAWR WATERFRONT DEVELOPMENT | BELLMAWR , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil |
| BROOKE COUNTY LF | COLLIERS , WV | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil |
| CARTERET(CLEAN EARTH) | CARTERET , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil |
| CASIE ECOLOGY OIL SALVAGE INC | VINELAND , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil<br>Hazardous Industrial/Commercial<br>Waste Oil |
| CLEAN EARTH OF NEW CASTLE, INC. | NEW CASTLE , DE | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil<br>Hazardous Industrial/Commercial<br>Waste Oil |
| CLEAN EARTH OF NORTH JERSEY | SOUTH KEARNY , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil<br>Hazardous Industrial/Commercial<br>Waste Oil |

*** AUTHORIZED WASTE TYPES BY DESTINATION FACILITY LISTING (continued on next page) ***

**NOTE:** By acceptance of this permit, the permittee agrees that the permit is contingent upon strict compliance with the Environmental Conservation Law, all applicable regulations, and the General Conditions printed on the back of this page.

ADDRESS: New York State Department of Environmental Conservation
Division of Solid & Hazardous Materials - Waste Transporter Program
625 Broadway, 9th Floor
Albany, NY 12233-7253

AUTHORIZED SIGNATURE: Glenn G. Wonderly Date: JUL 23 2009

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF SOLID & HAZARDOUS MATERIALS

# PART 364
# WASTE TRANSPORTER PERMIT NO. NJ-471

Pursuant to Article 27,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

**PERMIT ISSUED TO:**

J & D TRUCKING, INC.
3526 NORTHWEST BOULEVARD
VINELAND, NJ 08360

CONTACT NAME: WILLIAM L. DURHAM, JR.
COUNTY: OUT OF STATE
TELEPHONE NO: (856)691-5145

**PERMIT TYPE:**

☐ NEW
☐ RENEWAL
■ MODIFICATION

EFFECTIVE DATE: 07/23/2009
EXPIRATION DATE: **01/20/2010**
US EPA ID NUMBER: NJR000029967

**AUTHORIZED WASTE TYPES BY DESTINATION FACILITY:** (Continued)
The Permittee is Authorized to Transport the Following Waste Type(s) to the Destination Facility listed :

| Destination Facility | Location | Waste Type(s) |
|---|---|---|
| CLEAN EARTH OF PHILADELPHIA | PHILADELPHIA , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil |
| CLEAN EARTH OF SOUTHEASTERN PA., INC. | MORRISVILLE , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil |
| CWM CHEMICAL SERVICES LLC | MODEL CITY , NY | Non-Hazardous Industrial/Commercial<br>Waste Tires<br>Asbestos<br>Petroleum Contaminated Soil<br>Non-Residential Raw Sewage or Sewage-Contaminated Wastes<br>Hazardous Industrial/Commercial |
| ENVIRITE OF PENNSYLVANIA | YORK , PA | Non-Hazardous Industrial/Commercial<br>Asbestos<br>Petroleum Contaminated Soil<br>Hazardous Industrial/Commercial<br>Waste Oil |
| ESMI OF NEW JERSEY | KEASBAY , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil |
| GROWS LANDFILL(WASTE MGT.) | MORRISVILLE , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil |
| LEHIGH VALLEY RECYCLING | COPLAY , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil |
| NEW YORK TERMINALS | ELIZABETH , NJ | Non-Hazardous Industrial/Commercial<br>Hazardous Industrial/Commercial<br>Waste Oil |
| NYS&W RAILWAY NORTH BERGEN NJ | NORTH BERGEN , NJ | Non-Hazardous Industrial/Commercial<br>Hazardous Industrial/Commercial |
| PIONEER CROSSING LANDFILL | BIRDSBORO , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil |
| REPUBLIC ENVIRONMENTAL SYSTEMS (PA) INC. | HATFIELD , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil<br>Grease Trap Waste<br>Hazardous Industrial/Commercial |

*** AUTHORIZED WASTE TYPES BY DESTINATION FACILITY LISTING (continued on next page) ***

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF SOLID & HAZARDOUS MATERIALS

# PART 364
# WASTE TRANSPORTER PERMIT NO. NJ-471

Pursuant to Article 27,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

**PERMIT ISSUED TO:**

J & D TRUCKING, INC.
3526 NORTHWEST BOULEVARD
VINELAND, NJ 08360

CONTACT NAME: WILLIAM L. DURHAM, JR.
COUNTY: OUT OF STATE
TELEPHONE NO: (856)691-5145

**PERMIT TYPE:**

☐ NEW
☐ RENEWAL
■ MODIFICATION

EFFECTIVE DATE: 07/23/2009
EXPIRATION DATE: **01/20/2010**
US EPA ID NUMBER: NJR000029967

**AUTHORIZED WASTE TYPES BY DESTINATION FACILITY:** (Continued)
The Permittee is Authorized to Transport the Following Waste Type(s) to the Destination Facility listed :

| Destination Facility | Location | Waste Type(s) |
|---|---|---|
| REPUBLIC ENVIRONMENTAL SYSTEMS (PA) INC. | HATFIELD , PA | Waste Oil |
| SAFETY-KLEEN SYSTEMS, INC | LINDEN , NJ | Non-Hazardous Industrial/Commercial<br>Hazardous Industrial/Commercial<br>Waste Oil |
| SAFETY-KLEEN SYSTEMS, INC. | BUFFALO , NY | Non-Hazardous Industrial/Commercial<br>Waste Oil |
| STAGGS LEAP | MULLICA HILL , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil |
| WETZEL COUNTY LANDFILL | NEW MARTINSVILLE , WV | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil |
| WHITE PINES LANDFILL | MILLVILLE , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil |

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF SOLID & HAZARDOUS MATERIALS

# PART 364
# WASTE TRANSPORTER PERMIT NO. NJ-471

Pursuant to Article 27,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

**PERMIT ISSUED TO:**

J & D TRUCKING, INC.
3526 NORTHWEST BOULEVARD
VINELAND, NJ 08360

**PERMIT TYPE:**

☐ NEW
☐ RENEWAL
■ MODIFICATION

CONTACT NAME: WILLIAM L. DURHAM, JR.
COUNTY: OUT OF STATE
TELEPHONE NO: (856)691-5145

EFFECTIVE DATE: 07/23/2009
EXPIRATION DATE: **01/20/2010**
US EPA ID NUMBER: NJR000029967

**AUTHORIZED VEHICLES:**
The Permittee is Authorized to Operate the Following Vehicles to Transport Waste:
(Vehicles enclosed in <>'s are authorized to haul Residential Raw Sewage and/or Septage only)

60 (Sixty ) Permitted Vehicle(s)

NJ AC586Y
NJ AE299G
NJ AG485N
NJ AG700A
NJ AG989G
NJ AH186X
NJ AJ120G
NJ AJ121G
NJ AJ137N
NJ AJ184R
NJ AJ201D
NJ AJ207S
NJ AJ228S
NJ AJ237S
NJ AJ296B
NJ AJ432T
NJ AJ475Y
NJ AJ504T
NJ AJ551H
NJ AJ683T
NJ AK113G
NJ AK162F
NJ AK163F
NJ AK271R
NJ AK366V
NJ AK488C
NJ AK580T
NJ AK668C
NJ AK807E
NJ AK818Y
NJ AL104U
NJ AL116Z
NJ AL143S
NJ AL196L
NJ AL477W
NJ AL478W
NJ AL487L
NJ AL708V
NJ AL751D
NJ AL752D
NJ AL753D
NJ AL801R
NJ AL892P
NJ AL918W
NJ AL919W
NJ AM119B
NJ AM507C
NJ AM740D
NJ AM741D
NJ AM742D
NJ AM744F
NJ AM748D
NJ T18D4M
NJ T20P6X
NJ T36N7B
NJ T37N7B
NJ T75D4U
NJ T82G9M
NJ TAF50K
NJ TCG35G
End of List

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF SOLID & HAZARDOUS MATERIALS

# PART 364
# WASTE TRANSPORTER PERMIT NO. NJ-586

Pursuant to Article 27, Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

**PERMIT ISSUED TO:**

RAINBOW TRANSPORT CORPORATION
167 STEPHENS PARK ROAD
HACKETTSTOWN, NJ 07840

CONTACT NAME: TOM JUSKUS
COUNTY: OUT OF STATE
TELEPHONE NO: (973)246-9493

**PERMIT TYPE:**

☐ NEW
☐ RENEWAL
■ MODIFICATION

EFFECTIVE DATE: 09/09/2009
EXPIRATION DATE: 05/27/2010
US EPA ID NUMBER:

**AUTHORIZED WASTE TYPES BY DESTINATION FACILITY:**

The Permittee is Authorized to Transport the Following Waste Type(s) to the Destination Facility listed :

| Destination Facility | Location | Waste Type(s) |
|---|---|---|
| BELLMAWR WATERFRONT DEVELOPMENT | BELLMAWR , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil |
| CLEAN EARTH OF CARTERET | CARTERET , NJ | Petroleum Contaminated Soil |
| CLEAN EARTH OF NEW CASTLE, INC. | NEW CASTLE , DE | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil |
| CLEAN EARTH OF NORTH JERSEY | SOUTH KEARNY , NJ | Non-Hazardous Industrial/Commercial<br>Asbestos<br>Petroleum Contaminated Soil |
| CLEAN EARTH OF PHILADELPHIA | PHILADELPHIA , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil |
| CLEAN EARTH OF SOUTHEASTERN PA., INC. | MORRISVILLE , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil |
| COPLAY AGGREGATES | WHITEHALL , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil |
| DEEP GREEN OF NEW YORK | NEW WINDSOR , NY | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil |
| DURAPORT MARINE & RAIL | BAYONNE , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil |
| ESMI OF NEW JERSEY | KEASBAY , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil |

*** AUTHORIZED WASTE TYPES BY DESTINATION FACILITY LISTING (continued on next page) ***

**NOTE:** By acceptance of this permit, the permittee agrees that the permit is contingent upon strict compliance with the Environmental Conservation Law, all applicable regulations, and the General Conditions printed on the back of this page.

ADDRESS:

New York State Department of Environmental Conservation
Division of Solid & Hazardous Materials - Waste Transporter Program
625 Broadway, 9th Floor
Albany, NY 12233-7253

AUTHORIZED SIGNATURE: Glenn G. Wonkel Date: SEP 0 2 2009

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF SOLID & HAZARDOUS MATERIALS

# PART 364
# WASTE TRANSPORTER PERMIT NO. NJ-586

Pursuant to Article 27, Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

**PERMIT ISSUED TO:**

RAINBOW TRANSPORT CORPORATION
167 STEPHENS PARK ROAD
HACKETTSTOWN, NJ 07840

CONTACT NAME: TOM JUSKUS
COUNTY: OUT OF STATE
TELEPHONE NO: (973)246-9493

**PERMIT TYPE:**

☐ NEW
☐ RENEWAL
■ MODIFICATION

EFFECTIVE DATE: 09/09/2009
EXPIRATION DATE: 05/27/2010
US EPA ID NUMBER:

**AUTHORIZED WASTE TYPES BY DESTINATION FACILITY:** (Continued)
The Permittee is Authorized to Transport the Following Waste Type(s) to the Destination Facility listed :

| Destination Facility | Location | Waste Type(s) |
|---|---|---|
| GROWS LANDFILL(WASTE MGT.) | MORRISVILLE , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil |
| HAZLETON CREEK PROPERTIES,LLC | HAZLETON , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil |
| MID ATLANTIC RECYCLING TECHNOLOGIES | VINELAND , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil |
| PURE SOIL TECHNOLOGIES | JACKSON , NJ | Petroleum Contaminated Soil<br>Petroleum Contaminated Soil |
| SLRD COMPANY MULLICA HILL, LLC | MULLICA HILL , NJ | Petroleum Contaminated Soil |
| SOIL SAFE, INC. | LOGAN TOWNSHIP , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil |
| WASTE MANAGEMENT - TULLYTOWN | MORRISVILLE , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil |

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF SOLID & HAZARDOUS MATERIALS

# PART 364
# WASTE TRANSPORTER PERMIT NO. NJ-586

Pursuant to Article 27, Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

**PERMIT ISSUED TO:**

RAINBOW TRANSPORT CORPORATION
167 STEPHENS PARK ROAD
HACKETTSTOWN, NJ 07840

**PERMIT TYPE:**

☐ NEW
☐ RENEWAL
■ MODIFICATION

CONTACT NAME: TOM JUSKUS
COUNTY: OUT OF STATE
TELEPHONE NO: (973)246-9493

EFFECTIVE DATE: 09/09/2009
EXPIRATION DATE: **05/27/2010**
US EPA ID NUMBER:

**AUTHORIZED VEHICLES:**

The Permittee is Authorized to Operate the Following Vehicles to Transport Waste:

(Vehicles enclosed in <>'s are authorized to haul Residential Raw Sewage and/or Septage only)

82 (Eighty Two) Permitted Vehicle(s)

NJ AJ175S
NJ AJ176S
NJ AJ560T
NJ AJ951T
NJ AK363T
NJ AK380T
NJ AK384W
NJ AK456Y
NJ AK457Y
NJ AK503Z
NJ AK532T
NJ AK533T
NJ AK534T
NJ AK535T
NJ AK659X
NJ AK660X
NJ AK661X
NJ AL130M
NJ AL131M
NJ AL189U
NJ AL215A
NJ AL217A
NJ AL251K
NJ AL280G
NJ AL320L
NJ AL373S
NJ AL374S
NJ AL557Z
NJ AL558Z
NJ AL559Z
NJ AL568T
NJ AL569T
NJ AL599A
NJ AL600A
NJ AL612C
NJ AL639M
NJ AL639S
NJ AL640S
NJ AL654S
NJ AL658B
NJ AL659B
NJ AL674A
NJ AL725P
NJ AL726P
NJ AL730J
NJ AL772N
NJ AL773N
NJ AL774N
NJ AL777N
NJ AL778N
NJ AL803R
NJ AL805R
NJ AL806R
NJ AL807R
NJ AL808R
NJ AL862U
NJ AL863U
NJ AL864U
NJ AM120A
NJ AM121A
NJ AM122A
NJ AM161C
NJ AM162C
NJ AM191E
NJ AM192E
NJ AM193E
NJ AM194E
NJ AM283B
NJ AM284B
NJ AM285B
NJ AM286B
NJ AM349H
NJ AM350H
NJ AM351H
NJ AM352H
NJ AM354H
NJ AM363D
NJ AM489A
NJ AM635B
NJ AM636D
NJ AM637D
NJ AM638D
End of List

# Appendix B

## Pre-Characterization Data (electronic only)

# H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 . FAX: (631) 420-8436 NYSDOH ID # 10478

## LABORATORY RESULTS

For the submitted sample

**Lab No. : 1002604-001A**

**Client Sample ID. KB/SL WC-1 (0-10')**

**GEI Consultants, Inc.**
**455 Winding Brook Drive**
**Glastonbury, CT 06033**
**Attn To :** Jeff Parillo

**Sample Information...**
Type : Soil

Origin:

Collected : 2/17/2010 9:20:00 AM
Received : 2/18/2010 10:15:00 AM
Collected By : CM99

**Copy : Chris Morris**

**CC** ; EDD (PKG)

| Parameter(s) | Results | Qualifier | D.F. | Units | Method Number | Analyzed |
|---|---|---|---|---|---|---|
| Total Petroleum Hydrocarbons | 1300 | D | 5 | mg/Kg-dry | SW8015M | 02/25/2010 10:52 AM |
| Aroclor 1016 | < 37 | | 1 | µg/Kg-dry | SW8082 | 02/18/2010 6:11 PM |
| Aroclor 1221 | < 76 | | 1 | µg/Kg-dry | SW8082 | 02/18/2010 6:11 PM |
| Aroclor 1232 | < 37 | | 1 | µg/Kg-dry | SW8082 | 02/18/2010 6:11 PM |
| Aroclor 1242 | < 37 | | 1 | µg/Kg-dry | SW8082 | 02/18/2010 6:11 PM |
| Aroclor 1248 | < 37 | | 1 | µg/Kg-dry | SW8082 | 02/18/2010 6:11 PM |
| Aroclor 1254 | < 37 | | 1 | µg/Kg-dry | SW8082 | 02/18/2010 6:11 PM |
| Aroclor 1260 | < 37 | | 1 | µg/Kg-dry | SW8082 | 02/18/2010 6:11 PM |
| Aluminum | 2920 | | 1 | mg/Kg-dry | SW6010B | 02/22/2010 9:16 AM |
| Barium | < 22.5 | | 1 | mg/Kg-dry | SW6010B | 02/22/2010 9:16 AM |
| Beryllium | < 0.56 | | 1 | mg/Kg-dry | SW6010B | 02/22/2010 9:16 AM |
| Cadmium | < 0.56 | | 1 | mg/Kg-dry | SW6010B | 02/22/2010 9:16 AM |
| Calcium | 1200 | | 1 | mg/Kg-dry | SW6010B | 02/22/2010 9:16 AM |
| Chromium | 4.62 | | 1 | mg/Kg-dry | SW6010B | 02/22/2010 9:16 AM |
| Cobalt | < 5.64 | | 1 | mg/Kg-dry | SW6010B | 02/22/2010 9:16 AM |
| Copper | 5.56 | | 1 | mg/Kg-dry | SW6010B | 02/22/2010 9:16 AM |
| Iron | 4380 | | 1 | mg/Kg-dry | SW6010B | 02/22/2010 9:16 AM |
| Magnesium | 565 | | 1 | mg/Kg-dry | SW6010B | 02/22/2010 9:16 AM |
| Manganese | 25.9 | | 1 | mg/Kg-dry | SW6010B | 02/22/2010 9:16 AM |
| Nickel | < 4.51 | | 1 | mg/Kg-dry | SW6010B | 02/22/2010 9:16 AM |
| Potassium | 165 | | 1 | mg/Kg-dry | SW6010B | 02/22/2010 9:16 AM |
| Sodium | < 22.5 | | 1 | mg/Kg-dry | SW6010B | 02/22/2010 9:16 AM |
| Vanadium | 7.18 | | 1 | mg/Kg-dry | SW6010B | 02/22/2010 9:16 AM |
| Zinc | 29.1 | | 1 | mg/Kg-dry | SW6010B | 02/22/2010 9:16 AM |
| Antimony | < 6.76 | | 1 | mg/Kg-dry | SW6010B | 02/22/2010 9:16 AM |
| Arsenic | 1.73 | | 1 | mg/Kg-dry | SW6010B | 02/22/2010 9:16 AM |
| Lead | 29.8 | | 1 | mg/Kg-dry | SW6010B | 02/22/2010 9:16 AM |
| Selenium | < 0.56 | | 1 | mg/Kg-dry | SW6010B | 02/22/2010 9:16 AM |
| Silver | < 1.13 | | 1 | mg/Kg-dry | SW6010B | 02/22/2010 9:16 AM |
| Thallium | < 1.13 | | 1 | mg/Kg-dry | SW6010B | 02/22/2010 9:16 AM |
| Mercury | < 0.22 | | 1 | mg/Kg-dry | SW7471 | 02/22/2010 12:34 PM |
| Phenol | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:43 PM |
| Bis(2-chloroethyl)ether | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:43 PM |
| 2-Chlorophenol | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:43 PM |
| 1,3-Dichlorobenzene | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:43 PM |
| 1,4-Dichlorobenzene | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:43 PM |
| 1,2-Dichlorobenzene | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:43 PM |
| 2-Methylphenol | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:43 PM |

Qualifiers:
E - Value above quantitation range
D - Results for Dilution
D.F. = Dilution Factor
H = Sample received/analyzed outside of analytical holding time
# = ELAP / NELAP does not offer certification for this analyte

Joann M. Slavin

Laboratory Manager

Date Reported : 2/25/2010

# H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 . FAX: (631) 420-8436 NYSDOH ID # 10478


## LABORATORY RESULTS

For the submitted sample

**Lab No. : 1002604-001A**

**Client Sample ID. KB/SL WC-1 (0-10')**

**GEI Consultants, Inc.**
**455 Winding Brook Drive**
**Glastonbury, CT 06033**
**Attn To :** Jeff Parillo

**Sample Information...**
Type : Soil

Origin:

Collected : 2/17/2010 9:20:00 AM
Received : 2/18/2010 10:15:00 AM
Collected By : CM99

**Copy : Chris Morris**

**CC** ; EDD (PKG)

| Parameter(s) | Results | Qualifier | D.F. | Units | Method Number | Analyzed |
|---|---|---|---|---|---|---|
| 2,2´-oxybis(1-Chloropropane) | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:43 PM |
| 4-Methylphenol | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:43 PM |
| N-Nitroso-di-n-propylamine | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:43 PM |
| Hexachloroethane | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:43 PM |
| Nitrobenzene | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:43 PM |
| Isophorone | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:43 PM |
| 2-Nitrophenol | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:43 PM |
| 2,4-Dimethylphenol | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:43 PM |
| bis(2-Chloroethoxy)methane | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:43 PM |
| 2,4-Dichlorophenol | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:43 PM |
| 1,2,4-Trichlorobenzene | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:43 PM |
| Naphthalene | 11000 | D | 5 | µg/Kg-dry | SW8270C | 02/20/2010 3:15 AM |
| 4-Chloroaniline | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:43 PM |
| Hexachlorobutadiene | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:43 PM |
| 4-Chloro-3-methylphenol | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:43 PM |
| 2-Methylnaphthalene | 3100 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:43 PM |
| Hexachlorocyclopentadiene | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:43 PM |
| 2,4,6-Trichlorophenol | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:43 PM |
| 2,4,5-Trichlorophenol | < 940 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:43 PM |
| 2-Chloronaphthalene | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:43 PM |
| 2-Nitroaniline | < 940 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:43 PM |
| Dimethylphthalate | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:43 PM |
| Acenaphthylene | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:43 PM |
| 2,6-Dinitrotoluene | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:43 PM |
| 3-Nitroaniline | < 940 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:43 PM |
| Acenaphthene | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:43 PM |
| 2,4-Dinitrophenol | < 940 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:43 PM |
| 4-Nitrophenol | < 940 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:43 PM |
| Dibenzofuran | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:43 PM |
| 2,4-Dinitrotoluene | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:43 PM |
| Diethylphthalate | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:43 PM |
| 4-Chlorophenyl-phenylether | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:43 PM |
| Fluorene | 450 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:43 PM |
| 4-Nitroaniline | < 940 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:43 PM |
| 4,6-Dinitro-2-methylphenol | < 940 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:43 PM |
| N-Nitrosodiphenylamine | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:43 PM |
| 4-Bromophenyl-phenylether | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:43 PM |
| Hexachlorobenzene | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:43 PM |
| Pentachlorophenol | < 940 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:43 PM |

Qualifiers:
E - Value above quantitation range
D - Results for Dilution
D.F. = Dilution Factor
H = Sample received/analyzed outside of analytical holding time
# = ELAP / NELAP does not offer certification for this analyte

Joann M. Slavin

Laboratory Manager

Date Reported : 2/25/2010

# H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 . FAX: (631) 420-8436 NYSDOH ID # 10478


## LABORATORY RESULTS

For the submitted sample

**Lab No. : 1002604-001A**

**Client Sample ID. KB/SL WC-1 (0-10')**

**GEI Consultants, Inc.**
**455 Winding Brook Drive**
**Glastonbury, CT 06033**
**Attn To :** Jeff Parillo

**Sample Information...**
Type : Soil

Origin:

Collected : 2/17/2010 9:20:00 AM
Received : 2/18/2010 10:15:00 AM
Collected By : CM99

**Copy : Chris Morris**

**CC** ; EDD (PKG)

| Parameter(s) | Results | Qualifier | D.F. | Units | Method Number | Analyzed |
|---|---|---|---|---|---|---|
| Phenanthrene | 1400 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:43 PM |
| Anthracene | 460 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:43 PM |
| Carbazole | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:43 PM |
| Di-n-butyl phthalate | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:43 PM |
| Fluoranthene | 670 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:43 PM |
| Pyrene | 1700 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:43 PM |
| Butyl benzyl phthalate | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:43 PM |
| 3,3´-Dichlorobenzidine | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:43 PM |
| Benzo(a)anthracene | 570 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:43 PM |
| Chrysene | 540 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:43 PM |
| bis(2-Ethylhexyl)phthalate | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:43 PM |
| Di-n-octyl phthalate | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:43 PM |
| Benzo(b)fluoranthene | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:43 PM |
| Benzo(k)fluoranthene | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:43 PM |
| Benzo(a)pyrene | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:43 PM |
| Indeno(1,2,3-cd)pyrene | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:43 PM |
| Dibenzo(a,h)anthracene | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:43 PM |
| Benzo(g,h,i)perylene | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:43 PM |
| Sulfur (see attached) | < 0.10 | | 1 | wt% | SW6010B | 02/22/2010 |
| Percent Moisture | 11.3 | | 1 | wt% | D2216 | 02/18/2010 3:38 PM |

Qualifiers:
E - Value above quantitation range
D - Results for Dilution
D.F. = Dilution Factor
H = Sample received/analyzed outside of analytical holding time
# = ELAP / NELAP does not offer certification for this analyte

Joann M. Slavin

Laboratory Manager

Date Reported : 2/25/2010

# H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 . FAX: (631) 420-8436 NYSDOH ID # 10478


## LABORATORY RESULTS

For the submitted sample

**Lab No. : 1002604-002A**

**Client Sample ID. KB/SL WC-2 (0-10')**

**GEI Consultants, Inc.**
**455 Winding Brook Drive**
**Glastonbury, CT 06033**
**Attn To :** Jeff Parillo

**Sample Information...**
Type : Soil

Origin:

Collected : 2/17/2010 10:05:00 AM
Received : 2/18/2010 10:15:00 AM
Collected By : CM99

**Copy : Chris Morris**

**CC** ; EDD (PKG)

| Parameter(s) | Results | Qualifier | D.F. | Units | Method Number | Analyzed |
|---|---|---|---|---|---|---|
| Total Petroleum Hydrocarbons | 360 | | 1 | mg/Kg-dry | SW8015M | 02/19/2010 7:47 PM |
| Aroclor 1016 | < 1800 | | 50 | µg/Kg-dry | SW8082 | 02/20/2010 4:50 AM |
| Aroclor 1221 | < 3700 | | 50 | µg/Kg-dry | SW8082 | 02/20/2010 4:50 AM |
| Aroclor 1232 | < 1800 | | 50 | µg/Kg-dry | SW8082 | 02/20/2010 4:50 AM |
| Aroclor 1242 | < 1800 | | 50 | µg/Kg-dry | SW8082 | 02/20/2010 4:50 AM |
| Aroclor 1248 | < 14000 | | 50 | µg/Kg-dry | SW8082 | 02/20/2010 4:50 AM |
| Aroclor 1254 | < 14000 | | 50 | µg/Kg-dry | SW8082 | 02/20/2010 4:50 AM |
| Aroclor 1260 | < 1800 | | 50 | µg/Kg-dry | SW8082 | 02/20/2010 4:50 AM |
| Aluminum | 2780 | | 1 | mg/Kg-dry | SW6010B | 02/22/2010 9:24 AM |
| Barium | < 22.3 | | 1 | mg/Kg-dry | SW6010B | 02/22/2010 9:24 AM |
| Beryllium | < 0.56 | | 1 | mg/Kg-dry | SW6010B | 02/22/2010 9:24 AM |
| Cadmium | < 0.56 | | 1 | mg/Kg-dry | SW6010B | 02/22/2010 9:24 AM |
| Calcium | 200 | | 1 | mg/Kg-dry | SW6010B | 02/22/2010 9:24 AM |
| Chromium | 4.56 | | 1 | mg/Kg-dry | SW6010B | 02/22/2010 9:24 AM |
| Cobalt | < 5.57 | | 1 | mg/Kg-dry | SW6010B | 02/22/2010 9:24 AM |
| Copper | 8.61 | | 1 | mg/Kg-dry | SW6010B | 02/22/2010 9:24 AM |
| Iron | 4250 | | 1 | mg/Kg-dry | SW6010B | 02/22/2010 9:24 AM |
| Magnesium | 328 | | 1 | mg/Kg-dry | SW6010B | 02/22/2010 9:24 AM |
| Manganese | 47.2 | | 1 | mg/Kg-dry | SW6010B | 02/22/2010 9:24 AM |
| Nickel | < 4.46 | | 1 | mg/Kg-dry | SW6010B | 02/22/2010 9:24 AM |
| Potassium | 157 | | 1 | mg/Kg-dry | SW6010B | 02/22/2010 9:24 AM |
| Sodium | < 22.3 | | 1 | mg/Kg-dry | SW6010B | 02/22/2010 9:24 AM |
| Vanadium | 9.86 | | 1 | mg/Kg-dry | SW6010B | 02/22/2010 9:24 AM |
| Zinc | 77.8 | | 1 | mg/Kg-dry | SW6010B | 02/22/2010 9:24 AM |
| Antimony | < 6.69 | | 1 | mg/Kg-dry | SW6010B | 02/22/2010 9:24 AM |
| Arsenic | 3.26 | | 1 | mg/Kg-dry | SW6010B | 02/22/2010 9:24 AM |
| Lead | 59.5 | | 1 | mg/Kg-dry | SW6010B | 02/22/2010 9:24 AM |
| Selenium | < 0.56 | | 1 | mg/Kg-dry | SW6010B | 02/22/2010 9:24 AM |
| Silver | < 1.11 | | 1 | mg/Kg-dry | SW6010B | 02/22/2010 9:24 AM |
| Thallium | < 1.11 | | 1 | mg/Kg-dry | SW6010B | 02/22/2010 9:24 AM |
| Mercury | < 0.22 | | 1 | mg/Kg-dry | SW7471 | 02/22/2010 12:36 PM |
| Phenol | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 12:40 PM |
| Bis(2-chloroethyl)ether | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 12:40 PM |
| 2-Chlorophenol | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 12:40 PM |
| 1,3-Dichlorobenzene | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 12:40 PM |
| 1,4-Dichlorobenzene | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 12:40 PM |
| 1,2-Dichlorobenzene | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 12:40 PM |
| 2-Methylphenol | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 12:40 PM |

Qualifiers:
E - Value above quantitation range
D - Results for Dilution
D.F. = Dilution Factor
H = Sample received/analyzed outside of analytical holding time
# = ELAP / NELAP does not offer certification for this analyte

Joann M. Slavin

Laboratory Manager

Date Reported : 2/25/2010

# H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 . FAX: (631) 420-8436 NYSDOH ID # 10478


## LABORATORY RESULTS

For the submitted sample

**Lab No. : 1002604-002A**

**Client Sample ID. KB/SL WC-2 (0-10')**

**GEI Consultants, Inc.**
**455 Winding Brook Drive**
**Glastonbury, CT 06033**
**Attn To :** Jeff Parillo

**Sample Information...**
Type : Soil

Origin:

Collected : 2/17/2010 10:05:00 AM
Received : 2/18/2010 10:15:00 AM
Collected By : CM99

**Copy : Chris Morris**

**CC** ; EDD (PKG)

| Parameter(s) | Results | Qualifier | D.F. | Units | Method Number | Analyzed |
|---|---|---|---|---|---|---|
| 2,2´-oxybis(1-Chloropropane) | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 12:40 PM |
| 4-Methylphenol | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 12:40 PM |
| N-Nitroso-di-n-propylamine | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 12:40 PM |
| Hexachloroethane | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 12:40 PM |
| Nitrobenzene | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 12:40 PM |
| Isophorone | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 12:40 PM |
| 2-Nitrophenol | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 12:40 PM |
| 2,4-Dimethylphenol | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 12:40 PM |
| bis(2-Chloroethoxy)methane | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 12:40 PM |
| 2,4-Dichlorophenol | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 12:40 PM |
| 1,2,4-Trichlorobenzene | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 12:40 PM |
| Naphthalene | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 12:40 PM |
| 4-Chloroaniline | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 12:40 PM |
| Hexachlorobutadiene | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 12:40 PM |
| 4-Chloro-3-methylphenol | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 12:40 PM |
| 2-Methylnaphthalene | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 12:40 PM |
| Hexachlorocyclopentadiene | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 12:40 PM |
| 2,4,6-Trichlorophenol | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 12:40 PM |
| 2,4,5-Trichlorophenol | < 930 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 12:40 PM |
| 2-Chloronaphthalene | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 12:40 PM |
| 2-Nitroaniline | < 930 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 12:40 PM |
| Dimethylphthalate | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 12:40 PM |
| Acenaphthylene | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 12:40 PM |
| 2,6-Dinitrotoluene | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 12:40 PM |
| 3-Nitroaniline | < 930 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 12:40 PM |
| Acenaphthene | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 12:40 PM |
| 2,4-Dinitrophenol | < 930 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 12:40 PM |
| 4-Nitrophenol | < 930 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 12:40 PM |
| Dibenzofuran | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 12:40 PM |
| 2,4-Dinitrotoluene | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 12:40 PM |
| Diethylphthalate | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 12:40 PM |
| 4-Chlorophenyl-phenylether | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 12:40 PM |
| Fluorene | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 12:40 PM |
| 4-Nitroaniline | < 930 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 12:40 PM |
| 4,6-Dinitro-2-methylphenol | < 930 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 12:40 PM |
| N-Nitrosodiphenylamine | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 12:40 PM |
| 4-Bromophenyl-phenylether | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 12:40 PM |
| Hexachlorobenzene | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 12:40 PM |
| Pentachlorophenol | < 930 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 12:40 PM |

Qualifiers:
E - Value above quantitation range
D - Results for Dilution
D.F. = Dilution Factor
H = Sample received/analyzed outside of analytical holding time
# = ELAP / NELAP does not offer certification for this analyte

Joann M. Slavin

Laboratory Manager

Date Reported : 2/25/2010

# H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 . FAX: (631) 420-8436 NYSDOH ID # 10478


## LABORATORY RESULTS

For the submitted sample

**Lab No. : 1002604-002A**

**Client Sample ID. KB/SL WC-2 (0-10')**

**GEI Consultants, Inc.**
**455 Winding Brook Drive**
**Glastonbury, CT 06033**
**Attn To :** Jeff Parillo

**Sample Information...**
Type : Soil

Origin:

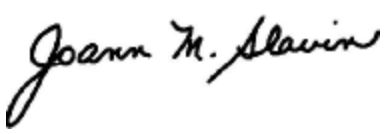
Collected : 2/17/2010 10:05:00 AM
Received : 2/18/2010 10:15:00 AM
Collected By : CM99

**Copy : Chris Morris**

**CC** ; EDD (PKG)

| Parameter(s) | Results | Qualifier | D.F. | Units | Method Number | Analyzed |
|---|---|---|---|---|---|---|
| Phenanthrene | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 12:40 PM |
| Anthracene | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 12:40 PM |
| Carbazole | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 12:40 PM |
| Di-n-butyl phthalate | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 12:40 PM |
| Fluoranthene | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 12:40 PM |
| Pyrene | 480 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 12:40 PM |
| Butyl benzyl phthalate | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 12:40 PM |
| 3,3´-Dichlorobenzidine | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 12:40 PM |
| Benzo(a)anthracene | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 12:40 PM |
| Chrysene | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 12:40 PM |
| bis(2-Ethylhexyl)phthalate | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 12:40 PM |
| Di-n-octyl phthalate | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 12:40 PM |
| Benzo(b)fluoranthene | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 12:40 PM |
| Benzo(k)fluoranthene | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 12:40 PM |
| Benzo(a)pyrene | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 12:40 PM |
| Indeno(1,2,3-cd)pyrene | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 12:40 PM |
| Dibenzo(a,h)anthracene | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 12:40 PM |
| Benzo(g,h,i)perylene | < 370 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 12:40 PM |
| Sulfur (see attached) | < 0.10 | | 1 | wt% | SW6010B | 02/22/2010 |
| Percent Moisture | 10.3 | | 1 | wt% | D2216 | 02/18/2010 3:39 PM |

Qualifiers:
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D.F. = Dilution Factor
H = Sample received/analyzed outside of analytical holding time
# = ELAP / NELAP does not offer certification for this analyte



Laboratory Manager

Date Reported : 2/25/2010

# H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 . FAX: (631) 420-8436 NYSDOH ID # 10478


## LABORATORY RESULTS

For the submitted sample

**Lab No. : 1002604-003A**

**Client Sample ID. KB/SL WC-3 (0-10')**

**GEI Consultants, Inc.**
**455 Winding Brook Drive**
**Glastonbury, CT 06033**
**Attn To :** Jeff Parillo

**Sample Information...**
Type : Soil

Origin:

Collected : 2/17/2010 11:00:00 AM
Received : 2/18/2010 10:15:00 AM
Collected By : CM99

**Copy : Chris Morris**

**CC** ; EDD (PKG)

| Parameter(s) | Results | Qualifier | D.F. | Units | Method Number | Analyzed |
|---|---|---|---|---|---|---|
| Total Petroleum Hydrocarbons | 1700 | D | 5 | mg/Kg-dry | SW8015M | 02/25/2010 11:35 AM |
| Aroclor 1016 | < 36 | | 1 | µg/Kg-dry | SW8082 | 02/18/2010 5:57 PM |
| Aroclor 1221 | < 73 | | 1 | µg/Kg-dry | SW8082 | 02/18/2010 5:57 PM |
| Aroclor 1232 | < 36 | | 1 | µg/Kg-dry | SW8082 | 02/18/2010 5:57 PM |
| Aroclor 1242 | < 36 | | 1 | µg/Kg-dry | SW8082 | 02/18/2010 5:57 PM |
| Aroclor 1248 | < 36 | | 1 | µg/Kg-dry | SW8082 | 02/18/2010 5:57 PM |
| Aroclor 1254 | < 36 | | 1 | µg/Kg-dry | SW8082 | 02/18/2010 5:57 PM |
| Aroclor 1260 | < 36 | | 1 | µg/Kg-dry | SW8082 | 02/18/2010 5:57 PM |
| Aluminum | 1850 | | 1 | mg/Kg-dry | SW6010B | 02/22/2010 9:31 AM |
| Barium | < 21.9 | | 1 | mg/Kg-dry | SW6010B | 02/22/2010 9:31 AM |
| Beryllium | < 0.55 | | 1 | mg/Kg-dry | SW6010B | 02/22/2010 9:31 AM |
| Cadmium | < 0.55 | | 1 | mg/Kg-dry | SW6010B | 02/22/2010 9:31 AM |
| Calcium | 764 | | 1 | mg/Kg-dry | SW6010B | 02/22/2010 9:31 AM |
| Chromium | 3.05 | | 1 | mg/Kg-dry | SW6010B | 02/22/2010 9:31 AM |
| Cobalt | < 5.47 | | 1 | mg/Kg-dry | SW6010B | 02/22/2010 9:31 AM |
| Copper | 12.8 | | 1 | mg/Kg-dry | SW6010B | 02/22/2010 9:31 AM |
| Iron | 2350 | | 1 | mg/Kg-dry | SW6010B | 02/22/2010 9:31 AM |
| Magnesium | 417 | | 1 | mg/Kg-dry | SW6010B | 02/22/2010 9:31 AM |
| Manganese | 20.0 | | 1 | mg/Kg-dry | SW6010B | 02/22/2010 9:31 AM |
| Nickel | < 4.37 | | 1 | mg/Kg-dry | SW6010B | 02/22/2010 9:31 AM |
| Potassium | 144 | | 1 | mg/Kg-dry | SW6010B | 02/22/2010 9:31 AM |
| Sodium | < 21.9 | | 1 | mg/Kg-dry | SW6010B | 02/22/2010 9:31 AM |
| Vanadium | 6.75 | | 1 | mg/Kg-dry | SW6010B | 02/22/2010 9:31 AM |
| Zinc | 74.2 | | 1 | mg/Kg-dry | SW6010B | 02/22/2010 9:31 AM |
| Antimony | < 6.56 | | 1 | mg/Kg-dry | SW6010B | 02/22/2010 9:31 AM |
| Arsenic | 10.2 | | 1 | mg/Kg-dry | SW6010B | 02/22/2010 9:31 AM |
| Lead | 22.8 | | 1 | mg/Kg-dry | SW6010B | 02/22/2010 9:31 AM |
| Selenium | < 0.55 | | 1 | mg/Kg-dry | SW6010B | 02/22/2010 9:31 AM |
| Silver | < 1.09 | | 1 | mg/Kg-dry | SW6010B | 02/22/2010 9:31 AM |
| Thallium | < 1.09 | | 1 | mg/Kg-dry | SW6010B | 02/22/2010 9:31 AM |
| Mercury | < 0.22 | | 1 | mg/Kg-dry | SW7471 | 02/22/2010 12:37 PM |
| Phenol | < 360 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:12 PM |
| Bis(2-chloroethyl)ether | < 360 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:12 PM |
| 2-Chlorophenol | < 360 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:12 PM |
| 1,3-Dichlorobenzene | < 360 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:12 PM |
| 1,4-Dichlorobenzene | < 360 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:12 PM |
| 1,2-Dichlorobenzene | < 360 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:12 PM |
| 2-Methylphenol | < 360 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:12 PM |

Qualifiers:
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D.F. = Dilution Factor
H = Sample received/analyzed outside of analytical holding time
# = ELAP / NELAP does not offer certification for this analyte

Joann M. Slavin

Laboratory Manager

Date Reported : 2/25/2010

# H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 . FAX: (631) 420-8436 NYSDOH ID # 10478


## LABORATORY RESULTS

For the submitted sample

**Lab No. : 1002604-003A**

**Client Sample ID. KB/SL WC-3 (0-10')**

**GEI Consultants, Inc.**
**455 Winding Brook Drive**
**Glastonbury, CT 06033**
**Attn To :** Jeff Parillo

**Sample Information...**
Type : Soil

Origin:

Collected : 2/17/2010 11:00:00 AM
Received : 2/18/2010 10:15:00 AM
Collected By : CM99

**Copy : Chris Morris**

**CC** ; EDD (PKG)

| Parameter(s) | Results | Qualifier | D.F. | Units | Method Number | Analyzed |
|---|---|---|---|---|---|---|
| 2,2´-oxybis(1-Chloropropane) | < 360 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:12 PM |
| 4-Methylphenol | < 360 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:12 PM |
| N-Nitroso-di-n-propylamine | < 360 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:12 PM |
| Hexachloroethane | < 360 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:12 PM |
| Nitrobenzene | < 360 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:12 PM |
| Isophorone | < 360 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:12 PM |
| 2-Nitrophenol | < 360 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:12 PM |
| 2,4-Dimethylphenol | < 360 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:12 PM |
| bis(2-Chloroethoxy)methane | < 360 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:12 PM |
| 2,4-Dichlorophenol | < 360 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:12 PM |
| 1,2,4-Trichlorobenzene | < 360 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:12 PM |
| Naphthalene | 9300 | D | 5 | µg/Kg-dry | SW8270C | 02/20/2010 2:44 AM |
| 4-Chloroaniline | < 360 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:12 PM |
| Hexachlorobutadiene | < 360 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:12 PM |
| 4-Chloro-3-methylphenol | < 360 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:12 PM |
| 2-Methylnaphthalene | 4000 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:12 PM |
| Hexachlorocyclopentadiene | < 360 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:12 PM |
| 2,4,6-Trichlorophenol | < 360 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:12 PM |
| 2,4,5-Trichlorophenol | < 910 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:12 PM |
| 2-Chloronaphthalene | < 360 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:12 PM |
| 2-Nitroaniline | < 910 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:12 PM |
| Dimethylphthalate | < 360 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:12 PM |
| Acenaphthylene | < 360 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:12 PM |
| 2,6-Dinitrotoluene | < 360 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:12 PM |
| 3-Nitroaniline | < 910 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:12 PM |
| Acenaphthene | 560 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:12 PM |
| 2,4-Dinitrophenol | < 910 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:12 PM |
| 4-Nitrophenol | < 910 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:12 PM |
| Dibenzofuran | < 360 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:12 PM |
| 2,4-Dinitrotoluene | < 360 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:12 PM |
| Diethylphthalate | < 360 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:12 PM |
| 4-Chlorophenyl-phenylether | < 360 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:12 PM |
| Fluorene | 630 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:12 PM |
| 4-Nitroaniline | < 910 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:12 PM |
| 4,6-Dinitro-2-methylphenol | < 910 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:12 PM |
| N-Nitrosodiphenylamine | < 360 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:12 PM |
| 4-Bromophenyl-phenylether | < 360 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:12 PM |
| Hexachlorobenzene | < 360 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:12 PM |
| Pentachlorophenol | < 910 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:12 PM |

Qualifiers:
E - Value above quantitation range
D - Results for Dilution
D.F. = Dilution Factor
H = Sample received/analyzed outside of analytical holding time
# = ELAP / NELAP does not offer certification for this analyte

Joann M. Slavin

Laboratory Manager

Date Reported : 2/25/2010

# H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 . FAX: (631) 420-8436 NYSDOH ID # 10478


## LABORATORY RESULTS

For the submitted sample

**Lab No. : 1002604-003A**

**Client Sample ID. KB/SL WC-3 (0-10')**

**GEI Consultants, Inc.**
**455 Winding Brook Drive**
**Glastonbury, CT 06033**
**Attn To :** Jeff Parillo

**Sample Information...**
Type : Soil

Origin:

Collected : 2/17/2010 11:00:00 AM
Received : 2/18/2010 10:15:00 AM
Collected By : CM99

**Copy : Chris Morris**

**CC** ; EDD (PKG)

| Parameter(s) | Results | Qualifier | D.F. | Units | Method Number | Analyzed |
|---|---|---|---|---|---|---|
| Phenanthrene | 2200 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:12 PM |
| Anthracene | 740 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:12 PM |
| Carbazole | < 360 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:12 PM |
| Di-n-butyl phthalate | < 360 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:12 PM |
| Fluoranthene | 1300 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:12 PM |
| Pyrene | 2800 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:12 PM |
| Butyl benzyl phthalate | < 360 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:12 PM |
| 3,3´-Dichlorobenzidine | < 360 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:12 PM |
| Benzo(a)anthracene | 1000 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:12 PM |
| Chrysene | 980 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:12 PM |
| bis(2-Ethylhexyl)phthalate | < 360 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:12 PM |
| Di-n-octyl phthalate | < 360 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:12 PM |
| Benzo(b)fluoranthene | < 360 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:12 PM |
| Benzo(k)fluoranthene | 610 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:12 PM |
| Benzo(a)pyrene | 660 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:12 PM |
| Indeno(1,2,3-cd)pyrene | < 360 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:12 PM |
| Dibenzo(a,h)anthracene | < 360 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:12 PM |
| Benzo(g,h,i)perylene | < 360 | | 1 | µg/Kg-dry | SW8270C | 02/19/2010 1:12 PM |
| Sulfur (see attached) | < 0.10 | | 1 | wt% | SW6010B | 02/22/2010 |
| Percent Moisture | 8.5 | | 1 | wt% | D2216 | 02/18/2010 3:39 PM |

Qualifiers:
E - Value above quantitation range
D - Results for Dilution
D.F. = Dilution Factor
H = Sample received/analyzed outside of analytical holding time
# = ELAP / NELAP does not offer certification for this analyte

Joann M. Slavin

Laboratory Manager

Date Reported : 2/25/2010

# H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 . FAX: (631) 420-8436 NYSDOH ID # 10478


## LABORATORY RESULTS

For the submitted sample

**Lab No. : 1002604-004A**

**Client Sample ID. KB/SL WC-1 (7.5-9.5')**

**GEI Consultants, Inc.**
**455 Winding Brook Drive**
**Glastonbury, CT 06033**
**Attn To :** Jeff Parillo

**Sample Information...**
Type : Soil

Origin:

Collected : 2/17/2010 9:20:00 AM
Received : 2/18/2010 10:15:00 AM
Collected By : CM99

**Copy : Chris Morris**

**CC** ; EDD (PKG)

| Parameter(s) | Results | Qualifier | D.F. | Units | Method Number | Analyzed |
|---|---|---|---|---|---|---|
| Chloromethane | < 50 | | 5 | µg/Kg | SW8260B | 02/18/2010 6:53 PM |
| Vinyl chloride | < 50 | | 5 | µg/Kg | SW8260B | 02/18/2010 6:53 PM |
| Bromomethane | < 50 | | 5 | µg/Kg | SW8260B | 02/18/2010 6:53 PM |
| Chloroethane | < 50 | | 5 | µg/Kg | SW8260B | 02/18/2010 6:53 PM |
| 1,1-Dichloroethene | < 50 | | 5 | µg/Kg | SW8260B | 02/18/2010 6:53 PM |
| 1,2-Dichloroethene (total) | < 50 | | 5 | µg/Kg | SW8260B | 02/18/2010 6:53 PM |
| Acetone | < 50 | | 5 | µg/Kg | SW8260B | 02/18/2010 6:53 PM |
| Carbon disulfide | < 50 | | 5 | µg/Kg | SW8260B | 02/18/2010 6:53 PM |
| Methylene chloride | 68 | | 5 | µg/Kg | SW8260B | 02/18/2010 6:53 PM |
| Methyl tert-butyl ether | < 50 | | 5 | µg/Kg | SW8260B | 02/18/2010 6:53 PM |
| 1,1-Dichloroethane | < 50 | | 5 | µg/Kg | SW8260B | 02/18/2010 6:53 PM |
| 2-Butanone | < 50 | | 5 | µg/Kg | SW8260B | 02/18/2010 6:53 PM |
| Chloroform | < 50 | | 5 | µg/Kg | SW8260B | 02/18/2010 6:53 PM |
| 1,1,1-Trichloroethane | < 50 | | 5 | µg/Kg | SW8260B | 02/18/2010 6:53 PM |
| Carbon tetrachloride | < 50 | | 5 | µg/Kg | SW8260B | 02/18/2010 6:53 PM |
| Benzene | < 50 | | 5 | µg/Kg | SW8260B | 02/18/2010 6:53 PM |
| 1,2-Dichloroethane | < 50 | | 5 | µg/Kg | SW8260B | 02/18/2010 6:53 PM |
| Trichloroethene | < 50 | | 5 | µg/Kg | SW8260B | 02/18/2010 6:53 PM |
| 1,2-Dichloropropane | < 50 | | 5 | µg/Kg | SW8260B | 02/18/2010 6:53 PM |
| Bromodichloromethane | < 50 | | 5 | µg/Kg | SW8260B | 02/18/2010 6:53 PM |
| cis-1,3-Dichloropropene | < 50 | | 5 | µg/Kg | SW8260B | 02/18/2010 6:53 PM |
| 4-Methyl-2-pentanone | < 50 | | 5 | µg/Kg | SW8260B | 02/18/2010 6:53 PM |
| Toluene | < 50 | | 5 | µg/Kg | SW8260B | 02/18/2010 6:53 PM |
| trans-1,3-Dichloropropene | < 50 | | 5 | µg/Kg | SW8260B | 02/18/2010 6:53 PM |
| 1,1,2-Trichloroethane | < 50 | | 5 | µg/Kg | SW8260B | 02/18/2010 6:53 PM |
| Tetrachloroethene | < 50 | | 5 | µg/Kg | SW8260B | 02/18/2010 6:53 PM |
| 2-Hexanone | < 50 | | 5 | µg/Kg | SW8260B | 02/18/2010 6:53 PM |
| Dibromochloromethane | < 50 | | 5 | µg/Kg | SW8260B | 02/18/2010 6:53 PM |
| Chlorobenzene | < 50 | | 5 | µg/Kg | SW8260B | 02/18/2010 6:53 PM |
| Ethylbenzene | 6200 | D | 125 | µg/Kg | SW8260B | 02/24/2010 8:25 PM |
| Xylene (total) | 11000 | D | 125 | µg/Kg | SW8260B | 02/24/2010 8:25 PM |
| Styrene | < 50 | | 5 | µg/Kg | SW8260B | 02/18/2010 6:53 PM |
| Bromoform | < 50 | | 5 | µg/Kg | SW8260B | 02/18/2010 6:53 PM |
| 1,1,2,2-Tetrachloroethane | < 50 | | 5 | µg/Kg | SW8260B | 02/18/2010 6:53 PM |

Qualifiers:
E - Value above quantitation range
D - Results for Dilution
D.F. = Dilution Factor
H = Sample received/analyzed outside of analytical holding time
# = ELAP / NELAP does not offer certification for this analyte

Joann M. Slavin

Laboratory Manager

Date Reported : 2/25/2010

# H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 . FAX: (631) 420-8436 NYSDOH ID # 10478


## LABORATORY RESULTS

For the submitted sample

**Lab No. : 1002604-005A**

**Client Sample ID. KB/SL WC-2 (8-10')**

**GEI Consultants, Inc.**
**455 Winding Brook Drive**
**Glastonbury, CT 06033**
**Attn To :** Jeff Parillo

**Sample Information...**
Type : Soil

Origin:

Collected : 2/17/2010 10:05:00 AM
Received : 2/18/2010 10:15:00 AM
Collected By : CM99

**Copy : Chris Morris**

**CC** ; EDD (PKG)

| Parameter(s) | Results | Qualifier | D.F. | Units | Method Number | Analyzed |
|---|---|---|---|---|---|---|
| Chloromethane | < 10 | | 1 | µg/Kg | SW8260B | 02/18/2010 8:03 PM |
| Vinyl chloride | < 10 | | 1 | µg/Kg | SW8260B | 02/18/2010 8:03 PM |
| Bromomethane | < 10 | | 1 | µg/Kg | SW8260B | 02/18/2010 8:03 PM |
| Chloroethane | < 10 | | 1 | µg/Kg | SW8260B | 02/18/2010 8:03 PM |
| 1,1-Dichloroethene | < 10 | | 1 | µg/Kg | SW8260B | 02/18/2010 8:03 PM |
| 1,2-Dichloroethene (total) | < 10 | | 1 | µg/Kg | SW8260B | 02/18/2010 8:03 PM |
| Acetone | 13 | | 1 | µg/Kg | SW8260B | 02/18/2010 8:03 PM |
| Carbon disulfide | < 10 | | 1 | µg/Kg | SW8260B | 02/18/2010 8:03 PM |
| Methylene chloride | < 10 | | 1 | µg/Kg | SW8260B | 02/18/2010 8:03 PM |
| Methyl tert-butyl ether | < 10 | | 1 | µg/Kg | SW8260B | 02/18/2010 8:03 PM |
| 1,1-Dichloroethane | < 10 | | 1 | µg/Kg | SW8260B | 02/18/2010 8:03 PM |
| 2-Butanone | < 10 | | 1 | µg/Kg | SW8260B | 02/18/2010 8:03 PM |
| Chloroform | < 10 | | 1 | µg/Kg | SW8260B | 02/18/2010 8:03 PM |
| 1,1,1-Trichloroethane | < 10 | | 1 | µg/Kg | SW8260B | 02/18/2010 8:03 PM |
| Carbon tetrachloride | < 10 | | 1 | µg/Kg | SW8260B | 02/18/2010 8:03 PM |
| Benzene | < 10 | | 1 | µg/Kg | SW8260B | 02/18/2010 8:03 PM |
| 1,2-Dichloroethane | < 10 | | 1 | µg/Kg | SW8260B | 02/18/2010 8:03 PM |
| Trichloroethene | < 10 | | 1 | µg/Kg | SW8260B | 02/18/2010 8:03 PM |
| 1,2-Dichloropropane | < 10 | | 1 | µg/Kg | SW8260B | 02/18/2010 8:03 PM |
| Bromodichloromethane | < 10 | | 1 | µg/Kg | SW8260B | 02/18/2010 8:03 PM |
| cis-1,3-Dichloropropene | < 10 | | 1 | µg/Kg | SW8260B | 02/18/2010 8:03 PM |
| 4-Methyl-2-pentanone | < 10 | | 1 | µg/Kg | SW8260B | 02/18/2010 8:03 PM |
| Toluene | 11 | | 1 | µg/Kg | SW8260B | 02/18/2010 8:03 PM |
| trans-1,3-Dichloropropene | < 10 | | 1 | µg/Kg | SW8260B | 02/18/2010 8:03 PM |
| 1,1,2-Trichloroethane | < 10 | | 1 | µg/Kg | SW8260B | 02/18/2010 8:03 PM |
| Tetrachloroethene | < 10 | | 1 | µg/Kg | SW8260B | 02/18/2010 8:03 PM |
| 2-Hexanone | < 10 | | 1 | µg/Kg | SW8260B | 02/18/2010 8:03 PM |
| Dibromochloromethane | < 10 | | 1 | µg/Kg | SW8260B | 02/18/2010 8:03 PM |
| Chlorobenzene | < 10 | | 1 | µg/Kg | SW8260B | 02/18/2010 8:03 PM |
| Ethylbenzene | 41 | | 1 | µg/Kg | SW8260B | 02/18/2010 8:03 PM |
| Xylene (total) | 140 | | 1 | µg/Kg | SW8260B | 02/18/2010 8:03 PM |
| Styrene | 22 | | 1 | µg/Kg | SW8260B | 02/18/2010 8:03 PM |
| Bromoform | < 10 | | 1 | µg/Kg | SW8260B | 02/18/2010 8:03 PM |
| 1,1,2,2-Tetrachloroethane | < 10 | | 1 | µg/Kg | SW8260B | 02/18/2010 8:03 PM |

Qualifiers:
E - Value above quantitation range
D - Results for Dilution
D.F. = Dilution Factor
H = Sample received/analyzed outside of analytical holding time
# = ELAP / NELAP does not offer certification for this analyte

Joann M. Slavin

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Date Reported : 2/25/2010

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## LABORATORY RESULTS

For the submitted sample

**Lab No. : 1002604-006A**

**Client Sample ID. KB/SL WC-3 (8-10')**

**GEI Consultants, Inc.**
**455 Winding Brook Drive**
**Glastonbury, CT 06033**
**Attn To :** Jeff Parillo

**Sample Information...**
Type : Soil

Origin:

Collected : 2/17/2010 11:00:00 AM
Received : 2/18/2010 10:15:00 AM
Collected By : CM99

**Copy : Chris Morris**

**CC** ; EDD (PKG)

| Parameter(s) | Results | Qualifier | D.F. | Units | Method Number | Analyzed |
|---|---|---|---|---|---|---|
| Chloromethane | < 50 | | 5 | µg/Kg | SW8260B | 02/18/2010 10:14 PM |
| Vinyl chloride | < 50 | | 5 | µg/Kg | SW8260B | 02/18/2010 10:14 PM |
| Bromomethane | < 50 | | 5 | µg/Kg | SW8260B | 02/18/2010 10:14 PM |
| Chloroethane | < 50 | | 5 | µg/Kg | SW8260B | 02/18/2010 10:14 PM |
| 1,1-Dichloroethene | < 50 | | 5 | µg/Kg | SW8260B | 02/18/2010 10:14 PM |
| 1,2-Dichloroethene (total) | < 50 | | 5 | µg/Kg | SW8260B | 02/18/2010 10:14 PM |
| Acetone | 69 | | 5 | µg/Kg | SW8260B | 02/18/2010 10:14 PM |
| Carbon disulfide | < 50 | | 5 | µg/Kg | SW8260B | 02/18/2010 10:14 PM |
| Methylene chloride | 71 | | 5 | µg/Kg | SW8260B | 02/18/2010 10:14 PM |
| Methyl tert-butyl ether | < 50 | | 5 | µg/Kg | SW8260B | 02/18/2010 10:14 PM |
| 1,1-Dichloroethane | < 50 | | 5 | µg/Kg | SW8260B | 02/18/2010 10:14 PM |
| 2-Butanone | < 50 | | 5 | µg/Kg | SW8260B | 02/18/2010 10:14 PM |
| Chloroform | < 50 | | 5 | µg/Kg | SW8260B | 02/18/2010 10:14 PM |
| 1,1,1-Trichloroethane | < 50 | | 5 | µg/Kg | SW8260B | 02/18/2010 10:14 PM |
| Carbon tetrachloride | < 50 | | 5 | µg/Kg | SW8260B | 02/18/2010 10:14 PM |
| Benzene | < 50 | | 5 | µg/Kg | SW8260B | 02/18/2010 10:14 PM |
| 1,2-Dichloroethane | < 50 | | 5 | µg/Kg | SW8260B | 02/18/2010 10:14 PM |
| Trichloroethene | < 50 | | 5 | µg/Kg | SW8260B | 02/18/2010 10:14 PM |
| 1,2-Dichloropropane | < 50 | | 5 | µg/Kg | SW8260B | 02/18/2010 10:14 PM |
| Bromodichloromethane | < 50 | | 5 | µg/Kg | SW8260B | 02/18/2010 10:14 PM |
| cis-1,3-Dichloropropene | < 50 | | 5 | µg/Kg | SW8260B | 02/18/2010 10:14 PM |
| 4-Methyl-2-pentanone | < 50 | | 5 | µg/Kg | SW8260B | 02/18/2010 10:14 PM |
| Toluene | < 50 | | 5 | µg/Kg | SW8260B | 02/18/2010 10:14 PM |
| trans-1,3-Dichloropropene | < 50 | | 5 | µg/Kg | SW8260B | 02/18/2010 10:14 PM |
| 1,1,2-Trichloroethane | < 50 | | 5 | µg/Kg | SW8260B | 02/18/2010 10:14 PM |
| Tetrachloroethene | < 50 | | 5 | µg/Kg | SW8260B | 02/18/2010 10:14 PM |
| 2-Hexanone | < 50 | | 5 | µg/Kg | SW8260B | 02/18/2010 10:14 PM |
| Dibromochloromethane | < 50 | | 5 | µg/Kg | SW8260B | 02/18/2010 10:14 PM |
| Chlorobenzene | < 50 | | 5 | µg/Kg | SW8260B | 02/18/2010 10:14 PM |
| Ethylbenzene | 69000 | D | 625 | µg/Kg | SW8260B | 02/24/2010 2:35 PM |
| Xylene (total) | 130000 | D | 625 | µg/Kg | SW8260B | 02/24/2010 2:35 PM |
| Styrene | < 50 | | 5 | µg/Kg | SW8260B | 02/18/2010 10:14 PM |
| Bromoform | < 50 | | 5 | µg/Kg | SW8260B | 02/18/2010 10:14 PM |
| 1,1,2,2-Tetrachloroethane | < 50 | | 5 | µg/Kg | SW8260B | 02/18/2010 10:14 PM |

Qualifiers:
E - Value above quantitation range
D - Results for Dilution
D.F. = Dilution Factor
H = Sample received/analyzed outside of analytical holding time
# = ELAP / NELAP does not offer certification for this analyte

Joann M. Slavin

Laboratory Manager

Date Reported : 2/25/2010

# Appendix C

## Draft Community Air Monitoring Summary Report



GEI Consultants

Geotechnical
Environmental and
Water Resources
Engineering

**DRAFT Community Air Monitoring Summary Report**

# Bay Shore Former Manufactured Gas Plant (MGP)
# Site Operable Unit 1 (OU-1)
# Phase IV Remedial Action
# (March 2010 – April 2010)

Town of Islip, Village of Bay Shore
Suffolk County, New York
Site No. 1-52-176
NYSDEC Consent Index No. D1-0001-98-11

**Submitted to:**
National Grid
175 East Old Country Road
Hicksville, NY 11801

**Submitted by:**
GEI Consultants, Inc.
110 Walt Whitman Road, Suite 204
Huntington Station, NY 11746
631-760-9300

May 2011
093180-1-1114



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# Abbreviations and Acronyms

| | |
|---|---|
| AOC | Administrative Order on Consent |
| AMS | Air Monitoring Station |
| BTEX | Benzene, Toluene, Ethylbenzene, and Xylenes |
| CAMP | Community Air Monitoring Program |
| CLP | Contract Laboratory Program |
| COC | Chain-of-Custody |
| D&B | Dvirka and Bartilucci |
| DUSR | Data Usability Summary Report |
| EPA | United States Environmental Protection Agency |
| GC/MS | Gas Chromatography/Mass Spectrometry |
| GEI | GEI Consultants, Inc. |
| IRM | Interim Remedial Measure |
| LILCO | Long Island Lighting Company |
| LIRR | Long Island Rail Road |
| MGP | Manufactured Gas Plant |
| NAPL | Non-aqueous Phase Liquid |
| NELAP | National Environmental Laboratory Accreditation Program |
| NYSDEC | New York State Department of Environmental Conservation |
| NYSDOH | New York State Department of Health |
| OU-1 | Operable Unit 1 |
| OU-2 | Operable Unit 2 |
| OU-3 | Operable Unit 3 |
| OU-4 | Operable Unit 4 |
| PID | Photo-ionization Detector |
| $PM_{10}$ | Particulate Matter less than 10 micrometers in size |
| ppmv | Parts Per Million Volume |
| RAP | Remedial Action Plan |
| RIR | Remedial Investigation Reports |
| SOP | Standard Operating Procedure |
| TVOC | Total Volatile Organic Compound |
| VOC | Volatile Organic Compound |
| $\mu g/m^3$ | Micrograms Per Cubic Meter |

# Executive Summary

On behalf of National Grid, GEI Consultants, Inc. (GEI) implemented the Community Air Monitoring Plan (CAMP) between March 2010 and April 2010 during ground intrusive excavation activities at the Bay Shore Former Manufactured Gas Plant (MGP), Operable Unit 1 (OU-1), on 66 N. Clinton Avenue (former Summer's Lumber property) in Bay Shore, New York (Site). Excavation at the Summers Lumber/King Bear property was conducted as part of Phase IV of the OU-1 Remedial Action Plan (RAP).

The Bay Shore/Brightwaters Former MGP Site is located in Bay Shore, Town of Islip, New York. OU-1 is bound to the north by Ackerson Street, to the east by Fifth Avenue, to the south by Union Boulevard and to the west by North Clinton Avenue. The Long Island Rail Road (LIRR) bisects the site between Ackerson Street and Union Boulevard. A more detailed description of the site and its Operable Units can be found in Section 1.3.

The purpose of the CAMP was to provide early warning and detection for potential off-site migration of vapors (TVOC) or particulate matter (dust) associated with the excavation of MGP-related source materials outside of the OU-1 barrier wall at the 66 N. Clinton Avenue property. Real-time air monitoring allowed National Grid and the construction manager to respond to t concentrations approaching action levels by mitigating vapors, particulate matter and odors in a short period of time. The CAMP was conducted in support of remedial construction activities National Grid implemented under an Administrative Order on Consent (AOC) (Index No. D1-0001-98-11) between National Grid and the New York State Department of Environmental Conservation (NYSDEC).

The CAMP was conducted in accordance with the NYSDEC and New York State Department of Health (NYSDOH)-approved Community Air Monitoring Program (CAMP) Work Plan (GEI, 2010a), dated February 18, 2010 and NYSDOH CAMP monitoring requirement provided in the NYSDEC *Draft DER-10 Technical Guidance for Site Investigation and Remediation*, dated November 2009 (NYSDEC, 2009).

The CAMP was implemented from March 6, 2010 to April 9, 2010 during intrusive remedial activities that included sheet-pile and waler installation, excavation of impacted materials and non-impacted materials, backfilling, excavated materials handling, post remedial excavations/ restoration, and demobilization activities.

The CAMP utilized the AirLogics® SolarLite, LLC Perimeter Air Monitoring System which consisted of four real-time air monitoring stations during intrusive activities. GEI maintained a trained air monitoring staff member on the Site at all times during ground intrusive activities and handling of impacted excavated materials to monitor the system, calibrate equipment, and respond to any potential CAMP monitoring concerns. Real-time air fixed station monitoring continuously measured total volatile organic compounds (TVOCs) and particulate matter (dust) less than 10 micrometers in size ($PM_{10}$).

Site conditions did not necessitate the use of supplemental monitoring, which was required on an as-needed basis to evaluate TVOC and $PM_{10}$ along the perimeter of the site. Ambient air samples were collected from upwind and downwind station locations over an 8-hour period during the work day once per week in order to evaluate VOC concentrations to confirm the TVOC monitoring levels detected at real-time and walk-around stations. These samples were submitted to a NYSDOH-certified laboratory for VOC analysis.

The CAMP Work Plan established a contingency plan that employed a three-tiered classification and warning system based on the NYSDOH action levels. An alert was issued to National Grid and the construction manager (GEI) if concentrations were elevated to near action levels for a 15-minute period and were potentially attributed to MGP-impacted materials generated during remedial activities.

A summary of weekly air monitoring activities were prepared and provided to the remedial construction team, NYSDEC, and NYSDOH during ground intrusive activities and handling of excavated impacted materials and the final results are contained herein.

## Key Findings

There were no readings of TVOCs, $PM_{10}$, or odors above the action level for a 15-minute average that were associated with MGP-impacted materials during ground intrusive activities or handling of excavated impacted materials.

CAMP monitoring recorded a number of $PM_{10}$ concentrations that were measured above the action level for over a 15-minute average associated with exhaust from construction equipment, site maintenance, or from traffic associated with off-site activities and/or North Clinton Avenue and Union Boulevard. A number of these $PM_{10}$ concentrations occurred at times when there were no construction-related activities, or were due to third party sources that were not related to intrusive activities.

No public odor complaints were received for the duration of the project.

Ambient air analytical testing results show that only low levels of VOCs common to both petroleum products and exhaust were detected. The VOC concentrations during the remedial activities were typically in the range of background VOC concentrations found in the NYSDOH study and site background VOC levels measured at the Site in 2009. The laboratory results were used to confirm the effectiveness of real-time fixed station TVOC monitoring data.

The CAMP was successfully implemented during Phase IV remedial activities, which offered a variety of challenges to successful monitoring due to the complexities of construction, materials handling, and heavy equipment operating on a small parcel. The CAMP provided the framework to monitor concentrations of TVOC and $PM_{10}$, along with weather data and site activities, in order to determine if readings were related to site activities and, if needed, alert National Grid and its subcontractors to rapidly enact mitigation techniques. The CAMP data demonstrated that the remedial methods and practices implemented by National Grid and its subcontractors were effective in controlling off-site emissions of TVOC and $PM_{10}$ for the duration of site activities.

# 1. Introduction

National Grid retained GEI Consultants, Inc. (GEI) to conduct a community air monitoring plan (CAMP) during Phase IV of the OU-1 Remedial Action Plan (RAP) on the 66 N. Clinton Avenue property at the Bay Shore/Brightwaters Former Manufactured Gas Plant (MGP) Operable Unit 1 (OU-1) Site (Site) in Bay Shore, New York (**Figure 1**). Phase IV of the RAP was conducted under an Administrative Order on Consent (AOC) (Index No. D1-0001-98-11) between National Grid and the New York State Department of Environmental Conservation (NYSDEC) for the Bay Shore/Brightwaters Former MGP. The New York State Department of Health (NYSDOH) requires real-time monitoring for volatile organic compounds (VOCs) and particulate matter (i.e. dust) concentrations during ground intrusive activities at the perimeter of investigation and remedial activities at contaminated sites.

The CAMP requirement is outlined in Appendix 1A of the New York State Department of Environmental Conservation's (NYSDEC) *2009 Draft DER-10 Technical Guidance for Site Investigation and Remediation*. GEI developed and implemented the Community Air Monitoring Program (CAMP) Work Plan (GEI, 2010a), to fulfill the CAMP monitoring requirement for remedial activities in OU-1 of the Bay Shore/ Brightwaters Former MGP Site. The CAMP Work Plan was submitted to and approved by the NYSDEC and NYSDOH as an appendix to the Phase IV Remedial Design Report (GEI, 2010b).

## 1.1 Purpose and Objectives

The purpose of this CAMP was to monitor total volatile organic compounds (TVOCs) and particulate matter [dust] less than 10 micrometers in size ($PM_{10}$) at the Site perimeter in order to provide an early warning system when concentrations approached action levels. The action levels were designed to prevent airborne off-site migration of site-related contaminants during ground-intrusive activities. Real-time air monitoring allowed the construction team to respond to concentrations approaching action levels by mitigating TVOCs and $PM_{10}$ in a short period of time.

Creamer, National Grid's Remediation Contractor, conducted health and safety monitoring with hand-held equipment within the work zone.

The CAMP was conducted from March 6, 2010 through April 9, 2010 during intrusive activities in OU-1 at the 66 N. Clinton Avenue property. This report presents the methods, results, and conclusions of the CAMP throughout remedial activities.

## 1.2 Contingency Plan

The CAMP Work Plan established a contingency plan that used a three-tiered classification in order to provide an early warning system and mitigation procedures to prevent emissions from intrusive activities at the Site. The 15-minute average action levels from the NYSDEC/ NYSDOH-approved CAMP Work Plan are provided below:

| Target | Action Level |
|---|---|
| TVOCs | 5.0 ppmv |
| TVOCs (maximum allowable concentration) | 25 ppmv |
| Particulate Matter ($PM_{10}$) | 150 $\mu g/m^3$ |

ppmv – parts per million volume
$\mu g/m^3$ – micrograms per cubic meter
Target concentrations were averaged over a 15-minute period

An alert was to be issued to National Grid and the construction manager (GEI) if concentrations were elevated to near action levels for a 15-minute period and were potentially attributed to MGP-impacted materials generated during ground-intrusive activities. The warning system is provided below:

- Site Condition 1: Normal or ambient air conditions where all target concentrations (e.g., TVOCs, $PM_{10}$, etc.) were less than 75 percent of the action level. No action required, continue monitoring.

- Site Condition 2: Concentration of at least one target was greater than or equal to Site Condition 1 but less than the action level. [Implement response actions in the CAMP Work Plan].

- Site Condition 3: Concentration of at least one target was greater than or equal to the action level. [Implement response actions in the CAMP Work Plan].

## 1.3 Site Setting

The Bay Shore Former MGP Site is located in Bay Shore, Town of Islip, in an area located to the north of the Long Island Rail Road (LIRR) – Montauk Branch; to the east of East Court; to the west of Fifth Avenue; and, to the south of Ackerson Street. The Bay Shore Former MGP Site is currently divided into four operable units as depicted in **Figure 1**. OU-1 is bound to the north by Ackerson Street, to the east by Fifth Avenue, to the south by Union Boulevard and to the west by portions of two vacant properties along North Clinton Avenue.

In addition to the Former MGP Site, OU-1 also includes the adjacent West Parcel located west of North Clinton Avenue, north of the LIRR and east of the National Grid Brightwaters Yard. As stated in the Final RAP, an interim remedial measure (IRM) was conducted at the Bay Shore West Parcel. As such, the RAP did not evaluate or propose any remedial actions for this area of OU-1 of the Bay Shore Former MGP Site.

OU-2 includes the off-site groundwater plume extending south of OU-1. OU-3 includes the Brightwaters Yard and the associated downgradient groundwater plume. OU-4 includes the former cesspool and pond area and the downgradient Watchogue Creek/Crum's Brook. IRMs have been or are being implemented at the OU-1 West Parcel, OU-2, OU-3 and OU-4 to eliminate or mitigate contaminant exposure pathways.

The Bay Shore MGP began operations in the late 1880s. The plant was operated by Mutual Gas and Light Company, the Suffolk Gas and Electric Light Company and later the Long Island Lighting Company (LILCO) in 1918. LILCO operated the plant from 1918 to approximately 1973 when most of the facilities were demolished. In 1998, KeySpan Corporation acquired the former MGP property through a merger of LILCO and the Brooklyn Union Gas Company. In 2007, National Grid acquired the former MGP property through the acquisition of KeySpan Corporation.

A more detailed summary of the operating history of the Bay Shore Former MGP Site is included in the remedial investigation reports that have been prepared for the Site. These reports are entitled "Bay Shore/Brightwaters Former Manufactured Gas Plant Site, Remedial Investigation Report, Bay Shore, New York" dated April 2002 and "Bay Shore/Brightwaters Former Manufactured Gas Plant Site, Final Remedial Investigation Report, Bay Shore, New York" dated January 2003. Both Remedial Investigation Reports (RIRs) were prepared by Dvirka and Bartilucci (D&B).

OU-1 encompasses approximately eight acres and currently includes the following:

- The Bay Shore Former MGP Site, formerly the main operations area of the MGP, currently owned by National Grid.
- An active National Grid natural gas regulator station is located to the northeast of the northern portion of the Site.
- The southern portion of the Site north of the LIRR is currently vacant.
- The off-site area south of the LIRR, north of Union Boulevard, east of North Clinton Avenue and west of Fifth Avenue includes a mixture of commercial and residential uses. The parcel immediately south of LIRR on the east side of North Clinton Avenue, known as OU-1 South, is owned by National Grid and is currently occupied by the groundwater treatment building installed as part of the Phase IA RDR activities. The parcels immediately south of LIRR on the west

side of North Clinton Avenue, 60 N. Clinton Avenue and 66 N. Clinton Avenue properties, are owned by National Grid and is the location of the Phase IV remedial activities discussed in this RDR. The remaining off-site adjacent parcels are owned by others.

- A large portion of the Bay Shore West Parcel is currently vacant, with a small area occupied by office trailers to support ongoing field operations.

Properties surrounding the 66 N. Clinton Avenue properties include the following:

- North – LIRR and the Bay Shore West Parcel and the National Grid Brightwaters Yard beyond which is a mixture of private residences and small commercial businesses.
- East – N. Clinton Avenue. East of N. Clinton Avenue is the groundwater treatment building on OU-1 South.
- South - Union Boulevard. The parcels are primarily private residences mixed with commercial businesses along Union Boulevard.
- West –Immediately west is private residences.

A series of environmental investigations were conducted at the site between 1998 and 2009 and confirmed the existence of petroleum-related impacts to the soil and groundwater in addition to non-aqueous phase product (NAPL).

# 2. Methods and Baseline Sampling Summary

The following sections provide a summary of the CAMP monitoring methods and a summary of baseline monitoring data collected in 2009 prior to commencing remedial construction activities at OU-1.

## 2.1 Community Air Monitoring Plan

The CAMP monitoring network consisted of four real-time air monitoring stations (AMS-1 through AMS-4) using the AirLogics® SolarLite, LLC Perimeter Air Monitoring System. The real-time stations recorded TVOC and $PM_{10}$ concentrations along the Site perimeter and one meteorological station for determining and recording wind direction. The station locations on the Site are shown in **Figure 2**. The real-time stations were operated during remedial activities from March 6, 2010 to April 9, 2010.

VOC samples were collected over an 8-hour period once per week using laboratory certified-clean SUMMA® canisters and submitted for laboratory analysis on a weekly basis at upwind and downwind real-time station locations. Air samples were analyzed for VOCs and naphthalene by United States Environmental Protection Agency (EPA) Method TO-15 by Air Toxics Ltd., a NYSDOH-approved National Environmental Laboratory Accreditation Program (NELAP) laboratory (NY NELAP No. 11291). These sample results were compared to the results of the 2009 background samples taken in OU-3 prior to Phase IV of the OU-1 RAP to comparatively confirm the veracity of real-time air monitoring results collected throughout the project.

The remainder of this section provides a summary of the methods used during the collection of CAMP.

### *2.1.1 Real-Time Fixed Air Monitoring Stations*

Continuous real-time fixed station monitoring for TVOCs and $PM_{10}$ was conducted using four air monitoring stations (AMS-1 through AMS-4) that transmitted the data at 1-minute intervals via radio telemetry to a central computer system located in the GEI project trailer at 1 Orinoco Drive. Each fixed station consisted of a weather tight enclosure that was secured with a lock. The locations of the stations during remedial activities are shown in **Figure 2**. The electronically recorded data were used to calculate 15-minute average readings for comparison to action levels to determine the Site Condition.

### TVOC Monitoring

Four AirLogics® SolarLite stations were used during remedial activities. The AirLogics® SolarLite stations are shown in **Figure 3**. Each station was equipped with a PhotoVac® 20/20 PID to monitor for TVOCs. Each PID was calibrated daily using a certified isobutylene gas standard. PID inlet filters and lamps were replaced as needed for these instruments. Each station collected TVOC measurements at 1-minute intervals.

### Dust ($PM_{10}$) Monitoring

Each AirLogics® SolarLite station monitored dust utilizing a TSI® DustTrak portable real-time particulate meter to monitor $PM_{10}$ (dust). Each particulate monitor collected dust concentration at 1-minute intervals, and was zeroed and calibrated daily during remedial activities. The monitors were maintained on a regular schedule and filters were replaced as needed.

### System Performance

The central computer system was equipped with a text message paging system to provide notification to GEI staff if concentrations of TVOC or $PM_{10}$ reached Site Condition 2 or 3. The paging system was occasionally deactivated for 3-5 minutes during reboots of the central computer system. When activated, the paging system operated continuously 24 hours a day.

Due to interference from inclement weather, the phone line on which the paging system operated was rendered inactive at 11:16 pm on Saturday, March 13. The paging system phone line was switched to an alternate line at 10:50 am on March 15, at which time the paging system resumed normal operation. However, this line failed at 1:56 pm on March 15. The phone service provider repaired both phone lines on Wednesday, March 17, and the paging system to resumed normal operation at 3:19 pm. GEI regularly checked the central computer system during the pager outages and there were no exceedences of TVOC or $PM_{10}$ during these time periods.

TVOC and $PM_{10}$ were logged in the instruments located within each real-time fixed air monitoring station and were available as backup to the radio telemetry system. If radio telemetry to the central computer were interrupted by a power outage or a radio transmission failure, the remaining data would be manually downloaded using a laptop computer. Under normal circumstances, the data loggers were cleared after data telemetry was confirmed to maintain data logging storage space on each instrument. There were no incidents of transmission failure or power outages onsite for the duration of the project.

Data Management

The data generated at each real-time fixed air monitoring station location were transmitted to the central computer system via radio telemetry where proprietary software translated the data into Microsoft Excel format for data analysis. Daily fixed air monitoring station data are included in **Appendix A** annotated with relevant site activity and maintenance notes.

### *2.1.2 Supplemental Monitoring*

Supplemental monitoring was required during the CAMP on an as-needed basis only. GEI retained backup monitoring equipment in the event that supplemental monitoring for TVOC and $PM_{10}$ would be necessary in response to onsite conditions. This equipment was composed of two RAE Systems Mini-RAE 2000 units, two TSI DustTrak 8520 particulate monitors, and one RAE Systems MultiRAE unit. The DustTrak units and the Mini RAE units were zeroed and calibrated daily according to the manufacturer's guidelines. The MultiRAE unit was zeroed and calibrated on a weekly basis. No conditions onsite necessitated supplemental TVOC and $PM_{10}$ monitoring.

## 2.2 Ambient Air Sampling and Analysis

VOC samples were collected for laboratory analysis once per week at nominally upwind and downwind air monitoring locations during remedial activities to demonstrate that the real-time fixed air monitoring stations were effective in measuring the concentrations of TVOCs and naphthalene. Each ambient air sample was collected in laboratory certified clean 6-liter SUMMA® canisters with a laboratory calibrated flow controller over an 8-hour period. Each sample was shipped under chain-of-custody (COC) documentation to Air Toxics Laboratory in Folsom, CA and analyzed for 63 individual VOCs by EPA Method TO-15 modified to include naphthalene. A total of 7 ambient air samples were collected throughout the CAMP implementation.

Ambient air laboratory analytical results were validated by an independent data validator according to the *U.S. EPA Contract Laboratory Program (CLP) National Functional Guidelines for Organic Data Review* (EPA, 2005) and *U.S. EPA Region 2 Standard Operating Procedure (SOP) for the Validation of Organic Data Review* (EPA 2001). Results were compared to the 95$^{th}$ percentile values of "background" outdoor air concentrations derived from a study conducted by NYSDOH *Summary of Indoor and Outdoor Levels of Volatile Organic Compounds from Fuel Oil Heated Homes in New York State, 1997 to 2003* (NYSDOH, 2006). Procedures were modified, as necessary, for application to air data acquired using modified EPA methodologies. Comprehensive data packages can be found in **Appendix B**. The validated laboratory results and data usability summary reports (DUSRs) are provided in **Appendix C**.

## 2.3 Meteorological Monitoring

A weather station was installed on a tower located approximately 10-feet above the ground and approximately 20-feet north of the fence line separating the LIRR from the Bay Shore West Parcel at 1 Orinoco Drive (**Figure 2**). Temperature, relative humidity, wind speed, and wind direction were collected during the CAMP. Wind direction data were used to determine which real-time monitoring station was the upwind and downwind of Site activities. The data was transferred back to the central computer via radio telemetry and stored in the project database. Raw meteorological data are included in **Appendix D**. Continuous 15-minute averages for each meteorological parameter were calculated.

A wind rose that shows the distribution of wind direction data during the CAMP operations is shown in **Figure 4**.

## 2.4 Baseline Monitoring Results

The following summarizes the baseline real-time air monitoring and ambient air testing conducted between October 19$^{th}$, 2009 and October 25$^{th}$, 2009 in OU-3. October 19$^{th}$, 2009 was not a full 24- Hour cycle of data due to the mobilization of the AirLogics® SolarLite air monitoring stations.

**TVOC Data**

- The site-wide average background 15-minute TVOC concentration was 0.03 ppmv.
- The maximum 15-minute average recorded at a station was 0.89 ppmv.

**$PM_{10}$ Data**

- The site-wide average background 15-minute $PM_{10}$ concentration was 28 µg/m$^3$.
- The maximum 15-minute average $PM_{10}$ concentration from any station during the background period was 129 µg/m$^3$ due to non-intrusive activities.

**Ambient Air Laboratory Results**

- Benzene, ethylbenzene , and xylene compounds were not detected in any of the background samples.
- Toluene was detected in background samples at levels lower than the NYSDOH 95$^{th}$ Percentile comparison.
- Acetone, ethanol and 2-butanone were also detected in the background air samples at levels lower than the NYSDOH 95$^{th}$ Percentile comparison.

# 3. Results and Discussion

The following section provides a summary of the CAMP monitoring and testing results for remedial activities. **Figures 5 through 8** provide a summary of the maximum 15-minute average TVOC and $PM_{10}$ readings for real-time fixed air monitoring stations AMS -1 through AMS-4 during remedial activities. **Appendix E** provides the weekly community air monitoring reports in which this information was summarized. **Figure 4** depicts the wind rose that summarizes the meteorologically recorded wind direction during the CAMP. The CAMP action levels and response levels and measured levels of TVOC and $PM_{10}$ are provided in **Figures 5-8**.

**Table 1** provides a summary of the detected VOCs within the outdoor ambient air samples collected weekly at upwind and downwind real-time stations. The detected concentrations of VOCs was screened against the 95$^{th}$ percentile values of "background" outdoor air concentrations derived from a study conducted by NYSDOH *Summary of Indoor and Outdoor Levels of Volatile Organic Compounds from Fuel Oil Heated Homes in New York State, 1997 to 2003* (NYSDOH, 2006). This NYSDOH study evaluated the occurrence of VOCs within the indoor and outdoor air of fuel oil heated-homes. Ambient air analytical results were compared to the baseline VOC sampling data collected at the Site in 2009 and are provided in **Table 1** and are discussed in section 3.3.

## 3.1 TVOC Monitoring Results

There were no 15-minute concentrations of TVOC above the action level during the program based upon real-time fixed station monitoring. A summary of the TVOC data for the real-time stations is provided in **Figures 5 through 8**.

## 3.2 $PM_{10}$ Monitoring Results

There were no 15-minute average concentrations of $PM_{10}$ above the action level associated with remedial activities conducted during the excavation of impacted materials from the exclusion zone.

CAMP monitoring did periodically detect 15-minute average concentrations of $PM_{10}$ above Site Condition 2 (above 100 µg/m$^3$) and Site Condition 3 (above 150 µg/m$^3$) levels attributed to the following non-intrusive activities:

- Exhaust particulates generated from on-site equipment.
- Off-site dust generated from traffic on North Clinton Avenue and Union Boulevard.

- Non-intrusive construction activities such as sweeping and the operation of gasoline-powered equipment.

A summary of these excursions of $PM_{10}$ is provided in **Figures 5 through 8**. Since these instances were not associated with impacted materials generated during site activities, no mitigation response was warranted.

## 3.3 Ambient Air Laboratory Results

Seven upwind and downwind ambient air samples were collected during construction activities and submitted for laboratory analysis.

The results in **Table 1** reference the NYSDOH 95$^{th}$ percentile outdoor background concentrations described in Appendix C of the Final NYSDOH CEH BEEI Soil Vapor Intrusion Guidance dated October 2010. The NYSDOH 95$^{th}$ percentile outdoor values were collected from sampled outside 104 homes, heated with fuel oil, between 1997 and 2003 (NYSDOH, 2005).

A total of fourteen volatile organic compounds were detected in both upwind and downwind locations during remedial activities. Petroleum-related constituents, including 2-butanone and trimethylbenzene compounds, were found in both upwind and downwind samples. Toluene, xylene, and ethyl benzene compounds were detected slightly above background concentrations in both upwind and downwind locations.

These concentrations are likely related to exhaust from construction and public vehicles rather than impacts from excavated materials. These concentrations are generally consistent with fixed station perimeter TVOC monitoring results indicating low concentrations of volatile organic compounds.

As discussed above in Section 3.1, there were no exceedances of TVOC action levels during the CAMP. Laboratory analysis of ambient air samples confirm that low levels of VOCs were detected during remedial activities. The laboratory testing also demonstrated the effectiveness of the real-time TVOCs collected by fixed stations and supplemental monitoring.

# 4. Conclusions

GEI implemented the CAMP to monitor the air quality during intrusive activities associated with the excavation of impacted materials at the Site. A CAMP was required by the NYSDEC to be implemented during investigation and remediation of contaminated sites in order to monitor and address potential vapors or dust at the Site perimeter. The work was completed in accordance with the NYSDEC/ NYSDOH-approved CAMP dated February 2010.

There were no detections of TVOCs, $PM_{10}$, or odors above the action level for a 15-minute period that were associated with intrusive activities for the duration of the project. CAMP monitoring did reveal a number of $PM_{10}$ detections that exceeded the action level for over a 15-minute period that were related to non-intrusive activities. These detections were associated with exhaust from construction equipment or off-site activities such as traffic along North Clinton Ave and Union Boulevard. The most frequent occurrences of the elevated $PM_{10}$ levels were measured at AMS-3, located along the Union Boulevard entry gate and the former King Bear building. A number of the detections also occurred at times when there were non-intrusive related activities or were related to third party activities and not site operations. Thus these detections appear to be common occurrences in the surrounding environment.

All 15-minute TVOCs measurements were well below the action levels during remedial activities. Laboratory testing of the ambient air showed that the VOCs detected were generally that only low levels of VOCs common to both petroleum products and exhaust were detected. The VOC concentrations during the OU-1 excavation were typically in the range of background VOC concentrations found in the NYSDOH study. The laboratory results also confirm the veracity of real-time fixed station and supplemental TVOC monitoring results.

The CAMP was successful at monitoring ambient air conditions at the site perimeter and documenting that the contractor's remedial activities did not affect ambient air at the site perimeter. The CAMP also provided the framework to monitor concentrations of TVOC and $PM_{10}$, along with weather data and site activities, in order to determine if readings were related to site activities and, if needed, alert National Grid and its subcontractors to rapidly enact mitigation techniques. The CAMP data demonstrated that the methods and soil management practices implemented by National Grid and its subcontractors were effective in controlling off-site emissions of TVOC and $PM_{10}$ for the duration of the remedial activities.

# 5. Limitations

This report was prepared exclusively for the use of National Grid. The conclusions presented in this report are based solely on the information presented in this report and in previous reports prepared for this site. Additional quantitative information regarding the site may result in a modification of our findings, herein. This report has been prepared in accordance with generally accepted air monitoring practices. No warranty, expressed or implied, is made.

# References

GEI Consultants, Inc (2010a). Community Air Monitoring Program Work Plan, Former King Bear/Summer's Lumber Properties, Bay Shore/Brightwaters Former MGP Site, Operable Unit 1, Town of Islip, Bay Shore, Suffolk County, New York, NYSDEC Consent Index No. D1-0001-98-11. February 18, 2010.

GEI Consultants, Inc (2010b). Phase IV Remedial Design Report, 100% Submission, Former King Bear/Summer's Lumber Properties, Bay Shore/Brightwaters Former MGP Site, Operable Unit 1, Town of Islip, Bay Shore, Suffolk County, New York, NYSDEC Consent Index No. D1-0001-98-11. February 18, 2010.

New York State Department of Environmental Conservation (2009). Appendix 1-A, Draft Technical Guidance for Site Remediation and Investigation. DER-10. Washington: Division of Environmental Remediation, November 2009.

New York State Department of Health (2006). Summary of Indoor and Outdoor Levels of Volatile Organic Compounds from Fuel Oil Heated Homes in New York State, 1997 to 2003.

U.S. Environmental Protection Agency (2001). U.S. EPA Region 2 Standard Operating Procedure (SOP) for the Validation of Organic Data Review. Office of Emergency and Remedial Response. March 2001.

U.S. Environmental Protection Agency (2005). U.S. EPA Contract Laboratory Program (CLP) National Functional Guidelines for Organic Data Review. Office of Emergency and Remedial Response. January 2005.

TO-15 - Determination Of Volatile Organic Compounds (VOCs) In Air Collected In Specially-Prepared Canisters And Analyzed By Gas Chromatography/Mass Spectrometry (GC/MS) (1999). Office of Research and Development. EPA/625/R-96/010b. January.

# Tables

Table 1
Analytical Ambient Air Results
OU-1 Phase IV CAMP Summary Report
Bay Shore/Brightwaters Former MGP Site

Validated

| Sample Name:<br>Sample Date: | NYSDOH Background Outdoor Air Concentrations 95th Percentile Range[1] | Background Sample UW AMS 4 10/22/2009 | Background Sample DW AMS 1 10/22/2009 | UW AMS 1 3/11/2010 | DW AMS 4 3/11/2010 | UW AMS 4 3/18/2010 | DW AMS 2 3/18/2010 | DW AMS 1 3/25/2010 | UW AMS 4 4/1/2010 | DW AMS 2 4/1/2010 |
|---|---|---|---|---|---|---|---|---|---|---|
| ***BTEX (µg/m$^3$)*** | | | | | | | | | | |
| Benzene | 5.8 | 2.7 U | 2.7 U | 2.6 U | 2.6 U | 2.6 U | 2.8 U | 3.5 U | 2.7 U | 2.7 U |
| Toluene | 21 | **3.7** | **4.2** | 3.0 U | 3.0 U | **6.3** | **6.7** | 4.1 U | 3.2 U | 3.2 U |
| Ethylbenzene | 1.9 | 3.6 U | 3.6 U | **20** | 3.5 U | 3.5 U | **4.3** | 4.7 U | 3.6 U | 3.7 U |
| Xylene, m,p- | 3.1 | 3.6 U | 3.6 U | **23** | 3.5 U | **4.8** | **7.0** | 4.7 U | 3.6 U | 3.7 U |
| Xylene, o- | 2.5 | 3.6 U | 3.6 U | **8.1** | 3.5 U | 3.5 U | 3.9 U | 4.7 U | 3.6 U | 3.7 U |
| ***Other VOCs (µg/m$^3$)*** | | | | | | | | | | |
| Acetone | 58 | **8.4** | **28** | **13** | **26** | **14** | **18** | **11** | **16** | **15** |
| Allyl chloride | NE | 10 U | 10 U | 10 U | 10 U | 10 U | 11 U | 14 U | 10 U | 11 U |
| Benzyl chloride | NE | 4.3 U | 4.3 U | 4.2 U | 4.2 U | 4.2 U | 4.6 U | 5.6 U | 4.3 U | 4.4 U |
| Bromodichloromethane | NE | 5.6 U | 5.6 U | 5.4 U | 5.4 U | 5.4 U | 6.0 U | 7.3 U | 5.6 U | 5.7 U |
| Bromoform | NE | 8.7 U | 8.7 U | 8.4 U | 8.3 U | 8.3 U | 9.2 U | 11 U | 8.7 U | 8.8 U |
| Bromomethane | 0.9 | 3.3 U | 3.3 U | 3.1 U | 3.1 U | 3.1 U | 3.5 U | 4.2 U | 3.3 U | 3.3 U |
| Butadiene, 1,3- | NE | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 1.8 U | 2.0 U | 2.4 U | 1.8 U | 1.9 U |
| Butanone, 2- | 17 | 2.5 U | **3.5** | 2.4 U | **3.9** | **2.6** | **3.4** | 3.2 U | **4.0** | 2.5 U |
| Carbon disulfide | NE | 2.6 U | 2.6 U | 2.5 U | **3.8** | 2.5 U | 2.8 U | 3.4 U | 2.6 U | 2.6 U |
| Carbon tetrachloride | 1 | 5.3 U | 5.3 U | 5.1 U | 5.1 U | 5.1 U | 5.6 U | 6.8 U | 5.3 U | 5.3 U |
| Chlorobenzene | 0.25 | 3.9 U | 3.9 U | 3.7 U | 3.7 U | 3.7 U | 4.1 U | 5.0 U | 3.9 U | 3.9 U |
| Chloroethane | 0.4 | 2.2 U | 2.2 U | 2.1 U | 2.1 U | 2.1 U | 2.4 U | 2.9 U | 2.2 U | 2.2 U |
| Chloroform | 0.5 | 4.1 U | 4.1 U | 4.0 U | 3.9 U | 3.9 U | 4.4 U | 5.3 U | 4.1 U | 4.2 U |
| Chloromethane | 4.6 | 6.9 U | 6.9 U | 6.7 UJ | 6.6 UJ | 6.6 U | 7.4 U | 9.0 U | 6.9 U | 7.0 U |
| Cryofluorane | 1.3 | 5.9 U | 5.9 U | 5.7 U | 5.6 U | 5.6 U | 6.2 U | 7.6 U | 5.9 U | 5.9 U |
| Cyclohexane | 3 | 2.9 U | 2.9 U | 2.8 U | 2.8 U | 2.8 U | 3.1 U | 3.7 U | 2.9 U | 2.9 U |
| Dibromochloromethane | NE | 7.2 U | 7.2 U | 6.9 U | 6.8 U | 6.8 U | 7.6 U | 9.2 U | 7.2 U | 7.2 U |
| Dibromoethane, 1,2- | 0.25 | 6.4 U | 6.4 U | 6.2 U | 6.2 U | 6.2 U | 6.9 U | 8.3 U | 6.4 U | 6.5 U |
| Dichlorobenzene, 1,2- | 0.9 | 5.0 U | 5.0 U | 4.9 U | 4.8 U | 4.8 U | 5.4 U | 6.5 U | 5.0 U | 5.1 U |
| Dichlorobenzene, 1,3- | 0.7 | 5.0 U | 5.0 U | 4.9 U | 4.8 U | 4.8 U | 5.4 U | 6.5 U | 5.0 U | 5.1 U |
| Dichlorobenzene, 1,4- | 0.8 | 5.0 U | 5.0 U | 4.9 U | 4.8 U | 4.8 U | 5.4 U | 6.5 U | 5.0 U | 5.1 U |
| Dichlorodifluoromethane | 11 | 4.2 U | 4.2 U | 4.0 U | 4.0 U | 4.0 U | 4.4 U | 5.4 U | 4.2 U | 4.2 U |
| Dichloroethane, 1,1- | 0.25 | 3.4 U | 3.4 U | 3.3 U | 3.2 U | 3.2 U | 3.6 U | 4.4 U | 3.4 U | 3.4 U |
| Dichloroethane, 1,2- | 0.25 | 3.4 U | 3.4 U | 3.3 U | 3.2 U | 3.2 U | 3.6 U | 4.4 U | 3.4 U | 3.4 U |
| Dichloroethene, 1,1- | 0.25 | 3.3 U | 3.3 U | 3.2 U | 3.2 U | 3.2 U | 3.5 U | 4.3 U | 3.3 U | 3.4 U |
| Dichloroethene, cis-1,2- | 0.25 | 3.3 U | 3.3 U | 3.2 U | 3.2 U | 3.2 U | 3.5 U | 4.3 U | 3.3 U | 3.4 U |
| Dichloropropane, 1,2- | 0.25 | 3.9 U | 3.9 U | 3.7 U | 3.7 U | 3.7 U | 4.1 U | 5.0 U | 3.9 U | 3.9 U |
| Dichloropropene, cis-1,3 | 0.25 | 3.8 U | 3.8 U | 3.7 U | 3.6 U | 3.6 U | 4.1 U | 4.9 U | 3.8 U | 3.8 U |
| Dichloropropene, trans-1,3 | 0.25 | 3.8 U | 3.8 U | 3.7 U | 3.6 U | 3.6 U | 4.1 U | 4.9 U | 3.8 U | 3.8 U |
| Dioxane, 1,4- | NE | 12 U | 12 U | 12 U | 12 U | 12 U | 13 U | 16 U | 12 U | 12 U |
| Ethanol | 220 | **13** | **7.8** | **9.4** | **11** | **11** | **12** | 8.2 U | **99** | **18** |
| Ethyltoluene, p- | NE | 4.1 U | 4.1 U | **7.7** | 4.0 U | 4.0 U | 4.4 U | 5.3 U | 4.1 U | 4.2 U |
| Heptane, n- | 5.1 | 3.4 U | 3.4 U | 3.3 U | 3.3 U | 3.3 U | 3.7 U | 4.4 U | 3.4 U | 3.5 U |
| Hexachlorobutadiene | 7 | 36 U | 36 U | 34 U | 34 U | 34 U | 38 U | 46 U | 36 U | 36 U |
| Hexane, n- | 3.6 | 3.0 U | 3.0 U | 2.8 U | 2.8 U | 2.8 U | 3.2 U | 3.8 U | 3.0 U | 3.0 U |
| Hexanone, 2- | NE | 14 U | 14 U | 13 U | 13 U | 13 U | 15 U | 18 U | 14 U | 14 U |
| Isopropyl benzene | 0.4 | 4.1 U | 4.1 U | 4.0 U | 4.0 U | 4.0 U | 4.4 U | 5.3 U | 4.1 U | 4.2 U |
| Methyl tert-butyl ether | 5.9 | 3.0 U | 3.0 U | 2.9 U | 2.9 U | 2.9 U | 3.2 U | 3.9 U | 3.0 U | 3.1 U |
| Methyl-2-pentanone, 4- | 2.9 | 3.4 U | 3.4 U | 3.3 U | 3.3 U | 3.3 U | 3.7 U | 4.4 U | 3.4 U | 3.5 U |
| Methylene chloride | 2.9 | 2.9 U | 2.9 U | 2.8 U | 2.8 U | 2.8 U | 3.1 U | 3.8 U | 2.9 U | 3.0 U |
| Naphthalene | NE | 18 U | 18 U | 17 U | 17 U | 17 U | 19 U | 23 U | 18 U | 18 U |
| Propanol, 2- | NE | 8.2 U | 8.2 U | 8.0 U | 7.9 U | 7.9 U | 8.8 U | 11 U | 8.2 U | 8.4 U |
| Propylbenzene, n- | 0.5 | 4.1 U | 4.1 U | 4.0 U | 4.0 U | 4.0 U | 4.4 U | 5.3 U | 4.1 U | 4.2 U |
| Styrene | 0.6 | 3.6 U | 3.6 U | 3.4 U | 3.4 U | 3.4 U | 3.8 U | 4.6 U | 3.6 U | 3.6 U |
| Tetrachloroethane,1,1,2,2- | 0.25 | 5.8 U | 5.8 U | 5.6 U | 5.5 U | 5.5 U | 6.1 U | 7.4 U | 5.8 U | 5.8 U |
| Tetrachloroethene | 1.6 | 5.7 U | 5.7 U | 5.5 U | 5.5 U | 5.5 U | 6.1 U | 7.4 U | 5.7 U | 5.8 U |
| Tetrahydrofuran | 0.4 | 2.5 U | 2.5 U | 2.4 U | 2.4 U | 2.4 U | 2.6 U | 3.2 U | 2.5 U | 2.5 U |
| Trans-1,2-dichloroethene | NE | 3.3 U | 3.3 U | 3.2 U | 3.2 U | 3.2 U | 3.5 U | 4.3 U | 3.3 U | 3.4 U |
| Trichloro-1,2,2-trifluoroethane, 1,1,2- | 3.6 | 6.4 U | 6.4 U | 6.2 U | 6.2 U | 6.2 U | 6.8 U | 8.3 U | 6.4 U | 6.5 U |
| Trichlorobenzene, 1,2,4- | 4.8 | 25 U | 25 U | 24 U | 24 U | 24 U | 26 U | 32 U | 25 U | 25 U |
| Trichloroethane, 1,1,1- | 0.7 | 4.6 U | 4.6 U | 4.4 U | 4.4 U | 4.4 U | 4.9 U | 5.9 U | 4.6 U | 4.6 U |
| Trichloroethane, 1,1,2- | 0.25 | 4.6 U | 4.6 U | 4.4 U | 4.4 U | 4.4 U | 4.9 U | 5.9 U | 4.6 U | 4.6 U |
| Trichloroethene | 0.5 | 4.5 U | 4.5 U | 4.4 U | 4.3 U | 4.3 U | 4.8 U | 5.8 U | 4.5 U | 4.6 U |
| Trichlorofluoromethane | 6.1 | 4.7 U | 4.7 U | 4.6 U | 4.5 U | 4.5 U | 5.0 U | 6.1 U | 4.7 U | 4.8 U |
| Trimethylbenzene, 1,2,4- | 2.5 | 4.1 U | 4.1 U | 4.0 U | 4.0 U | 4.0 U | 4.4 U | 5.3 U | 4.1 U | 4.2 U |
| Trimethylbenzene, 1,3,5- | 1 | 4.1 U | 4.1 U | 4.0 U | 4.0 U | 4.0 U | 4.4 U | 5.3 U | 4.1 U | 4.2 U |

Table 1
Analytical Ambient Air Results
OU-1 Phase IV CAMP Summary Report
Bay Shore/Brightwaters Former MGP Site

**Notes:**

ug/$m^3$ - micrograms per cubic meter
BTEX - benzene, toluene, ethylbenzene, and xylenes
VOCs - volatile organic compounds

[1] Source: NYSDOH, October 2006. Summary of Indoor and Outdoor Levels of Volatile Organic Compounds from Fuel Oil Heated Homes reported in various locations within sampled homes in NYS, 1997-2003. Background values for naphthalene are from the NYSDOH 1997 Control Home Database presented in Table C3 of the NYSDOH 2006 Guidance.

NE - not established

Bolding and shading indicates a detected result concentration

**Validation Qualifiers:**

J - estimated value
U - indicates not detected to the reporting limit for organic analysis and the method detection limit for inorganic analysis
UJ - not detected at or above the reporting limit shown and the reporting limit is estimated

# Figures

# Plates

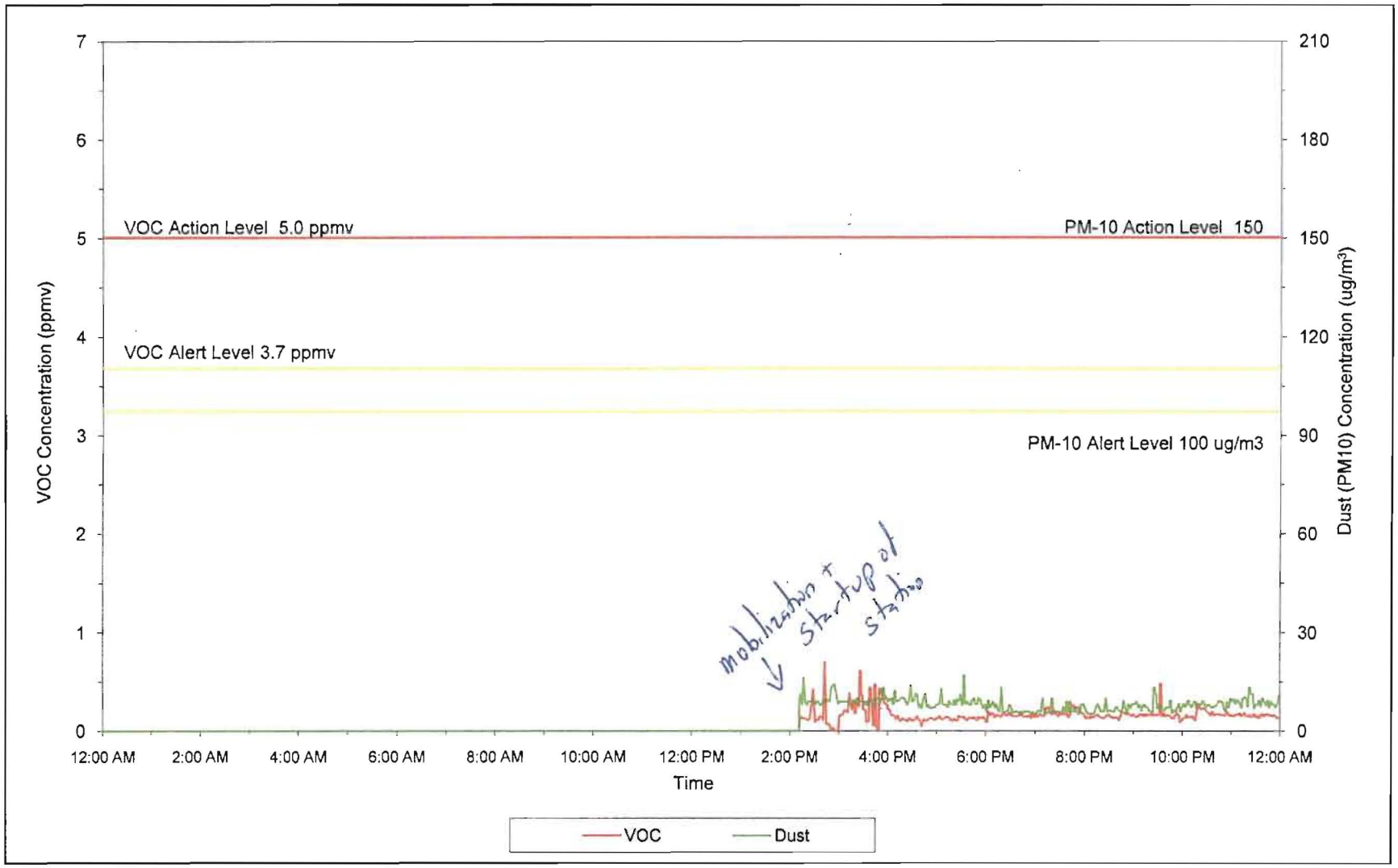
# Appendix A

## Real-Time Fixed Station Monitoring Data (Electronic)

**Feb 22,2010**

Community Air Monitoring
Bay Shore Former MGP Site
OU-1 Remedial Action Plan-Phase IV
Bay Shore, NY
National Grid

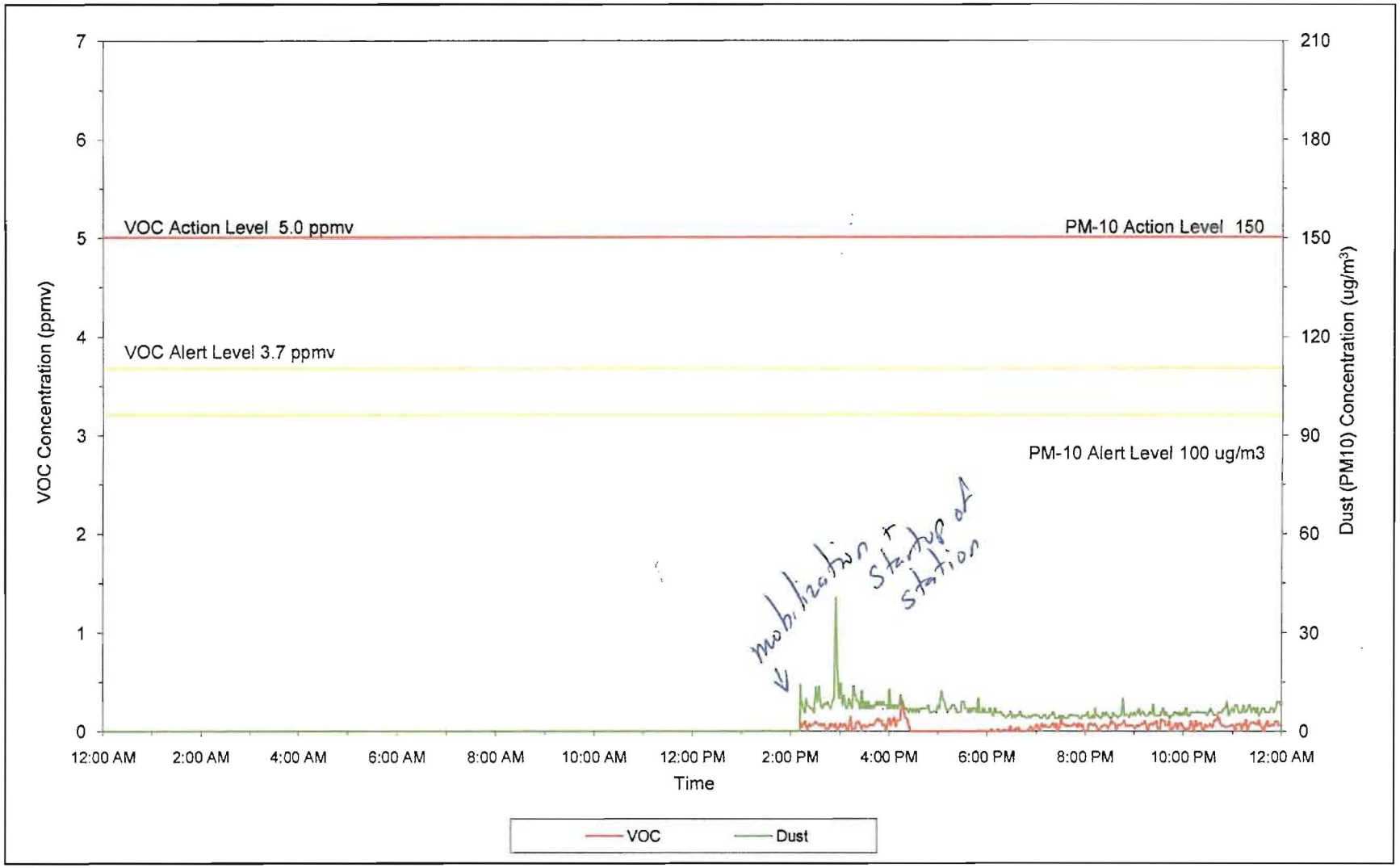
Station 1 - (AMS-1)




C:\XLRproject\Reports\Station1Feb10.xls

**Feb 22,2010**

Community Air Monitoring
Bay Shore Former MGP Site
OU-1 Remedial Action Plan-Phase IV
Bay Shore, NY
National Grid
Station 2 - (AMS-2)




C:\XLRproject\Reports\Station2Feb10.xls

**Feb 22,2010**

Community Air Monitoring
Bay Shore Former MGP Site
OU-1 Remedial Action Plan-Phase IV
Bay Shore, NY
National Grid
Station 3 - (AMS-3)

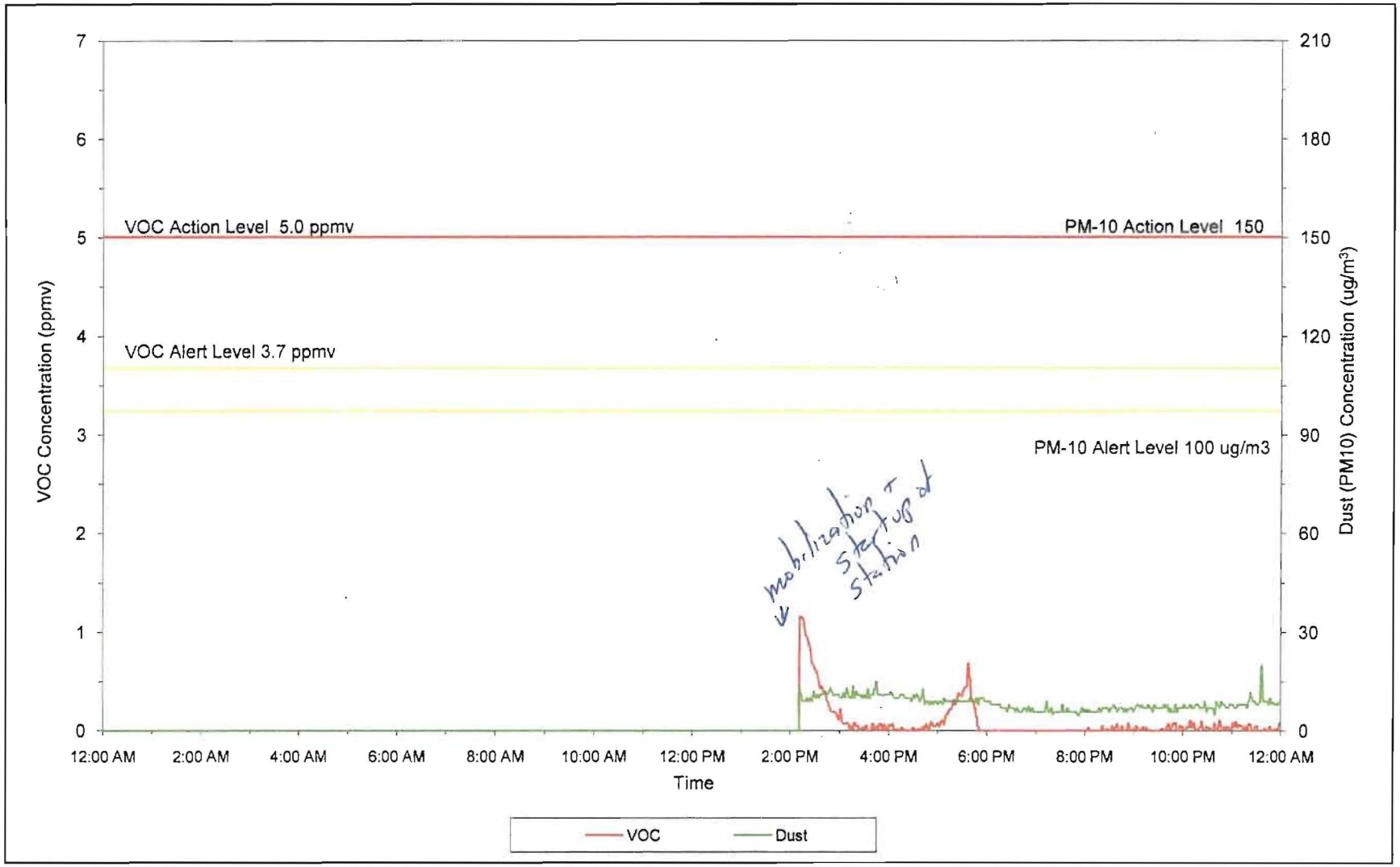



C:\XLRproject\Reports\Station3Feb10.xls

**Feb 22,2010**

Community Air Monitoring
Bay Shore Former MGP Site
OU-1 Remedial Action Plan-Phase IV
Bay Shore, NY
National Grid

Station 4 - (AMS-4)

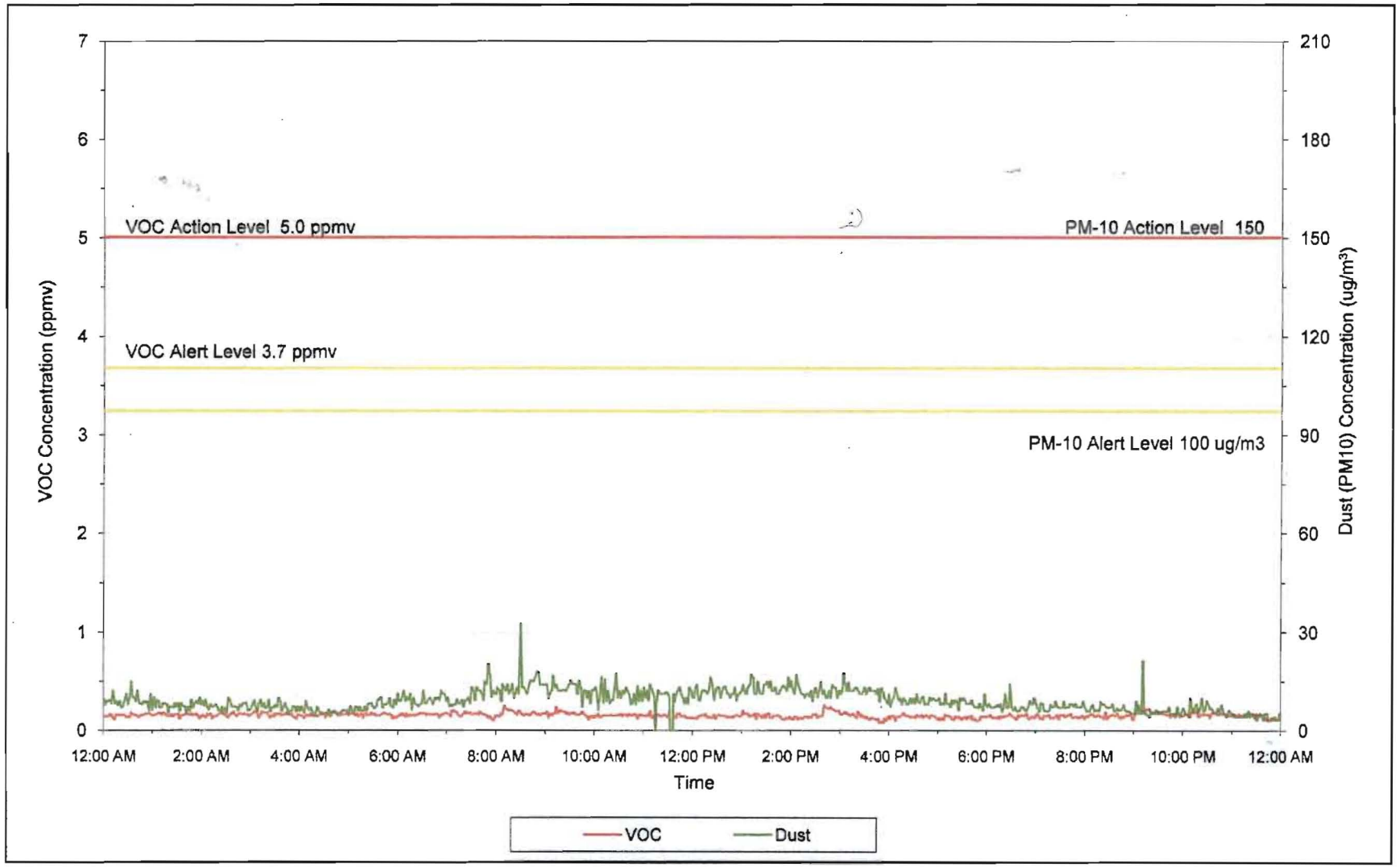



C:\XLRproject\Reports\Station4Feb10.xls

**Feb 23,2010**

Community Air Monitoring
Bay Shore Former MGP Site
OU-1 Remedial Action Plan-Phase IV
Bay Shore, NY
National Grid

Station 1 - (AMS-1)

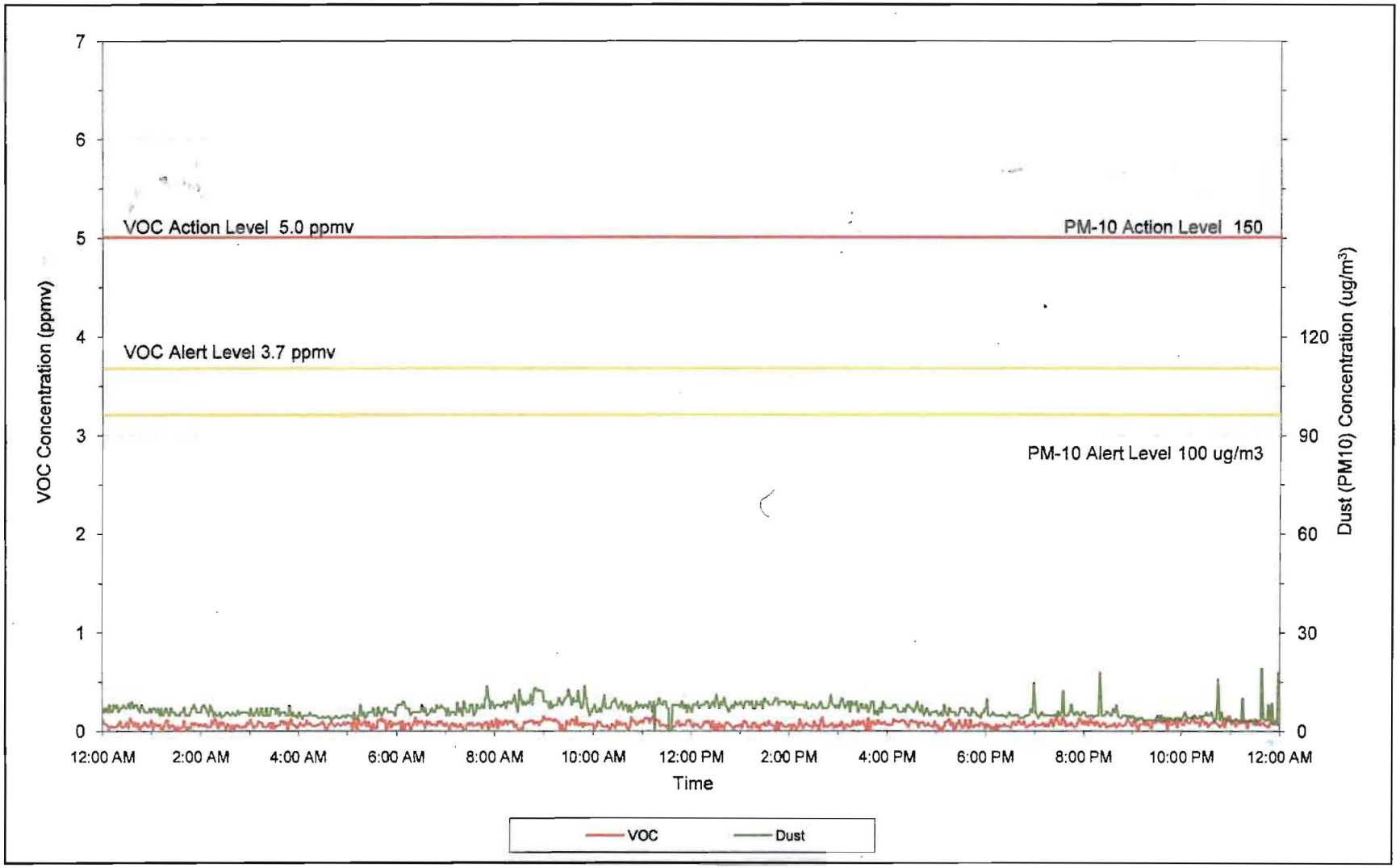



C:\XLRproject\Reports\Station1Feb10.xls

**Feb 23,2010**

Community Air Monitoring
Bay Shore Former MGP Site
OU-1 Remedial Action Plan-Phase IV
Bay Shore, NY
National Grid

Station 2 (AMS 2)

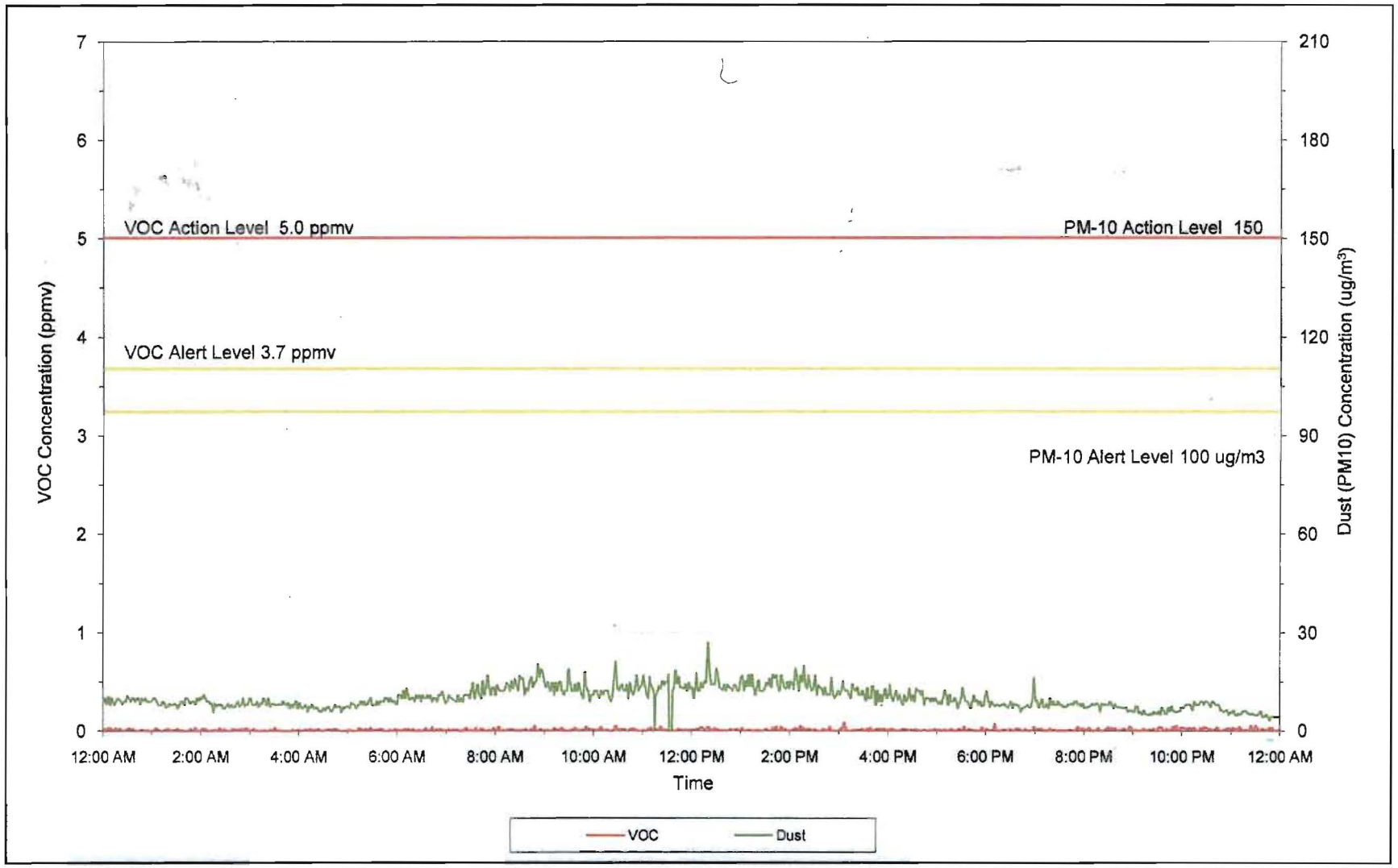



C:\XLRproject\Reports\Station2Feb10.xls

**Feb 23,2010**

Community Air Monitoring
Bay Shore Former MGP Site
OU-1 Remedial Action Plan-Phase IV
Bay Shore, NY
National Grid

Station 3 - (AMS-3)

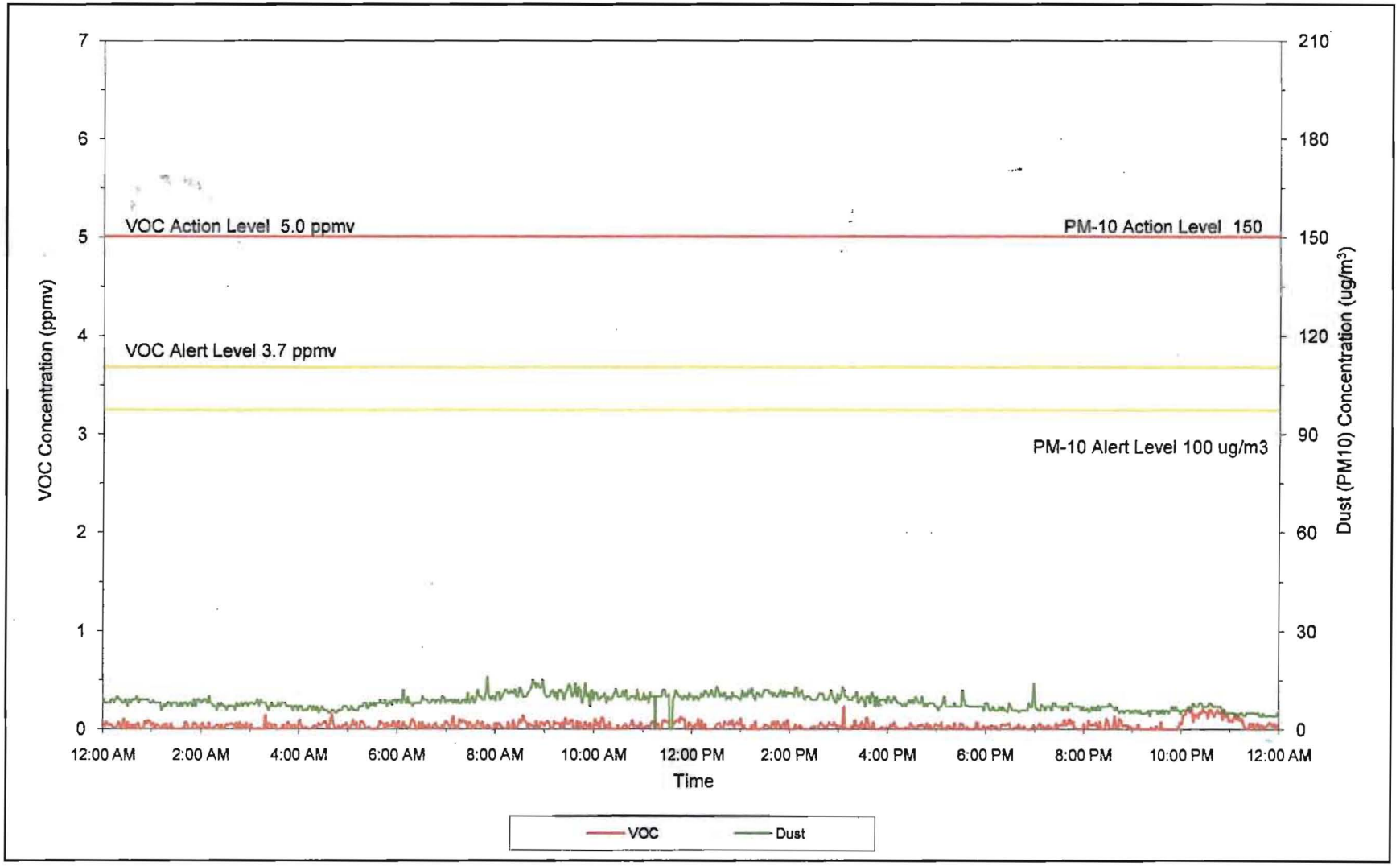



C:\XLRproject\Reports\Station3Feb10.xls

Feb 23,2010

Community Air Monitoring
Bay Shore Former MGP Site
OU-1 Remedial Action Plan-Phase IV
Bay Shore, NY
National Grid

Station 4 - (AMS-4)

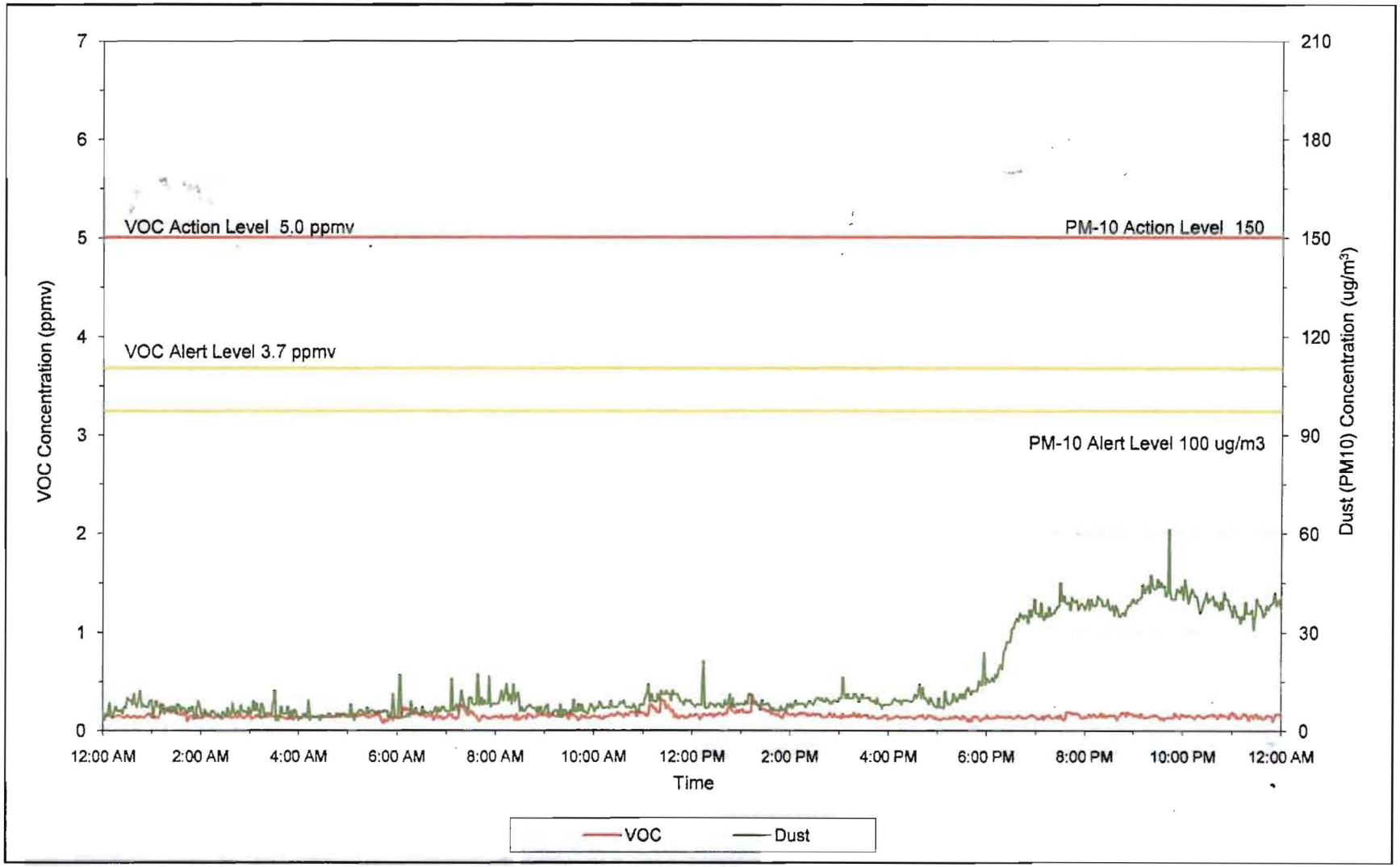



C:\XLRproject\Reports\Station4Feb10.xls

Feb 24,2010

Community Air Monitoring
Bay Shore Former MGP Site
OU-1 Remedial Action Plan-Phase IV
Bay Shore, NY
National Grid

Station 1 - (AMS-1)

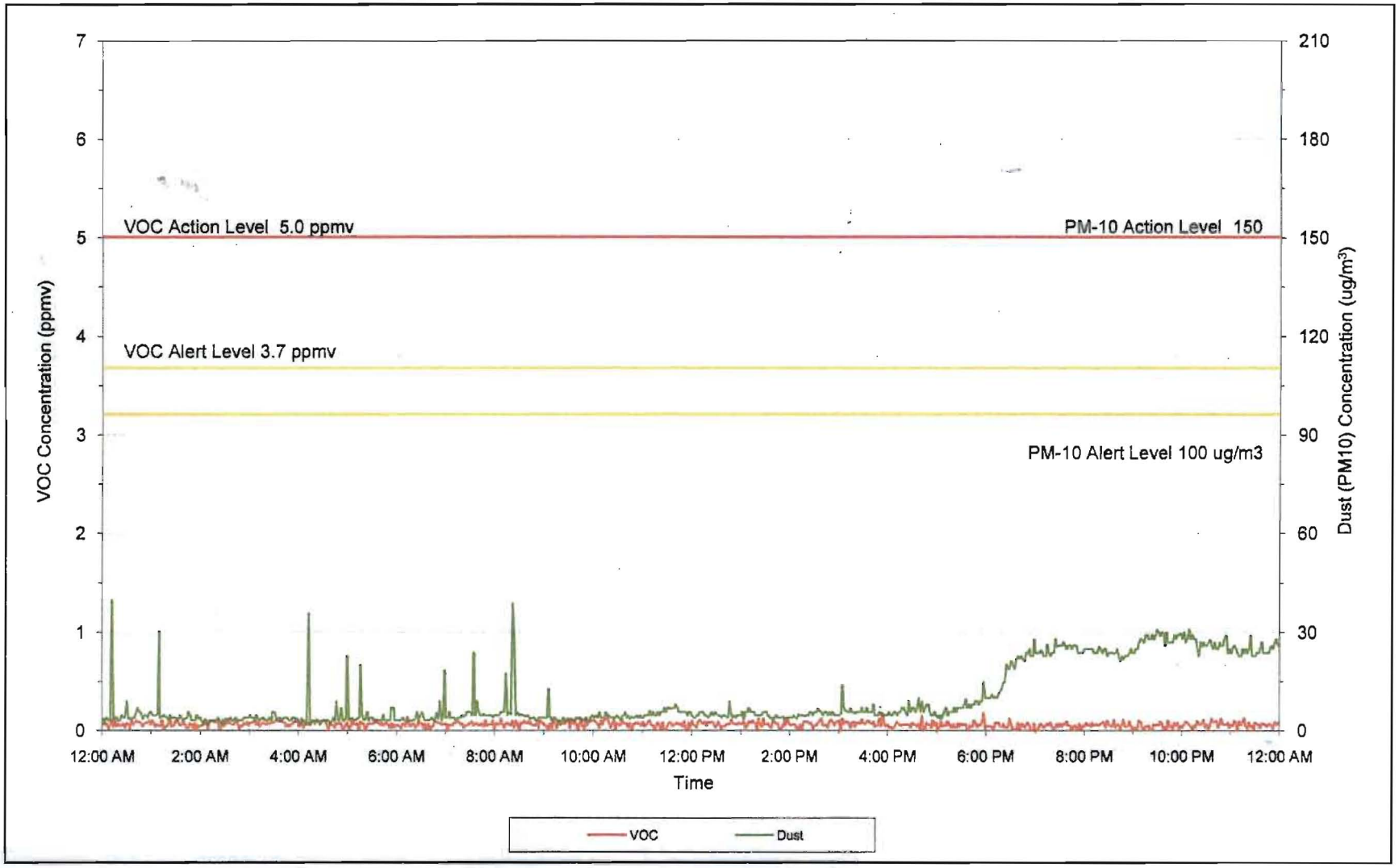



C:\XLRproject\Reports\Station1Feb10.xls

Feb 24,2010

Community Air Monitoring
Bay Shore Former MGP Site
OU-1 Remedial Action Plan-Phase IV
Bay Shore, NY
National Grid

Station 2 - (AMS-2)

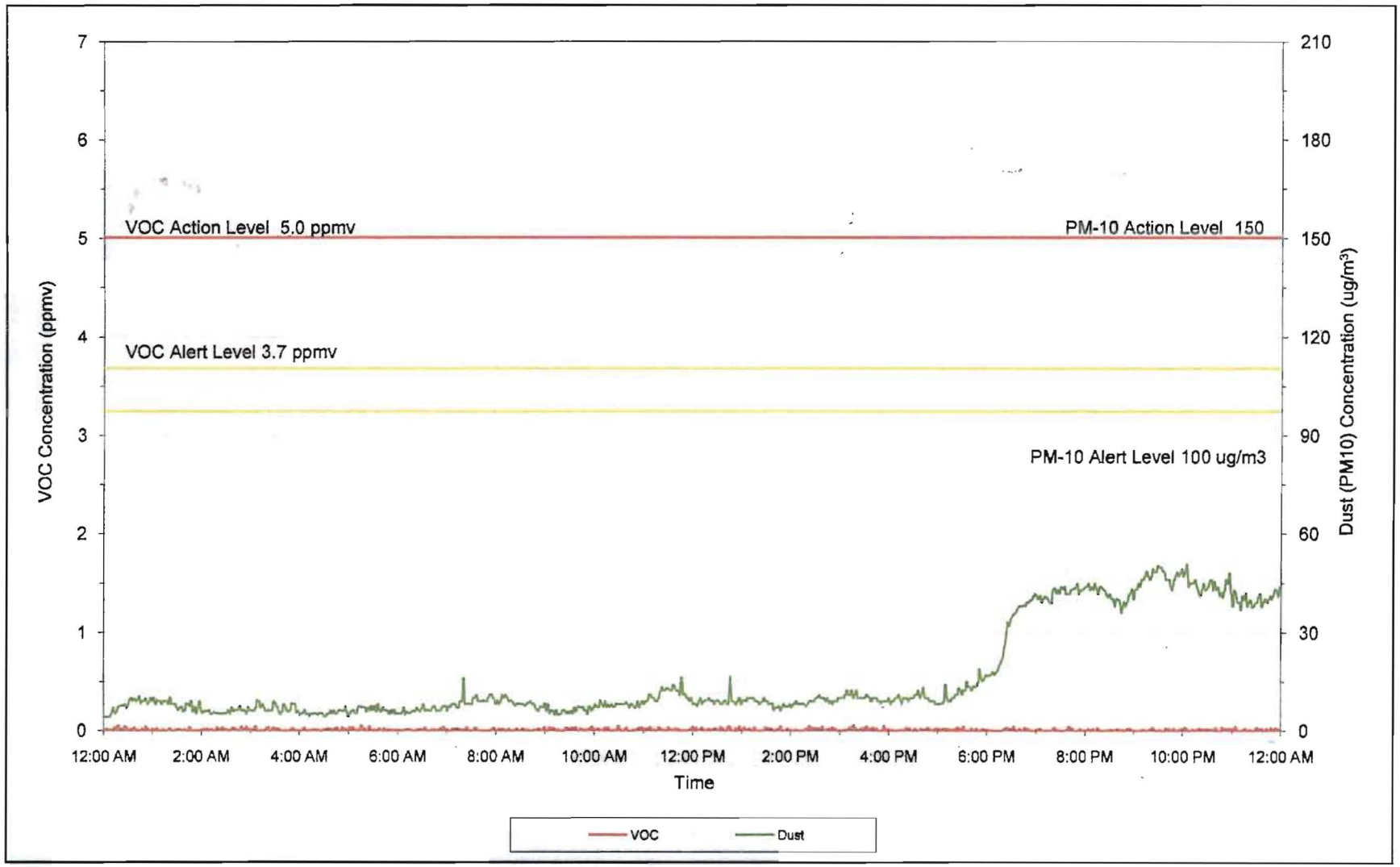



C:\XLRproject\Reports\Station2Feb10.xls

Feb 24,2010

Community Air Monitoring
Bay Shore Former MGP Site
OU-1 Remedial Action Plan-Phase IV
Bay Shore, NY
National Grid

Station 3 - (AMS-3)

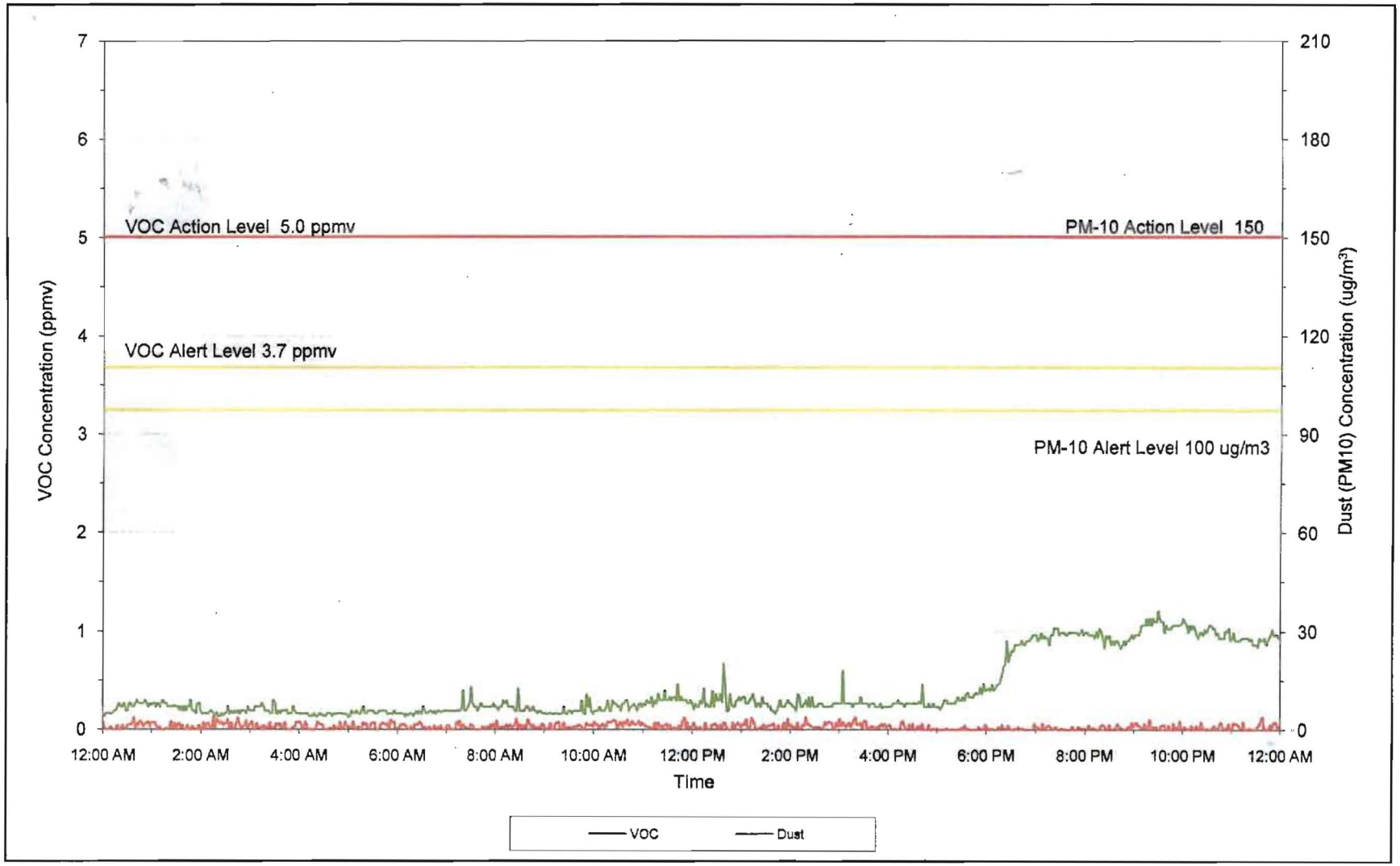



C:\XLRproject\Reports\Station3Feb10.xls

**Feb 24,2010**

Community Air Monitoring
Bay Shore Former MGP Site
OU-1 Remedial Action Plan-Phase IV
Bay Shore, NY
National Grid

Station 4 - (AMS-4)

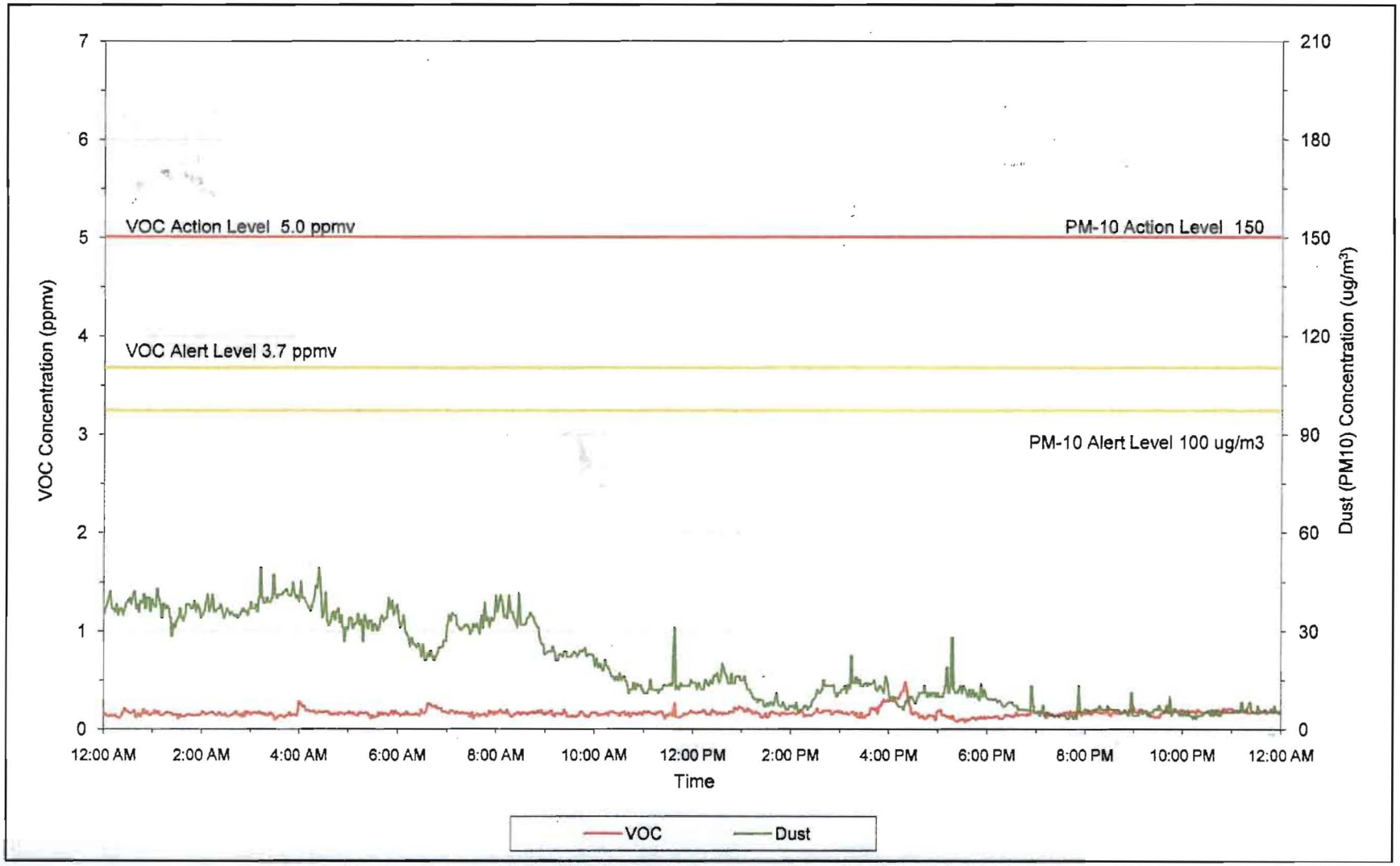



C:\XLRproject\Reports\Station4Feb10.xls

Feb 25,2010

Community Air Monitoring
Bay Shore Former MGP Site
OU-1 Remedial Action Plan-Phase IV
Bay Shore, NY
National Grid

Station 1 - (AMS-1)

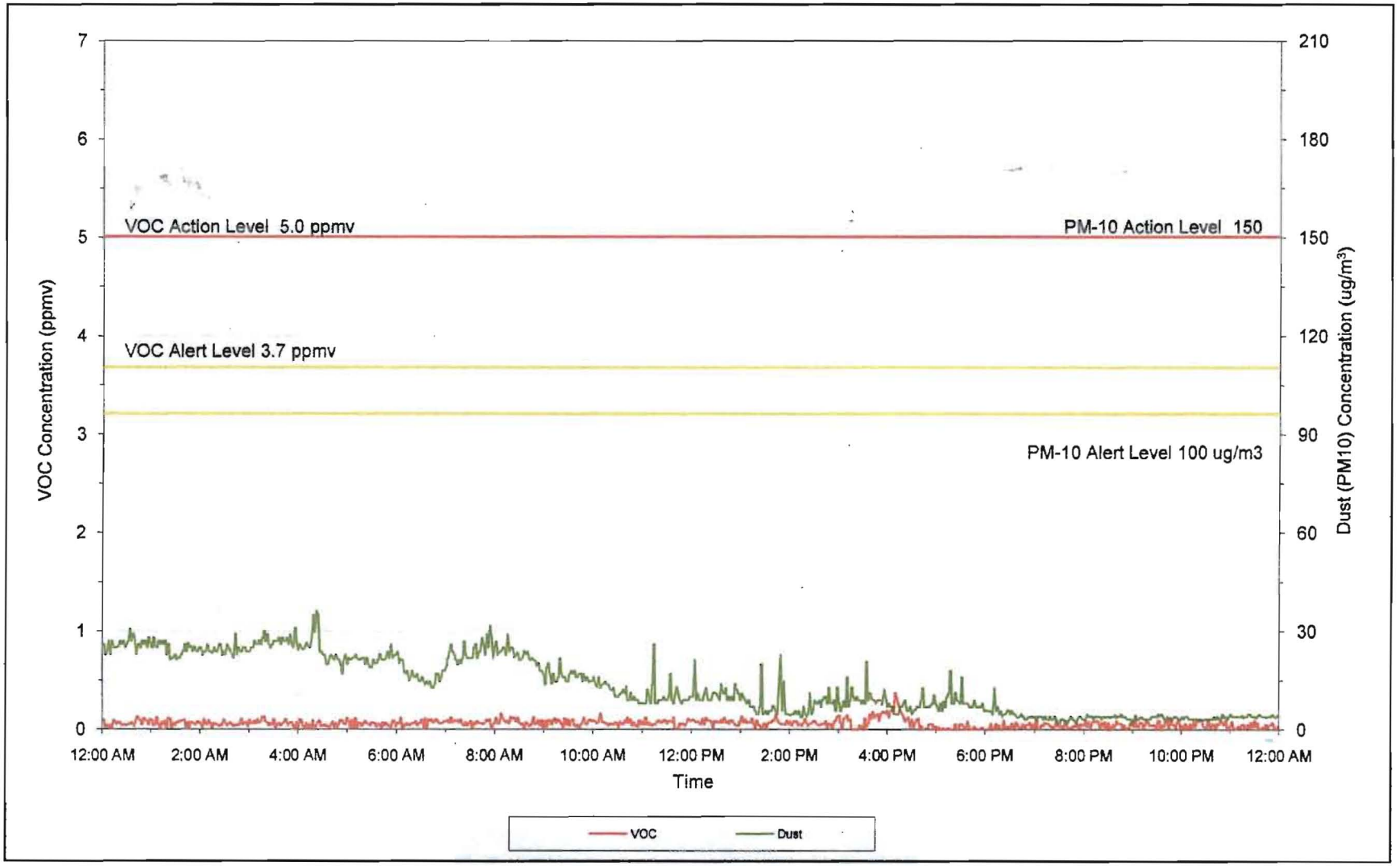



C:\XLRproject\Reports\Station1Feb10.xls

Feb 25,2010

Community Air Monitoring
Bay Shore Former MGP Site
OU-1 Remedial Action Plan-Phase IV
Bay Shore, NY
National Grid

Station 2 - (AMS-2)

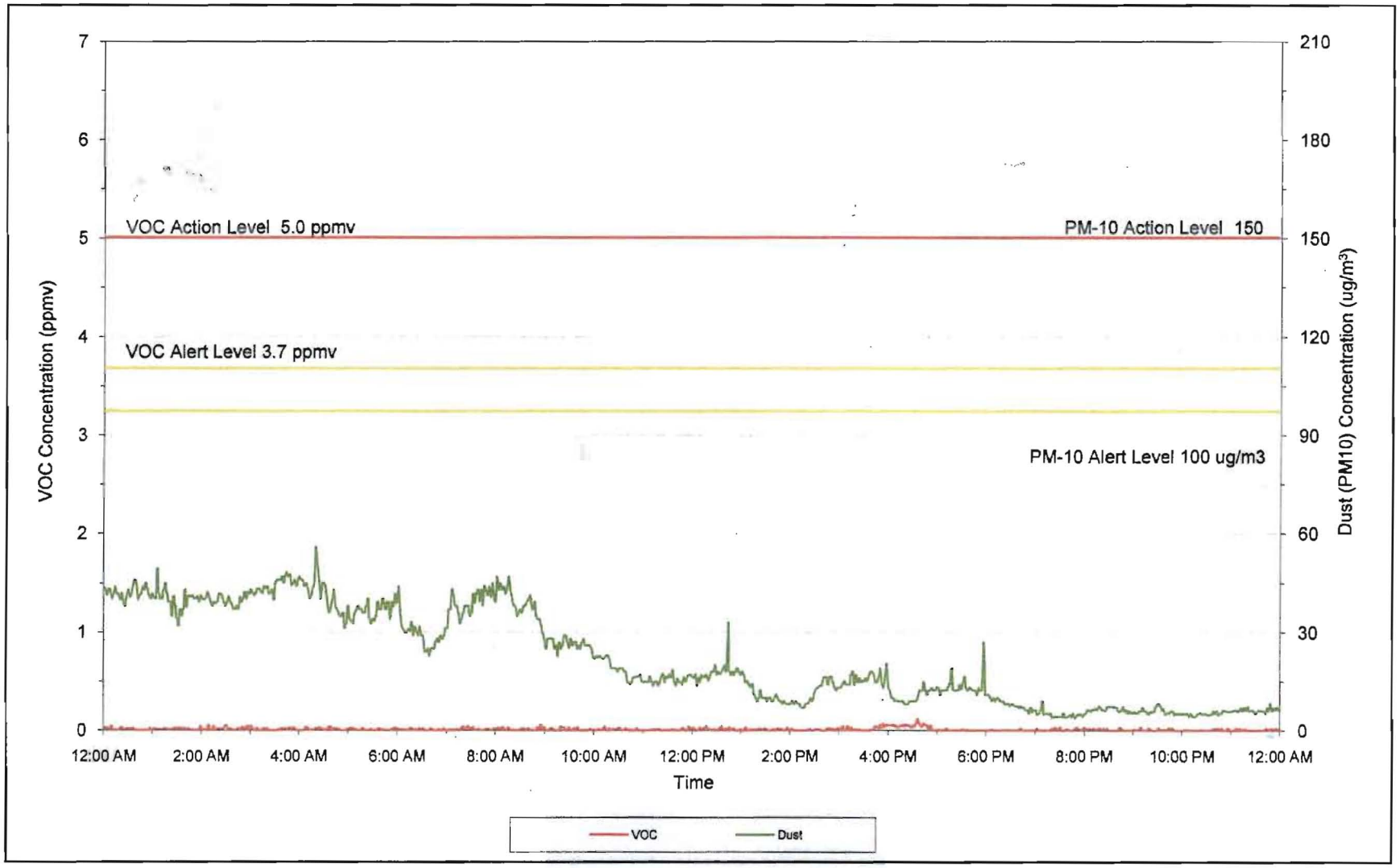



C:\XLRproject\Reports\Station2Feb10.xls

Feb 25,2010

Community Air Monitoring
Bay Shore Former MGP Site
OU-1 Remedial Action Plan-Phase IV
Bay Shore, NY
National Grid

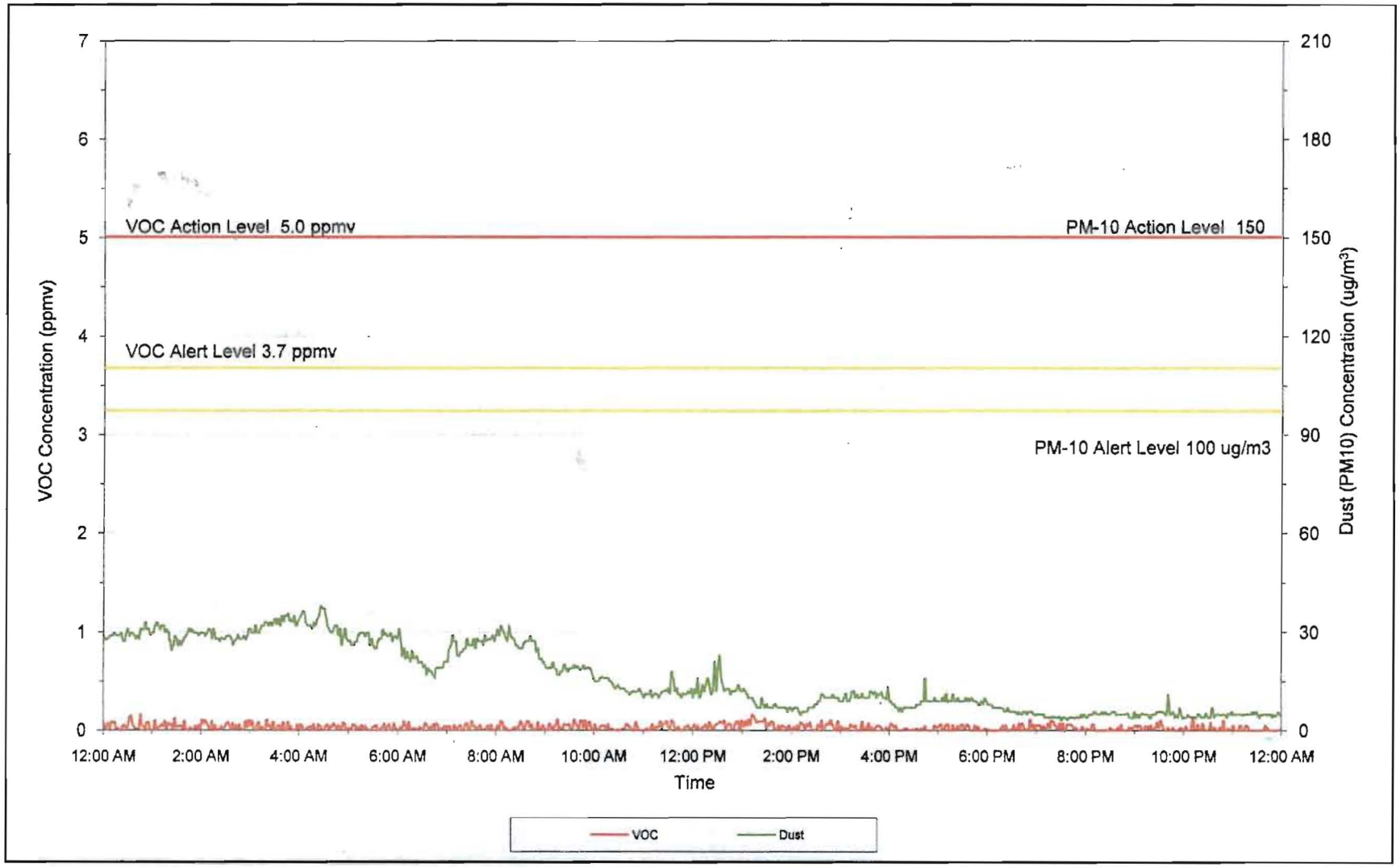
Station 3 - (AMS-3)




C:\XLRproject\Reports\Station3Feb10.xls

**Feb 25,2010**

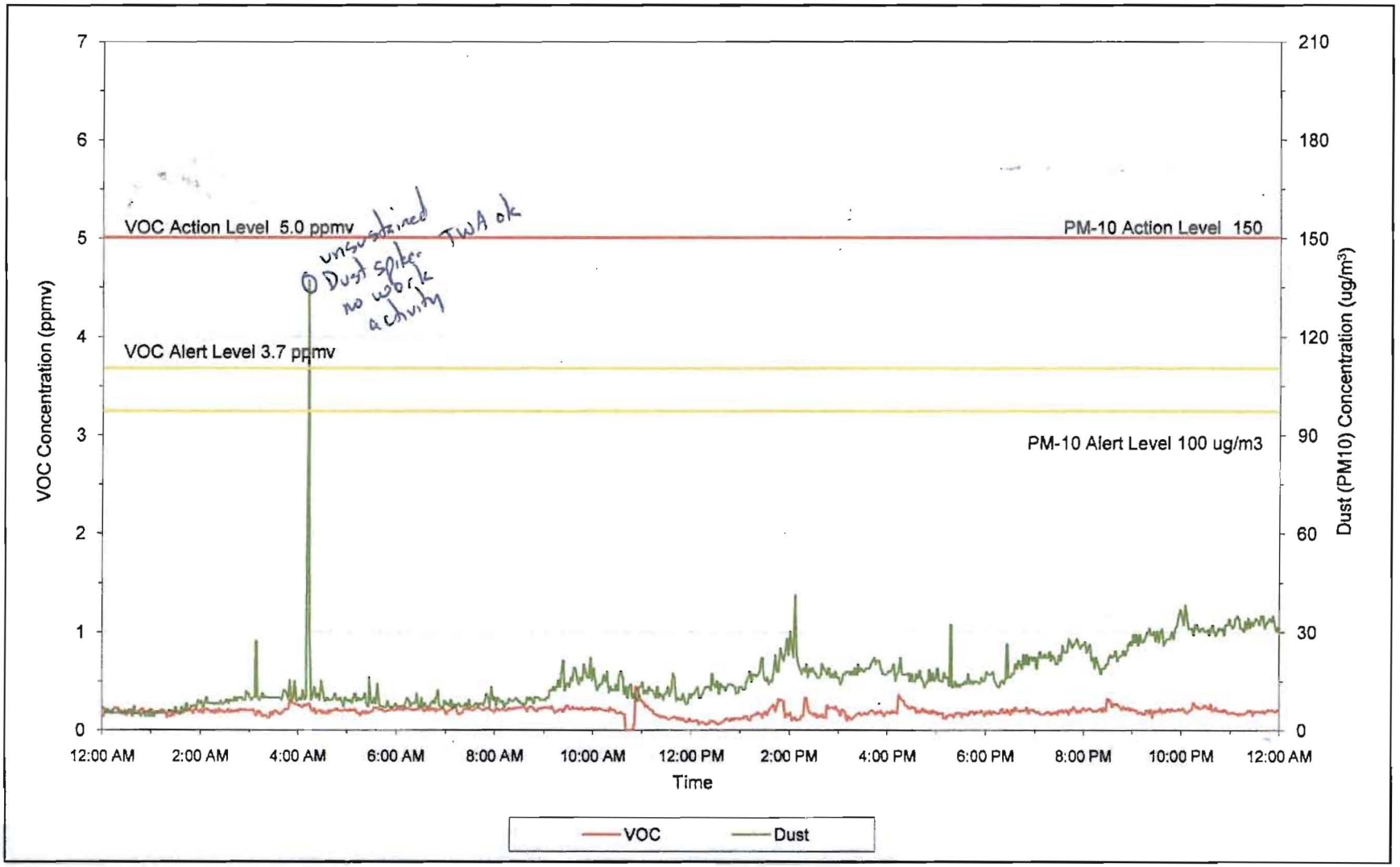
Community Air Monitoring
Bay Shore Former MGP Site
OU-1 Remedial Action Plan-Phase IV
Bay Shore, NY
National Grid
Station 4 - (AMS-4)




C:\XLRproject\Reports\Station4Feb10.xls

**Feb 26,2010**

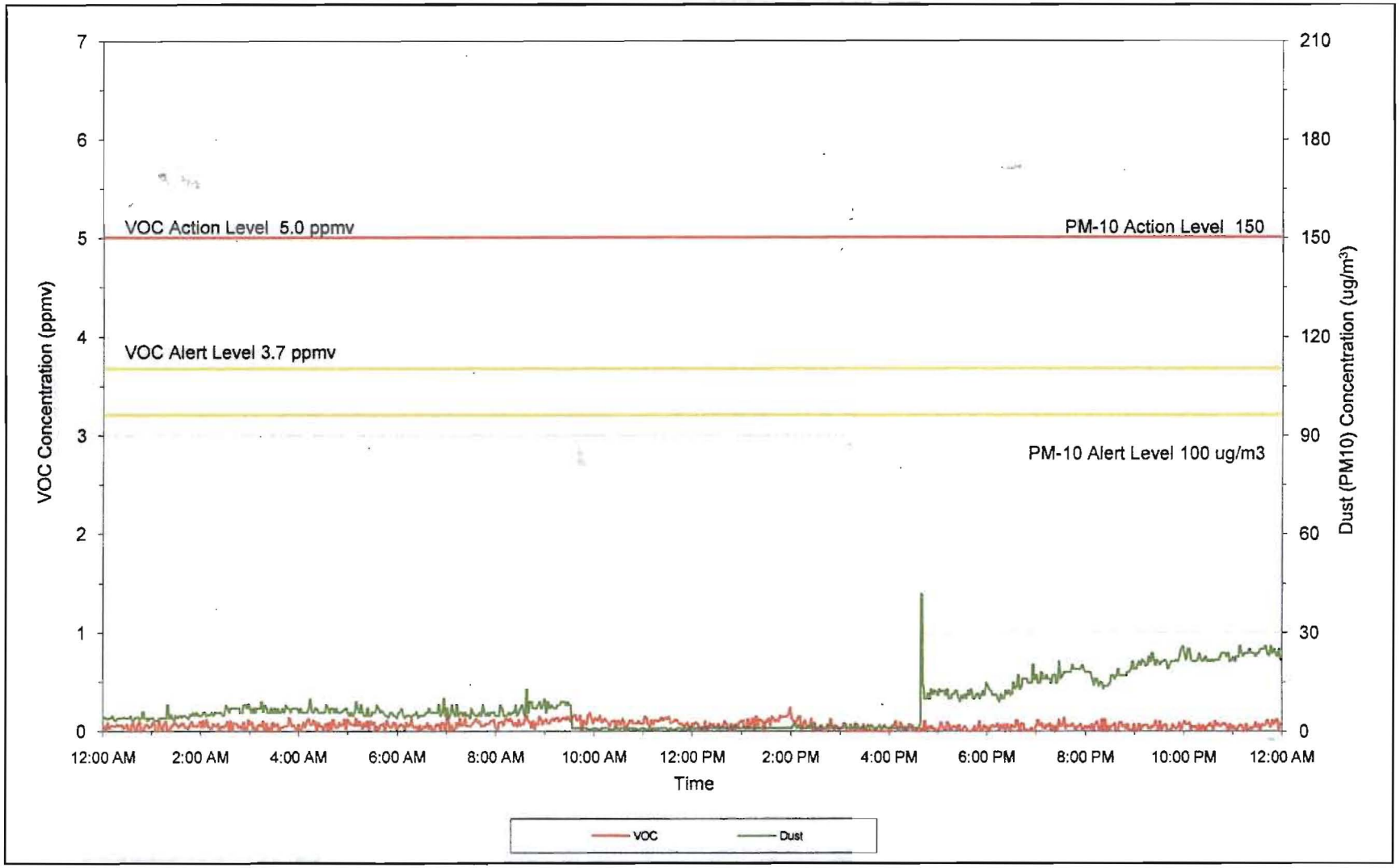
Community Air Monitoring
Bay Shore Former MGP Site
OU-1 Remedial Action Plan-Phase IV
Bay Shore, NY
National Grid
Station 1 - (AMS-1)




C:\XLRproject\Reports\Station1Feb10.xls

Feb 26,2010

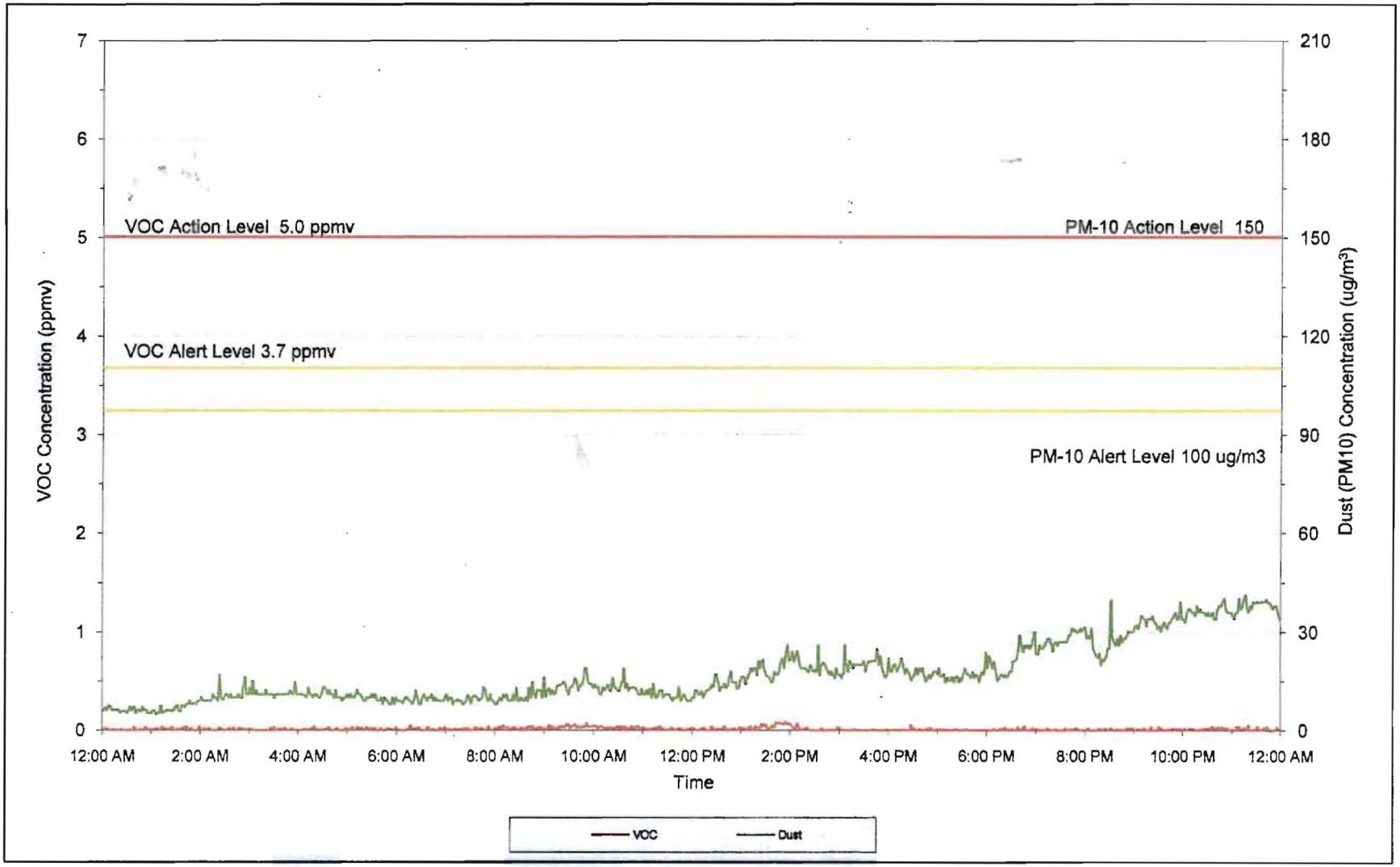
Community Air Monitoring
Bay Shore Former MGP Site
OU-1 Remedial Action Plan-Phase IV
Bay Shore, NY
National Grid
Station 2 - (AMS-2)




C:\XLRproject\Reports\Station2Feb10.xls

Feb 26,2010

# Community Air Monitoring
## Bay Shore Former MGP Site
## OU-1 Remedial Action Plan-Phase IV
## Bay Shore, NY
## National Grid
### Station 3 - (AMS-3)




C:\XLRproject\Reports\Station3Feb10.xls

Feb 26,2010

Community Air Monitoring
Bay Shore Former MGP Site
OU-1 Remedial Action Plan-Phase IV
Bay Shore, NY
National Grid
Station 4 - (AMS-4)

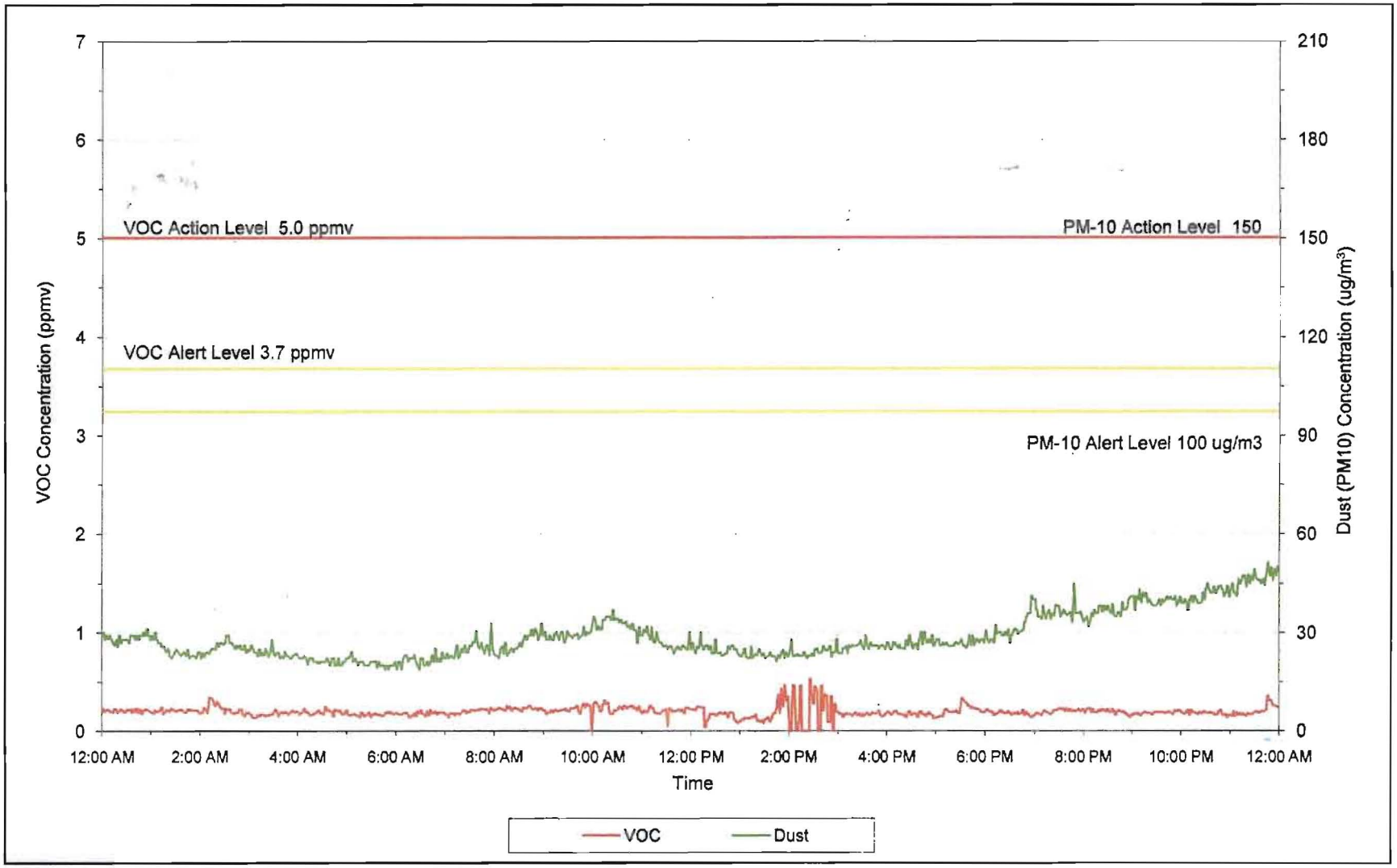



C:\XLRproject\Reports\Station4Feb10.xls

Feb 27,2010

Community Air Monitoring
Bay Shore Former MGP Site
OU-1 Remedial Action Plan-Phase IV
Bay Shore, NY
National Grid

Station 1 - (AMS-1)




C:\XLRproject\Reports\Station1Feb10.xls

Feb 27,2010

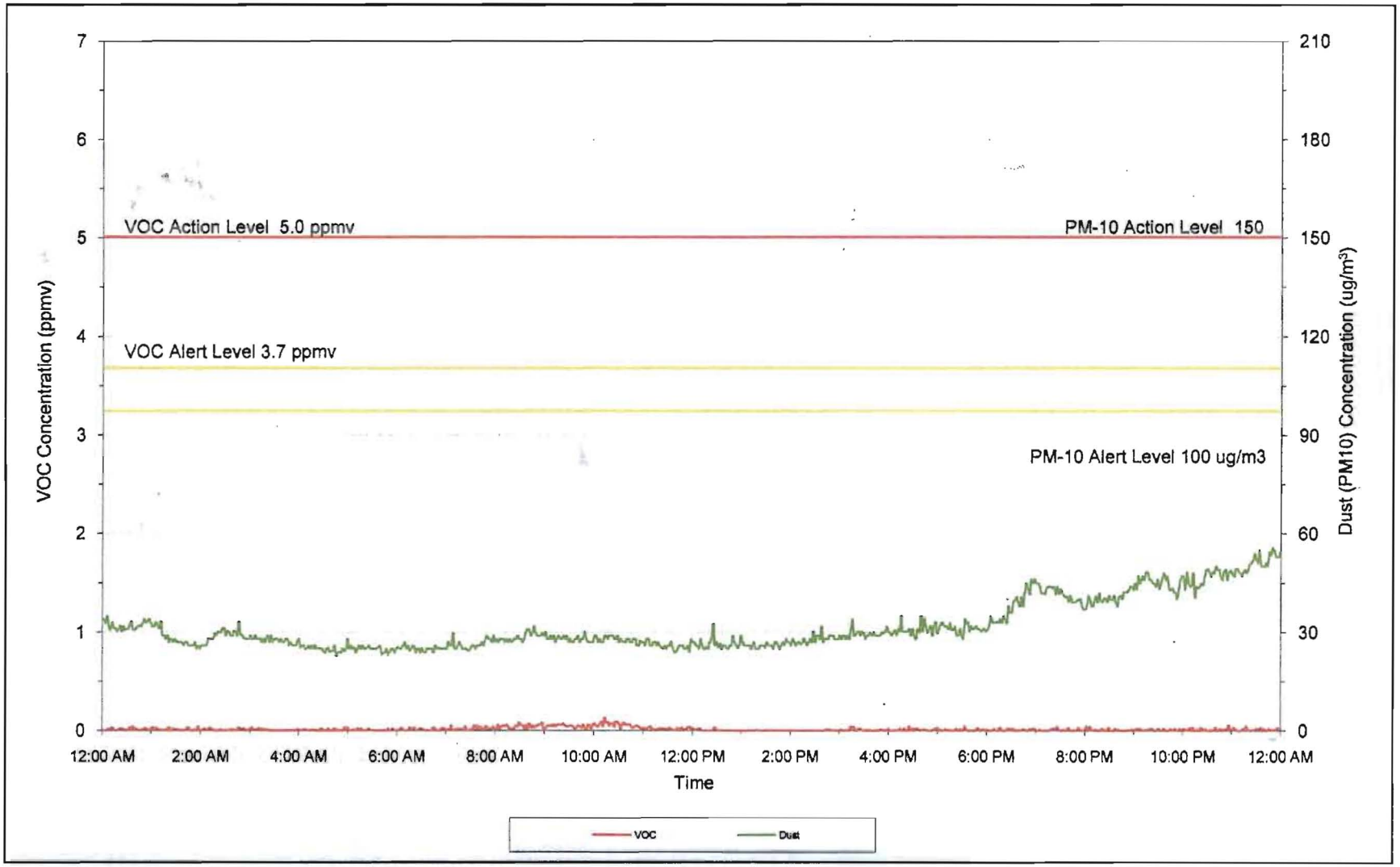
# Community Air Monitoring
## Bay Shore Former MGP Site
## OU-1 Remedial Action Plan-Phase IV
## Bay Shore, NY
## National Grid
### Station 2 - (AMS-2)




C:\XLRproject\Reports\Station2Feb10.xls

Feb 27,2010

Community Air Monitoring
Bay Shore Former MGP Site
OU-1 Remedial Action Plan-Phase IV
Bay Shore, NY
National Grid
Station 3 - (AMS-3)

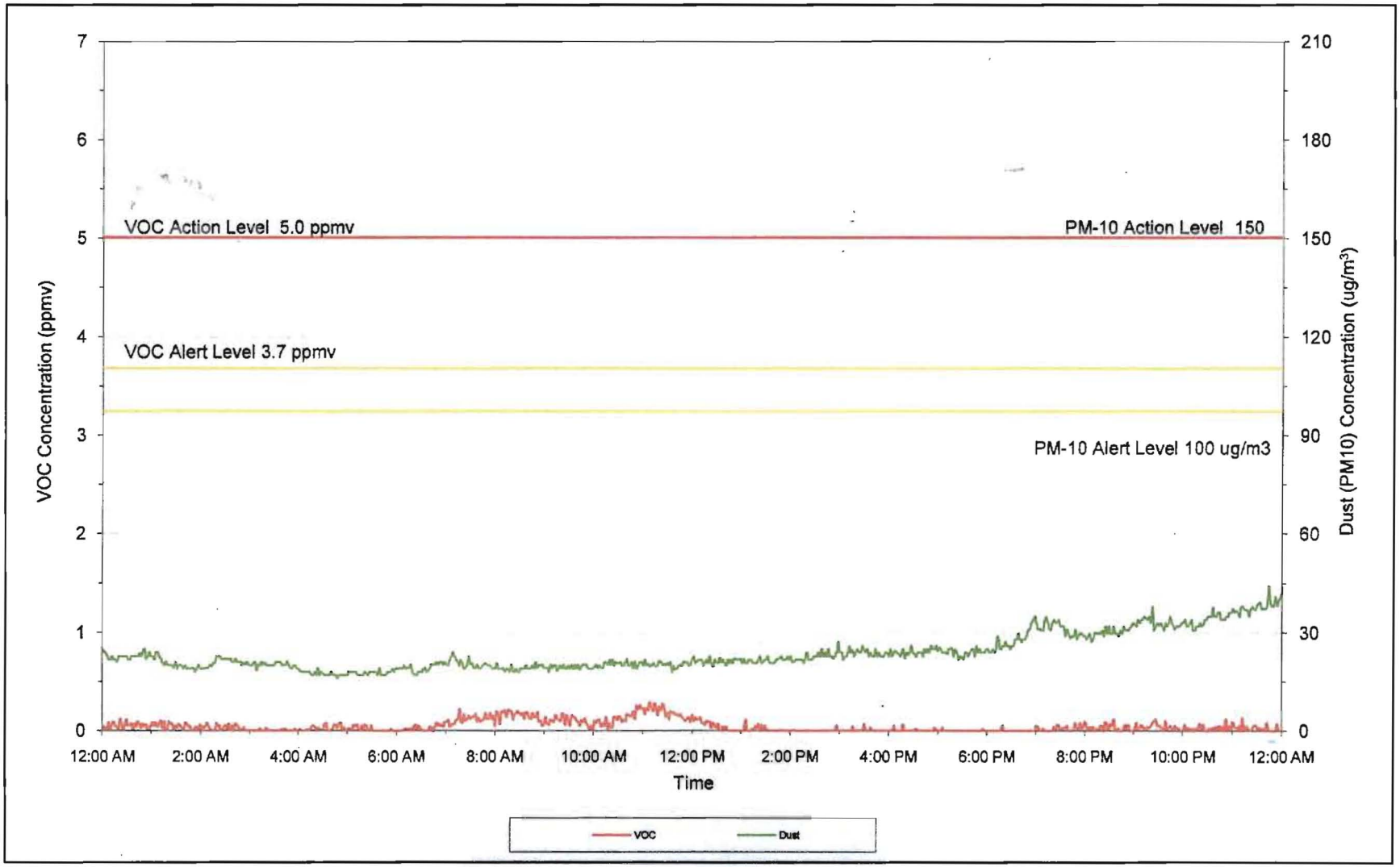



C:\XLRproject\Reports\Station3Feb10.xls

Feb 27,2010

Community Air Monitoring
Bay Shore Former MGP Site
OU-1 Remedial Action Plan-Phase IV
Bay Shore, NY
National Grid

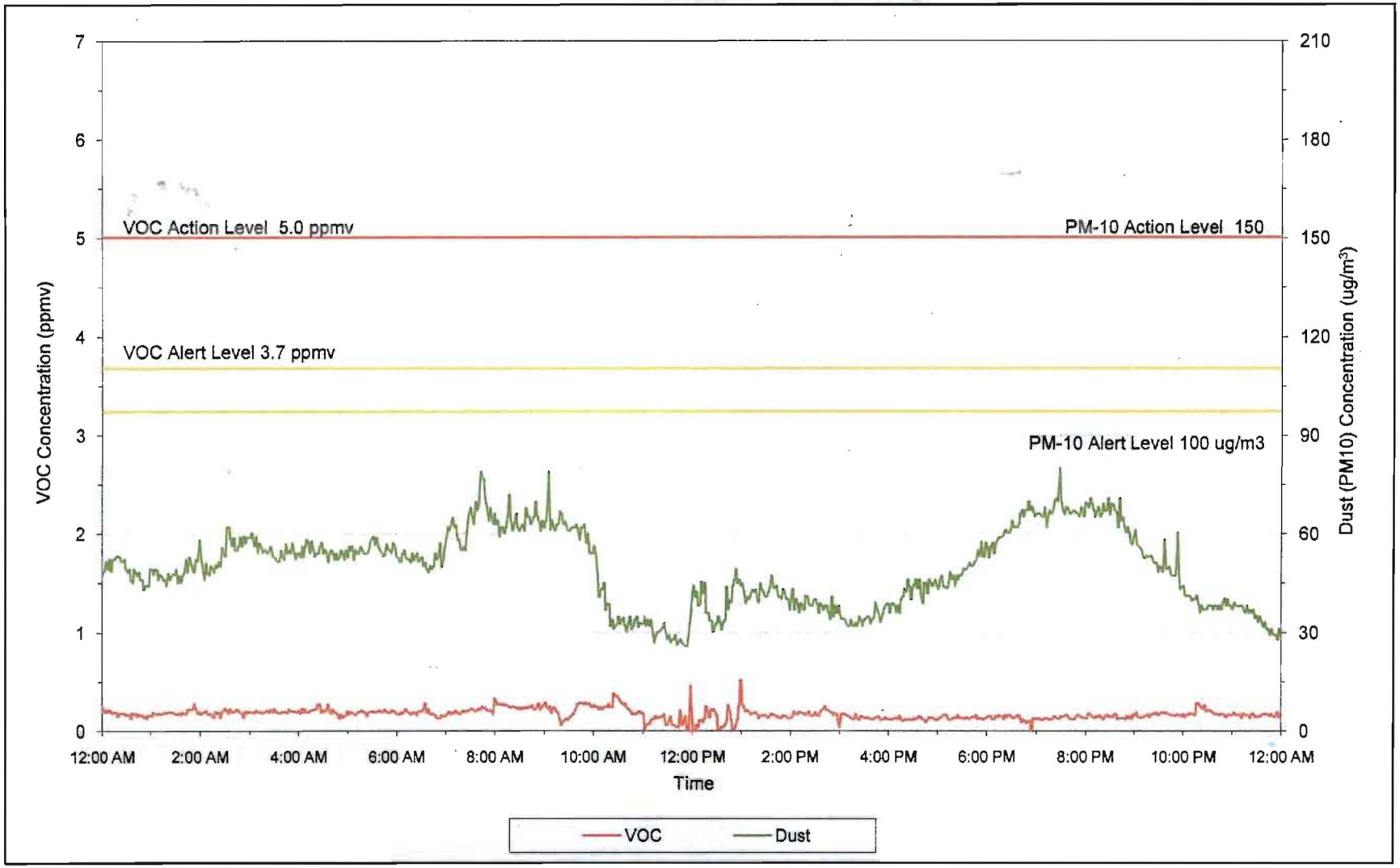
Station 4 - (AMS-4)




C:\XLRproject\Reports\Station4Feb10.xls

Feb 28,2010

Community Air Monitoring
Bay Shore Former MGP Site
OU-1 Remedial Action Plan-Phase IV
Bay Shore, NY
National Grid
Station 1 - (AMS-1)




C:\XLRproject\Reports\Station1Feb10.xls

**Feb 28,2010**

Community Air Monitoring
Bay Shore Former MGP Site
OU-1 Remedial Action Plan-Phase IV
Bay Shore, NY
National Grid

Station 2 - (AMS-2)




C:\XLRproject\Reports\Station2Feb10.xls

Feb 28,2010

# Community Air Monitoring
## Bay Shore Former MGP Site
## OU-1 Remedial Action Plan-Phase IV
## Bay Shore, NY
## National Grid
### Station 3 - (AMS-3)

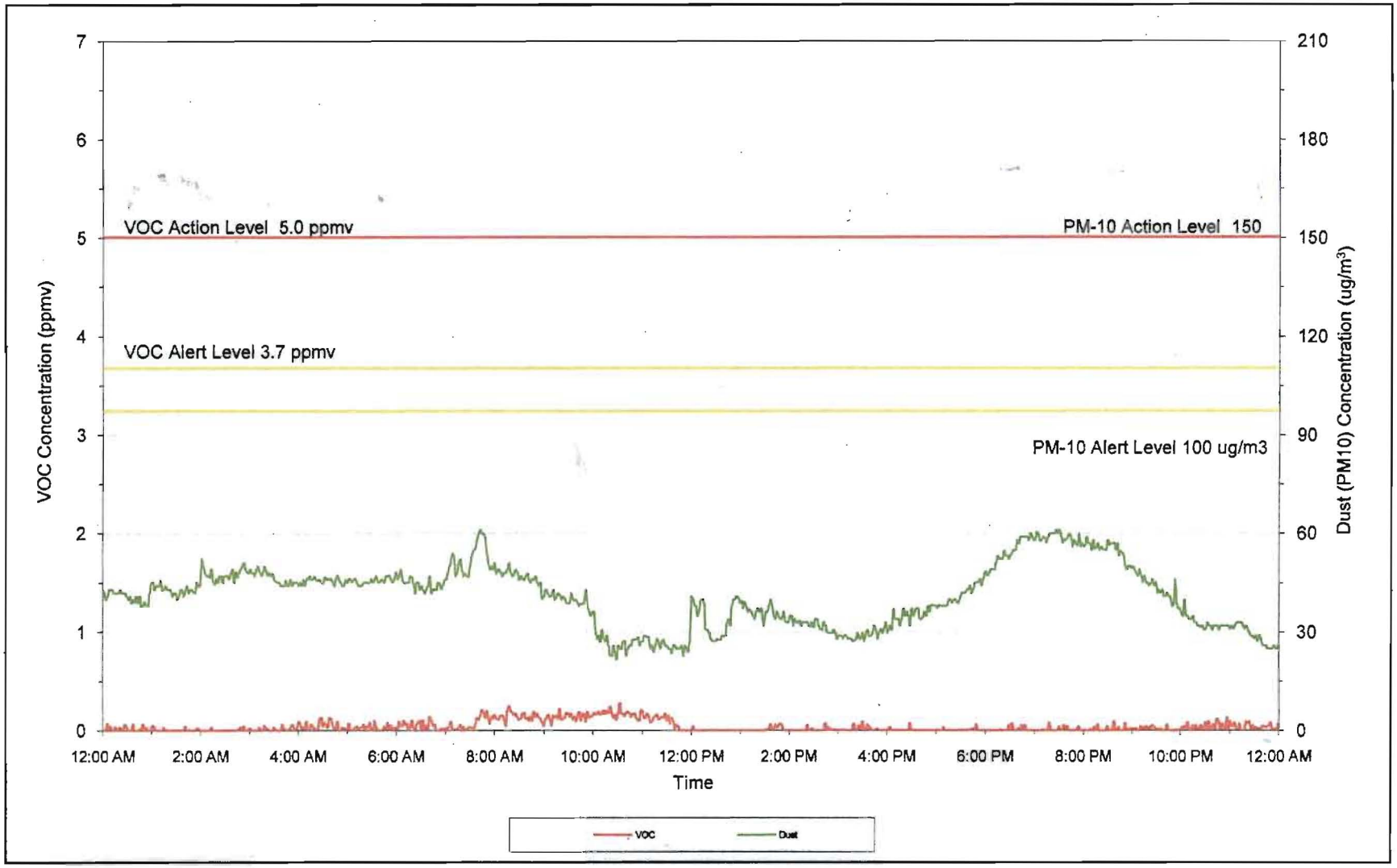



C:\XLRproject\Reports\Station3Feb10.xls

**Feb 28,2010**

Community Air Monitoring
Bay Shore Former MGP Site
OU-1 Remedial Action Plan-Phase IV
Bay Shore, NY
National Grid

Station 4 - (AMS-4)

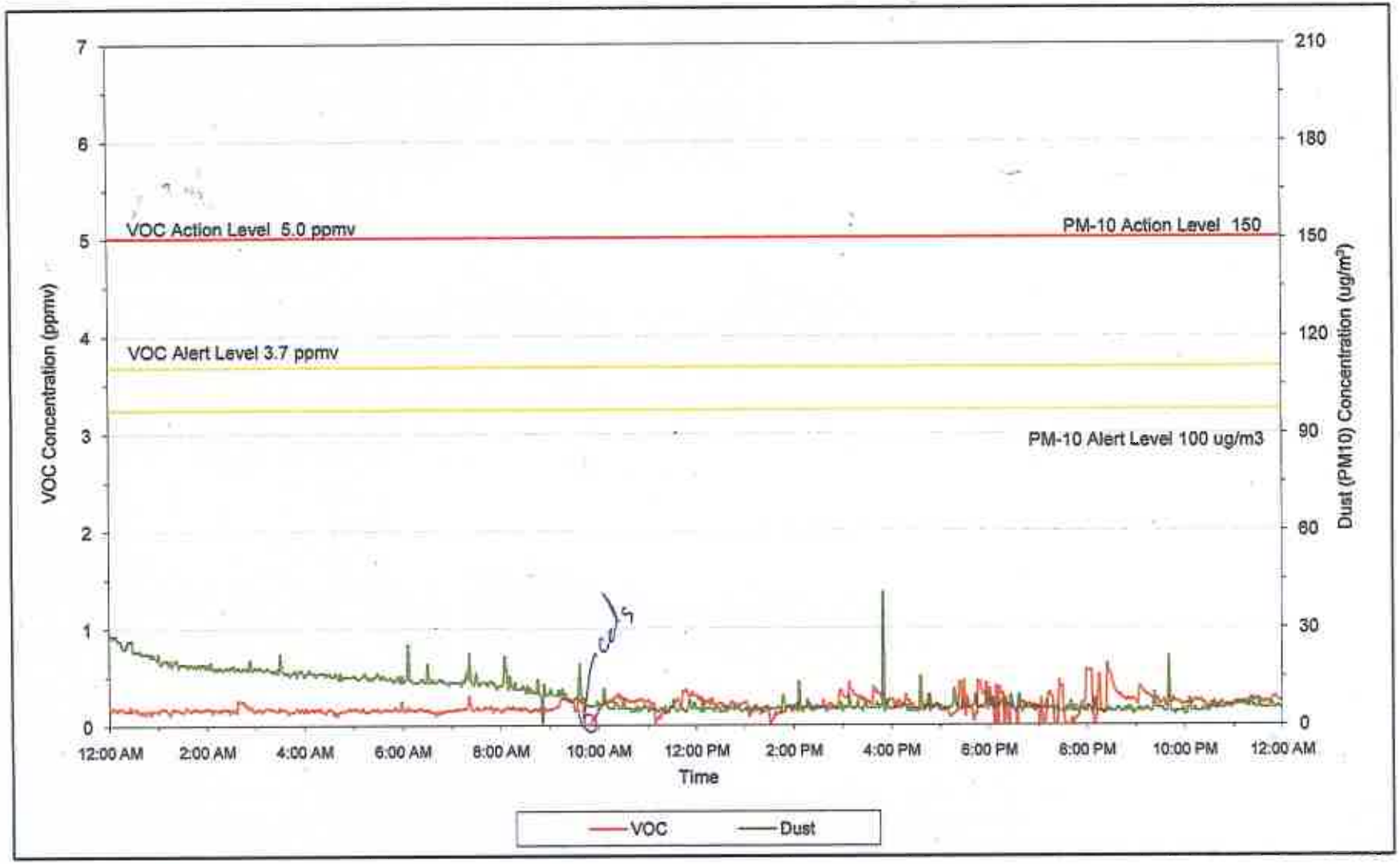



C:\XLRproject\Reports\Station4Feb10.xls

Mar 01,2010

# Community Air Monitoring
# Bay Shore Former MGP Site
# OU-1 Remedial Action Plan-Phase IV
# Bay Shore, NY
# National Grid

Station 1 - (AMS-1)

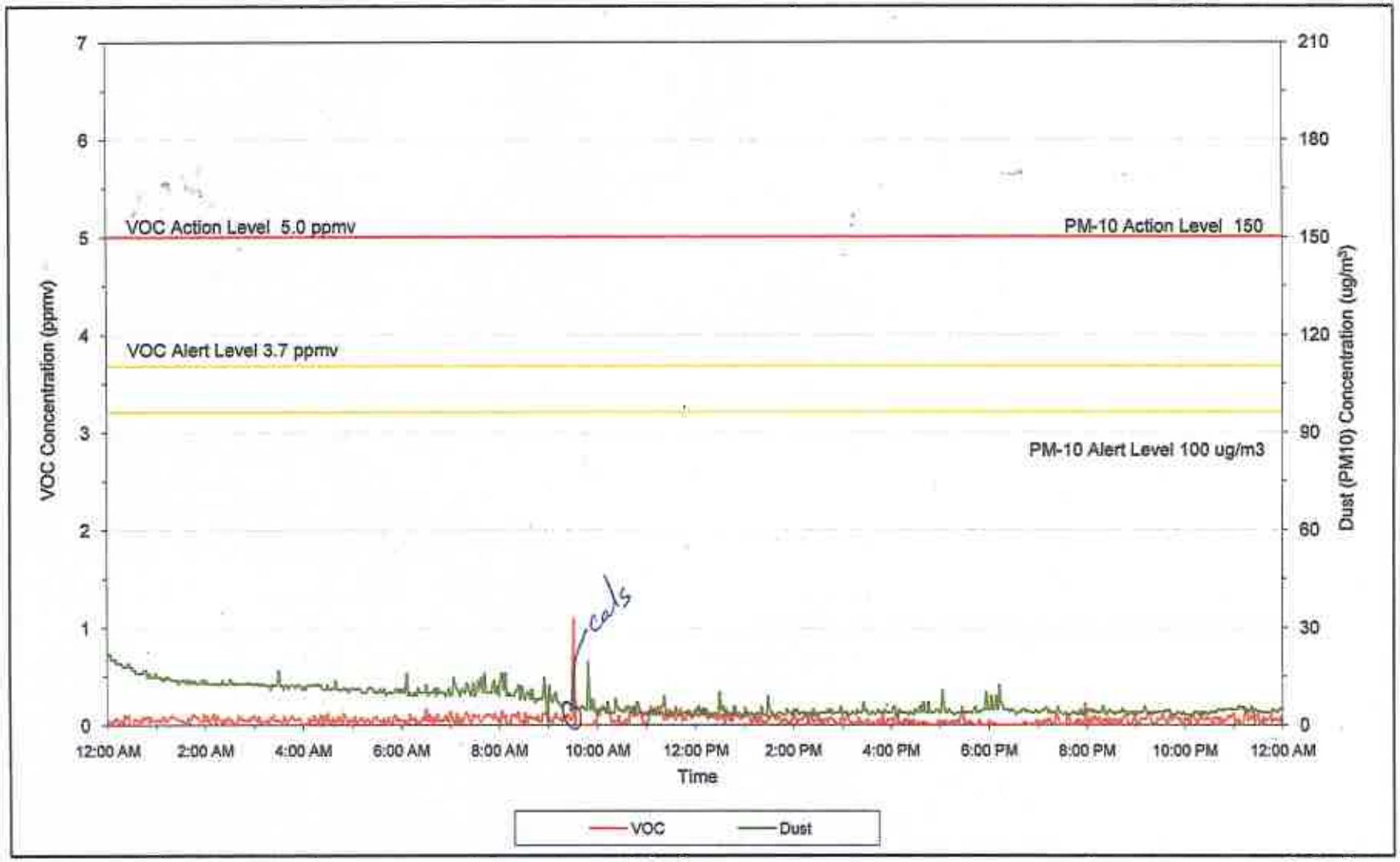



C:\XLRproject\Reports\Station1Mar10.xls

Mar 01,2010

# Community Air Monitoring
# Bay Shore Former MGP Site
# OU-1 Remedial Action Plan-Phase IV
# Bay Shore, NY
# National Grid

Station 2 - (AMS-2)

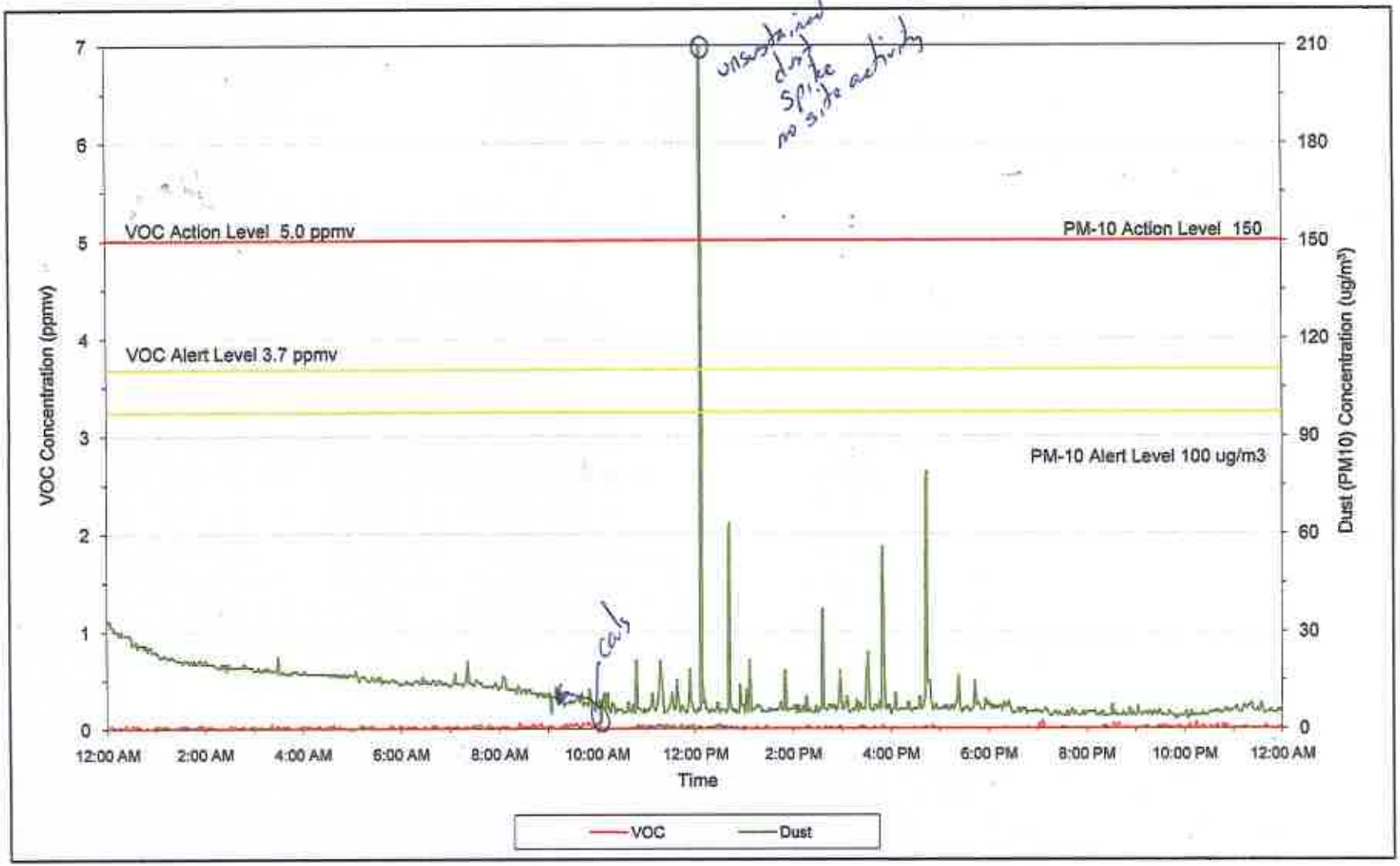



C:\XLRproject\Reports\Station2Mar10.xls

Mar 01,2010

# Community Air Monitoring
## Bay Shore Former MGP Site
## OU-1 Remedial Action Plan-Phase IV
## Bay Shore, NY
## National Grid

Station 3 - (AMS-3)

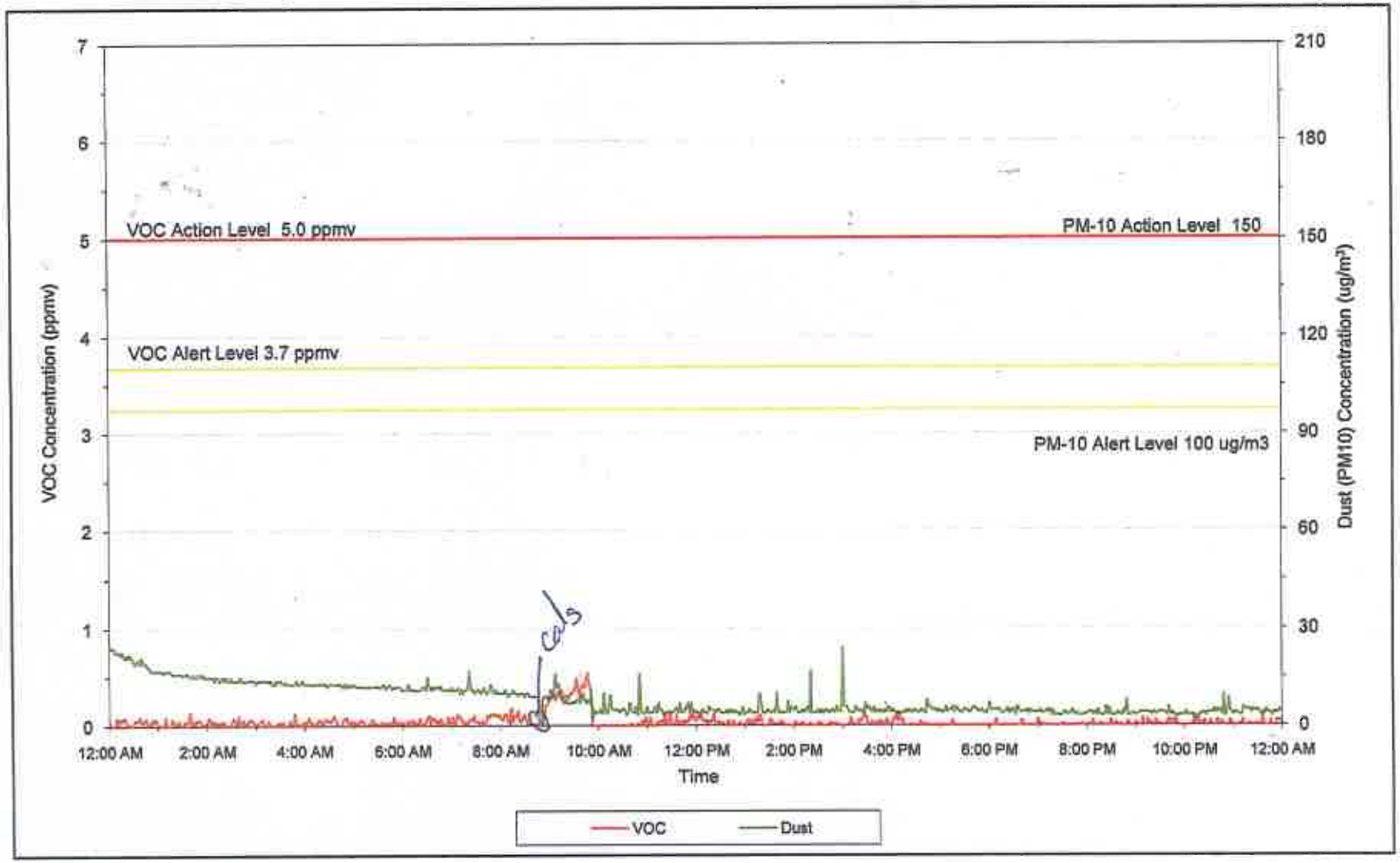



C:\XLRproject\Reports\Station3Mar10.xls

Mar 01,2010

# Community Air Monitoring
# Bay Shore Former MGP Site
# OU-1 Remedial Action Plan-Phase IV
# Bay Shore, NY
# National Grid

Station 4 - (AMS-4)

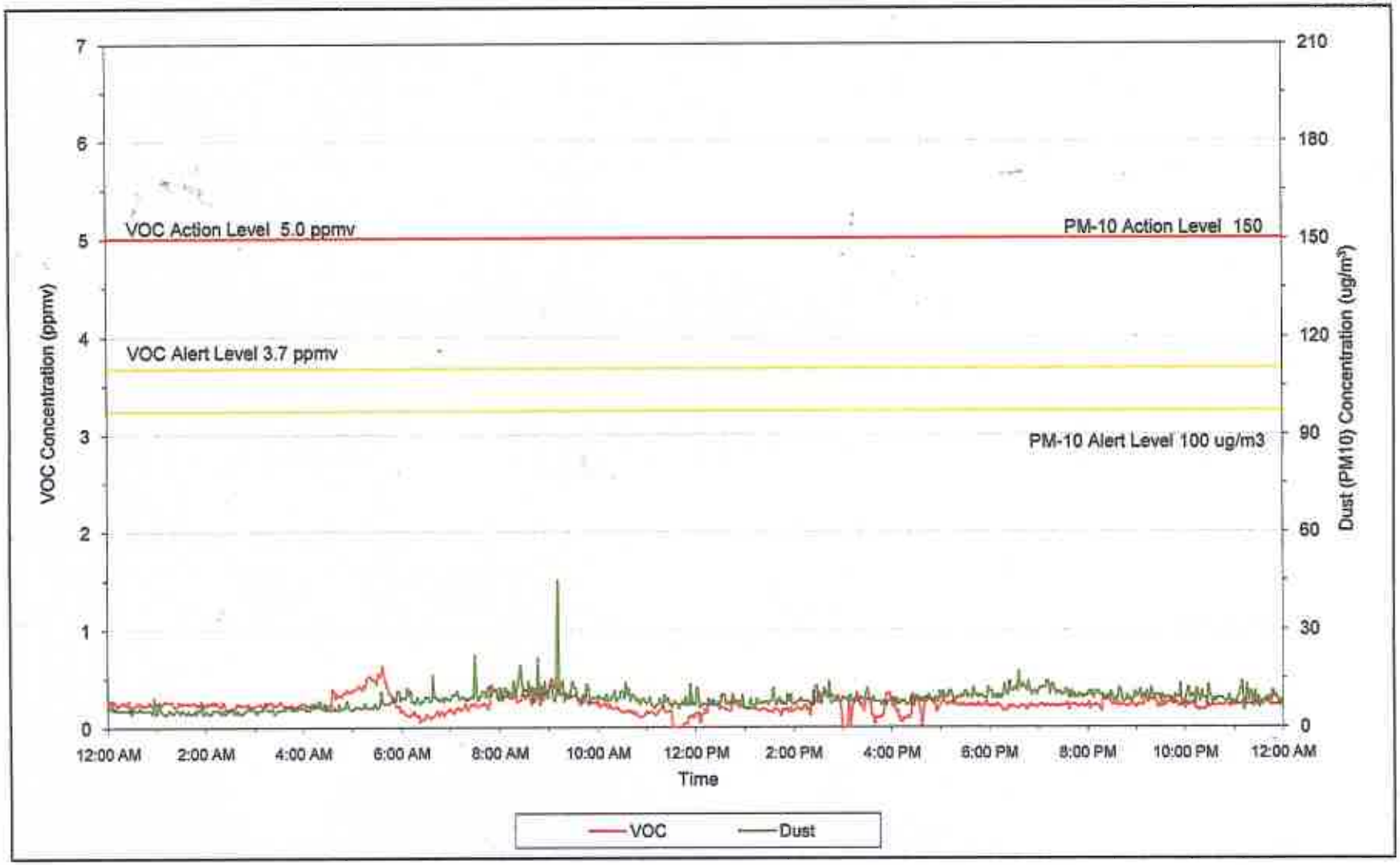



C:\XLRproject\Reports\Station4Mar10.xls

Mar 02,2010

# Community Air Monitoring
# Bay Shore Former MGP Site
# OU-1 Remedial Action Plan-Phase IV
# Bay Shore, NY
# National Grid

Station 1 - (AMS-1)

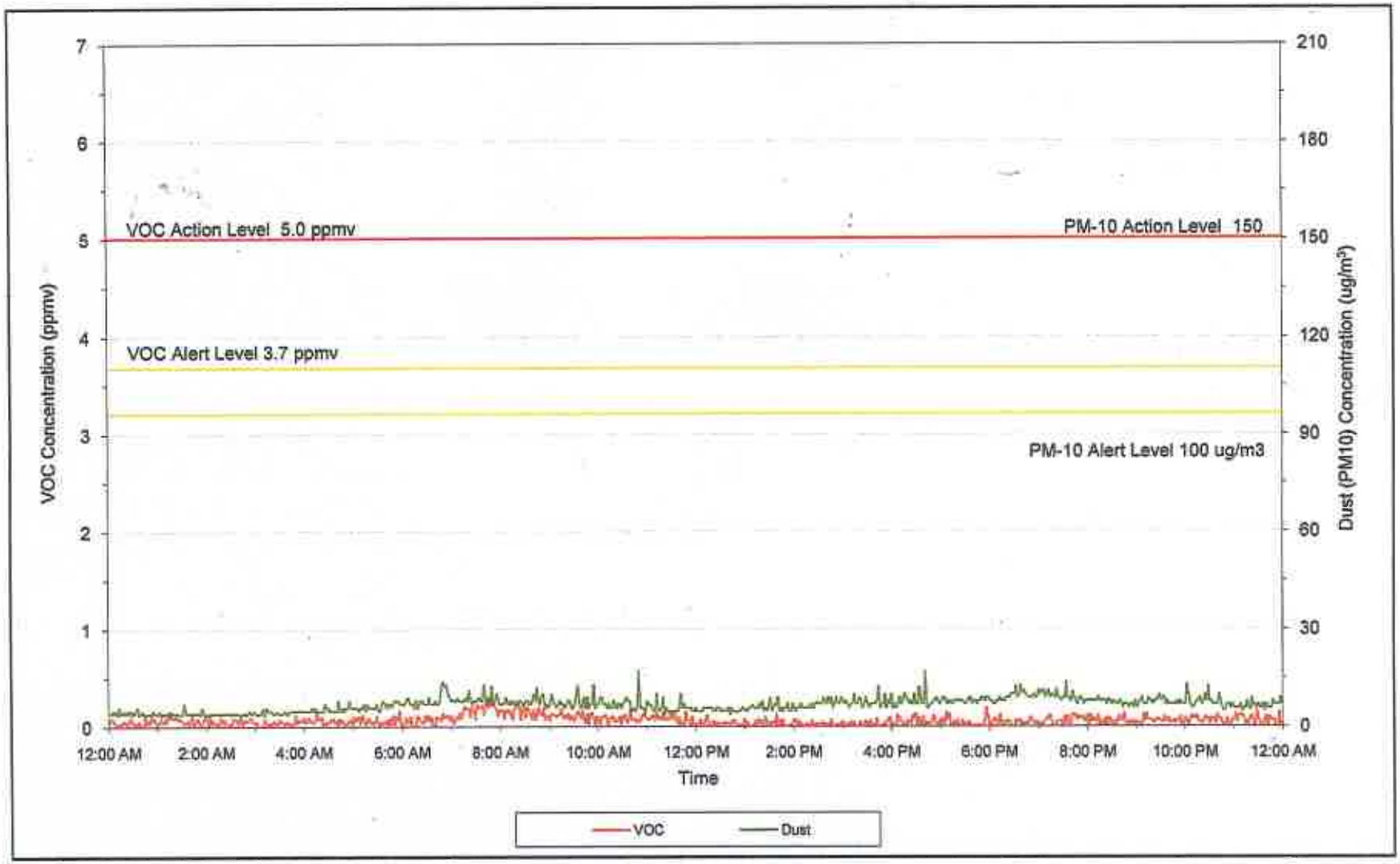



C:\XLRproject\Reports\Station1Mar10.xls

Mar 02,2010

# Community Air Monitoring
# Bay Shore Former MGP Site
# OU-1 Remedial Action Plan-Phase IV
# Bay Shore, NY
# National Grid

Station 2 - (AMS-2)

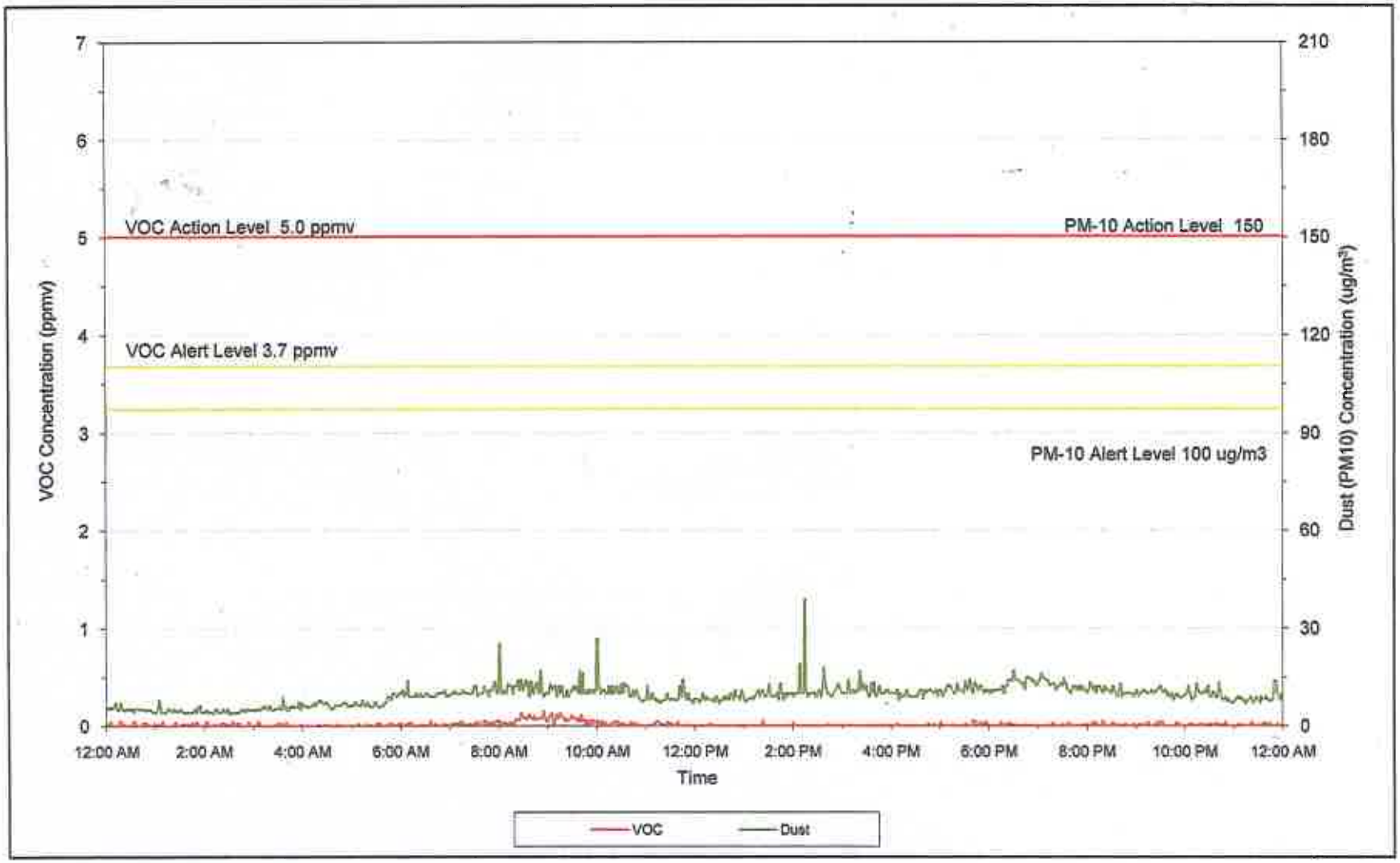



C:\XLRproject\Reports\Station2Mar10.xls

Mar 02,2010

# Community Air Monitoring
# Bay Shore Former MGP Site
# OU-1 Remedial Action Plan-Phase IV
# Bay Shore, NY
# National Grid

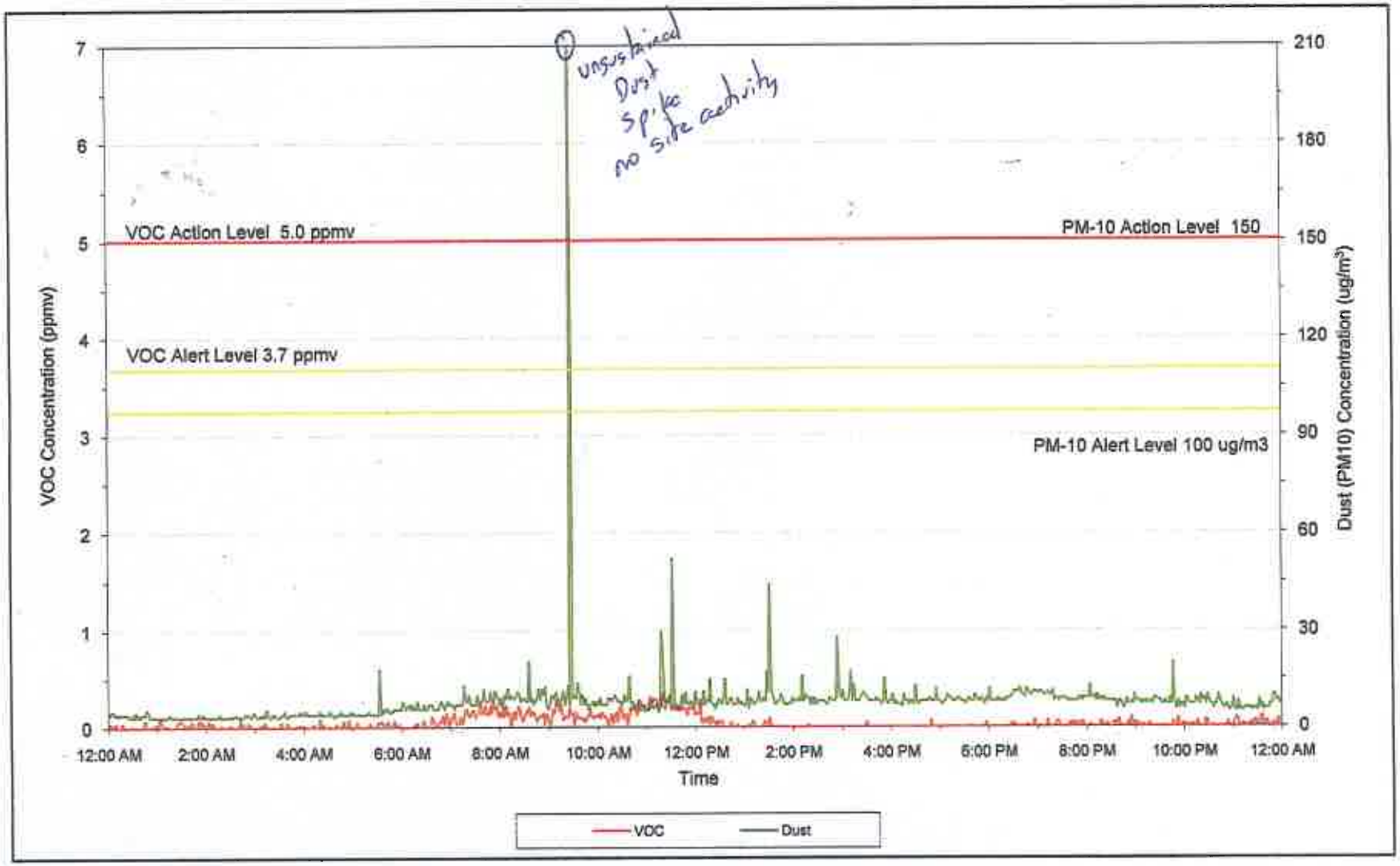
Station 3 - (AMS-3)




C:\XLRproject\Reports\Station3Mar10.xls

Mar 02,2010

# Community Air Monitoring
## Bay Shore Former MGP Site
## OU-1 Remedial Action Plan-Phase IV
## Bay Shore, NY
## National Grid

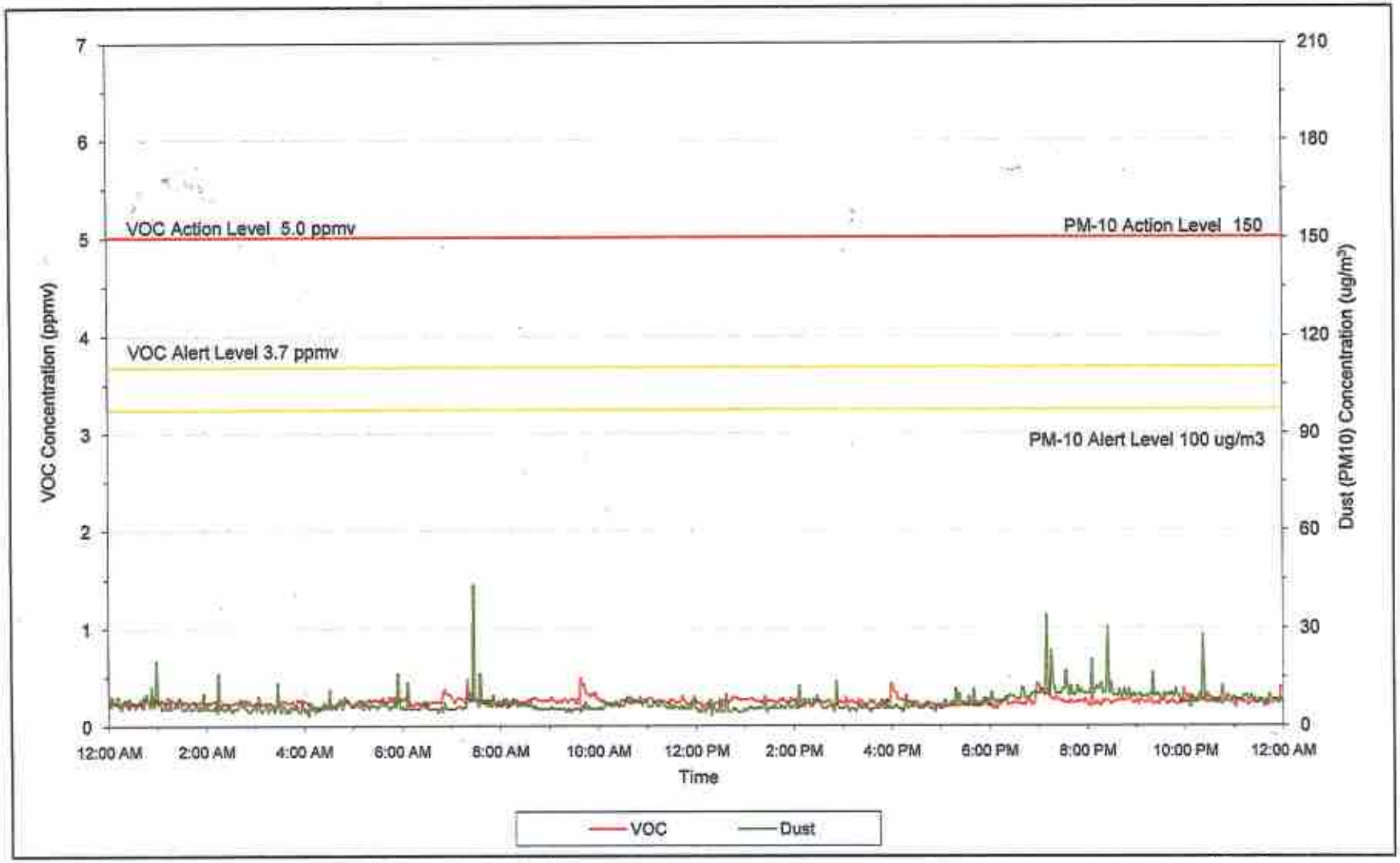



C:\XLRproject\Reports\Station4Mar10.xls

Mar 03,2010

# Community Air Monitoring
# Bay Shore Former MGP Site
# OU-1 Remedial Action Plan-Phase IV
# Bay Shore, NY
# National Grid

Station 1 - (AMS-1)

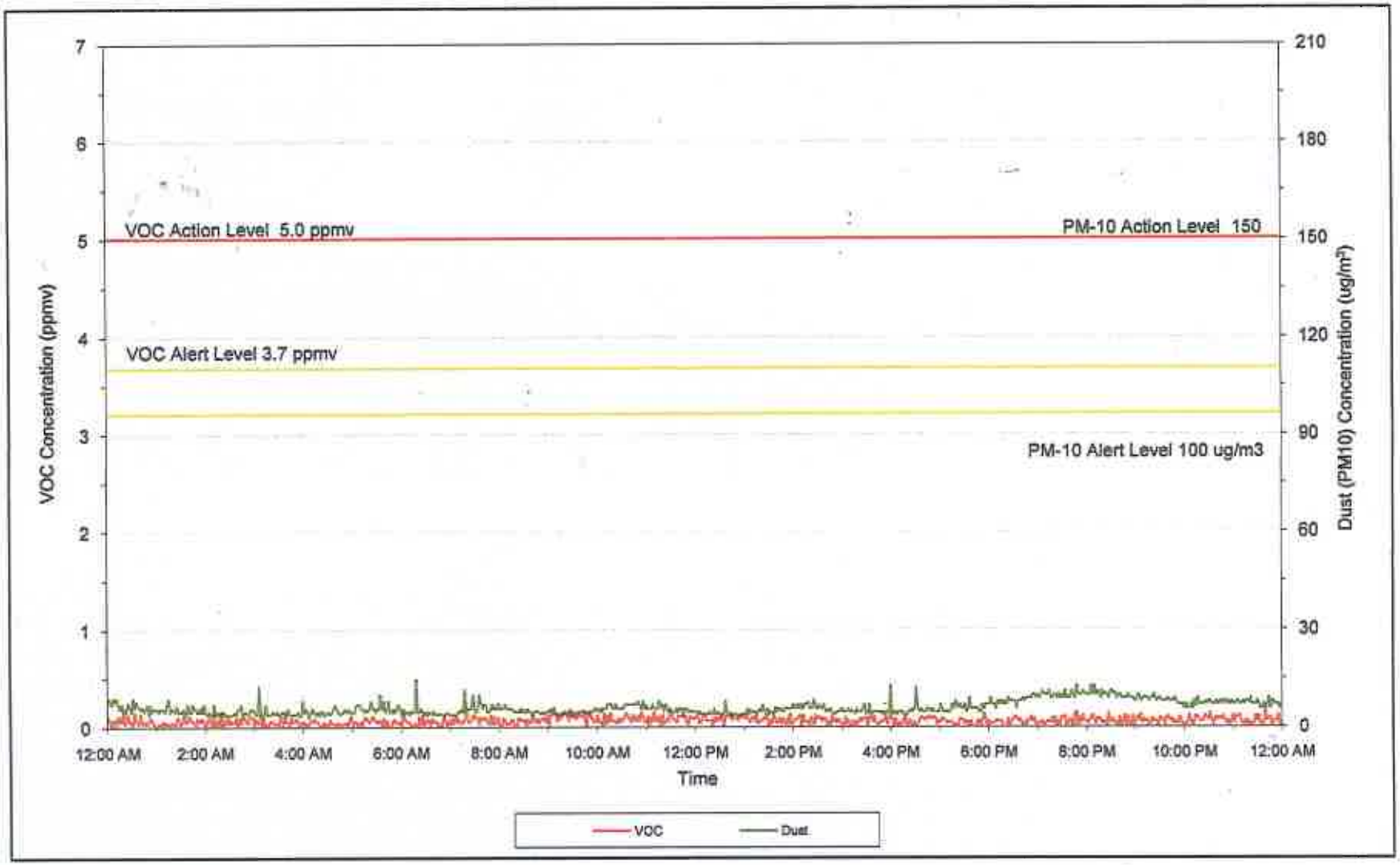



C:\XLRproject\Reports\Station1Mar10.xls

Mar 03,2010

# Community Air Monitoring
# Bay Shore Former MGP Site
# OU-1 Remedial Action Plan-Phase IV
# Bay Shore, NY
# National Grid

Station 2 - (AMS-2)

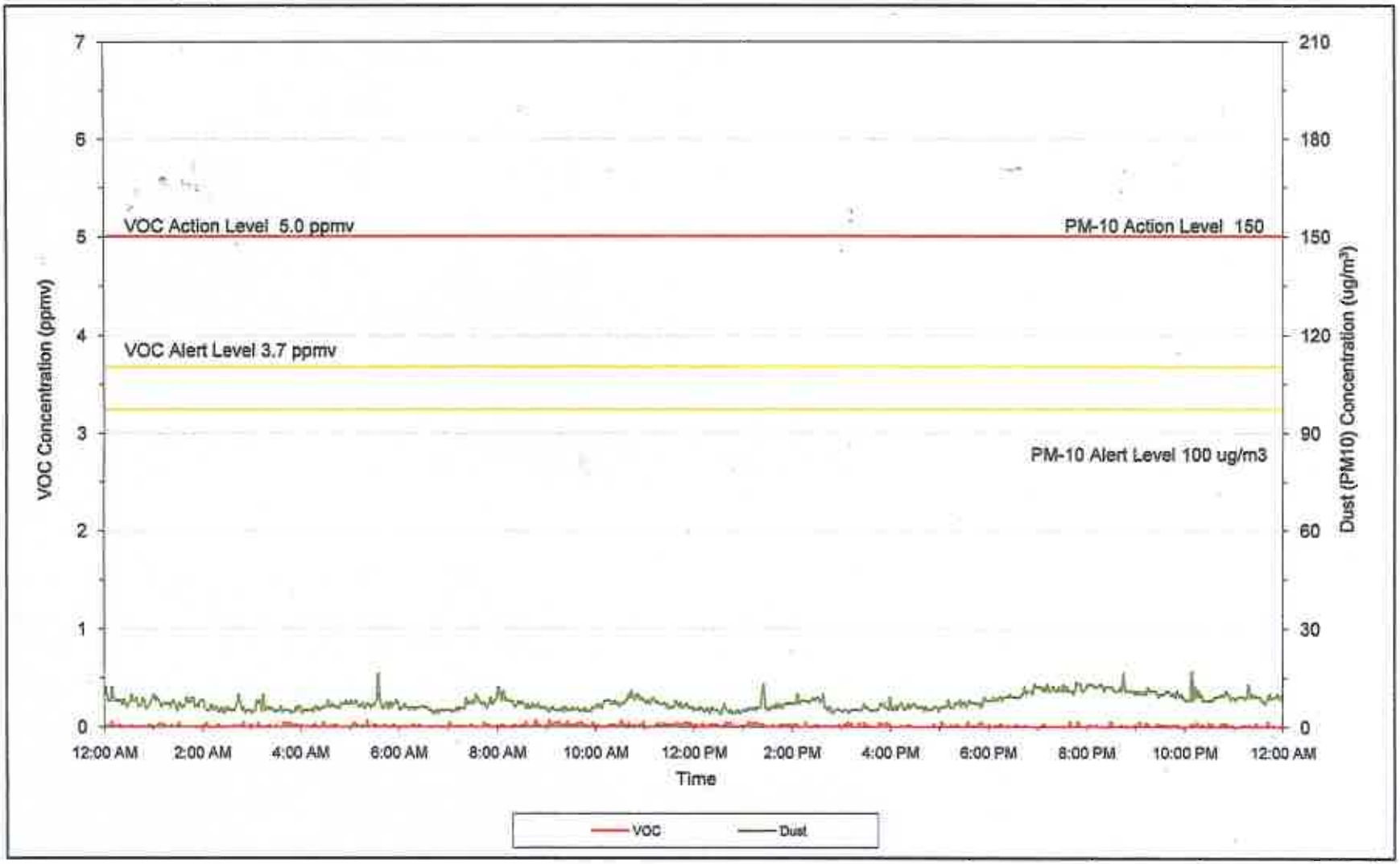



C:\XLRproject\Reports\Station2Mar10.xls

Mar 03,2010

# Community Air Monitoring
# Bay Shore Former MGP Site
# OU-1 Remedial Action Plan-Phase IV
# Bay Shore, NY
# National Grid

Station 3 - (AMS-3)

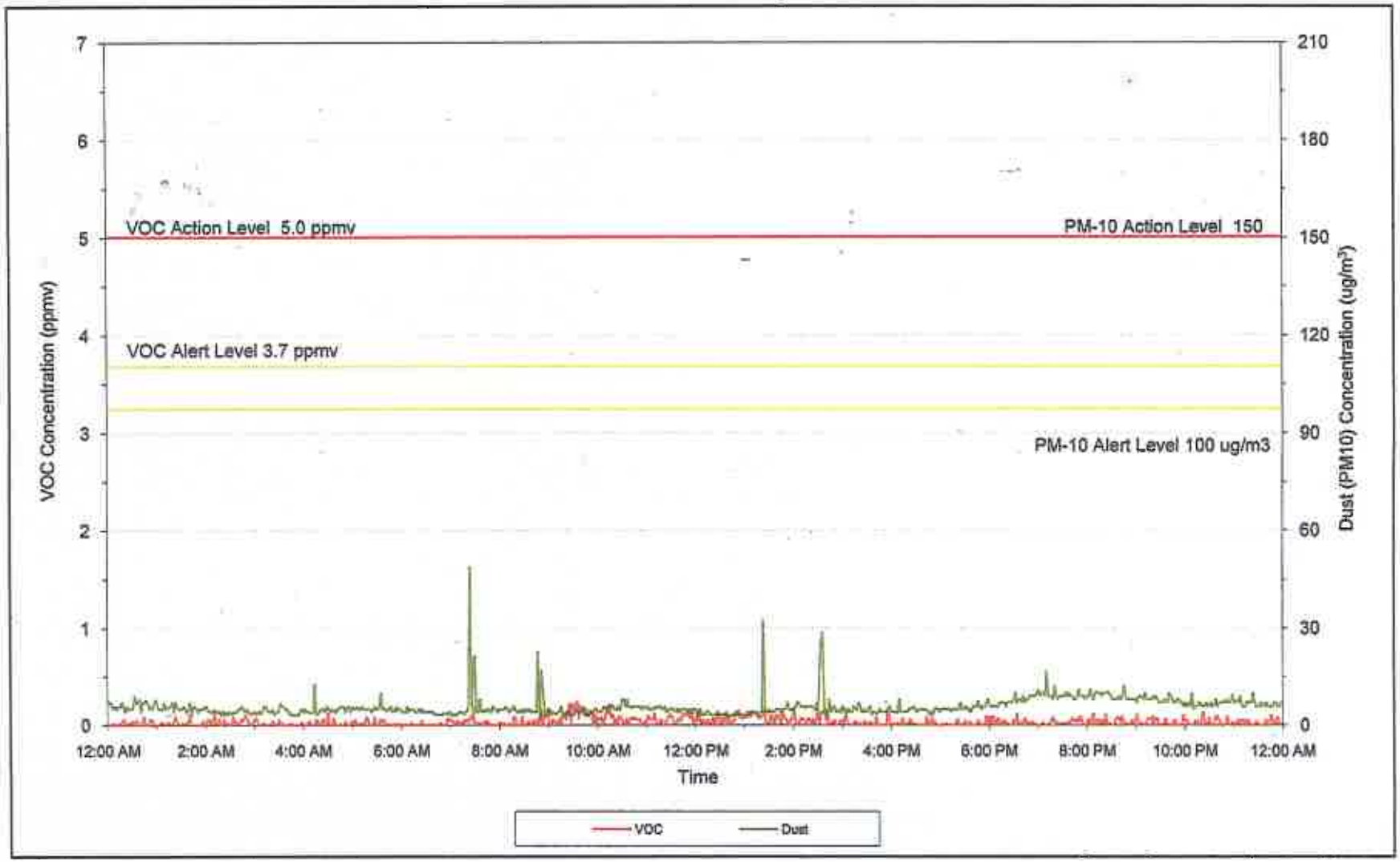



C:\XLRproject\Reports\Station3Mar10.xls

Mar 03,2010

# Community Air Monitoring
# Bay Shore Former MGP Site
# OU-1 Remedial Action Plan-Phase IV
# Bay Shore, NY
# National Grid

Station 4 - (AMS-4)

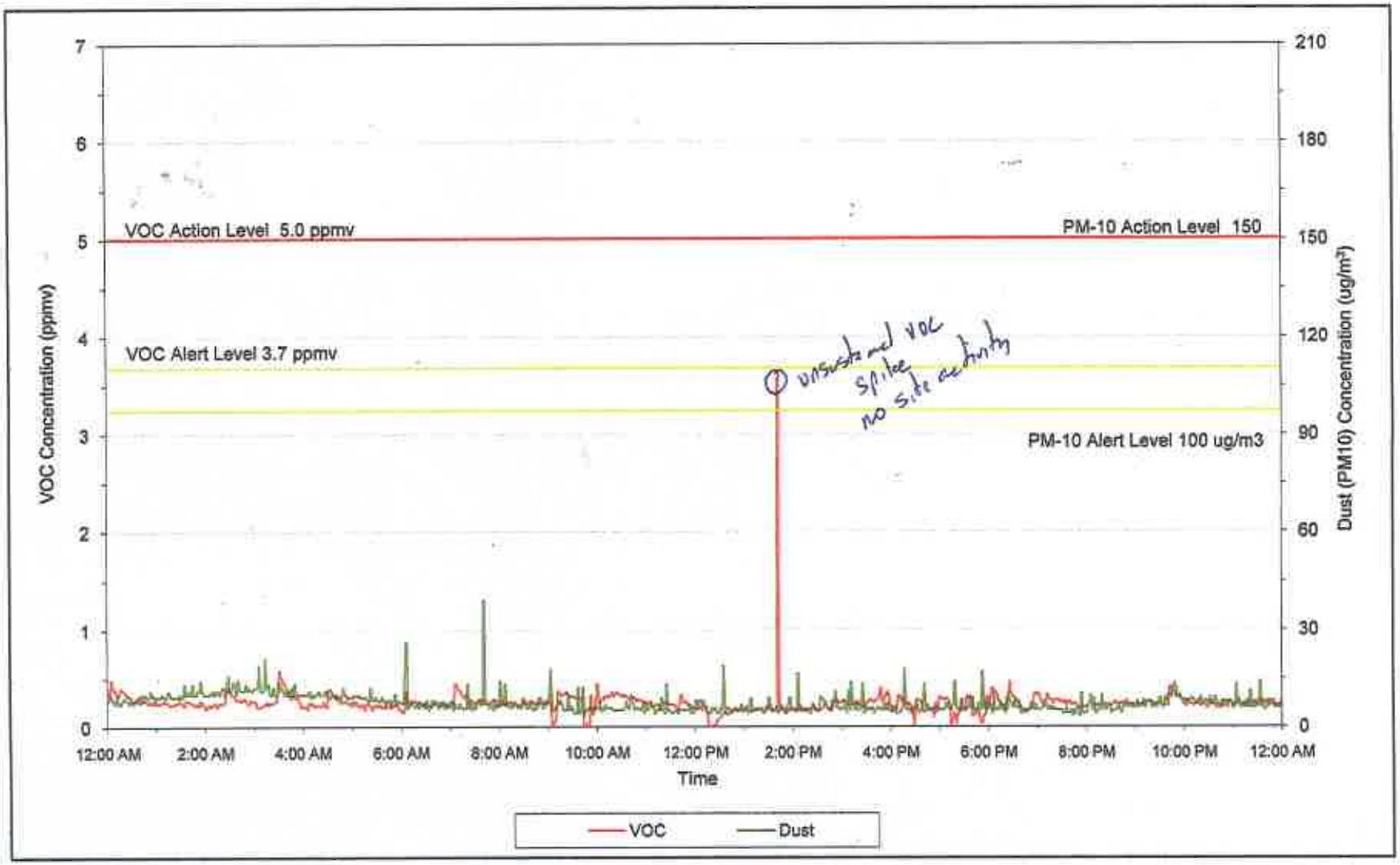



C:\XLRproject\Reports\Station4Mar10.xls

Mar 04,2010

# Community Air Monitoring
# Bay Shore Former MGP Site
# OU-1 Remedial Action Plan-Phase IV
# Bay Shore, NY
# National Grid

Station 1 - (AMS-1)

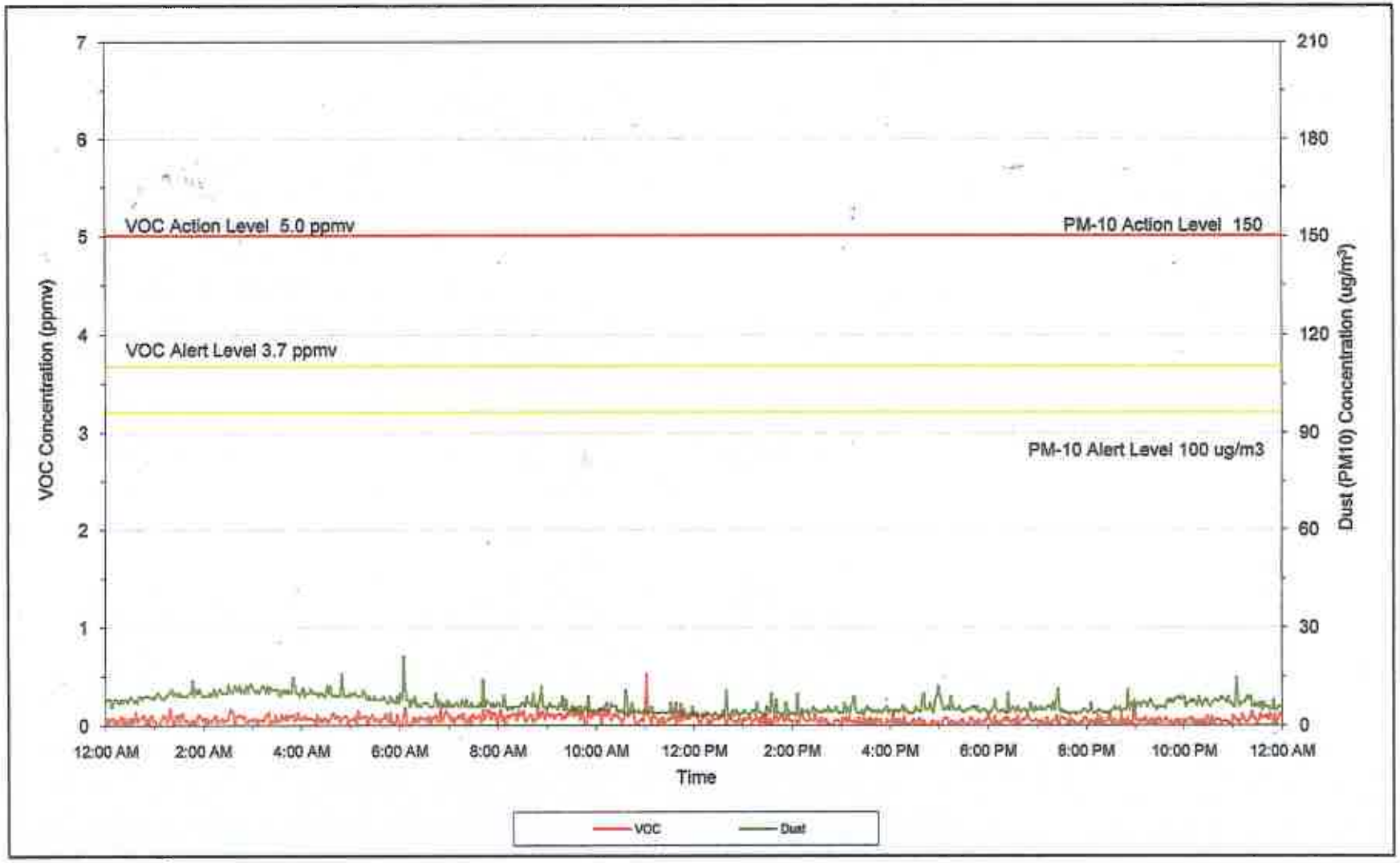



C:\XLRproject\Reports\Station1Mar10.xls

Mar 04,2010

**Community Air Monitoring**
**Bay Shore Former MGP Site**
**OU-1 Remedial Action Plan-Phase IV**
**Bay Shore, NY**
**National Grid**

Station 2 - (AMS-2)

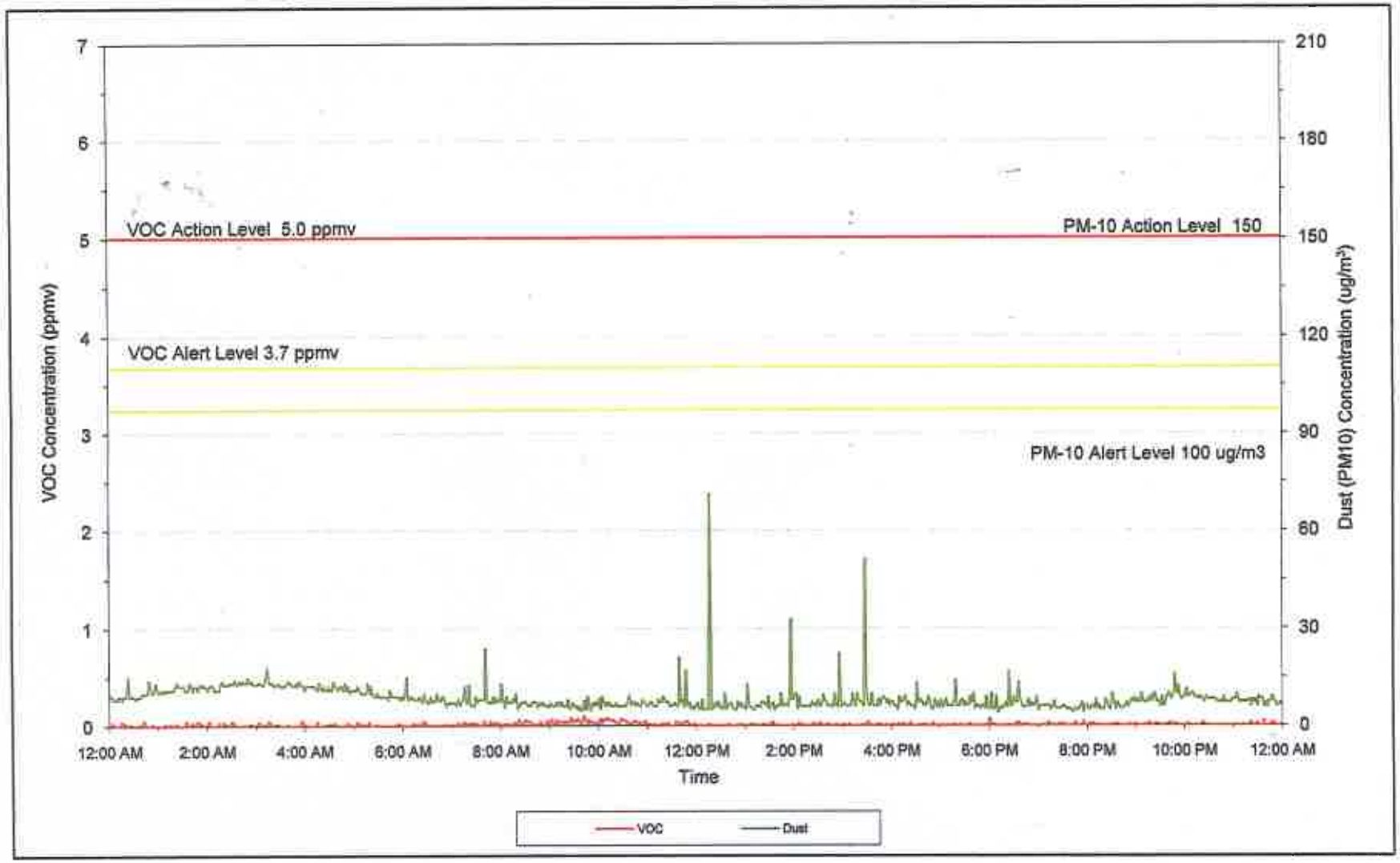



C:\XLRproject\Reports\Station2Mar10.xls

Mar 04,2010

# Community Air Monitoring
# Bay Shore Former MGP Site
# OU-1 Remedial Action Plan-Phase IV
# Bay Shore, NY
# National Grid

Station 3 - (AMS-3)

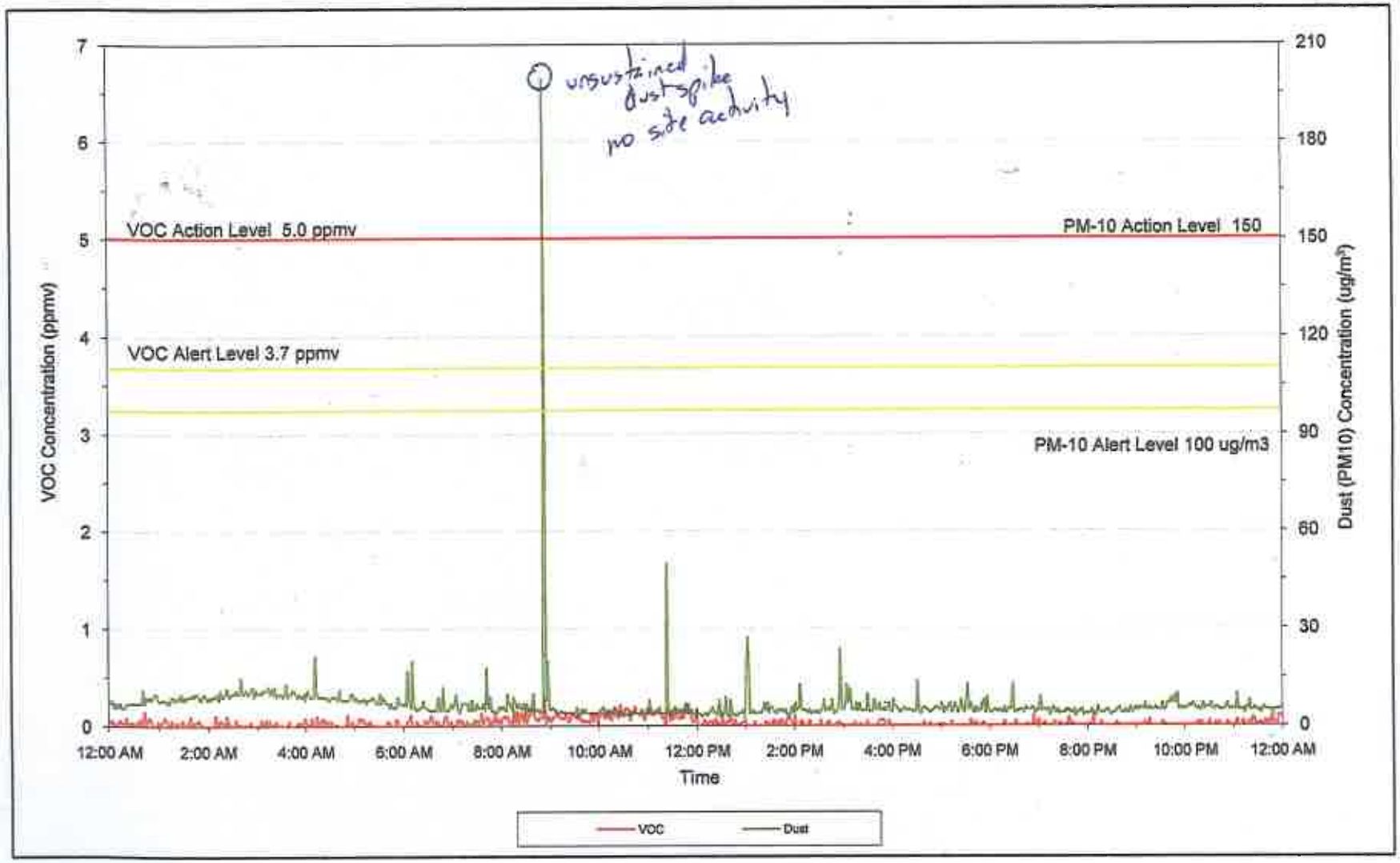



C:\XLRproject\Reports\Station3Mar10.xls

Mar 04,2010

# Community Air Monitoring
# Bay Shore Former MGP Site
# OU-1 Remedial Action Plan-Phase IV
# Bay Shore, NY
# National Grid

Station 4 - (AMS-4)

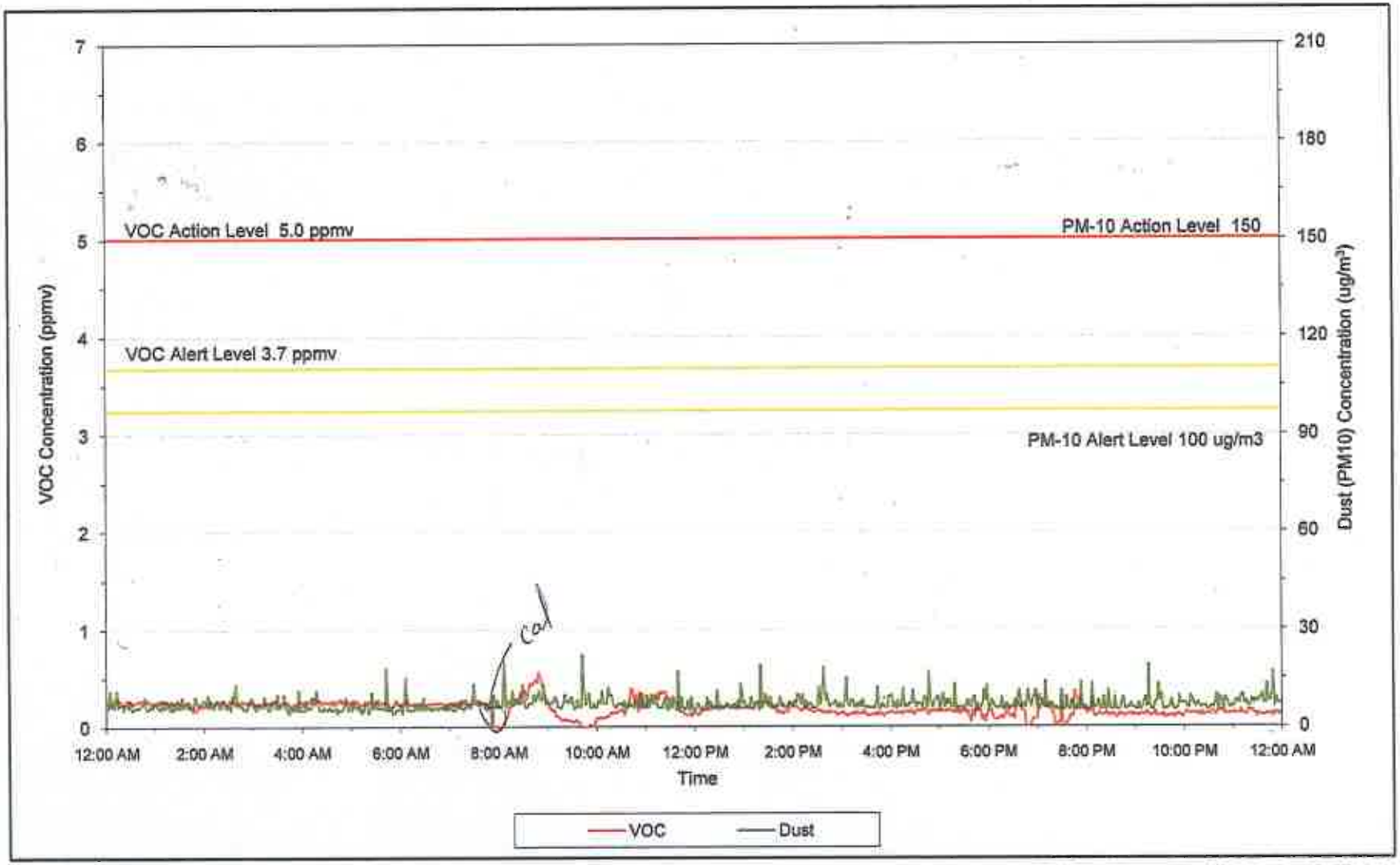



C:\XLRproject\Reports\Station4Mar10.xls

Mar 05,2010

# Community Air Monitoring
# Bay Shore Former MGP Site
# OU-1 Remedial Action Plan-Phase IV
# Bay Shore, NY
# National Grid

Station 1 - (AMS-1)

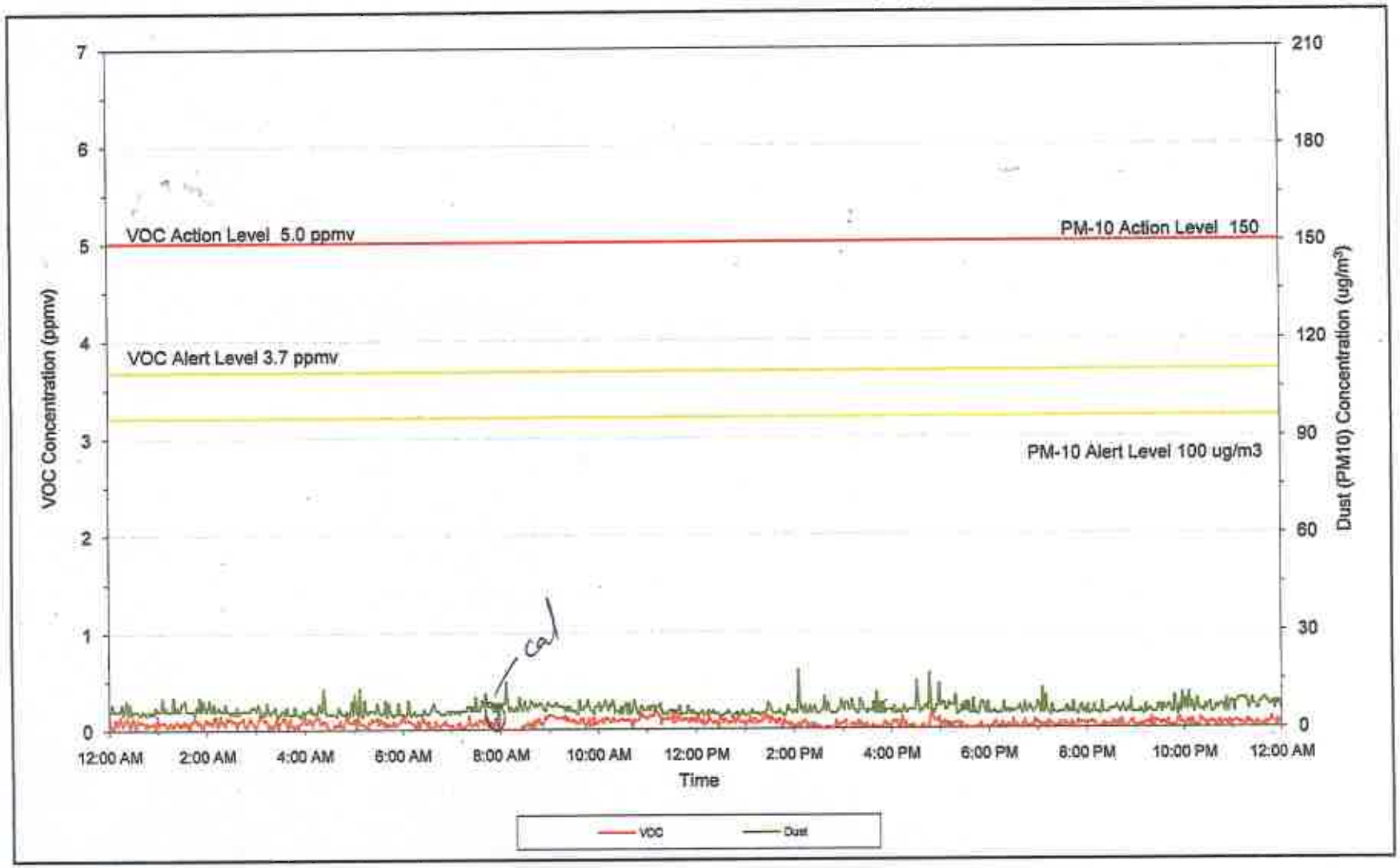



C:\XLRproject\Reports\Station1Mar10.xls

Mar 05,2010

# Community Air Monitoring
# Bay Shore Former MGP Site
# OU-1 Remedial Action Plan-Phase IV
# Bay Shore, NY
# National Grid

Station 2 - (AMS-2)

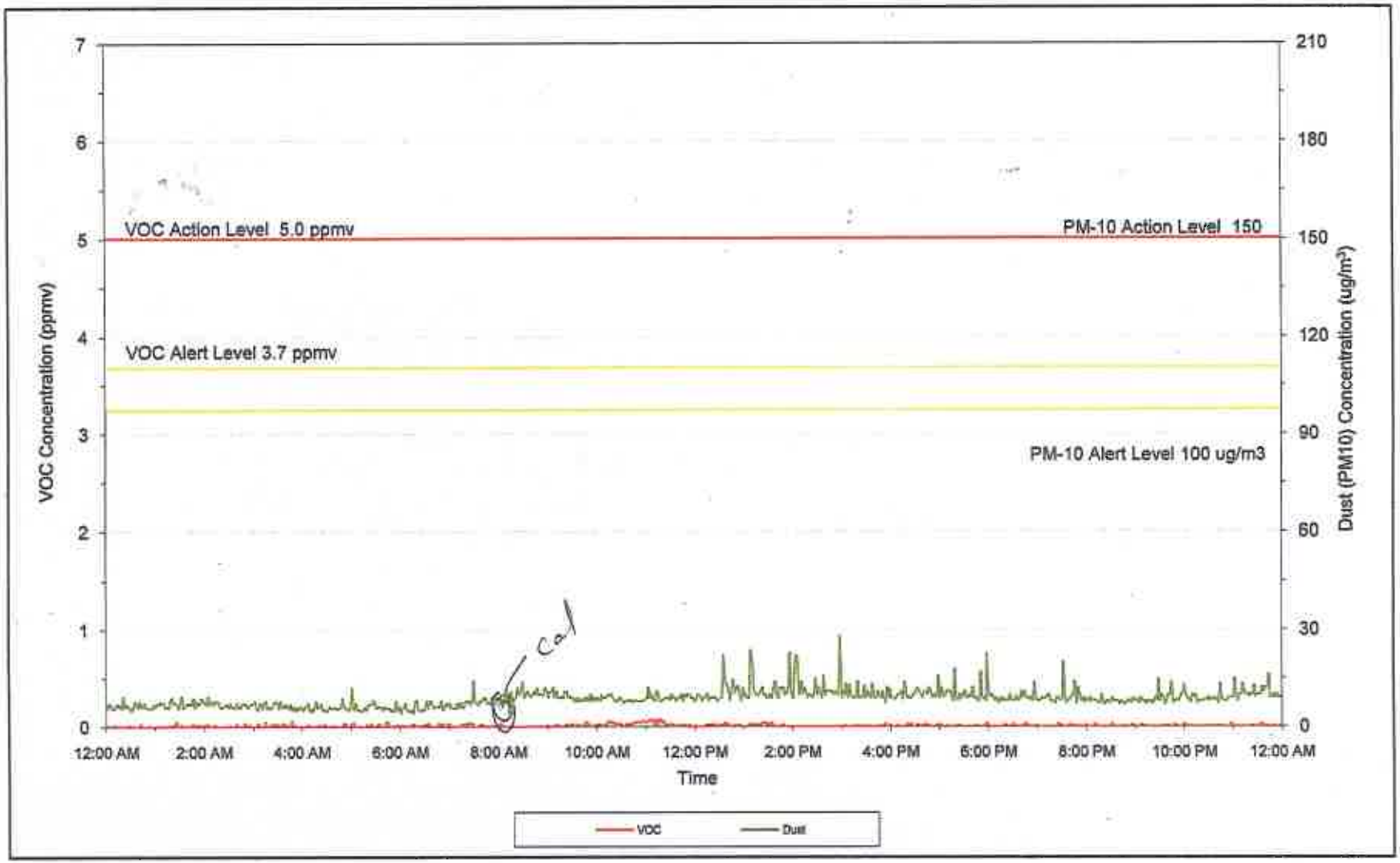



C:\XLRproject\Reports\Station2Mar10.xls

**Community Air Monitoring**
**Bay Shore Former MGP Site**
**OU-1 Remedial Action Plan-Phase IV**
**Bay Shore, NY**
**National Grid**

Mar 05,2010

Station 3 - (AMS-3)

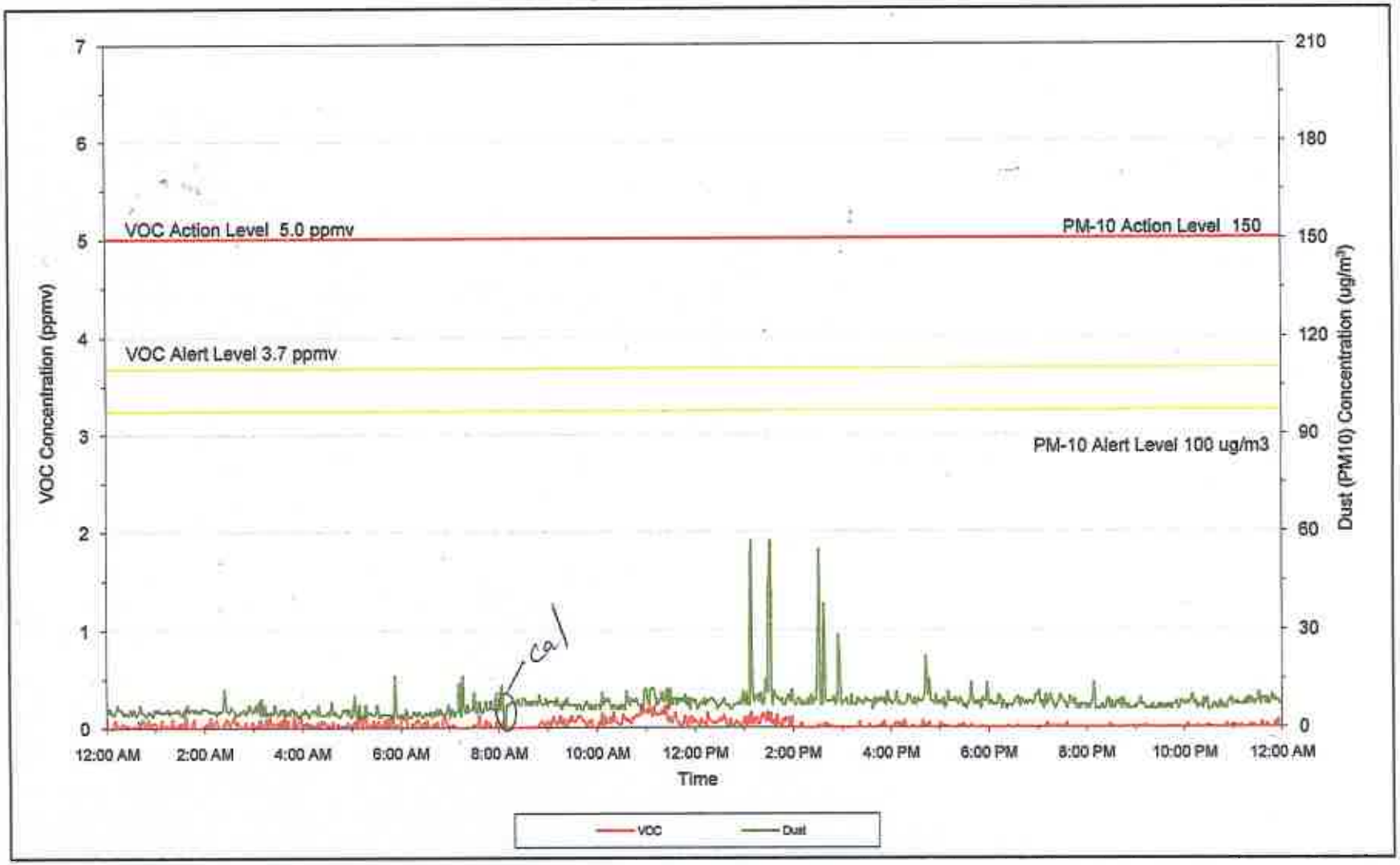



C:\XLRproject\Reports\Station3Mar10.xls

Mar 05,2010

# Community Air Monitoring
# Bay Shore Former MGP Site
# OU-1 Remedial Action Plan-Phase IV
# Bay Shore, NY
# National Grid

Station 4 - (AMS-4)

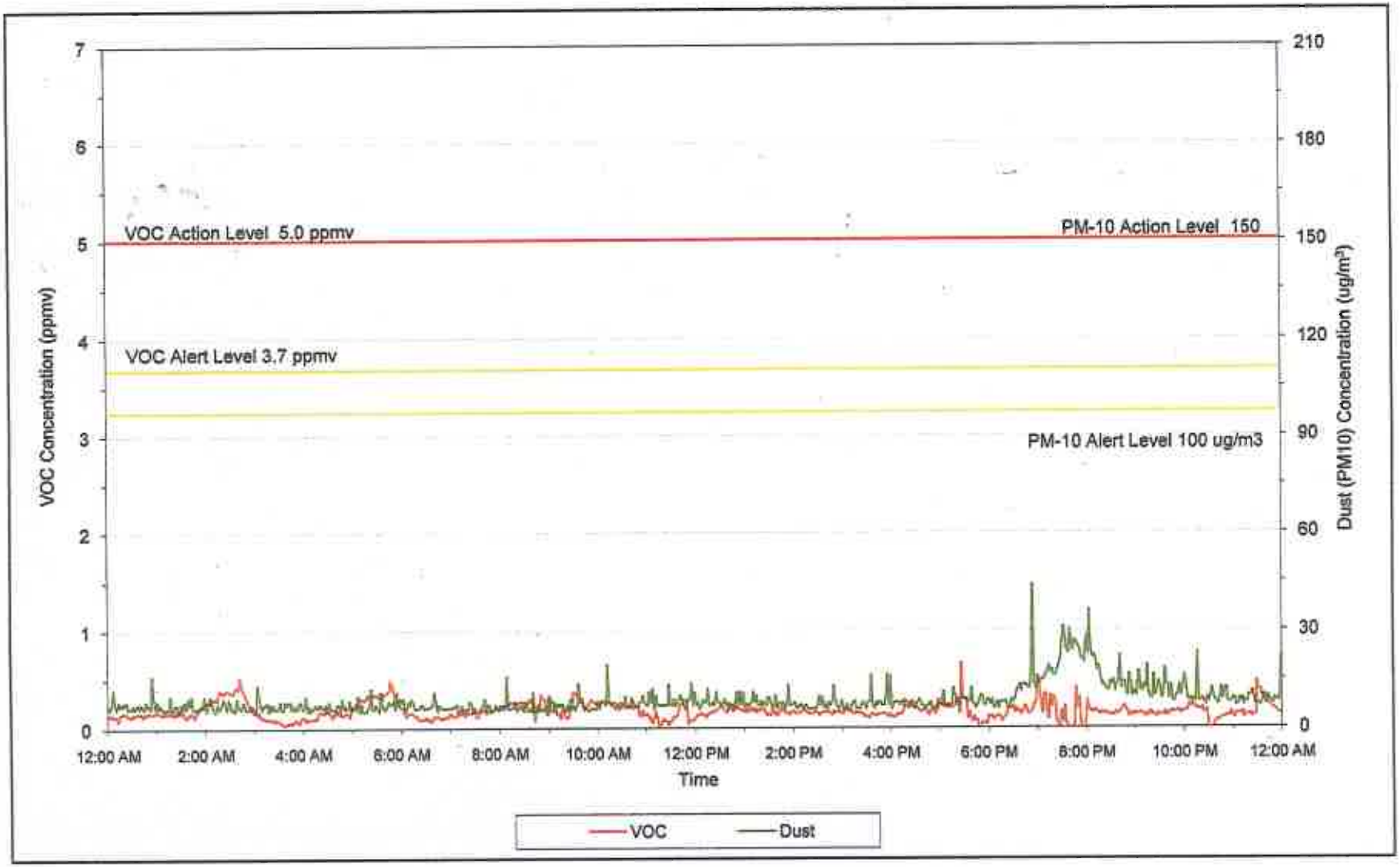



C:\XLRproject\Reports\Station4Mar10.xls

Mar 06,2010

# Community Air Monitoring
# Bay Shore Former MGP Site
# OU-1 Remedial Action Plan-Phase IV
# Bay Shore, NY
# National Grid

Station 1 - (AMS-1)

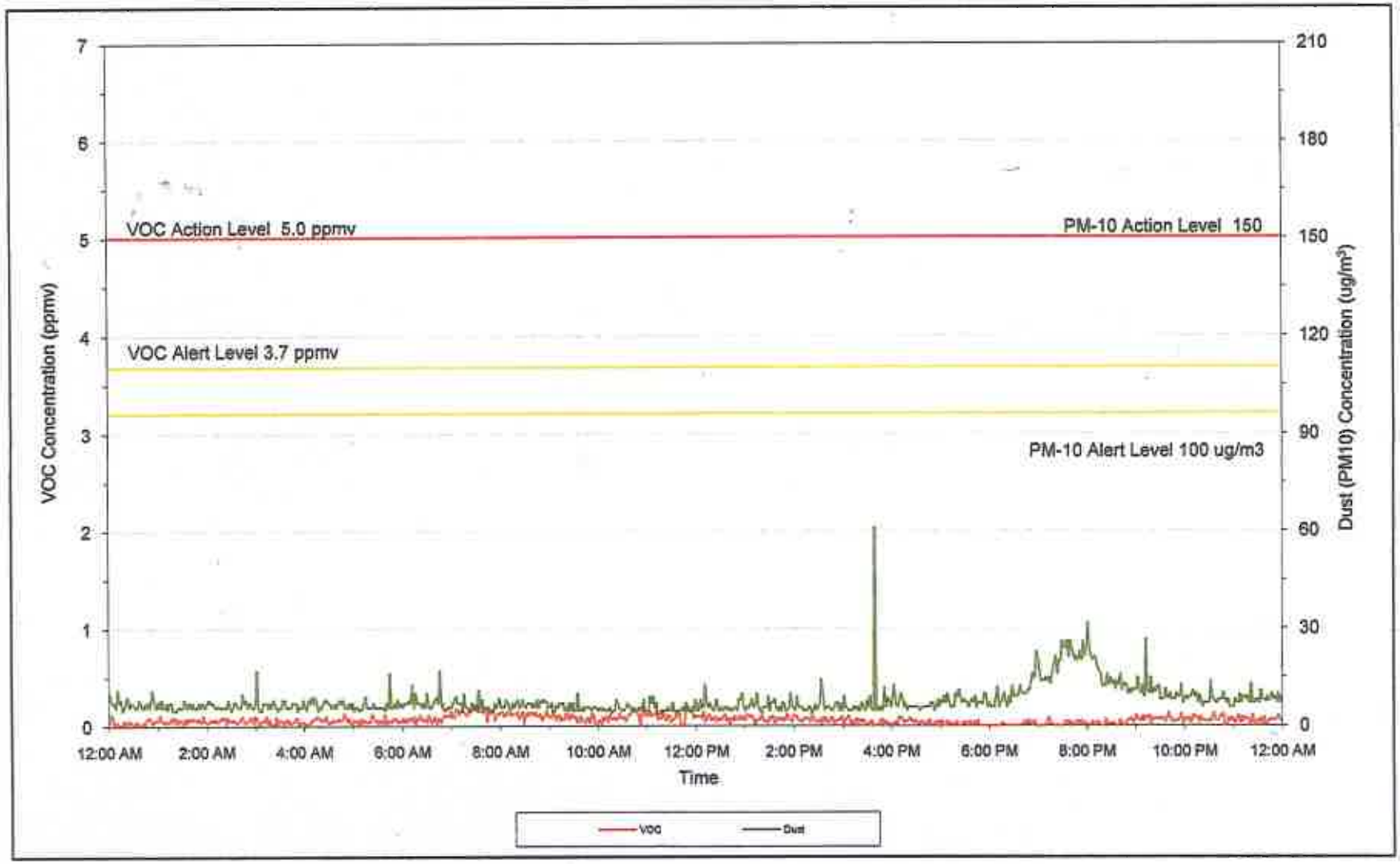



C:\XLRproject\Reports\Station1Mar10.xls

Mar 06,2010

# Community Air Monitoring
# Bay Shore Former MGP Site
# OU-1 Remedial Action Plan-Phase IV
# Bay Shore, NY
# National Grid

Station 2 - (AMS-2)

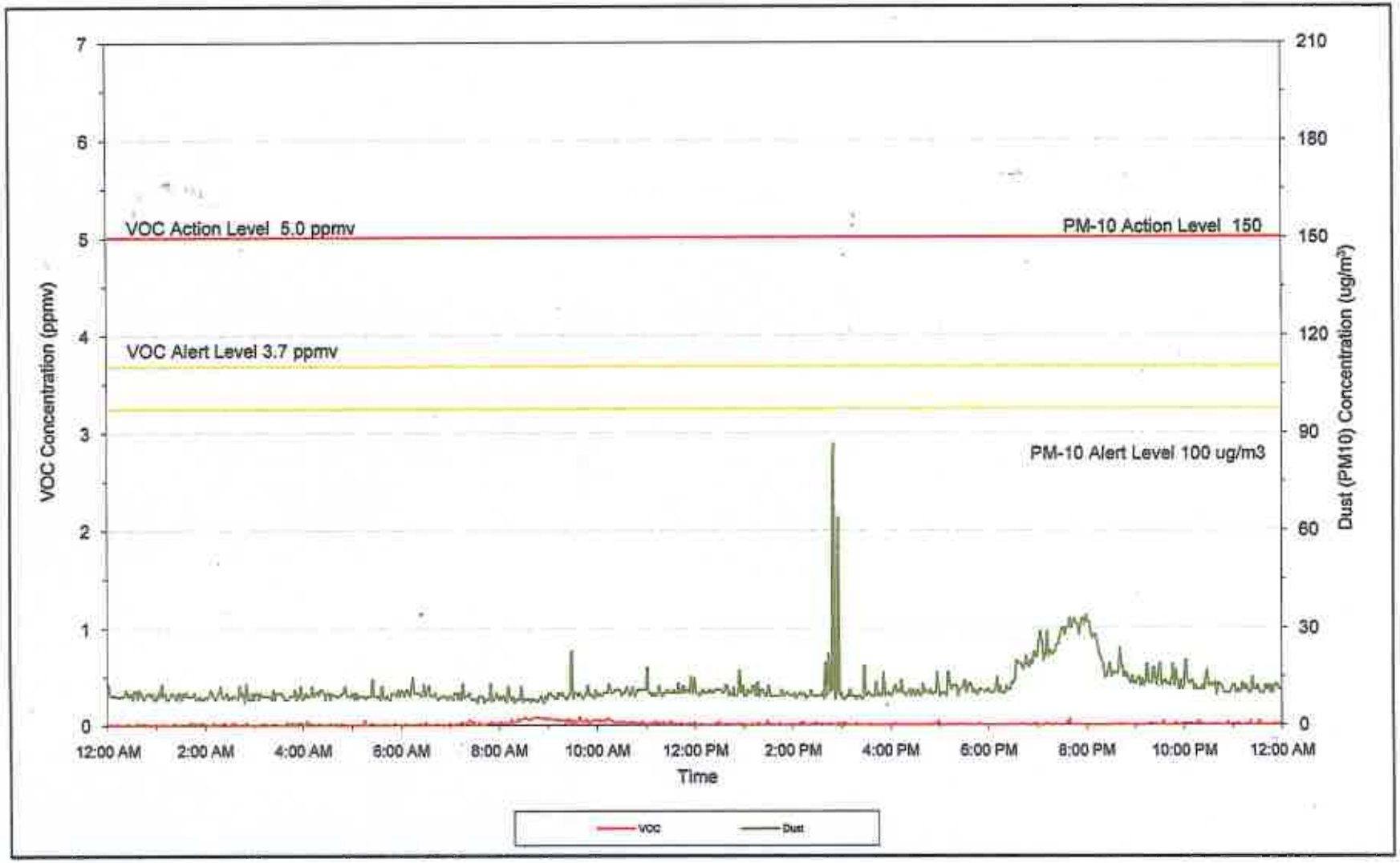



C:\XLRproject\Reports\Station2Mar10.xls

Mar 06,2010

# Community Air Monitoring
# Bay Shore Former MGP Site
# OU-1 Remedial Action Plan-Phase IV
# Bay Shore, NY
# National Grid

Station 3 - (AMS-3)

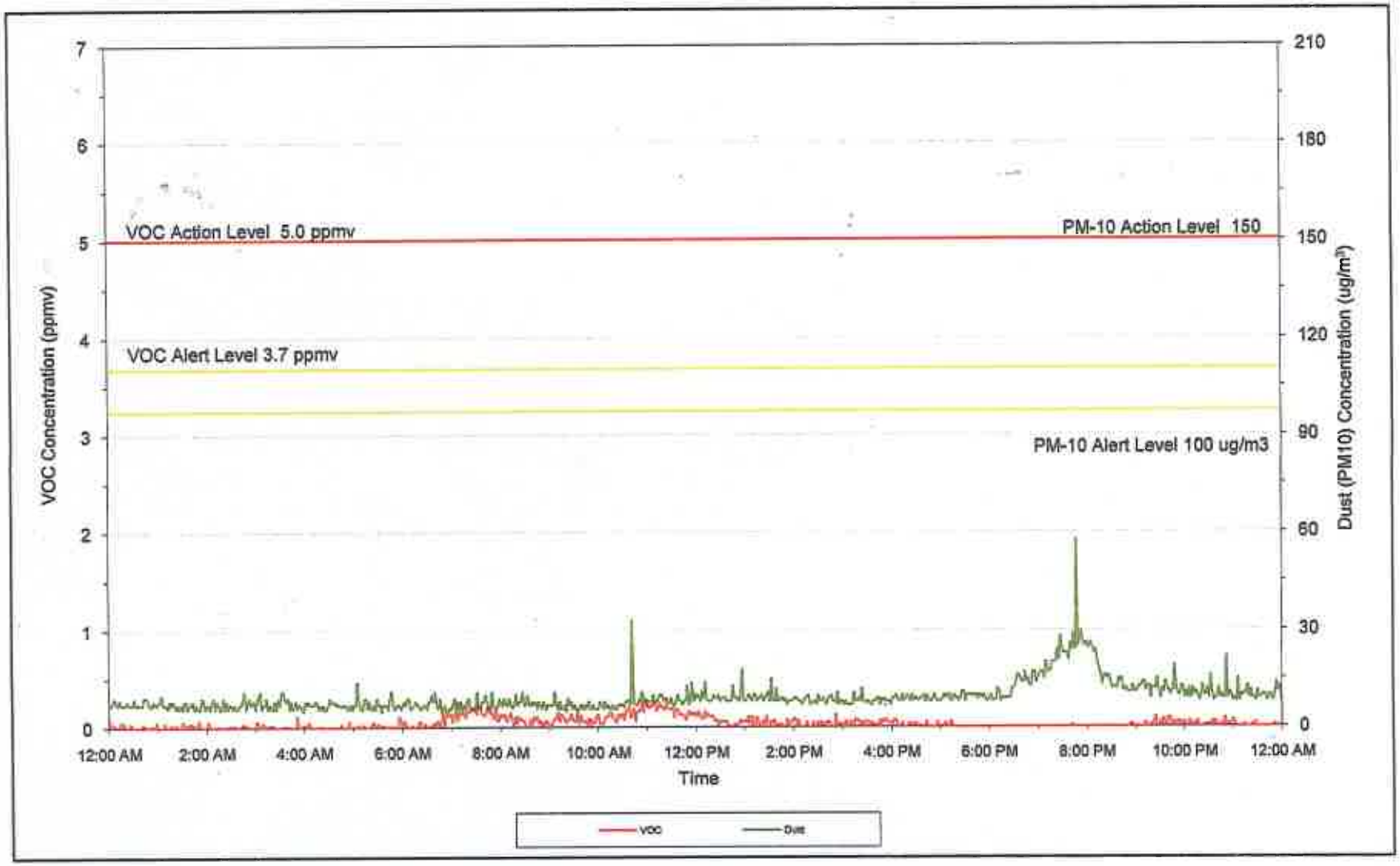



C:\XLRproject\Reports\Station3Mar10.xls

Mar 06,2010

# Community Air Monitoring
# Bay Shore Former MGP Site
# OU-1 Remedial Action Plan-Phase IV
# Bay Shore, NY
# National Grid

Station 4 - (AMS-4)

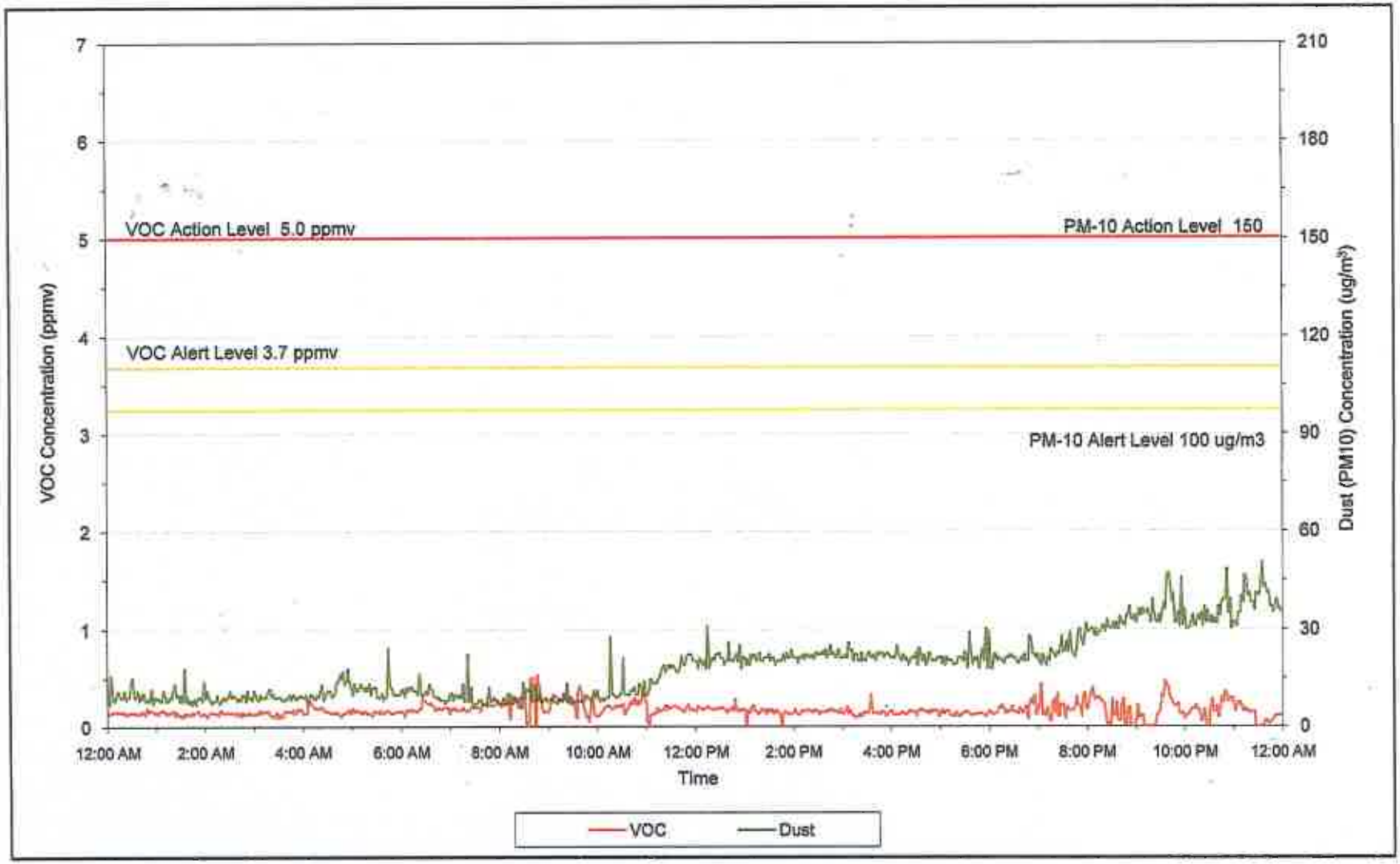



C:\XLRproject\Reports\Station4Mar10.xls

Mar 07,2010

# Community Air Monitoring
# Bay Shore Former MGP Site
# OU-1 Remedial Action Plan-Phase IV
# Bay Shore, NY
# National Grid

Station 1 - (AMS-1)

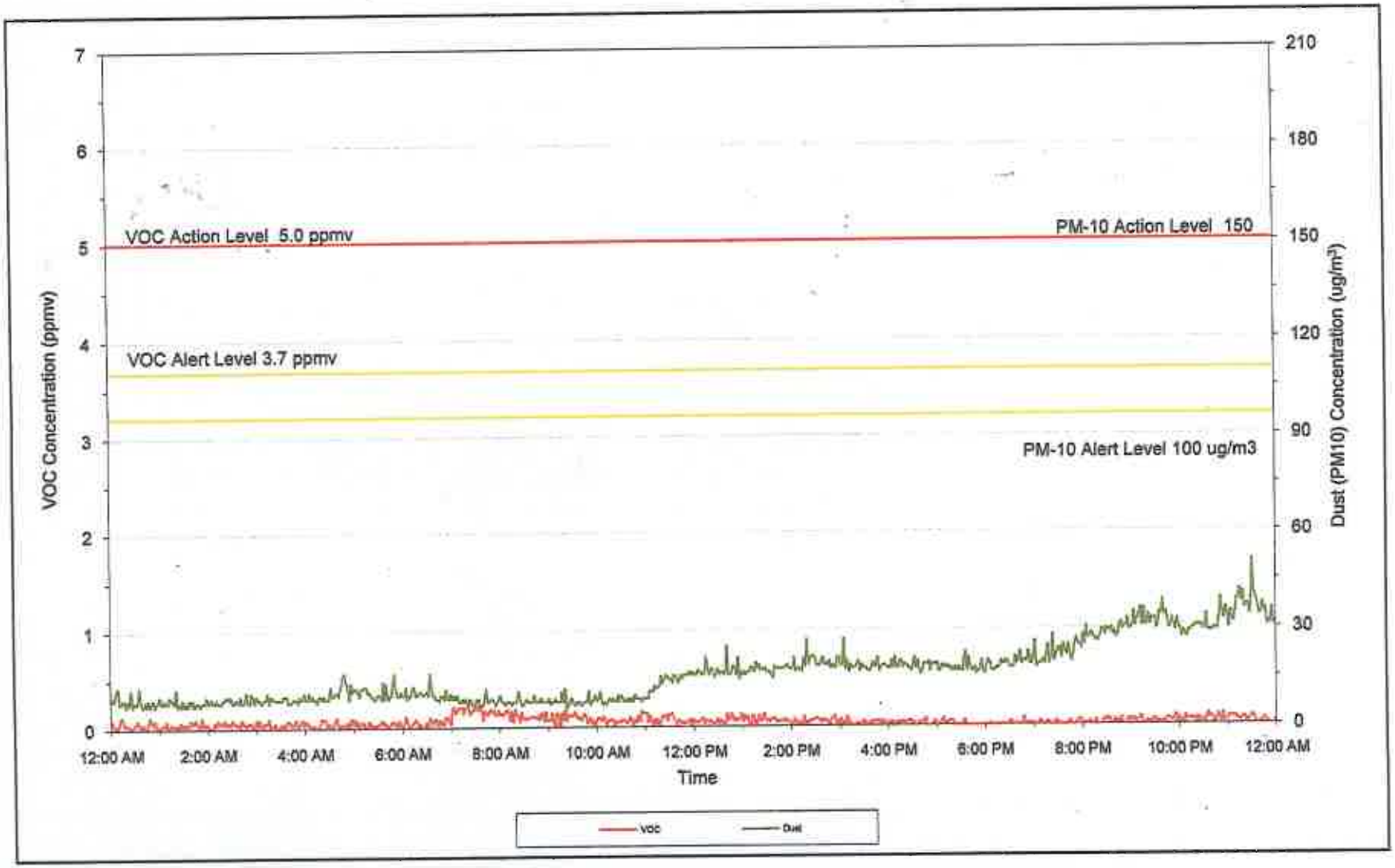



C:\XLRproject\Reports\Station1Mar10.xls

Mar 07,2010

# Community Air Monitoring
# Bay Shore Former MGP Site
# OU-1 Remedial Action Plan-Phase IV
# Bay Shore, NY
# National Grid

Station 2 - (AMS-2)

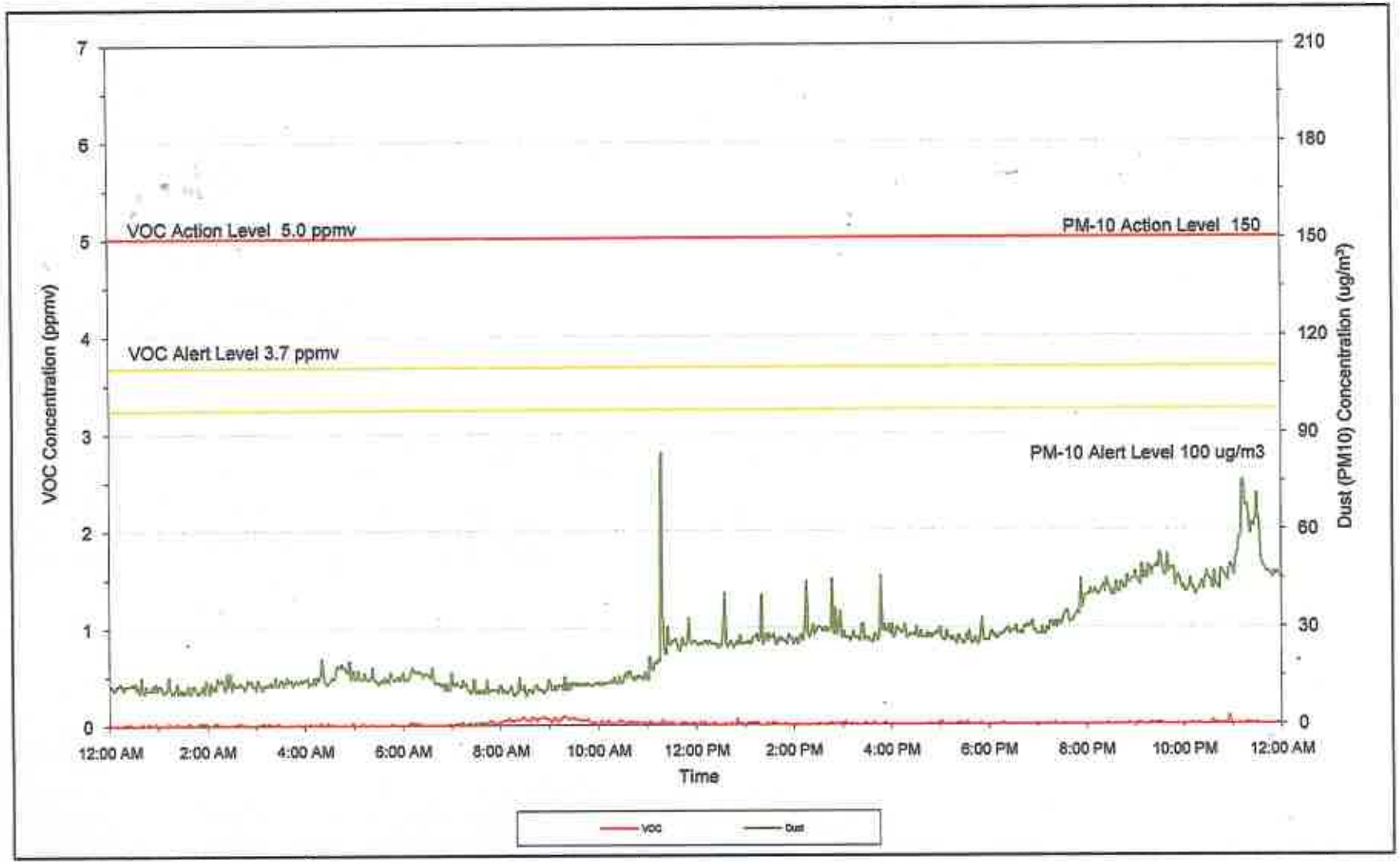



C:\XLRproject\Reports\Station2Mar10.xls

Mar 07,2010

# Community Air Monitoring
# Bay Shore Former MGP Site
# OU-1 Remedial Action Plan-Phase IV
# Bay Shore, NY
# National Grid

Station 3 - (AMS-3)

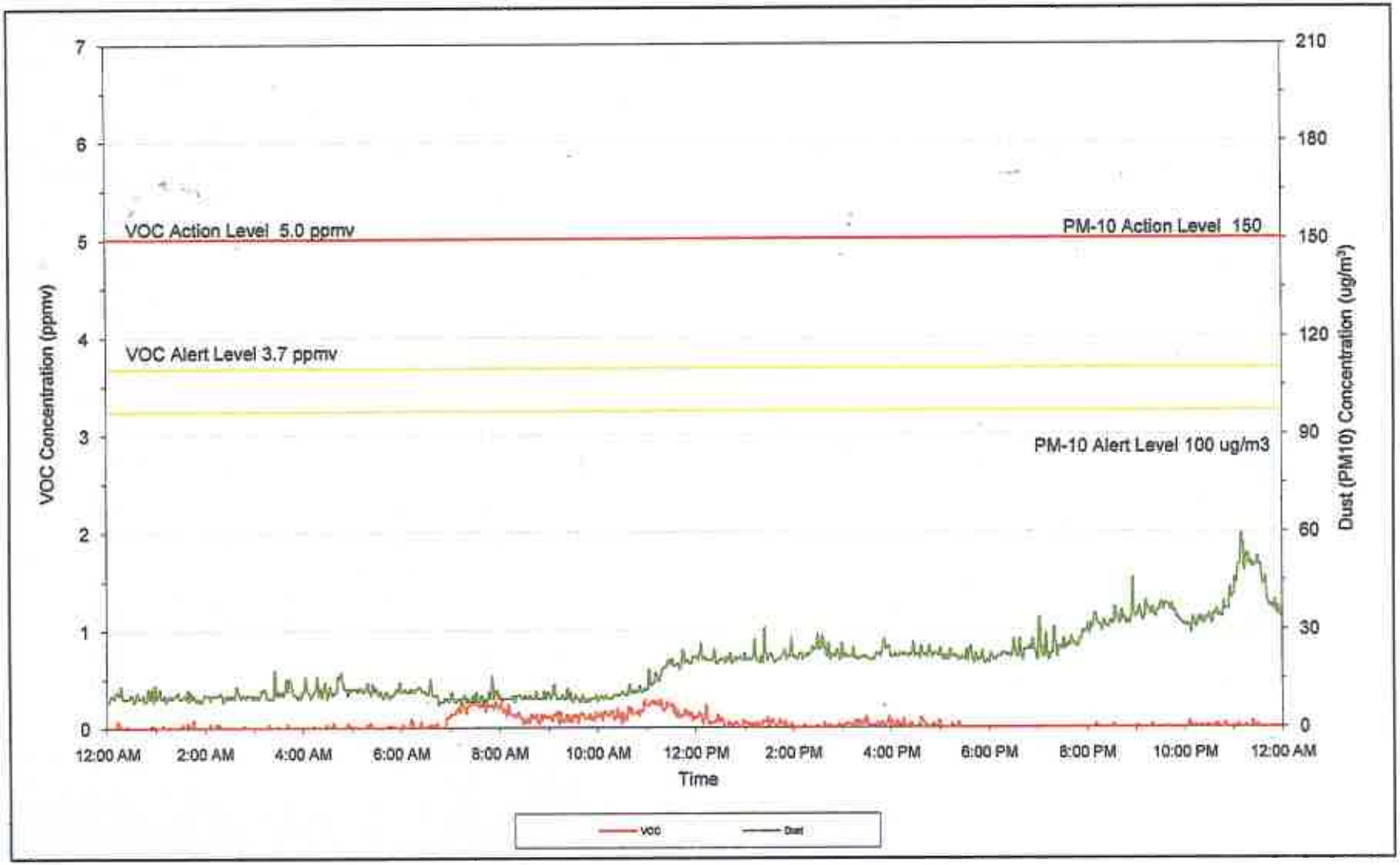



C:\XLRproject\Reports\Station3Mar10.xls

Mar 07,2010

# Community Air Monitoring
# Bay Shore Former MGP Site
# OU-1 Remedial Action Plan-Phase IV
# Bay Shore, NY
# National Grid

Station 4 - (AMS-4)

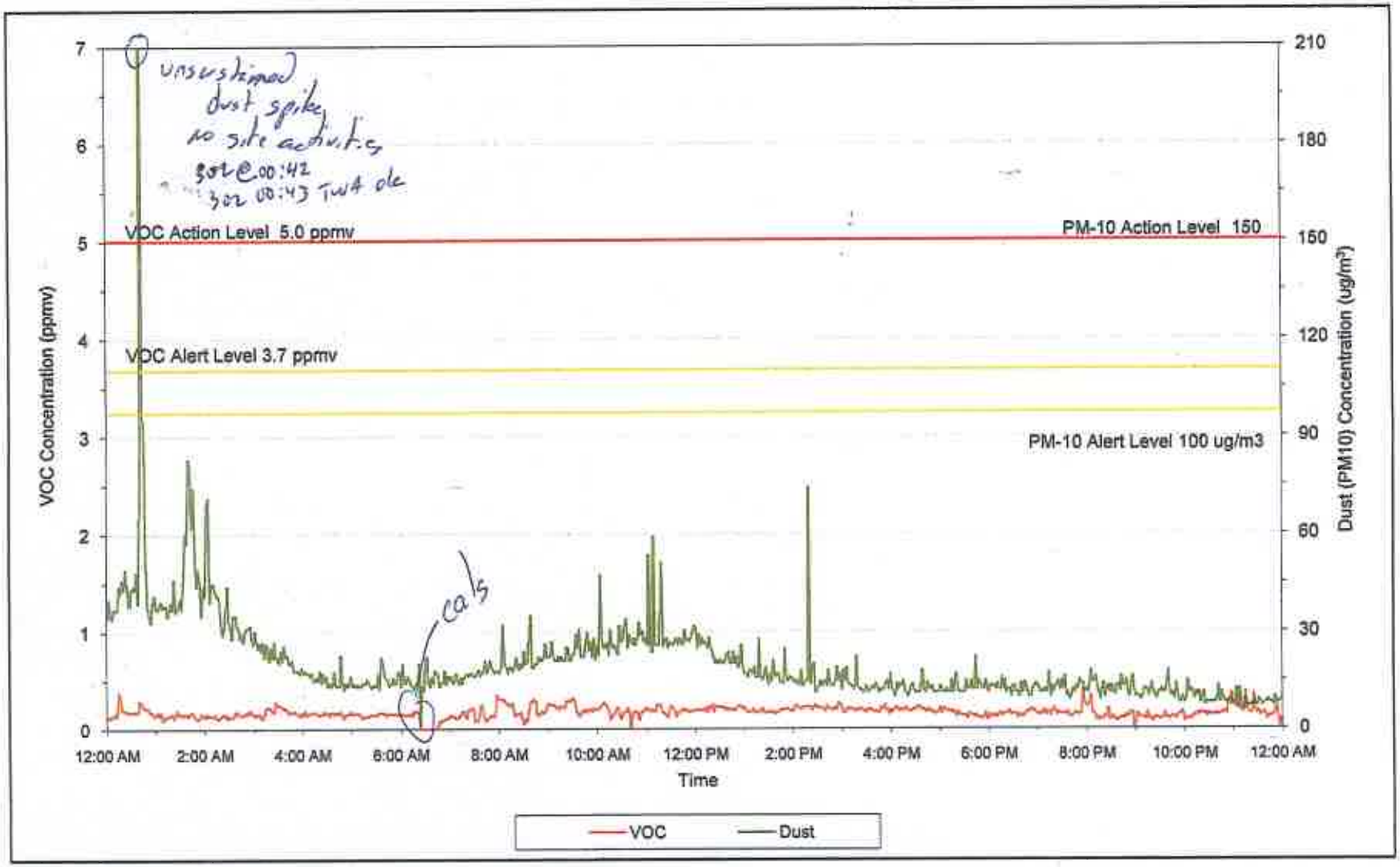



C:\XLRproject\Reports\Station4Mar10.xls

Mar 08,2010

# Community Air Monitoring
## Bay Shore Former MGP Site
## OU-1 Remedial Action Plan-Phase IV
## Bay Shore, NY
## National Grid

Station 1 - (AMS-1)

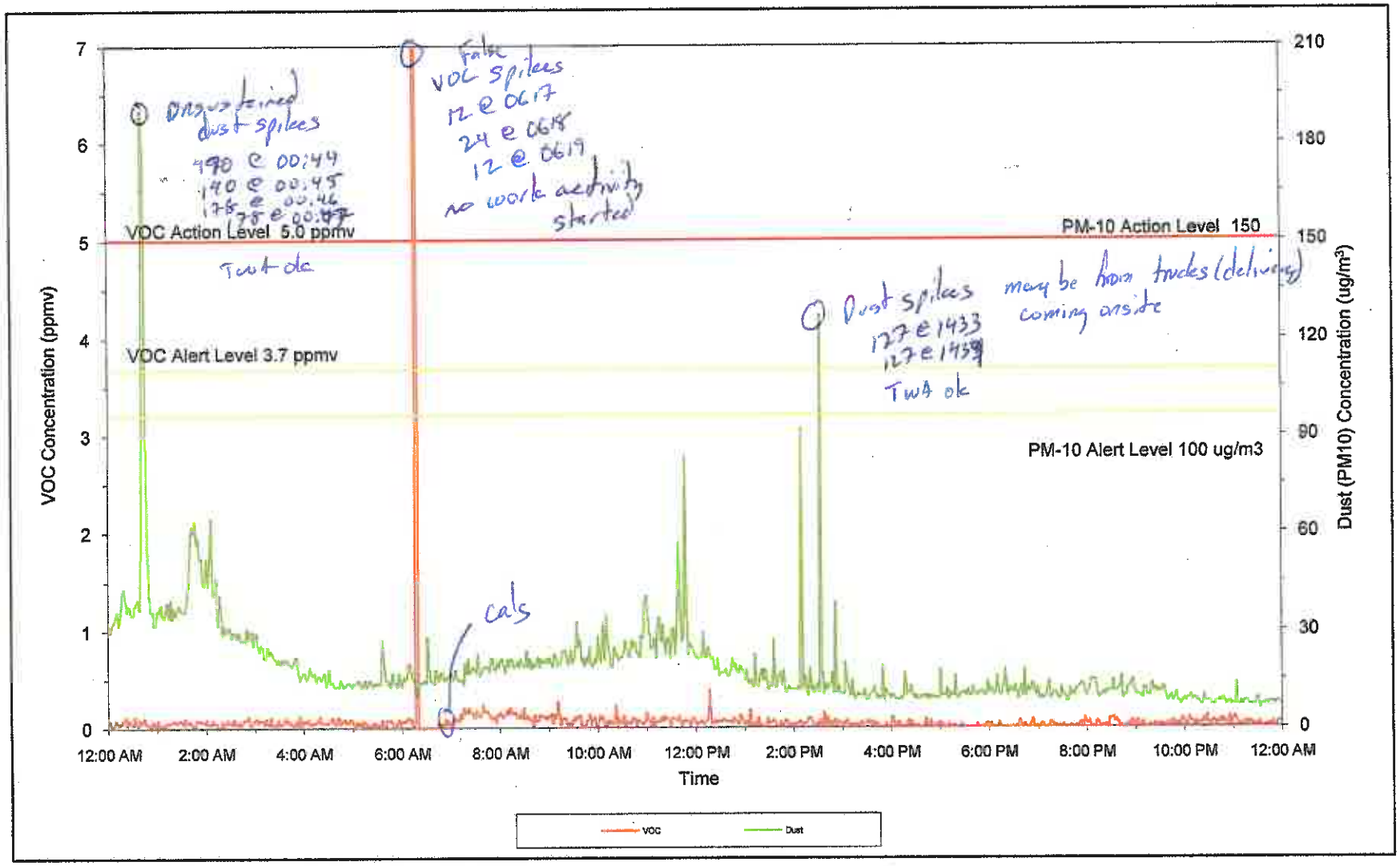



C:\XLRproject\Reports\Station1Mar10.xls

Mar 08,2010

# Community Air Monitoring
# Bay Shore Former MGP Site
# OU-1 Remedial Action Plan-Phase IV
# Bay Shore, NY
# National Grid

Station 2 - (AMS-2)

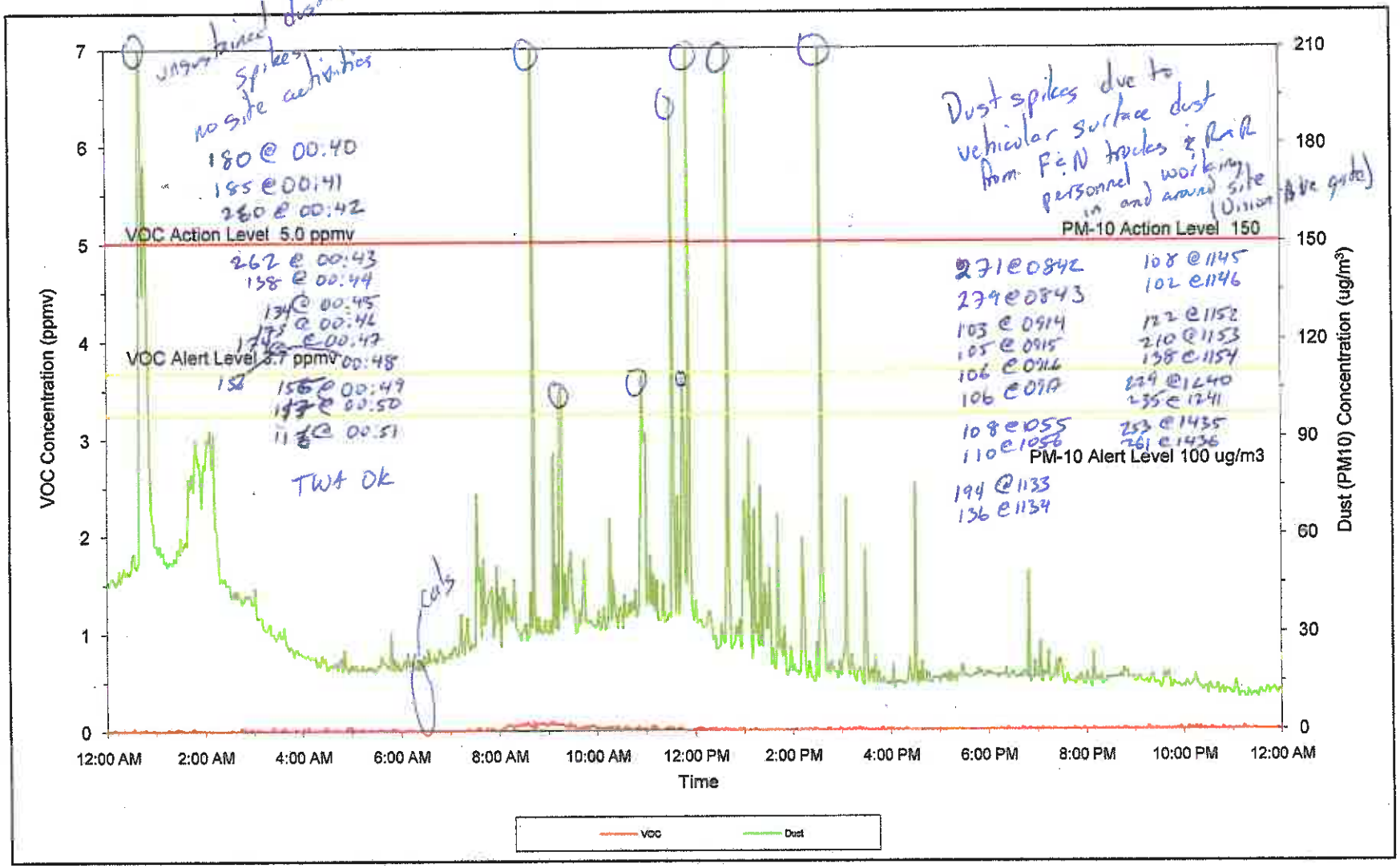



C:\XLRproject\Reports\Station2Mar10.xls

Mar 08,2010

# Community Air Monitoring
# Bay Shore Former MGP Site
# OU-1 Remedial Action Plan-Phase IV
# Bay Shore, NY
# National Grid

Station 3 - (AMS-3)

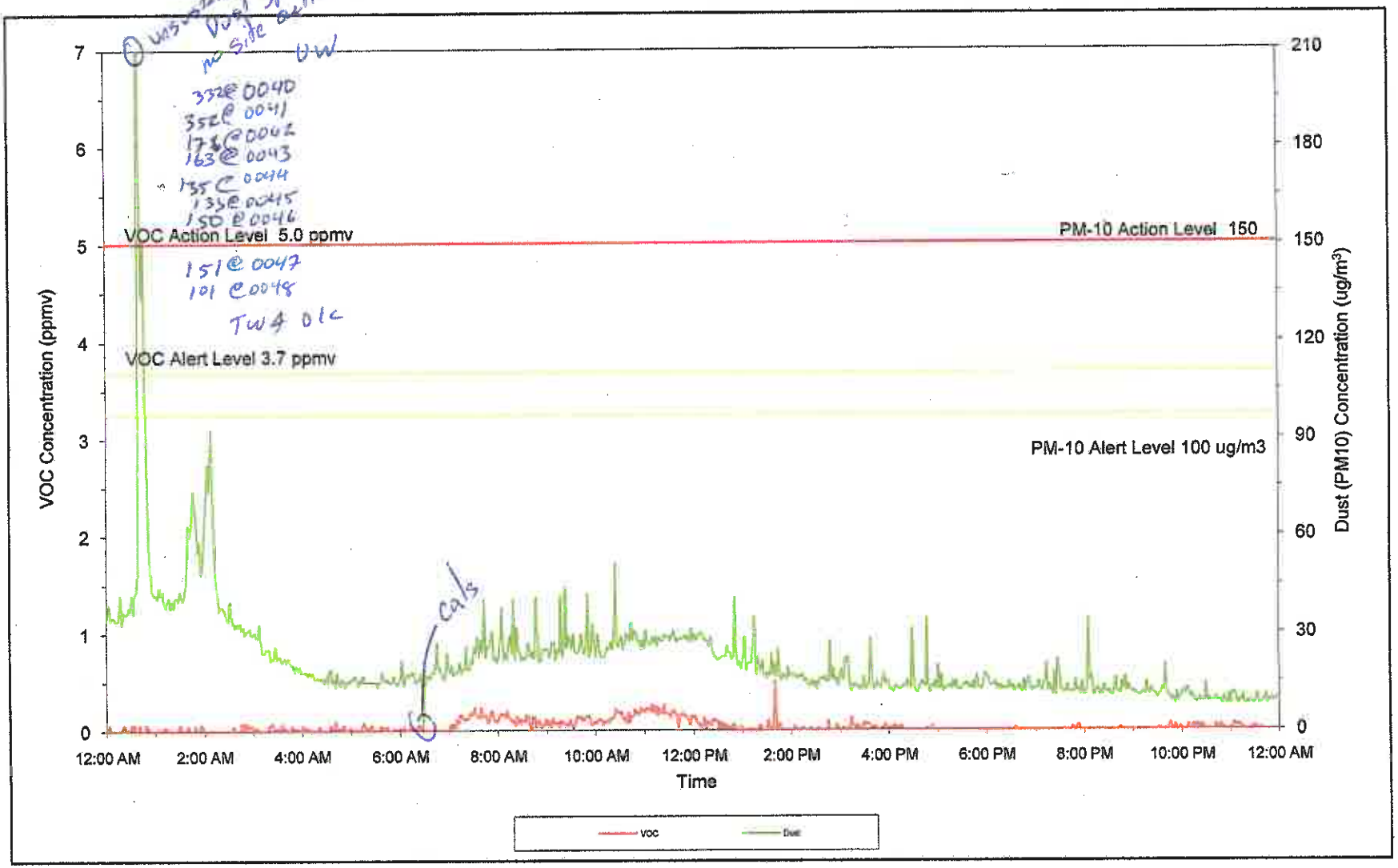



C:\XLRproject\Reports\Station3Mar10.xls

Mar 08,2010

# Community Air Monitoring
# Bay Shore Former MGP Site
# OU-1 Remedial Action Plan-Phase IV
# Bay Shore, NY
# National Grid

Station 4 - (AMS-4)

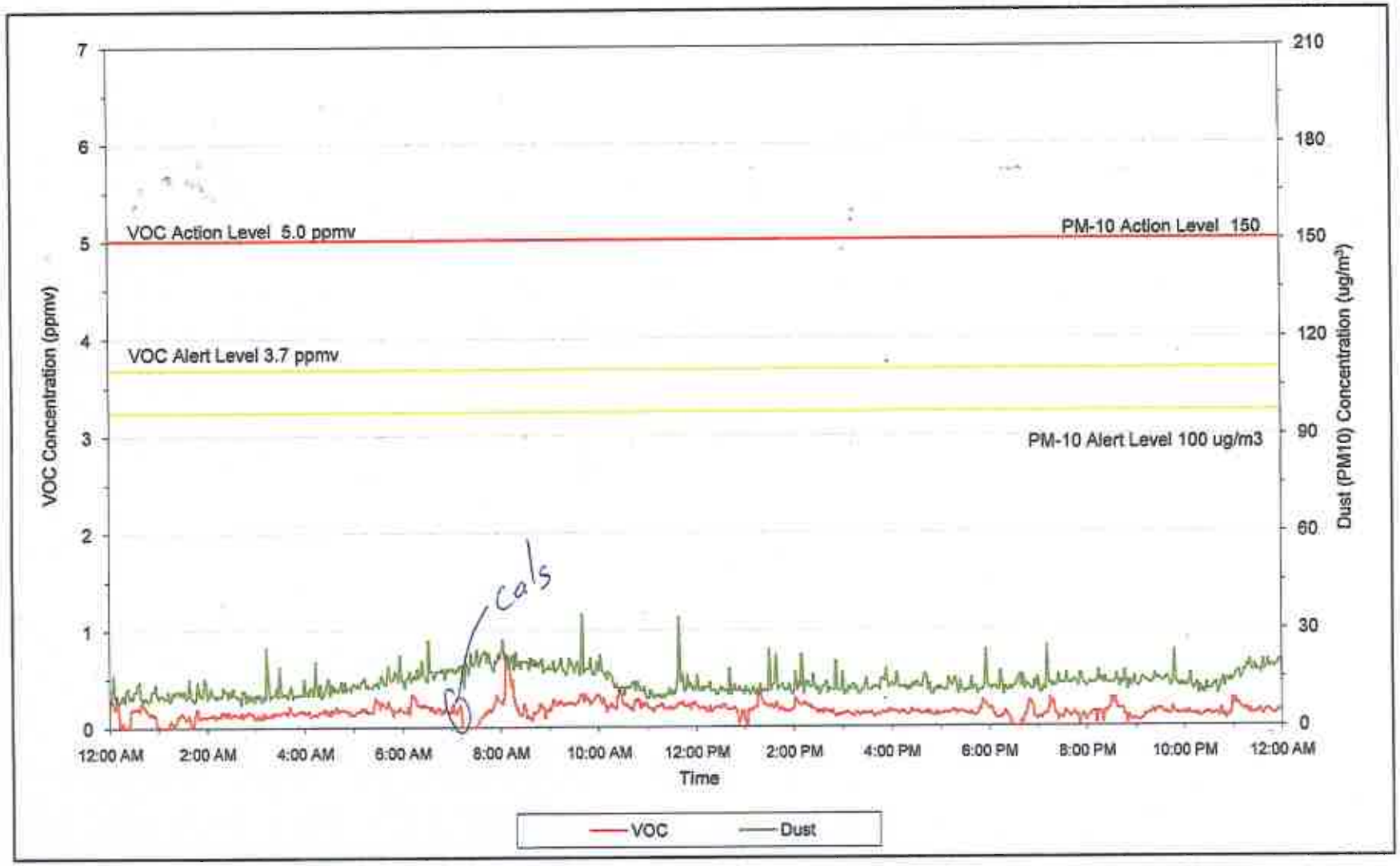



C:\XLRproject\Reports\Station4Mar10.xls

Mar 09,2010

# Community Air Monitoring
# Bay Shore Former MGP Site
# OU-1 Remedial Action Plan-Phase IV
# Bay Shore, NY
# National Grid

Station 1 - (AMS-1)

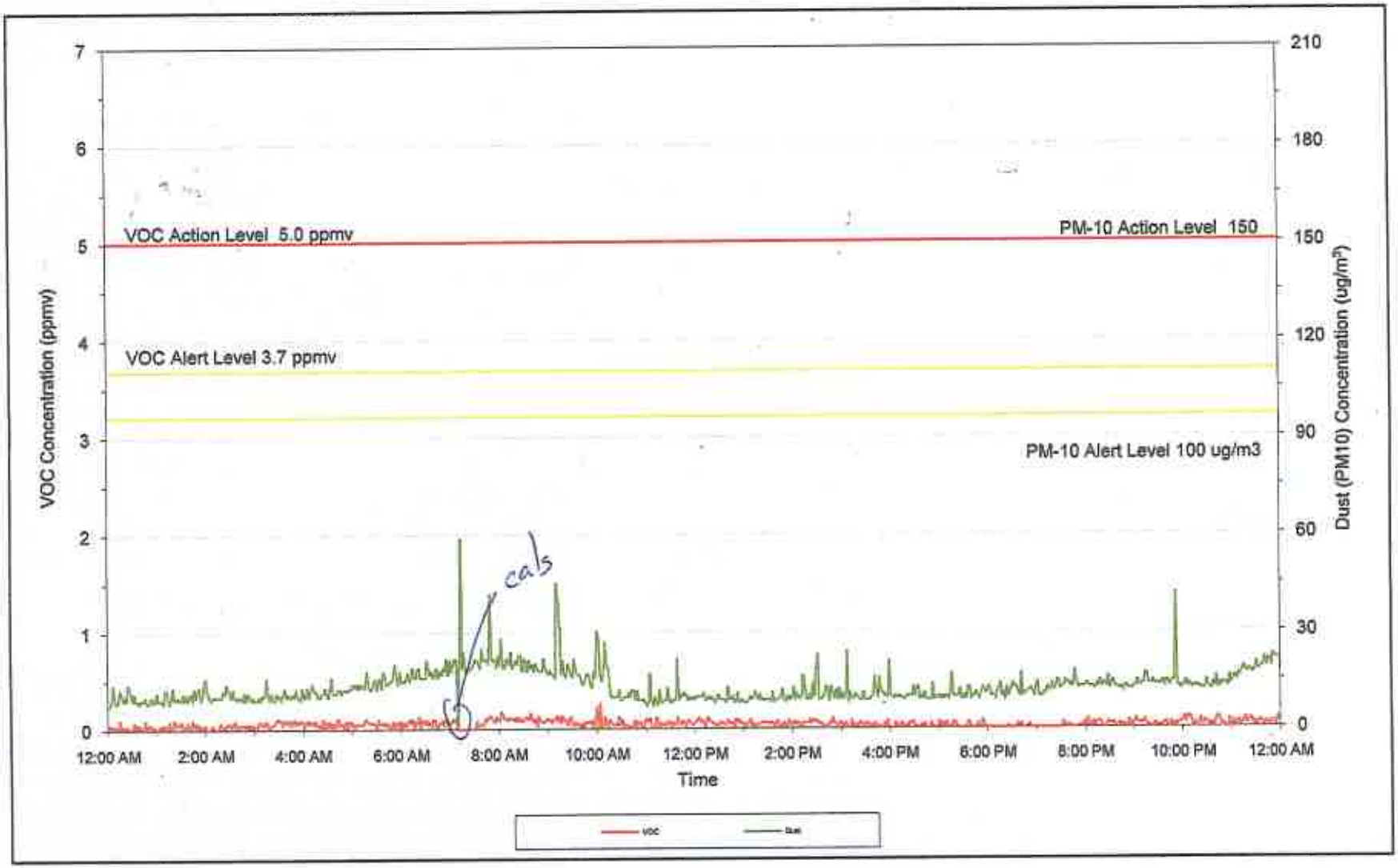



C:\XLRproject\Reports\Station1Mar10.xls

Mar 09,2010

# Community Air Monitoring
# Bay Shore Former MGP Site
# OU-1 Remedial Action Plan-Phase IV
# Bay Shore, NY
# National Grid

Station 2 - (AMS-2)

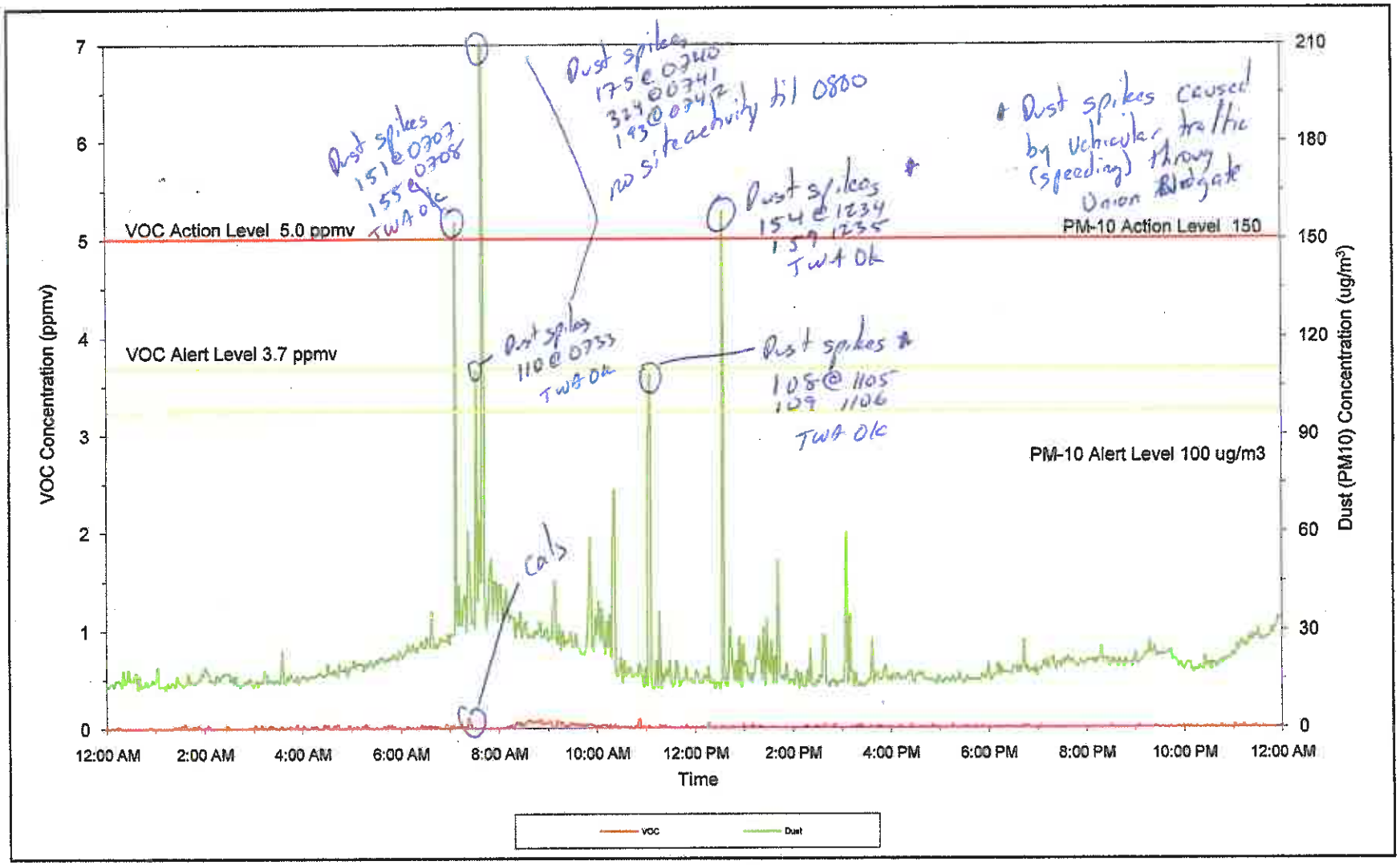



C:\XLRproject\Reports\Station2Mar10.xls

Mar 09,2010

# Community Air Monitoring
# Bay Shore Former MGP Site
# OU-1 Remedial Action Plan-Phase IV
# Bay Shore, NY
# National Grid

Station 3 - (AMS-3)

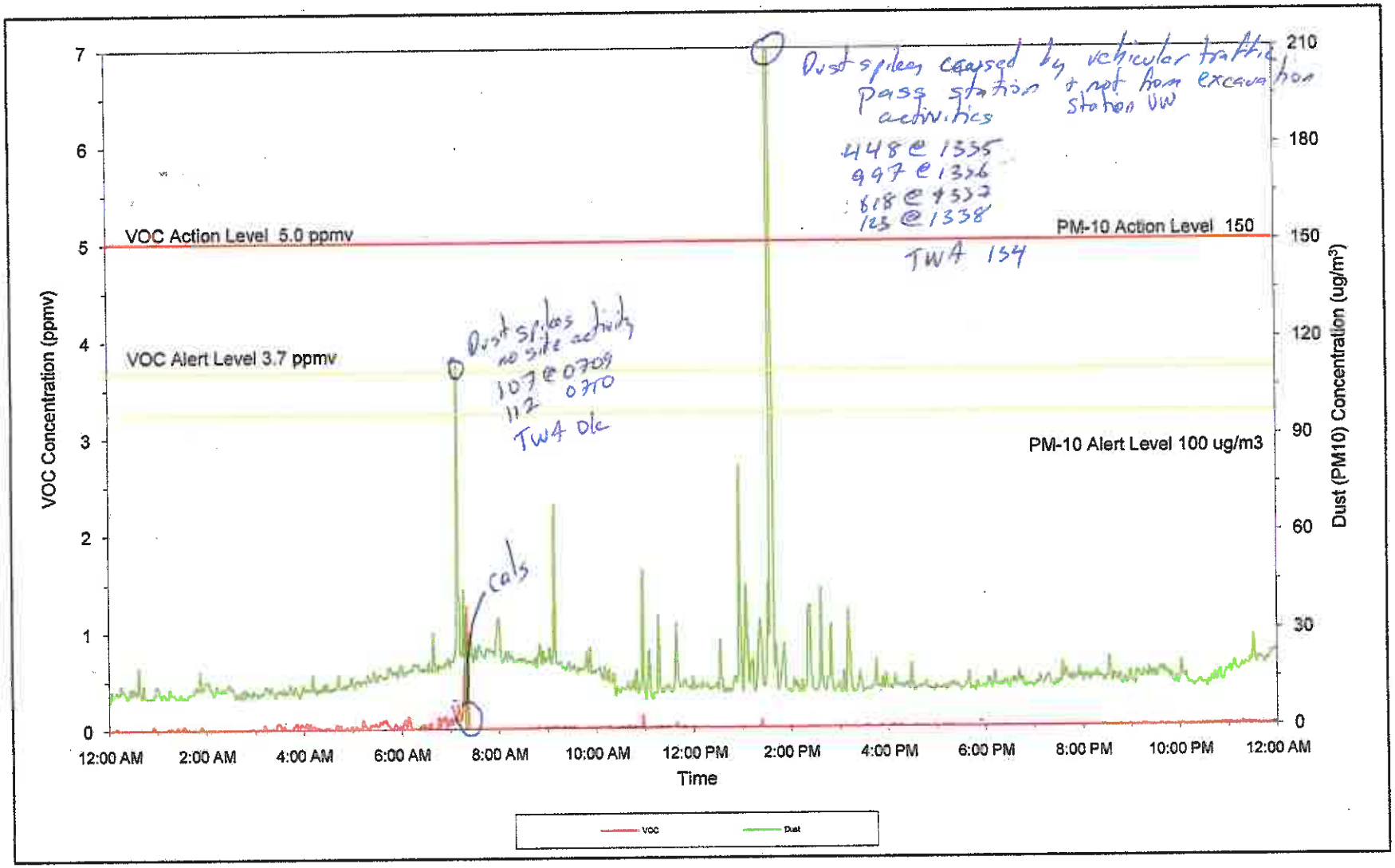



C:\XLRproject\Reports\Station3Mar10.xls

Mar 09,2010

# Community Air Monitoring
## Bay Shore Former MGP Site
## OU-1 Remedial Action Plan-Phase IV
## Bay Shore, NY
## National Grid

Station 4 - (AMS-4)

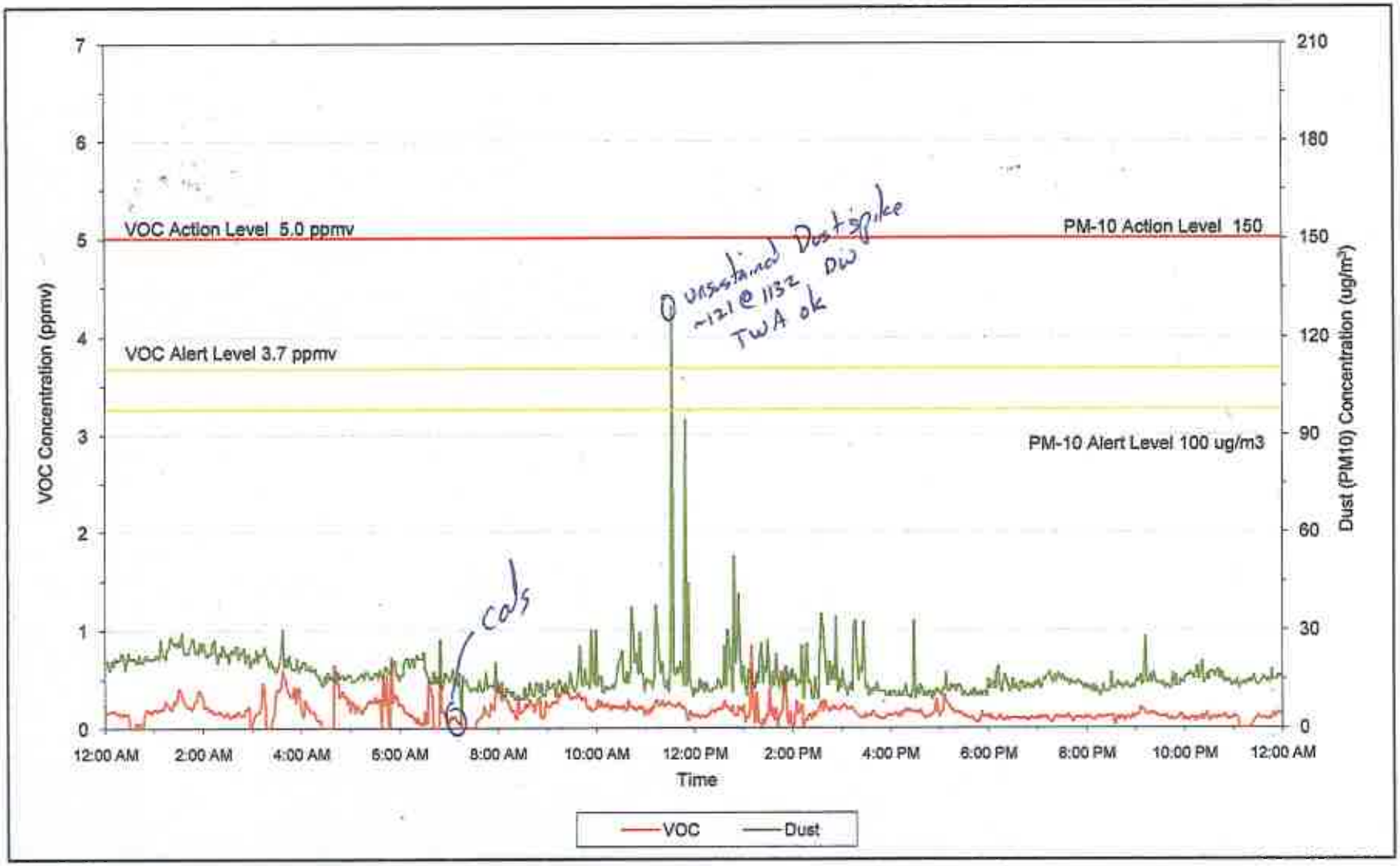



C:\XLRproject\Reports\Station4Mar10.xls

Mar 10,2010

# Community Air Monitoring
## Bay Shore Former MGP Site
## OU-1 Remedial Action Plan-Phase IV
## Bay Shore, NY
## National Grid

Station 1 - (AMS-1)

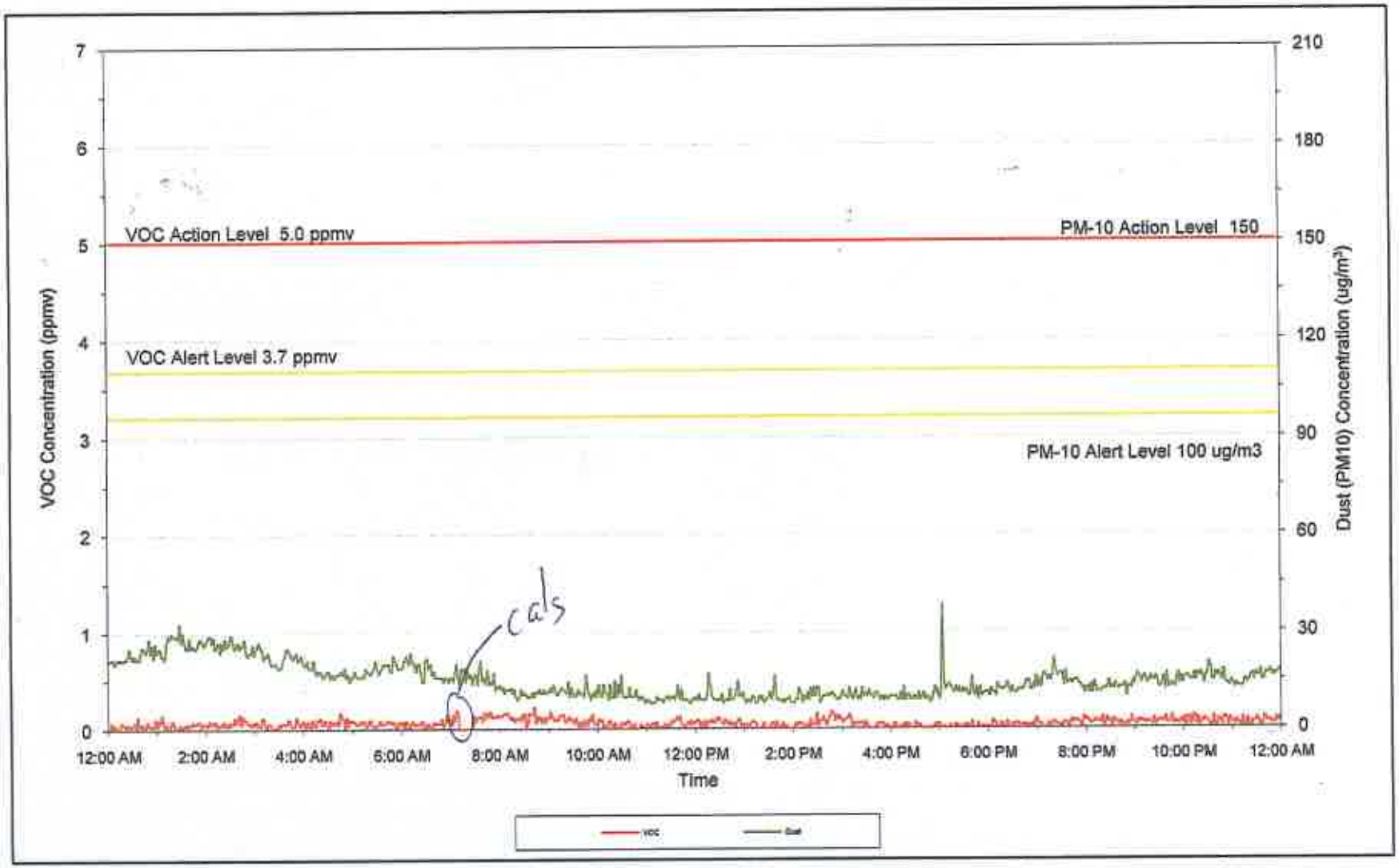



C:\XLRproject\Reports\STA1_ONDEMANDMar10.xls

Mar 10,2010

# Community Air Monitoring
# Bay Shore Former MGP Site
# OU-1 Remedial Action Plan-Phase IV
# Bay Shore, NY
# National Grid

Station 2 - (AMS-2)

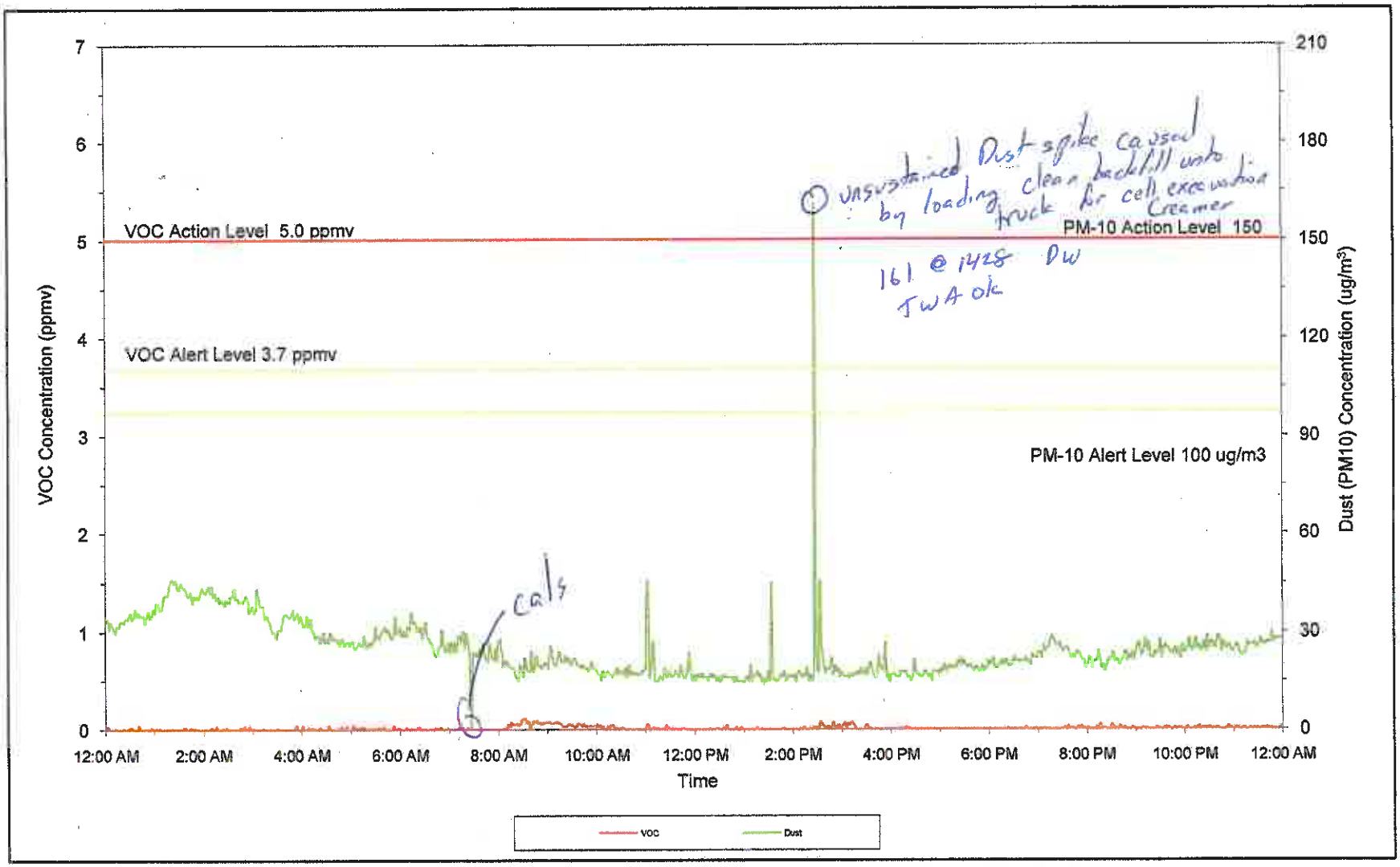



C:\XLRproject\Reports\Station2Mar10.xls

Mar 10,2010

# Community Air Monitoring
## Bay Shore Former MGP Site
## OU-1 Remedial Action Plan-Phase IV
## Bay Shore, NY
## National Grid

Station 3 - (AMS-3)

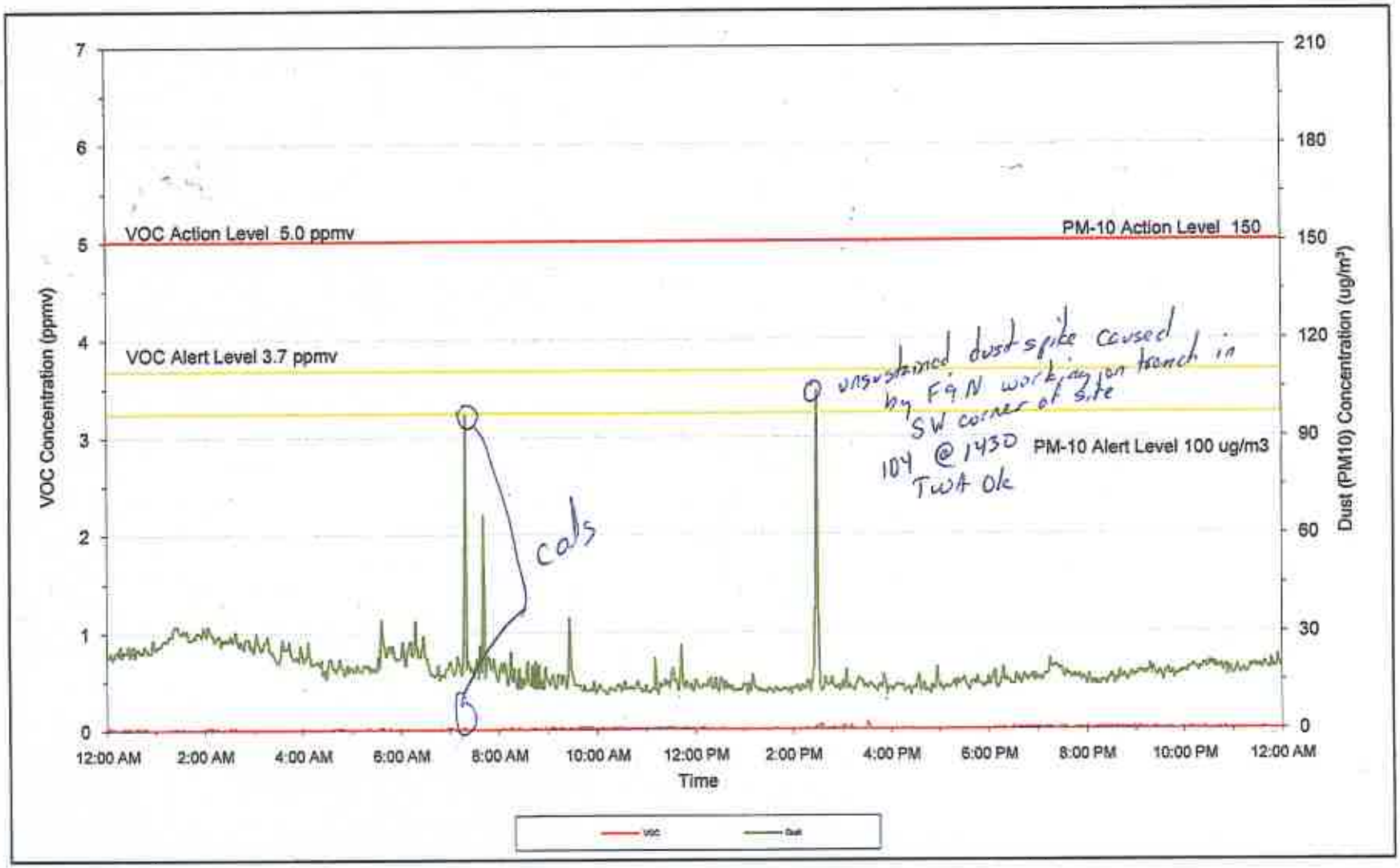



C:\XLRproject\Reports\Station3Mar10.xls

Mar 10,2010

# Community Air Monitoring
## Bay Shore Former MGP Site
## OU-1 Remedial Action Plan-Phase IV
## Bay Shore, NY
## National Grid

Station 4 - (AMS-4)

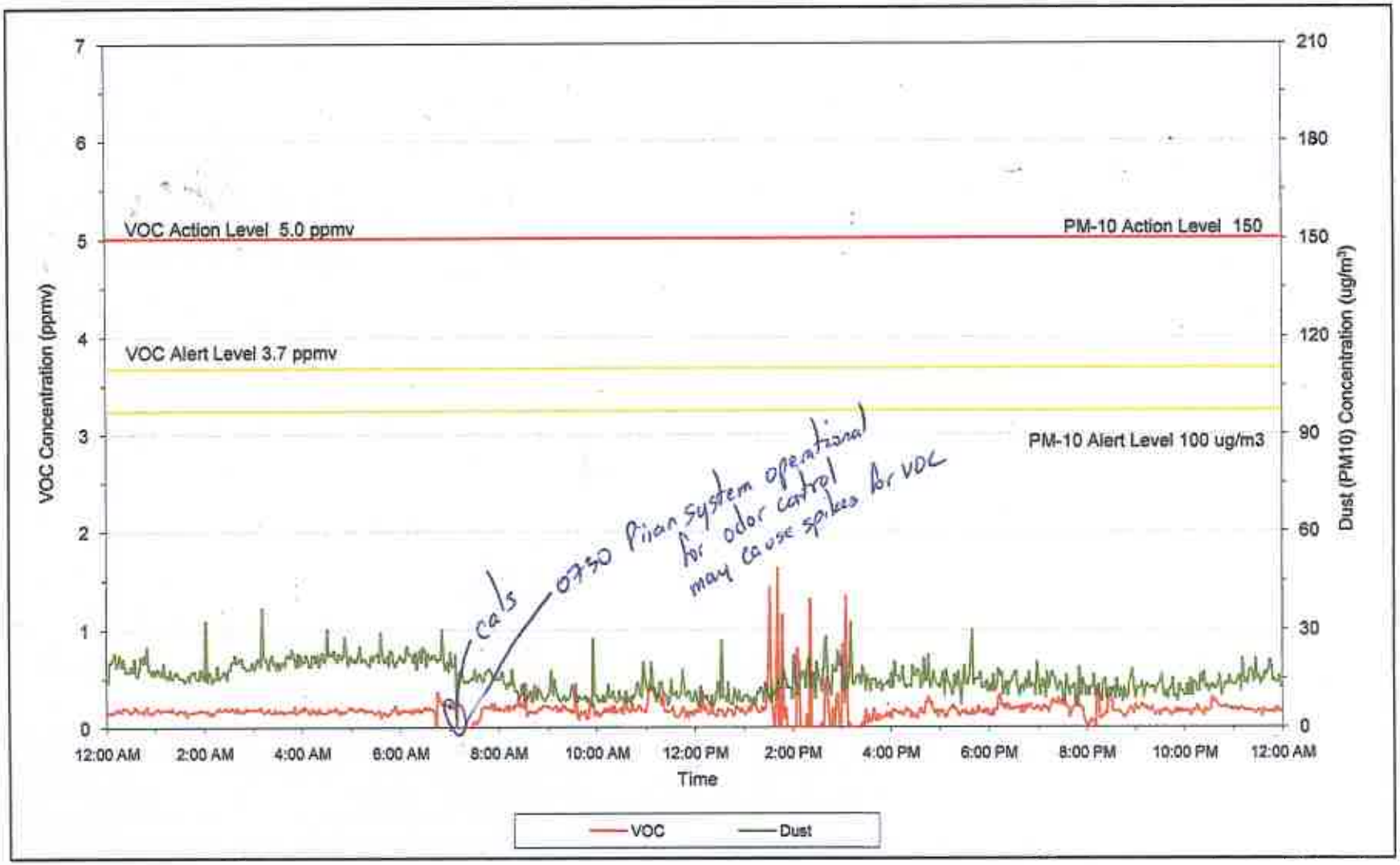



C:\XLRproject\Reports\Station4Mar10.xls

Mar 11,2010

# Community Air Monitoring
## Bay Shore Former MGP Site
## OU-1 Remedial Action Plan-Phase IV
## Bay Shore, NY
## National Grid

Station 1 - (AMS-1)

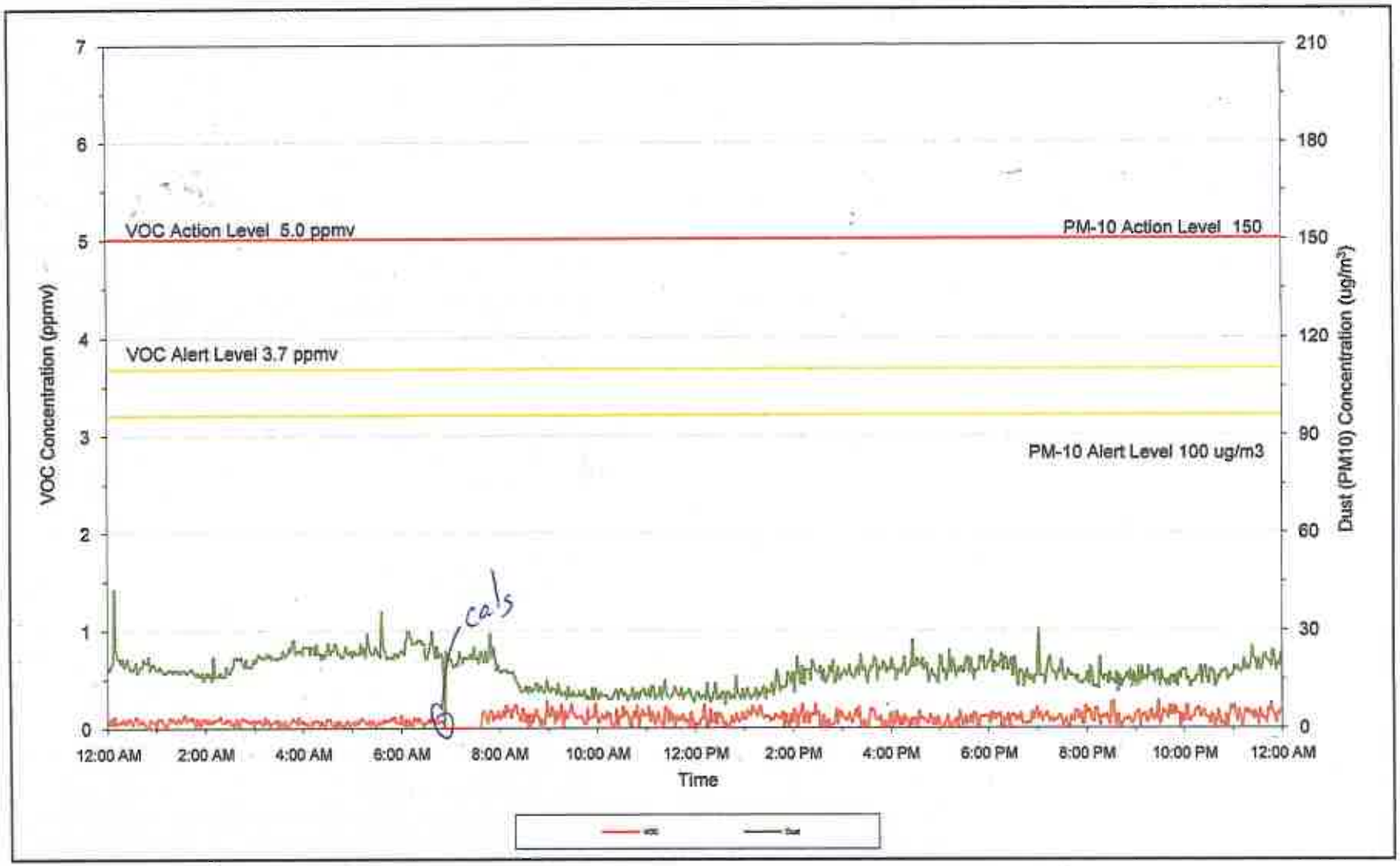



C:\XLRproject\Reports\Station1Mar10.xls

Mar 11,2010

# Community Air Monitoring
# Bay Shore Former MGP Site
# OU-1 Remedial Action Plan-Phase IV
# Bay Shore, NY
# National Grid

Station 2 - (AMS-2)

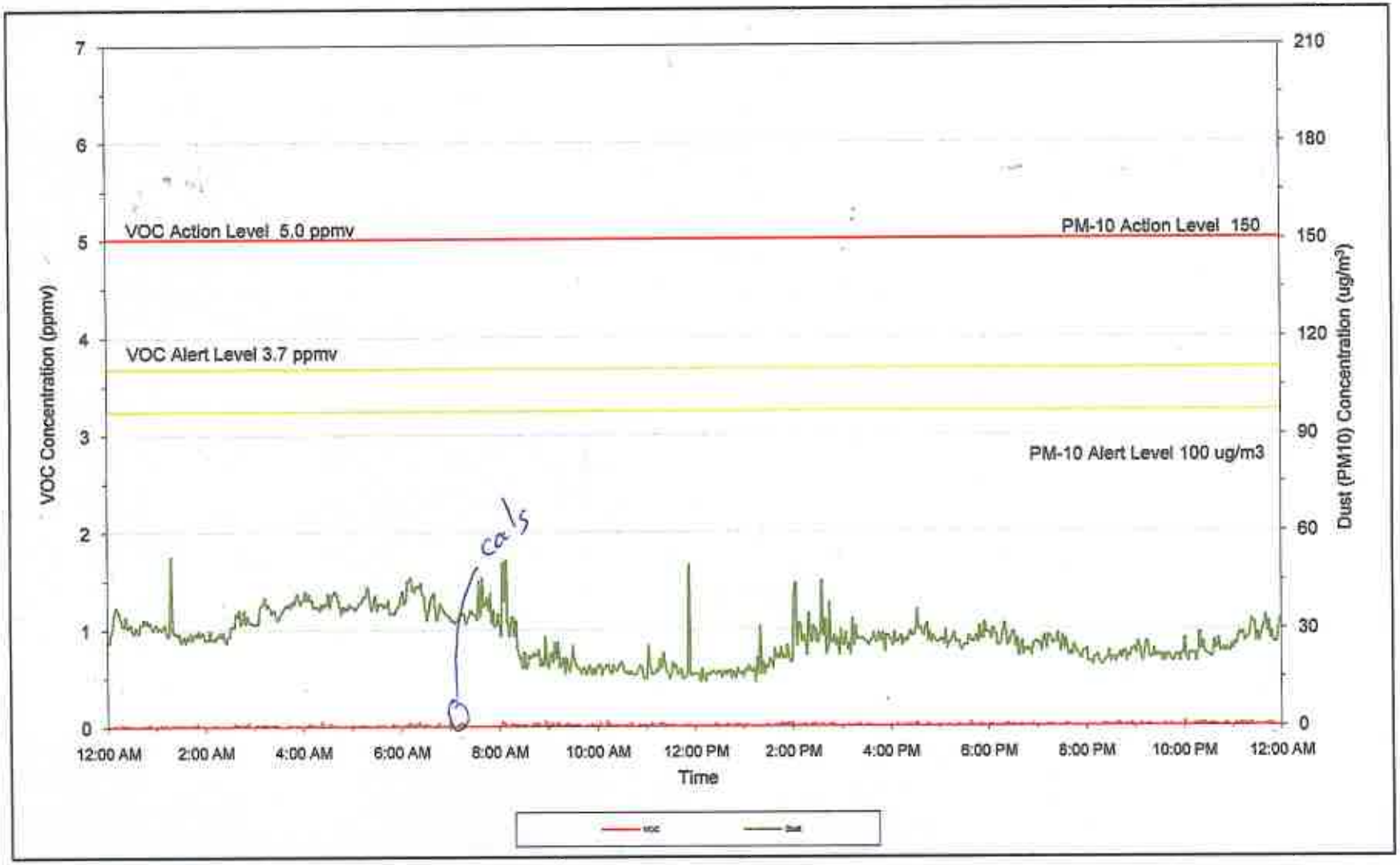



C:\XLRproject\Reports\Station2Mar10.xls

Mar 11,2010

# Community Air Monitoring
# Bay Shore Former MGP Site
# OU-1 Remedial Action Plan-Phase IV
# Bay Shore, NY
# National Grid

Station 3 - (AMS-3)

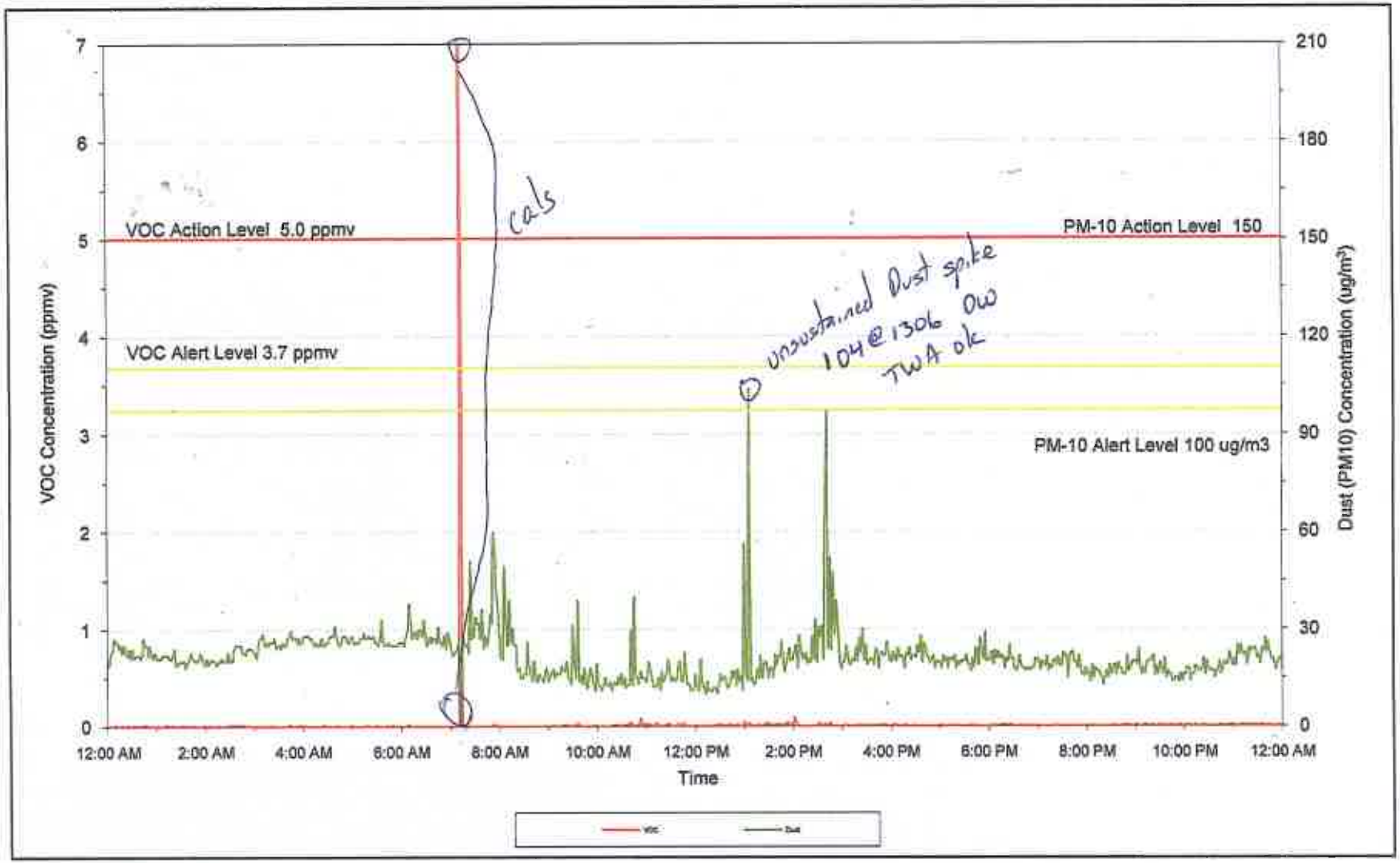



C:\XLRproject\Reports\Station3Mar10.xls

Mar 11,2010

# Community Air Monitoring
# Bay Shore Former MGP Site
# OU-1 Remedial Action Plan-Phase IV
# Bay Shore, NY
# National Grid

Station 4 - (AMS-4)

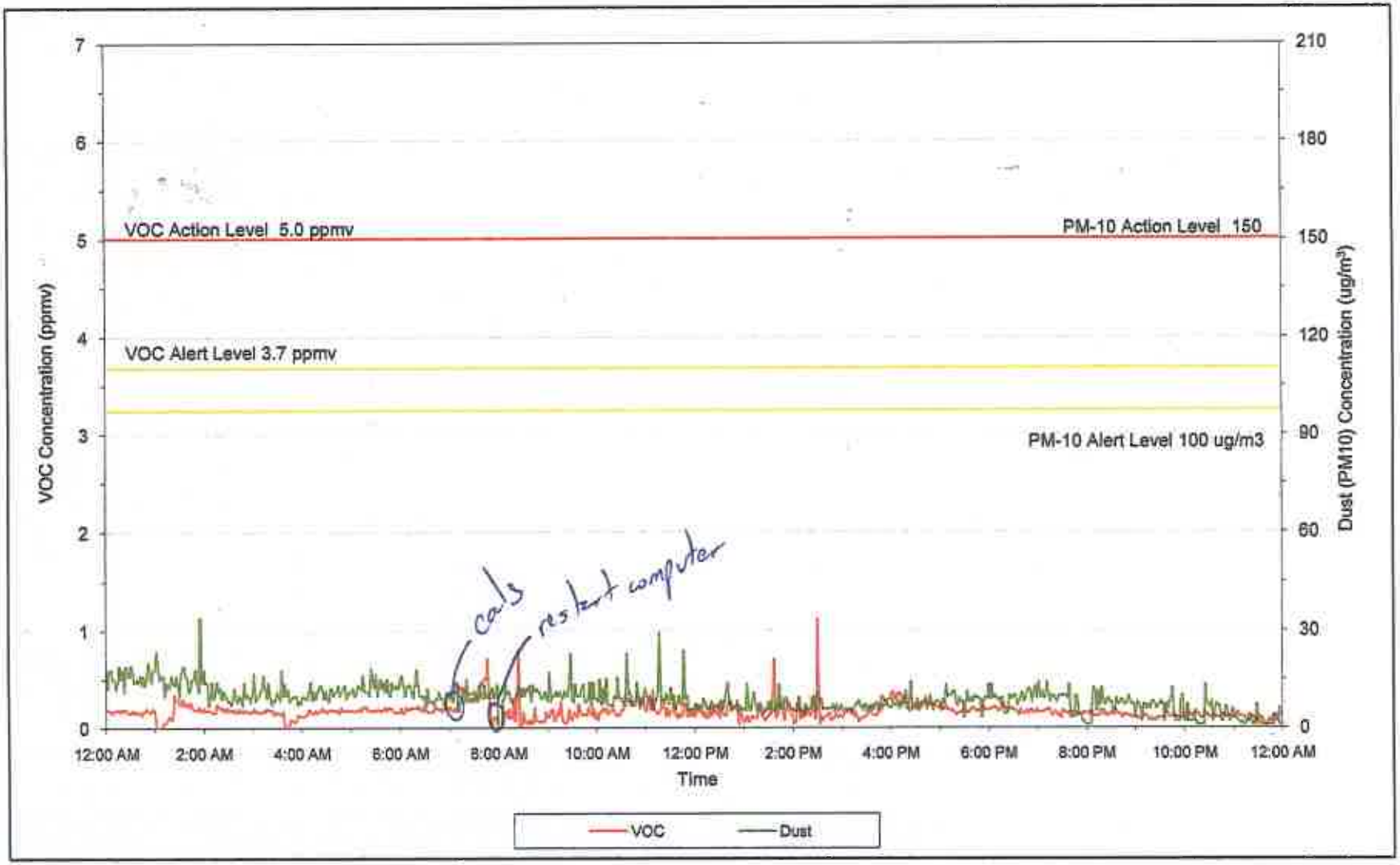



C:\XLRproject\Reports\Station4Mar10.xls

Mar 12,2010

# Community Air Monitoring
# Bay Shore Former MGP Site
# OU-1 Remedial Action Plan-Phase IV
# Bay Shore, NY
# National Grid

Station 1 - (AMS-1)

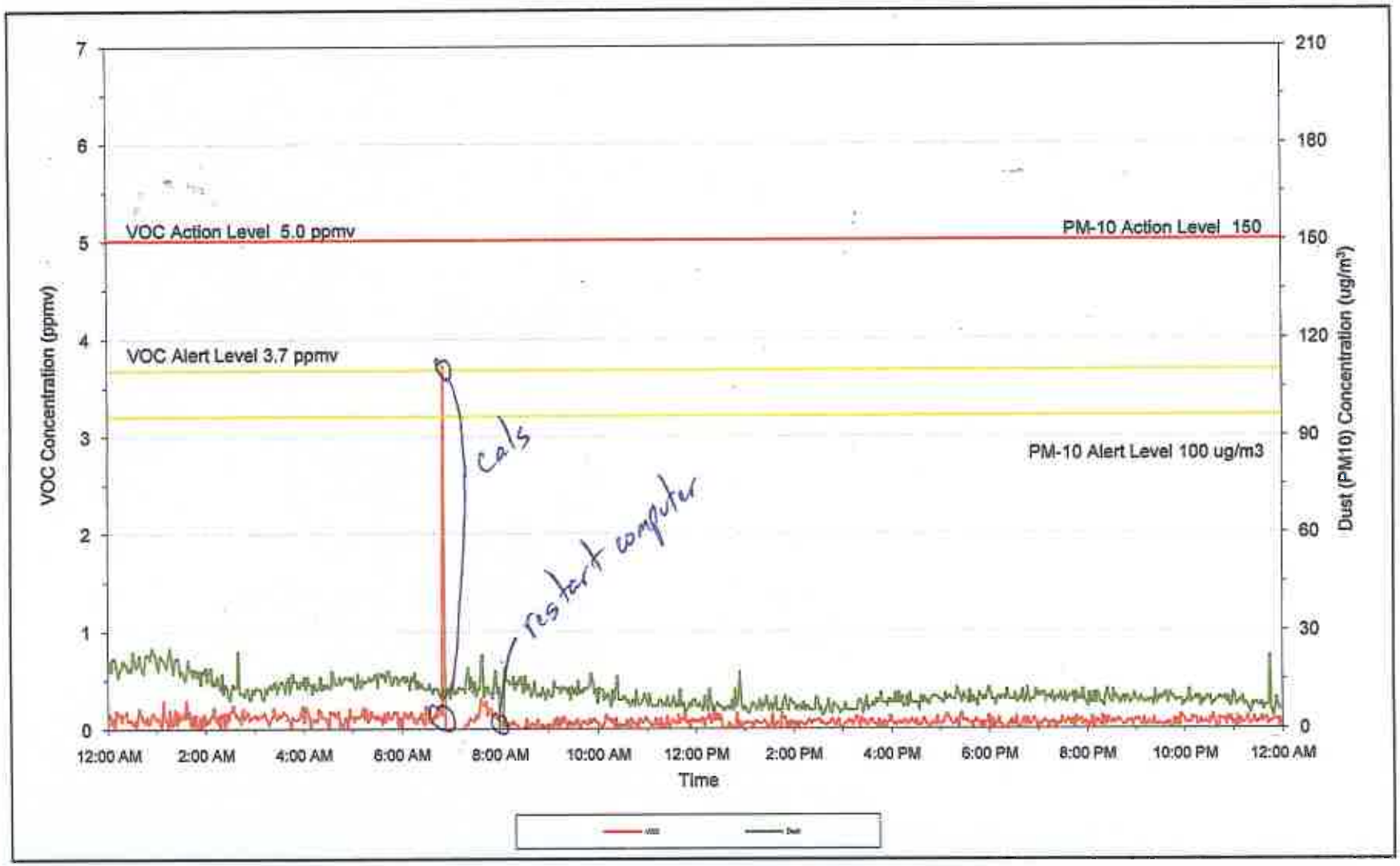



C:\XLRproject\Reports\Station1Mar10.xls

Mar 12,2010

# Community Air Monitoring
# Bay Shore Former MGP Site
# OU-1 Remedial Action Plan-Phase IV
# Bay Shore, NY
# National Grid

Station 2 - (AMS-2)

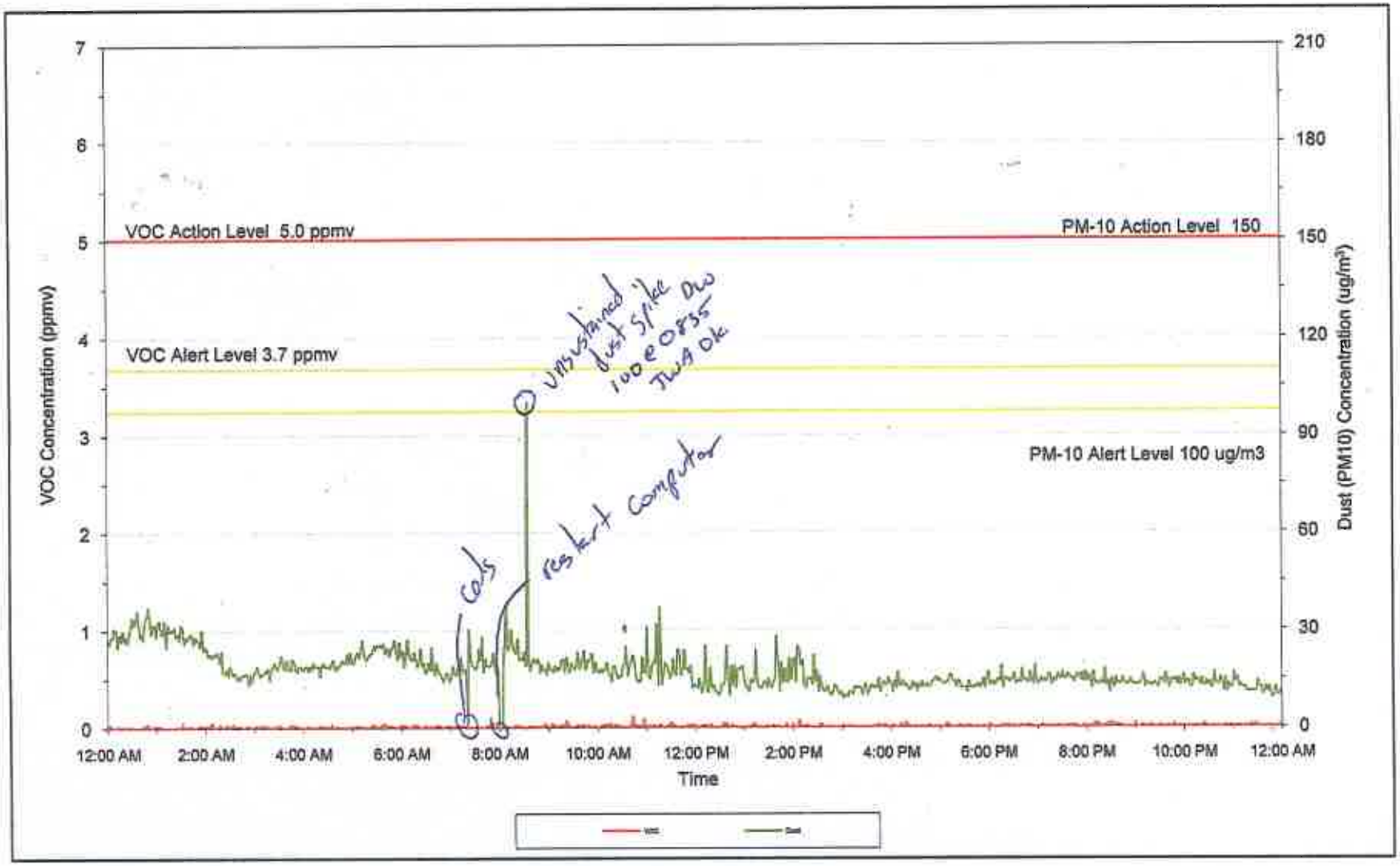



C:\XLRproject\Reports\Station2Mar10.xls

Mar 12,2010

# Community Air Monitoring
# Bay Shore Former MGP Site
# OU-1 Remedial Action Plan-Phase IV
# Bay Shore, NY
# National Grid

Station 3 - (AMS-3)

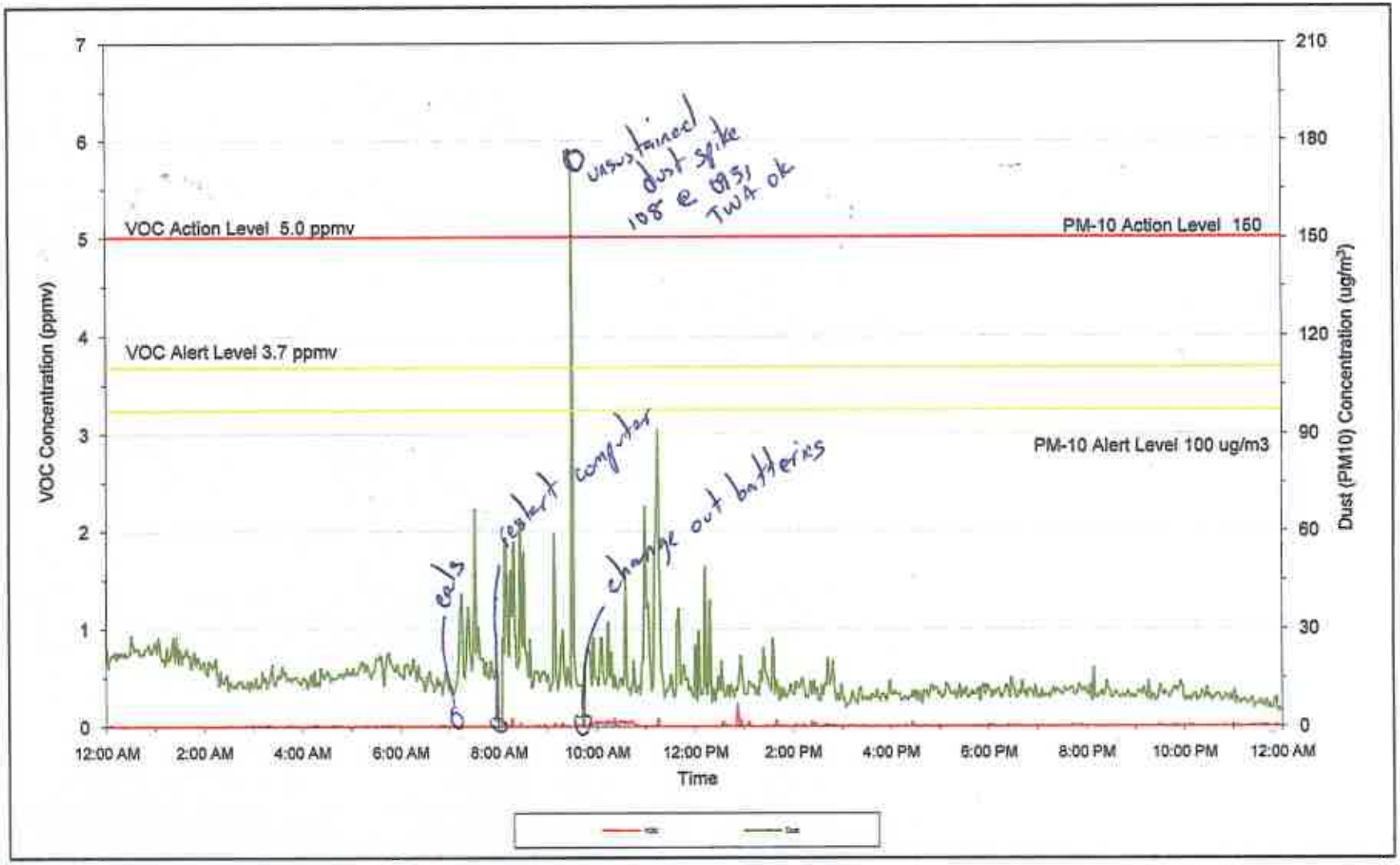



C:\XLRproject\Reports\Station3Mar10.xls

Mar 12,2010

# Community Air Monitoring
# Bay Shore Former MGP Site
# OU-1 Remedial Action Plan-Phase IV
# Bay Shore, NY
# National Grid

Station 4 - (AMS-4)

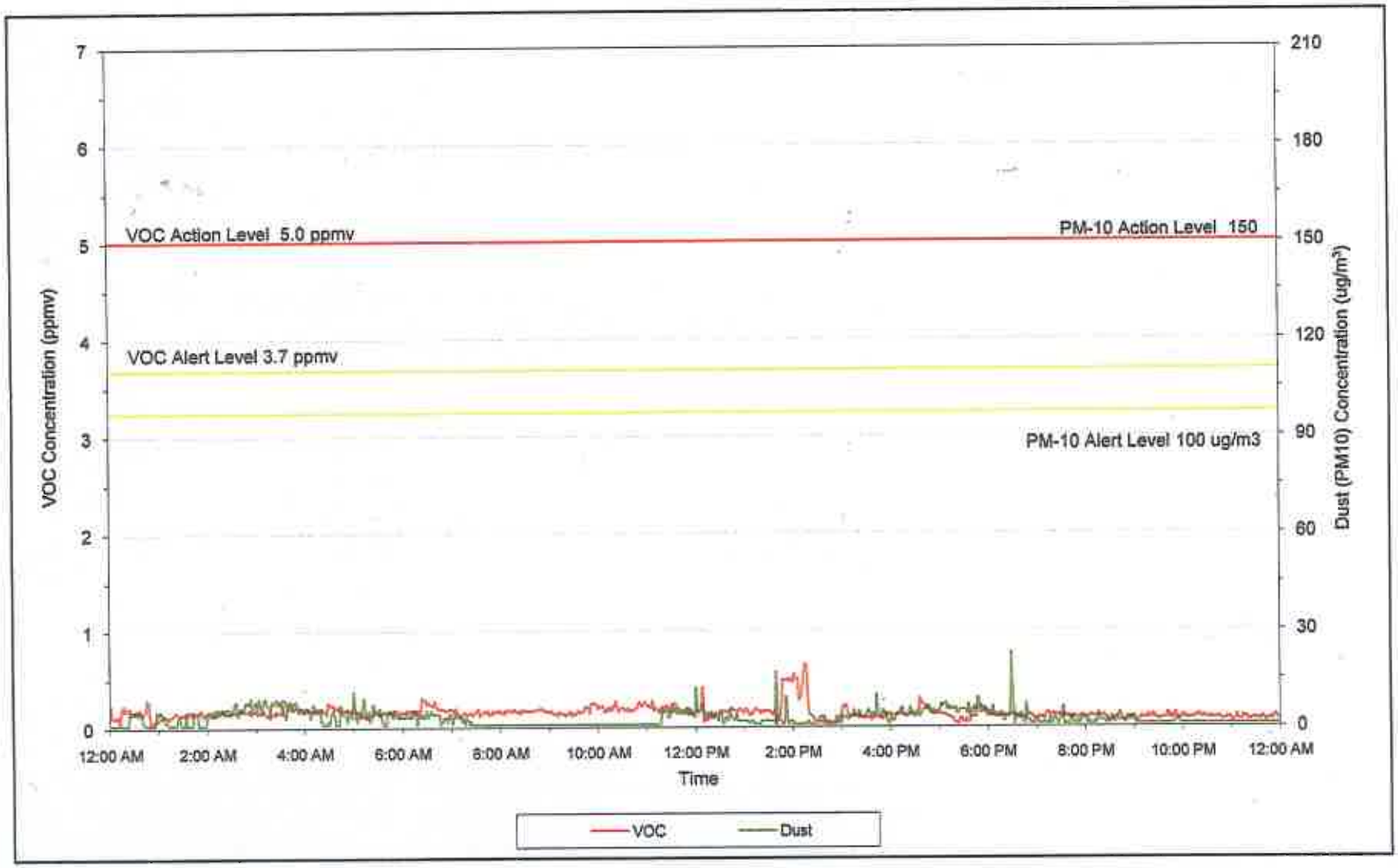



C:\XLRproject\Reports\Station4Mar10.xls

Mar 13,2010

# Community Air Monitoring
# Bay Shore Former MGP Site
# OU-1 Remedial Action Plan-Phase IV
# Bay Shore, NY
# National Grid

Station 1 - (AMS-1)

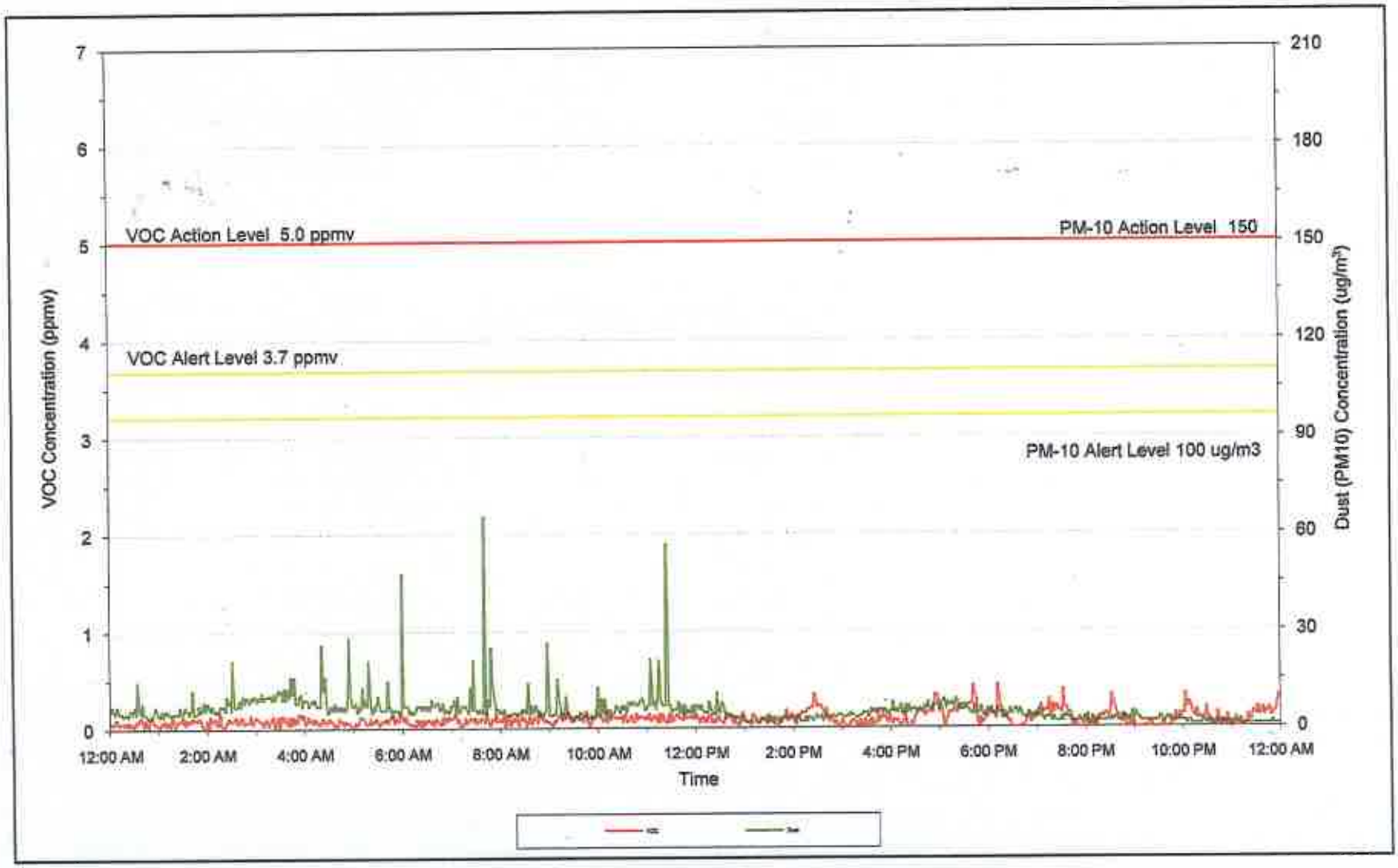



C:\XLRproject\Reports\Station1Mar10.xls

Mar 13,2010

# Community Air Monitoring
# Bay Shore Former MGP Site
# OU-1 Remedial Action Plan-Phase IV
# Bay Shore, NY
# National Grid

Station 2 - (AMS-2)

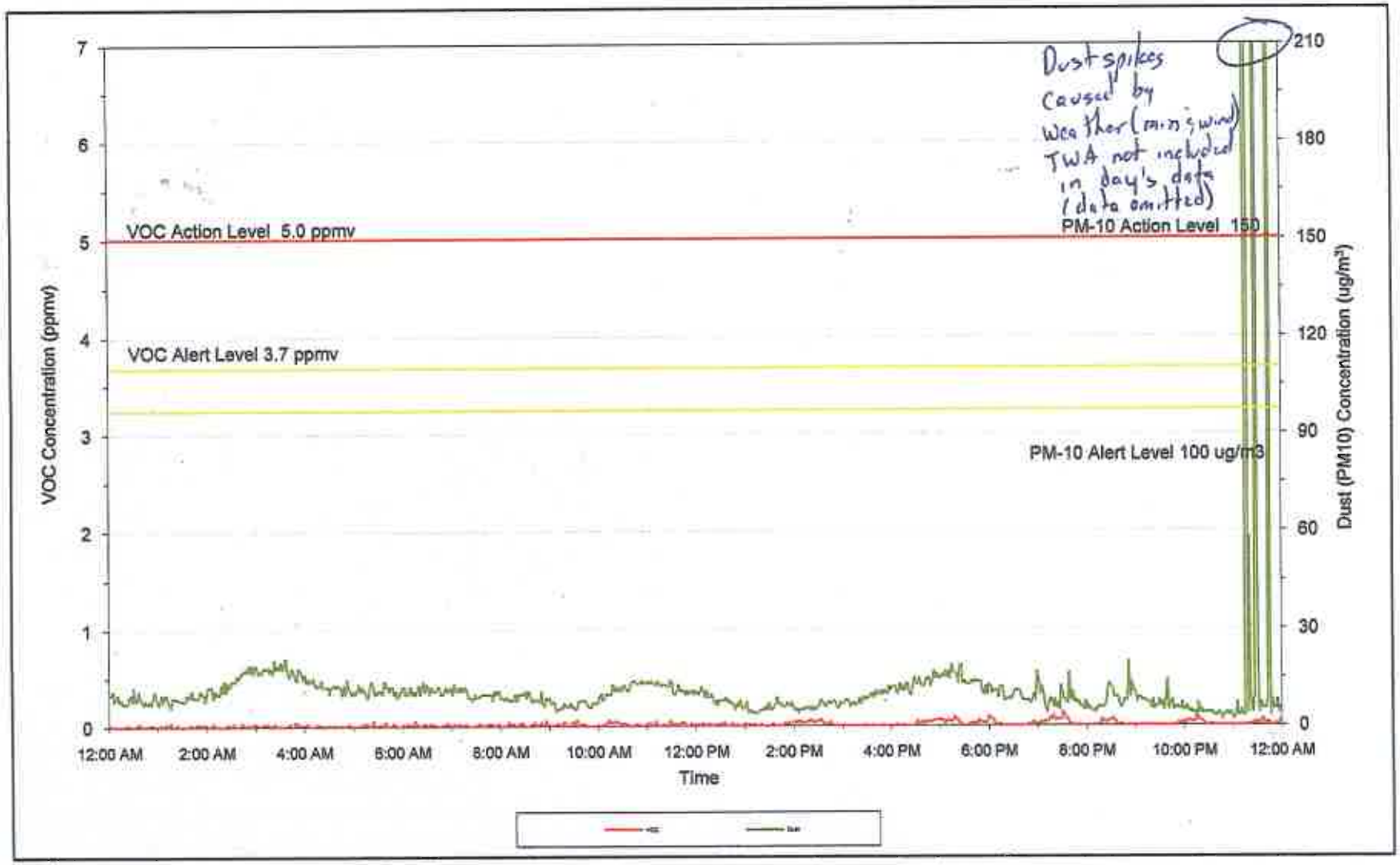



C:\XLRproject\Reports\Station2Mar10.xls

Mar 13,2010

# Community Air Monitoring
# Bay Shore Former MGP Site
# OU-1 Remedial Action Plan-Phase IV
# Bay Shore, NY
# National Grid

Station 3 - (AMS-3)

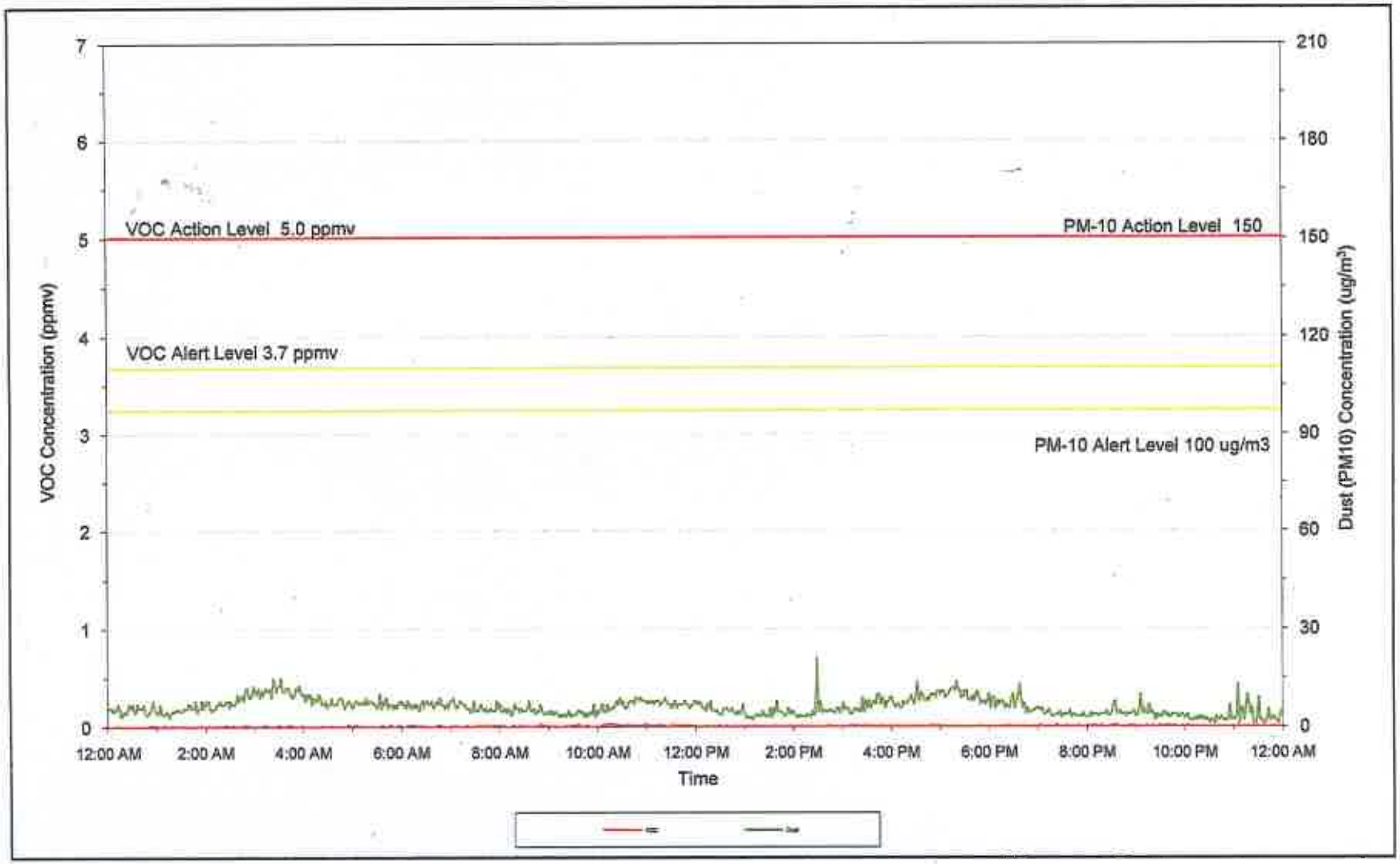



C:\XLRproject\Reports\Station3Mar10.xls

Mar 13,2010

# Community Air Monitoring
# Bay Shore Former MGP Site
# OU-1 Remedial Action Plan-Phase IV
# Bay Shore, NY
# National Grid

Station 4 - (AMS-4)

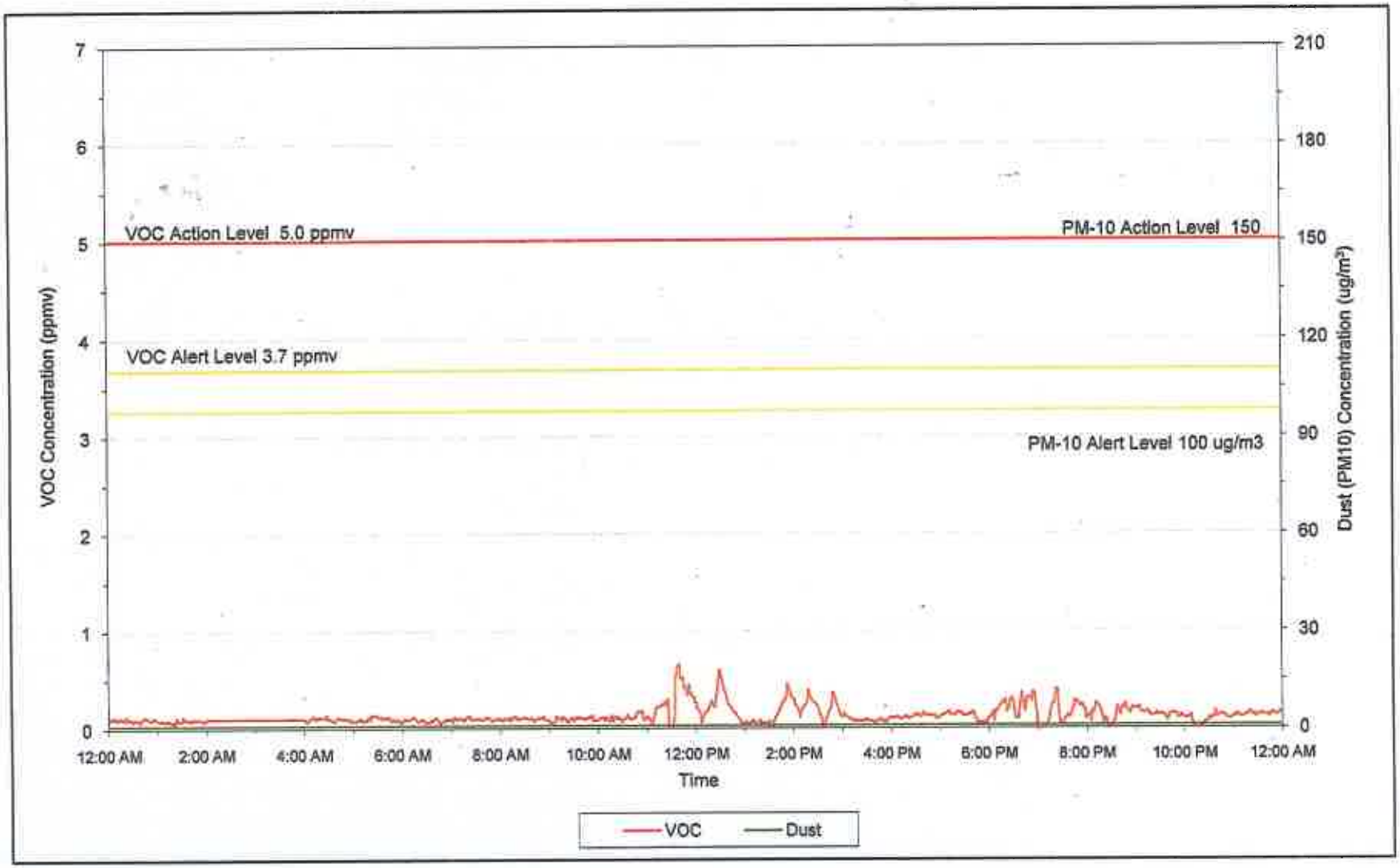



C:\XLRproject\Reports\Station4Mar10.xls

Mar 14,2010

# Community Air Monitoring
## Bay Shore Former MGP Site
## OU-1 Remedial Action Plan-Phase IV
## Bay Shore, NY
## National Grid

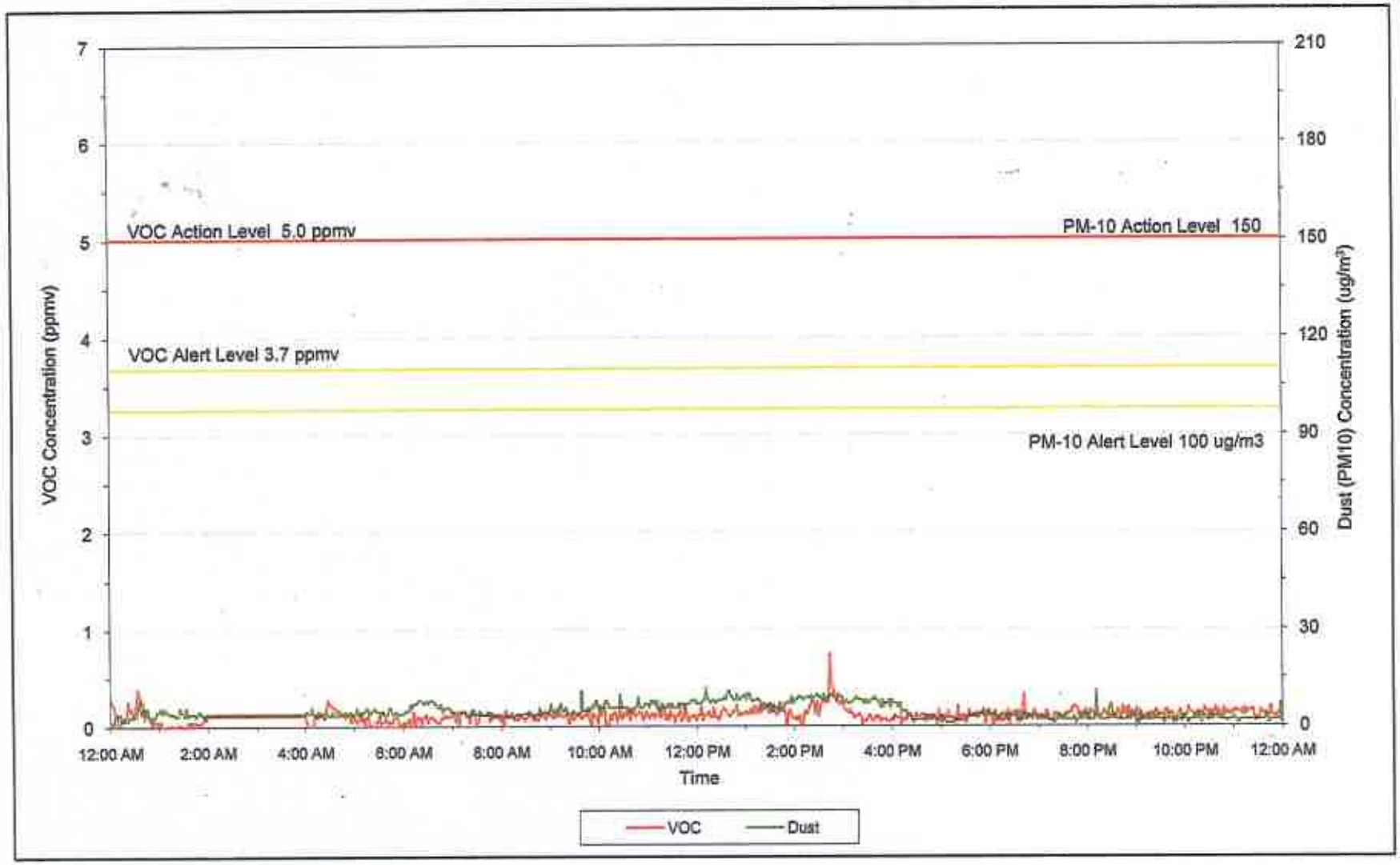
Station 1 - (AMS-1)




C:\XLRproject\Reports\STA1_ONDEMANDMar10.xls

Mar 14,2010

# Community Air Monitoring
## Bay Shore Former MGP Site
## OU-1 Remedial Action Plan-Phase IV
## Bay Shore, NY
## National Grid
Station 2 - (AMS-2)

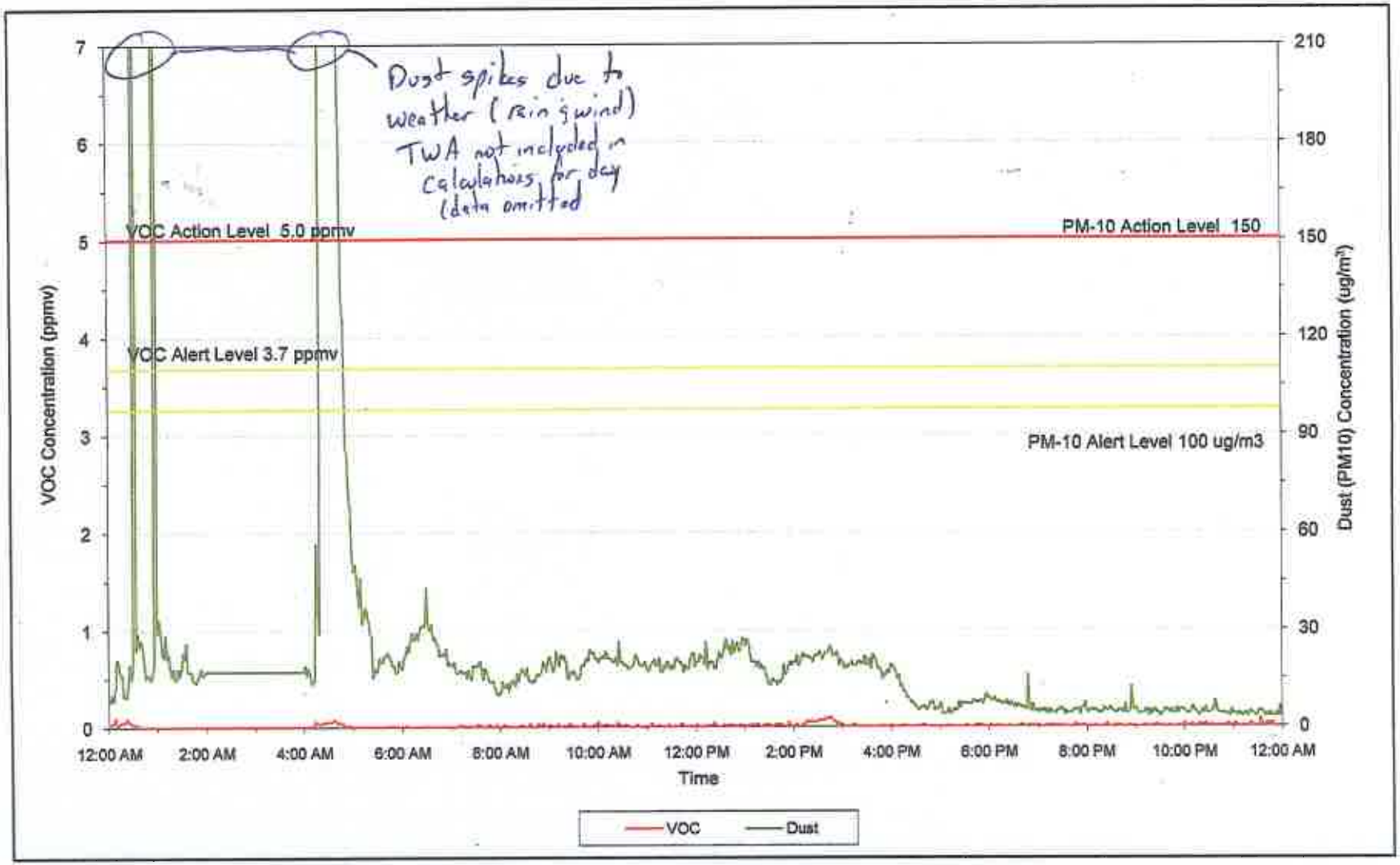



C:\XLRproject\Reports\STA2_ONDEMANDMar10.xls

Mar 14,2010

# Community Air Monitoring
# Bay Shore Former MGP Site
# OU-1 Remedial Action Plan-Phase IV
# Bay Shore, NY
# National Grid

Station 3 - (AMS-3)

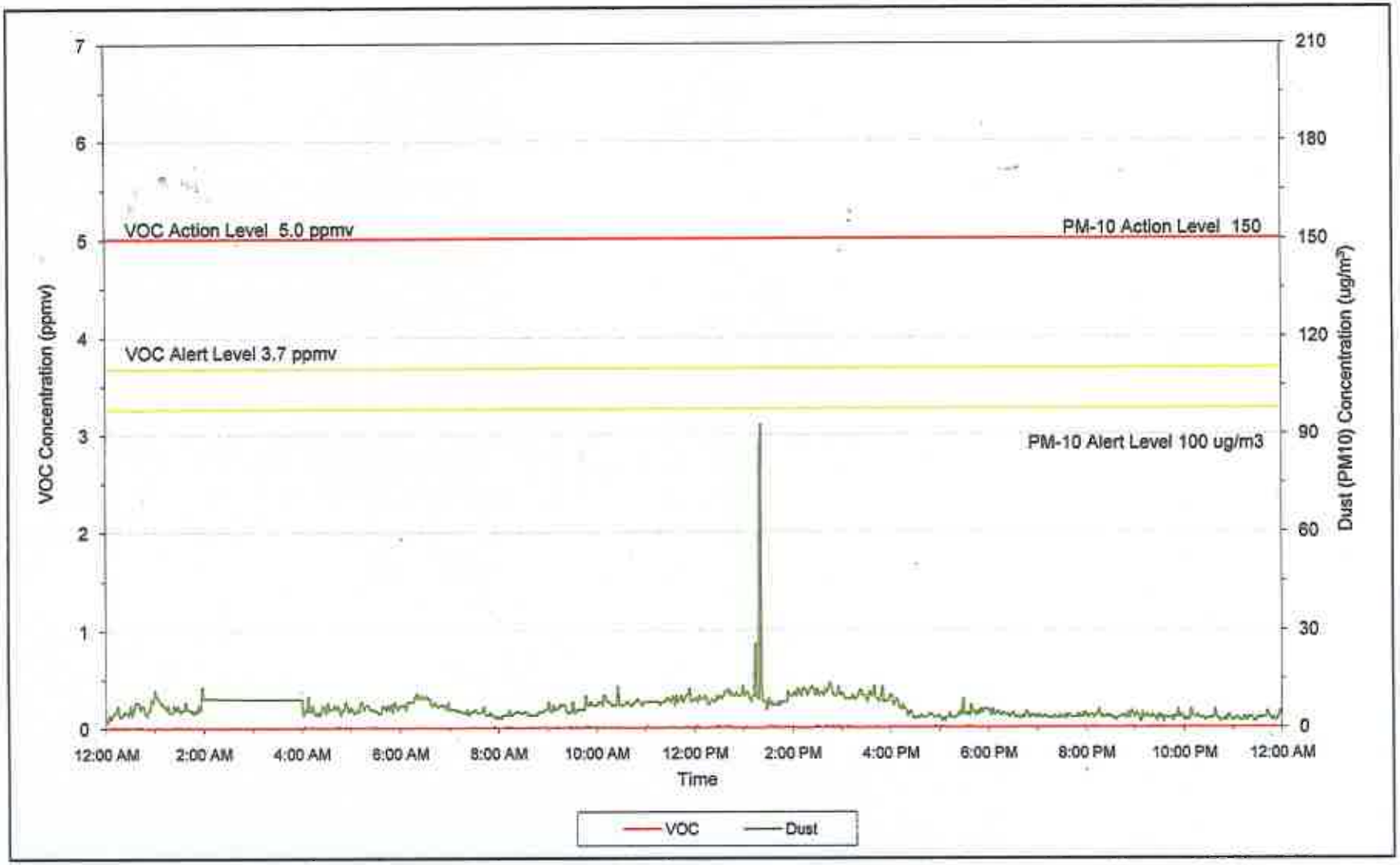



C:\XLRproject\Reports\Station3Mar10.xls

Mar 14,2010

# Community Air Monitoring
## Bay Shore Former MGP Site
## OU-1 Remedial Action Plan-Phase IV
## Bay Shore, NY
## National Grid

Station 4 - (AMS-4)

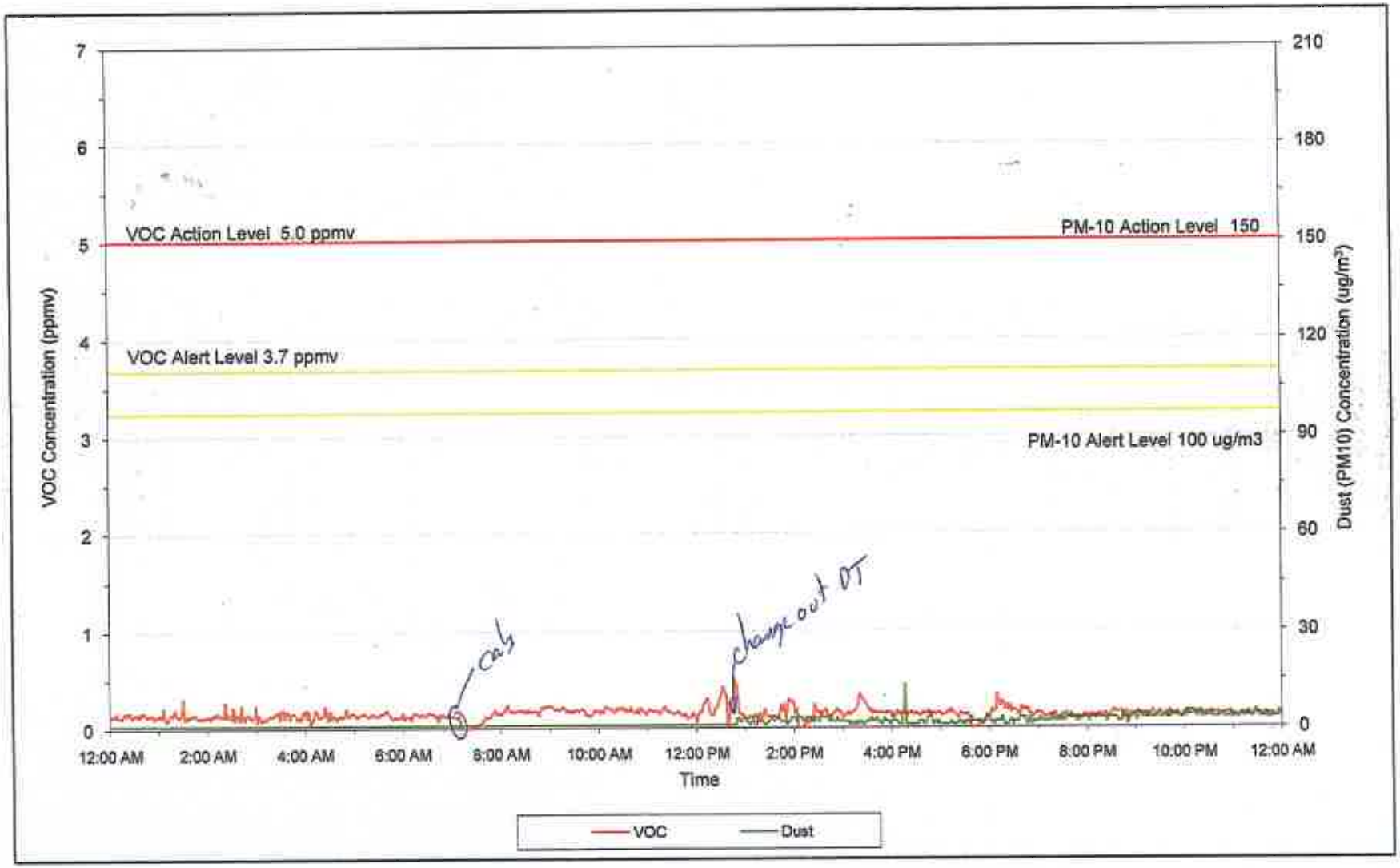



C:\XLRproject\Reports\STA4_ONDEMANDMar10.xls

Mar 15,2010

# Community Air Monitoring
# Bay Shore Former MGP Site
# OU-1 Remedial Action Plan-Phase IV
# Bay Shore, NY
# National Grid

Station 1 - (AMS-1)

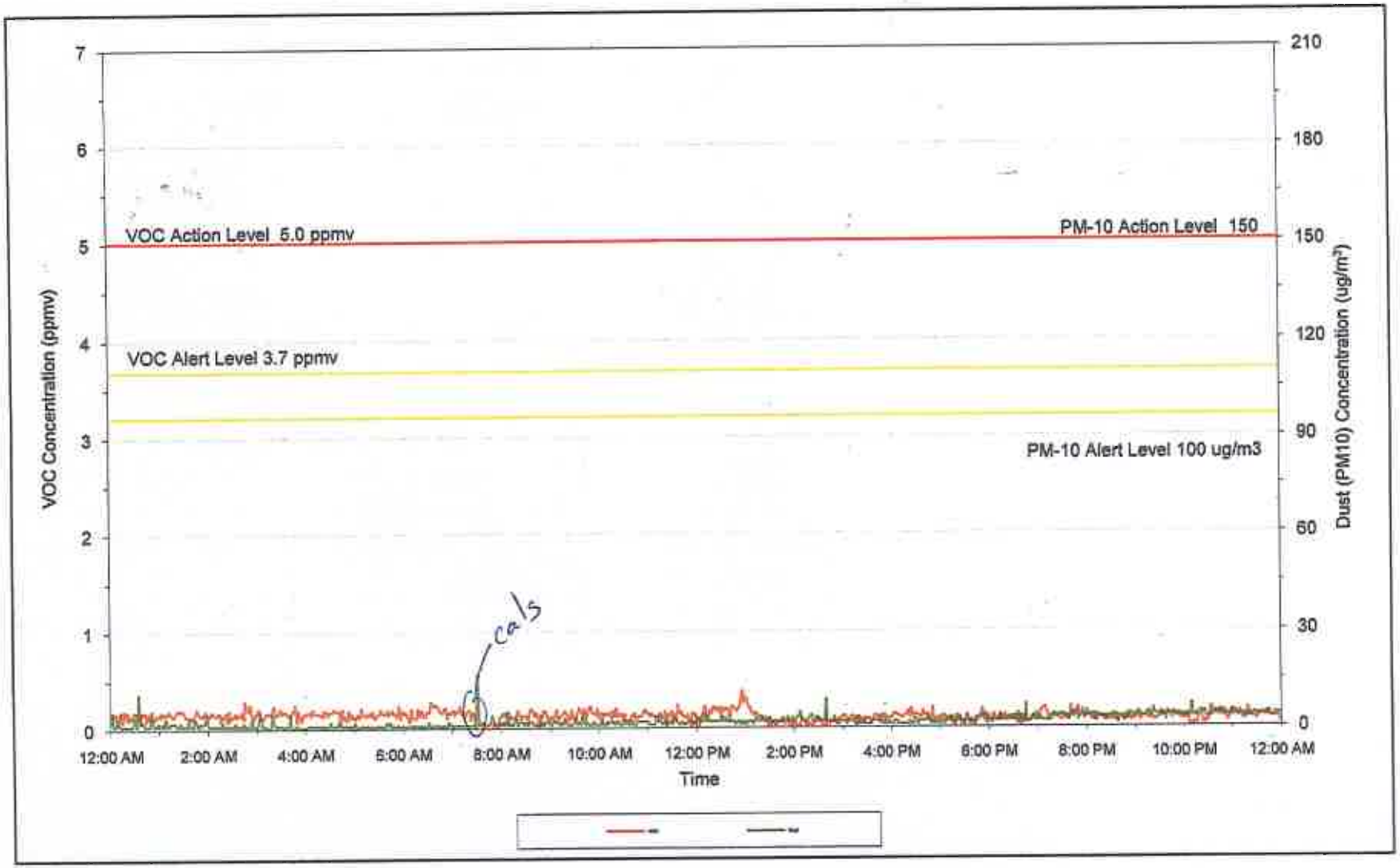



C:\XLRproject\Reports\Station1Mar10.xls

Mar 15,2010

# Community Air Monitoring
## Bay Shore Former MGP Site
## OU-1 Remedial Action Plan-Phase IV
## Bay Shore, NY
## National Grid

Station 2 - (AMS-2)

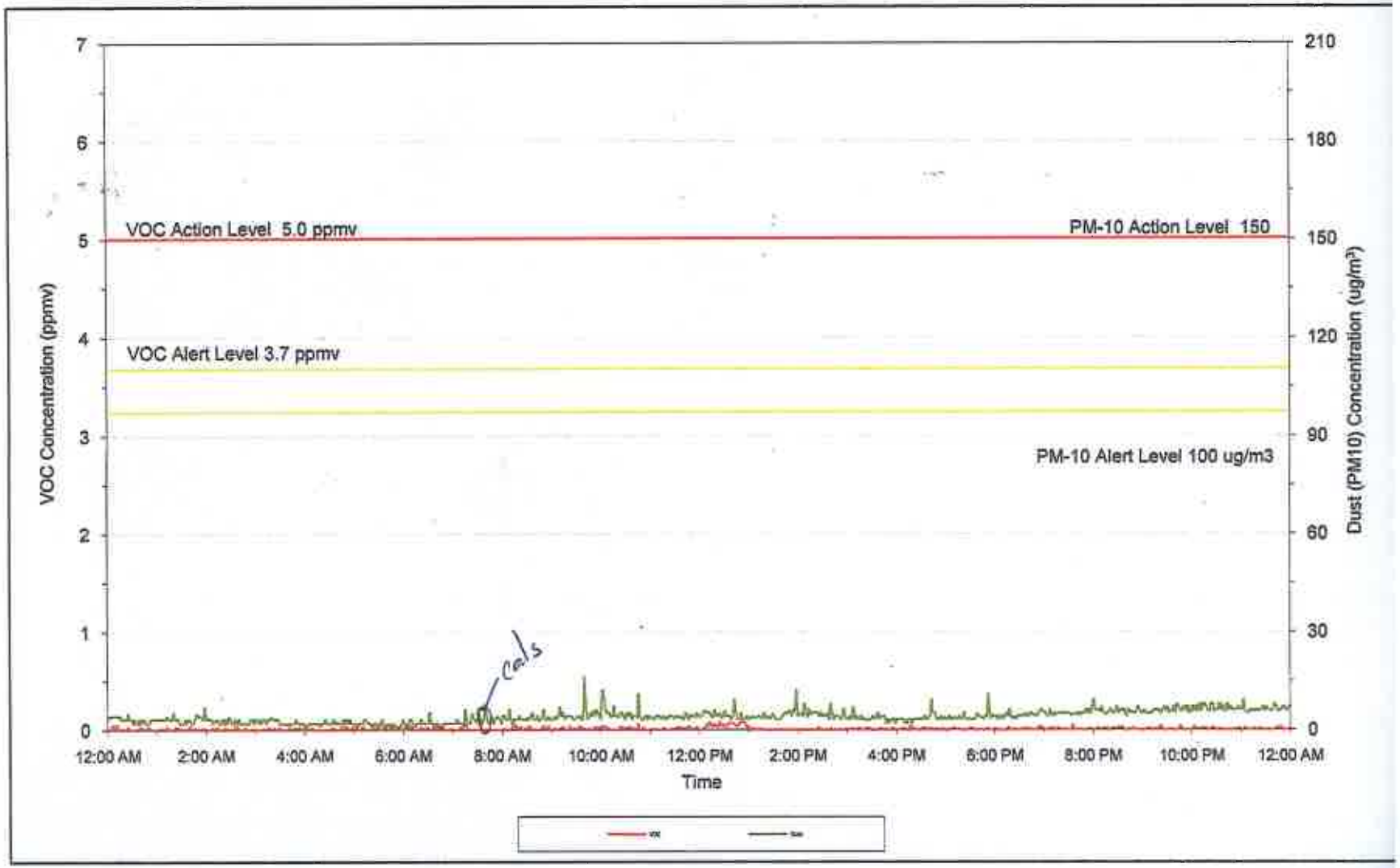



C:\XLRproject\Reports\Station2Mar10.xls

Mar 15,2010

# Community Air Monitoring
# Bay Shore Former MGP Site
# OU-1 Remedial Action Plan-Phase IV
# Bay Shore, NY
# National Grid

Station 3 - (AMS-3)

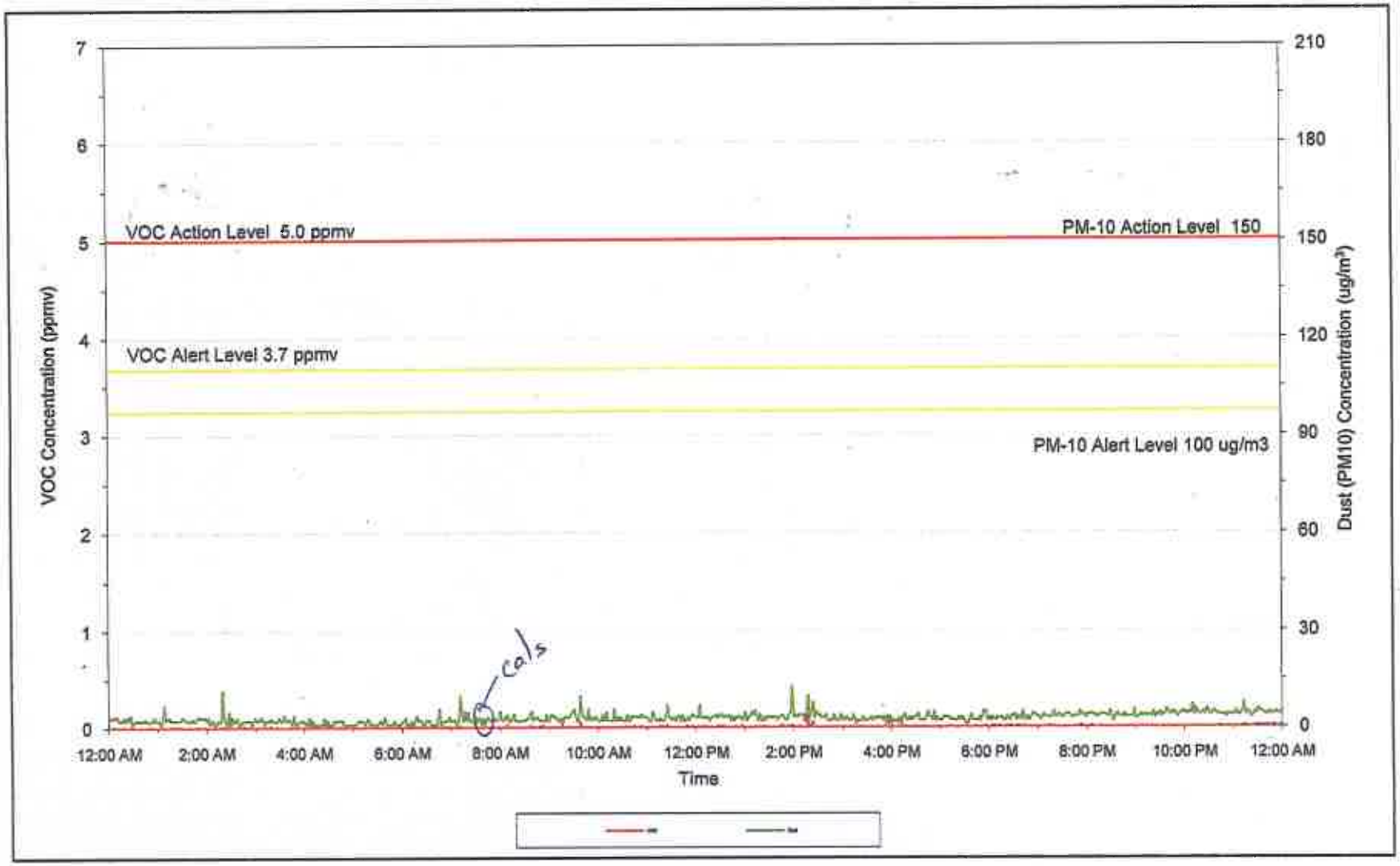



C:\XLRproject\Reports\Station3Mar10.xls

Mar 15,2010

# Community Air Monitoring
# Bay Shore Former MGP Site
# OU-1 Remedial Action Plan-Phase IV
# Bay Shore, NY
# National Grid

Station 4 - (AMS-4)

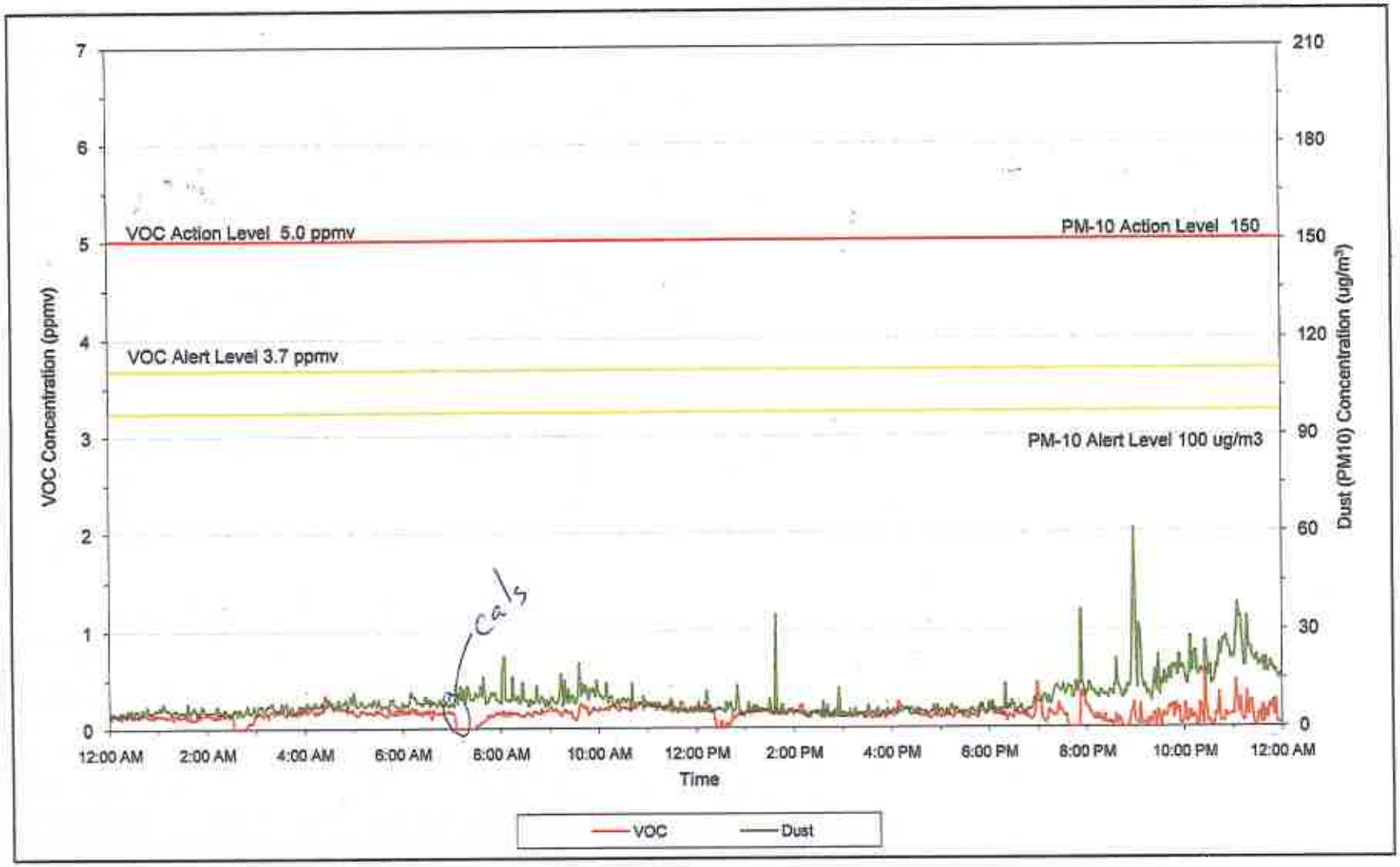



C:\XLRproject\Reports\Station4Mar10.xls

Mar 16,2010

# Community Air Monitoring
# Bay Shore Former MGP Site
# OU-1 Remedial Action Plan-Phase IV
# Bay Shore, NY
# National Grid

Station 1 - (AMS-1)

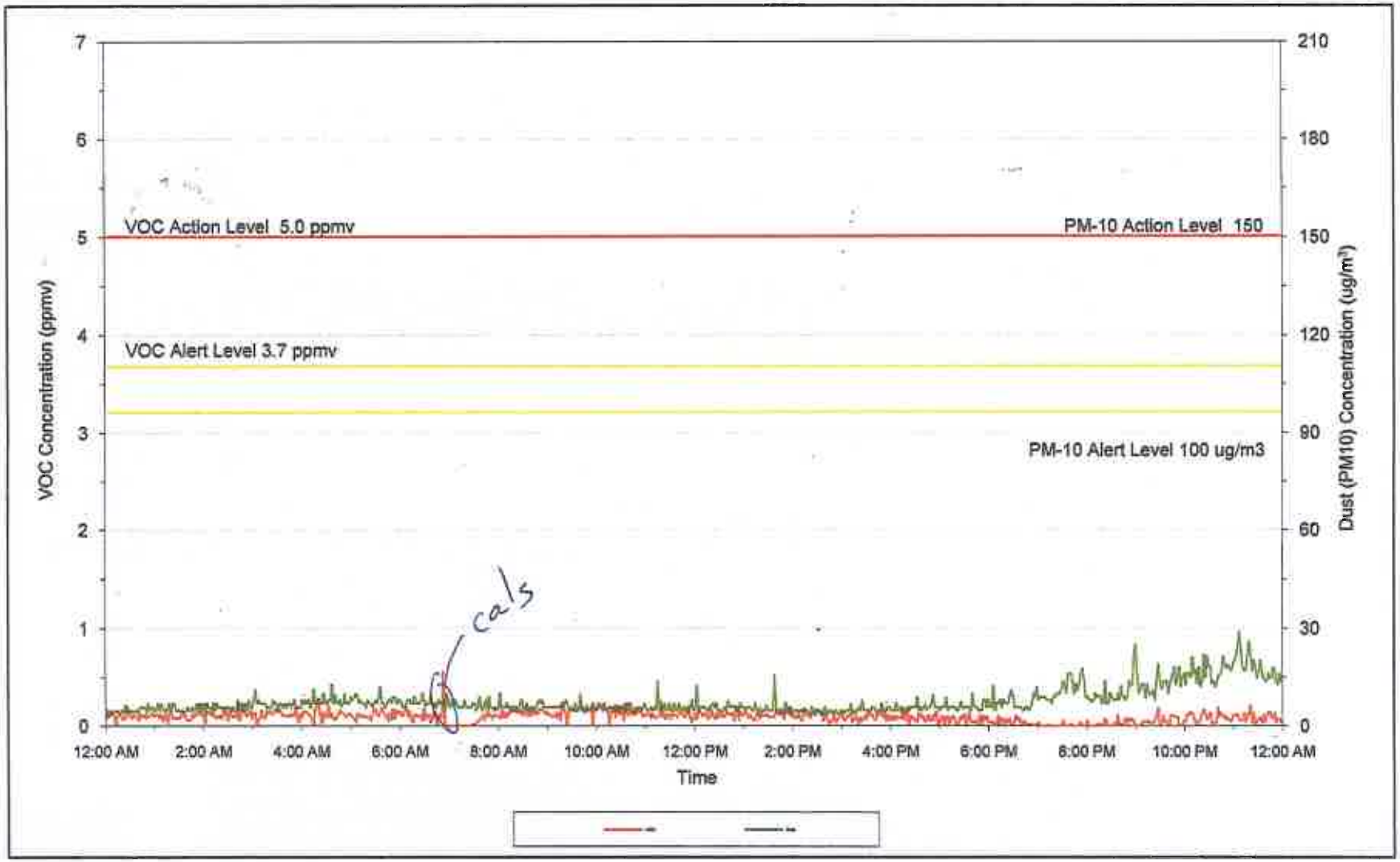



C:\XLRproject\Reports\Station1Mar10.xls

Mar 16,2010

# Community Air Monitoring
# Bay Shore Former MGP Site
# OU-1 Remedial Action Plan-Phase IV
# Bay Shore, NY
# National Grid

Station 2 - (AMS-2)

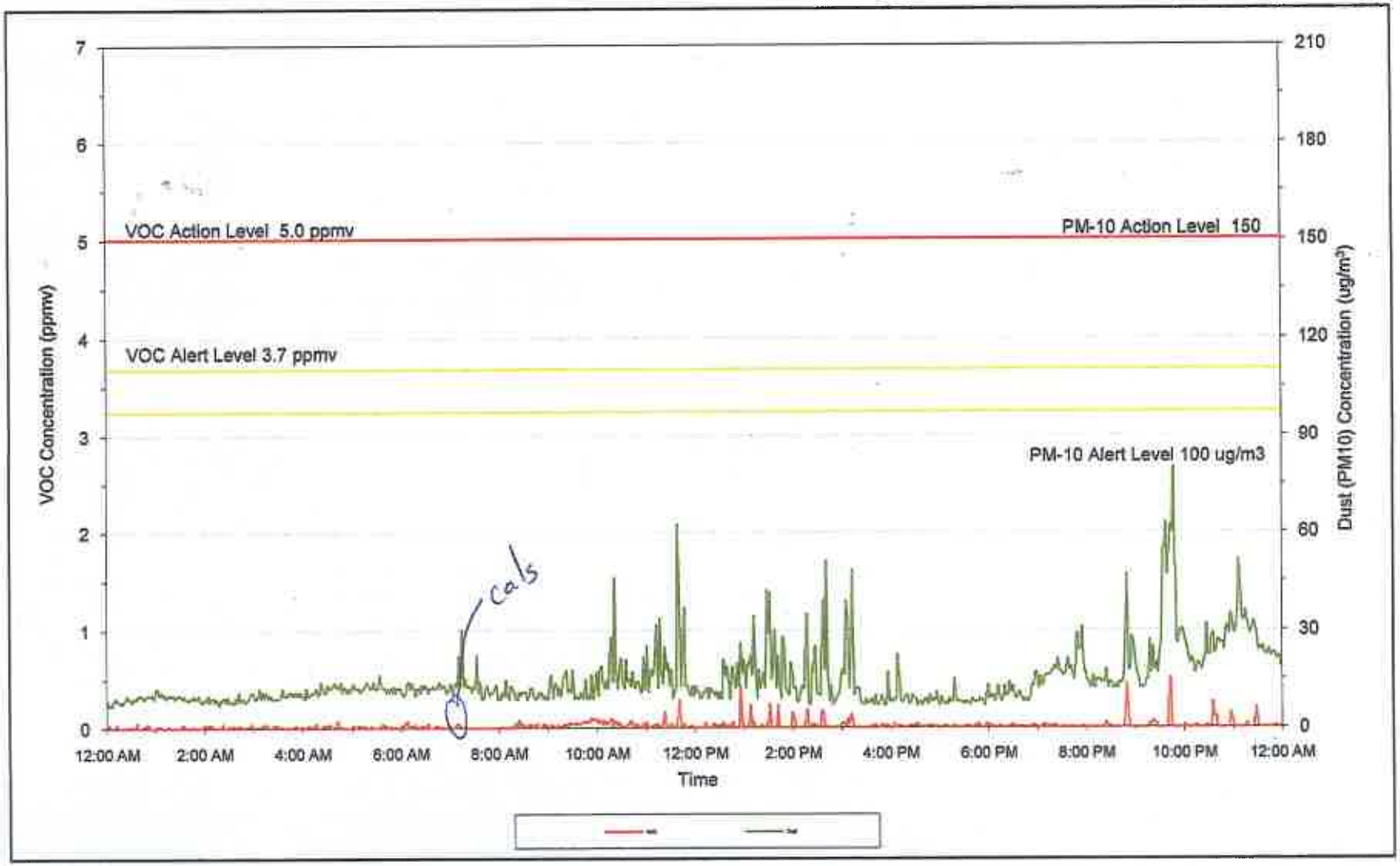



C:\XLRproject\Reports\Station2Mar10.xls

Mar 16,2010

# Community Air Monitoring
# Bay Shore Former MGP Site
# OU-1 Remedial Action Plan-Phase IV
# Bay Shore, NY
# National Grid

Station 3 - (AMS-3)

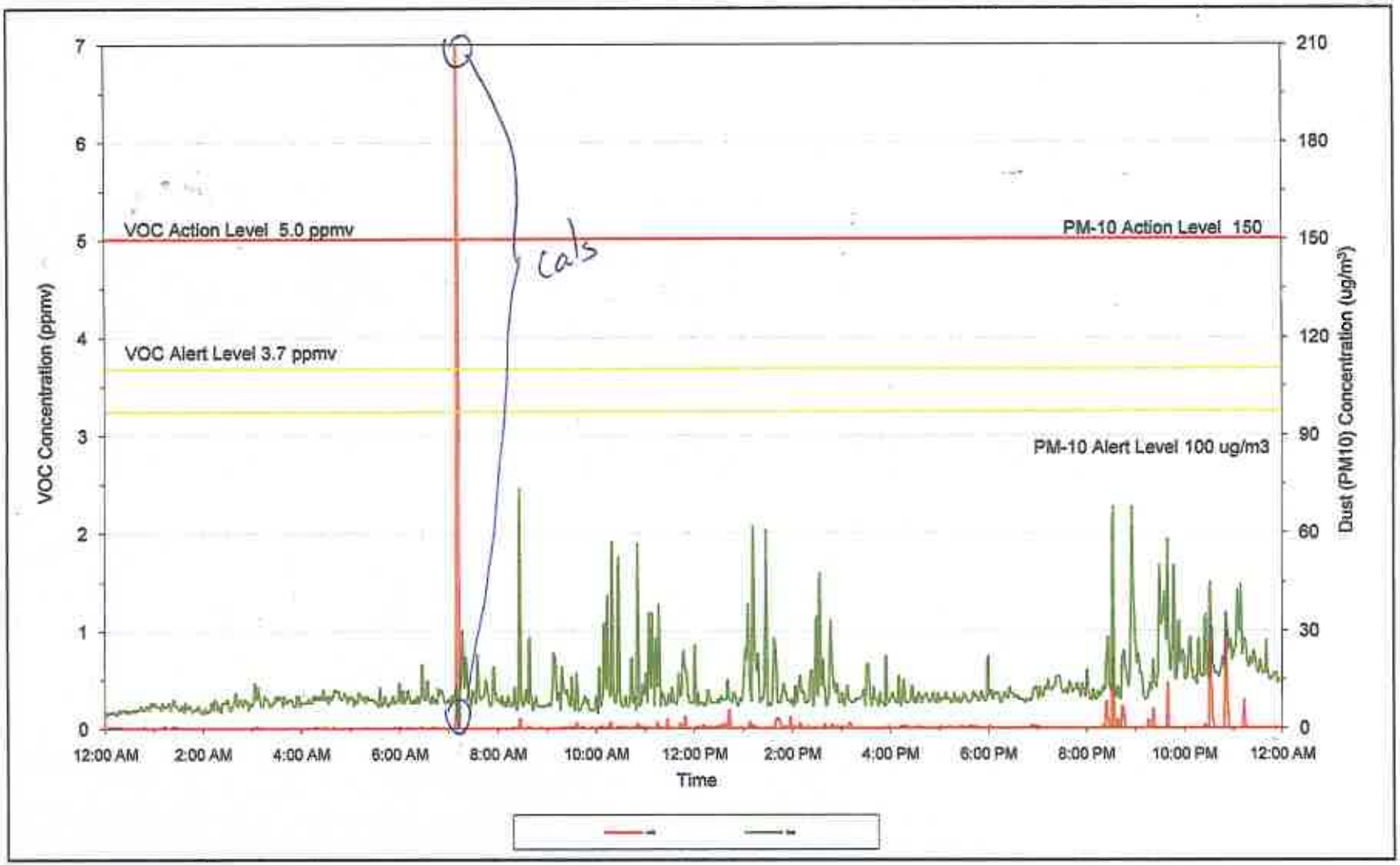



C:\XLRproject\Reports\Station3Mar10.xls

Mar 16,2010

# Community Air Monitoring
# Bay Shore Former MGP Site
# OU-1 Remedial Action Plan-Phase IV
# Bay Shore, NY
# National Grid

Station 4 - (AMS-4)

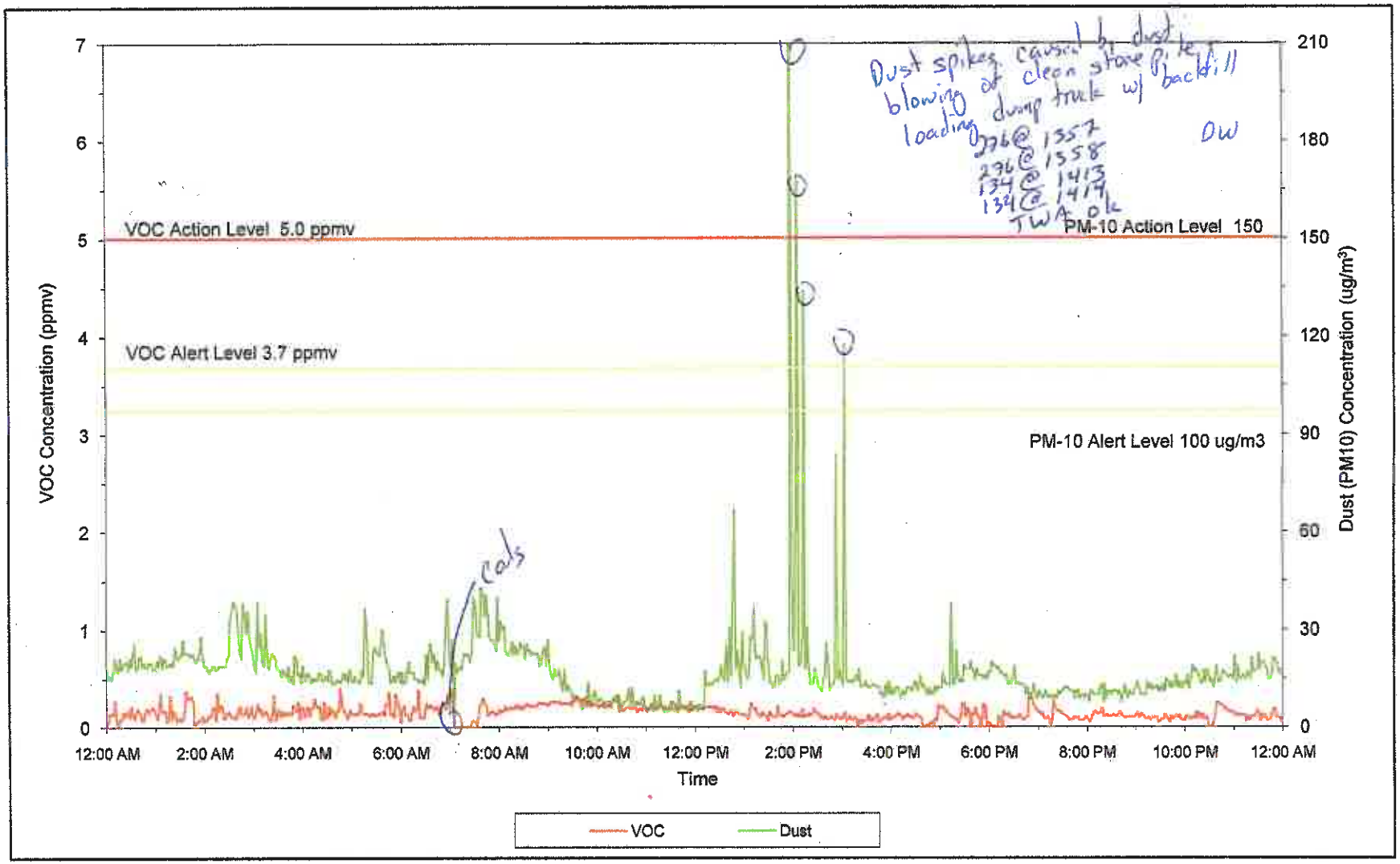



C:\XLRproject\Reports\Station4Mar10.xls

Mar 17,2010

# Community Air Monitoring
# Bay Shore Former MGP Site
# OU-1 Remedial Action Plan-Phase IV
# Bay Shore, NY
# National Grid

Station 1 - (AMS-1)

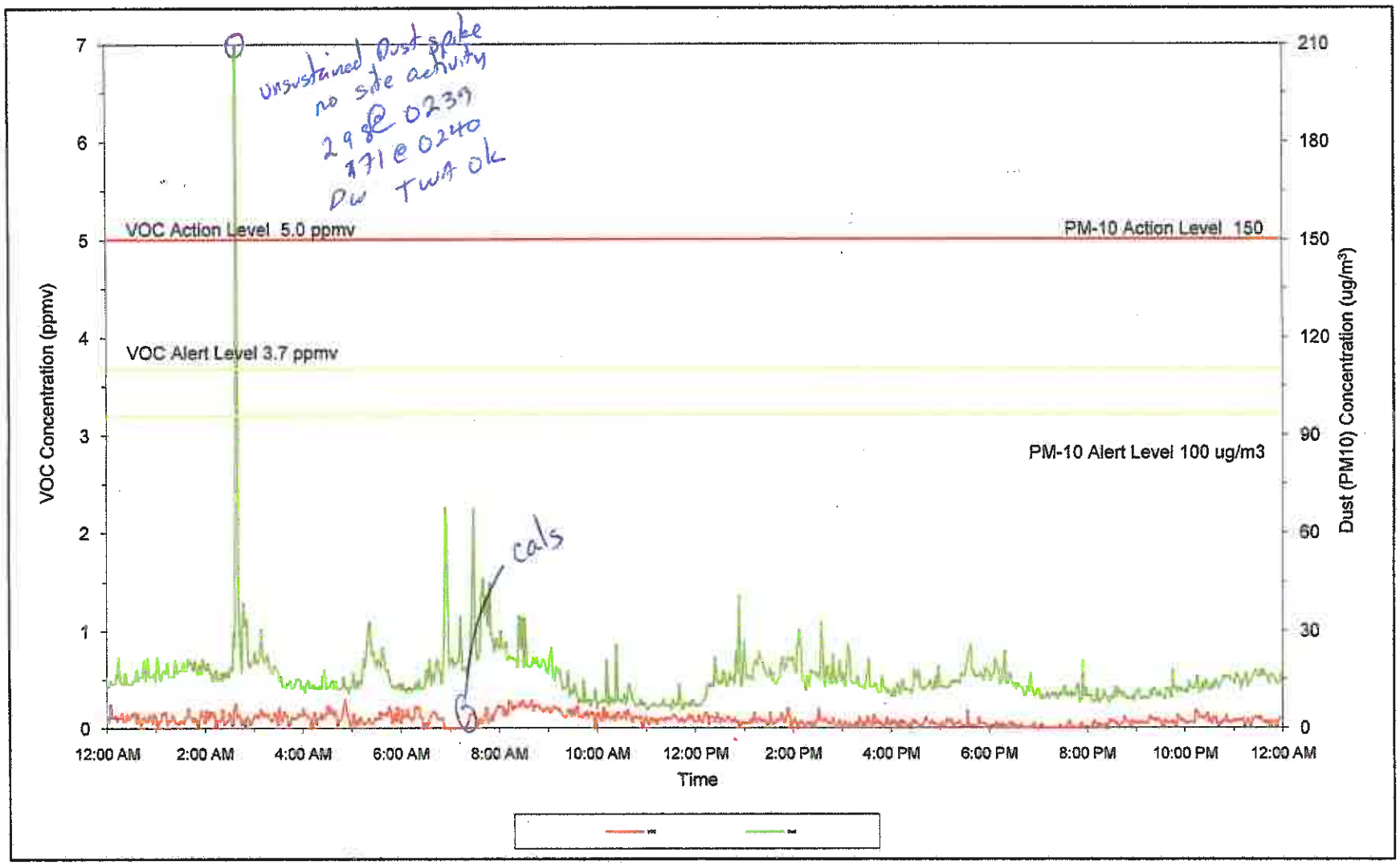



C:\XLRproject\Reports\Station1Mar10.xls

Mar 17,2010

# Community Air Monitoring
# Bay Shore Former MGP Site
# OU-1 Remedial Action Plan-Phase IV
# Bay Shore, NY
# National Grid

Station 2 - (AMS-2)

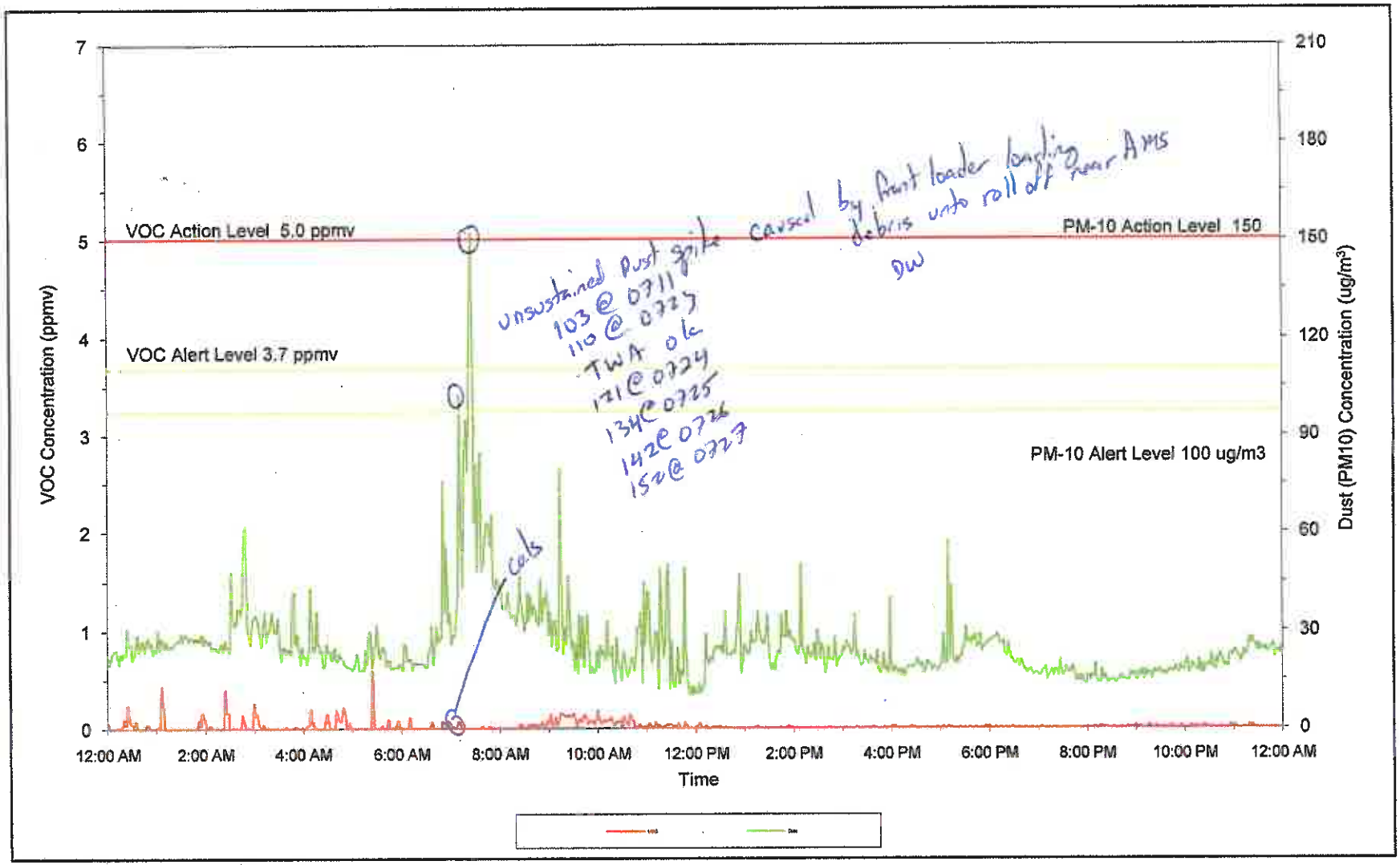



C:\XLRproject\Reports\Station2Mar10.xls

Mar 17,2010

# Community Air Monitoring
# Bay Shore Former MGP Site
# OU-1 Remedial Action Plan-Phase IV
# Bay Shore, NY
# National Grid

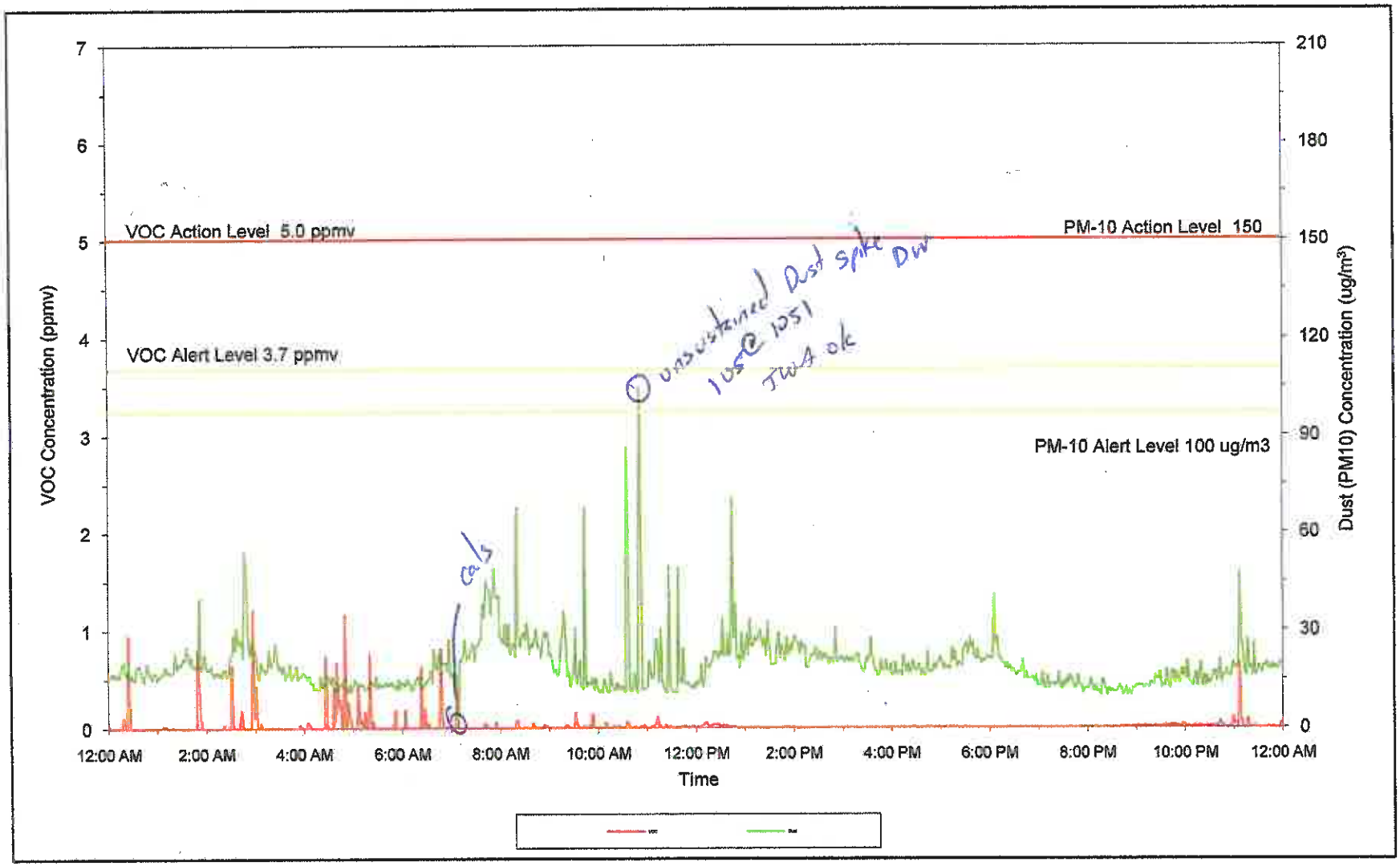
Station 3 - (AMS-3)




C:\XLRproject\Reports\Station3Mar10.xls

Mar 17,2010

# Community Air Monitoring
## Bay Shore Former MGP Site
## OU-1 Remedial Action Plan-Phase IV
## Bay Shore, NY
## National Grid
Station 4 - (AMS-4)

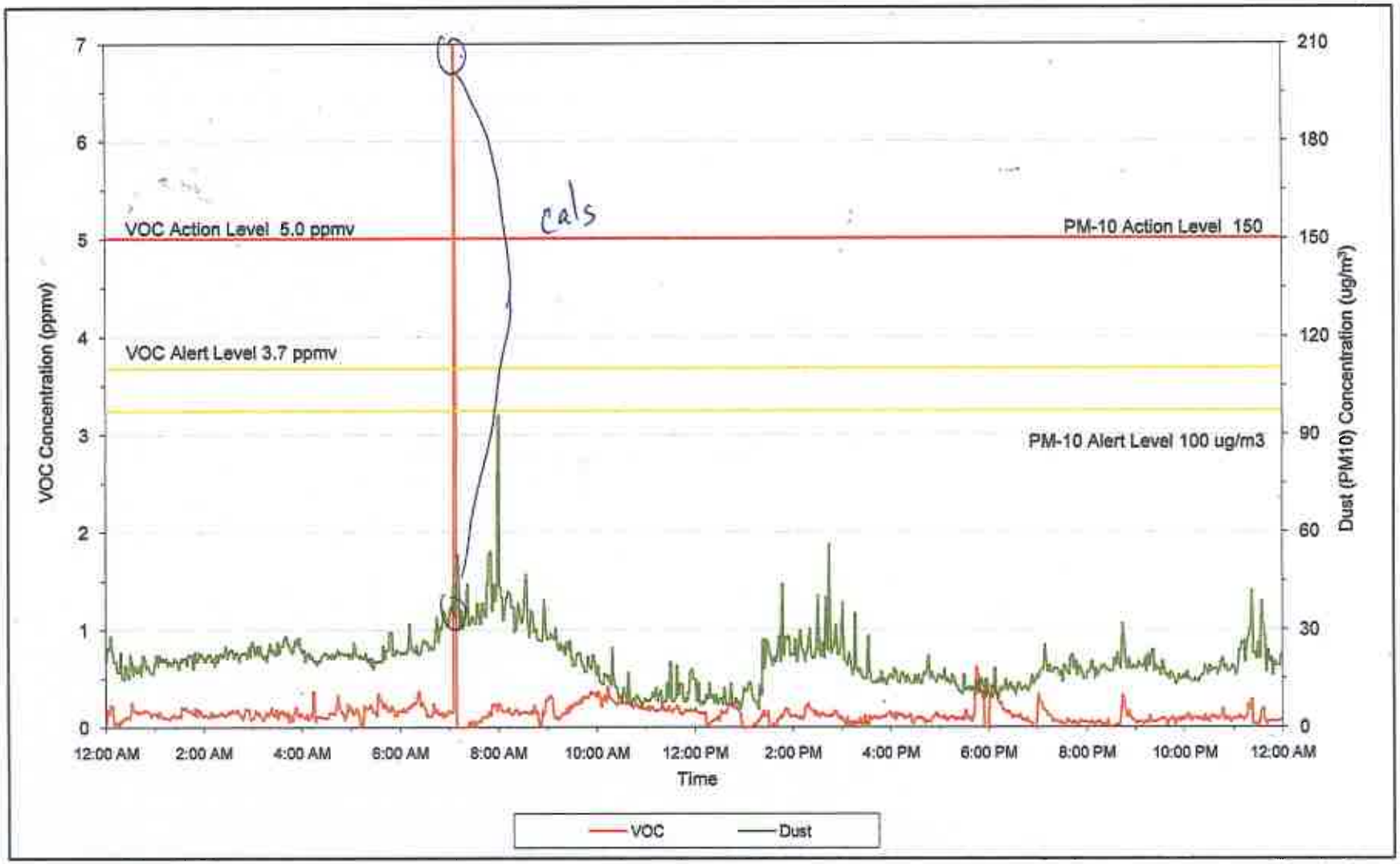



C:\XLRproject\Reports\Station4Mar10.xls

Mar 18,2010

# Community Air Monitoring
# Bay Shore Former MGP Site
# OU-1 Remedial Action Plan-Phase IV
# Bay Shore, NY
# National Grid

Station 1 - (AMS-1)

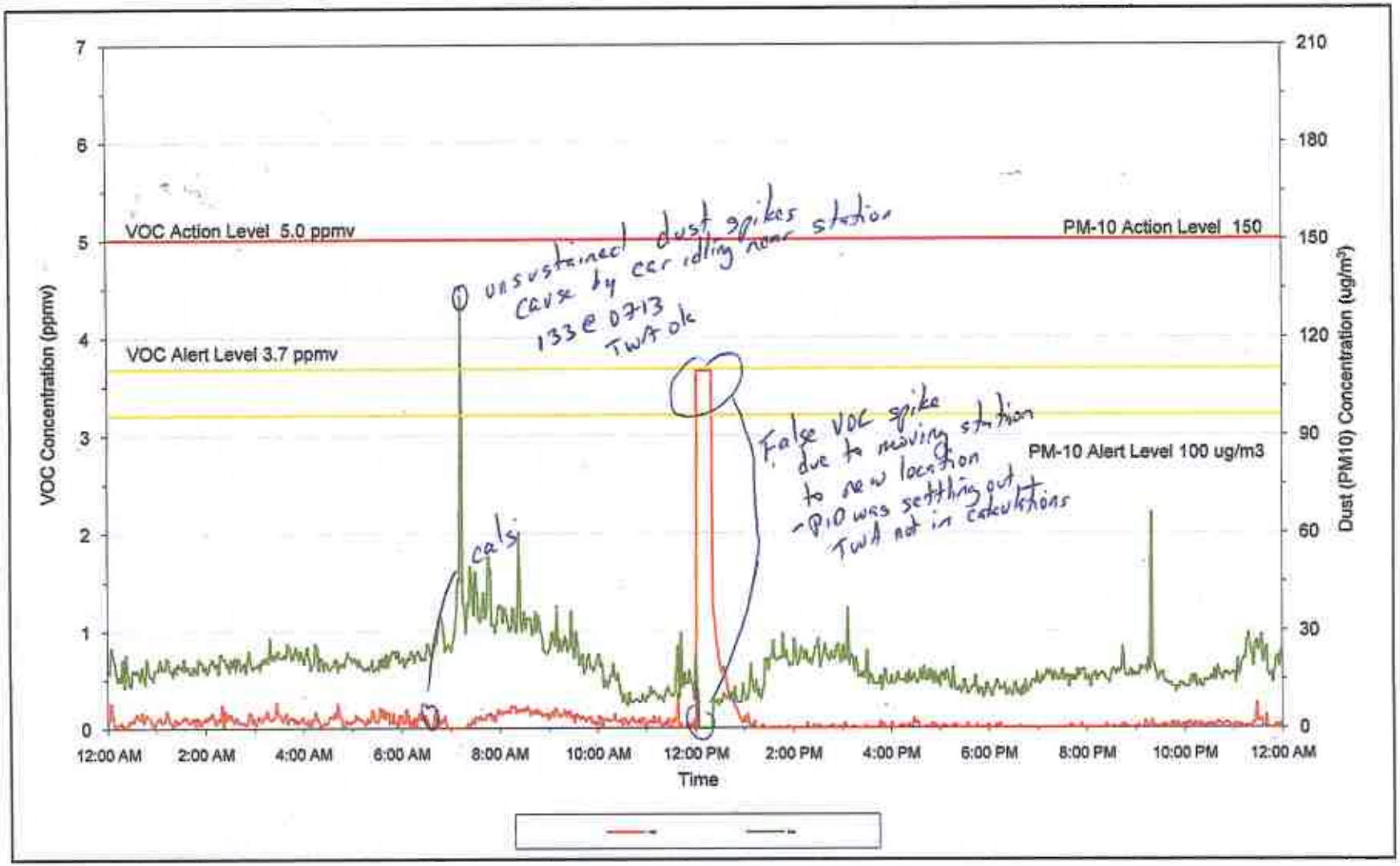



C:\XLRproject\Reports\Station1Mar10.xls

Mar 18,2010

# Community Air Monitoring
## Bay Shore Former MGP Site
## OU-1 Remedial Action Plan-Phase IV
## Bay Shore, NY
## National Grid

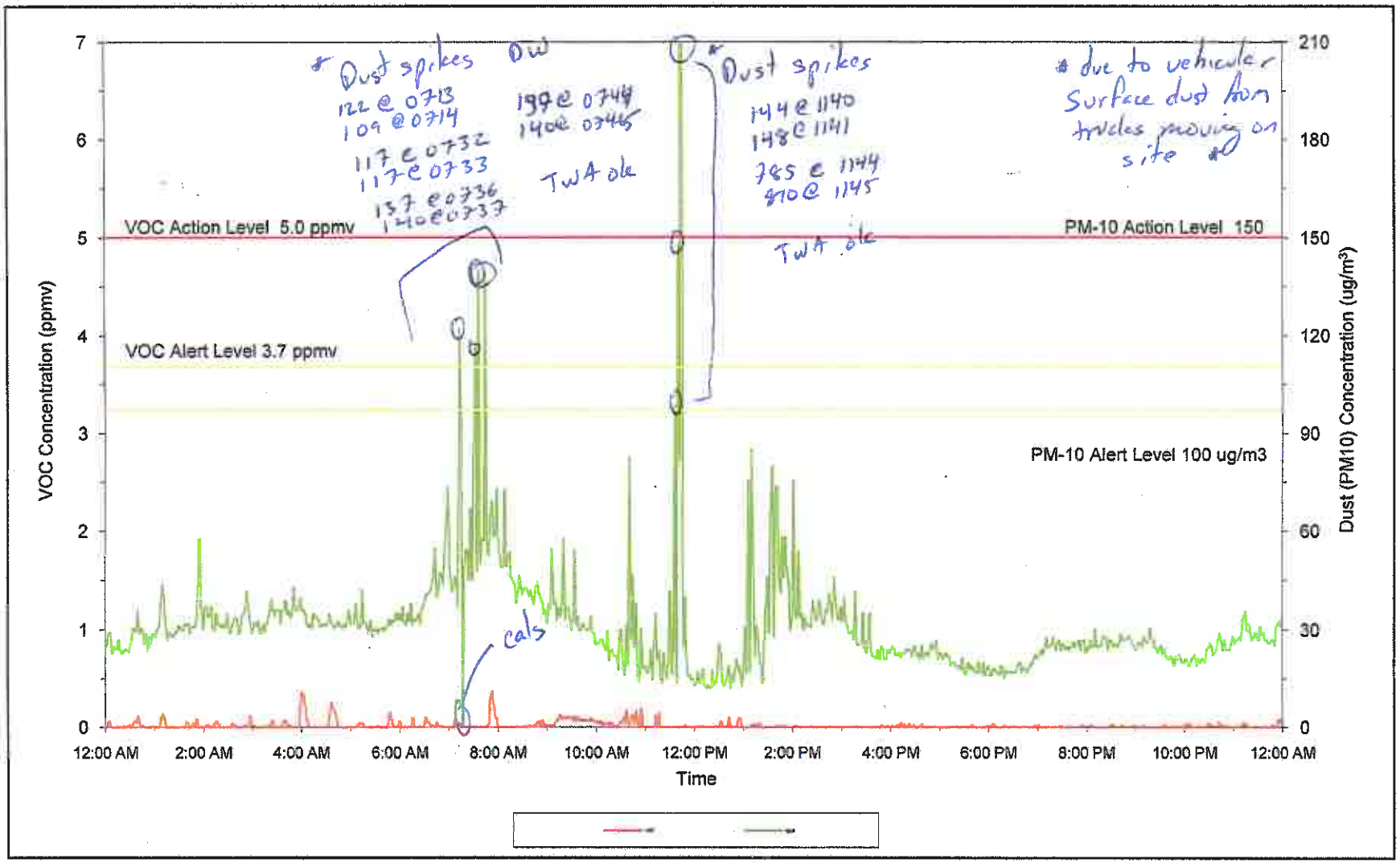
Station 2 - (AMS-2)




C:\XLRproject\Reports\Station2Mar10.xls

Mar 18,2010

# Community Air Monitoring
## Bay Shore Former MGP Site
## OU-1 Remedial Action Plan-Phase IV
## Bay Shore, NY
## National Grid
Station 3 - (AMS-3)

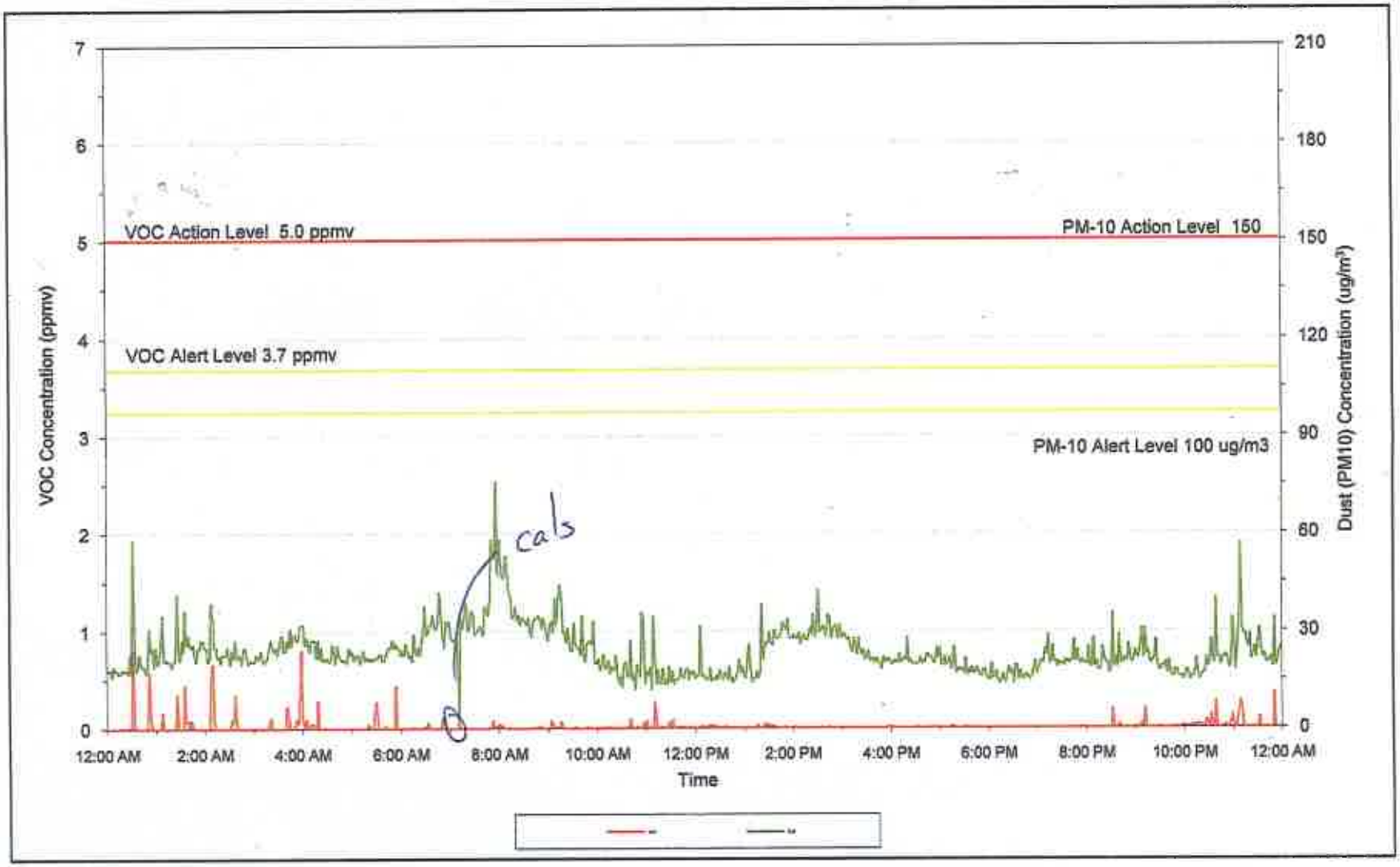



C:\XLRproject\Reports\Station3Mar10.xls

Mar 18,2010

# Community Air Monitoring
## Bay Shore Former MGP Site
## OU-1 Remedial Action Plan-Phase IV
## Bay Shore, NY
## National Grid

Station 4 - (AMS-4)

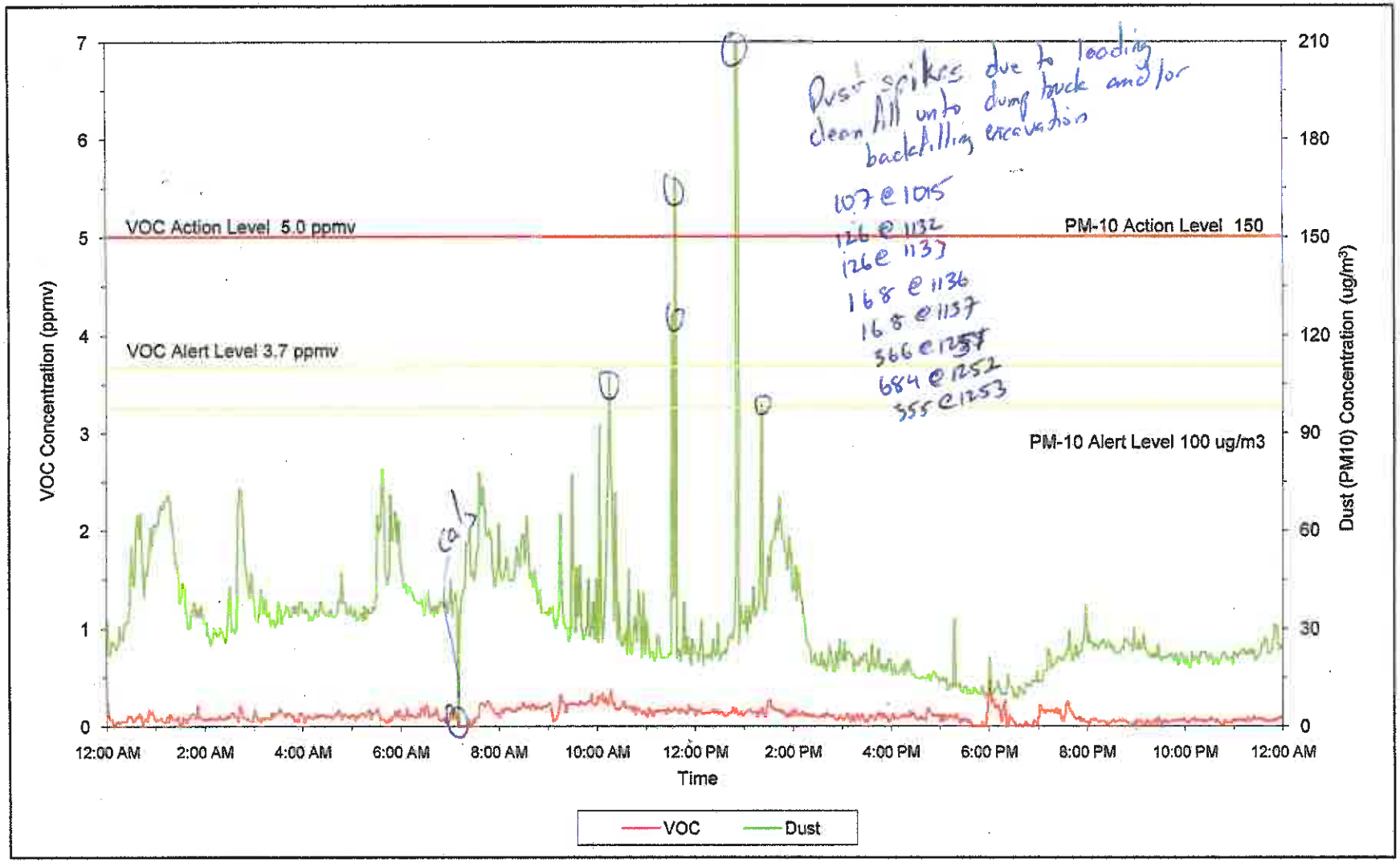



C:\XLRproject\Reports\Station4Mar10.xls

Mar 19,2010

# Community Air Monitoring
## Bay Shore Former MGP Site
## OU-1 Remedial Action Plan-Phase IV
## Bay Shore, NY
## National Grid

Station 1 - (AMS-1)

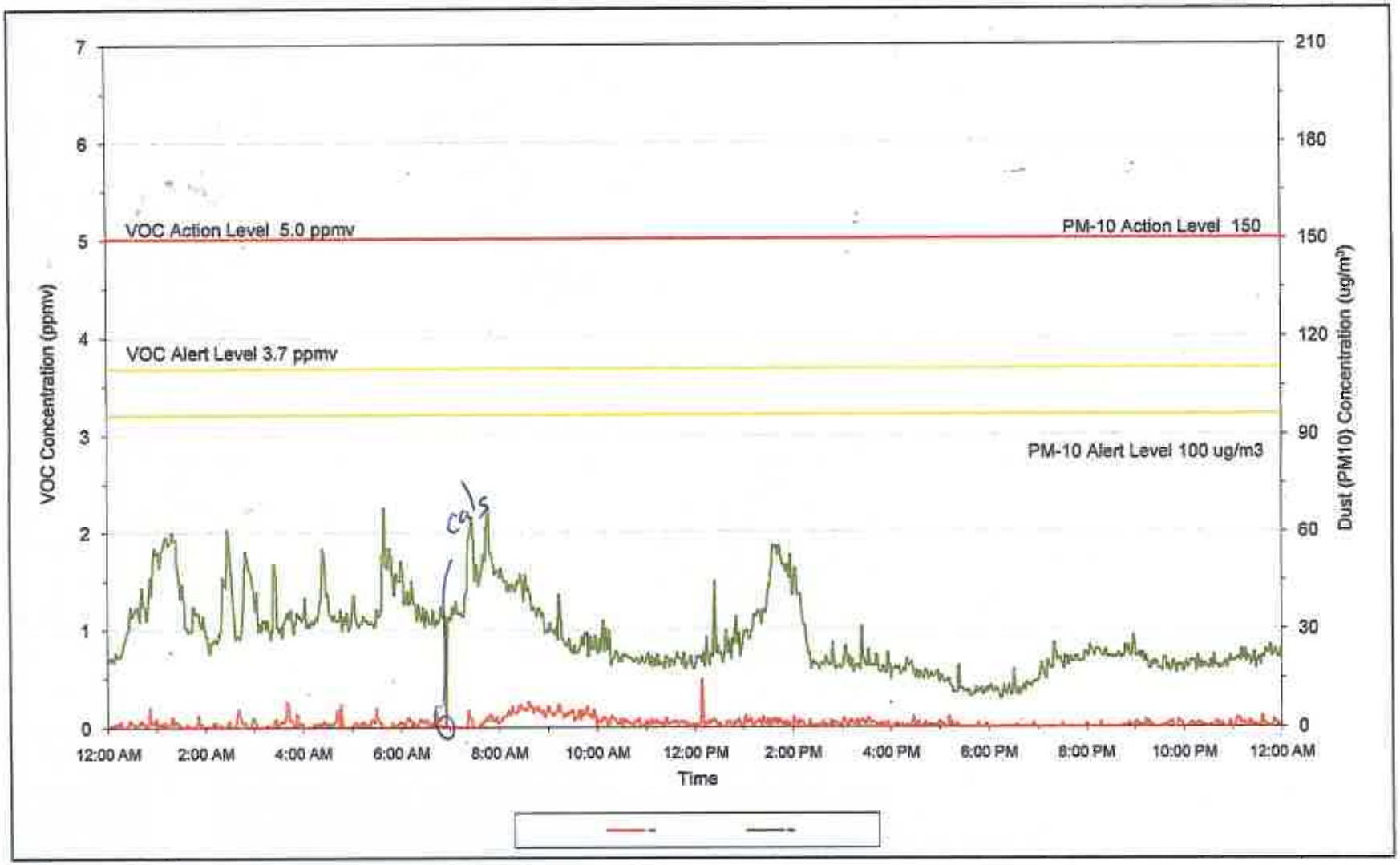



C:\XLRproject\Reports\STA1_ONDEMANDMar10.xls

Mar 19,2010

# Community Air Monitoring
# Bay Shore Former MGP Site
# OU-1 Remedial Action Plan-Phase IV
# Bay Shore, NY
# National Grid

Station 2 - (AMS-2)

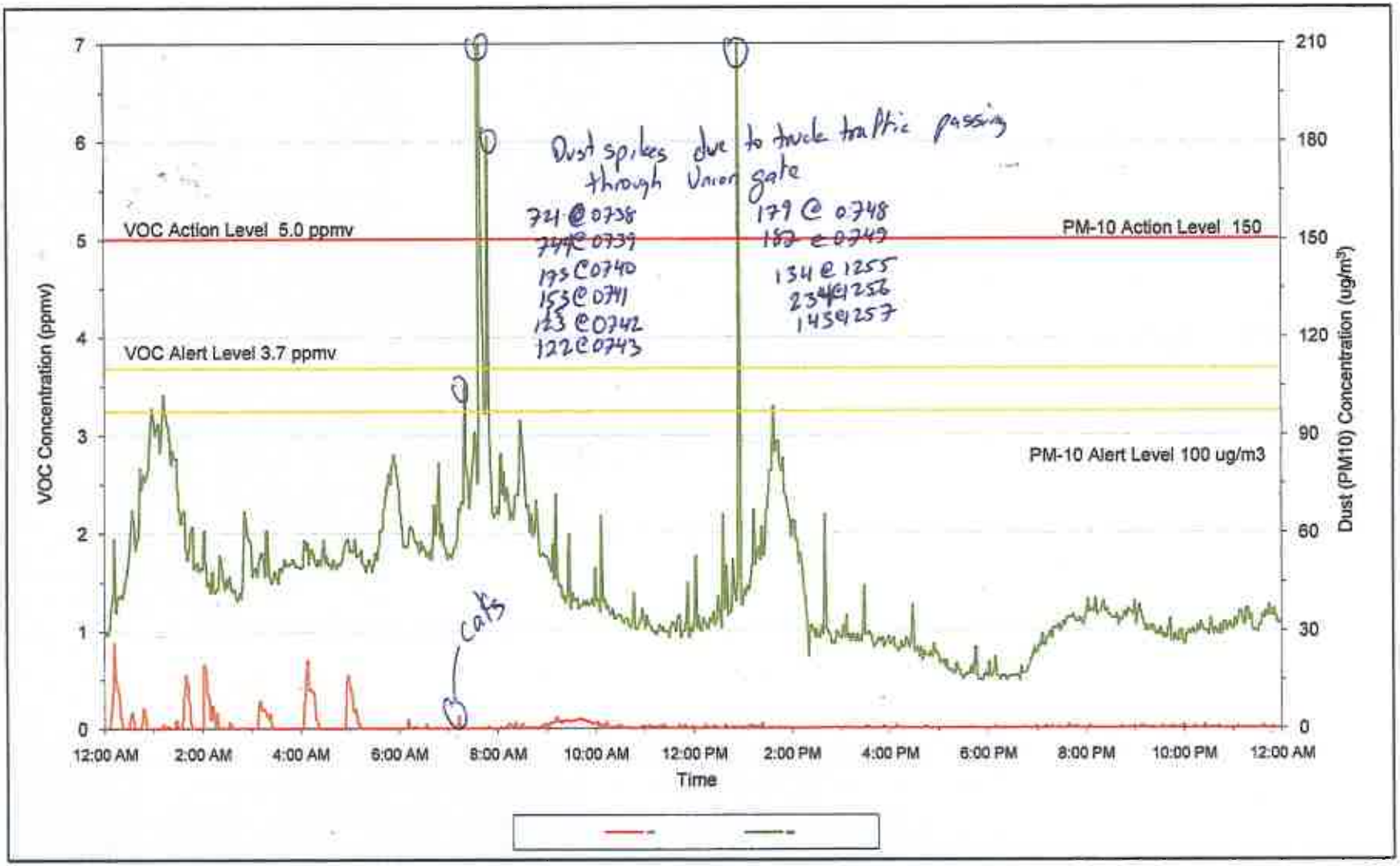



C:\XLRproject\Reports\Station2Mar10.xls

Mar 19,2010

# Community Air Monitoring
## Bay Shore Former MGP Site
## OU-1 Remedial Action Plan-Phase IV
## Bay Shore, NY
## National Grid

Station 3 - (AMS-3)

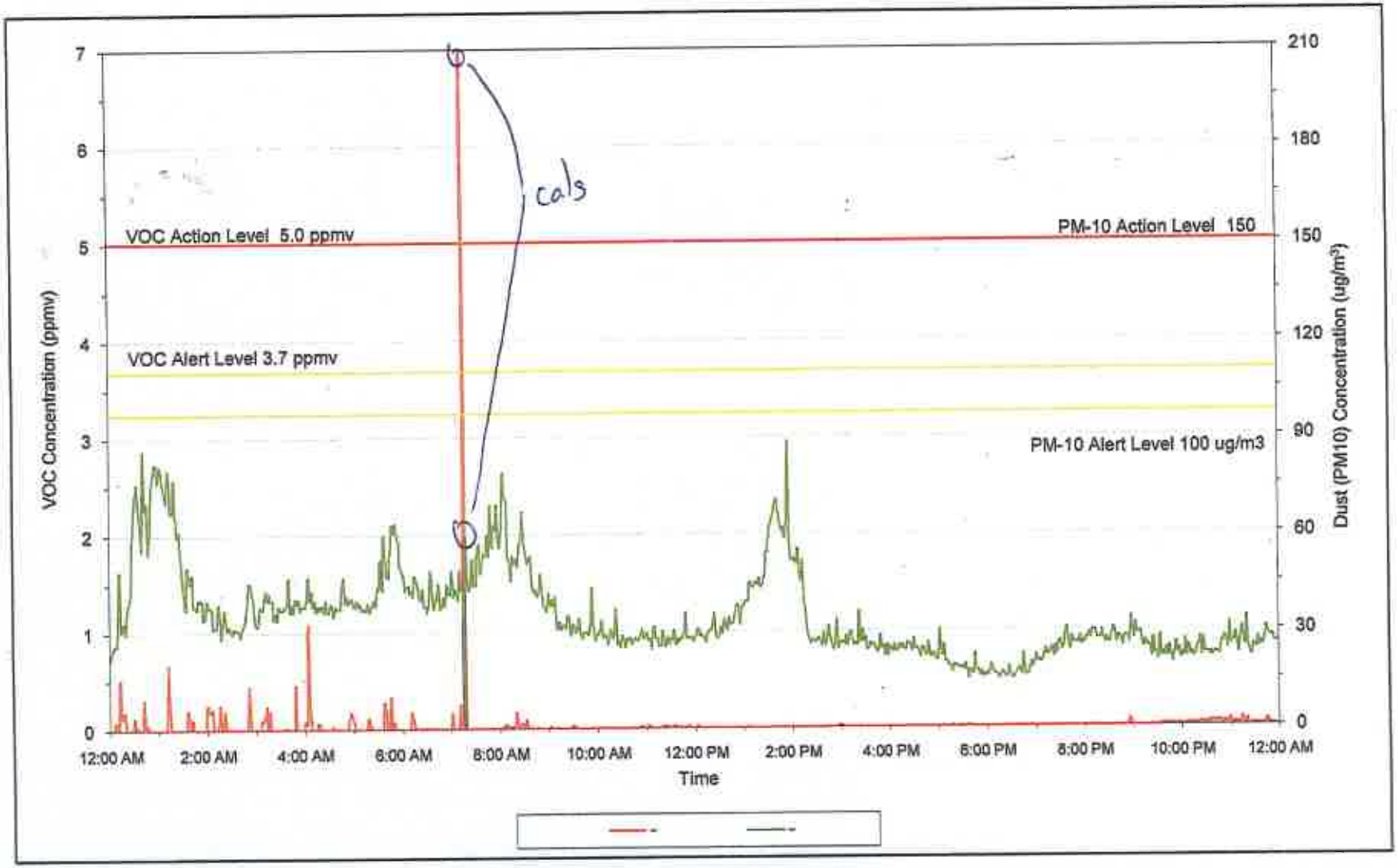



C:\XLRproject\Reports\Station3Mar10.xls

Mar 19,2010

# Community Air Monitoring
# Bay Shore Former MGP Site
# OU-1 Remedial Action Plan-Phase IV
# Bay Shore, NY
# National Grid

Station 4 - (AMS-4)

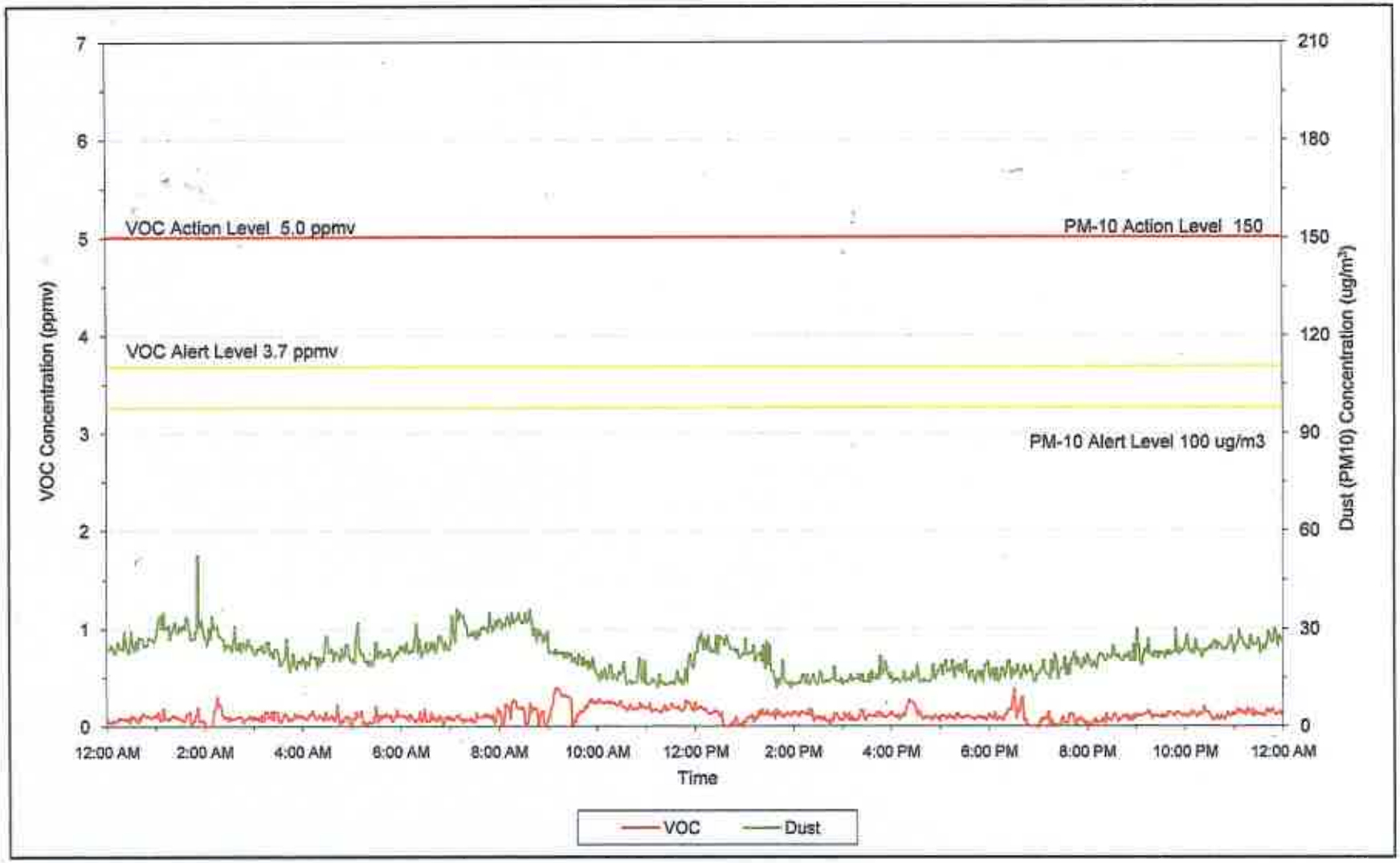



C:\XLRproject\Reports\Station4Mar10.xls

Mar 20,2010

# Community Air Monitoring
# Bay Shore Former MGP Site
# OU-1 Remedial Action Plan-Phase IV
# Bay Shore, NY
# National Grid

Station 1 - (AMS-1)

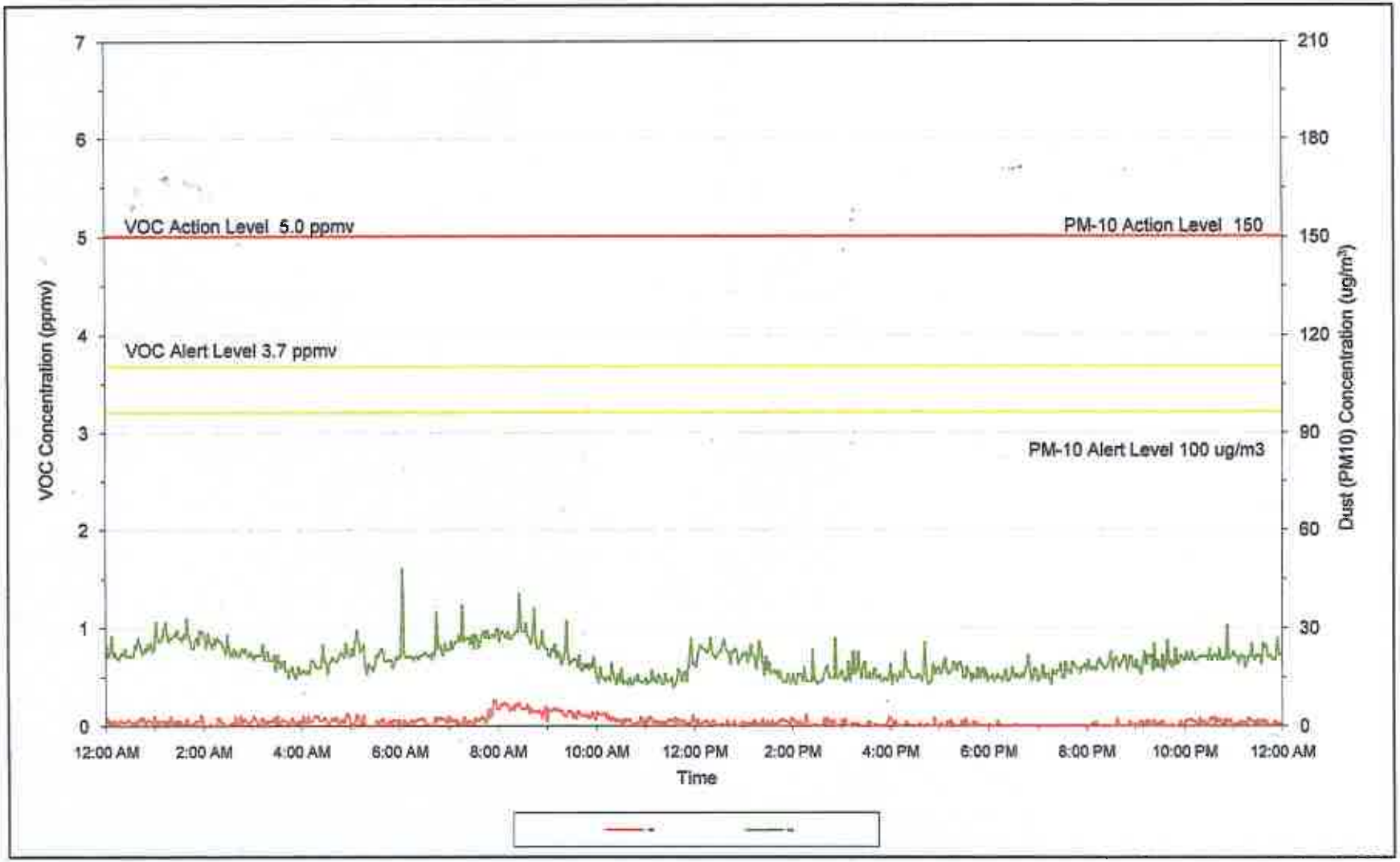



C:\XLRproject\Reports\STA1_ONDEMANDMar10.xls

Mar 20,2010

# Community Air Monitoring
# Bay Shore Former MGP Site
# OU-1 Remedial Action Plan-Phase IV
# Bay Shore, NY
# National Grid

Station 2 - (AMS-2)

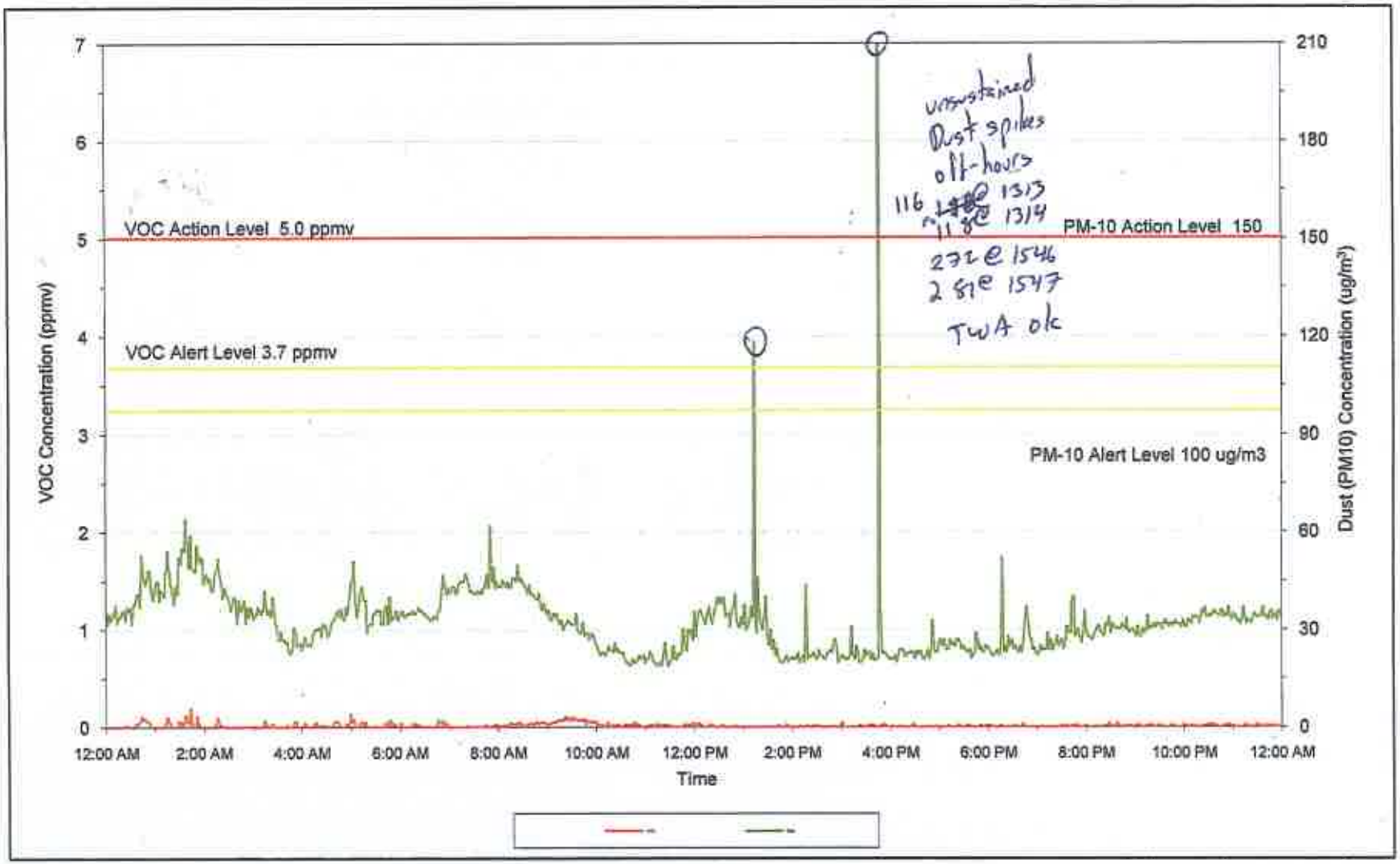



C:\XLRproject\Reports\Station2Mar10.xls

Mar 20,2010

# Community Air Monitoring
## Bay Shore Former MGP Site
## OU-1 Remedial Action Plan-Phase IV
## Bay Shore, NY
## National Grid

Station 3 - (AMS-3)

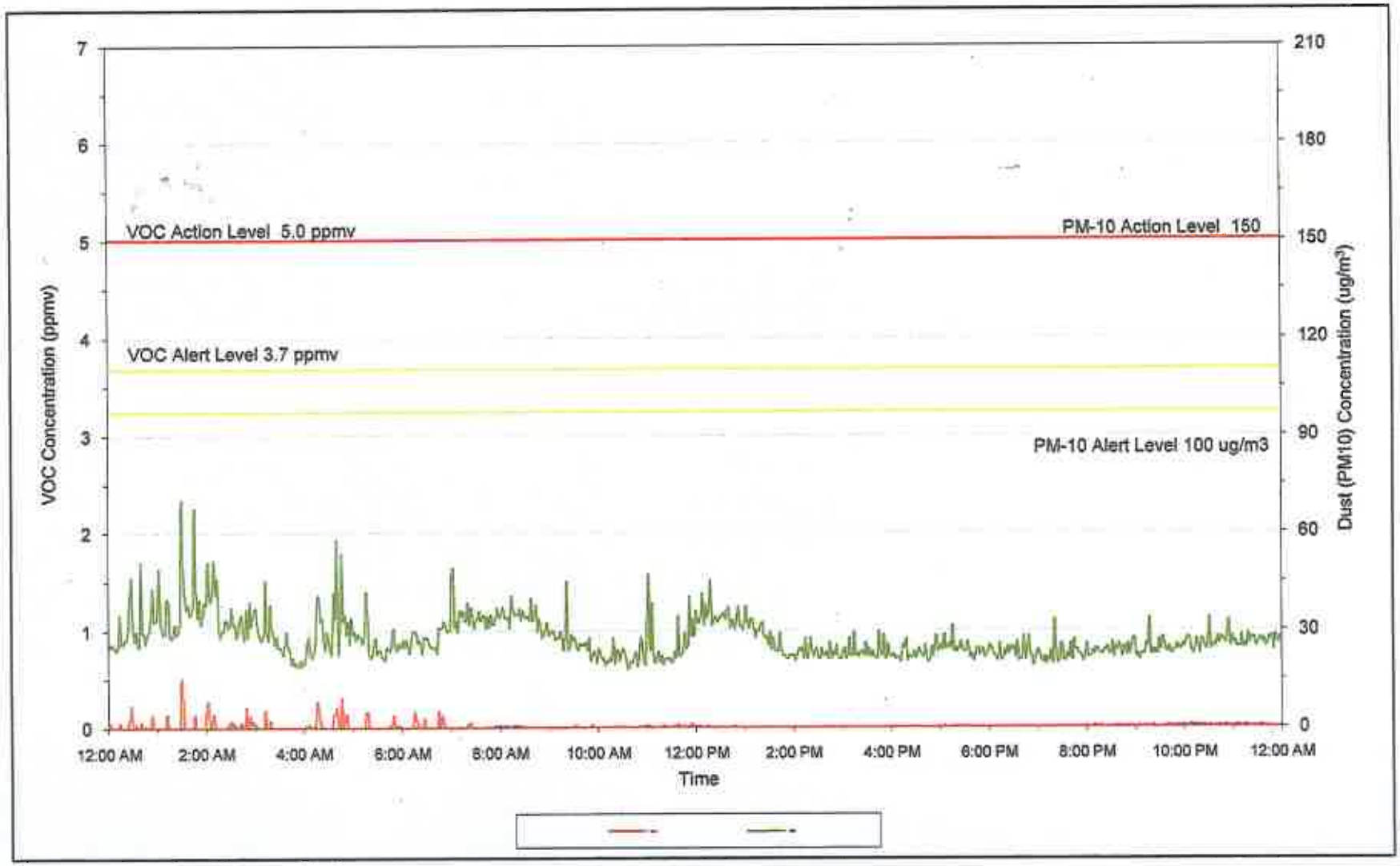



C:\XLRproject\Reports\Station3Mar10.xls

Mar 20,2010

# Community Air Monitoring
# Bay Shore Former MGP Site
# OU-1 Remedial Action Plan-Phase IV
# Bay Shore, NY
# National Grid

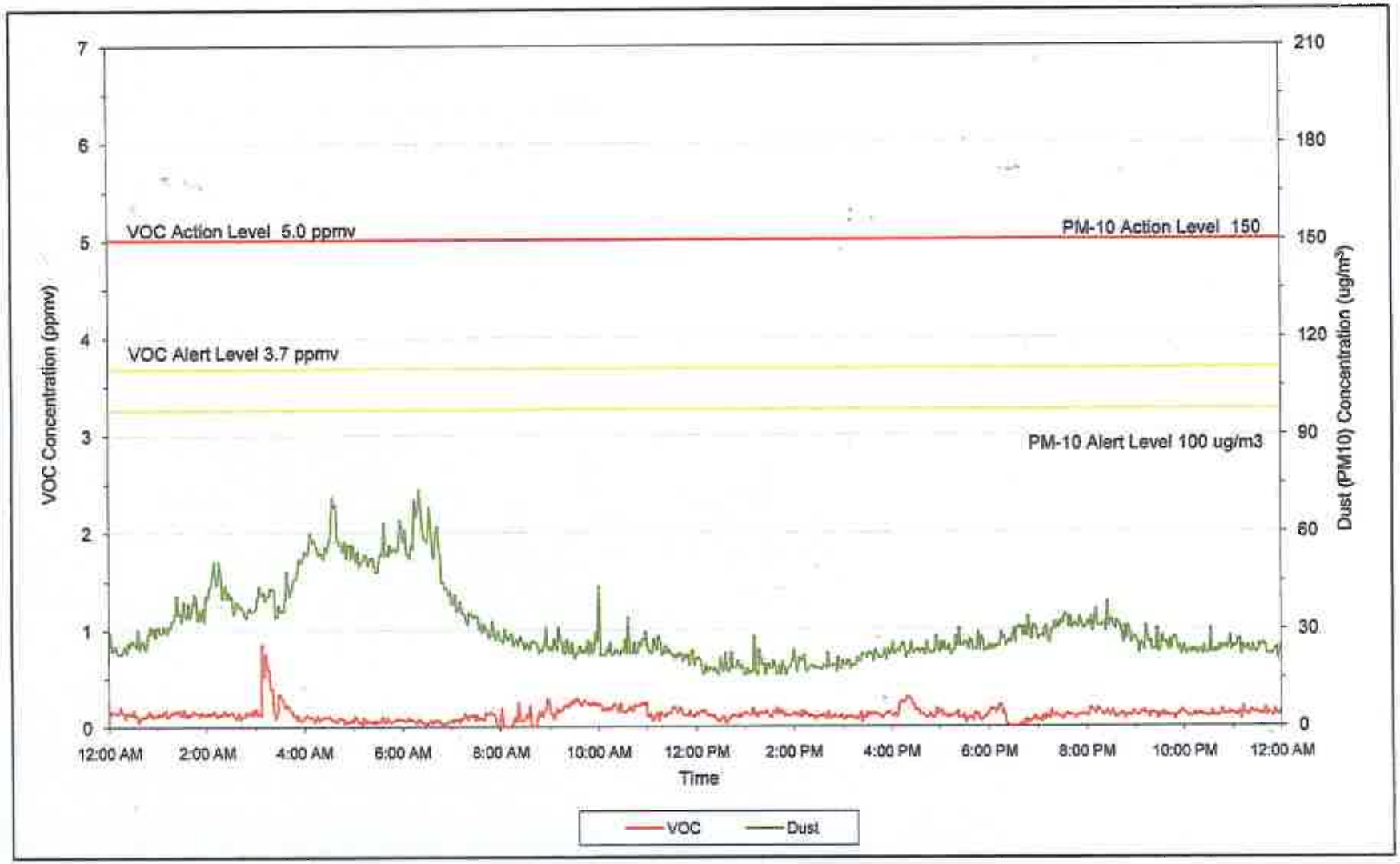
Station 4 - (AMS-4)




C:\XLRproject\Reports\Station4Mar10.xls

Mar 21,2010

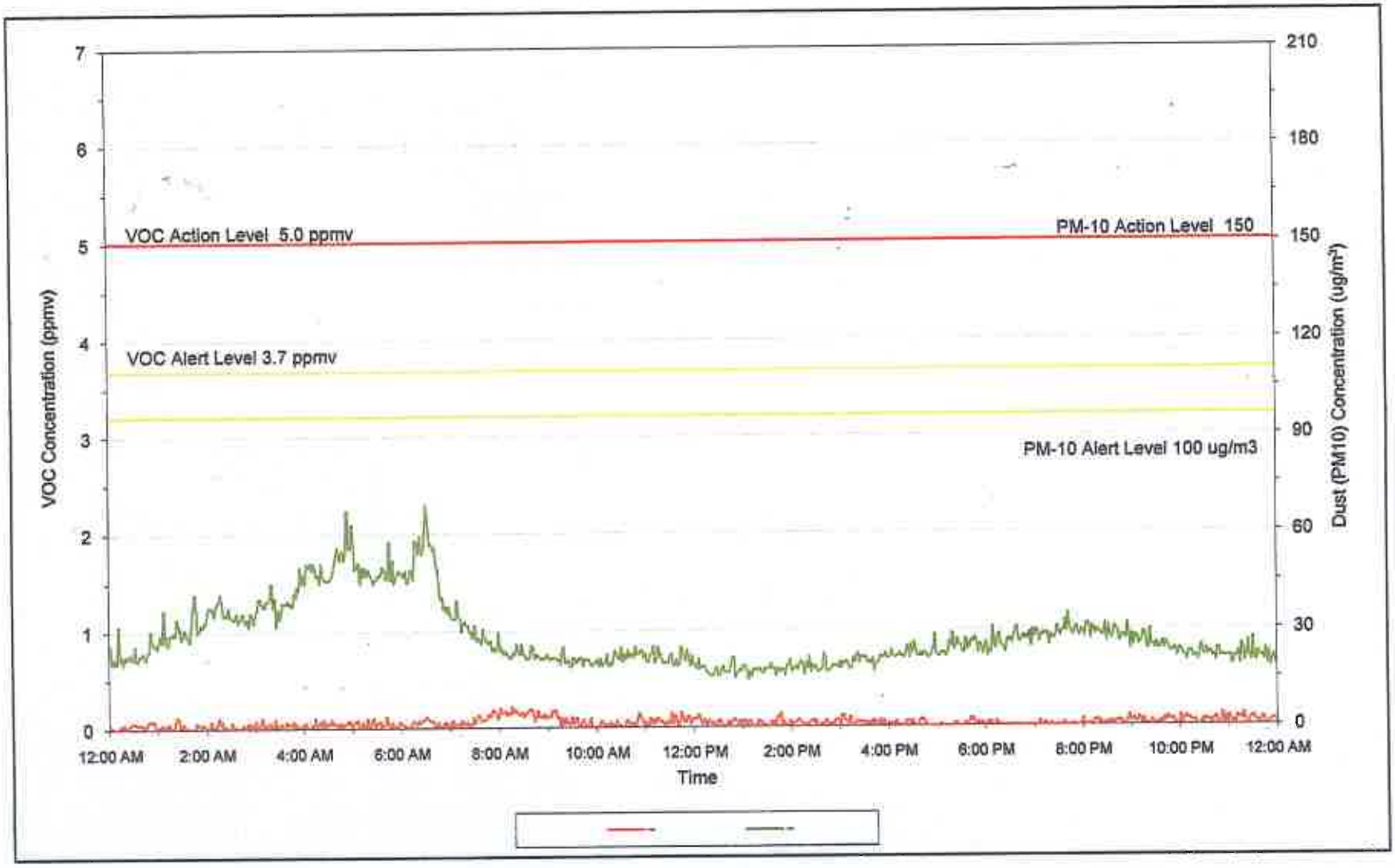
# Community Air Monitoring
## Bay Shore Former MGP Site
## OU-1 Remedial Action Plan-Phase IV
## Bay Shore, NY
## National Grid
Station 1 - (AMS-1)




C:\XLRproject\Reports\STA1_ONDEMANDMar10.xls

Mar 21,2010

# Community Air Monitoring
## Bay Shore Former MGP Site
## OU-1 Remedial Action Plan-Phase IV
## Bay Shore, NY
## National Grid
Station 2 - (AMS-2)

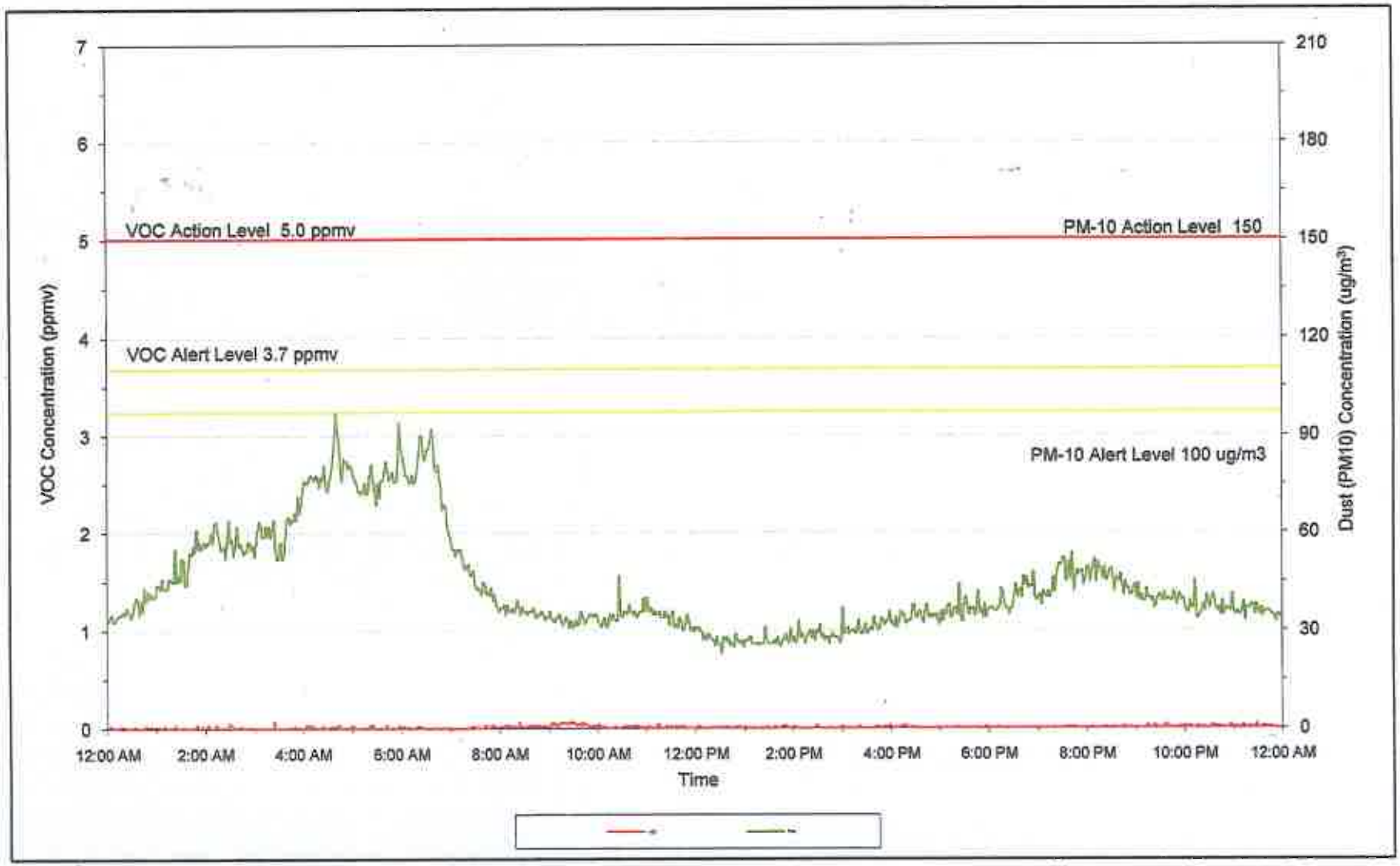



C:\XLRproject\Reports\Station2Mar10.xls

Mar 21,2010

# Community Air Monitoring
# Bay Shore Former MGP Site
# OU-1 Remedial Action Plan-Phase IV
# Bay Shore, NY
# National Grid

Station 3 - (AMS-3)

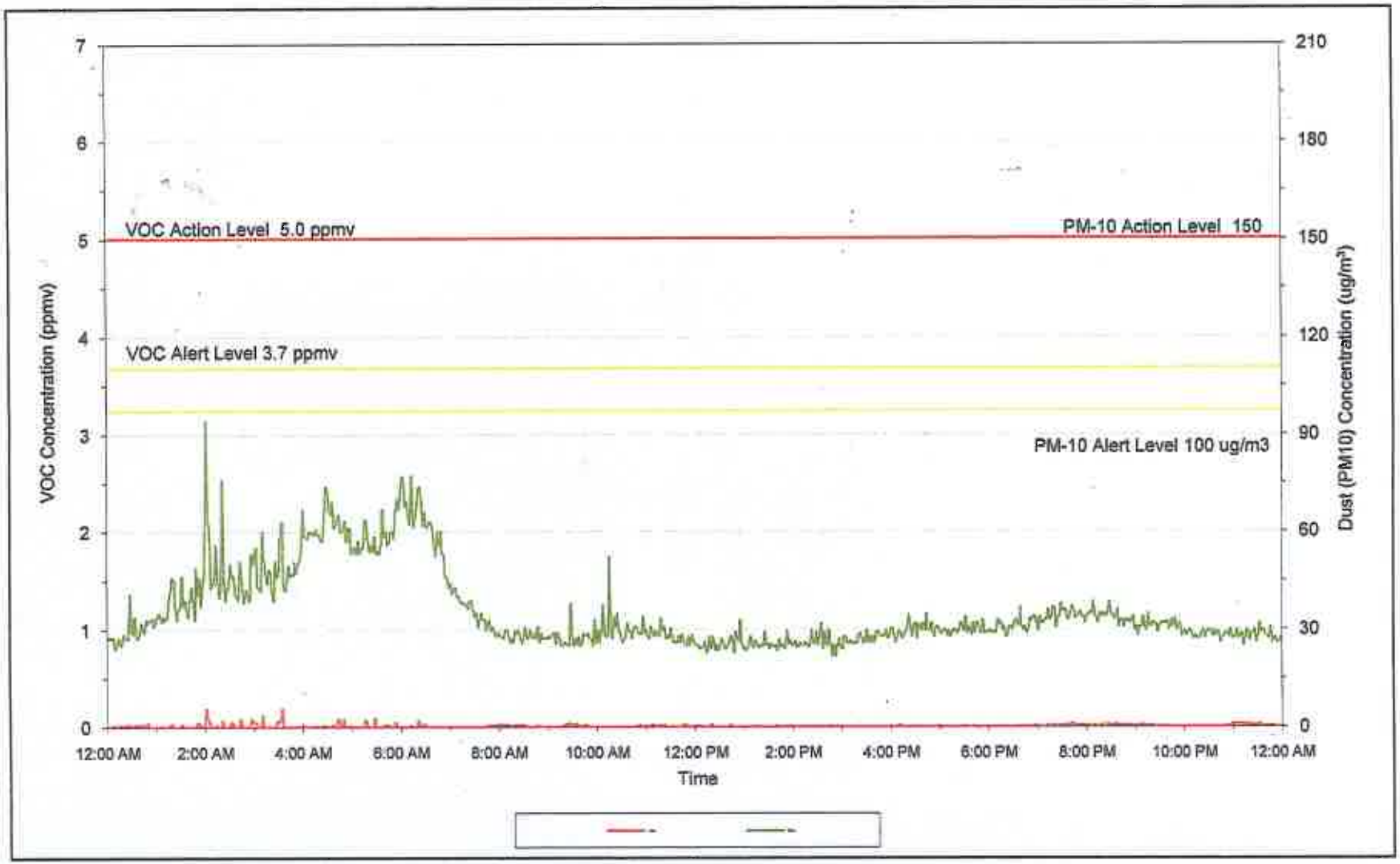



C:\XLRproject\Reports\Station3Mar10.xls

Mar 21,2010

# Community Air Monitoring
## Bay Shore Former MGP Site
## OU-1 Remedial Action Plan-Phase IV
## Bay Shore, NY
## National Grid

Station 4 - (AMS-4)

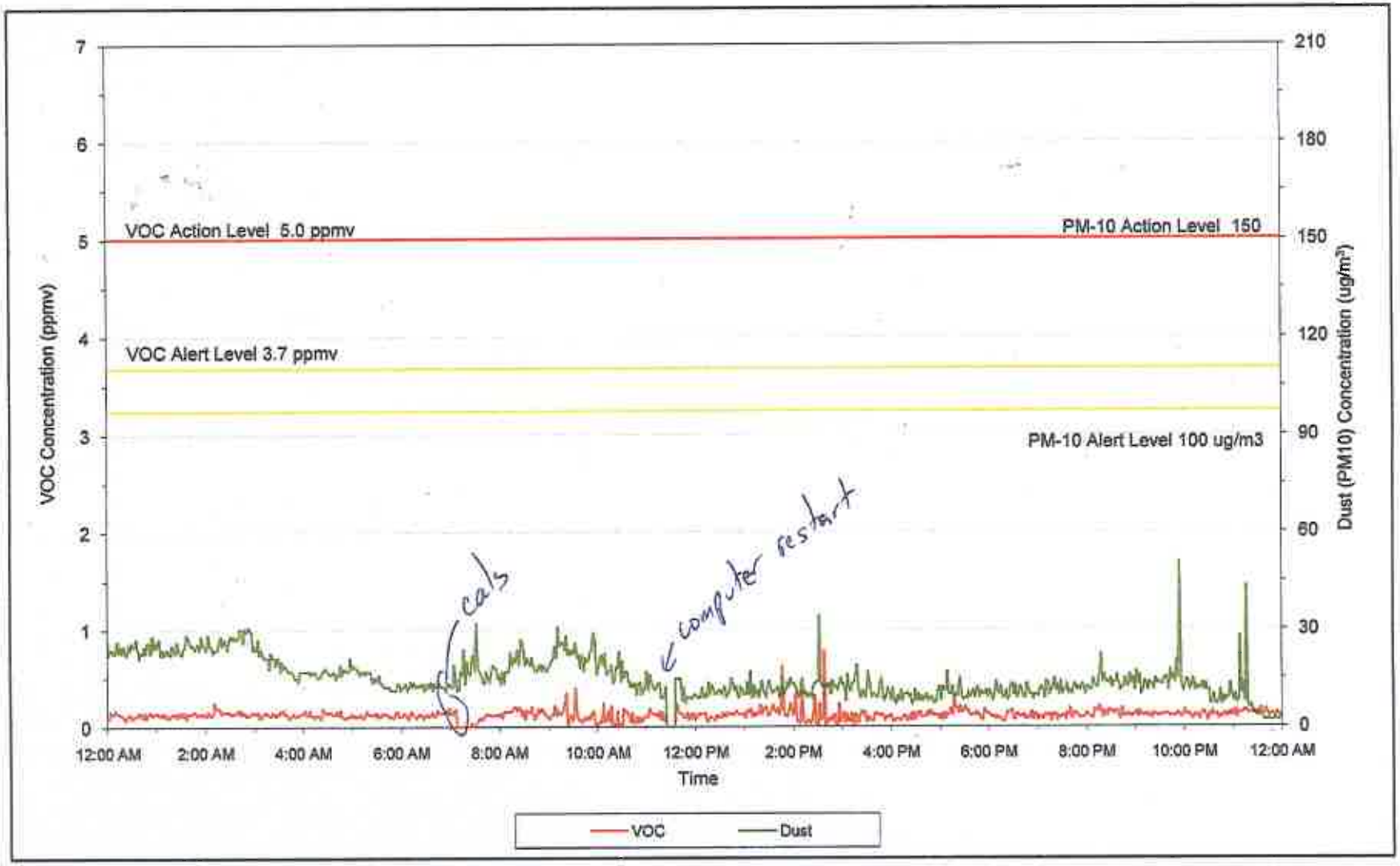



C:\XLRproject\Reports\Station4Mar10.xls

Mar 22,2010

# Community Air Monitoring
## Bay Shore Former MGP Site
## OU-1 Remedial Action Plan-Phase IV
## Bay Shore, NY
## National Grid

Station 1 - (AMS-1)

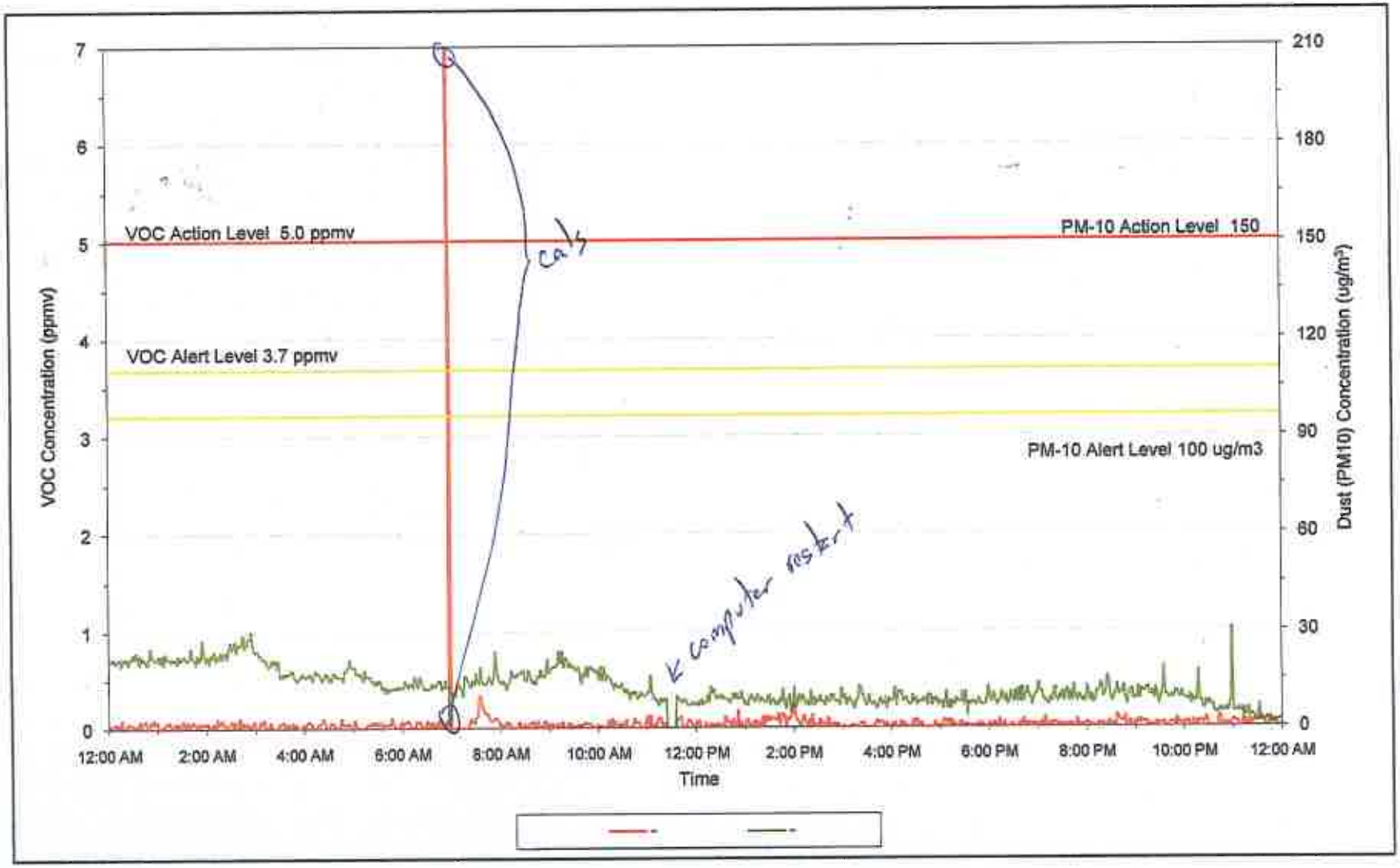



C:\XLRproject\Reports\Station1Mar10.xls

Mar 22,2010

# Community Air Monitoring
# Bay Shore Former MGP Site
# OU-1 Remedial Action Plan-Phase IV
# Bay Shore, NY
# National Grid

Station 2 - (AMS-2)

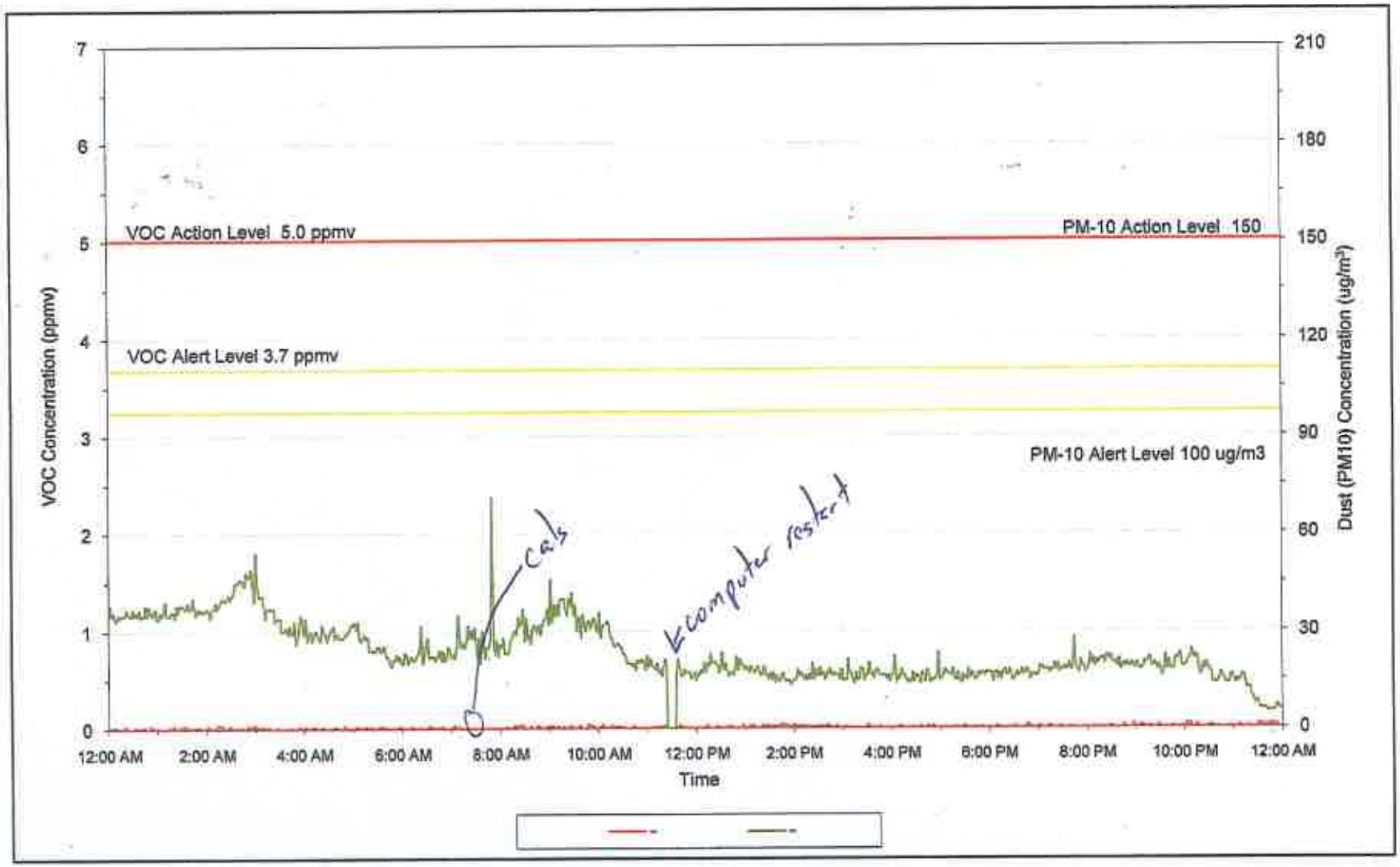



C:\XLRproject\Reports\Station2Mar10.xls

Mar 22,2010

# Community Air Monitoring
# Bay Shore Former MGP Site
# OU-1 Remedial Action Plan-Phase IV
# Bay Shore, NY
# National Grid

Station 3 - (AMS-3)

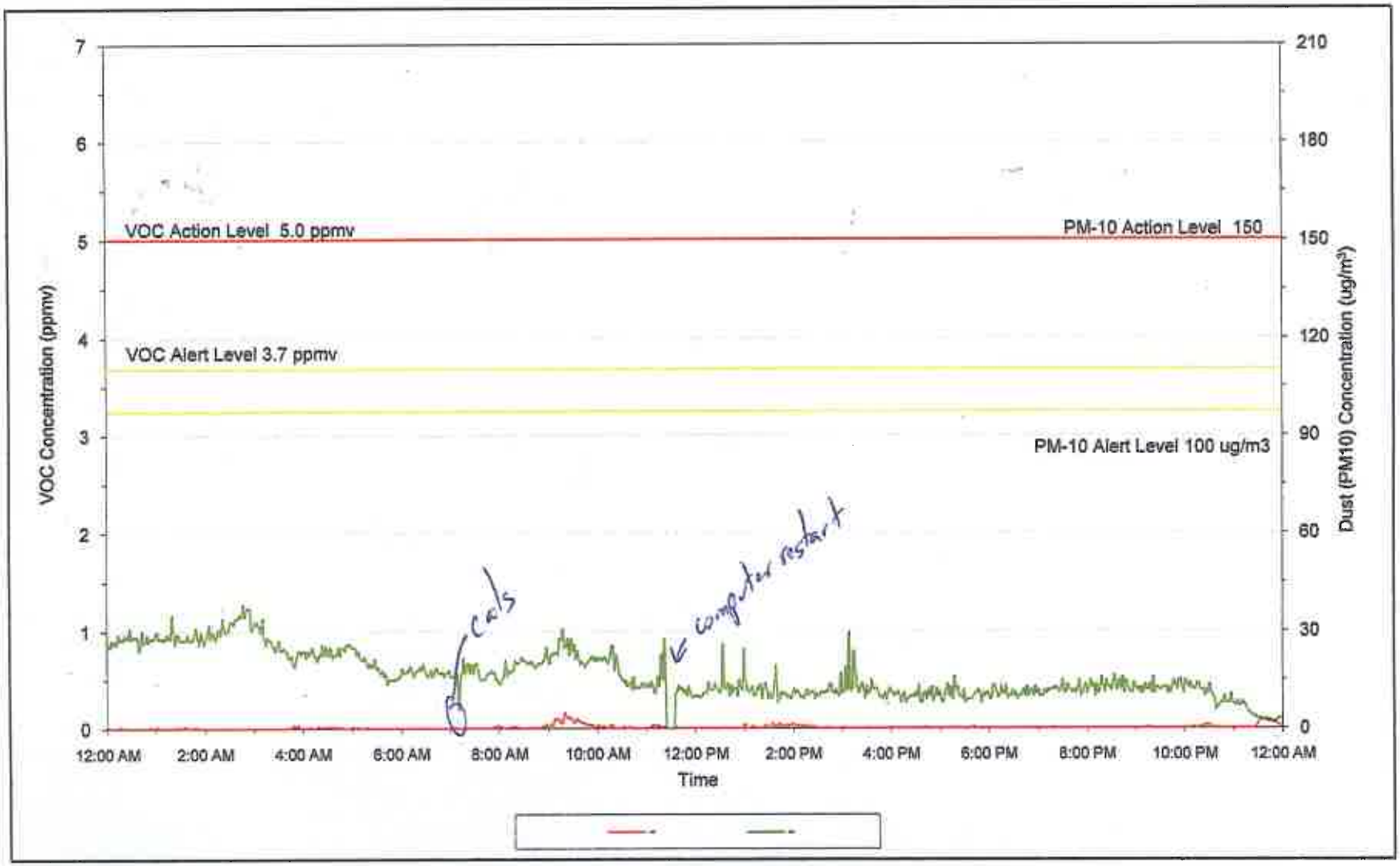



C:\XLRproject\Reports\Station3Mar10.xls

Mar 22,2010

# Community Air Monitoring
# Bay Shore Former MGP Site
# OU-1 Remedial Action Plan-Phase IV
# Bay Shore, NY
# National Grid

Station 4 - (AMS-4)

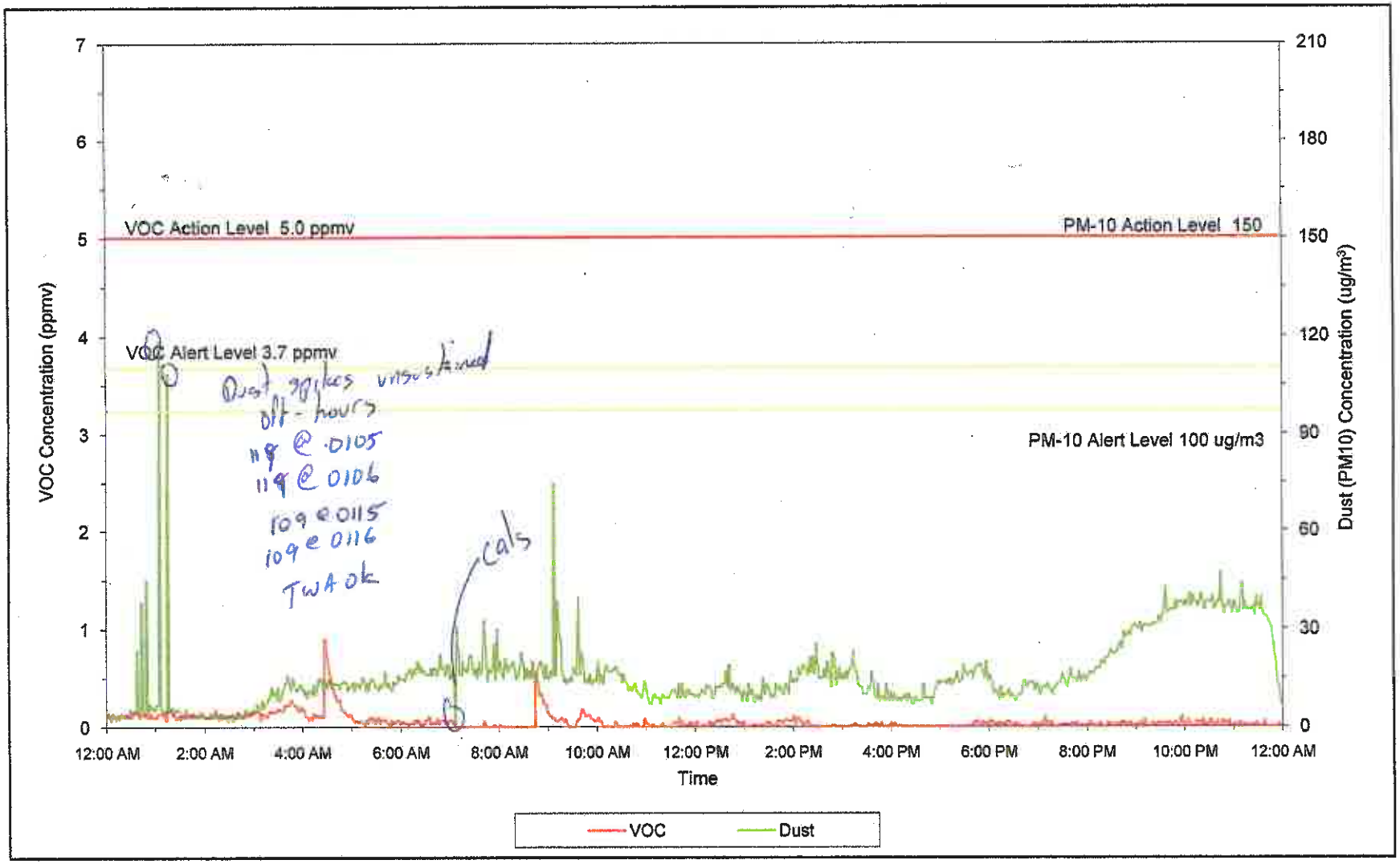



C:\XLRproject\Reports\Station4Mar10.xls

Mar 23,2010

# Community Air Monitoring
# Bay Shore Former MGP Site
# OU-1 Remedial Action Plan-Phase IV
# Bay Shore, NY
# National Grid

Station 1 - (AMS-1)

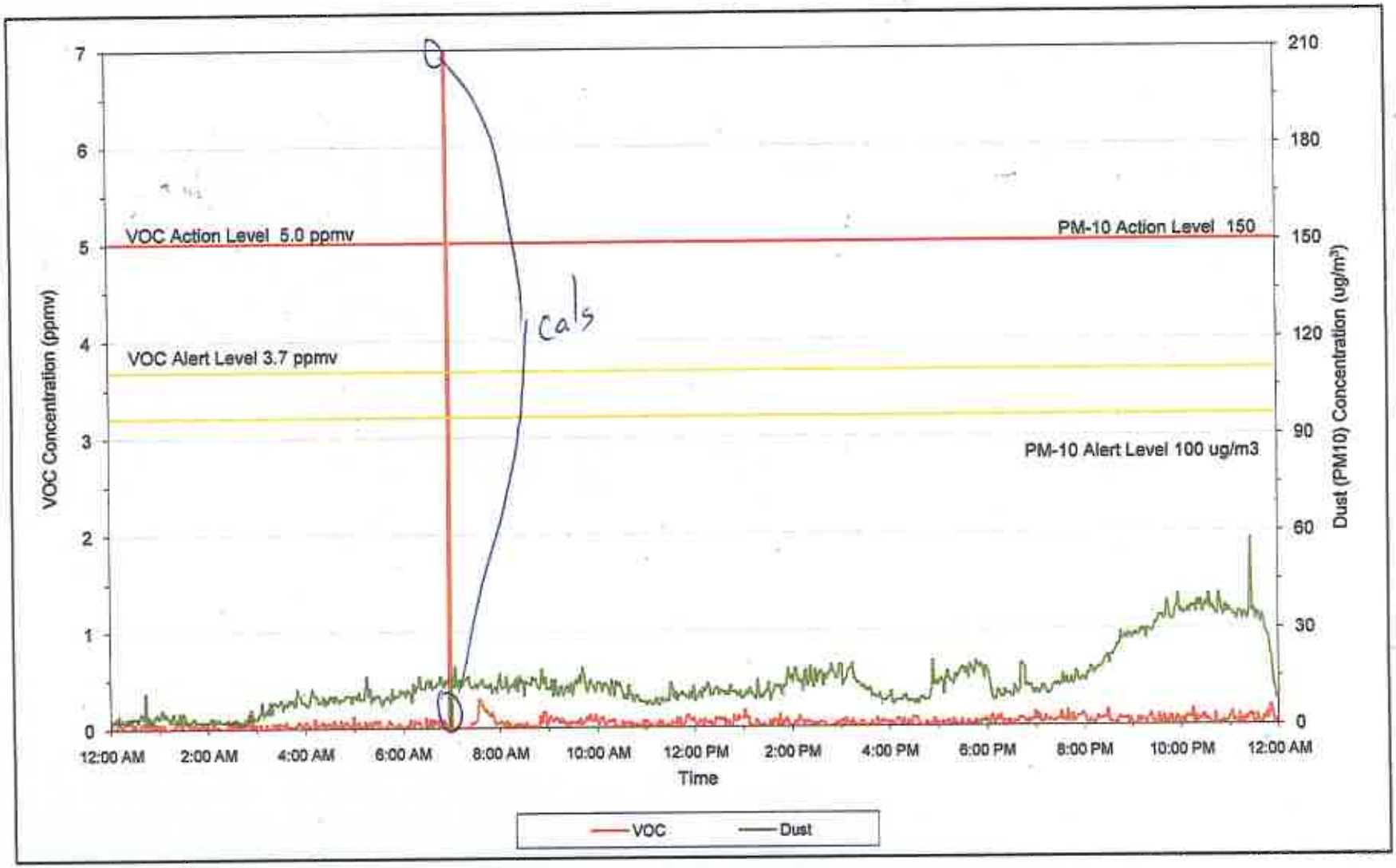



C:\XLRproject\Reports\Station1Mar10.xls

Mar 23,2010

# Community Air Monitoring
## Bay Shore Former MGP Site
## OU-1 Remedial Action Plan-Phase IV
## Bay Shore, NY
## National Grid

Station 2 - (AMS-2)

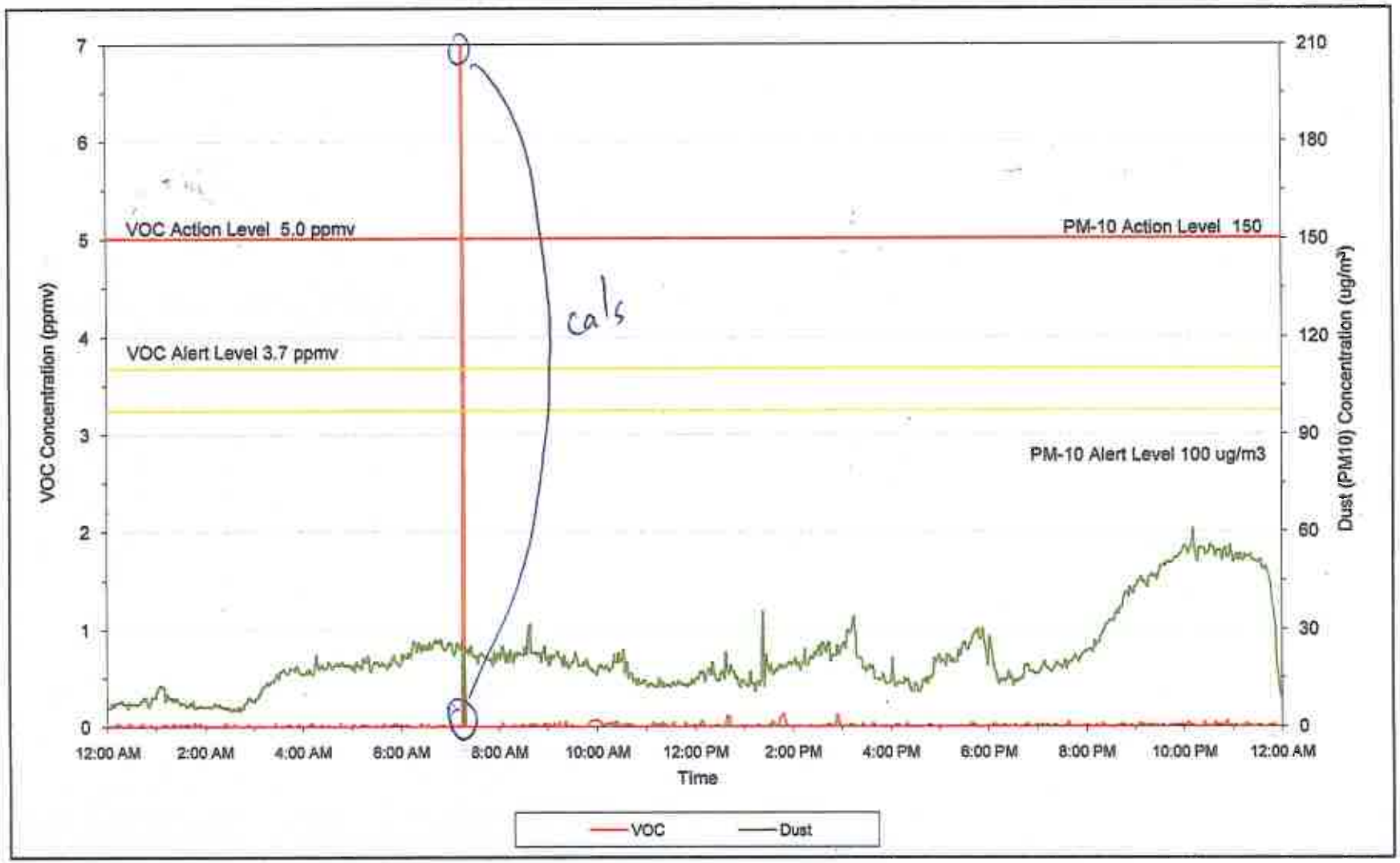



C:\XLRproject\Reports\Station2Mar10.xls

Mar 23,2010

# Community Air Monitoring
# Bay Shore Former MGP Site
# OU-1 Remedial Action Plan-Phase IV
# Bay Shore, NY
# National Grid

Station 3 - (AMS-3)

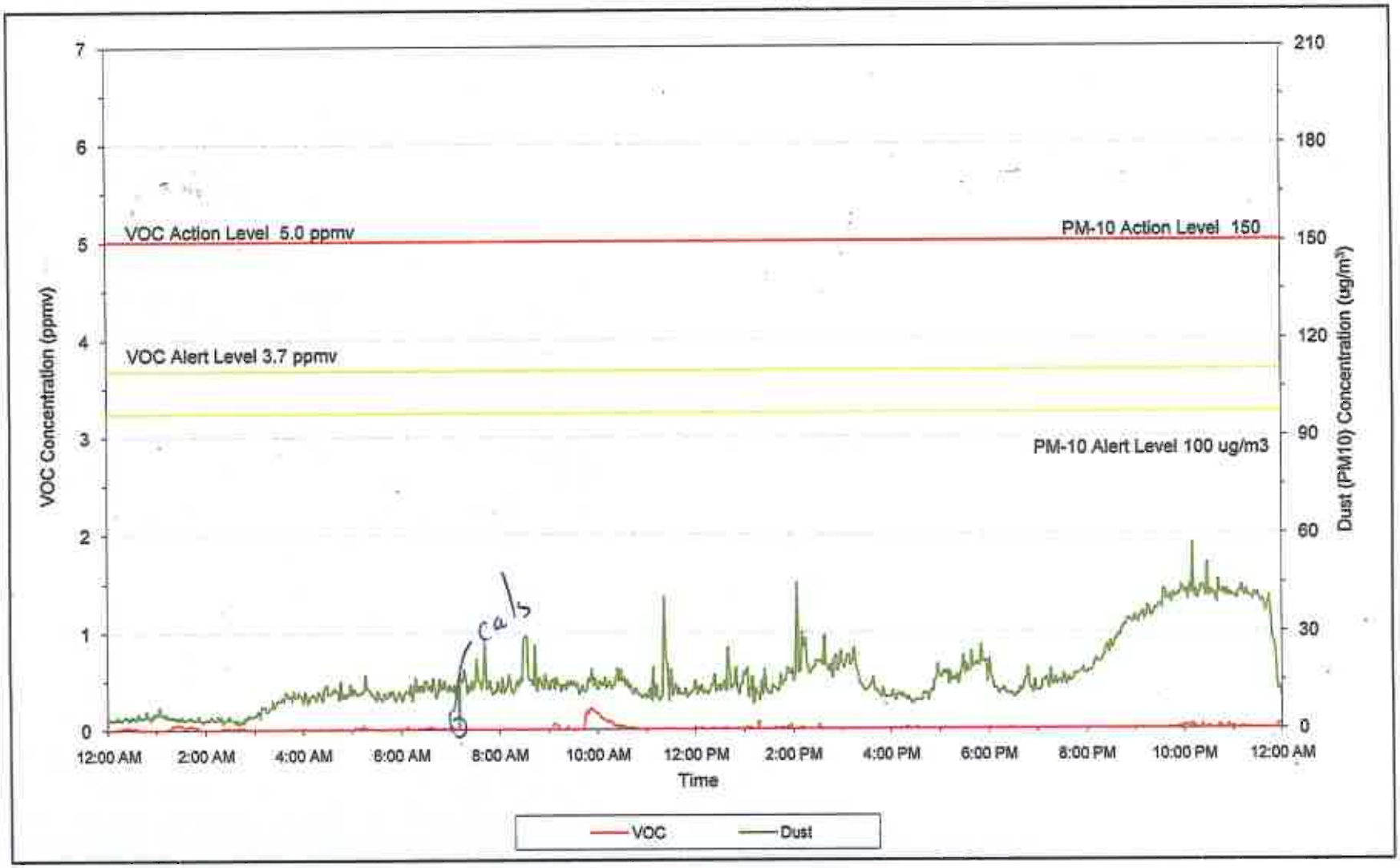



C:\XLRproject\Reports\Station3Mar10.xls

Mar 23,2010

# Community Air Monitoring
## Bay Shore Former MGP Site
## OU-1 Remedial Action Plan-Phase IV
## Bay Shore, NY
## National Grid

Station 4 - (AMS-4)

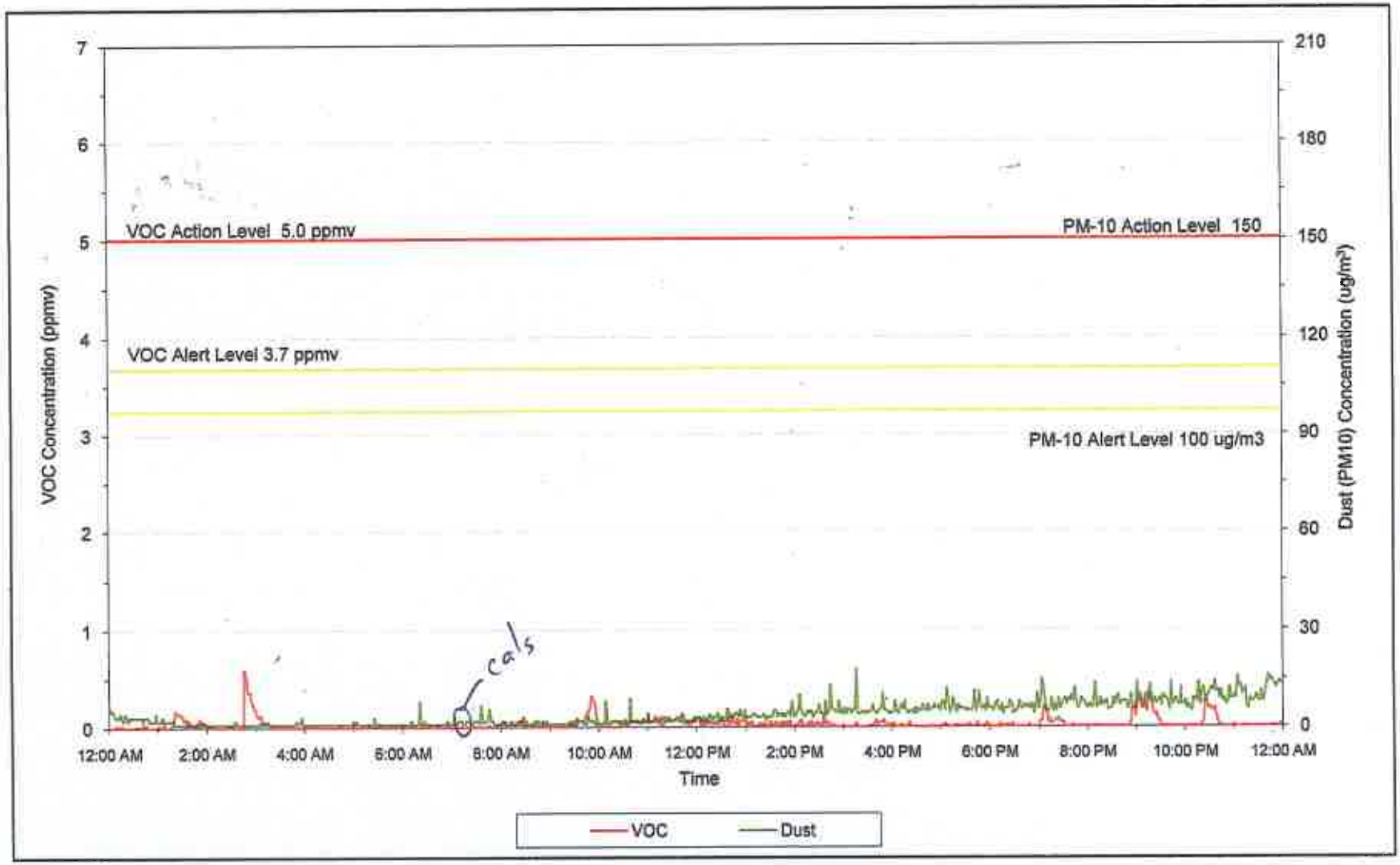



C:\XLRproject\Reports\Station4Mar10.xls

Mar 24,2010

**Community Air Monitoring**
**Bay Shore Former MGP Site**
**OU-1 Remedial Action Plan-Phase IV**
**Bay Shore, NY**
**National Grid**

Station 1 - (AMS-1)

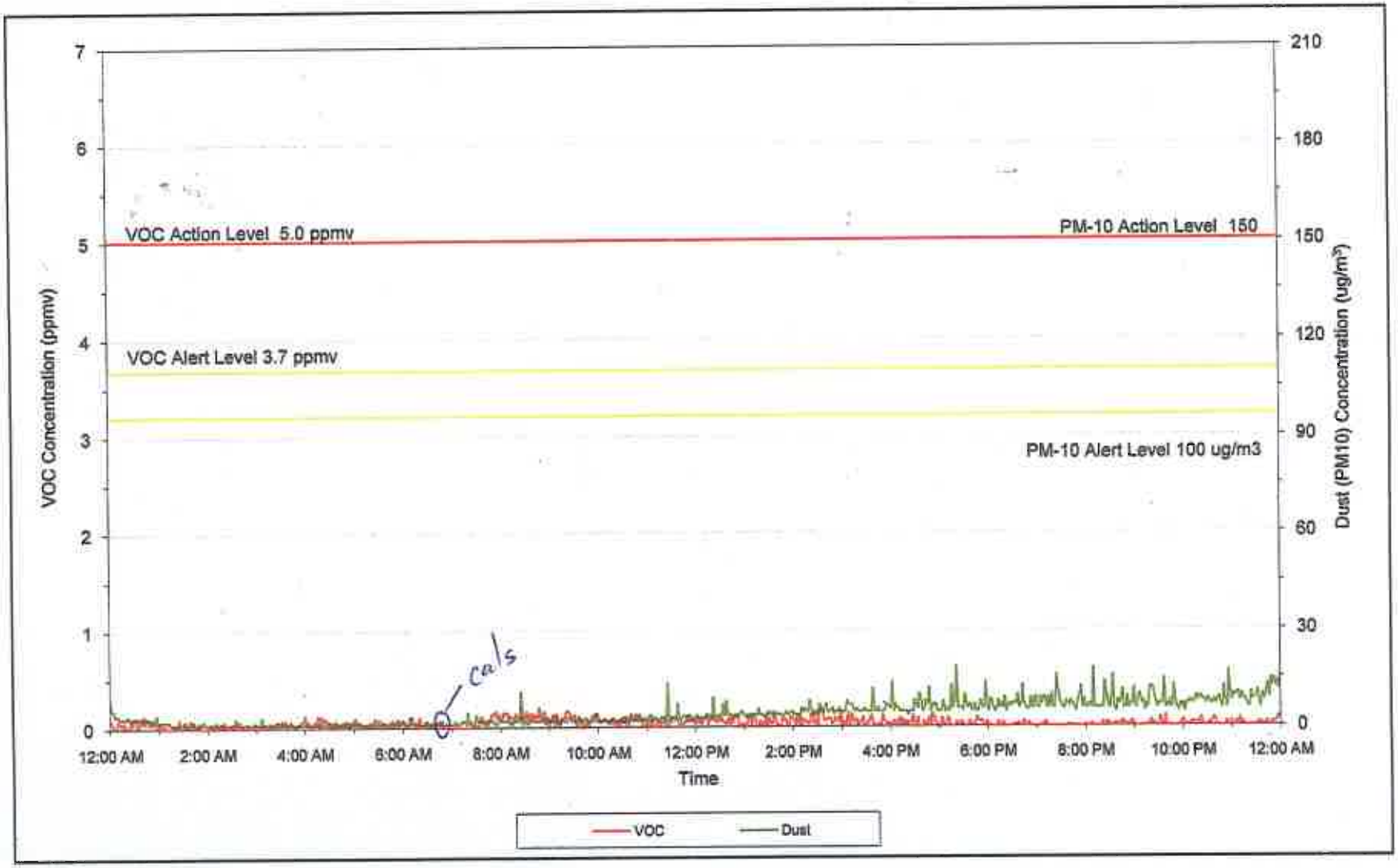



C:\XLRproject\Reports\Station1Mar10.xls

Mar 24,2010

**Community Air Monitoring**
**Bay Shore Former MGP Site**
**OU-1 Remedial Action Plan-Phase IV**
**Bay Shore, NY**
**National Grid**

Station 2 - (AMS-2)

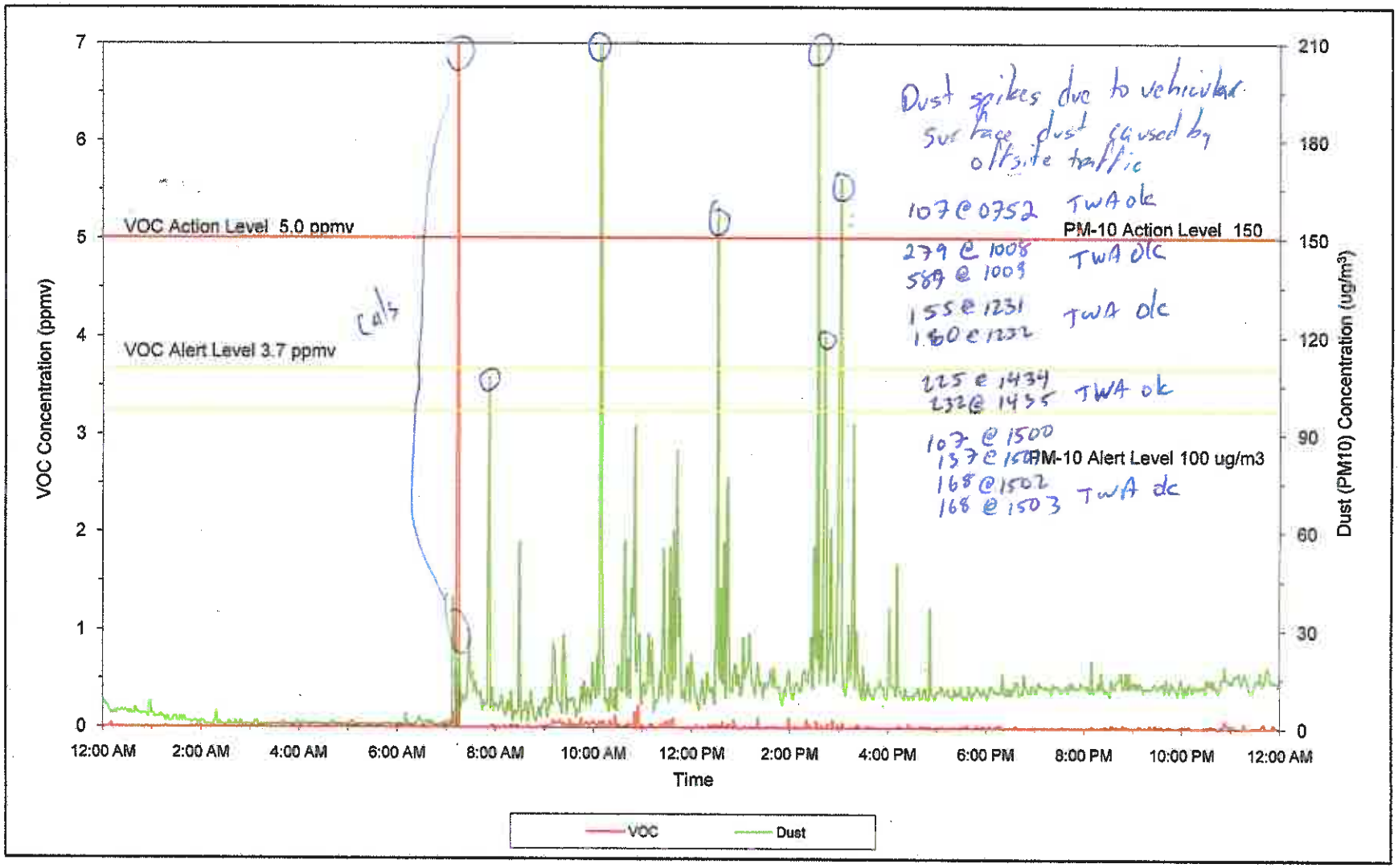



C:\XLRproject\Reports\Station2Mar10.xls

Mar 24,2010

**Community Air Monitoring**
**Bay Shore Former MGP Site**
**OU-1 Remedial Action Plan-Phase IV**
**Bay Shore, NY**
**National Grid**

Station 3 - (AMS-3)

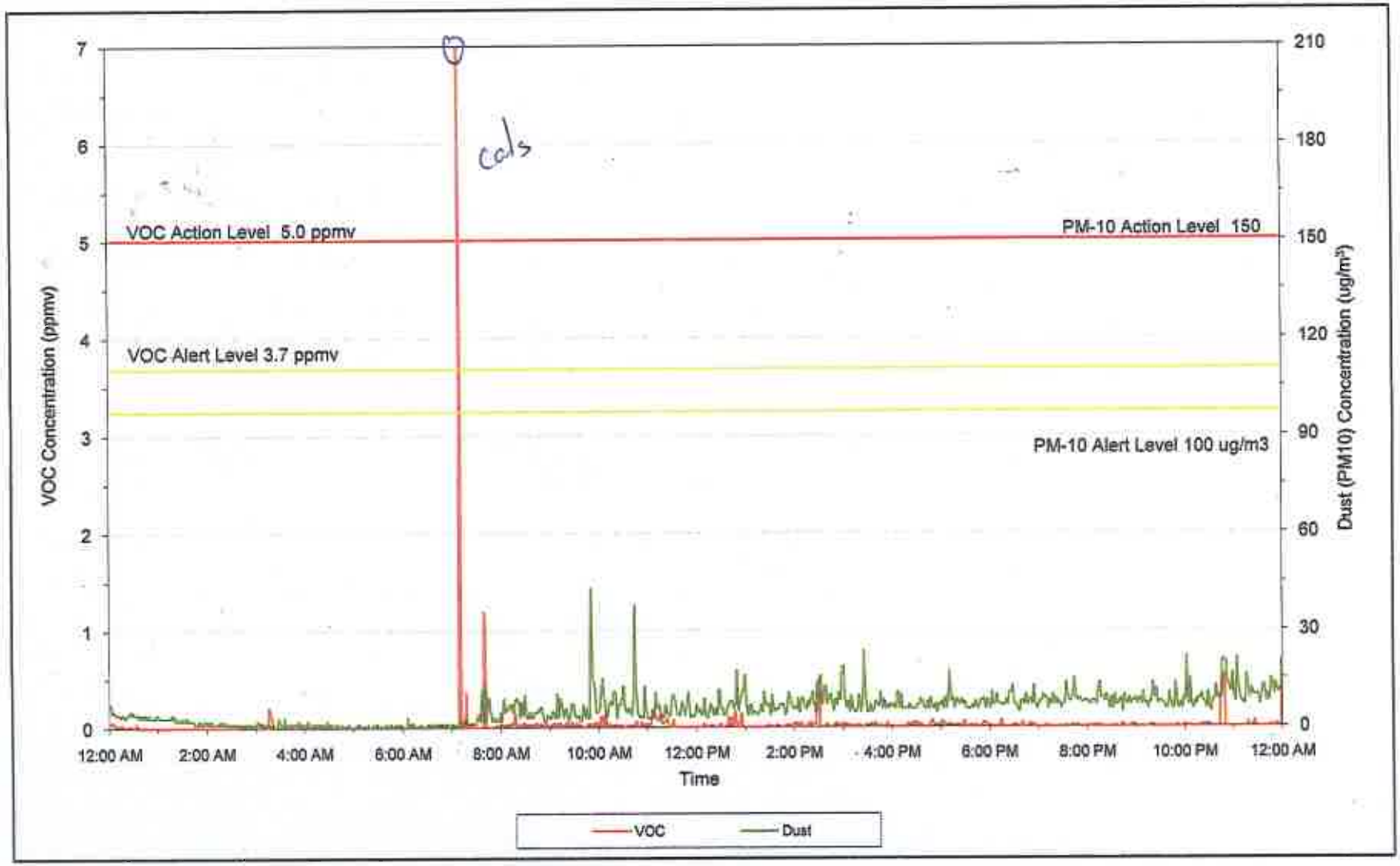



C:\XLRproject\Reports\Station3Mar10.xls

Mar 24,2010

**Community Air Monitoring**
**Bay Shore Former MGP Site**
**OU-1 Remedial Action Plan-Phase IV**
**Bay Shore, NY**
**National Grid**

Station 4 - (AMS-4)

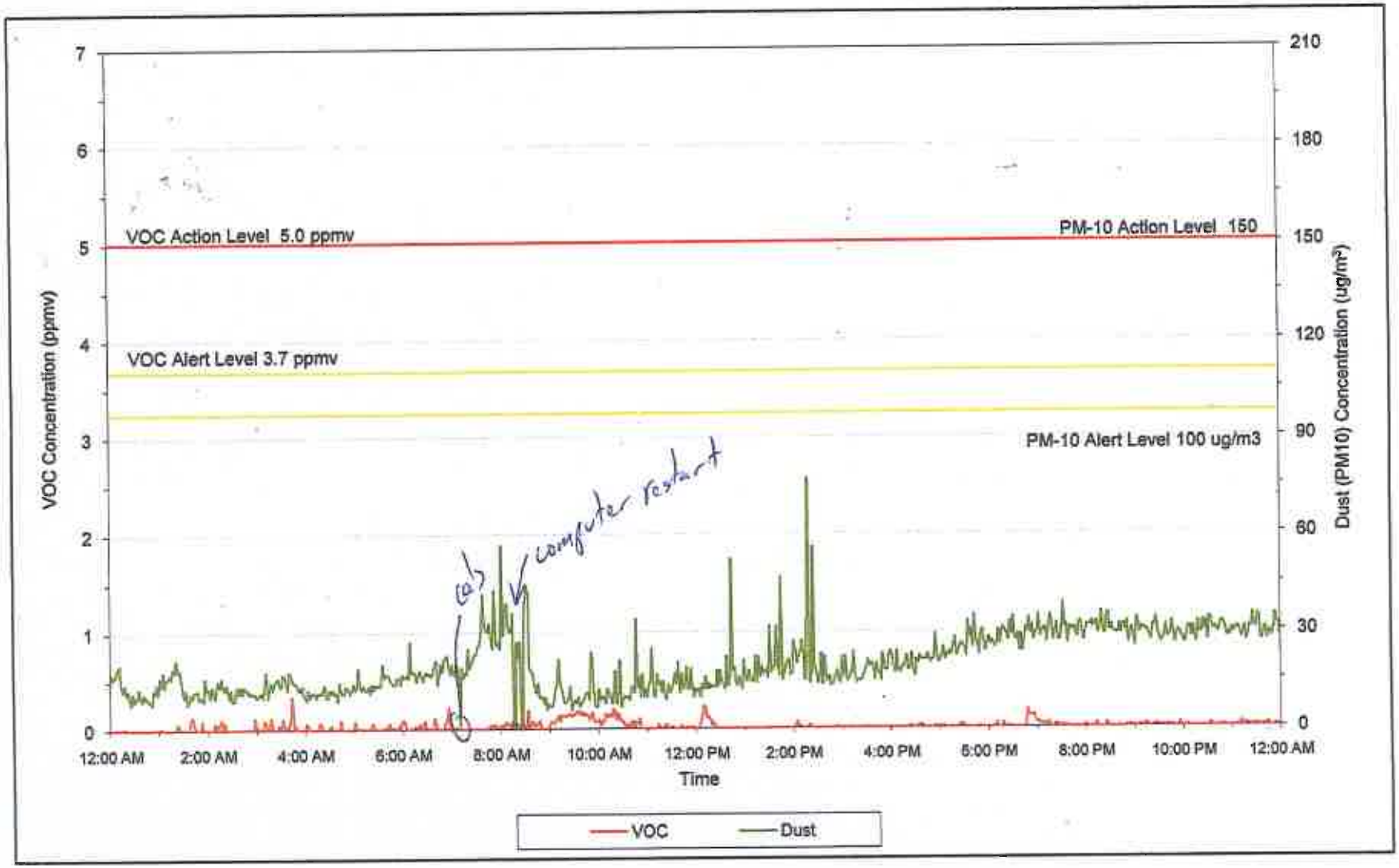



C:\XLRproject\Reports\Station4Mar10.xls

Mar 25,2010

**Community Air Monitoring**
**Bay Shore Former MGP Site**
**OU-1 Remedial Action Plan-Phase IV**
**Bay Shore, NY**
**National Grid**

Station 1 - (AMS-1)

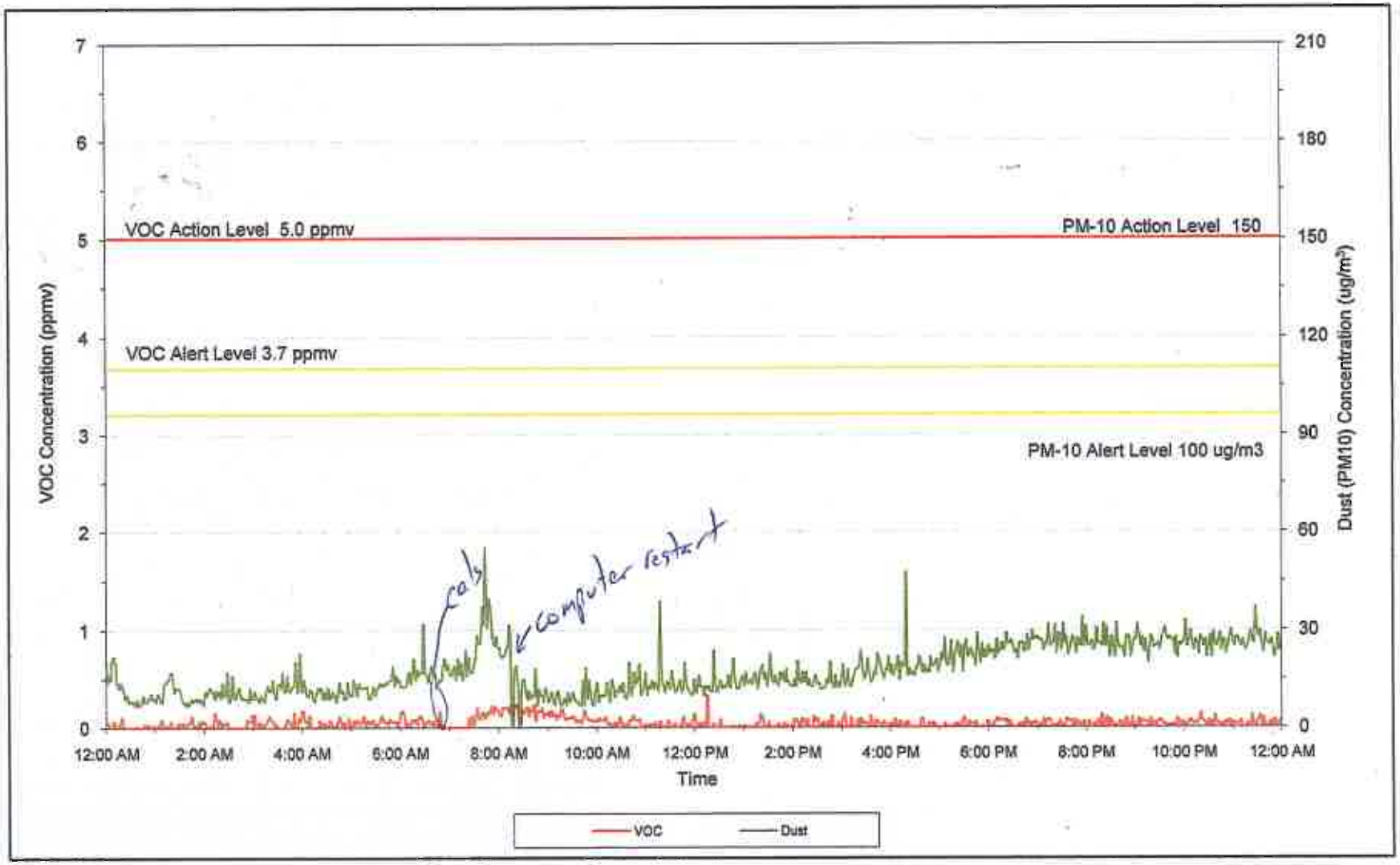



C:\XLRproject\Reports\Station1Mar10.xls

Mar 25,2010

**Community Air Monitoring**
**Bay Shore Former MGP Site**
**OU-1 Remedial Action Plan-Phase IV**
**Bay Shore, NY**
**National Grid**

Station 2 - (AMS-2)

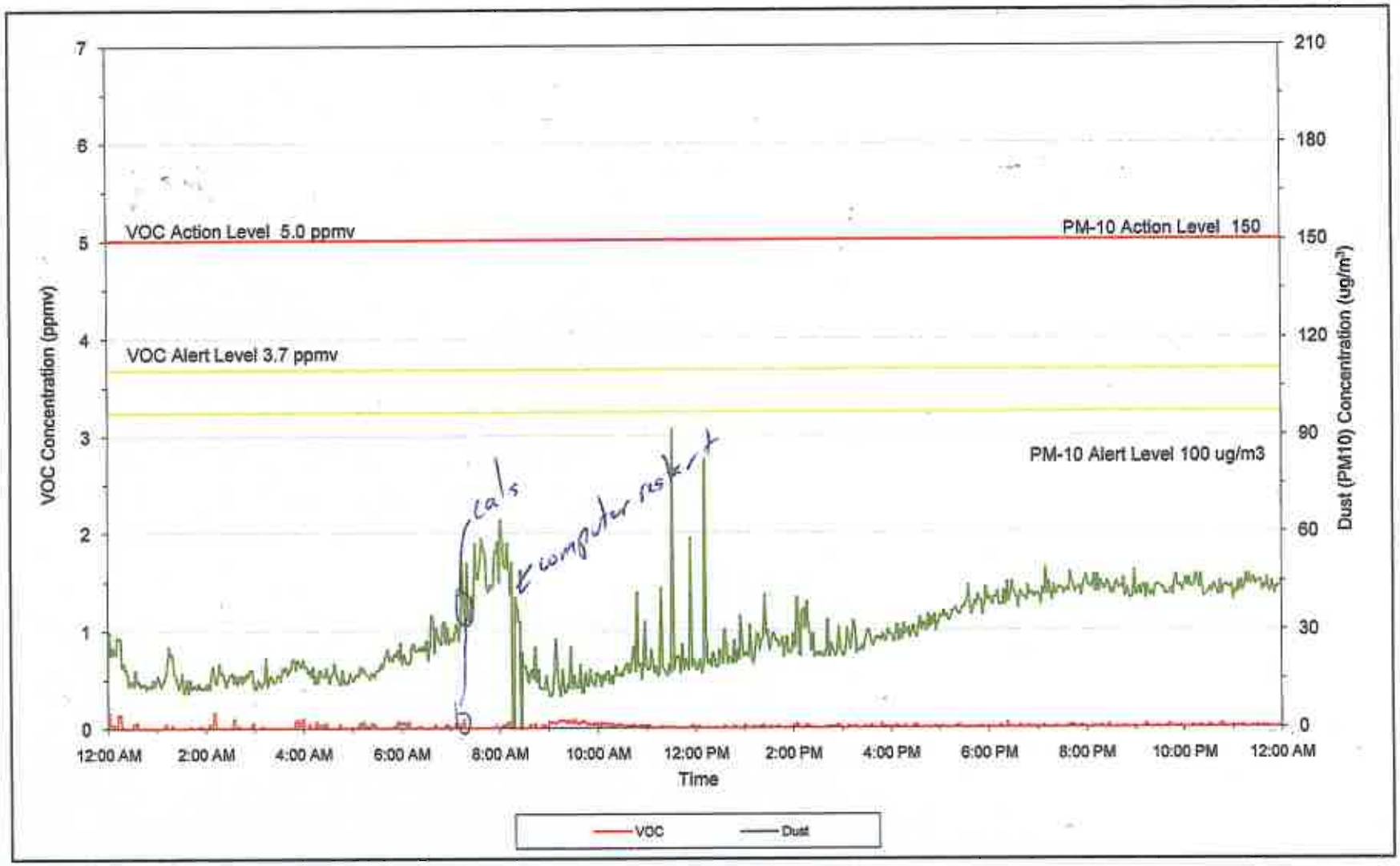



C:\XLRproject\Reports\Station2Mar10.xls

Mar 25,2010

**Community Air Monitoring**
**Bay Shore Former MGP Site**
**OU-1 Remedial Action Plan-Phase IV**
**Bay Shore, NY**
**National Grid**

Station 3 - (AMS-3)

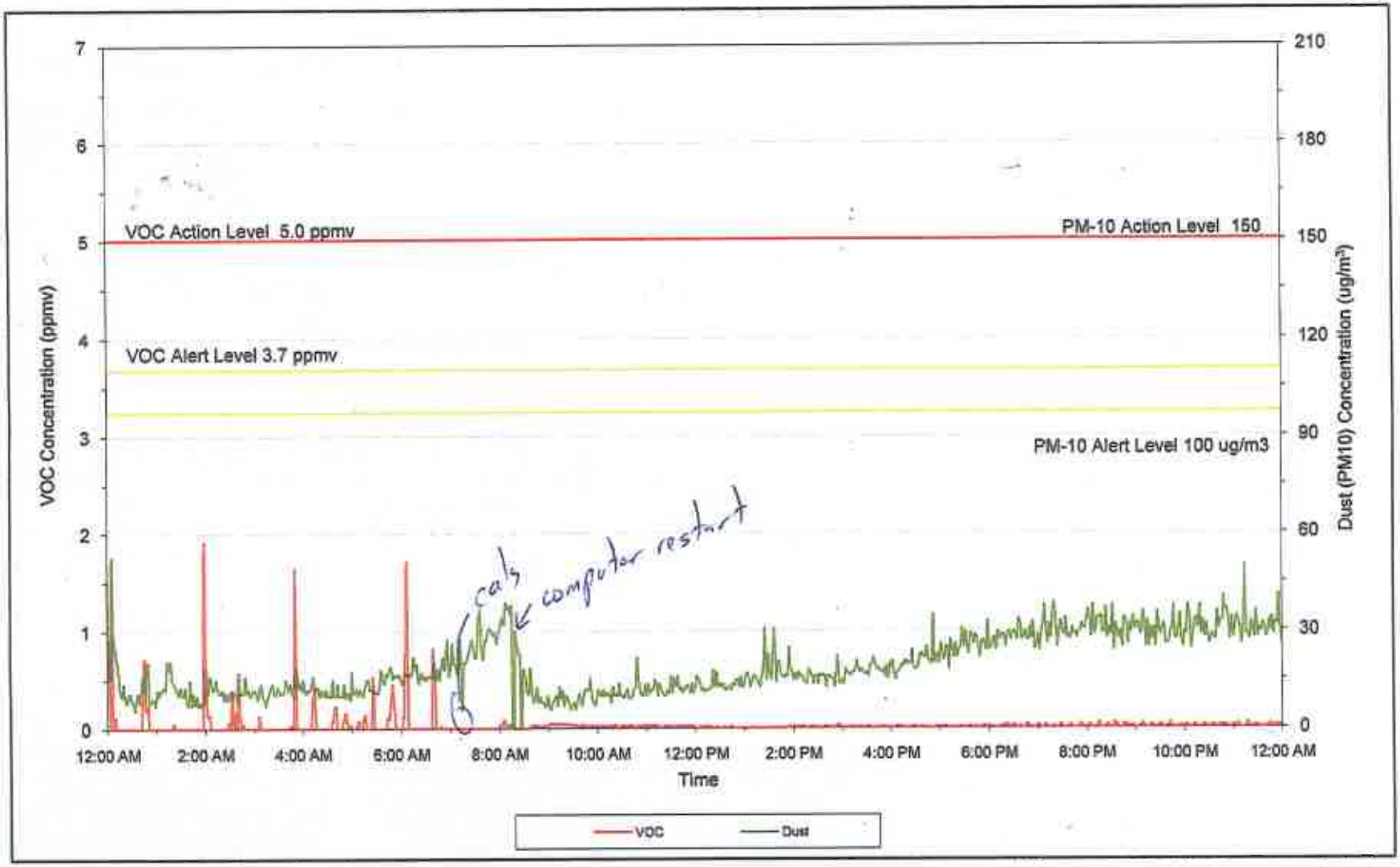



C:\XLRproject\Reports\Station3Mar10.xls

Mar 25,2010

**Community Air Monitoring**
**Bay Shore Former MGP Site**
**OU-1 Remedial Action Plan-Phase IV**
**Bay Shore, NY**
**National Grid**

Station 4 - (AMS-4)

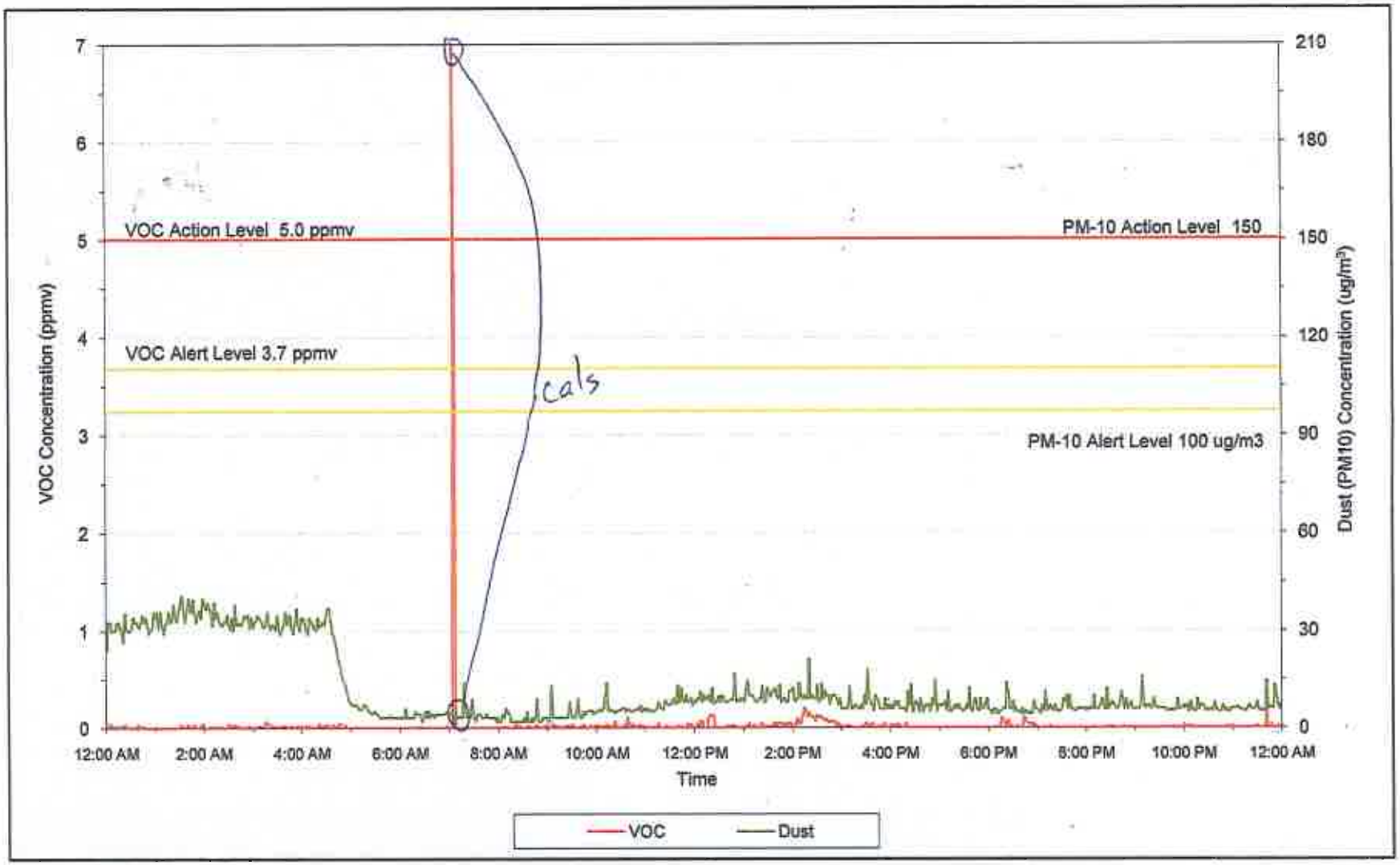



C:\XLRproject\Reports\Station4Mar10.xls

**Community Air Monitoring**
**Bay Shore Former MGP Site**
**OU-1 Remedial Action Plan-Phase IV**
**Bay Shore, NY**
**National Grid**

**Mar 26,2010**

Station 1 - (AMS-1)

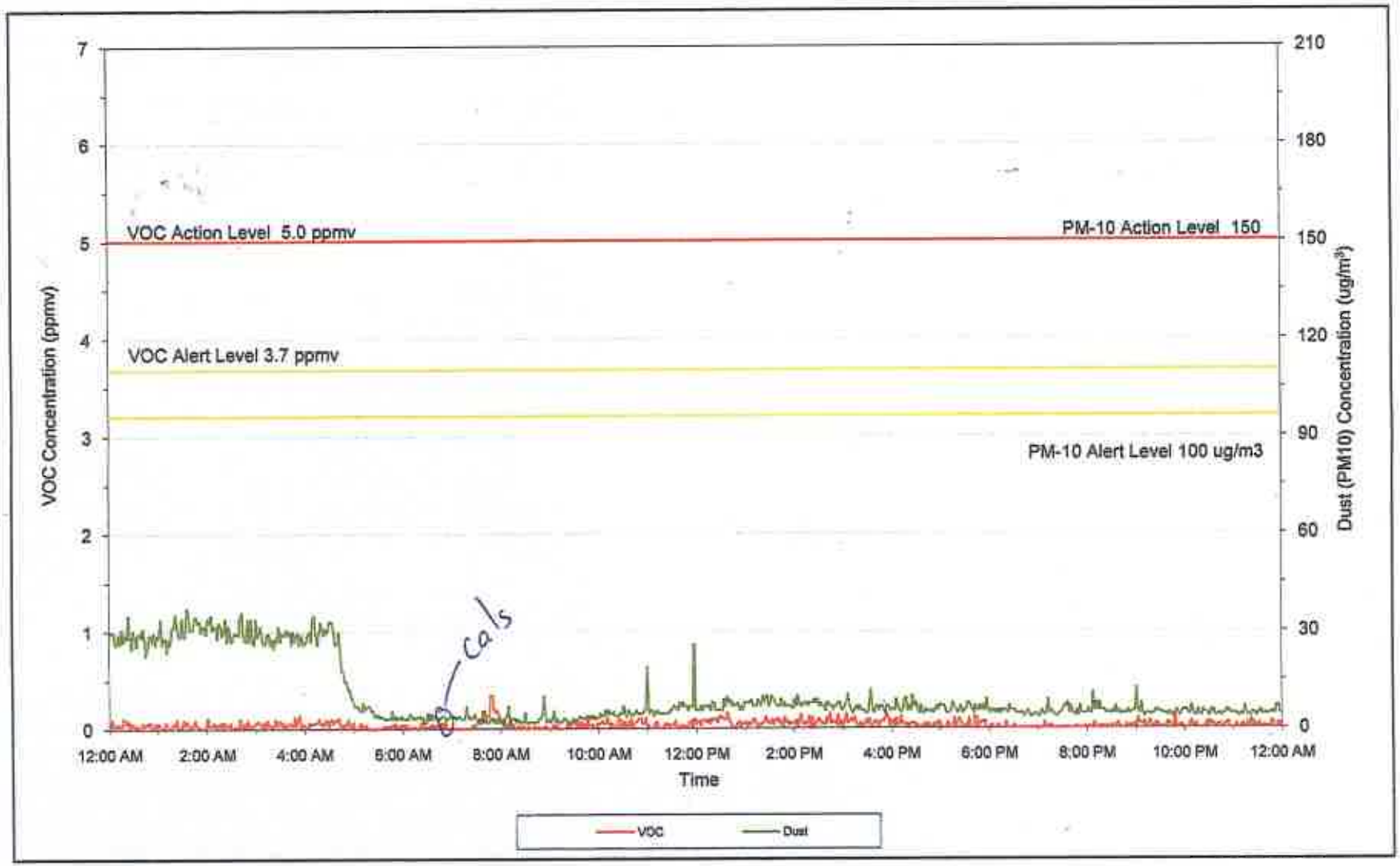



C:\XLRproject\Reports\Station1Mar10.xls

Mar 26,2010

**Community Air Monitoring**
**Bay Shore Former MGP Site**
**OU-1 Remedial Action Plan-Phase IV**
**Bay Shore, NY**
**National Grid**

Station 2 - (AMS-2)

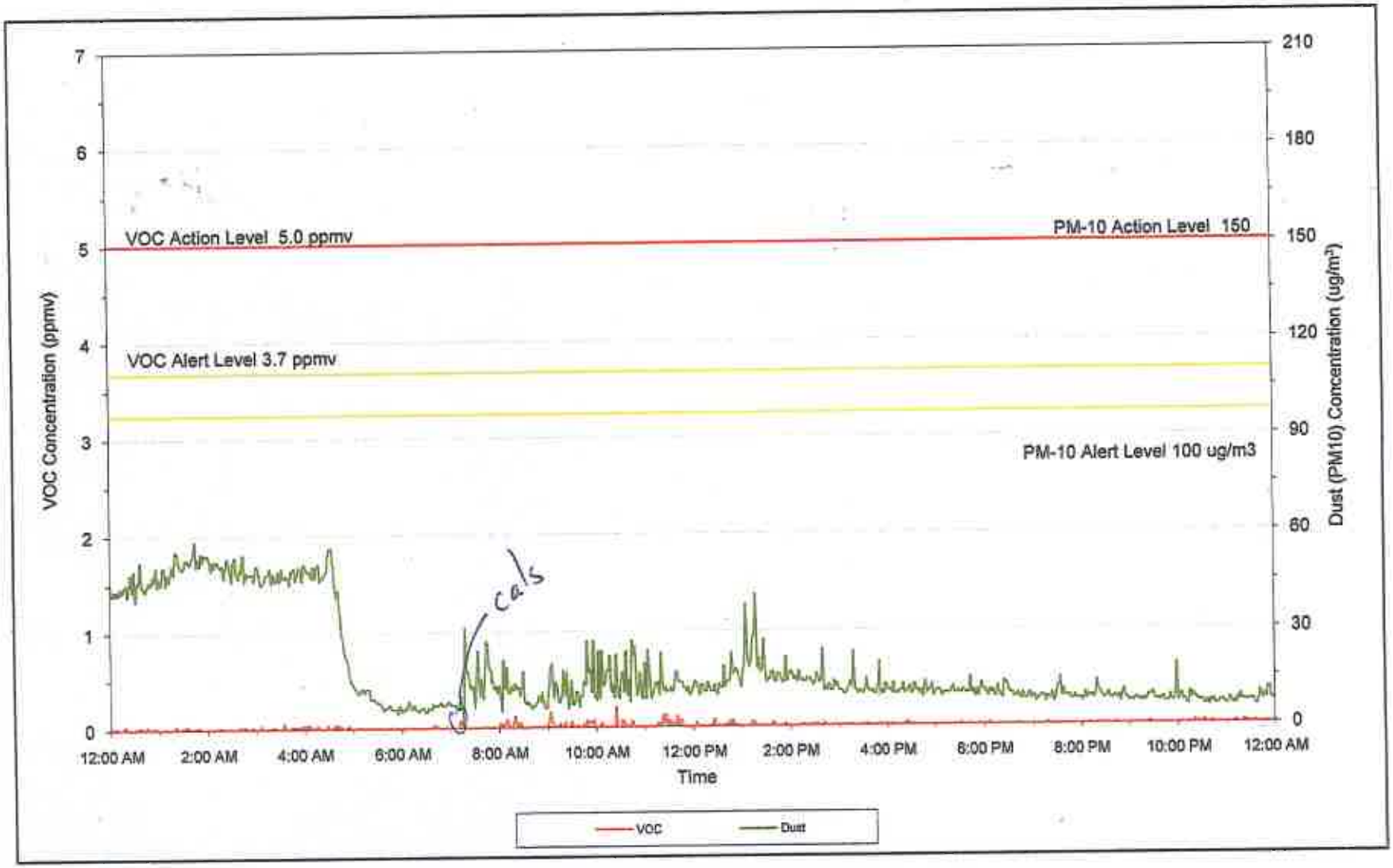



C:\XLRproject\Reports\Station2Mar10.xls

Mar 26,2010

**Community Air Monitoring**
**Bay Shore Former MGP Site**
**OU-1 Remedial Action Plan-Phase IV**
**Bay Shore, NY**
**National Grid**

Station 3 - (AMS-3)

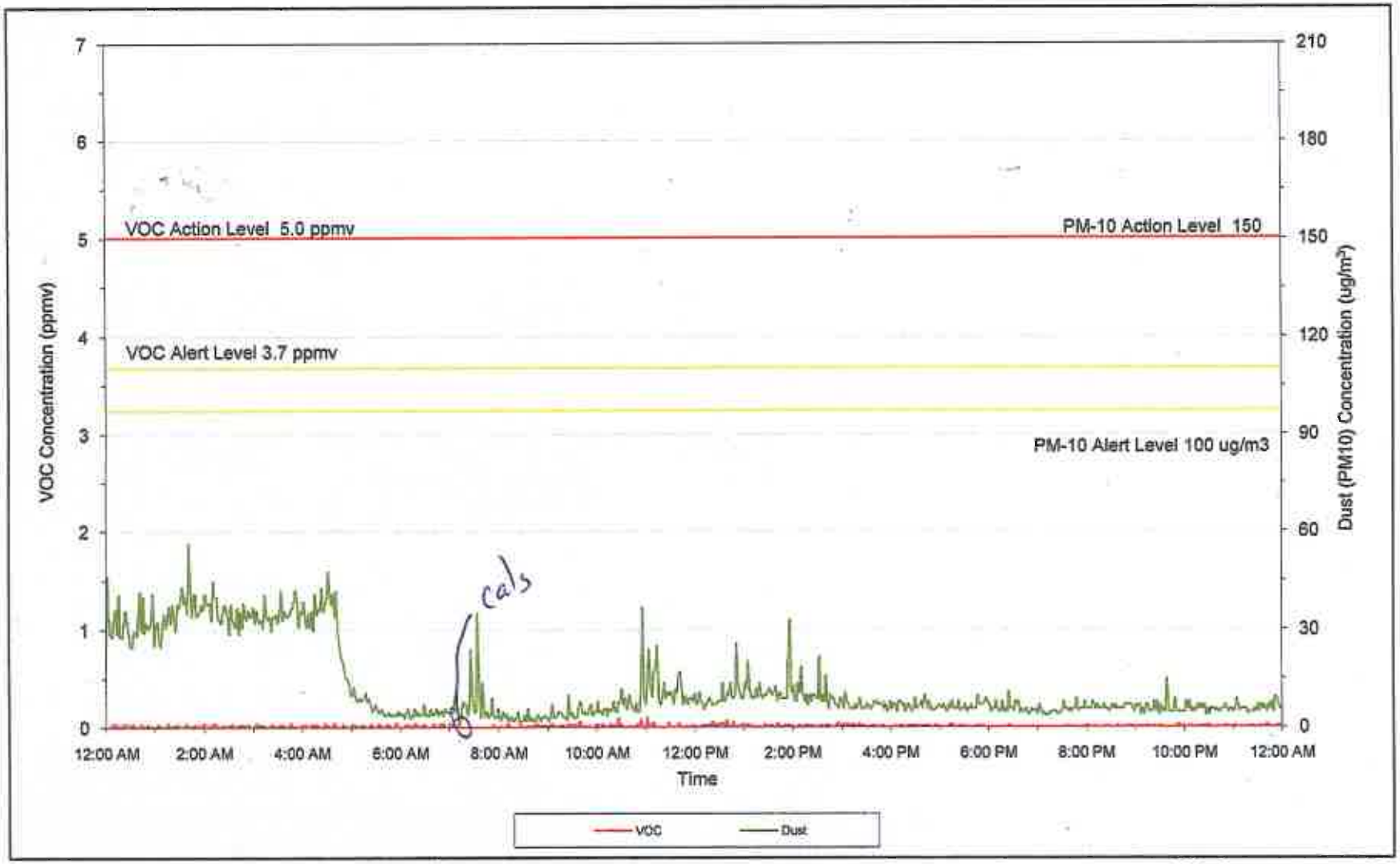



C:\XLRproject\Reports\Station3Mar10.xls

Mar 26,2010

**Community Air Monitoring**
**Bay Shore Former MGP Site**
**OU-1 Remedial Action Plan-Phase IV**
**Bay Shore, NY**
**National Grid**

Station 4 - (AMS-4)

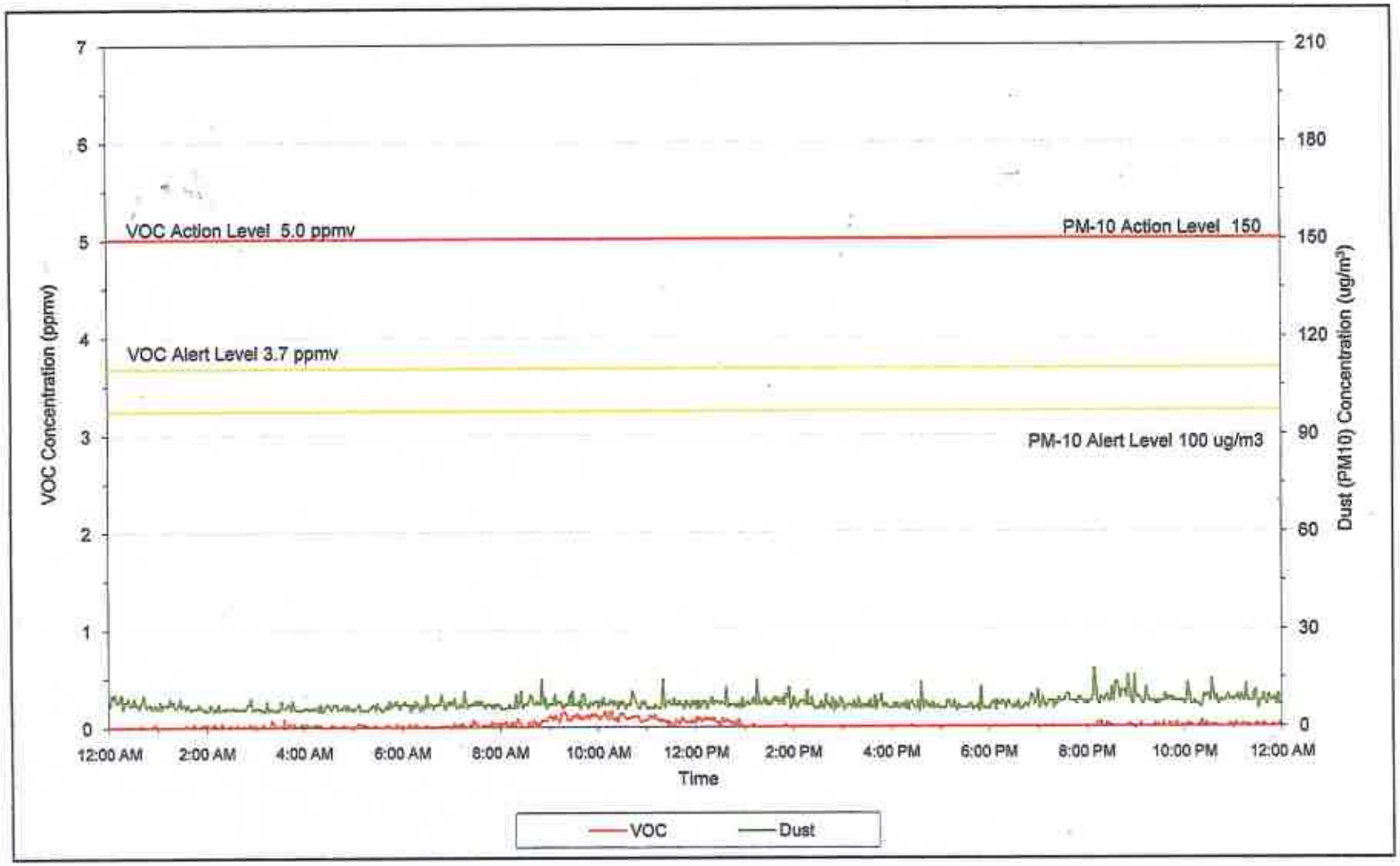



C:\XLRproject\Reports\Station4Mar10.xls

**Community Air Monitoring**
**Bay Shore Former MGP Site**
**OU-1 Remedial Action Plan-Phase IV**
**Bay Shore, NY**
**National Grid**

Mar 27,2010

Station 1 - (AMS-1)

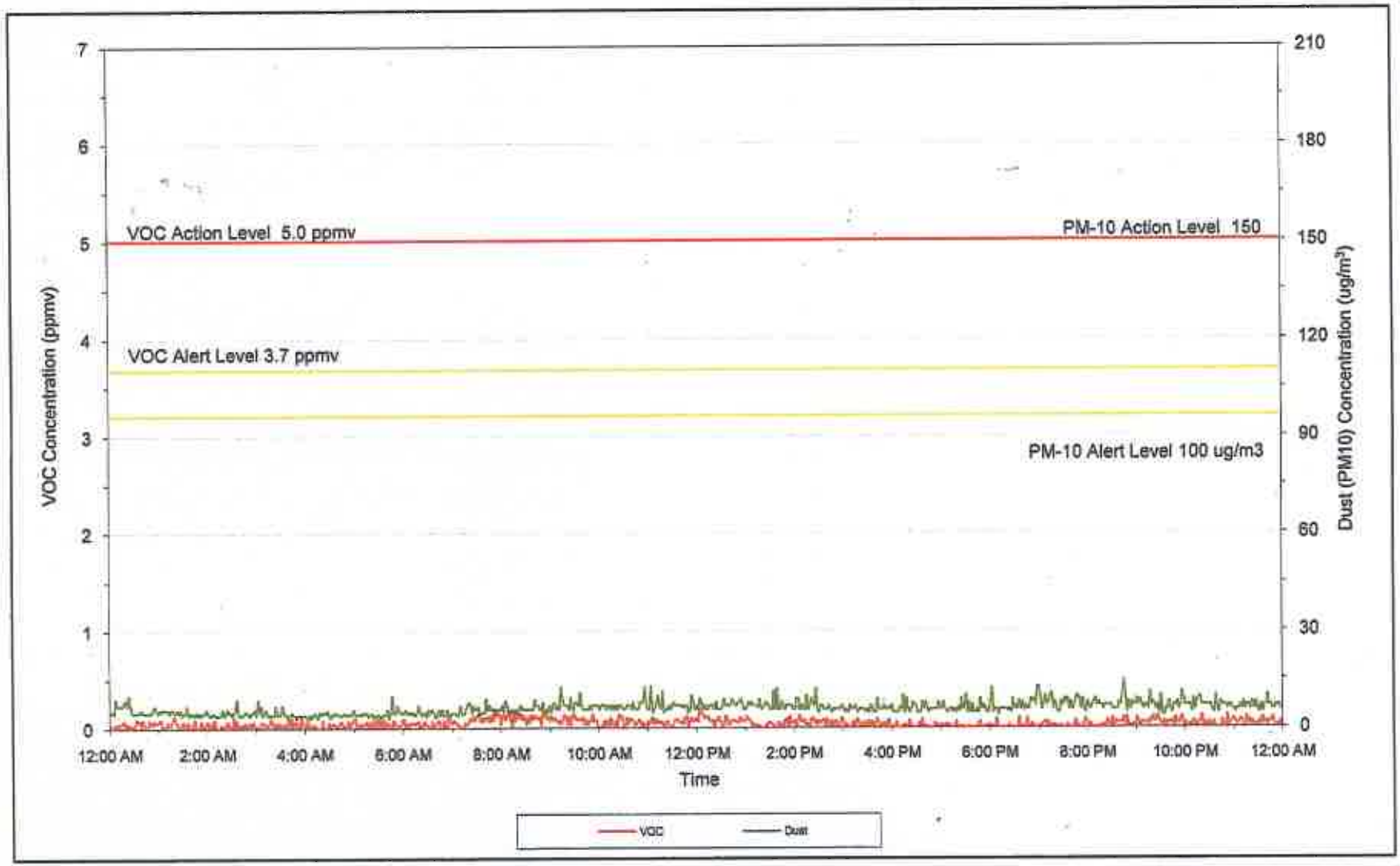



C:\XLRproject\Reports\Station1Mar10.xls

**Community Air Monitoring**
**Bay Shore Former MGP Site**
**OU-1 Remedial Action Plan-Phase IV**
**Bay Shore, NY**
**National Grid**

Mar 27,2010

Station 2 - (AMS-2)

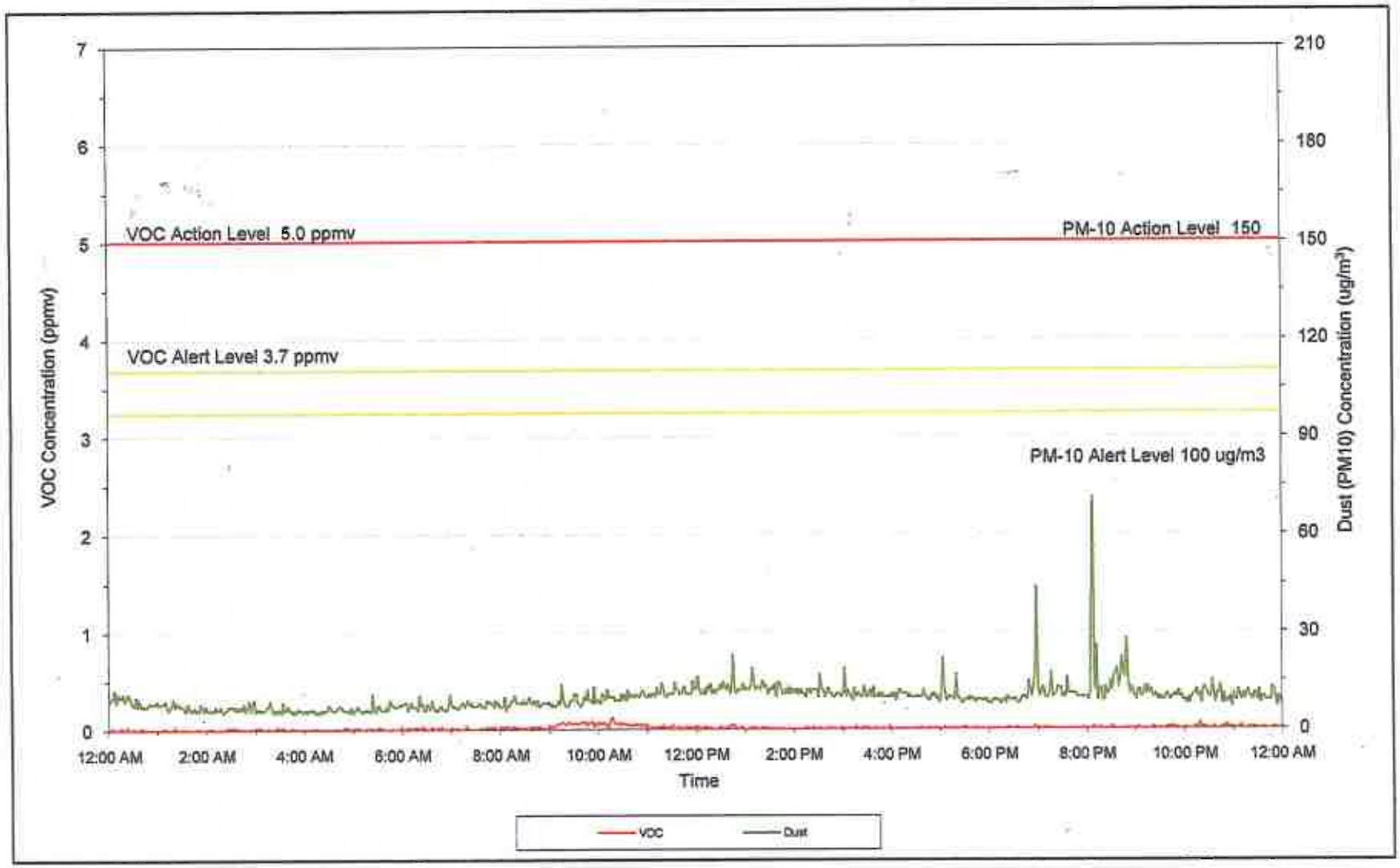



C:\XLRproject\Reports\Station2Mar10.xls

Mar 27,2010

**Community Air Monitoring**
**Bay Shore Former MGP Site**
**OU-1 Remedial Action Plan-Phase IV**
**Bay Shore, NY**
**National Grid**

Station 3 - (AMS-3)

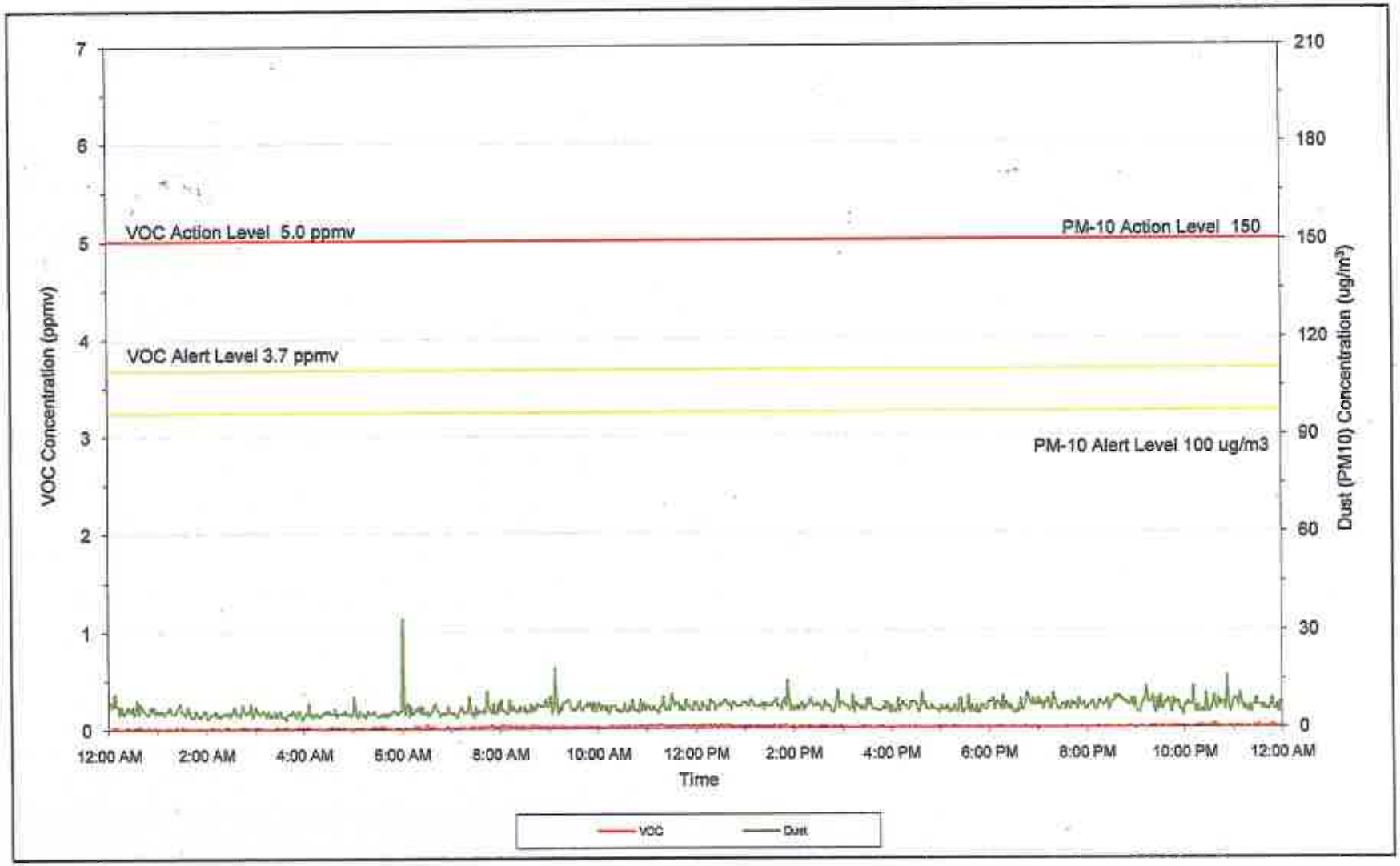



C:\XLRproject\Reports\Station3Mar10.xls

Mar 27,2010

**Community Air Monitoring**
**Bay Shore Former MGP Site**
**OU-1 Remedial Action Plan-Phase IV**
**Bay Shore, NY**
**National Grid**

Station 4 - (AMS-4)

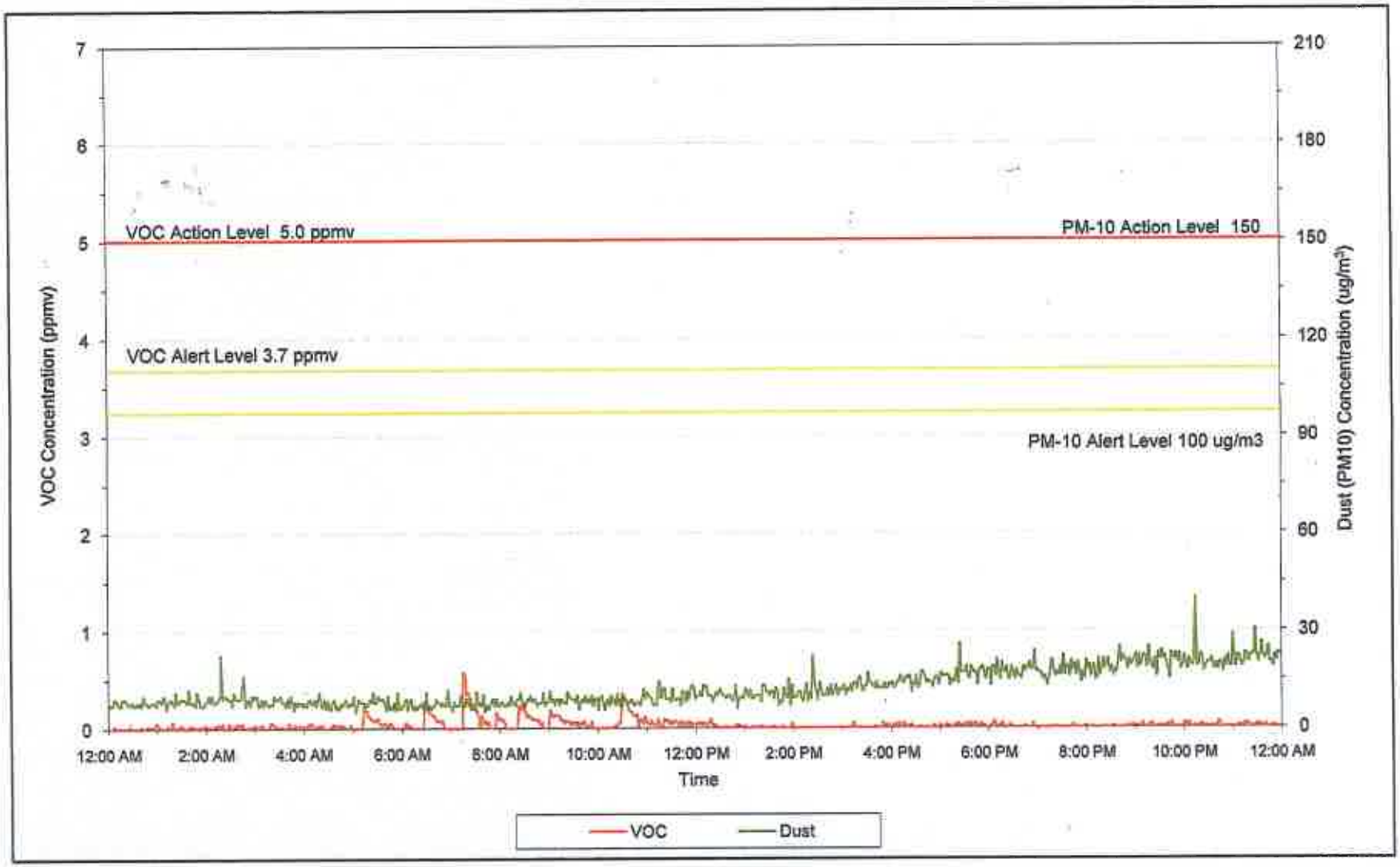



C:\XLRproject\Reports\Station4Mar10.xls

**Community Air Monitoring**
**Bay Shore Former MGP Site**
**OU-1 Remedial Action Plan-Phase IV**
**Bay Shore, NY**
**National Grid**

Mar 28,2010

Station 1 - (AMS-1)

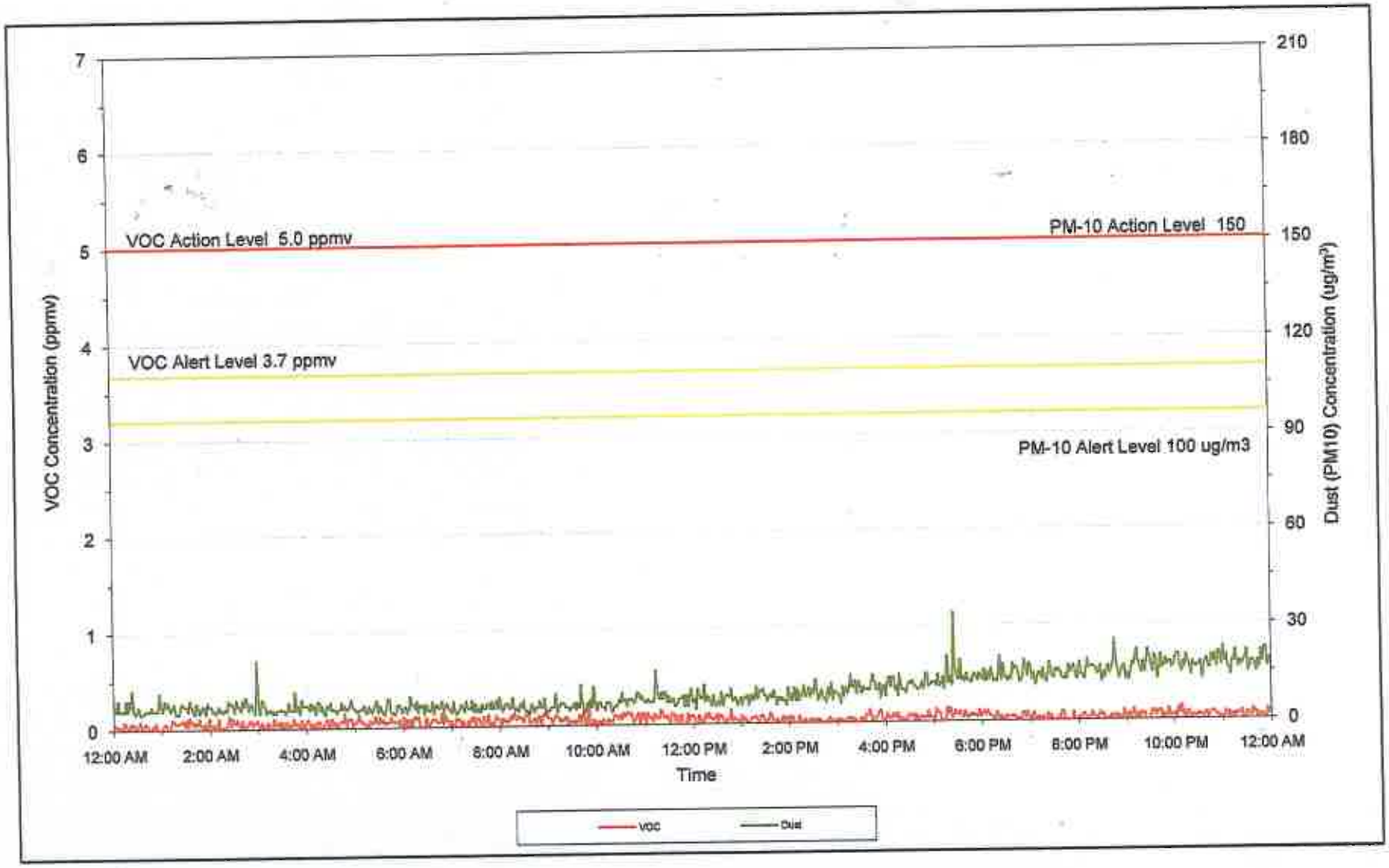



C:\XLRproject\Reports\Station1Mar10.xls

**Community Air Monitoring**
**Bay Shore Former MGP Site**
**OU-1 Remedial Action Plan-Phase IV**
**Bay Shore, NY**
**National Grid**

**Mar 28,2010**

Station 2 - (AMS-2)

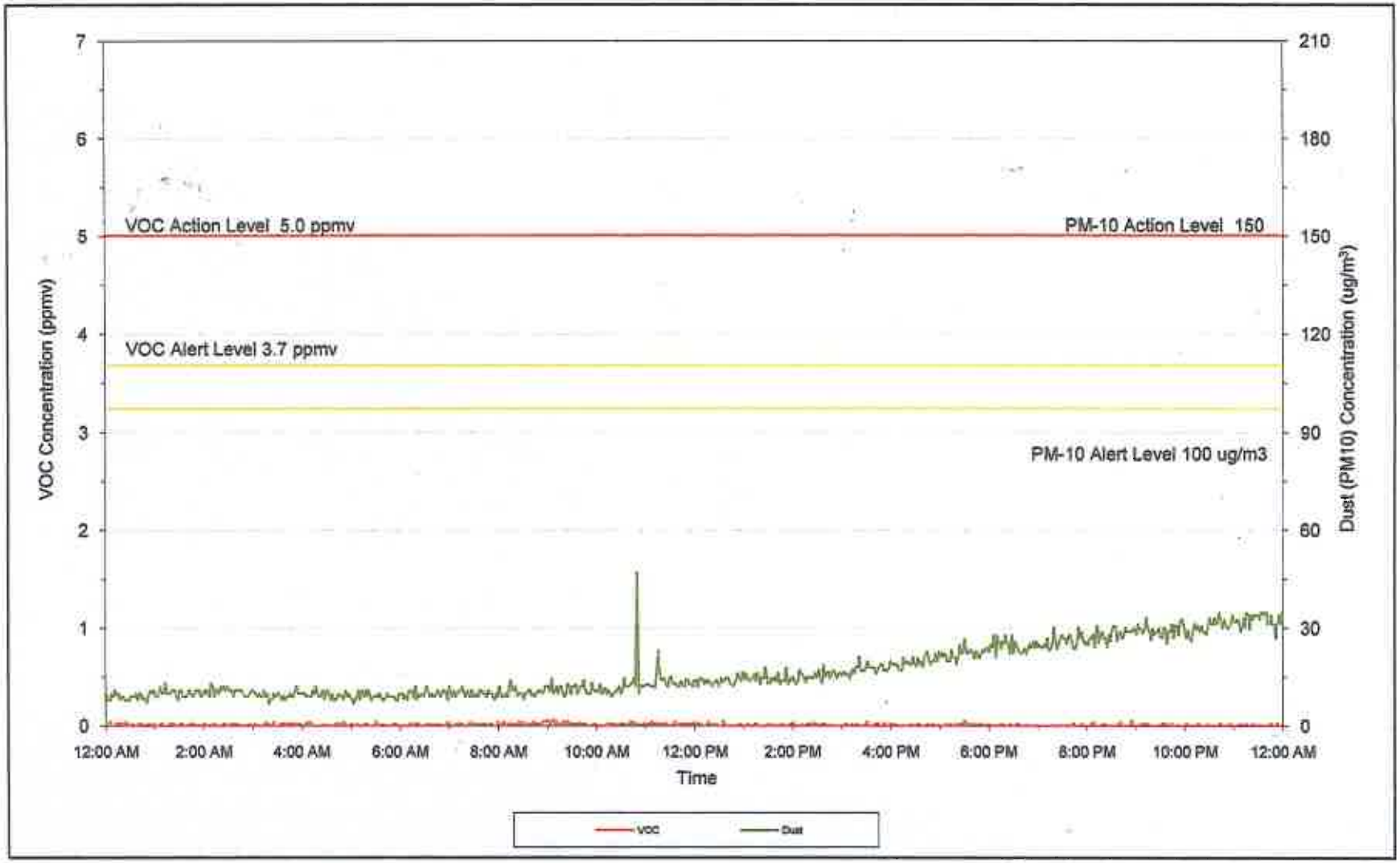



C:\XLRproject\Reports\Station2Mar10.xls

Mar 28,2010

**Community Air Monitoring**
**Bay Shore Former MGP Site**
**OU-1 Remedial Action Plan-Phase IV**
**Bay Shore, NY**
**National Grid**

Station 3 - (AMS-3)

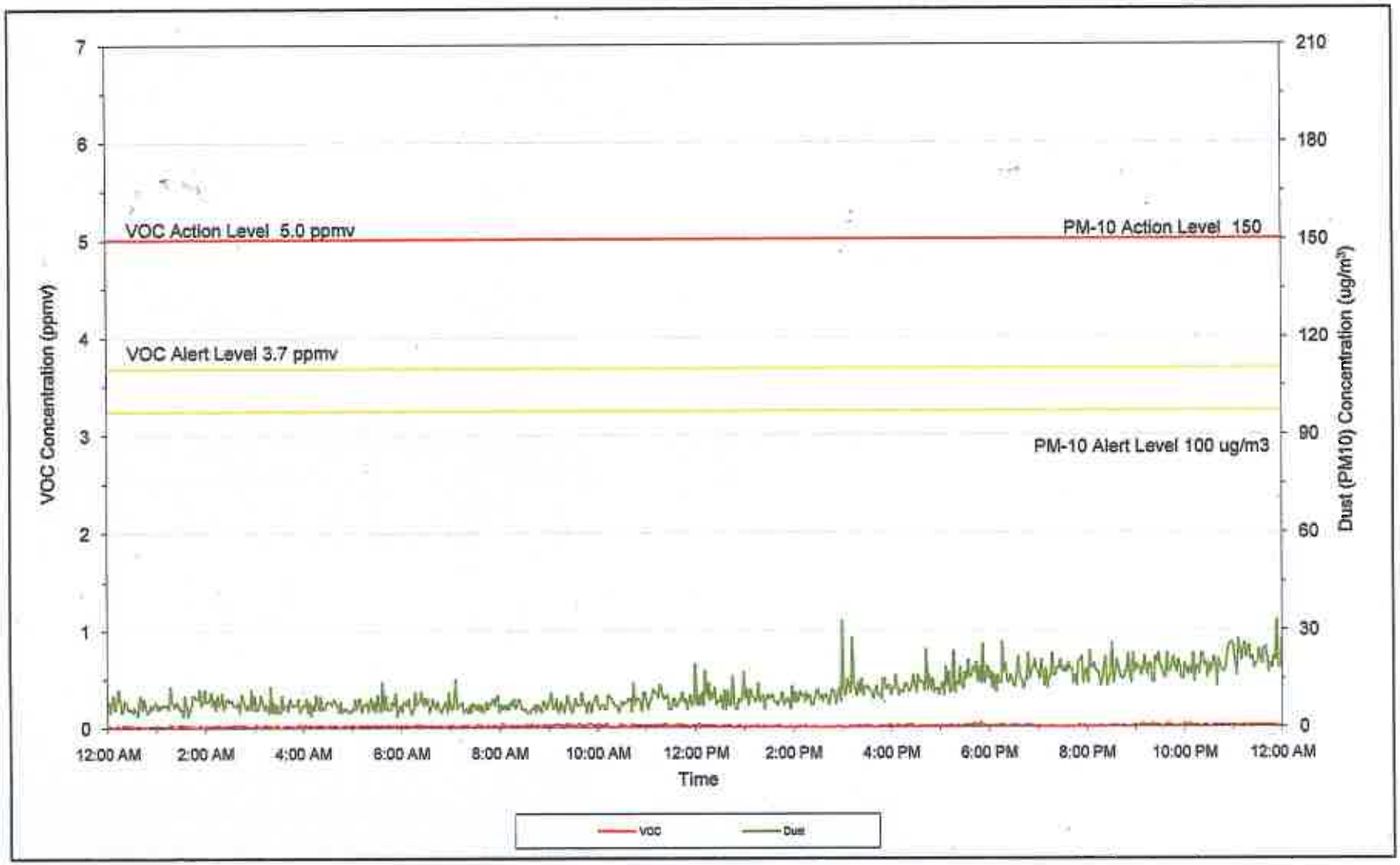



C:\XLRproject\Reports\Station3Mar10.xls

Mar 28,2010

**Community Air Monitoring**
**Bay Shore Former MGP Site**
**OU-1 Remedial Action Plan-Phase IV**
**Bay Shore, NY**
**National Grid**

Station 4 - (AMS-4)

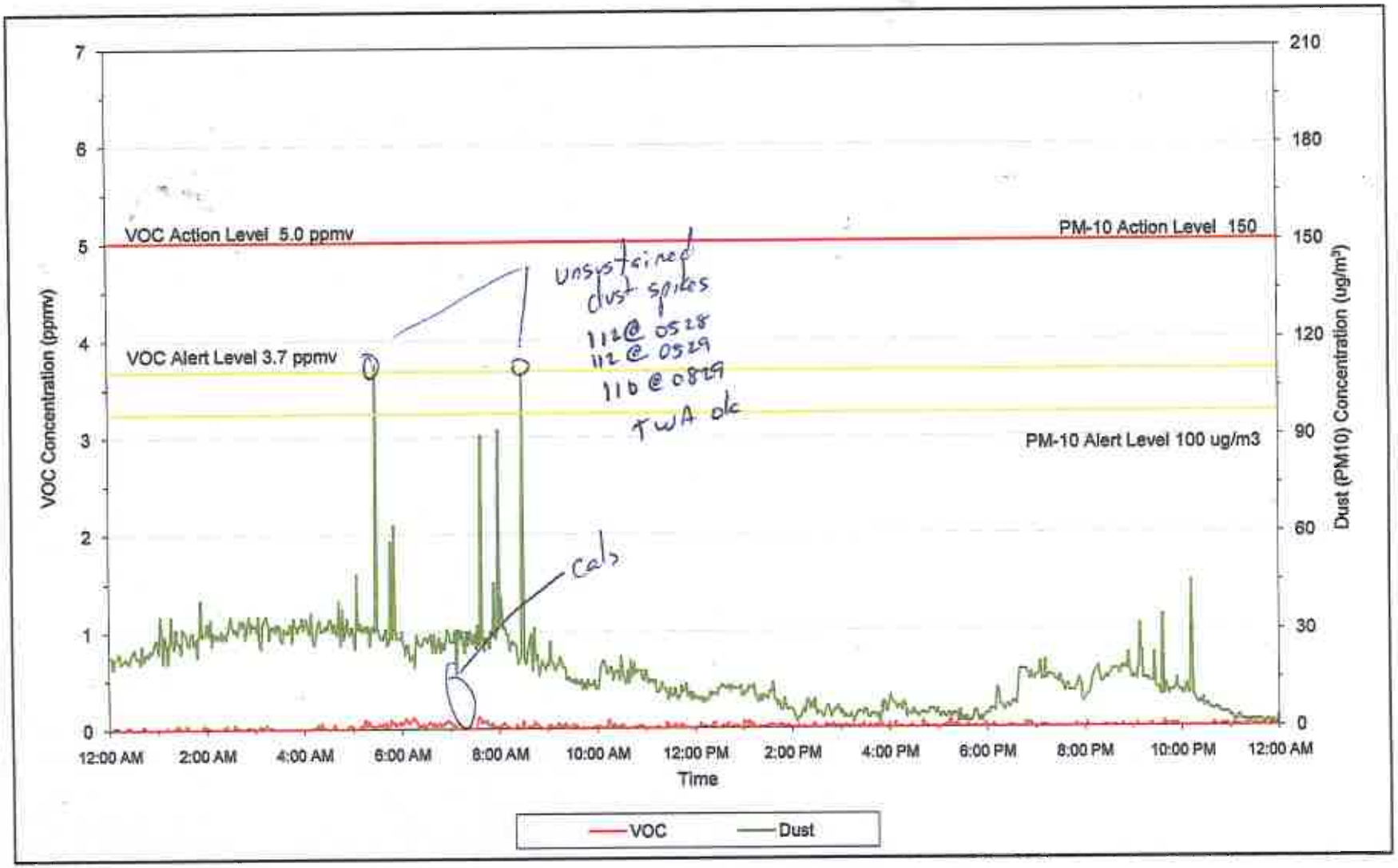



C:\XLRproject\Reports\Station4Mar10.xls

Mar 29,2010

**Community Air Monitoring**
**Bay Shore Former MGP Site**
**OU-1 Remedial Action Plan-Phase IV**
**Bay Shore, NY**
**National Grid**

Station 1 - (AMS-1)

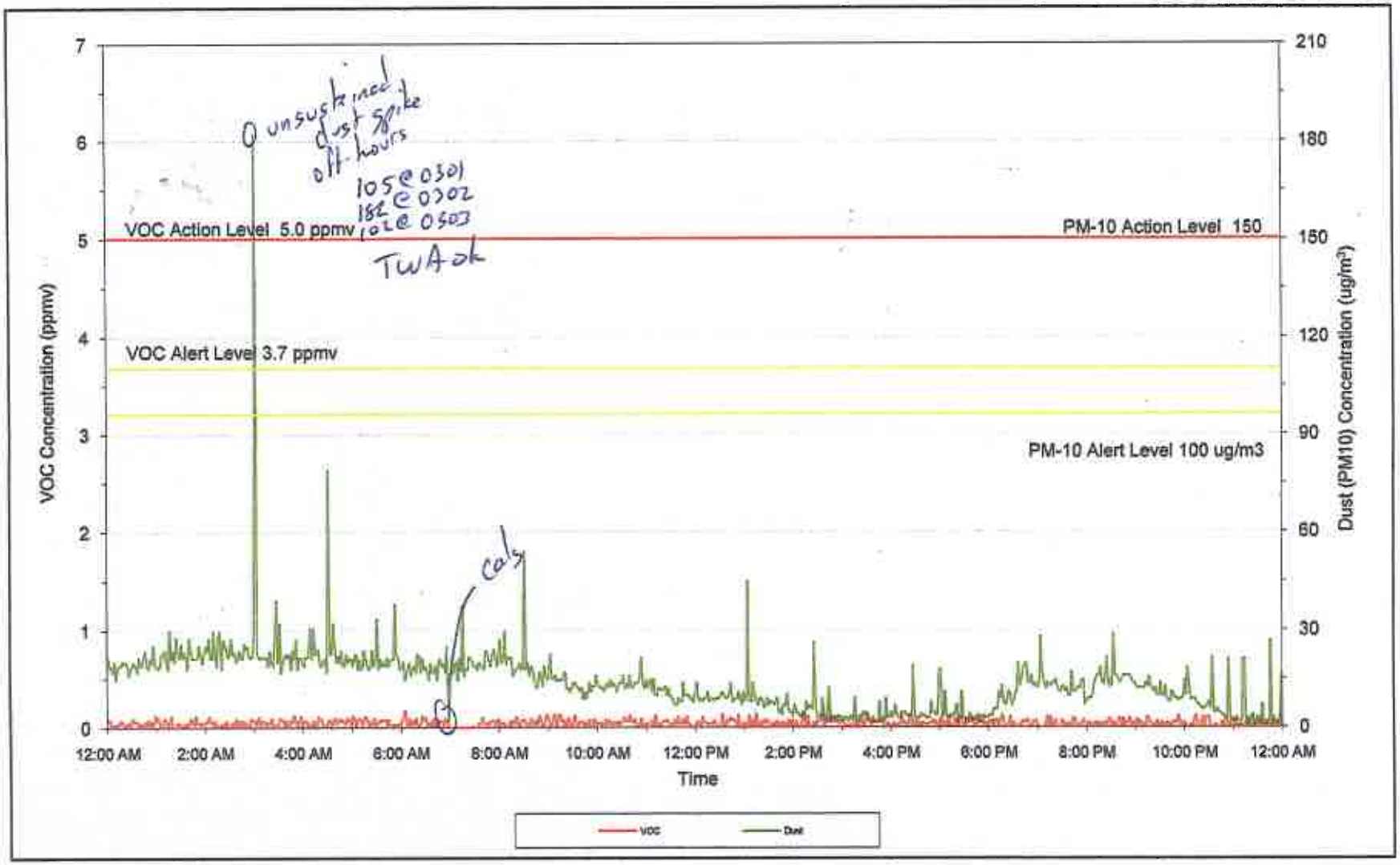



C:\XLRproject\Reports\Station1Mar10.xls

Mar 29,2010

**Community Air Monitoring**
**Bay Shore Former MGP Site**
**OU-1 Remedial Action Plan-Phase IV**
**Bay Shore, NY**
**National Grid**

Station 2 - (AMS-2)

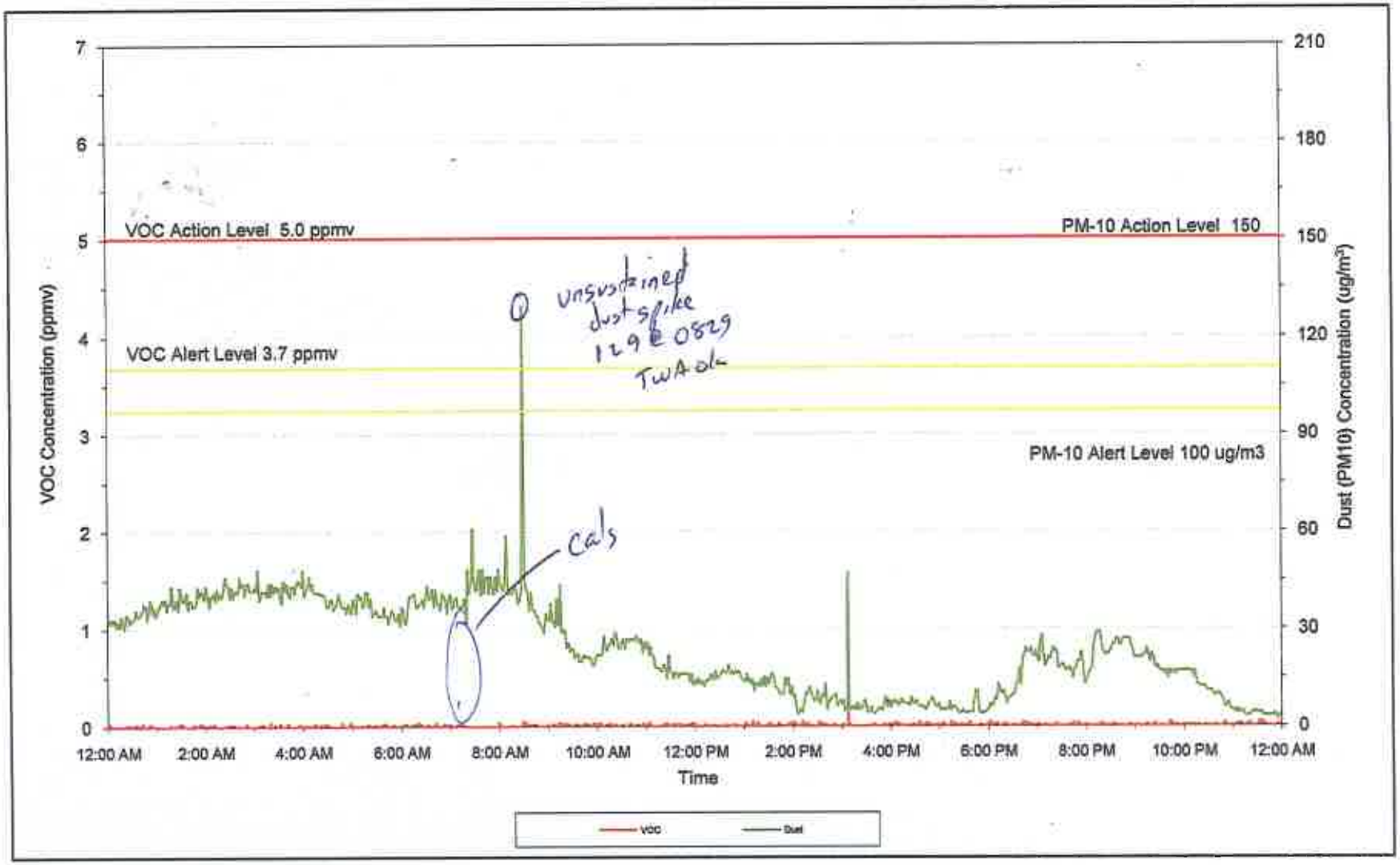



C:\XLRproject\Reports\Station2Mar10.xls

**Community Air Monitoring**
**Bay Shore Former MGP Site**
**OU-1 Remedial Action Plan-Phase IV**
**Bay Shore, NY**
**National Grid**

Mar 29,2010

Station 3 - (AMS-3)

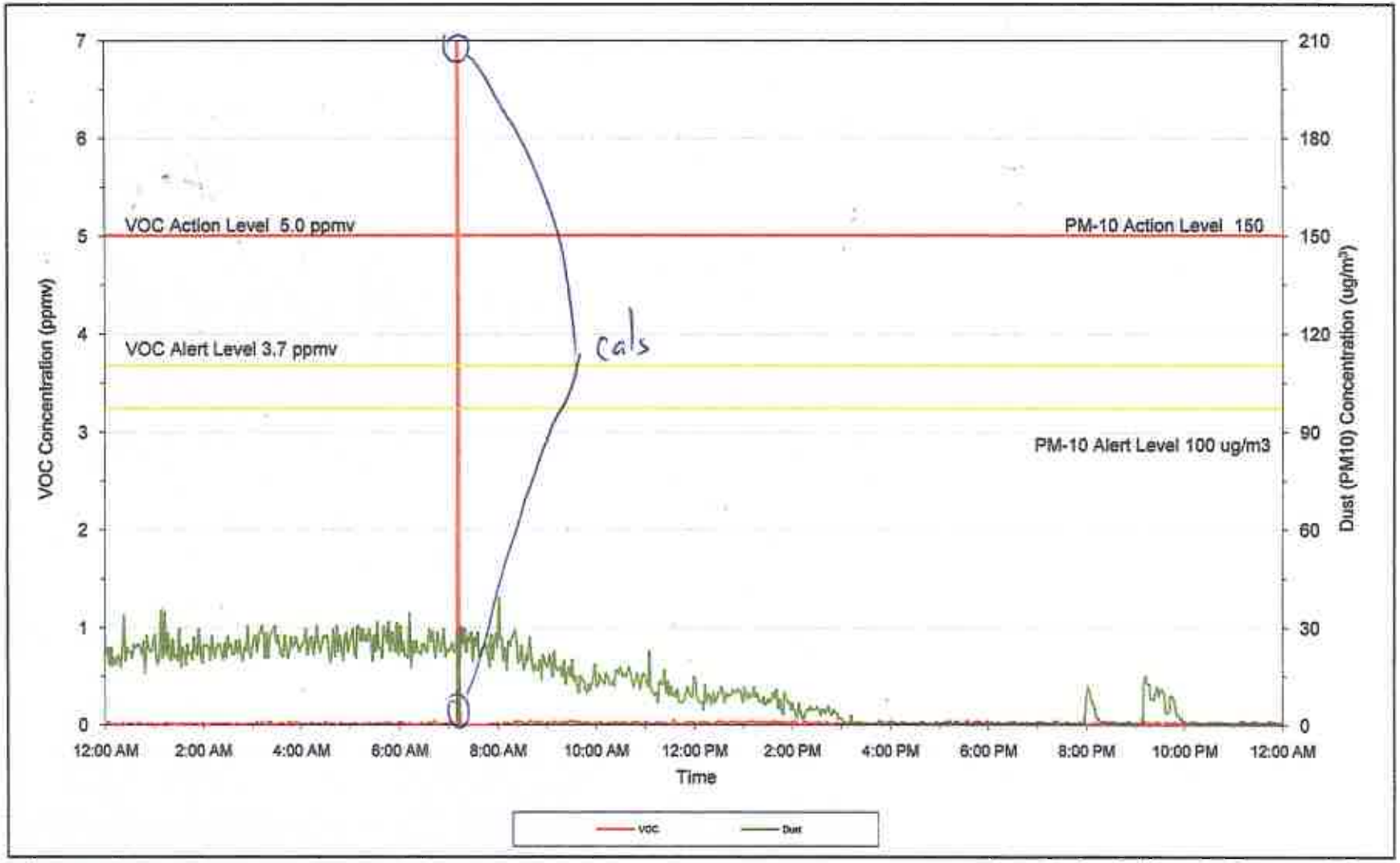



C:\XLRproject\Reports\Station3Mar10.xls

Mar 29,2010

**Community Air Monitoring**
**Bay Shore Former MGP Site**
**OU-1 Remedial Action Plan-Phase IV**
**Bay Shore, NY**
**National Grid**

Station 4 - (AMS-4)

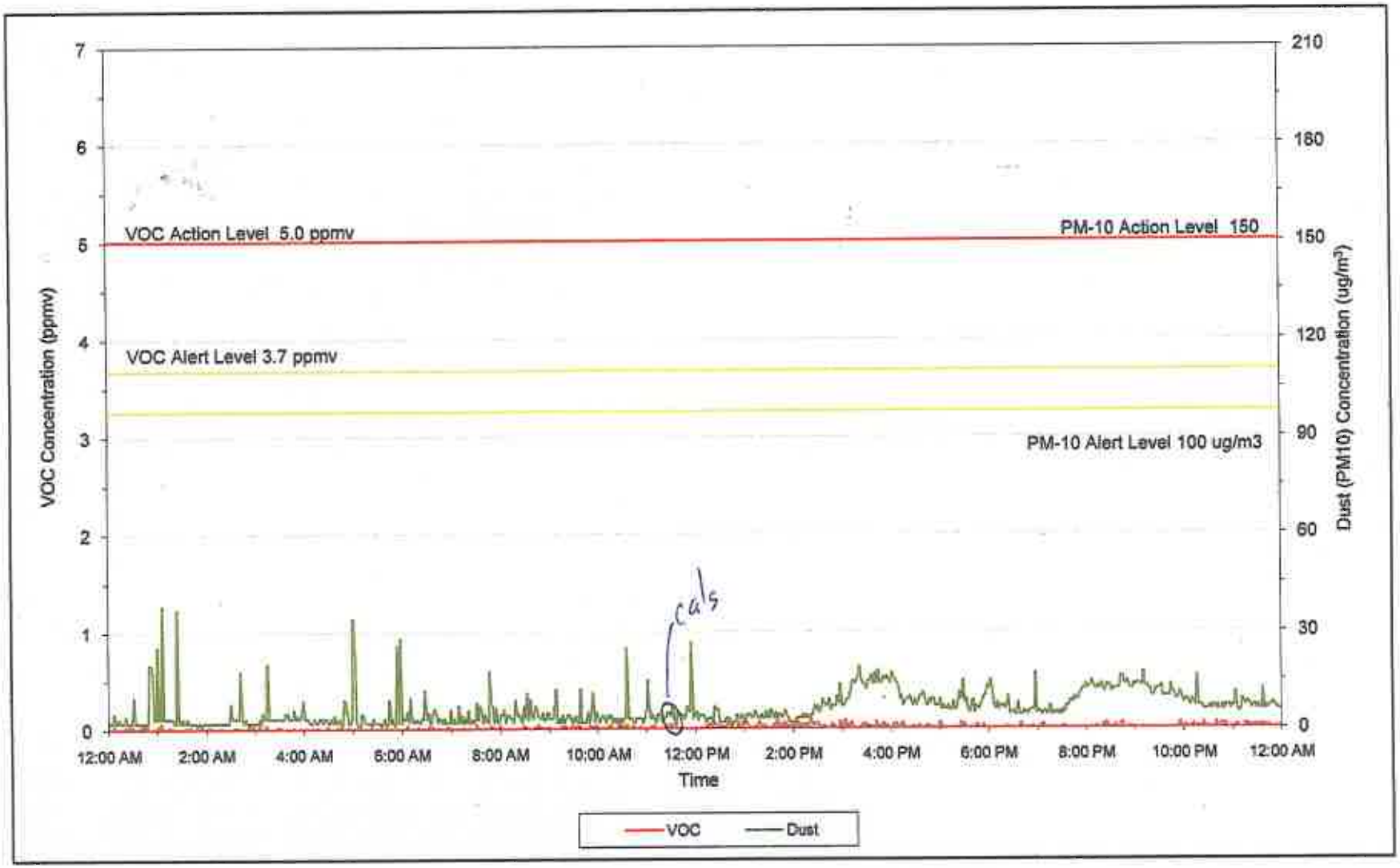



C:\XLRproject\Reports\Station4Mar10.xls

Mar 30,2010

**Community Air Monitoring**
**Bay Shore Former MGP Site**
**OU-1 Remedial Action Plan-Phase IV**
**Bay Shore, NY**
**National Grid**

Station 1 - (AMS-1)

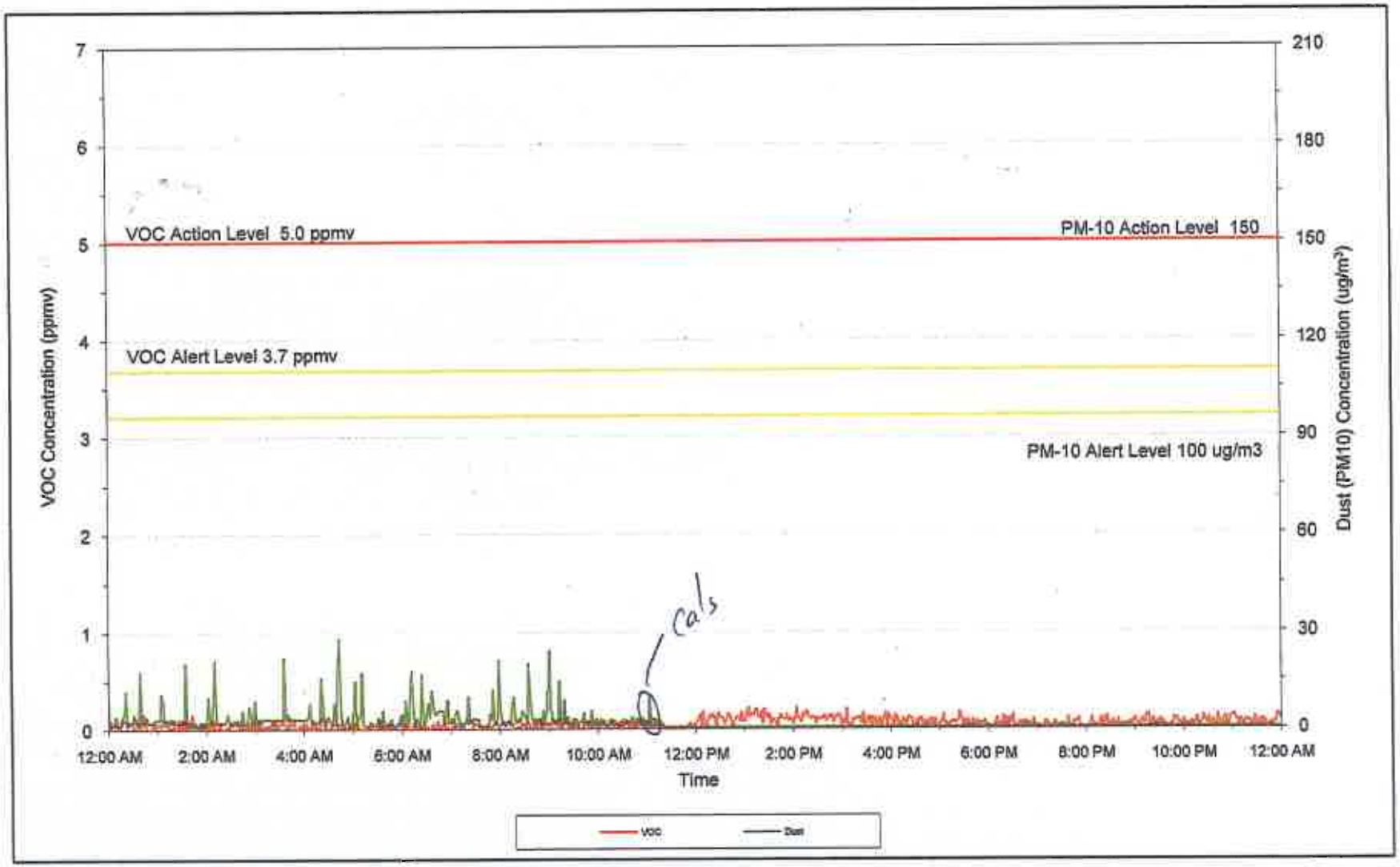



C:\XLRproject\Reports\Station1Mar10.xls

**Community Air Monitoring**
**Bay Shore Former MGP Site**
**OU-1 Remedial Action Plan-Phase IV**
**Bay Shore, NY**
**National Grid**

Mar 30,2010

Station 2 - (AMS-2)

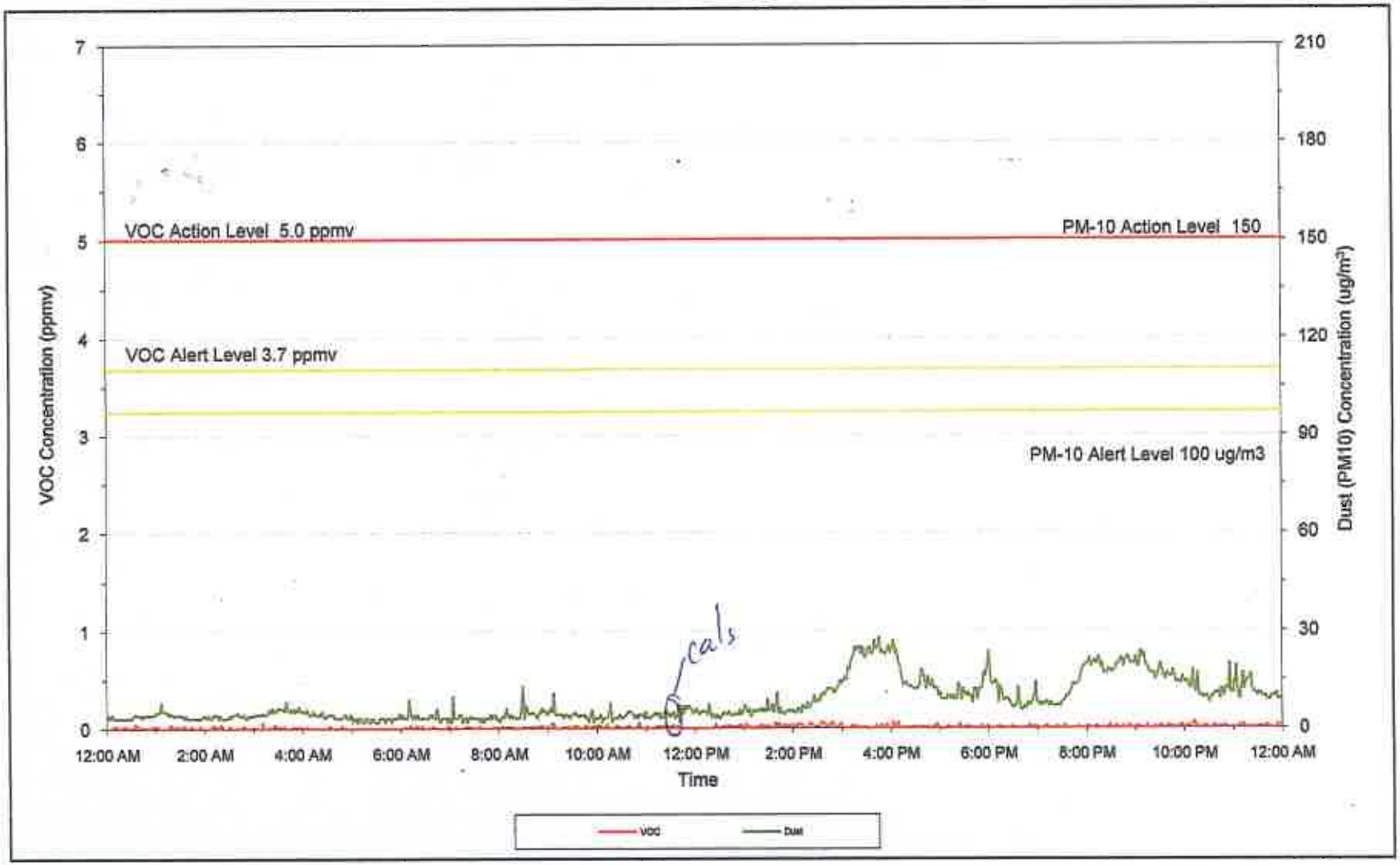



C:\XLRproject\Reports\Station2Mar10.xls

Mar 30,2010

**Community Air Monitoring**
**Bay Shore Former MGP Site**
**OU-1 Remedial Action Plan-Phase IV**
**Bay Shore, NY**
**National Grid**

Station 3 - (AMS-3)

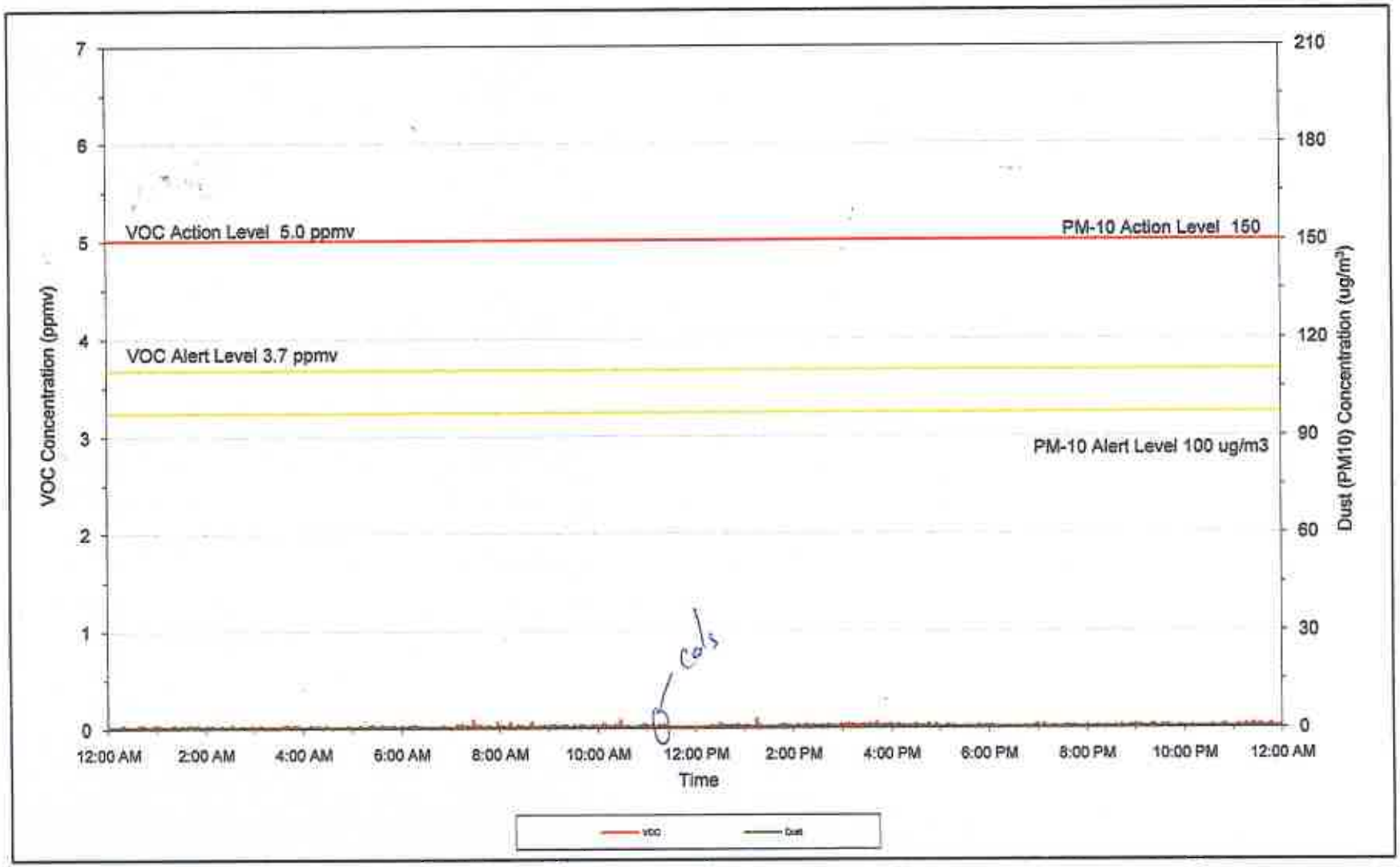



C:\XLRproject\Reports\Station3Mar10.xls

Mar 30,2010

**Community Air Monitoring**
**Bay Shore Former MGP Site**
**OU-1 Remedial Action Plan-Phase IV**
**Bay Shore, NY**
**National Grid**

Station 4 - (AMS-4)

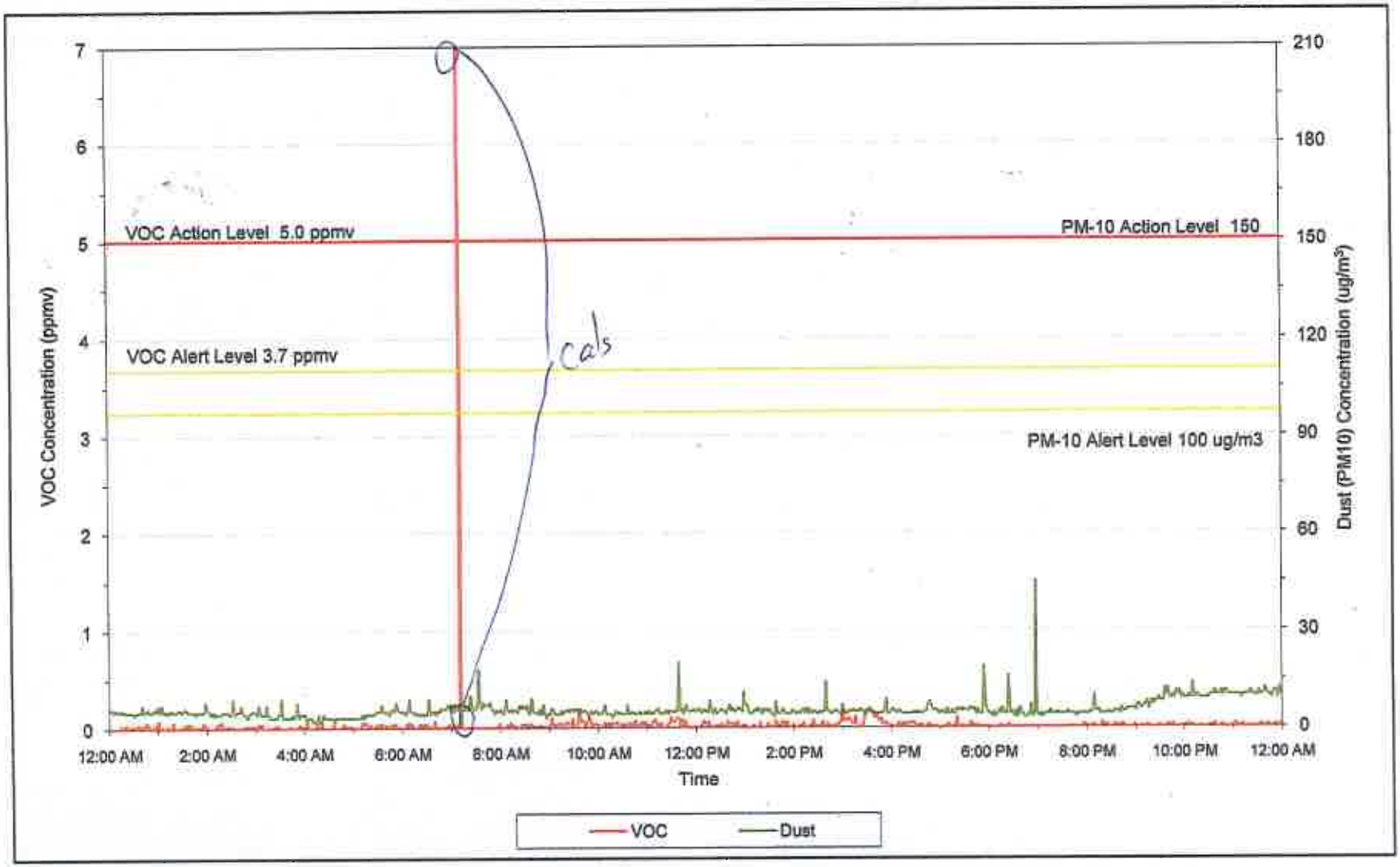



C:\KLRproject\Reports\Station4Mar10.xls

Mar 31,2010

**Community Air Monitoring**
**Bay Shore Former MGP Site**
**OU-1 Remedial Action Plan-Phase IV**
**Bay Shore, NY**
**National Grid**

Station 1 - (AMS-1)

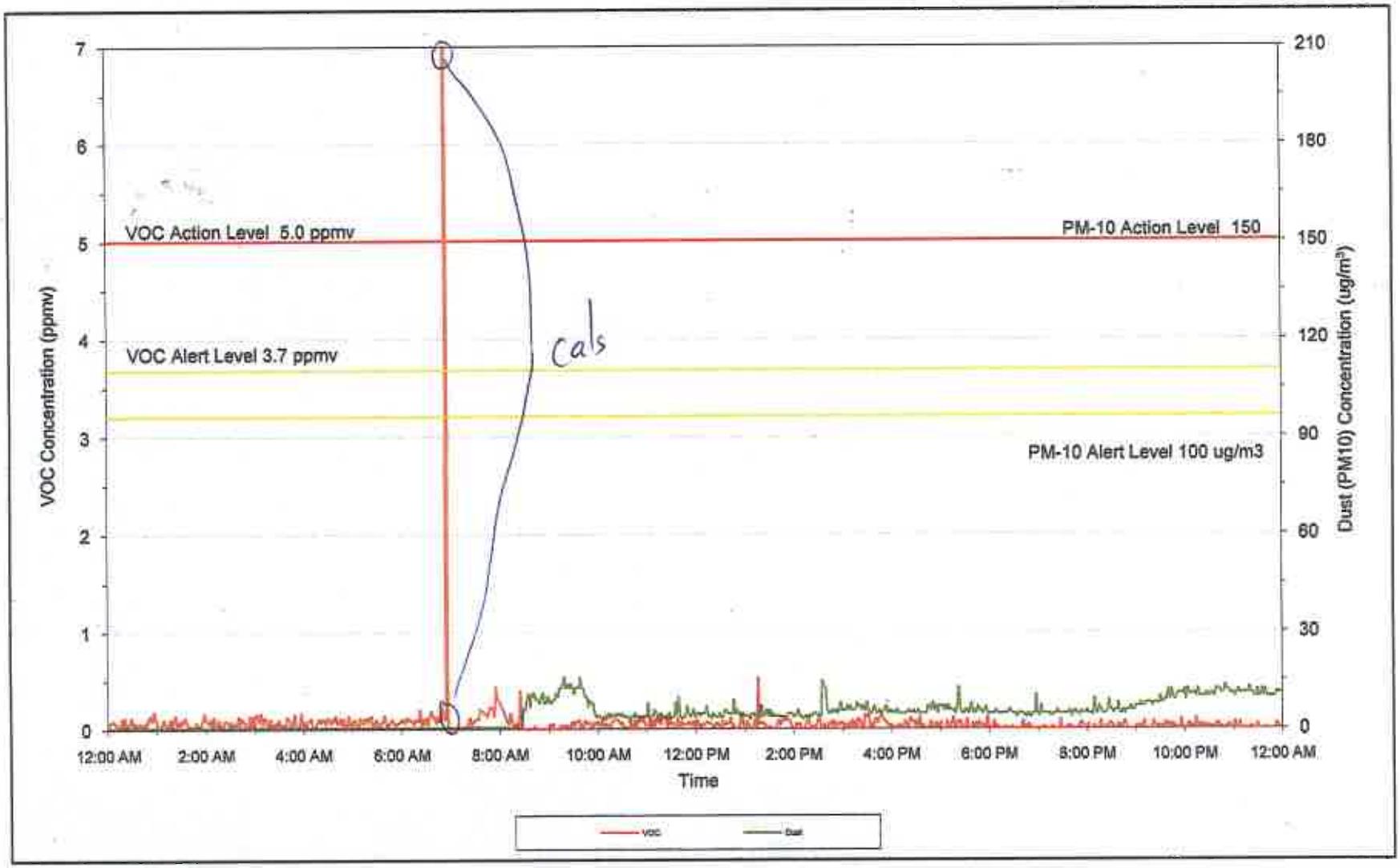



C:\XLRproject\Reports\Station1Mar10.xls

**Community Air Monitoring**
**Bay Shore Former MGP Site**
**OU-1 Remedial Action Plan-Phase IV**
**Bay Shore, NY**
**National Grid**

**Mar 31,2010**

Station 2 - (AMS-2)

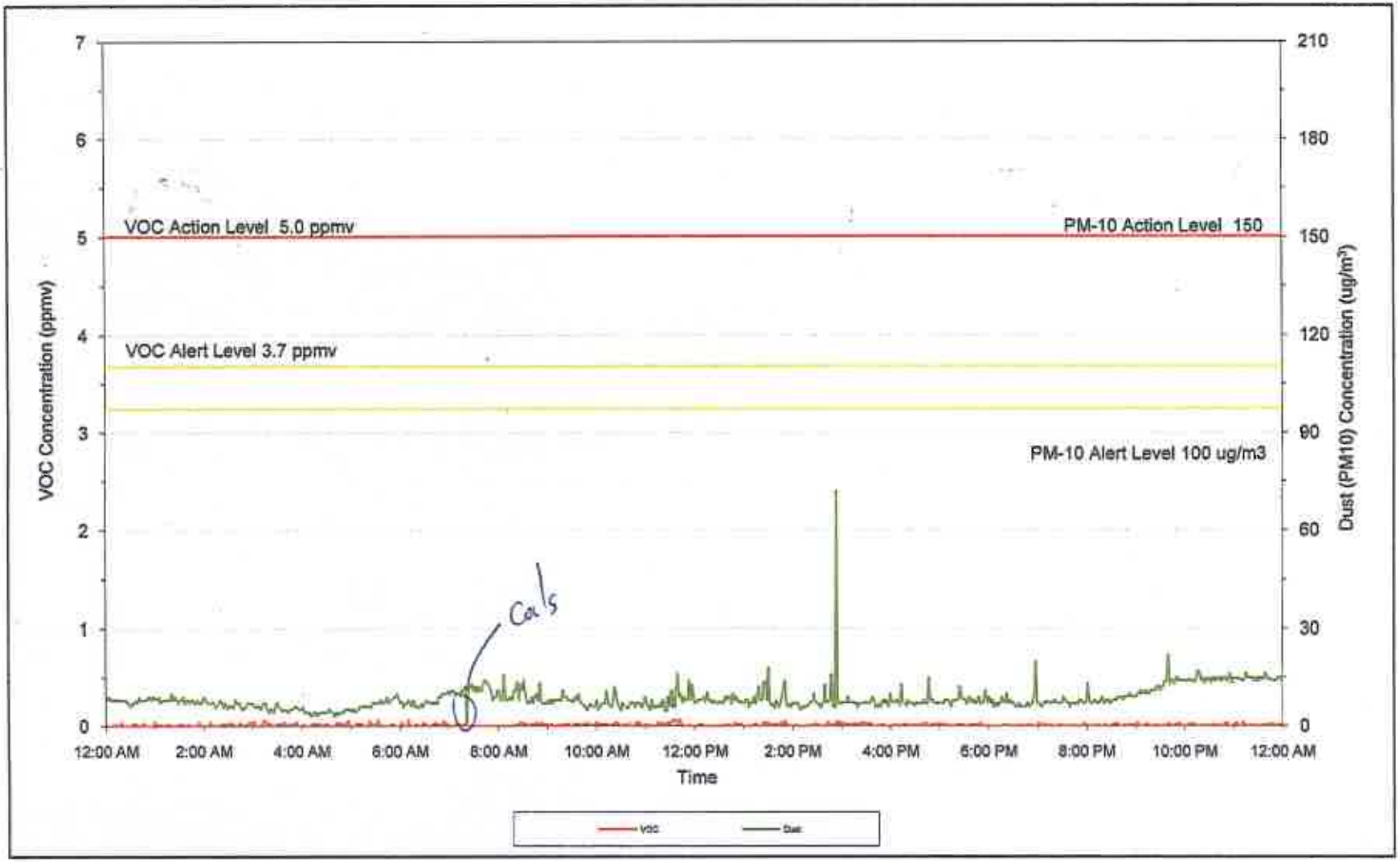



C:\XLRproject\Reports\Station2Mar10.xls

Mar 31,2010

**Community Air Monitoring**
**Bay Shore Former MGP Site**
**OU-1 Remedial Action Plan-Phase IV**
**Bay Shore, NY**
**National Grid**

Station 3 - (AMS-3)

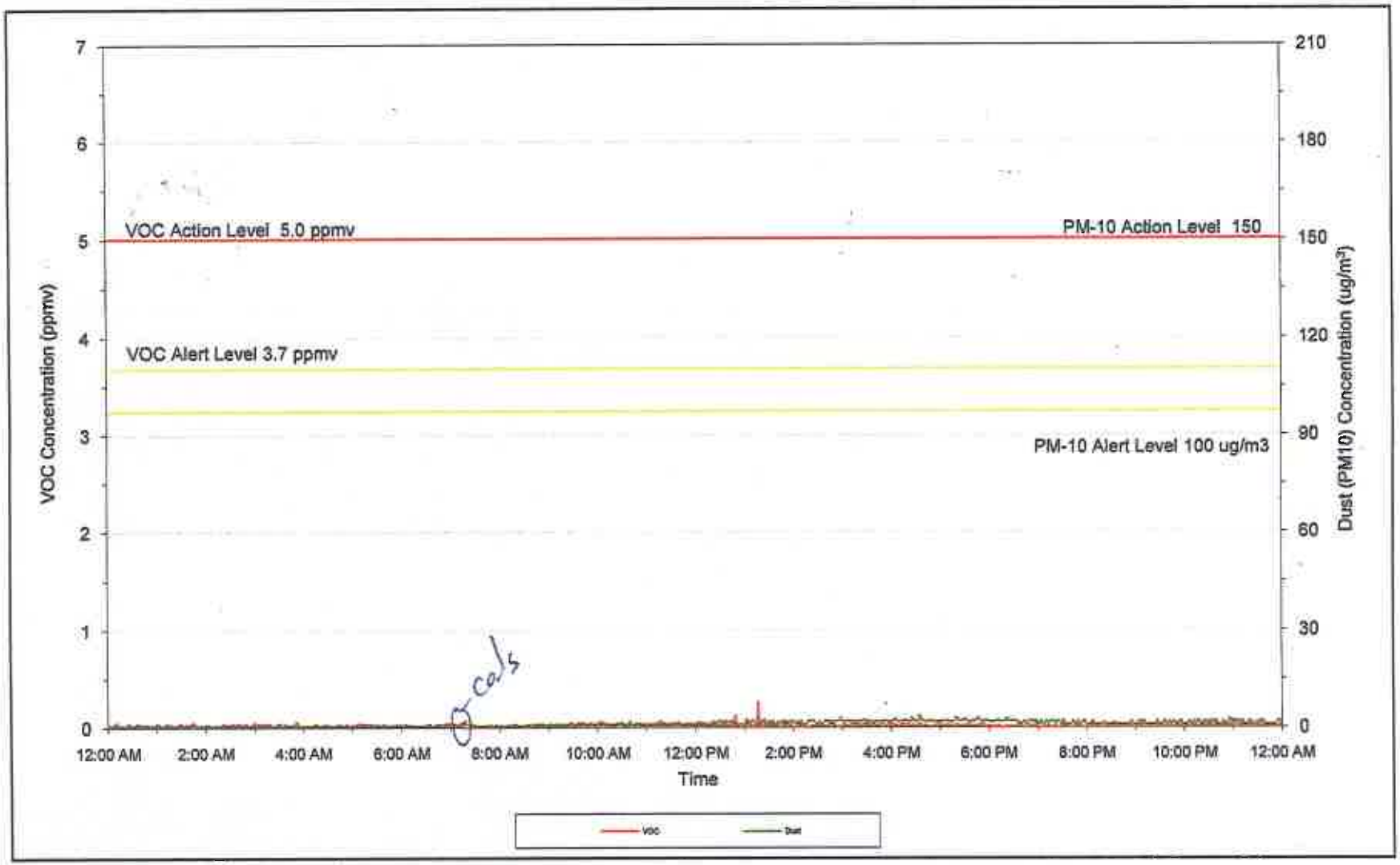



C:\XLRproject\Reports\Station3Mar10.xls

Mar 31,2010

**Community Air Monitoring**
**Bay Shore Former MGP Site**
**OU-1 Remedial Action Plan-Phase IV**
**Bay Shore, NY**
**National Grid**

Station 4 - (AMS-4)

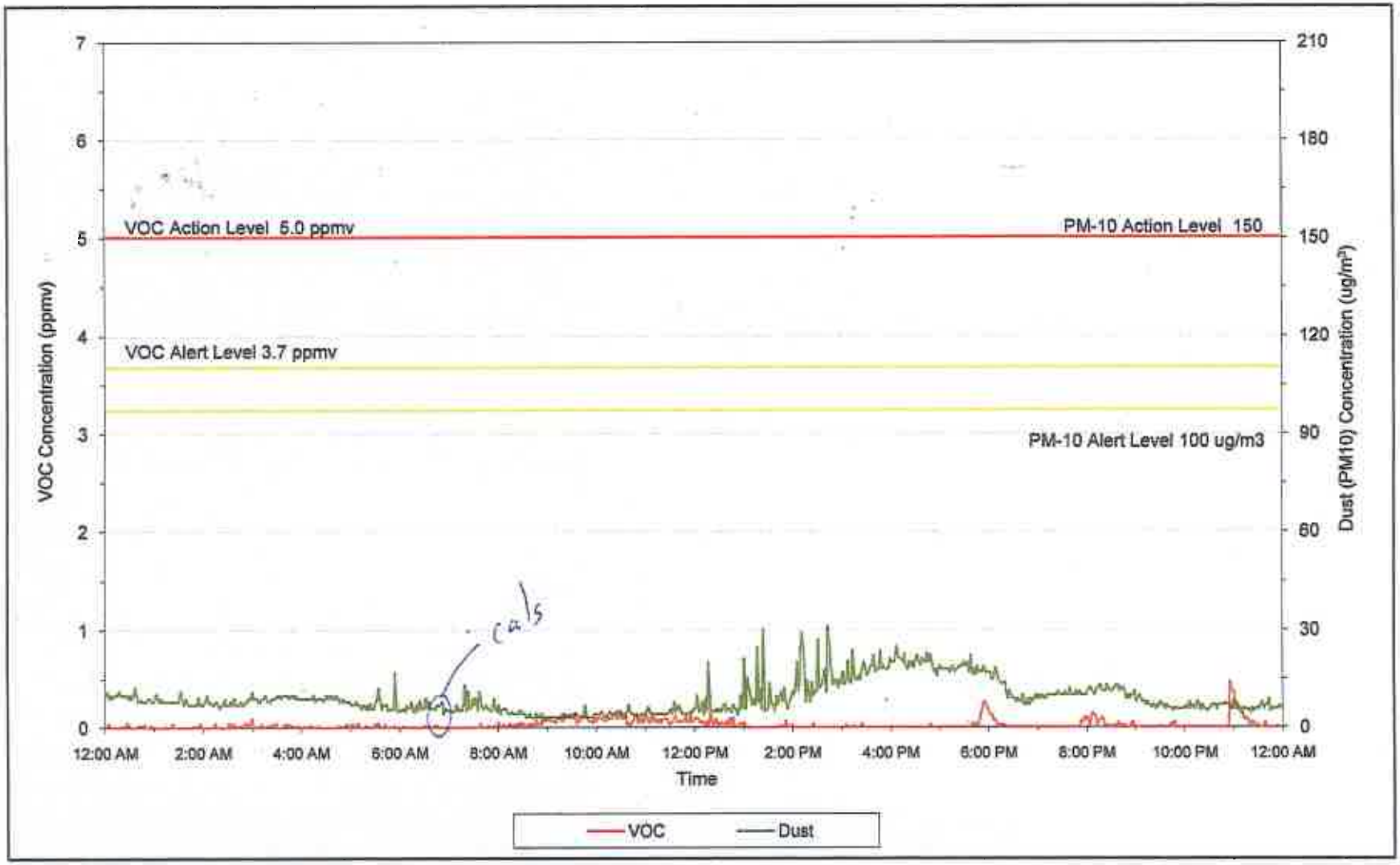



C:\XLRproject\Reports\Station4Mar10.xls

Apr 01,2010

**Community Air Monitoring**
**Bay Shore Former MGP Site**
**OU-1 Remedial Action Plan-Phase IV**
**Bay Shore, NY**
**National Grid**

Station 1 - (AMS-1)

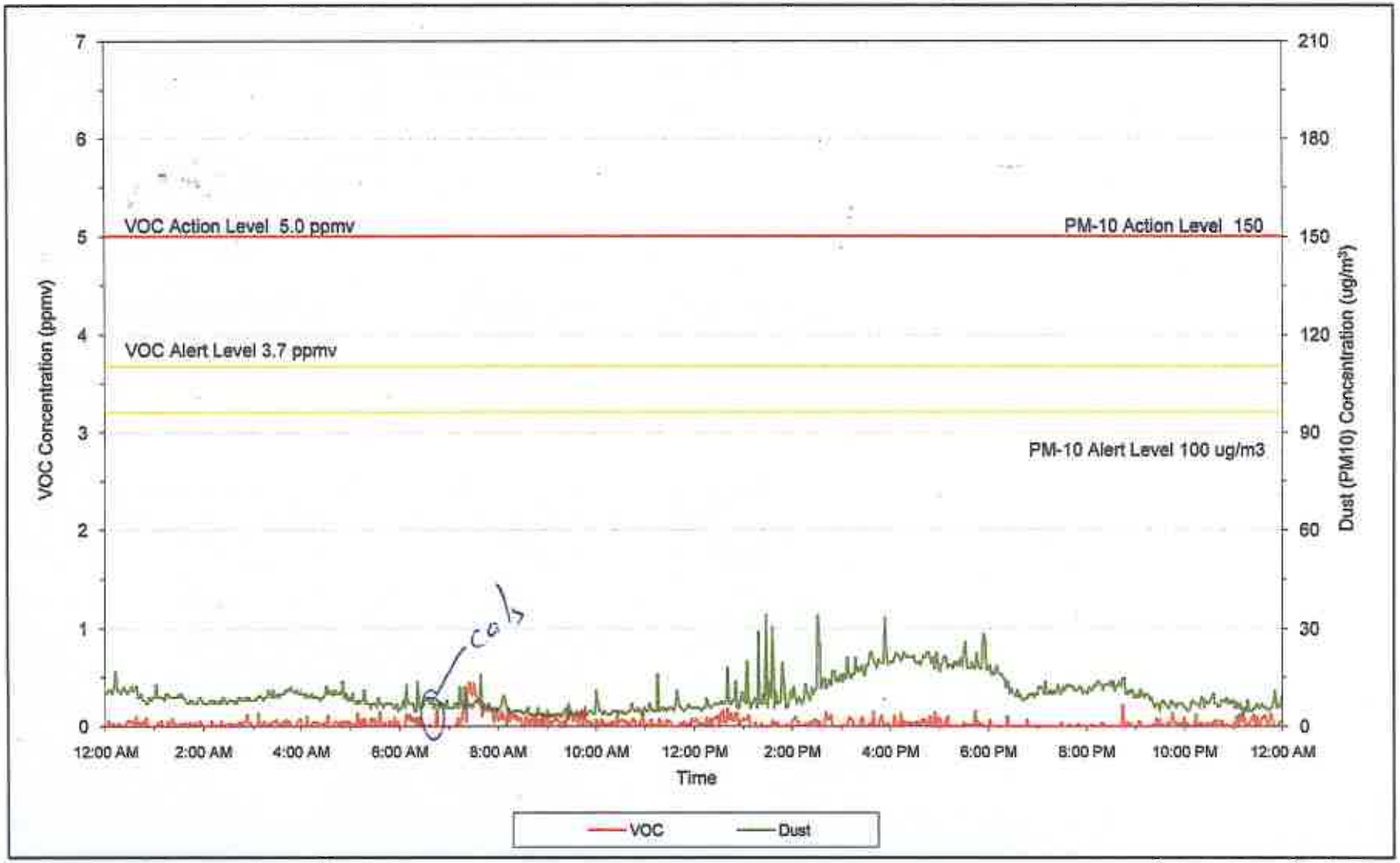



C:\XLRproject\Reports\Station1Apr10.xls

Apr 01,2010

**Community Air Monitoring**
**Bay Shore Former MGP Site**
**OU-1 Remedial Action Plan-Phase IV**
**Bay Shore, NY**
**National Grid**

Station 2 - (AMS-2)

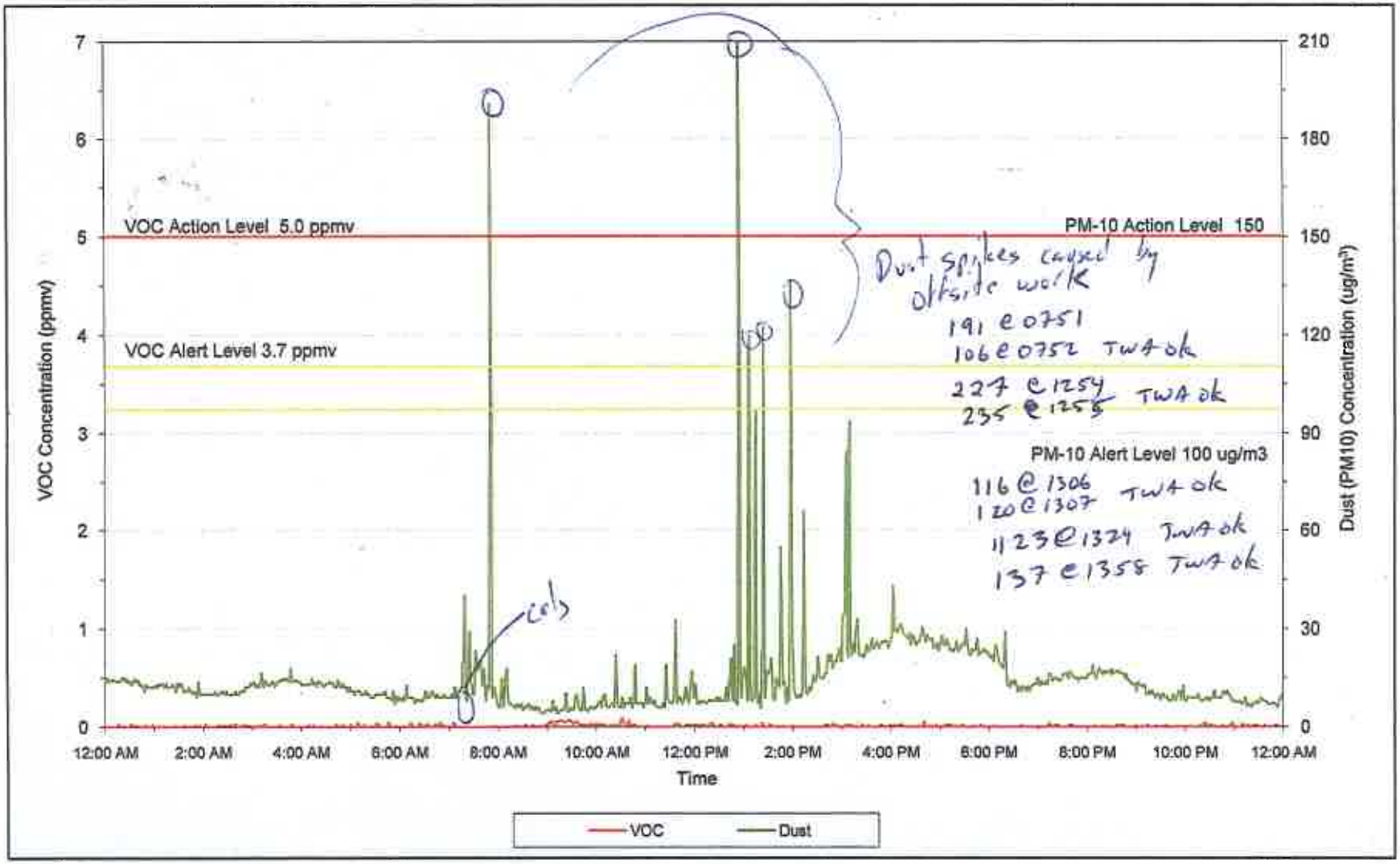



C:\XLRproject\Reports\Station2Apr10.xls

Apr 01,2010

**Community Air Monitoring**
**Bay Shore Former MGP Site**
**OU-1 Remedial Action Plan-Phase IV**
**Bay Shore, NY**
**National Grid**

Station 3 - (AMS-3)

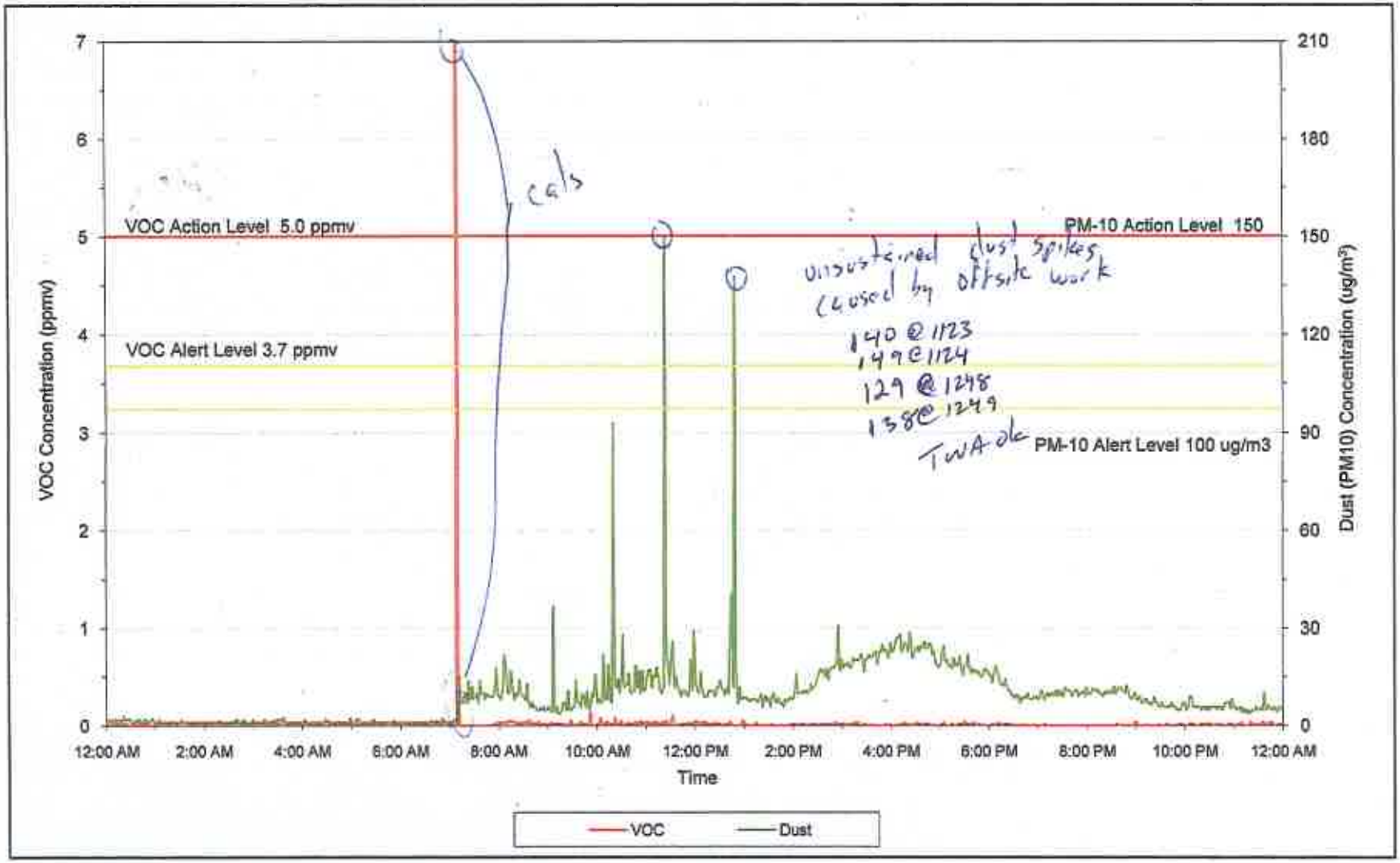



C:\XLRproject\Reports\Station3Apr10.xls

Apr 01,2010

**Community Air Monitoring**
**Bay Shore Former MGP Site**
**OU-1 Remedial Action Plan-Phase IV**
**Bay Shore, NY**
**National Grid**

Station 4 - (AMS-4)

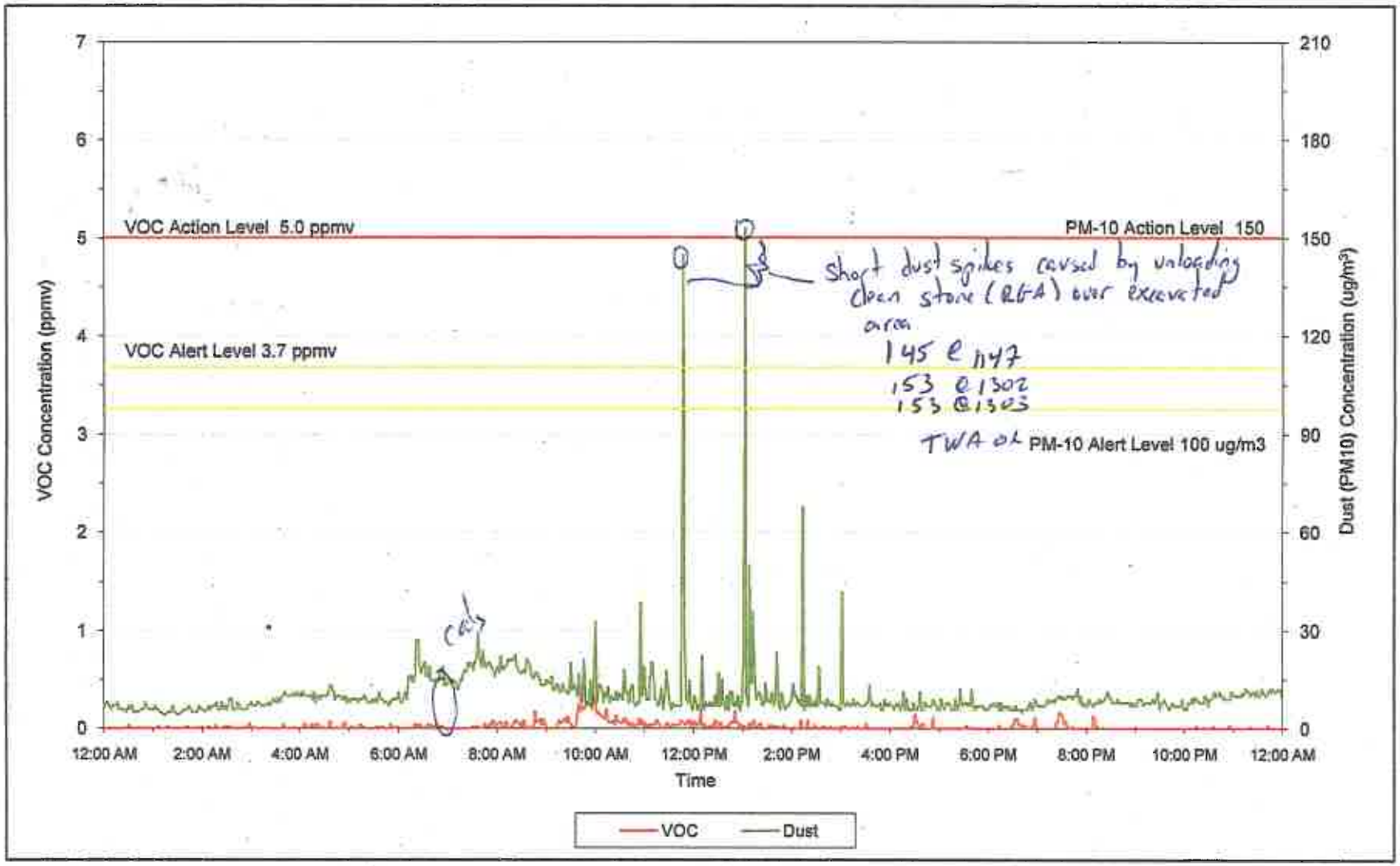



C:\XLRproject\Reports\Station4Apr10.xls

Apr 02,2010

**Community Air Monitoring**
**Bay Shore Former MGP Site**
**OU-1 Remedial Action Plan-Phase IV**
**Bay Shore, NY**
**National Grid**

Station 1 - (AMS-1)

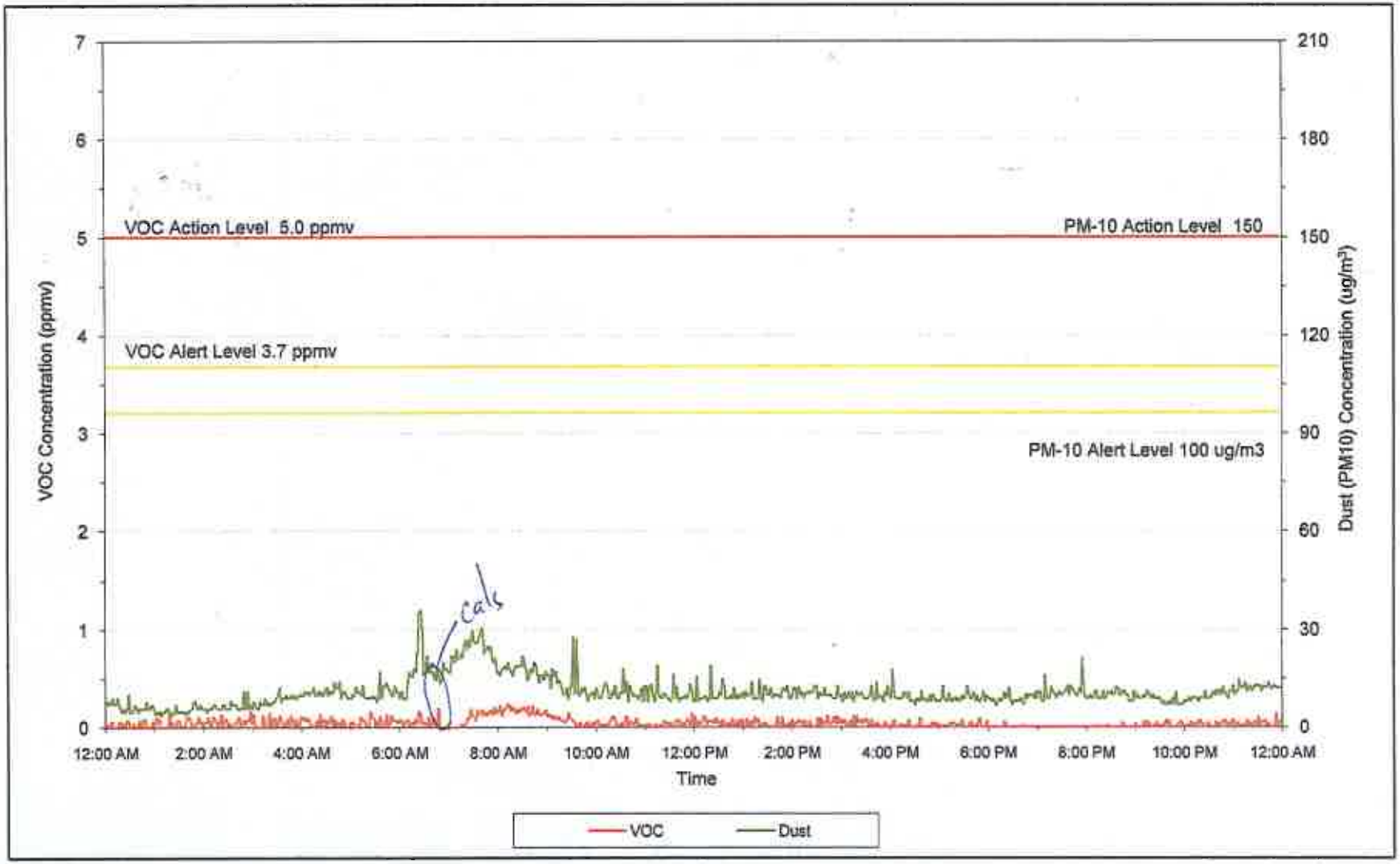



C:\XLRproject\Reports\STA1_ONDEMANDApr10.xls

Apr 02,2010

**Community Air Monitoring**
**Bay Shore Former MGP Site**
**OU-1 Remedial Action Plan-Phase IV**
**Bay Shore, NY**
**National Grid**

Station 2 - (AMS-2)

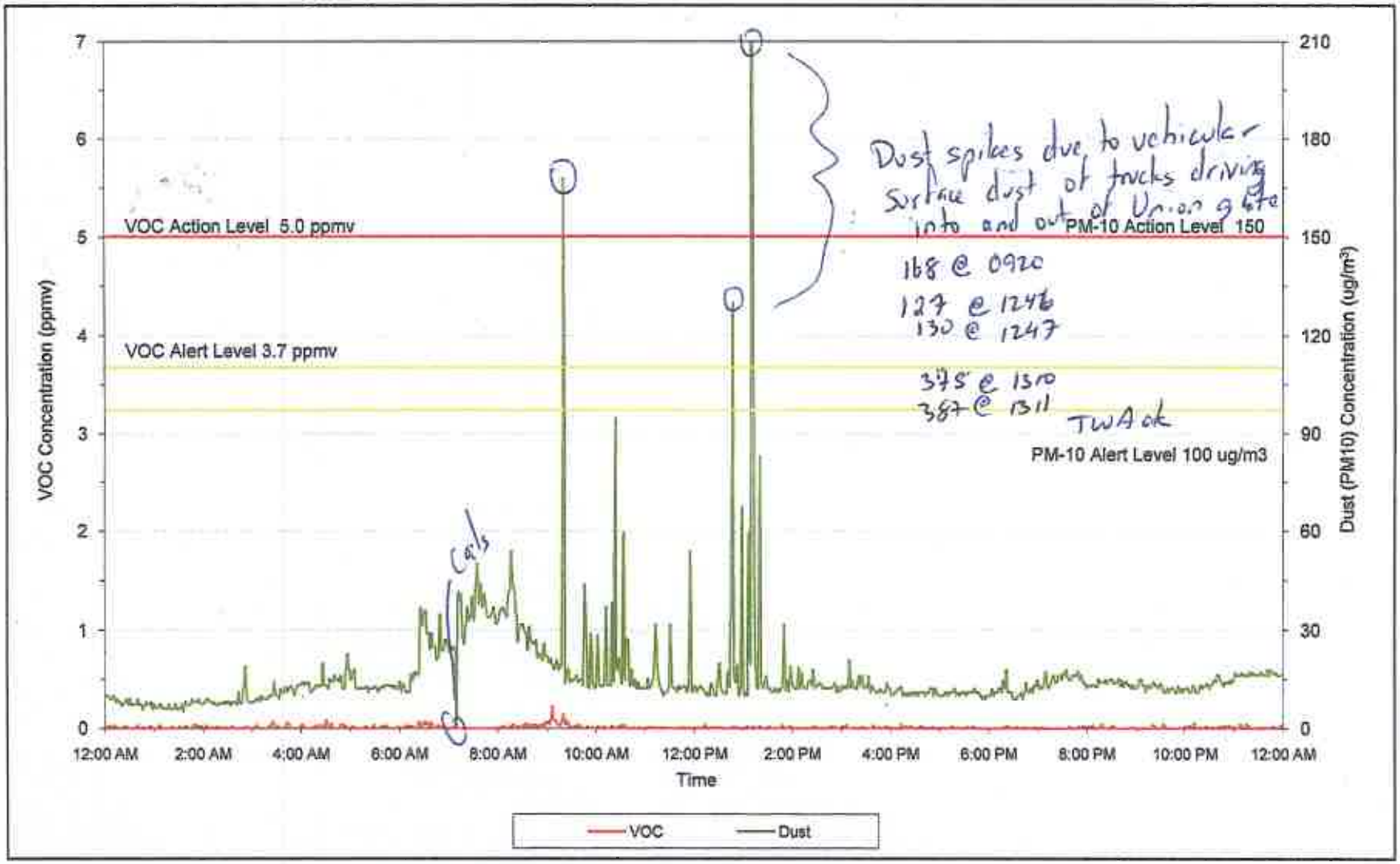



C:\XLRproject\Reports\Station2Apr10.xls

Apr 02,2010

**Community Air Monitoring**
**Bay Shore Former MGP Site**
**OU-1 Remedial Action Plan-Phase IV**
**Bay Shore, NY**
**National Grid**

Station 3 - (AMS-3)

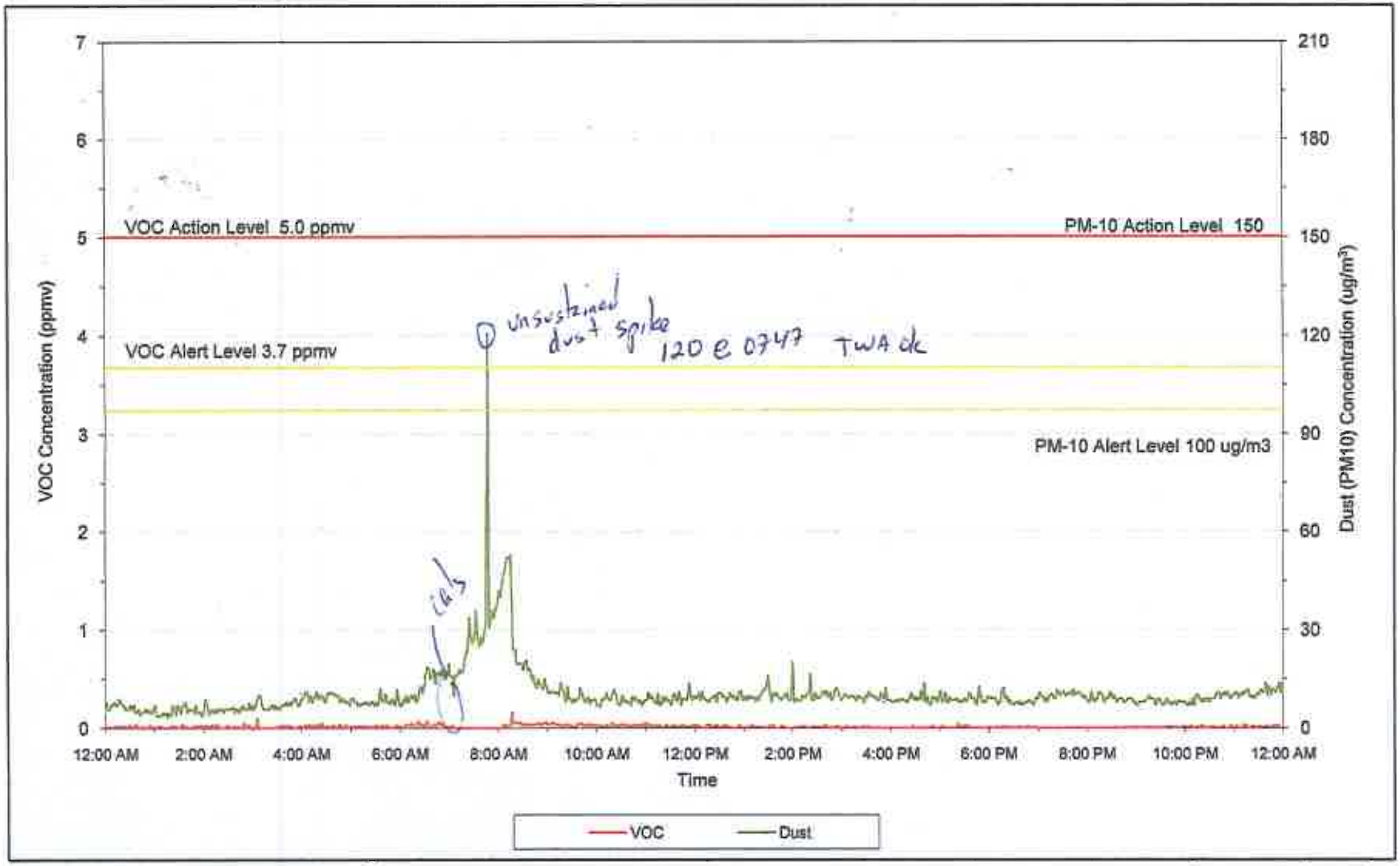



C:\XLRproject\Reports\Station3Apr10.xls

Apr 02,2010

**Community Air Monitoring**
**Bay Shore Former MGP Site**
**OU-1 Remedial Action Plan-Phase IV**
**Bay Shore, NY**
**National Grid**

Station 4 - (AMS-4)

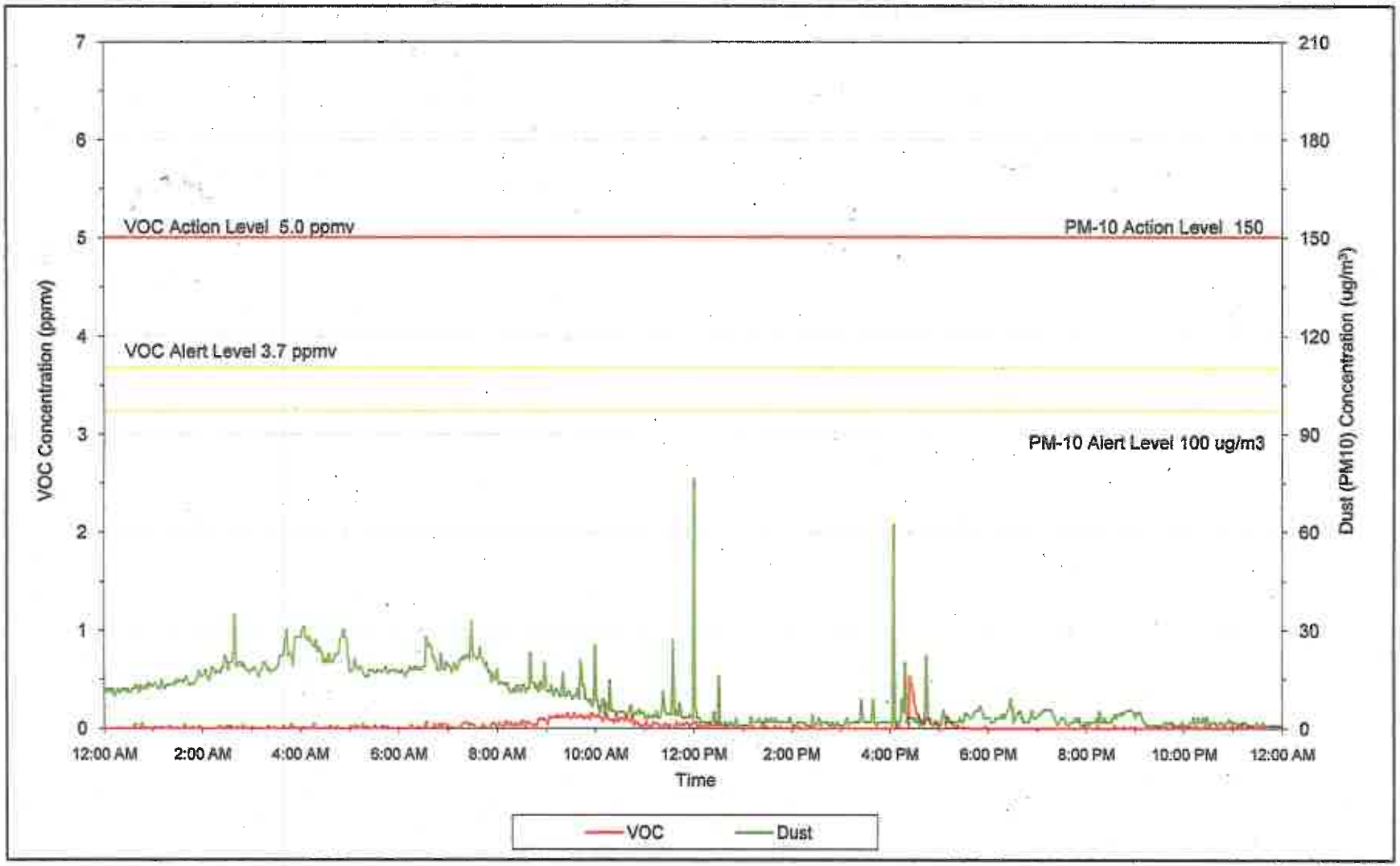



C:\XLRproject\Reports\Station4Apr10.xls

Apr 03,2010

**Community Air Monitoring**
**Bay Shore Former MGP Site**
**OU-1 Remedial Action Plan-Phase IV**
**Bay Shore, NY**
**National Grid**

Station 1 - (AMS-1)

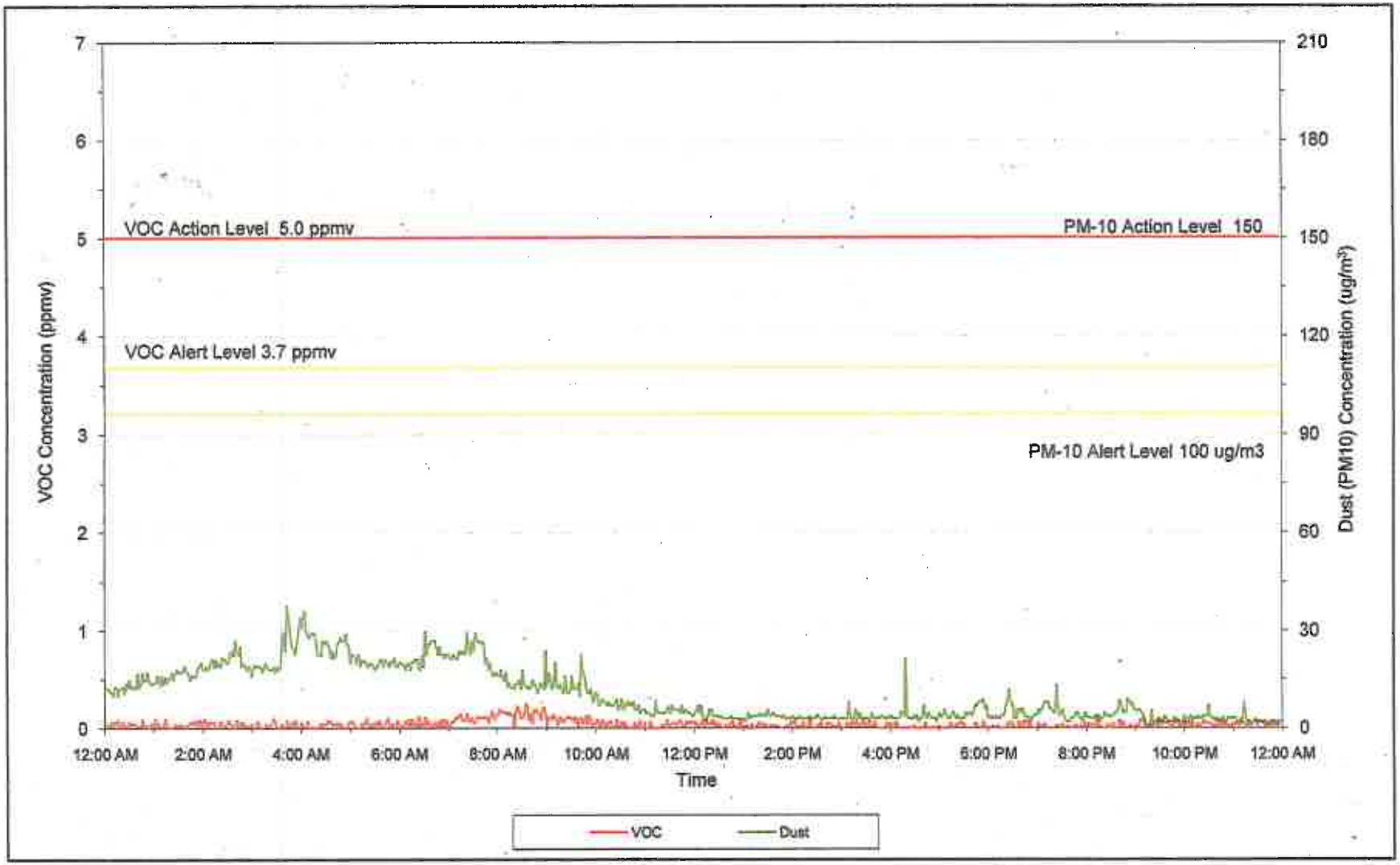



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Apr 03,2010

**Community Air Monitoring**
**Bay Shore Former MGP Site**
**OU-1 Remedial Action Plan-Phase IV**
**Bay Shore, NY**
**National Grid**

Station 2 - (AMS-2)

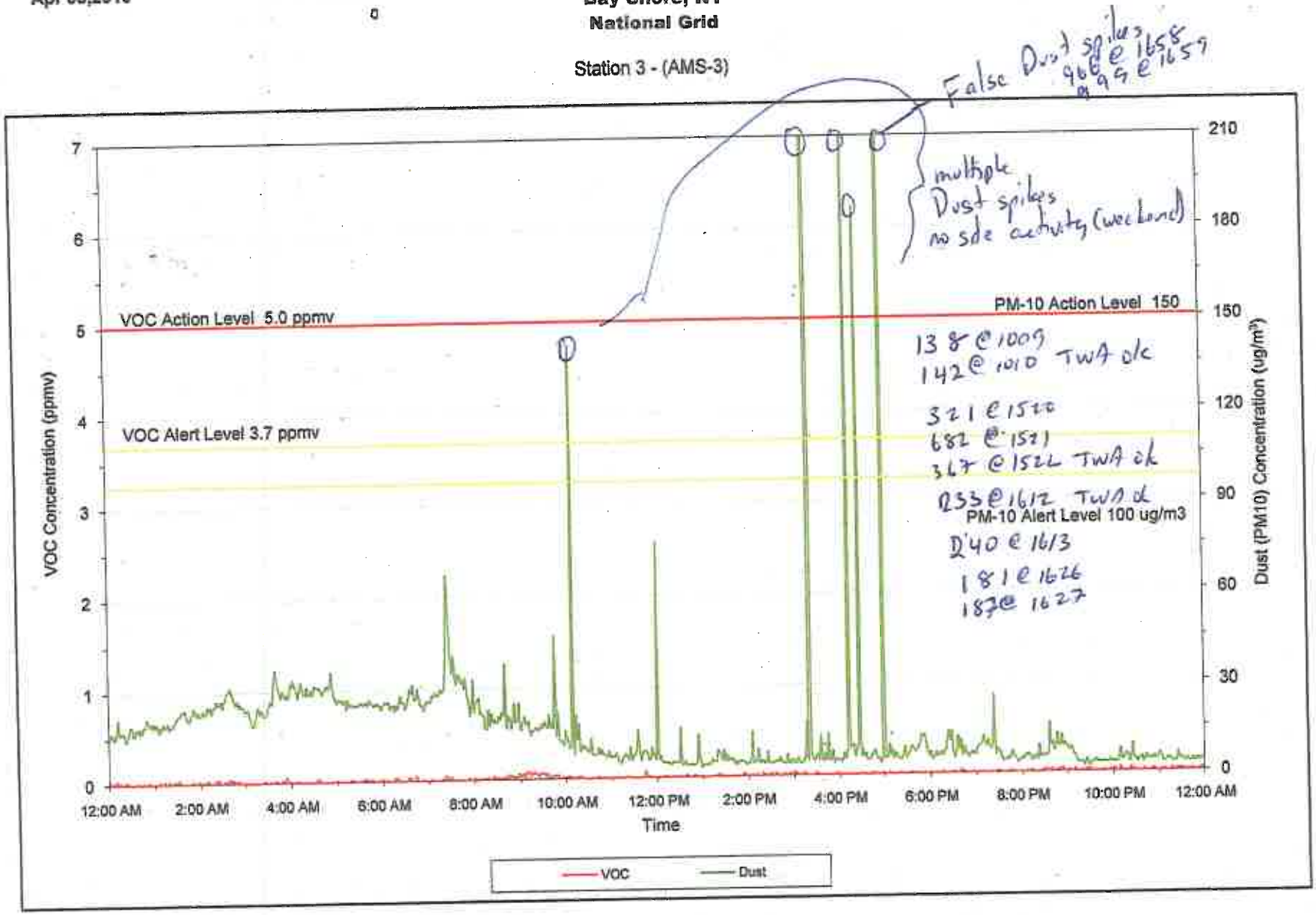



C:\XLRproject\Reports\Station2Apr10.xls

**Community Air Monitoring**
**Bay Shore Former MGP Site**
**OU-1 Remedial Action Plan-Phase IV**
**Bay Shore, NY**
**National Grid**

Apr 03,2010

Station 3 - (AMS-3)

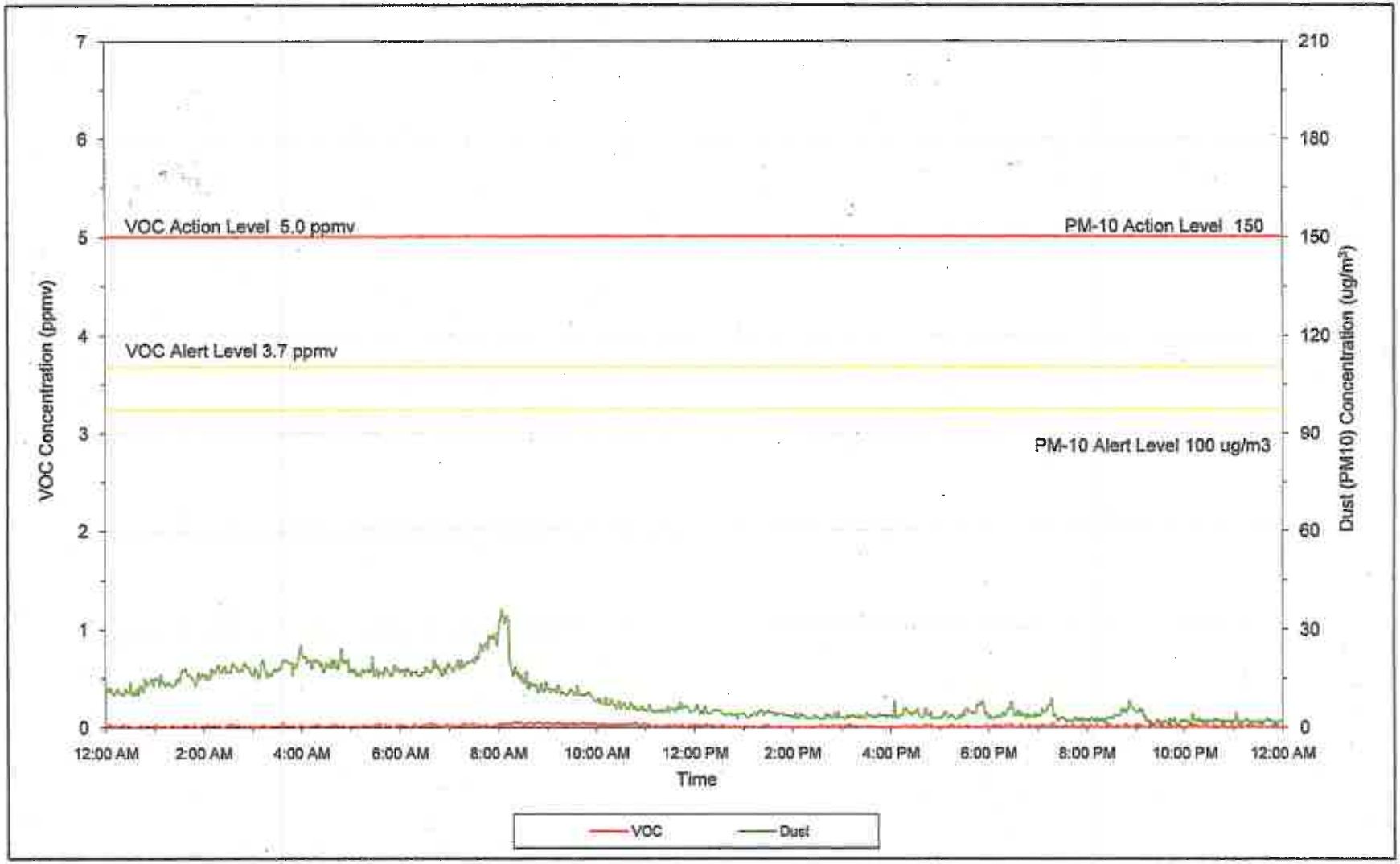



C:\XLRproject\Reports\Station3Apr10.xls

Apr 03,2010

**Community Air Monitoring**
**Bay Shore Former MGP Site**
**OU-1 Remedial Action Plan-Phase IV**
**Bay Shore, NY**
**National Grid**

Station 4 - (AMS-4)

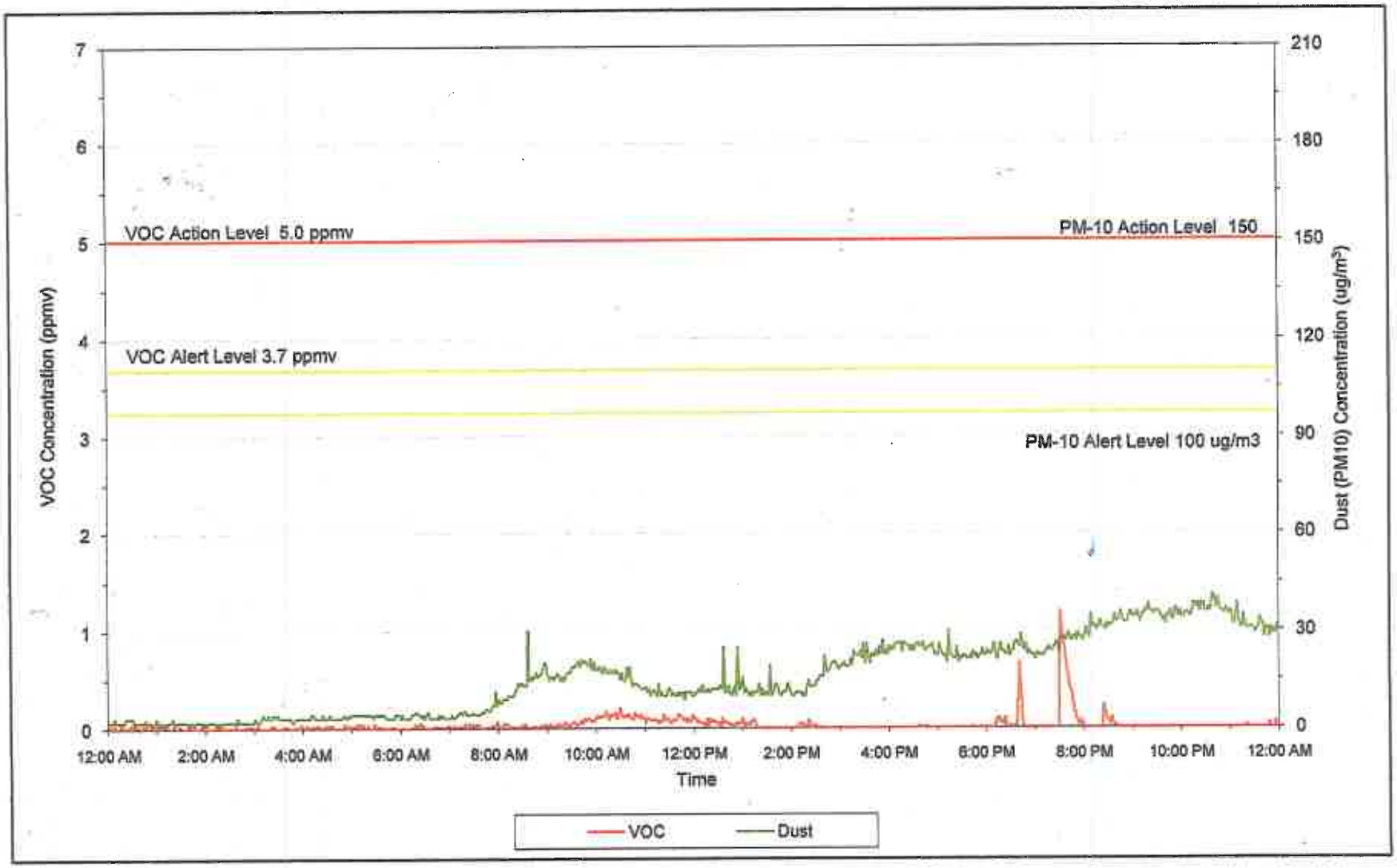



C:\XLRproject\Reports\Station4Apr10.xls

Apr 04,2010

**Community Air Monitoring**
**Bay Shore Former MGP Site**
**OU-1 Remedial Action Plan-Phase IV**
**Bay Shore, NY**
**National Grid**

Station 1 - (AMS-1)

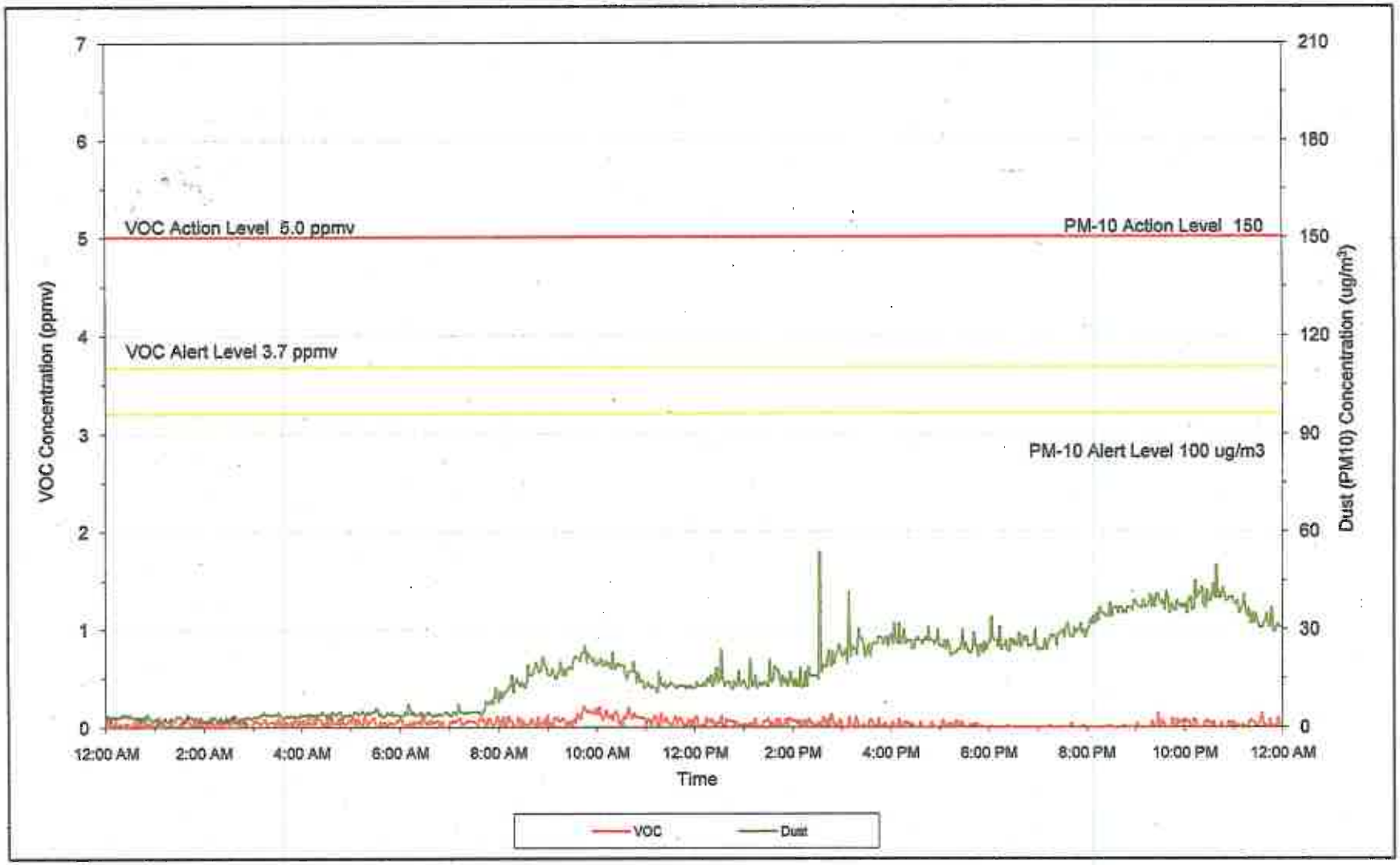



C:\XLRproject\Reports\Station1Apr10.xls

Apr 04,2010

**Community Air Monitoring**
**Bay Shore Former MGP Site**
**OU-1 Remedial Action Plan-Phase IV**
**Bay Shore, NY**
**National Grid**

Station 2 - (AMS-2)

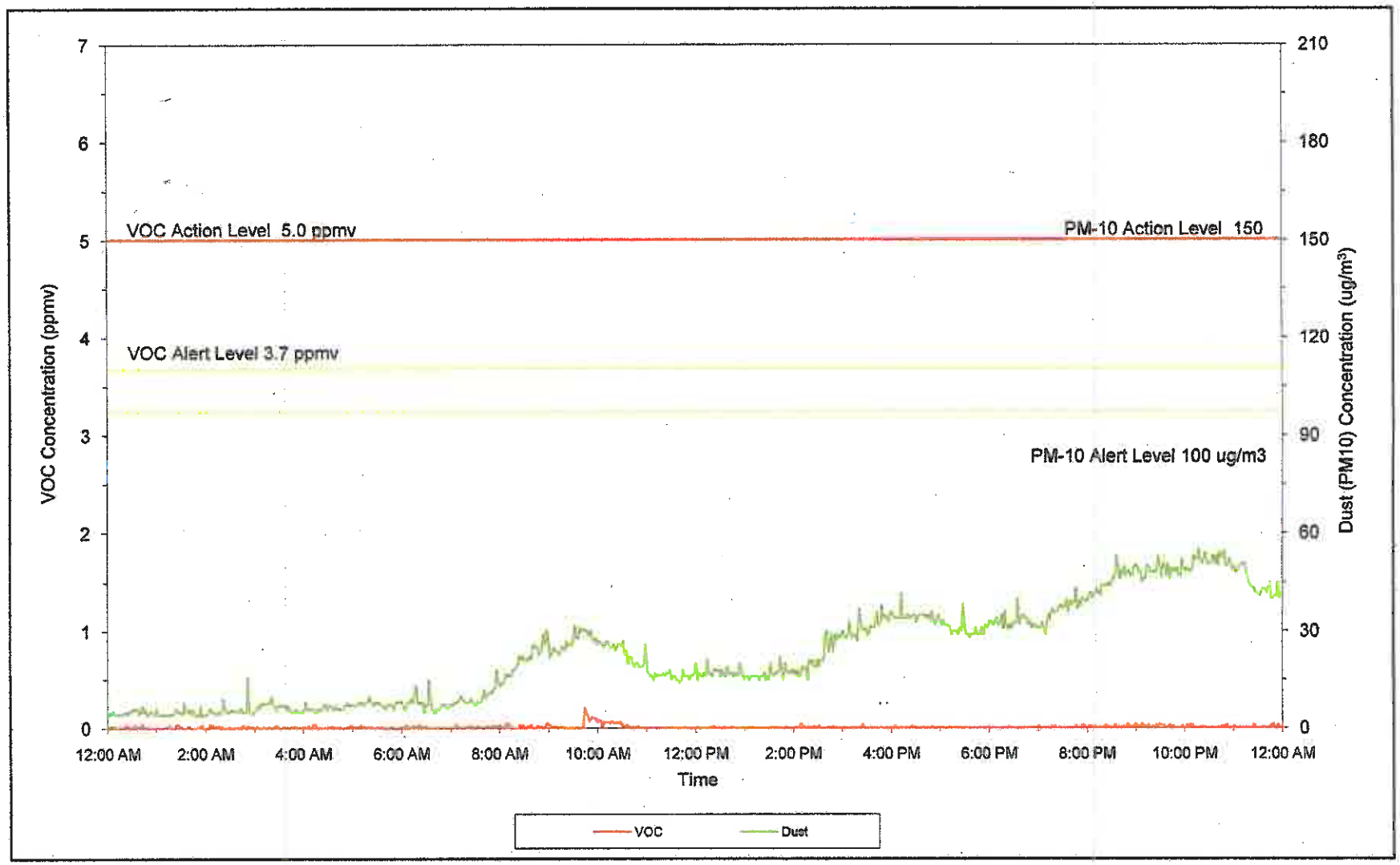



C:\XLRproject\Reports\Station2Apr10.xls

Apr 04,2010

**Community Air Monitoring**
**Bay Shore Former MGP Site**
**OU-1 Remedial Action Plan-Phase IV**
**Bay Shore, NY**
**National Grid**

Station 3 - (AMS-3)

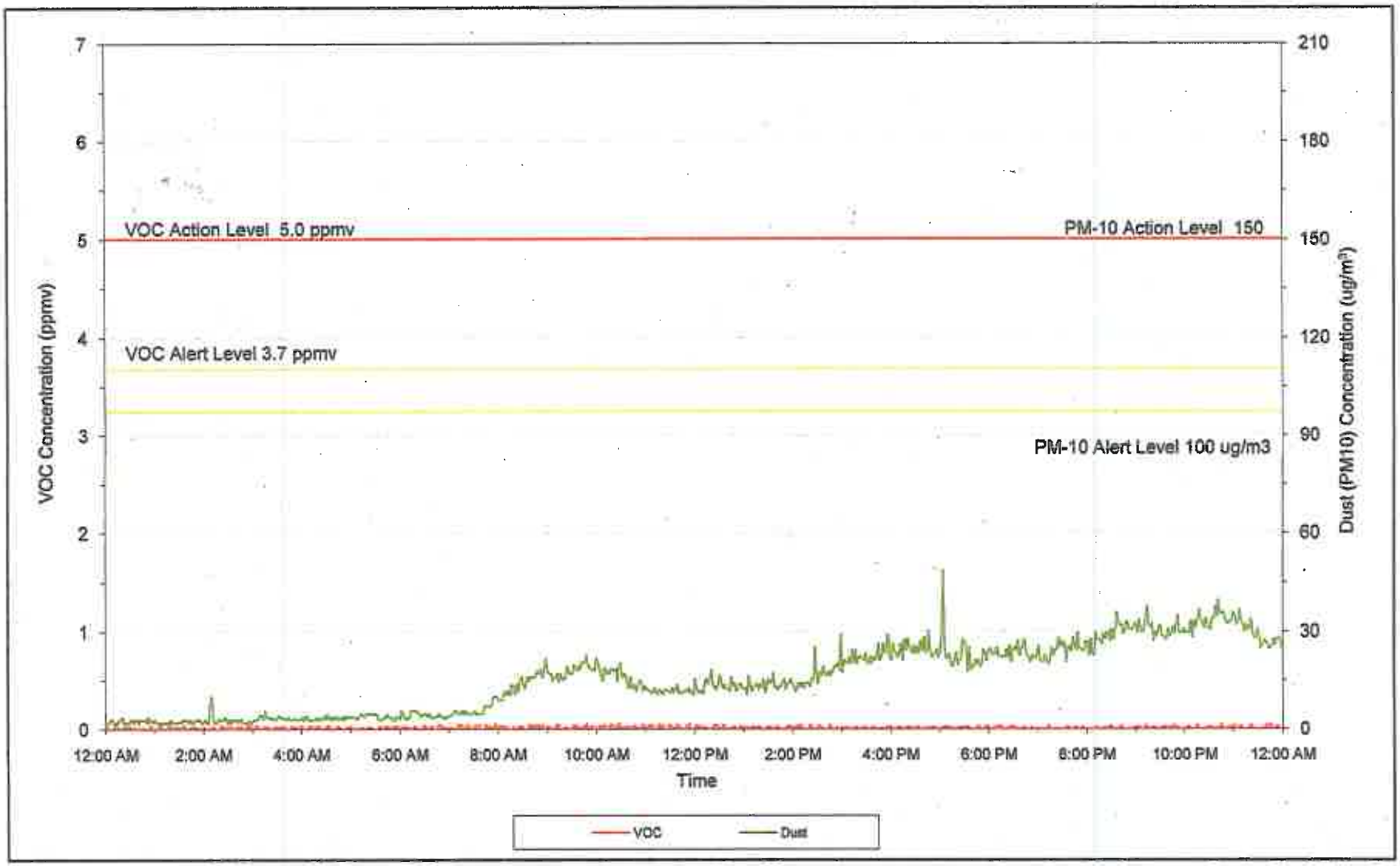



C:\XLRproject\Reports\Station3Apr10.xls

Apr 04,2010

**Community Air Monitoring**
**Bay Shore Former MGP Site**
**OU-1 Remedial Action Plan-Phase IV**
**Bay Shore, NY**
**National Grid**

Station 4 - (AMS-4)

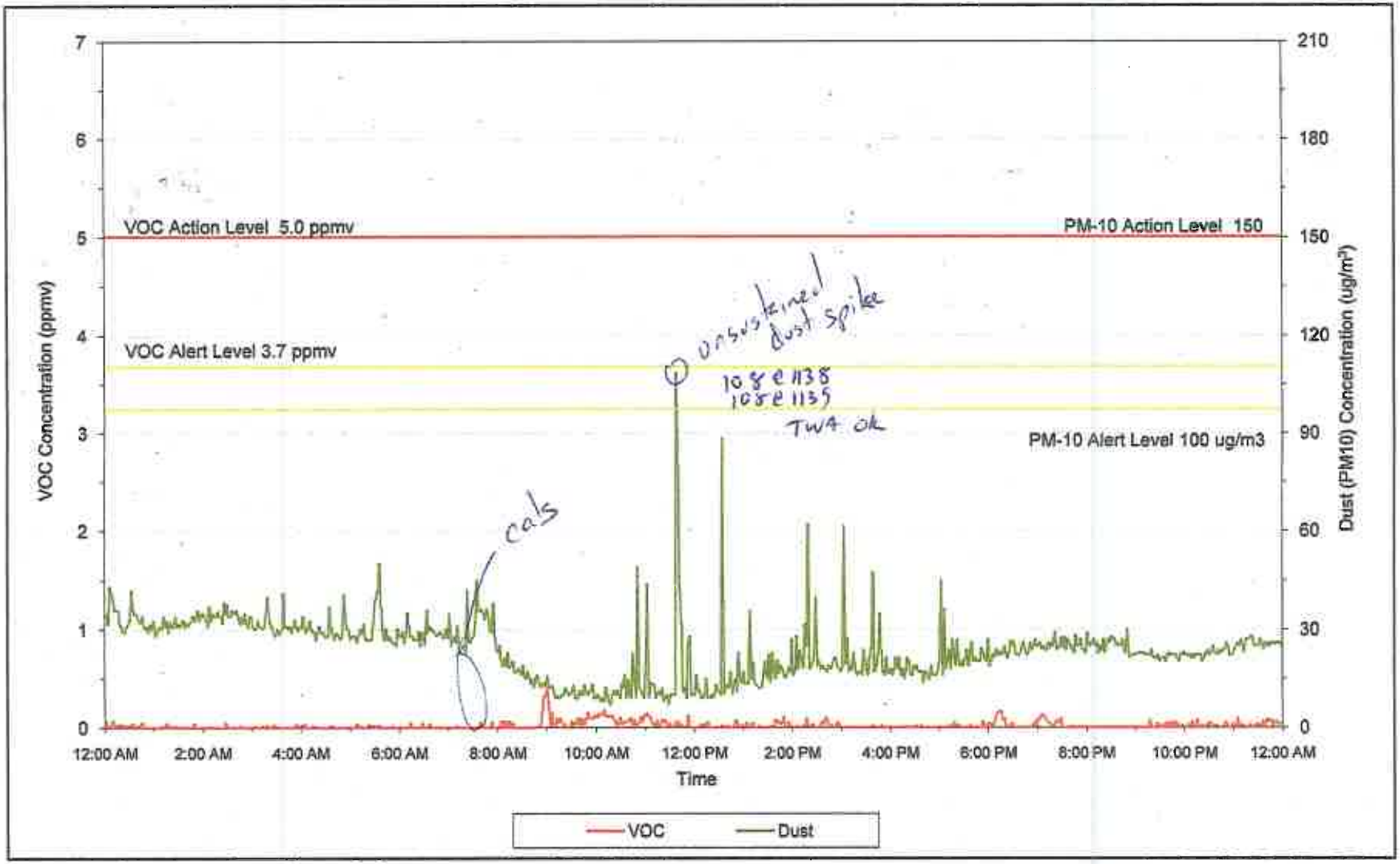



C:\XLRproject\Reports\Station4Apr10.xls

Apr 05,2010

**Community Air Monitoring**
**Bay Shore Former MGP Site**
**OU-1 Remedial Action Plan-Phase IV**
**Bay Shore, NY**
**National Grid**

Station 1 - (AMS-1)

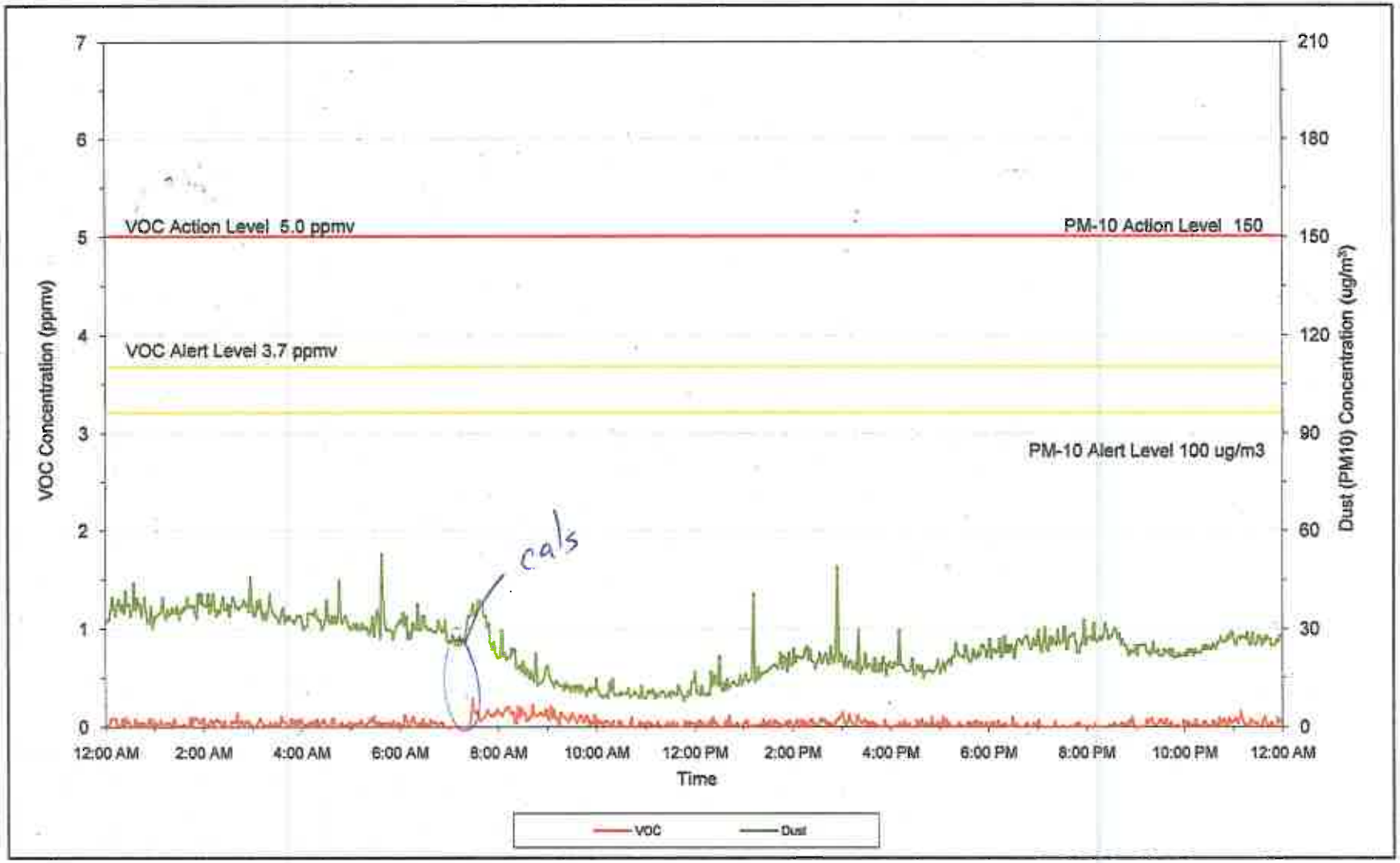



C:\XLRproject\Reports\Station1Apr10.xls

Apr 05,2010

**Community Air Monitoring**
**Bay Shore Former MGP Site**
**OU-1 Remedial Action Plan-Phase IV**
**Bay Shore, NY**
**National Grid**

Station 2 - (AMS-2)

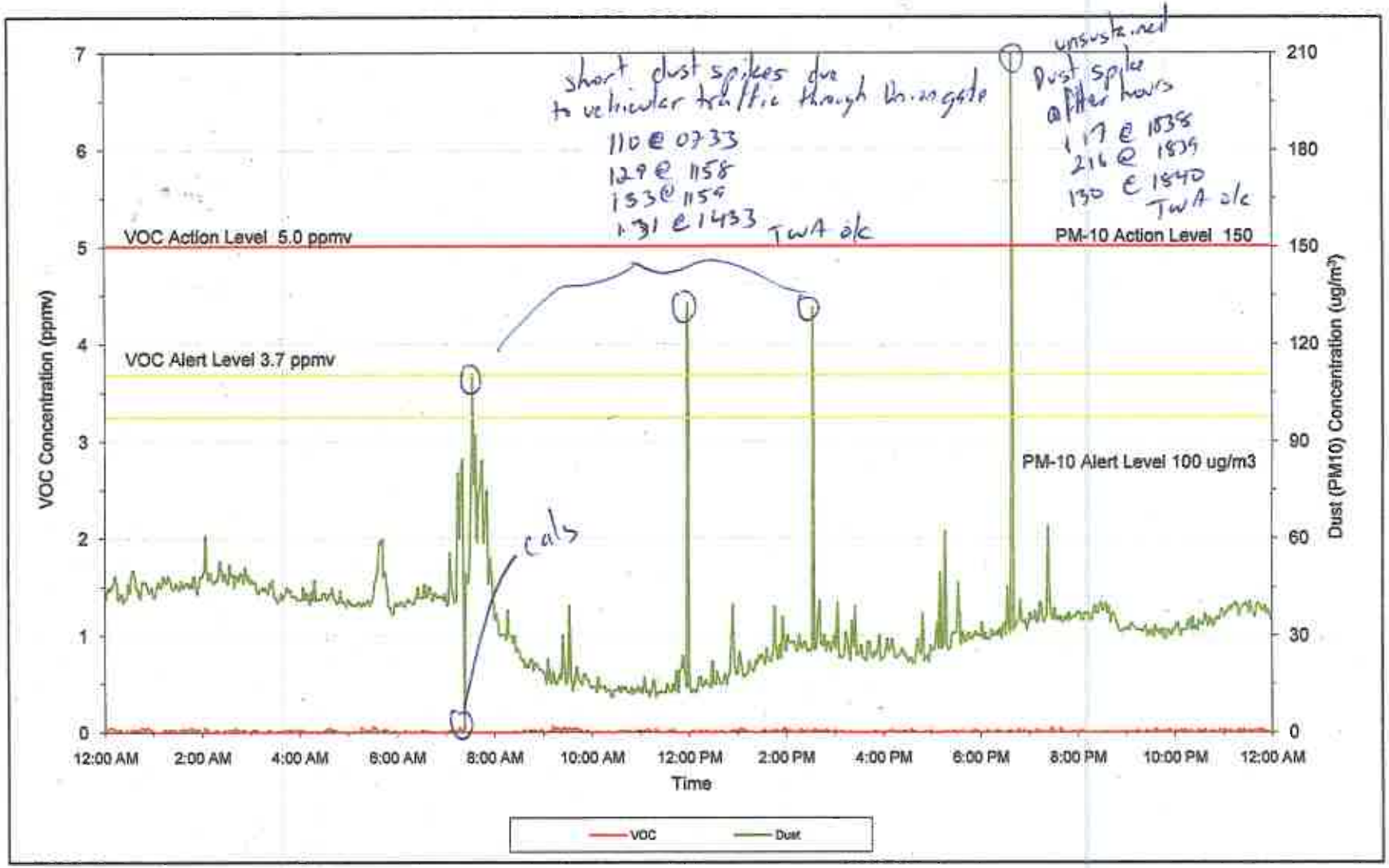



C:\XLRproject\Reports\Station2Apr10.xls

**Community Air Monitoring**
**Bay Shore Former MGP Site**
**OU-1 Remedial Action Plan-Phase IV**
**Bay Shore, NY**
**National Grid**

Apr 05,2010

Station 3 - (AMS-3)

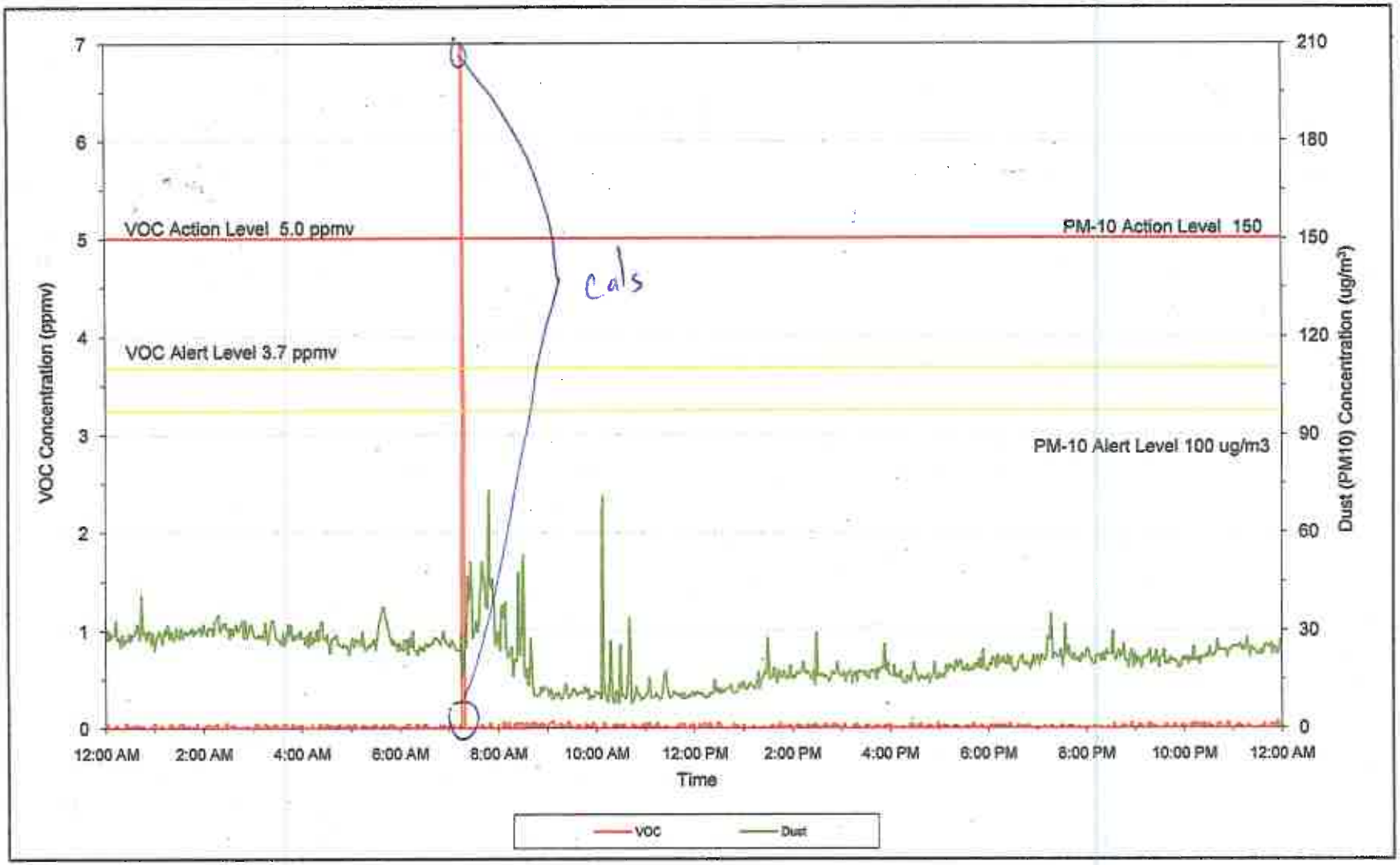



C:\KLRproject\Reports\Station3Apr10.xls

Apr 05,2010

**Community Air Monitoring**
**Bay Shore Former MGP Site**
**OU-1 Remedial Action Plan-Phase IV**
**Bay Shore, NY**
**National Grid**

Station 4 - (AMS-4)

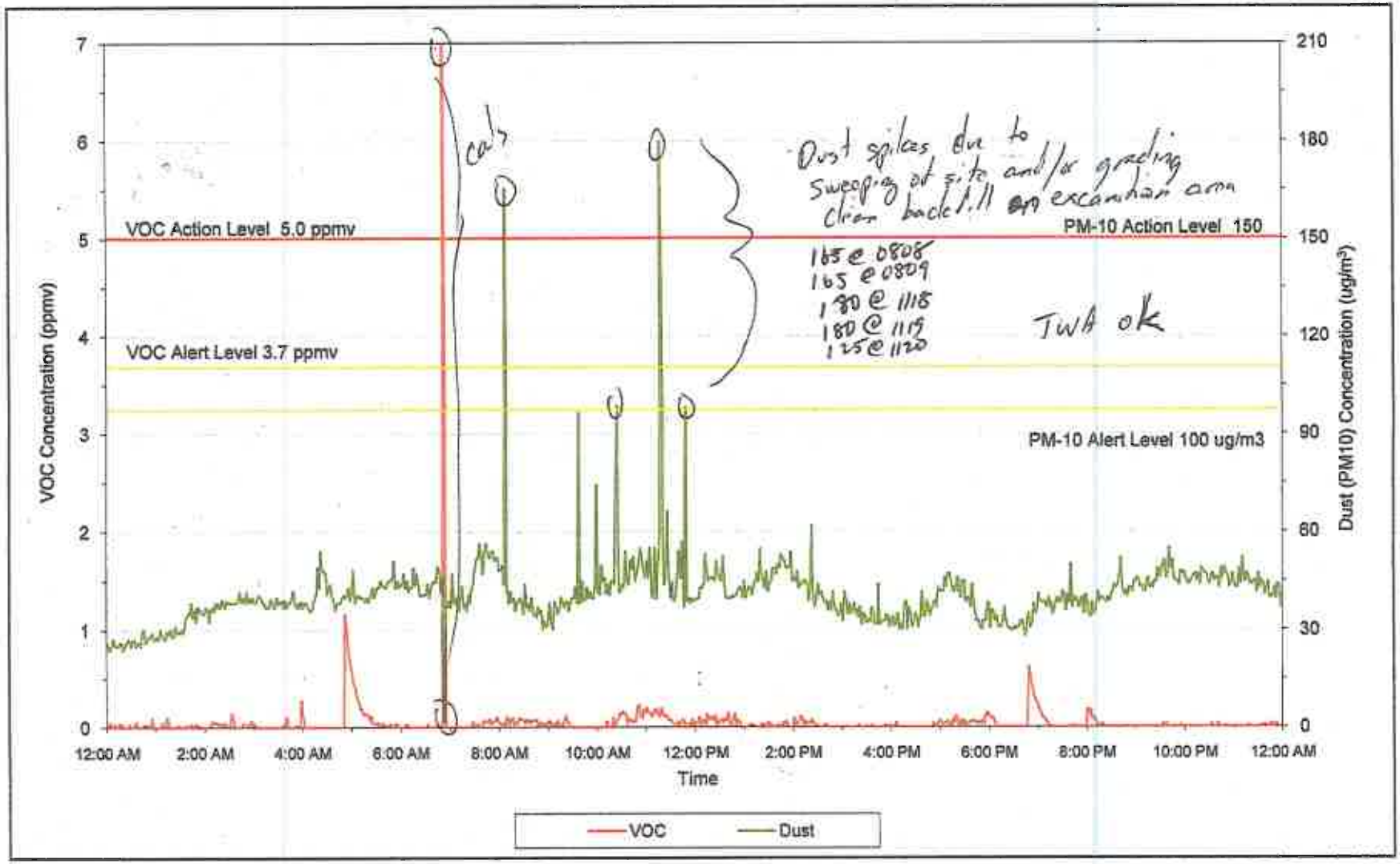



C:\XLRproject\Reports\Station4Apr10.xls

Apr 06,2010

**Community Air Monitoring**
**Bay Shore Former MGP Site**
**OU-1 Remedial Action Plan-Phase IV**
**Bay Shore, NY**
**National Grid**

Station 1 - (AMS-1)

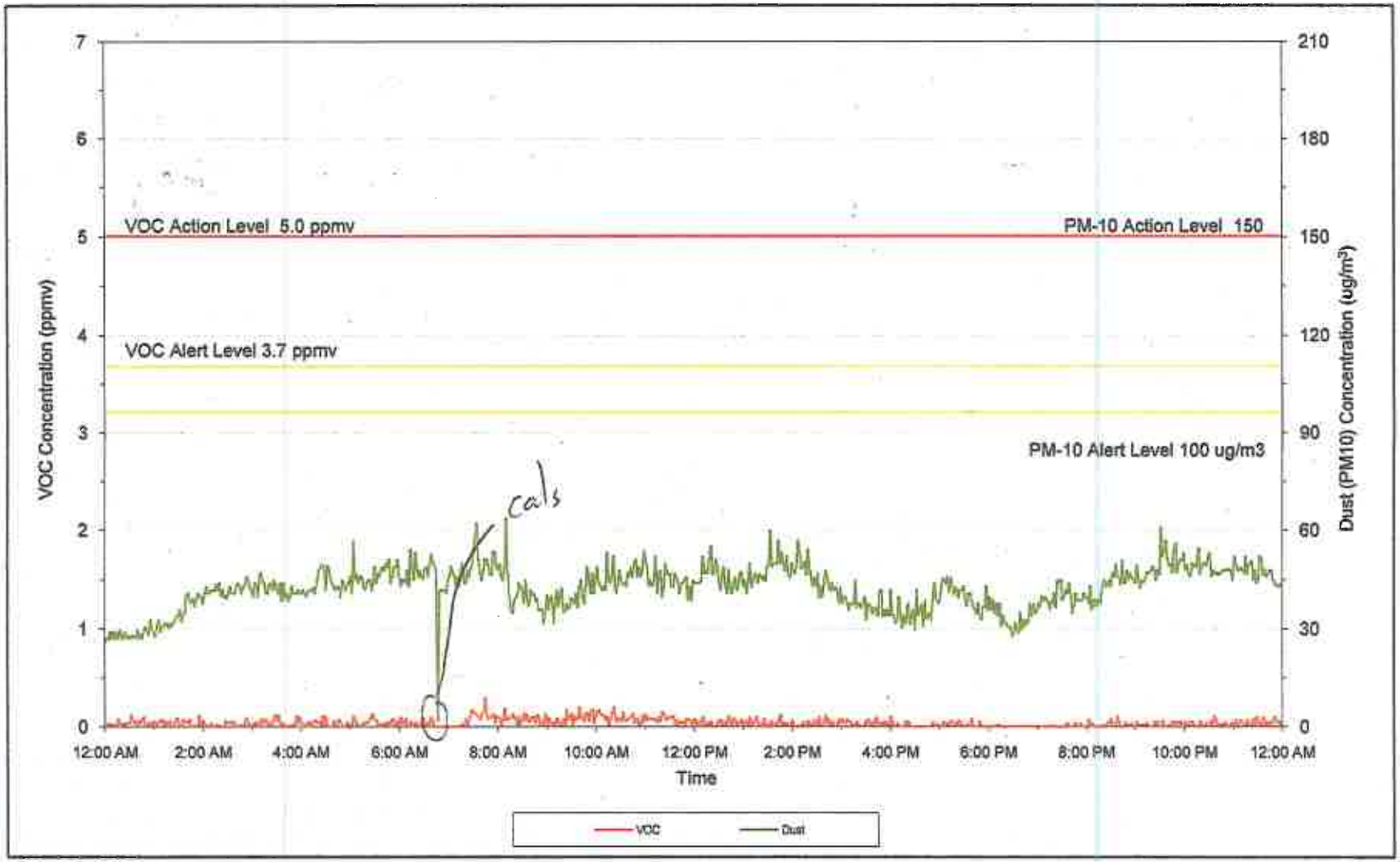



C:\XLRproject\Reports\Station1Apr10.xls

Apr 06,2010

**Community Air Monitoring**
**Bay Shore Former MGP Site**
**OU-1 Remedial Action Plan-Phase IV**
**Bay Shore, NY**
**National Grid**

Station 2 - (AMS-2)

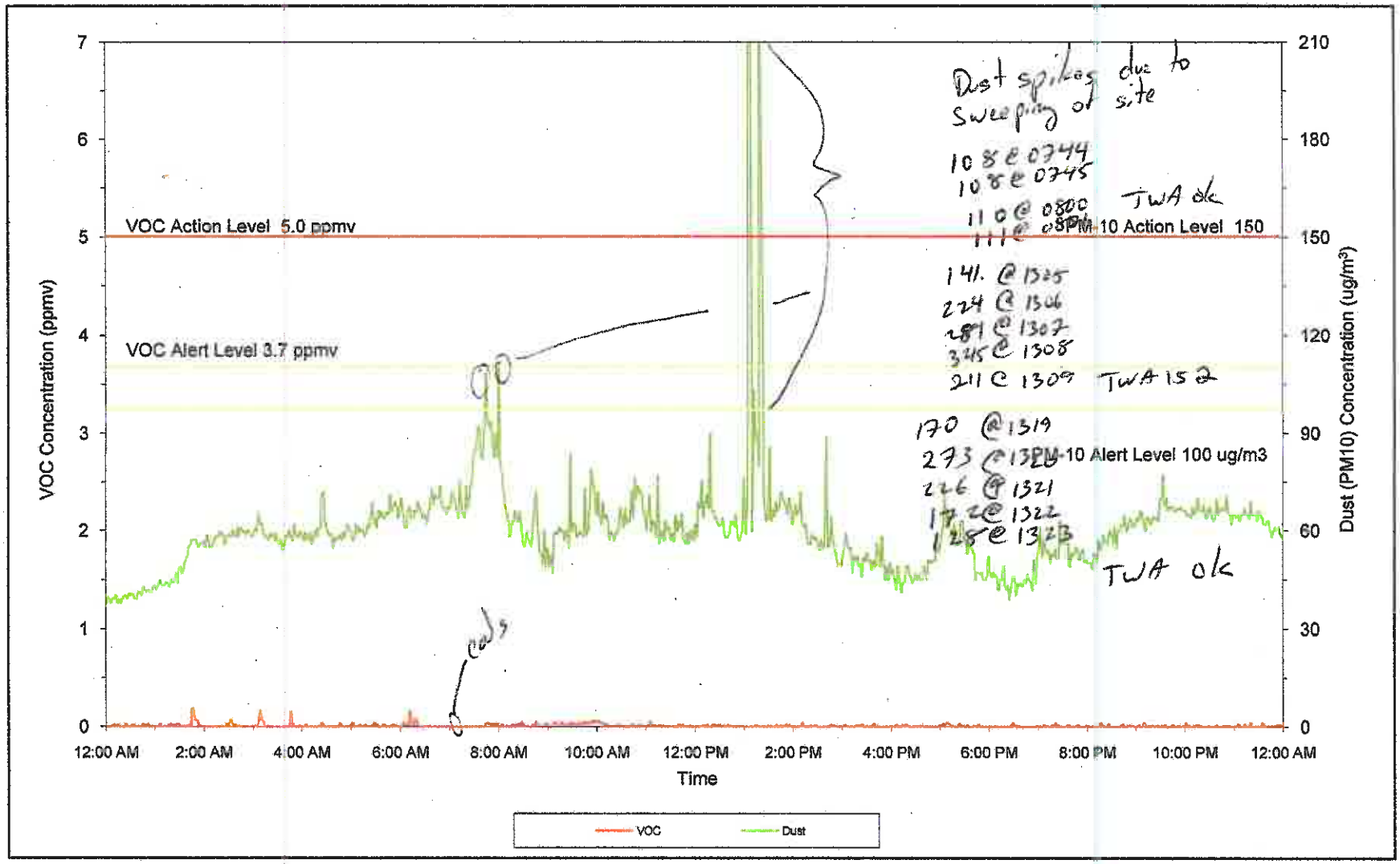



C:\XLRproject\Reports\Station2Apr10.xls

Apr 06,2010

**Community Air Monitoring**
**Bay Shore Former MGP Site**
**OU-1 Remedial Action Plan-Phase IV**
**Bay Shore, NY**
**National Grid**

Station 3 - (AMS-3)

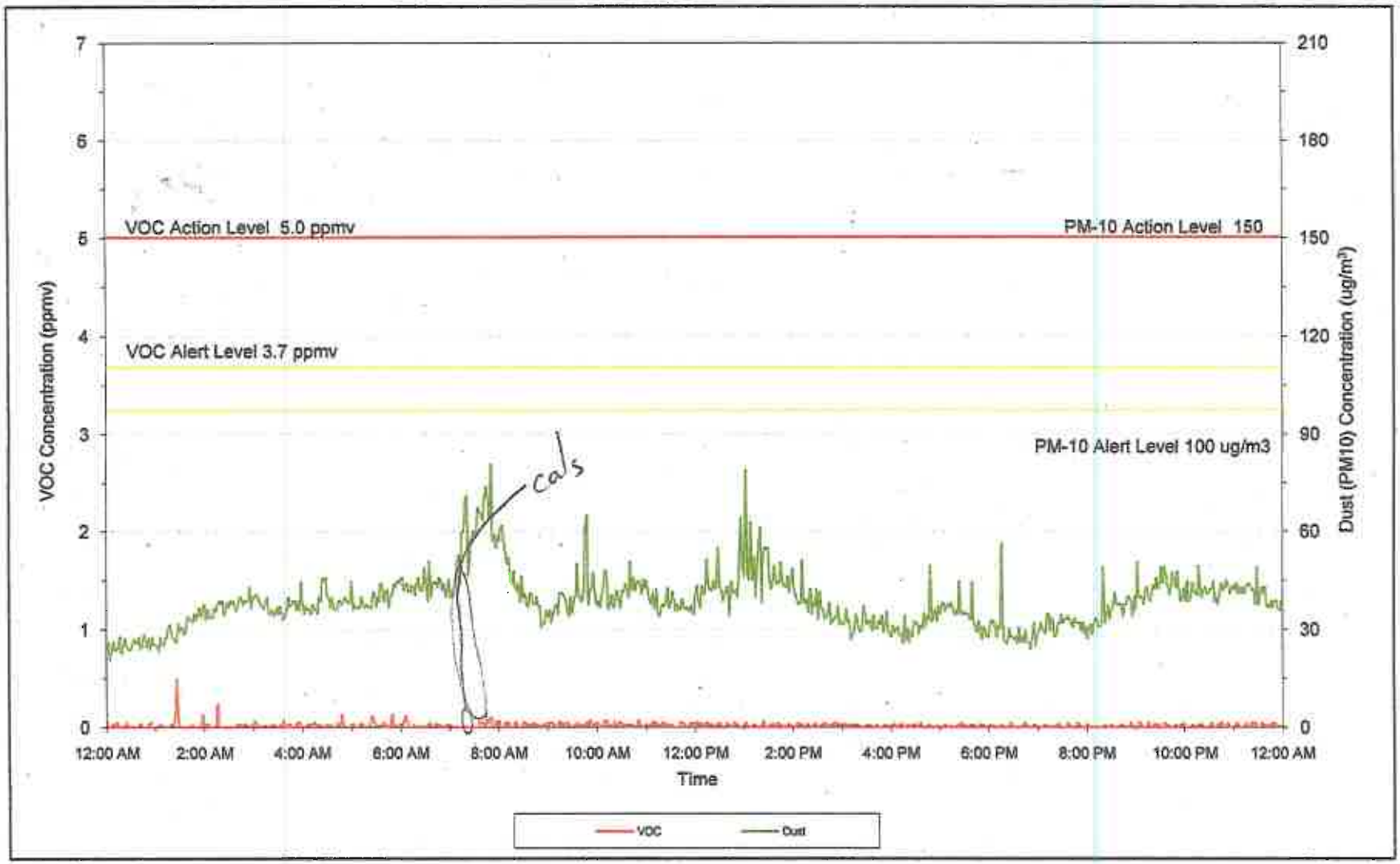



C:\XLRproject\Reports\Station3Apr10.xls

Apr 06,2010

**Community Air Monitoring**
**Bay Shore Former MGP Site**
**OU-1 Remedial Action Plan-Phase IV**
**Bay Shore, NY**
**National Grid**

Station 4 - (AMS-4)

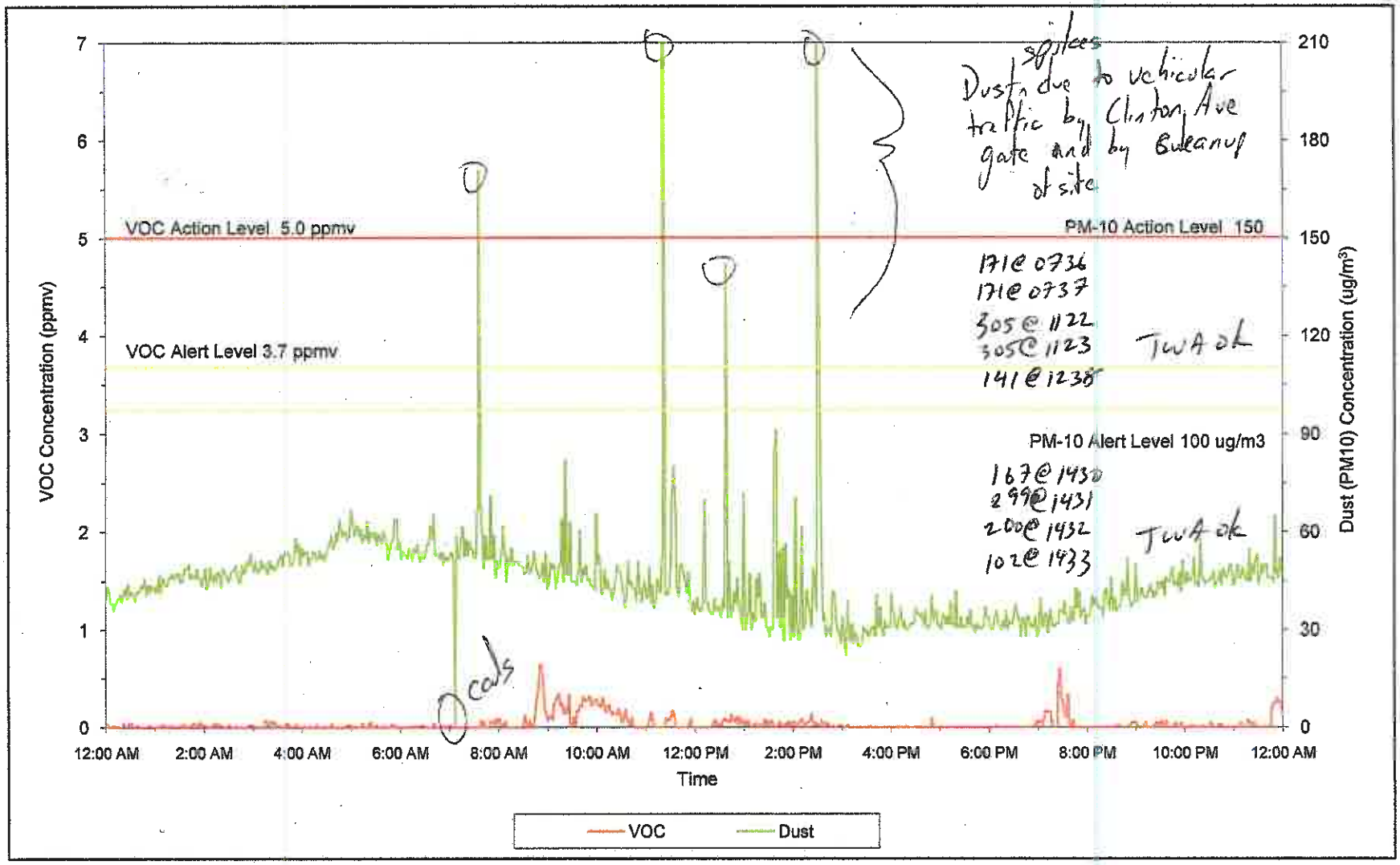



C:\XLRproject\Reports\Station4Apr10.xls

Apr 07,2010

**Community Air Monitoring**
**Bay Shore Former MGP Site**
**OU-1 Remedial Action Plan-Phase IV**
**Bay Shore, NY**
**National Grid**

Station 1 - (AMS-1)

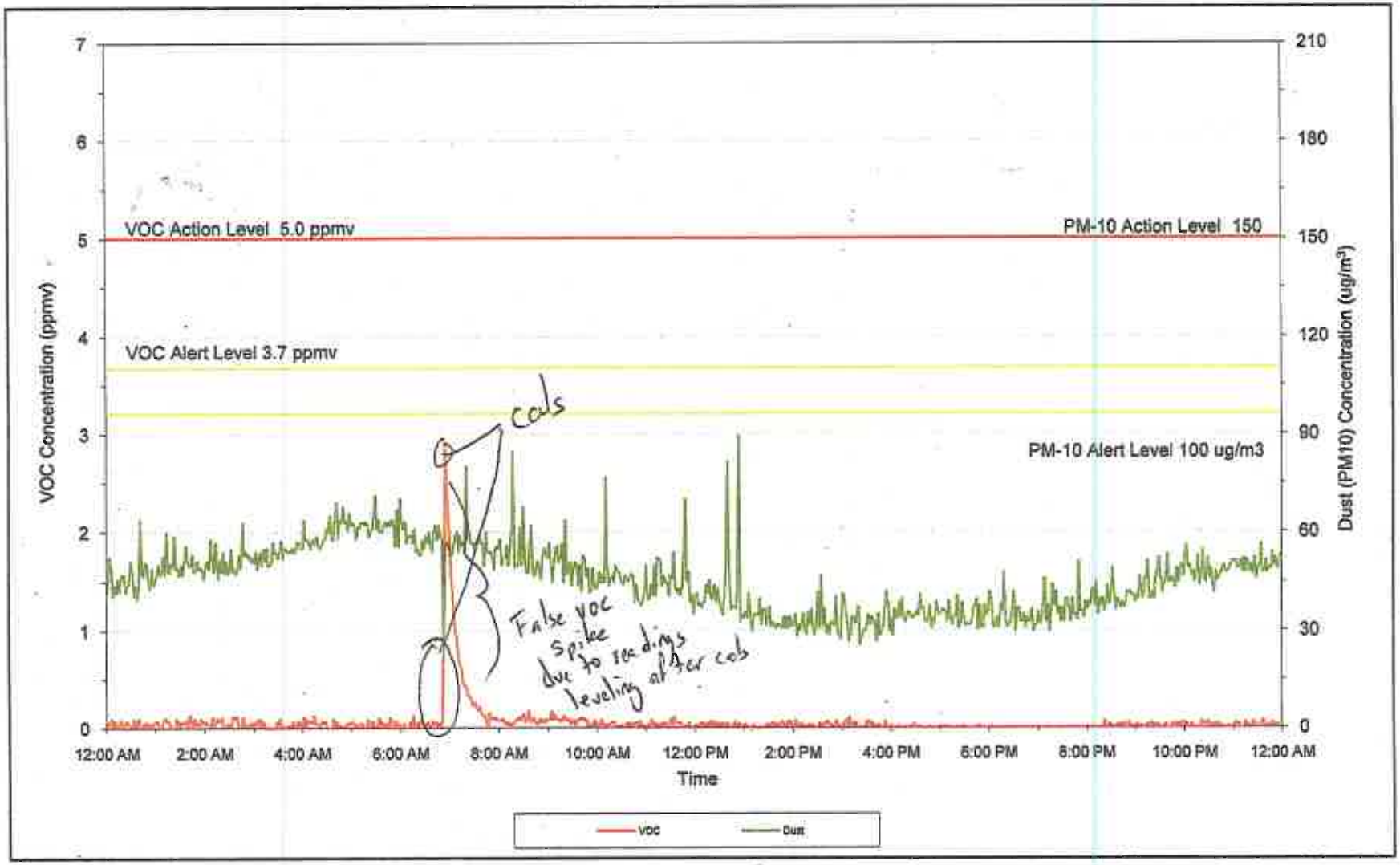



C:\XLRproject\Reports\Station1Apr10.xls

Apr 07,2010

**Community Air Monitoring**
**Bay Shore Former MGP Site**
**OU-1 Remedial Action Plan-Phase IV**
**Bay Shore, NY**
**National Grid**

Station 2 - (AMS-2)

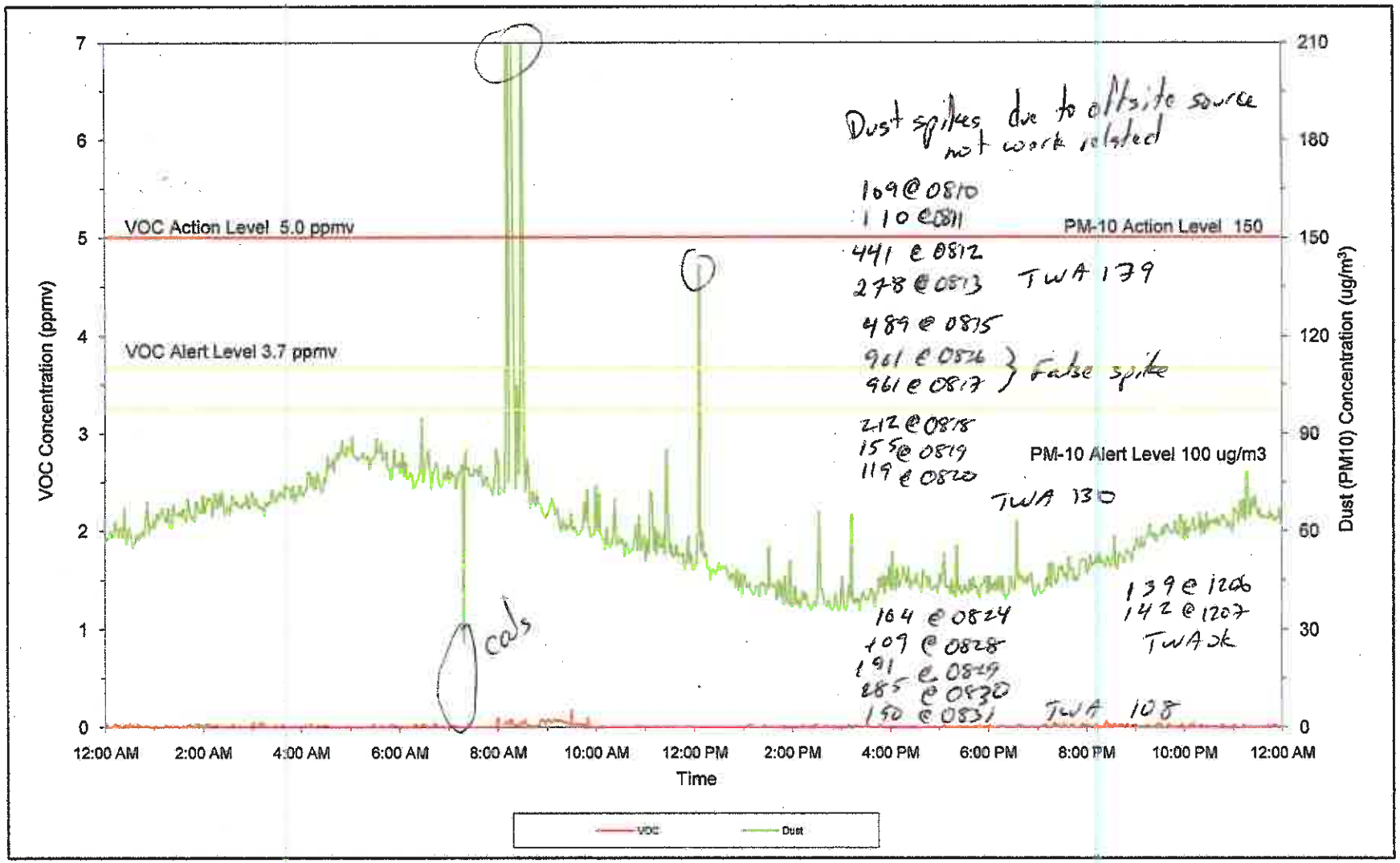



C:\XLRproject\Reports\Station2Apr10.xls

Apr 07,2010

**Community Air Monitoring**
**Bay Shore Former MGP Site**
**OU-1 Remedial Action Plan-Phase IV**
**Bay Shore, NY**
**National Grid**

Station 3 - (AMS-3)

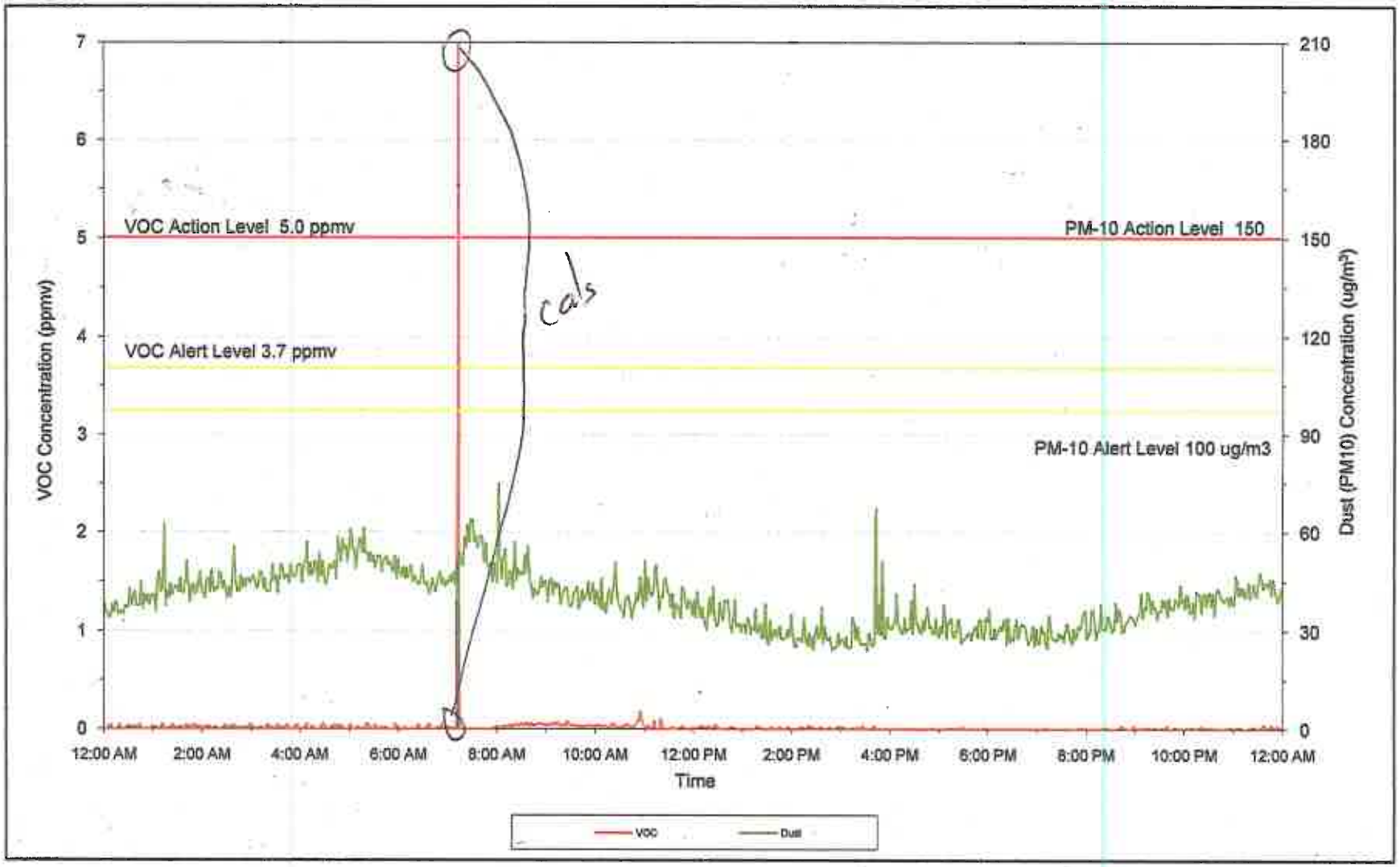



C:\XLRproject\Reports\Station3Apr10.xls

Apr 07,2010

**Community Air Monitoring**
**Bay Shore Former MGP Site**
**OU-1 Remedial Action Plan-Phase IV**
**Bay Shore, NY**
**National Grid**

Station 4 - (AMS-4)

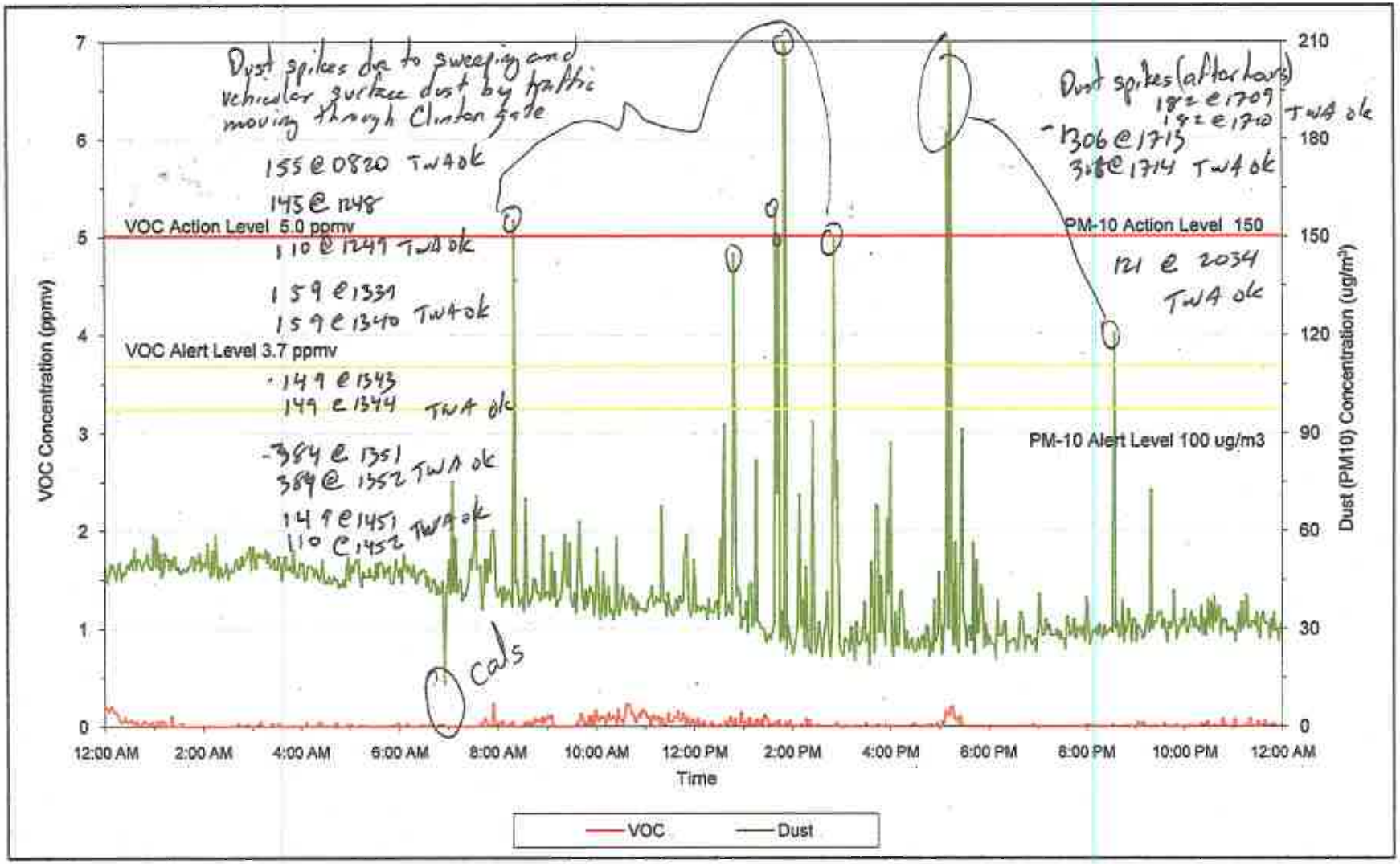



C:\XLRproject\Reports\Station4Apr10.xls

Apr 08,2010

**Community Air Monitoring**
**Bay Shore Former MGP Site**
**OU-1 Remedial Action Plan-Phase IV**
**Bay Shore, NY**
**National Grid**

Station 1 - (AMS-1)

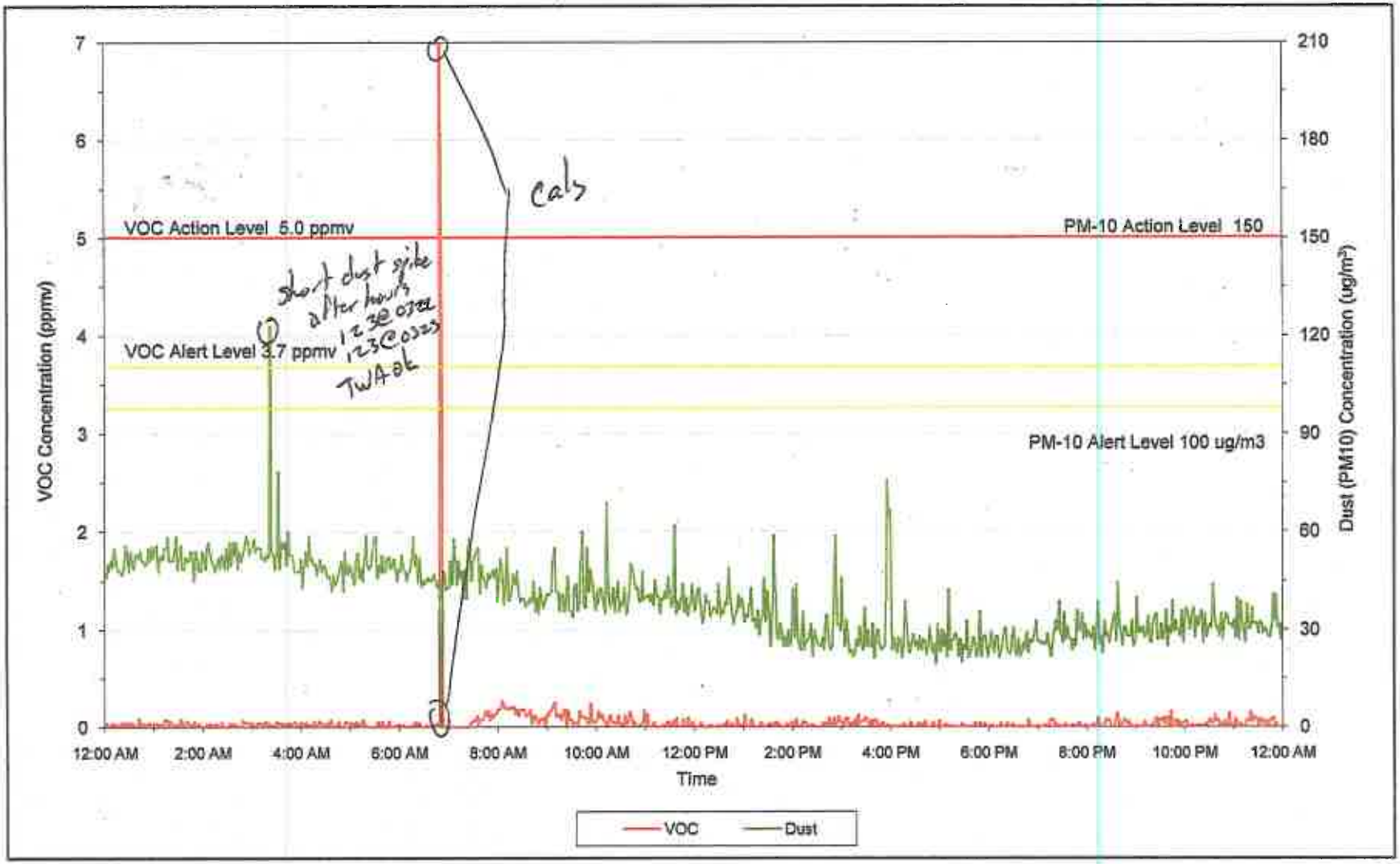



C:\Documents and Settings\Airlogics\My Documents\Station1Apr10.xls

Apr 08,2010

**Community Air Monitoring**
**Bay Shore Former MGP Site**
**OU-1 Remedial Action Plan-Phase IV**
**Bay Shore, NY**
**National Grid**

Station 2 - (AMS-2)

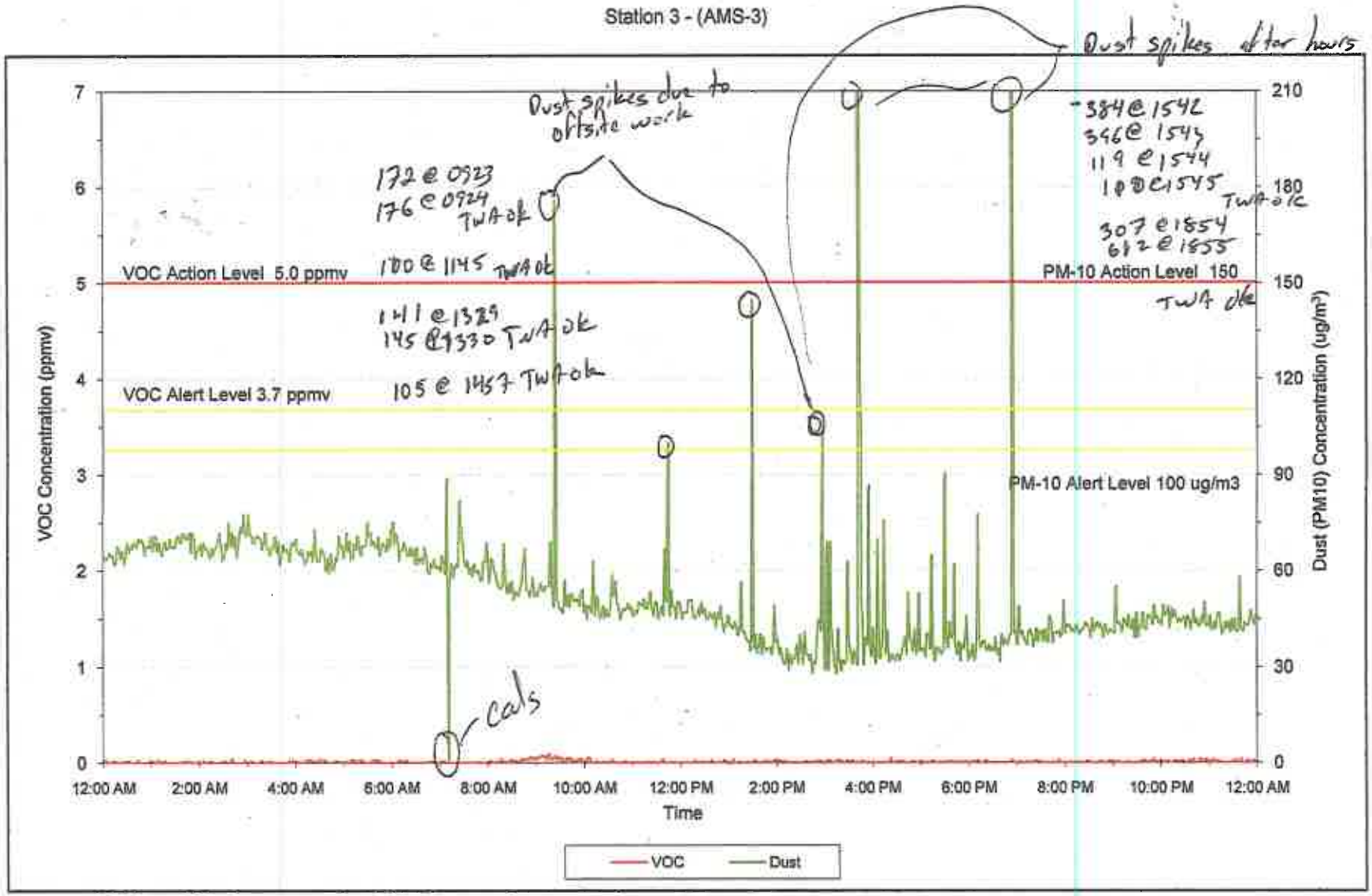



C:\XLRproject\Reports\Station2Apr10.xls

Apr 08,2010

**Community Air Monitoring**
**Bay Shore Former MGP Site**
**OU-1 Remedial Action Plan-Phase IV**
**Bay Shore, NY**
**National Grid**

Station 3 - (AMS-3)

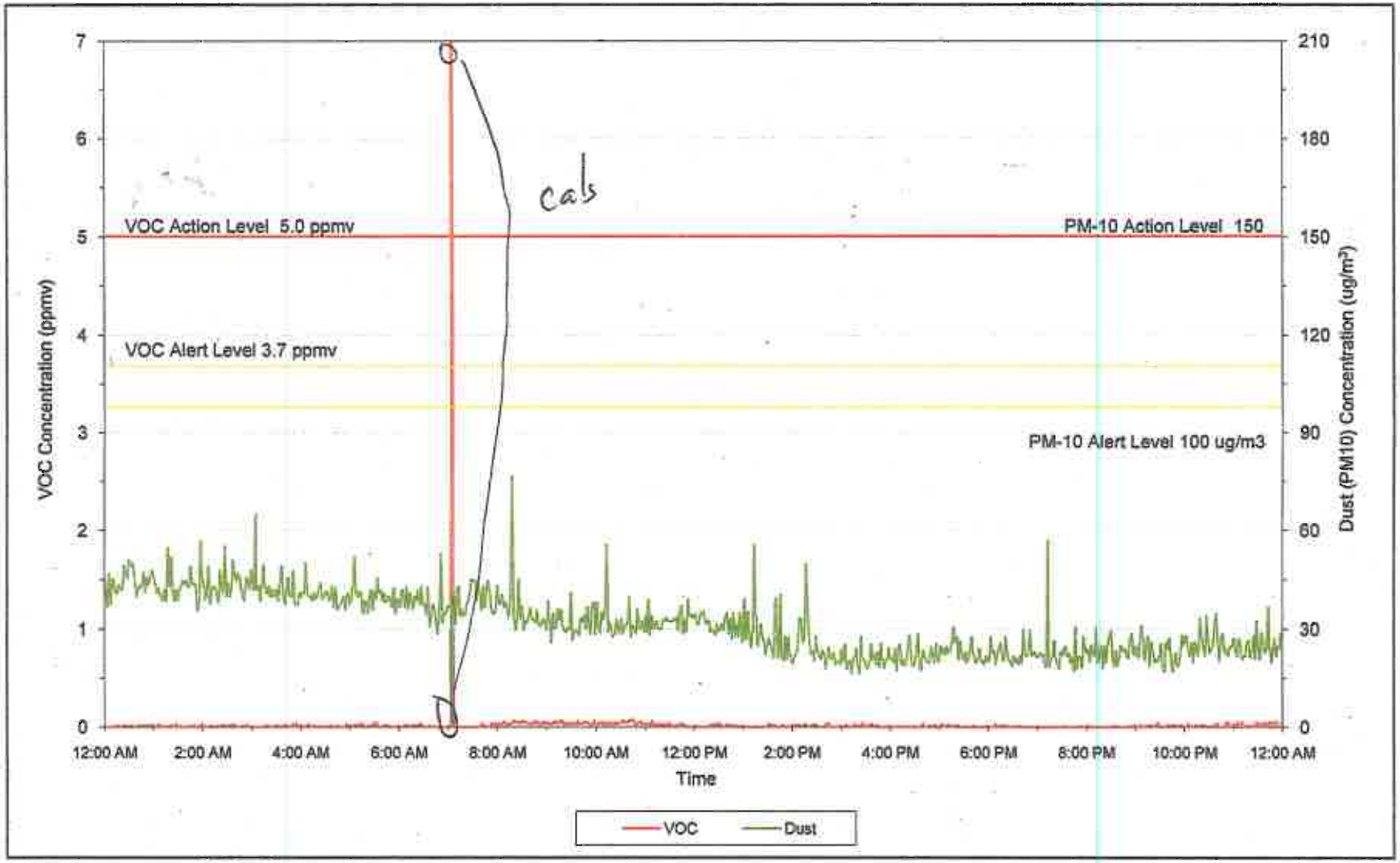



C:\XLRproject\Reports\Station3Apr10.xls

Apr 08,2010

**Community Air Monitoring**
**Bay Shore Former MGP Site**
**OU-1 Remedial Action Plan-Phase IV**
**Bay Shore, NY**
**National Grid**

Station 4 - (AMS-4)

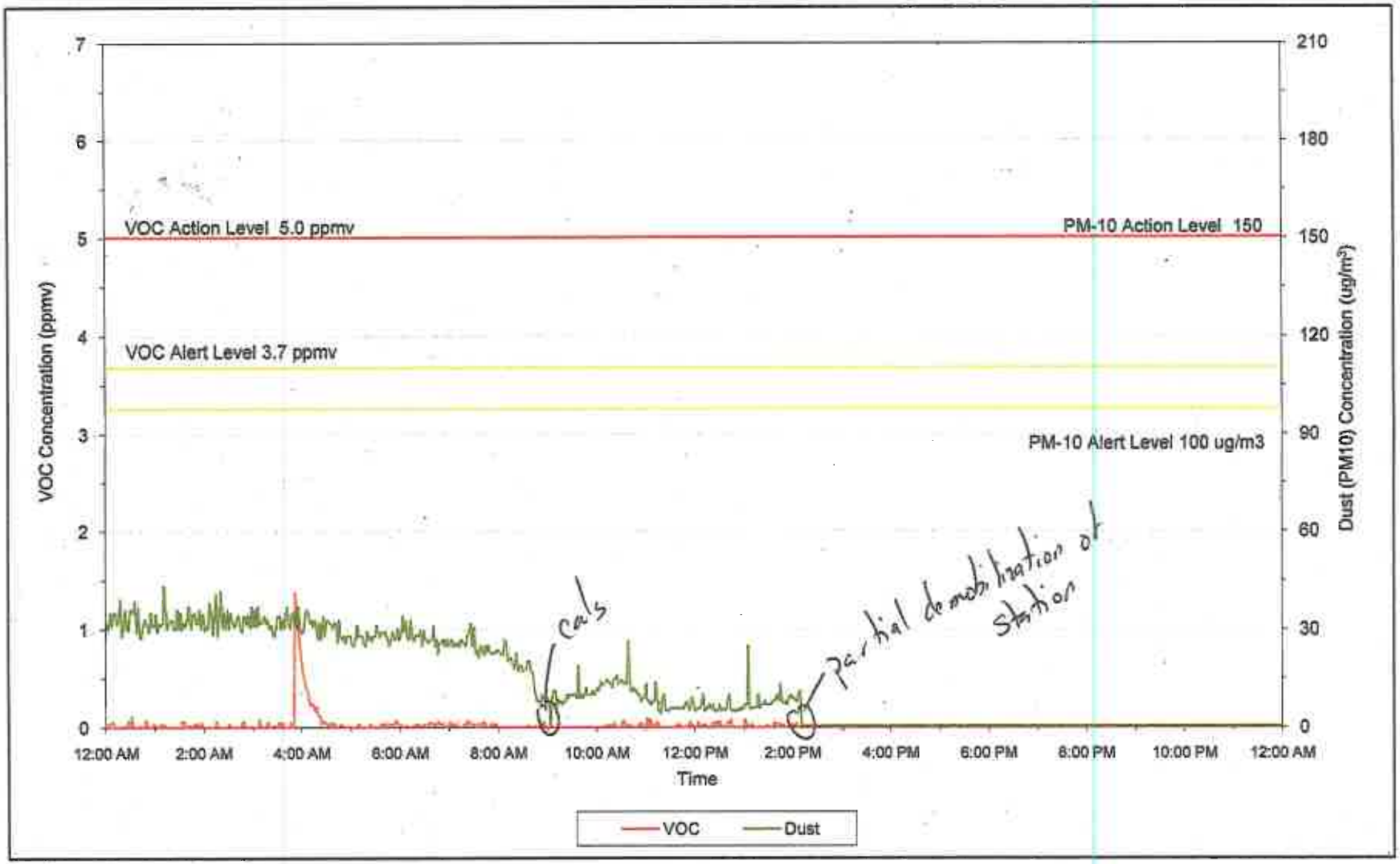



C:\XLRproject\Reports\Station4Apr10.xls

Apr 09,2010

**Community Air Monitoring**
**Bay Shore Former MGP Site**
**OU-1 Remedial Action Plan-Phase IV**
**Bay Shore, NY**
**National Grid**

Station 1 - (AMS-1)

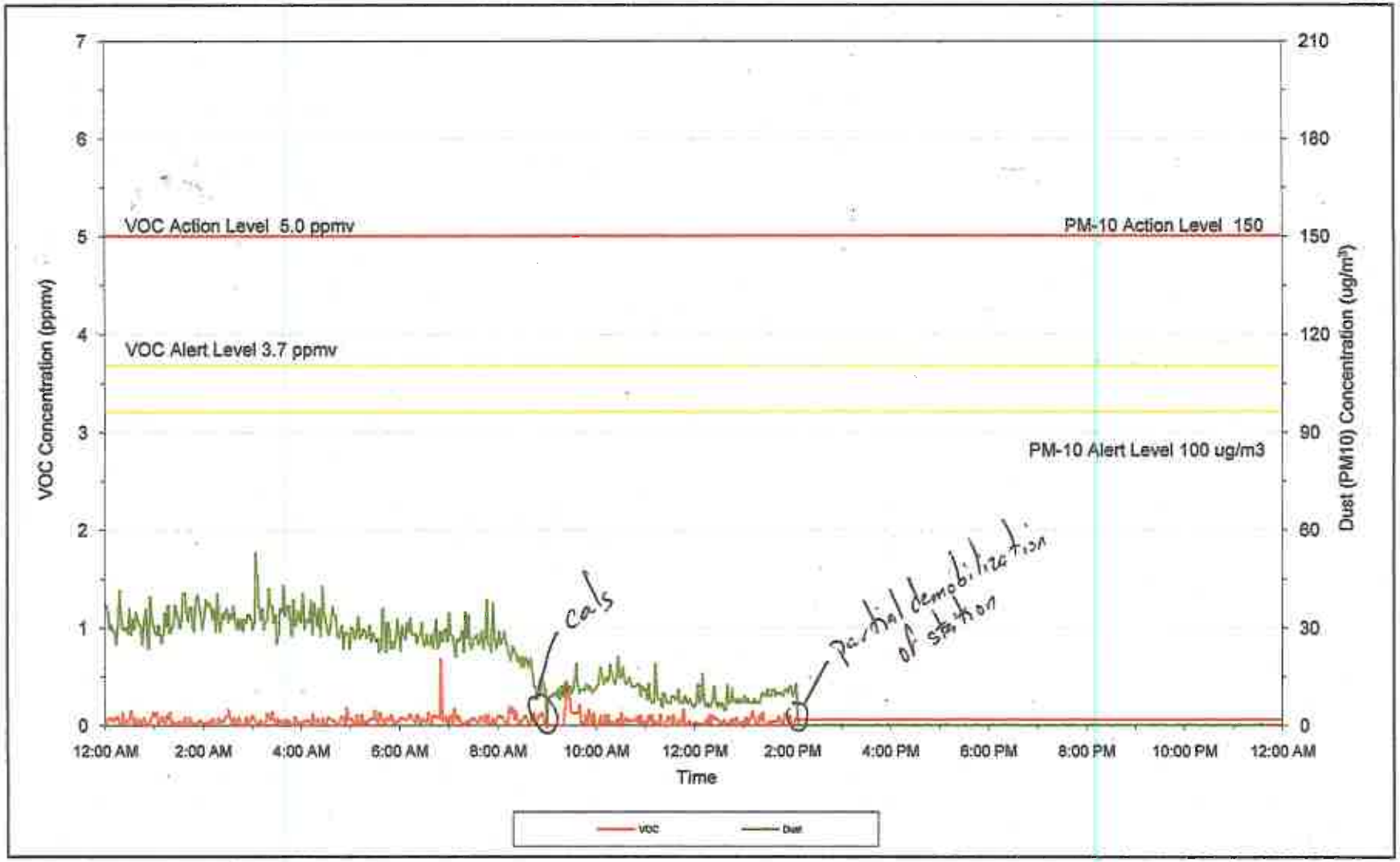



C:\Documents and Settings\Airlogics\My Documents\Station1Apr10.xls

Apr 09,2010

**Community Air Monitoring**
**Bay Shore Former MGP Site**
**OU-1 Remedial Action Plan-Phase IV**
**Bay Shore, NY**
**National Grid**

Station 2 - (AMS-2)

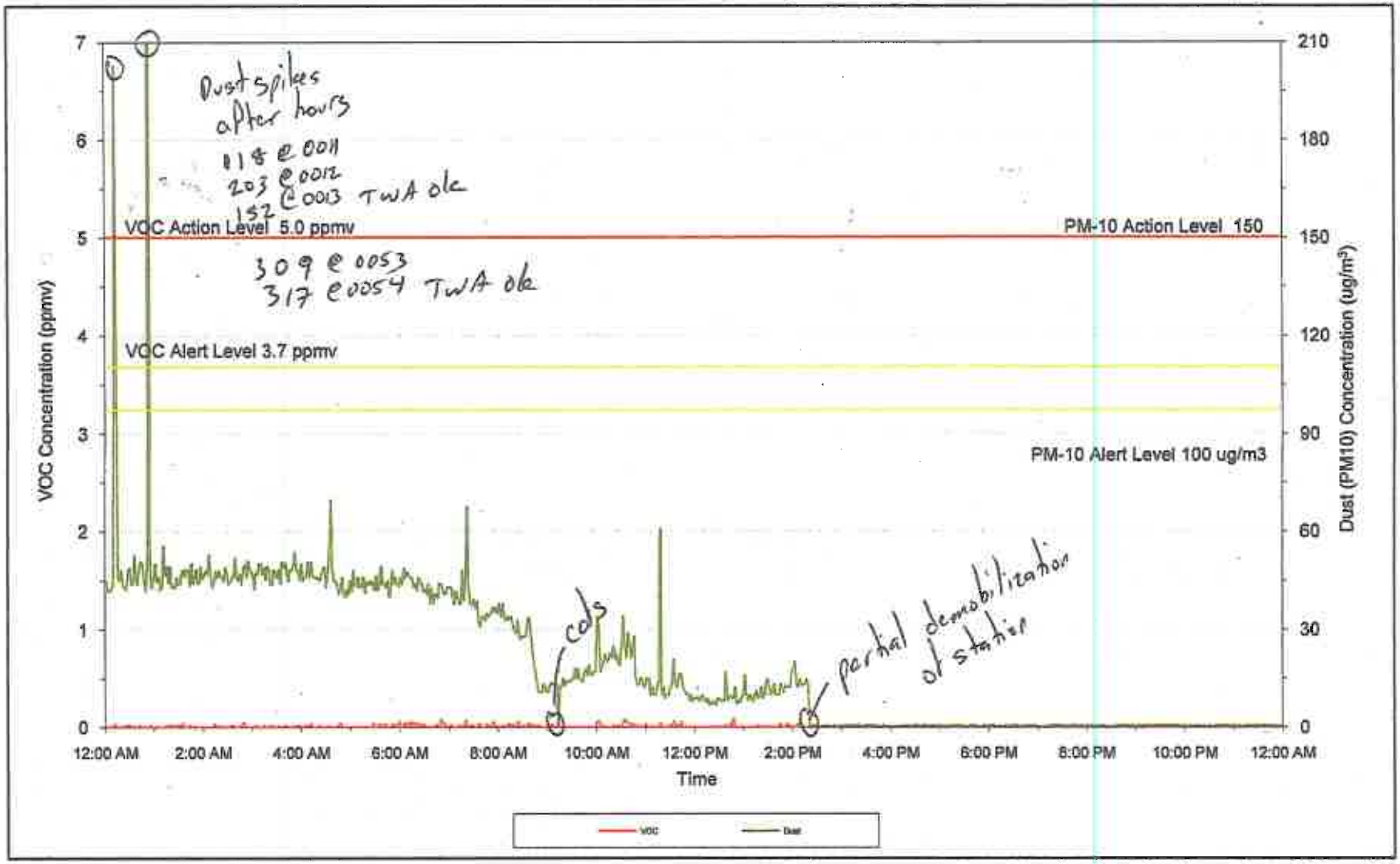



C:\XLRproject\Reports\Station2Apr10.xls

Apr 09,2010

**Community Air Monitoring**
**Bay Shore Former MGP Site**
**OU-1 Remedial Action Plan-Phase IV**
**Bay Shore, NY**
**National Grid**

Station 3 - (AMS-3)

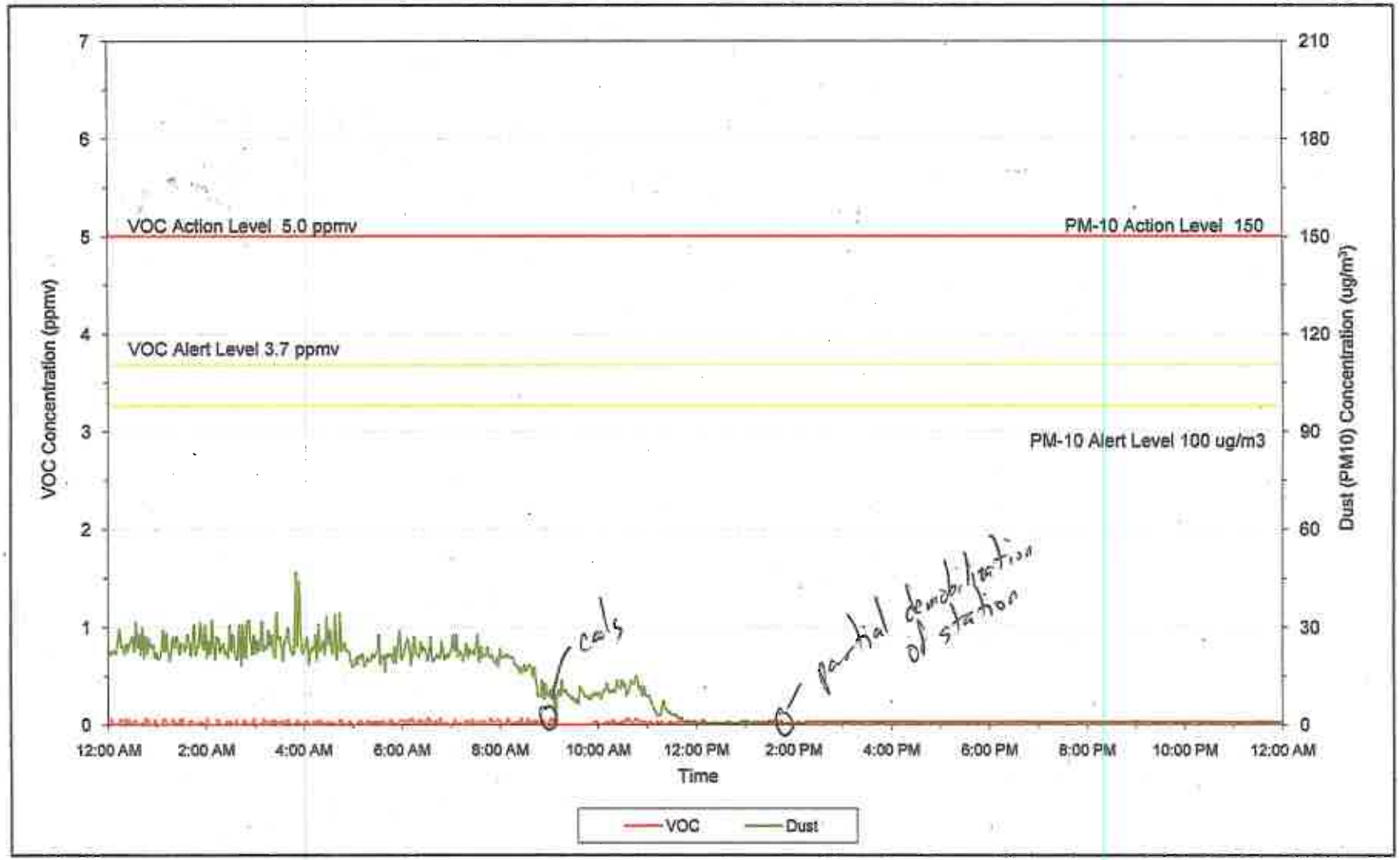



C:\XLRproject\Reports\Station3Apr10.xls

Apr 09,2010

**Community Air Monitoring**
**Bay Shore Former MGP Site**
**OU-1 Remedial Action Plan-Phase IV**
**Bay Shore, NY**
**National Grid**

Station 4 - (AMS-4)




C:\Documents and Settings\Airlogics\My Documents\Station4Apr10.xls

# Appendix B

## Comprehensive Laboratory Data Packages (Electronic)


Air
Toxics LTD.
Laboratory Services Since 1989
Electronic Comprehensive Validation Package (eCVP)

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# COMPREHENSIVE VALIDATION PACKAGE

Modified TO-15

INVENTORY SHEET

Work Order #: 1003364

| | Page Nos. | |
|---|---|---|
| | From | To |
| 1. Work Order Cover Page & Laboratory Narrative | 1 | 4 |
| a. Lumen Validation Report | -- | -- |
| 2. Sample Results and Raw Data (Organized by Sample) | 5 | 43 |
| a. ATL Sample Results Form | | |
| b. Target Compound Raw Data | | |
| -Internal Standard Area and Retention Time Summary | | |
| -Surrogate Recovery Summary (If Applicable) | | |
| -Chromatogram(s) and Ion Profiles (If Applicable) | | |
| 3. QC Results and Raw Data | | |
| a. Method Blank (Results+ Raw Data) | 44 | 51 |
| b. Surrogate Recover Summary Form (If Applicable) | 52 | 52 |
| c. Internal Standard Summary Form (If Applicable) | 53 | 53 |
| d. Duplicate Results Summary Sheet | 54 | 55 |
| e. Matrix Spike/Matrix Spike Duplicate (Results + Raw Data | -- | -- |
| f. Initial Calibration Data (Summary Sheet + Raw Data) | 56 | 195 |
| g. MDL Study (If Applicable) | -- | -- |
| h. Continuing Calibration Verification Data (Summary Sheet | 196 | 211 |
| i. Second Source LCS(Summary + Raw Data) | 212 | 299 |
| j. Extraction Logs | -- | -- |
| k. Instrument Run Logs/Software Verification | 300 | 301 |
| l. GC/MS Tune (Results + Raw Data) | 302 | 309 |
| 4. Shipping/Receiving Documents | | |
| a. Login Receipt Summary Sheet | 310 | 311 |
| b. Chain-of-Custody Records | 312 | 312 |
| c. Sample Log-In Sheet | 313 | 313 |
| d. Misc Shipping/Receiving Records (list of individual records) | | |
| Sample Receipt Discrepancy Report | 314 | 316 |
| 5. Other Records (describe or list) | | |
| a. Manual Spectral Defense | -- | -- |
| b. Manual Integrations | -- | -- |
| c. Manual Calculations | -- | -- |
| d. Canister Dilution Factors | 317 | 319 |
| e. Laboratory Corrective Action Request | -- | -- |
| f. CAS Number Reference | 320 | 321 |
| g. Variance Table | -- | -- |
| h. Canister Certification | -- | -- |
| i. Data Review Check Sheet | 322 | 322 |

Comments:

Completed by:

| Vera Belitsky | Vera Belitsky / Document Control | 4/1/10 |
|---|---|---|
| (Signature) | ( Print Name & Title) | (Date) |

Air Toxics LTD.
Laboratory Services Since 1989

# WORK ORDER #: 1003364

Work Order Summary

| | | | |
|---|---|---|---|
| **CLIENT:** | Ms. Theresa Landgraff<br>GEI Consultants, Inc.<br>110 Walt Whitman Road<br>Suite 204<br>Huntington Station, NY 11746 | **BILL TO:** | Accounts Payable<br>GEI Consultants, Inc.<br>400 Unicorn Park Drive<br>Woburn, MA 01801 |
| **PHONE:** | 631-760-9300 | **P.O. #** | |
| **FAX:** | | **PROJECT #** | 093180-1-1114 BayShore OUI SL/KB |
| **DATE RECEIVED:** | 03/16/2010 | **CONTACT:** | Bryanna Langley |
| **DATE COMPLETED:** | 03/30/2010 | | |

| FRACTION # | NAME | TEST | RECEIPT VAC./PRES. | FINAL PRESSURE |
|---|---|---|---|---|
| 01A | UW AMS 1 | Modified TO-15 | 5.2 "Hg | 5 psi |
| 02A | DW AMS 4 | Modified TO-15 | 5.0 "Hg | 5 psi |
| 02AA | DW AMS 4 Lab Duplicate | Modified TO-15 | 5.0 "Hg | 5 psi |
| 03A | Lab Blank | Modified TO-15 | NA | NA |
| 04A | CCV | Modified TO-15 | NA | NA |
| 05A | LCS | Modified TO-15 | NA | NA |

CERTIFIED BY: Linda D. Fruman DATE: 03/30/10

Laboratory Director

Certfication numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763,
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/09, Expiration date: 06/30/10
Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Air Toxics Ltd.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

**LABORATORY NARRATIVE**
**Modified TO-15**
**GEI Consultants, Inc.**
**Workorder# 1003364**

Two 6 Liter Summa Canister samples were received on March 16, 2010. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

| *Requirement* | *TO-15* | *ATL Modifications* |
|---|---|---|
| Daily CCV | </= 30% Difference | </= 30% Difference; Compounds exceeding this criterion and associated data are flagged and narrated. |
| Sample collection media | Summa canister | ATL recommends use of summa canisters to insure data defensibility, but will report results from Tedlar bags at client request |
| Method Detection Limit | Follow 40CFR Pt.136 App. B | The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases |

## Receiving Notes

The Chain of Custody was missing method information. ATL proceeded with the analysis as per the original contract or verbal agreement.

## Analytical Notes

All Quality Control Limit exceedences and affected sample results are noted by flags. Each flag is defined at the bottom of this Case Narrative and on each Sample Result Summary page. Target compound non-detects in the samples that are associated with high bias in QC analyses have not been flagged.

## Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.
UJ- Non-detected compound associated with low bias in the CCV
N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:
a-File was requantified
b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

## Table 1

| Client Sample ID | Lab Sample ID | Date Collected | Date Received | Date Extracted | Sample Holding Time (Days) | Sample Extract Date Analyzed | Sample Extract Holding Time (Days) | Sample Condition |
|---|---|---|---|---|---|---|---|---|
| UW AMS 1 | 1003364-01A | 3/11/2010 | 3/16/2010 | NA | 9 | 3/20/2010 | NA | Good |
| DW AMS 4 | 1003364-02A | 3/11/2010 | 3/16/2010 | NA | 9 | 3/20/2010 | NA | Good |
| DW AMS 4 Lab Duplicate | 1003364-02AA | 3/11/2010 | 3/16/2010 | NA | 9 | 3/20/2010 | NA | Good |
| Lab Blank | 1003364-03A | NA | NA | NA | NA | 3/20/2010 | NA | Good |
| CCV | 1003364-04A | NA | NA | NA | NA | 3/19/2010 | NA | Good |
| LCS | 1003364-05A | NA | NA | NA | NA | 3/19/2010 | NA | Good |

# Sample Results and Raw Data

Air Toxics LTD.
Laboratory Services Since 1989

# Summary of Detected Compounds
# MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: UW AMS 1**

**Lab ID#: 1003364-01A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (ug/m3) | Amount (ug/m3) |
|---|---|---|---|---|
| Ethanol | 3.2 | 5.0 | 6.1 | 9.4 |
| Acetone | 3.2 | 5.4 | 7.7 | 13 |
| Ethyl Benzene | 0.81 | 4.5 | 3.5 | 20 |
| m,p-Xylene | 0.81 | 5.2 | 3.5 | 23 |
| o-Xylene | 0.81 | 1.9 | 3.5 | 8.1 |
| 4-Ethyltoluene | 0.81 | 1.6 | 4.0 | 7.7 |

Air Toxics LTD.
Laboratory Services Since 1989

**Client Sample ID: UW AMS 1**

**Lab ID#: 1003364-01A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **p032012** | **Date of Collection: 3/11/10 2:45:00 PM** | |
| **Dil. Factor:** | **1.62** | **Date of Analysis: 3/20/10 10:33 AM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (ug/m3) | Amount (ug/m3) |
|---|---|---|---|---|
| Freon 12 | 0.81 | Not Detected | 4.0 | Not Detected |
| Freon 114 | 0.81 | Not Detected | 5.7 | Not Detected |
| Chloromethane | 3.2 | Not Detected | 6.7 | Not Detected |
| Vinyl Chloride | 0.81 | Not Detected | 2.1 | Not Detected |
| 1,3-Butadiene | 0.81 | Not Detected | 1.8 | Not Detected |
| Bromomethane | 0.81 | Not Detected | 3.1 | Not Detected |
| Chloroethane | 0.81 | Not Detected | 2.1 | Not Detected |
| Freon 11 | 0.81 | Not Detected | 4.6 | Not Detected |
| Ethanol | 3.2 | 5.0 | 6.1 | 9.4 |
| Freon 113 | 0.81 | Not Detected | 6.2 | Not Detected |
| 1,1-Dichloroethene | 0.81 | Not Detected | 3.2 | Not Detected |
| Acetone | 3.2 | 5.4 | 7.7 | 13 |
| 2-Propanol | 3.2 | Not Detected | 8.0 | Not Detected |
| Carbon Disulfide | 0.81 | Not Detected | 2.5 | Not Detected |
| 3-Chloropropene | 3.2 | Not Detected | 10 | Not Detected |
| Methylene Chloride | 0.81 | Not Detected | 2.8 | Not Detected |
| Methyl tert-butyl ether | 0.81 | Not Detected | 2.9 | Not Detected |
| trans-1,2-Dichloroethene | 0.81 | Not Detected | 3.2 | Not Detected |
| Hexane | 0.81 | Not Detected | 2.8 | Not Detected |
| 1,1-Dichloroethane | 0.81 | Not Detected | 3.3 | Not Detected |
| 2-Butanone (Methyl Ethyl Ketone) | 0.81 | Not Detected | 2.4 | Not Detected |
| cis-1,2-Dichloroethene | 0.81 | Not Detected | 3.2 | Not Detected |
| Tetrahydrofuran | 0.81 | Not Detected | 2.4 | Not Detected |
| Chloroform | 0.81 | Not Detected | 4.0 | Not Detected |
| 1,1,1-Trichloroethane | 0.81 | Not Detected | 4.4 | Not Detected |
| Cyclohexane | 0.81 | Not Detected | 2.8 | Not Detected |
| Carbon Tetrachloride | 0.81 | Not Detected | 5.1 | Not Detected |
| 2,2,4-Trimethylpentane | 0.81 | Not Detected | 3.8 | Not Detected |
| Benzene | 0.81 | Not Detected | 2.6 | Not Detected |
| 1,2-Dichloroethane | 0.81 | Not Detected | 3.3 | Not Detected |
| Heptane | 0.81 | Not Detected | 3.3 | Not Detected |
| Trichloroethene | 0.81 | Not Detected | 4.4 | Not Detected |
| 1,2-Dichloropropane | 0.81 | Not Detected | 3.7 | Not Detected |
| 1,4-Dioxane | 3.2 | Not Detected | 12 | Not Detected |
| Bromodichloromethane | 0.81 | Not Detected | 5.4 | Not Detected |
| cis-1,3-Dichloropropene | 0.81 | Not Detected | 3.7 | Not Detected |
| 4-Methyl-2-pentanone | 0.81 | Not Detected | 3.3 | Not Detected |
| Toluene | 0.81 | Not Detected | 3.0 | Not Detected |
| trans-1,3-Dichloropropene | 0.81 | Not Detected | 3.7 | Not Detected |

Air Toxics LTD.
Laboratory Services Since 1989

**Client Sample ID: UW AMS 1**

**Lab ID#: 1003364-01A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **p032012** | **Date of Collection:** | **3/11/10 2:45:00 PM** |
| **Dil. Factor:** | **1.62** | **Date of Analysis:** | **3/20/10 10:33 AM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (ug/m3) | Amount (ug/m3) |
|---|---|---|---|---|
| 1,1,2-Trichloroethane | 0.81 | Not Detected | 4.4 | Not Detected |
| Tetrachloroethene | 0.81 | Not Detected | 5.5 | Not Detected |
| 2-Hexanone | 3.2 | Not Detected | 13 | Not Detected |
| Dibromochloromethane | 0.81 | Not Detected | 6.9 | Not Detected |
| 1,2-Dibromoethane (EDB) | 0.81 | Not Detected | 6.2 | Not Detected |
| Chlorobenzene | 0.81 | Not Detected | 3.7 | Not Detected |
| Ethyl Benzene | 0.81 | 4.5 | 3.5 | 20 |
| m,p-Xylene | 0.81 | 5.2 | 3.5 | 23 |
| o-Xylene | 0.81 | 1.9 | 3.5 | 8.1 |
| Styrene | 0.81 | Not Detected | 3.4 | Not Detected |
| Bromoform | 0.81 | Not Detected | 8.4 | Not Detected |
| Cumene | 0.81 | Not Detected | 4.0 | Not Detected |
| 1,1,2,2-Tetrachloroethane | 0.81 | Not Detected | 5.6 | Not Detected |
| Propylbenzene | 0.81 | Not Detected | 4.0 | Not Detected |
| 4-Ethyltoluene | 0.81 | 1.6 | 4.0 | 7.7 |
| 1,3,5-Trimethylbenzene | 0.81 | Not Detected | 4.0 | Not Detected |
| 1,2,4-Trimethylbenzene | 0.81 | Not Detected | 4.0 | Not Detected |
| 1,3-Dichlorobenzene | 0.81 | Not Detected | 4.9 | Not Detected |
| 1,4-Dichlorobenzene | 0.81 | Not Detected | 4.9 | Not Detected |
| alpha-Chlorotoluene | 0.81 | Not Detected | 4.2 | Not Detected |
| 1,2-Dichlorobenzene | 0.81 | Not Detected | 4.9 | Not Detected |
| 1,2,4-Trichlorobenzene | 3.2 | Not Detected | 24 | Not Detected |
| Hexachlorobutadiene | 3.2 | Not Detected | 34 | Not Detected |
| Naphthalene | 3.2 | Not Detected | 17 | Not Detected |

**Container Type: 6 Liter Summa Canister**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| Toluene-d8 | 98 | 70-130 |
| 1,2-Dichloroethane-d4 | 100 | 70-130 |
| 4-Bromofluorobenzene | 103 | 70-130 |

Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msdp.i/20mar10.b/p032012.d
Lab Smp Id: 1003364-01A
Inj Date : 20-MAR-2010 10:33
Operator : xp Inst ID: msdp.i
Smp Info : 200ml #1580
Misc Info : 5.2Hg->5psi
Comment :
Method : /chem/msdp.i/20mar10.b/p10q0311a.m
Meth Date : 26-Mar-2010 13:11 abarton Quant Type: ISTD
Cal Date : 11-MAR-2010 15:18 Cal File: p031117.d
Als bottle: 2
Dil Factor: 1.62000
Integrator: HP RTE Compound Sublist: TO15N.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| | | | | CONCENTRATIONS ON-COL | CONCENTRATIONS FINAL | | |
|---|---|---|---|---|---|---|---|
| RT | EXP RT (REL RT) | MASS | RESPONSE | ( PPBV) | ( PPBV) | TARGET RANGE | RATIO |
| * 76 Bromochloromethane | | | | | CAS #: 74-97-5 | | |
| 4.275 | 4.275 (1.000) | 130 | 147757 | 25.0000 | | 80.00- 120.00 | 100.00 |
| 4.275 | 4.275 (1.000) | 128 | 113826 | | | 29.36- 129.36 | 77.04 |
| 4.268 | 4.275 (1.000) | 49 | 223546 | | | 105.98- 205.98 | 151.29 |
| * 97 1,4-Difluorobenzene | | | | | CAS #: 540-36-3 | | |
| 5.220 | 5.227 (1.000) | 114 | 433216 | 25.0000 | | 80.00- 120.00 | 100.00 |
| 5.220 | 5.227 (1.000) | 88 | 67628 | | | 0.00- 65.66 | 15.61 |
| * 144 Chlorobenzene-d5 | | | | | CAS #: 3114-55-4 | | |
| 7.699 | 7.699 (1.000) | 117 | 372798 | 25.0000 | | 80.00- 120.00 | 100.00 |
| 7.699 | 7.699 (1.000) | 82 | 222178 | | | 7.05- 107.05 | 59.60 |
| $ 89 1,2-Dichloroethane-d4 | | | | | CAS #: 17060-07-0 | | |
| 4.833 | 4.833 (1.131) | 65 | 198881 | 25.1305 | 25.130 | 80.00- 120.00 | 100.00 |
| 4.833 | 4.833 (1.131) | 67 | 105029 | | | 6.22- 106.22 | 52.81 |
| $ 115 Toluene-d8 | | | | | CAS #: 2037-26-5 | | |
| 6.467 | 6.467 (1.239) | 98 | 439148 | 24.5780 | 24.578 | 80.00- 120.00 | 100.00 |
| 6.467 | 6.467 (1.239) | 70 | 55043 | | | 0.00- 61.60 | 12.53 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 115 Toluene-d8 (continued) | | | | | | | |
| 6.467 | 6.467 (1.239) | 100 | 284398 | | | 15.04- 115.04 | 64.76 |
| $ 159 Bromofluorobenzene | | | | | CAS #: 460-00-4 | | |
| 8.687 | 8.687 (1.128) | 174 | 175255 | 25.6810 | 25.681 | 80.00- 120.00 | 100.00 |
| 8.687 | 8.687 (1.128) | 95 | 242453 | | | 90.03- 190.03 | 138.34 |
| 8.687 | 8.687 (1.128) | 176 | 166470 | | | 47.31- 147.31 | 94.99 |
| 29 Ethanol | | | | | CAS #: 64-17-5 | | |
| 1.992 | 1.964 (0.466) | 45 | 10146 | 3.08274 | 4.994 | 80.00- 120.00 | 100.00 |
| 1.992 | 1.964 (0.466) | 43 | 3307 | | | 0.00- 84.20 | 32.60 |
| 1.992 | 1.964 (0.466) | 46 | 5814 | | | 0.00- 96.43 | 57.30 |
| 34 Acetone | | | | | CAS #: 67-64-1 | | |
| 2.319 | 2.312 (0.543) | 58 | 13224 | 3.33248 | 5.399 | 80.00- 120.00 | 100.00 |
| 2.319 | 2.312 (0.543) | 43 | 44629 | | | 281.49- 381.49 | 337.47 |
| 147 Ethyl Benzene | | | | | CAS #: 100-41-4 | | |
| 7.792 | 7.792 (1.012) | 106 | 26182 | 2.80110 | 4.538 | 80.00- 120.00 | 100.00 |
| 7.792 | 7.792 (1.012) | 91 | 85951 | | | 270.93- 370.93 | 328.28 |
| 150 m,p-Xylene | | | | | CAS #: 108-38-3 | | |
| 7.892 | 7.892 (1.025) | 106 | 37442 | 3.21935 | 5.215 | 80.00- 120.00 | 100.00 |
| 7.892 | 7.892 (1.025) | 91 | 78947 | | | 151.38- 251.38 | 210.85 |
| 153 o-Xylene | | | | | CAS #: 95-47-6 | | |
| 8.229 | 8.229 (1.069) | 106 | 12277 | 1.15656 | 1.874 | 80.00- 120.00 | 100.00 |
| 8.222 | 8.229 (1.068) | 91 | 25688 | | | 164.43- 264.43 | 209.24 |
| 163 4-Ethyltoluene | | | | | CAS #: 622-96-8 | | |
| 8.938 | 8.959 (1.161) | 120 | 9293 | 0.96811 | 1.568 | 80.00- 120.00 | 100.00 |
| 8.938 | 8.959 (1.161) | 105 | 28461 | | | 285.98- 385.98 | 306.25 |

Report Date: 29-Mar-2010 14:39

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdp.i
Lab File ID: p032012.d
Lab Smp Id: 1003364-01A
Analysis Type: VOA
Quant Type: ISTD
Operator: xp
Method File: /chem/msdp.i/20mar10.b/p10q0311a.m
Misc Info: 5.2Hg->5psi

Calibration Date: 19-MAR-2010
Calibration Time: 23:03
Level: LOW
Sample Type: AIR

| | | AREA LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 76 Bromochloromethan | 147132 | 88279 | 205985 | 147757 | 0.42 |
| 97 1,4-Difluorobenze | 499171 | 299503 | 698839 | 433216 | -13.21 |
| 144 Chlorobenzene-d5 | 450394 | 270236 | 630552 | 372798 | -17.23 |

| | | RT LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 76 Bromochloromethan | 4.27 | 3.94 | 4.60 | 4.27 | 0.00 |
| 97 1,4-Difluorobenze | 5.23 | 4.90 | 5.56 | 5.22 | -0.14 |
| 144 Chlorobenzene-d5 | 7.70 | 7.37 | 8.03 | 7.70 | 0.00 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Report Date: 29-Mar-2010 14:39

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: 20mar10
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1003364-01A
Level: LOW Operator: xp
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: 2926spectra.spk Quant Type: ISTD
Sublist File: TO15N.sub
Method File: /chem/msdp.i/20mar10.b/p10q0311a.m
Misc Info: 5.2Hg->5psi

| SURROGATE COMPOUND | CONC ADDED PPBV | CONC RECOVERED PPBV | % RECOVERED | LIMITS |
|---|---|---|---|---|
| $ 89 1,2-Dichloroethane | 25.000 | 25.130 | 100.52 | 70-130 |
| $ 115 Toluene-d8 | 25.000 | 24.578 | 98.31 | 70-130 |
| $ 159 Bromofluorobenzene | 25.000 | 25.681 | 102.72 | 70-130 |

Data File: /chem/msdp.i/20mar10.b/p032012.d



Date : 20-MAR-2010 10:33

Client ID:

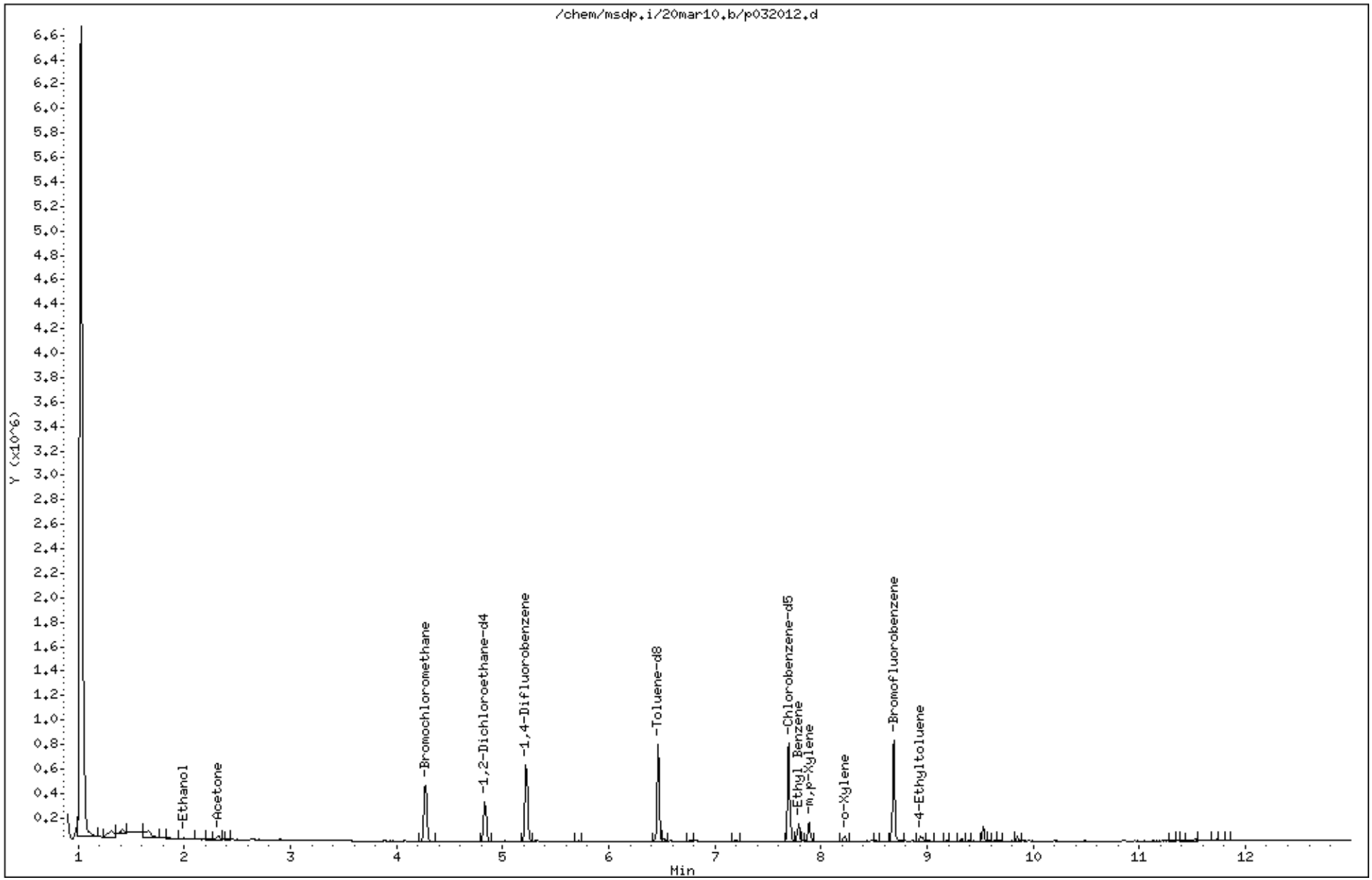
Instrument: msdp.i

Sample Info: 200ml #1580

Operator: xp

Column phase: RTx-624

Column diameter: 0.53



Data File: /chem/msdp.i/20mar10.b/p032012.d

Date : 20-MAR-2010 10:33

Client ID:

Instrument: msdp.i

Sample Info: 200ml #1580

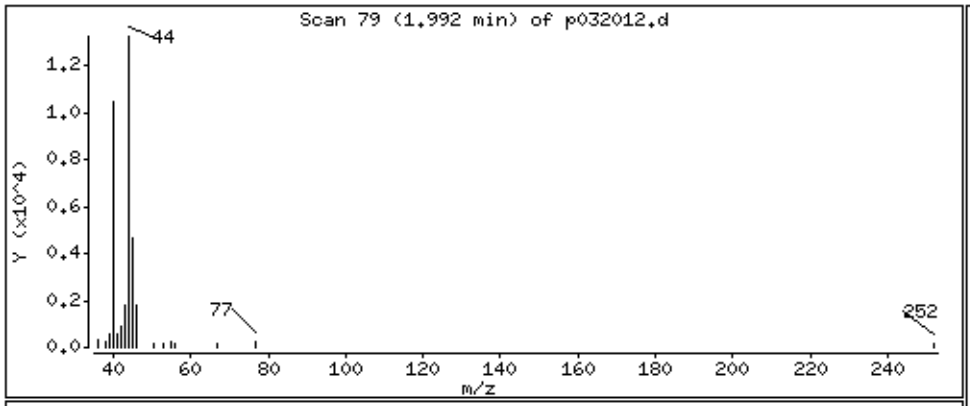
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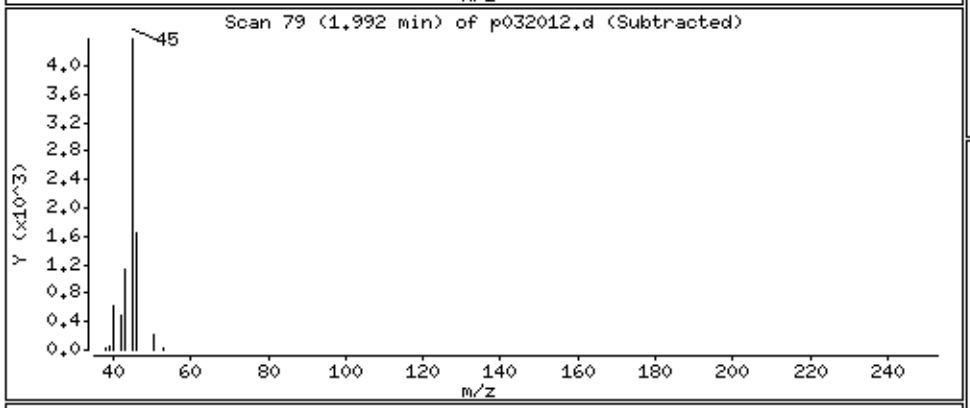
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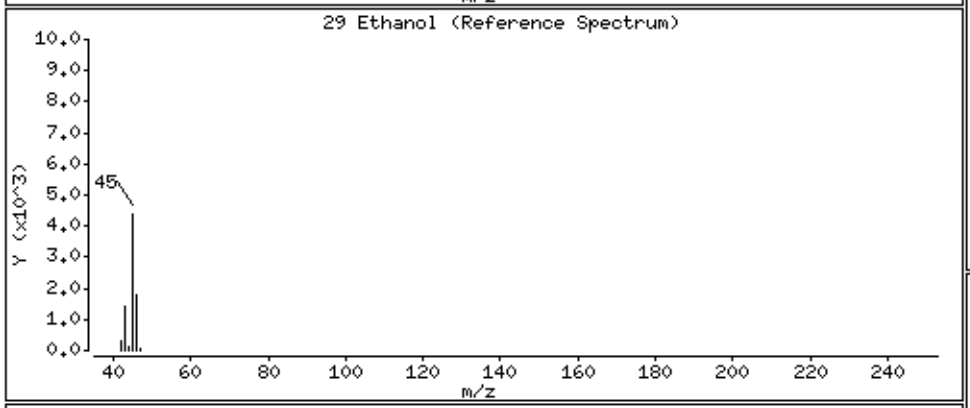
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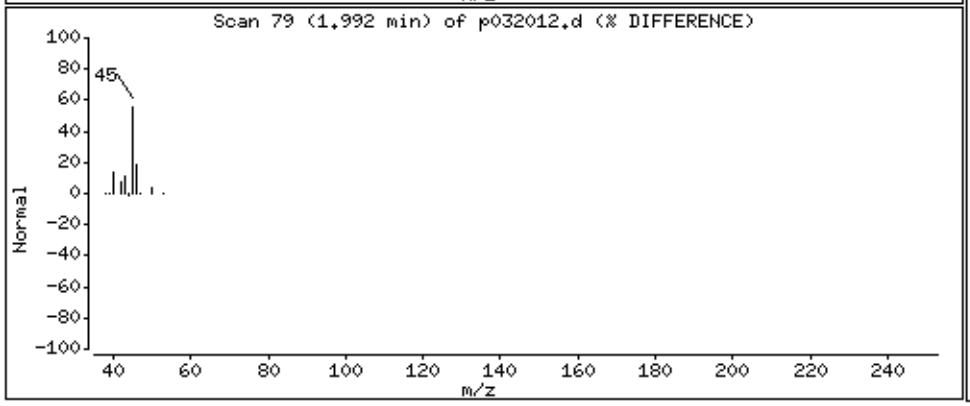
29 Ethanol

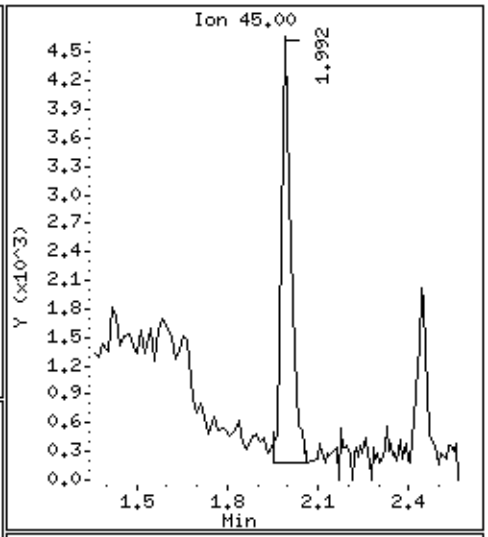
Concentration: 4.994 PPBV

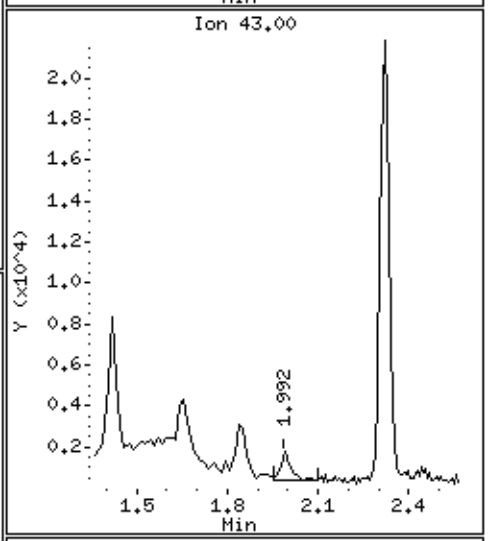


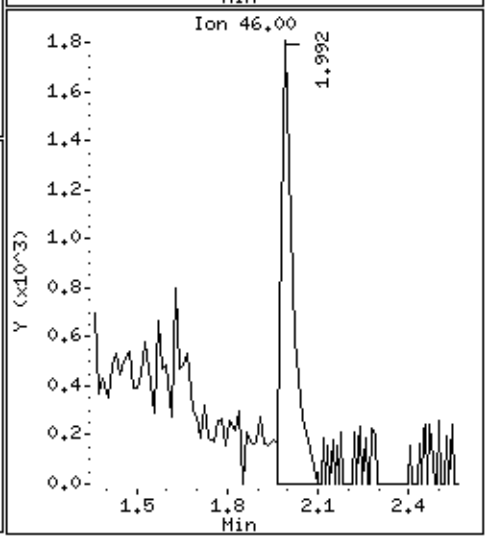



Data File: /chem/msdp.i/20mar10.b/p032012.d

Date : 20-MAR-2010 10:33

Client ID:

Instrument: msdp.i

Sample Info: 200ml #1580

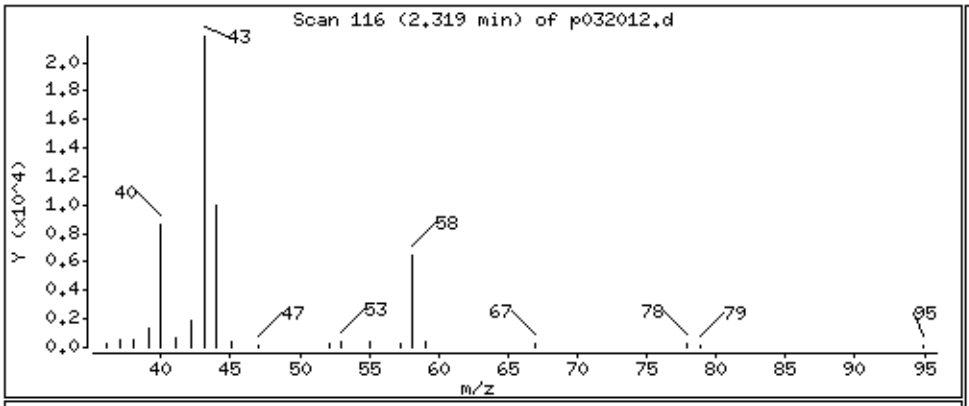
Operator: xp

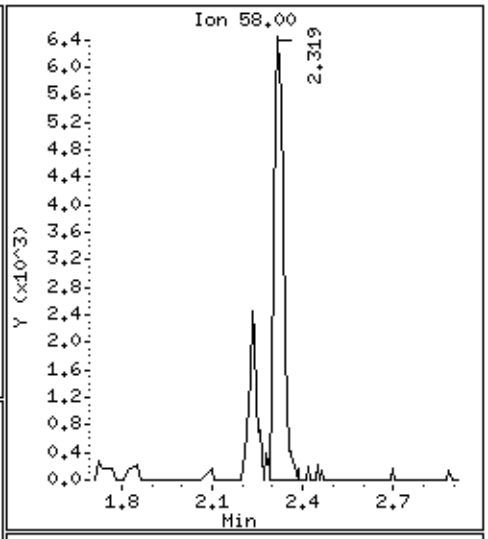
Column phase: RTx-624

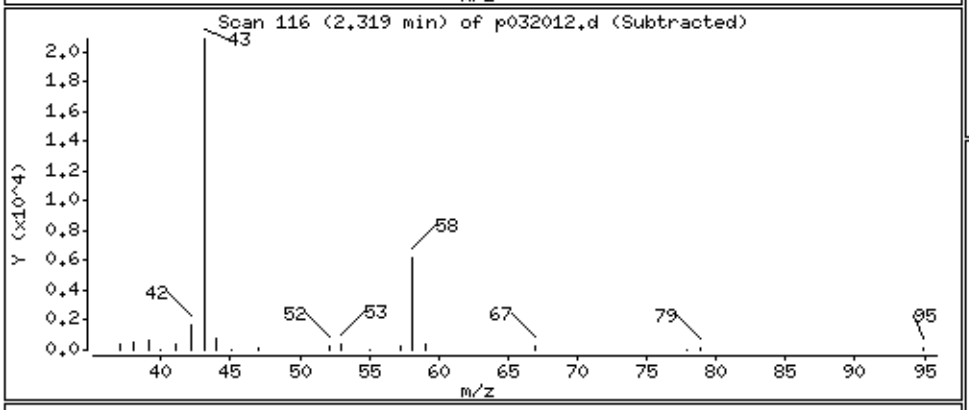
Column diameter: 0.53

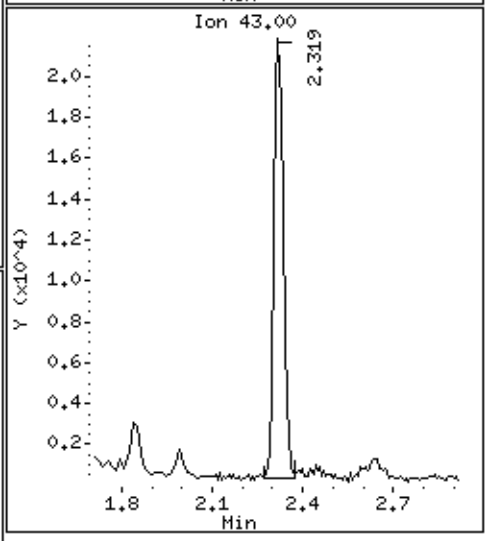
34 Acetone

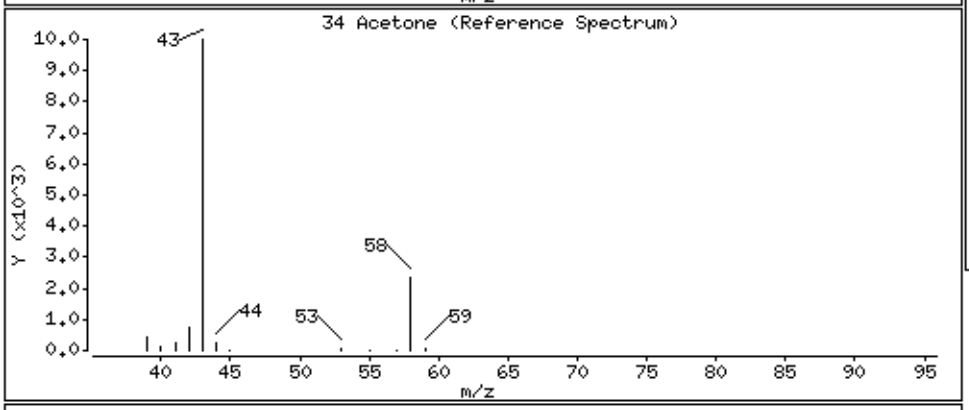
Concentration: 5.399 PPBV

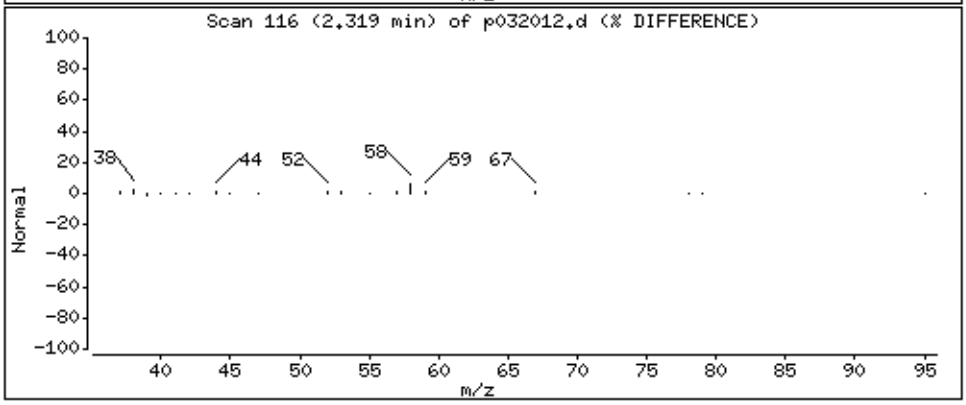


Data File: /chem/msdp.i/20mar10.b/p032012.d

Date : 20-MAR-2010 10:33

Client ID:

Instrument: msdp.i

Sample Info: 200ml #1580

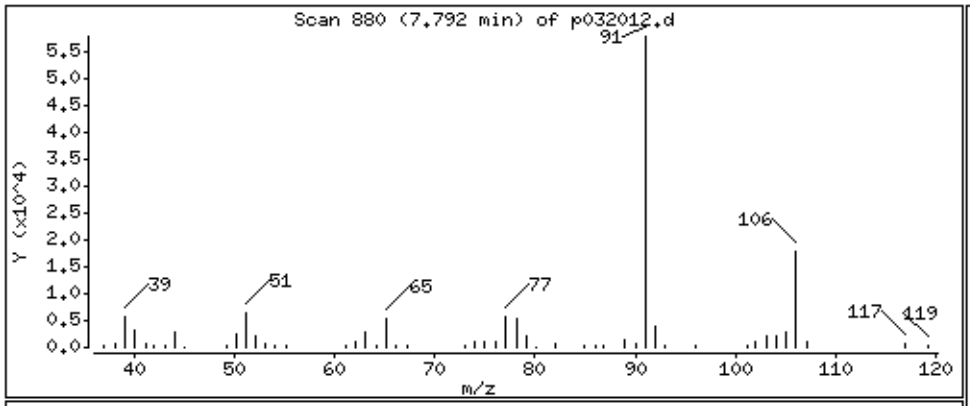
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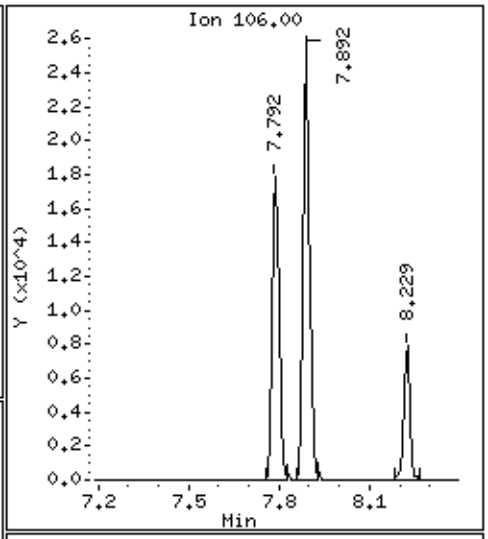
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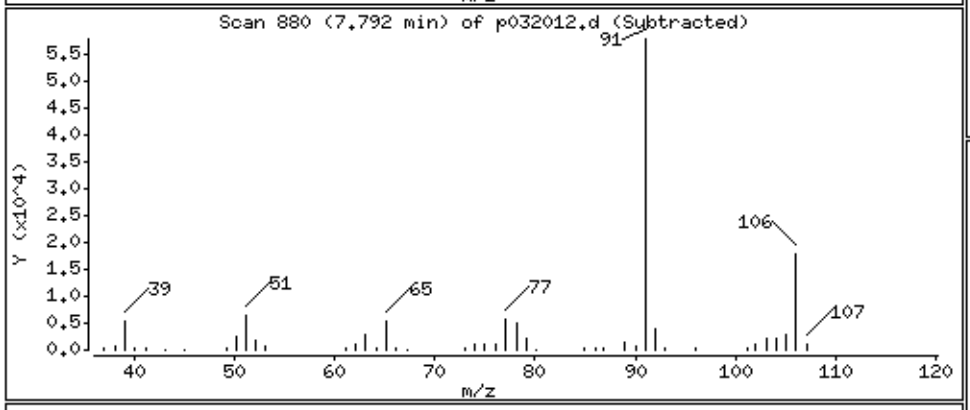
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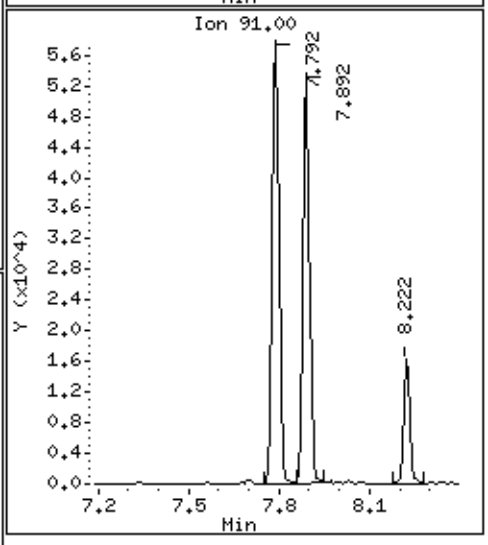
147 Ethyl Benzene

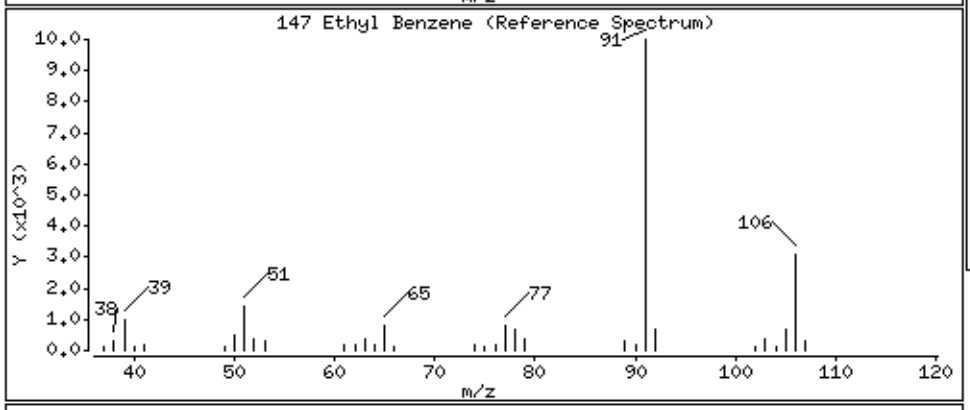
Concentration: 4.538 PPBV

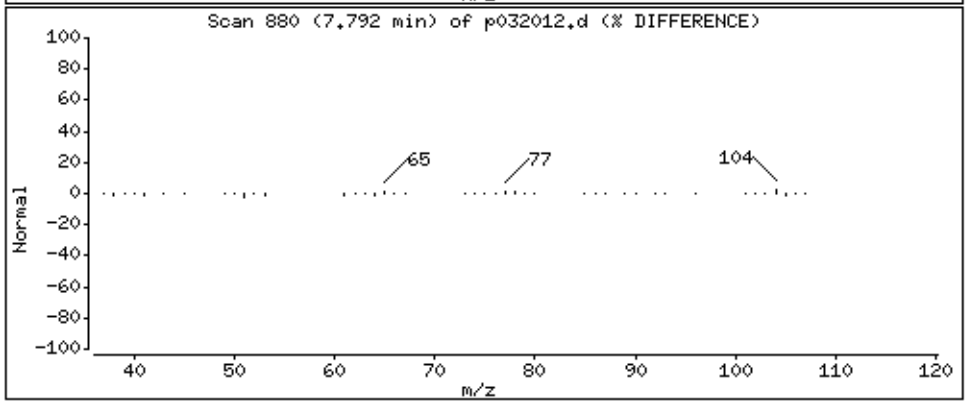


Data File: /chem/msdp.i/20mar10.b/p032012.d

Date : 20-MAR-2010 10:33

Client ID:

Instrument: msdp.i

Sample Info: 200ml #1580

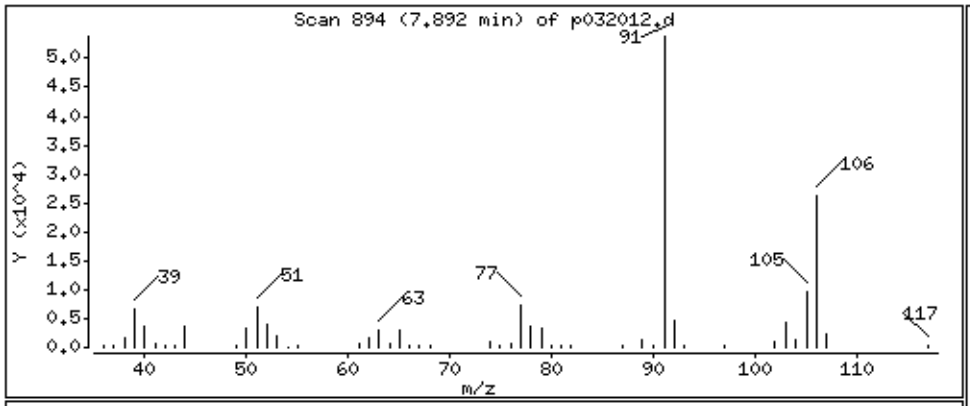
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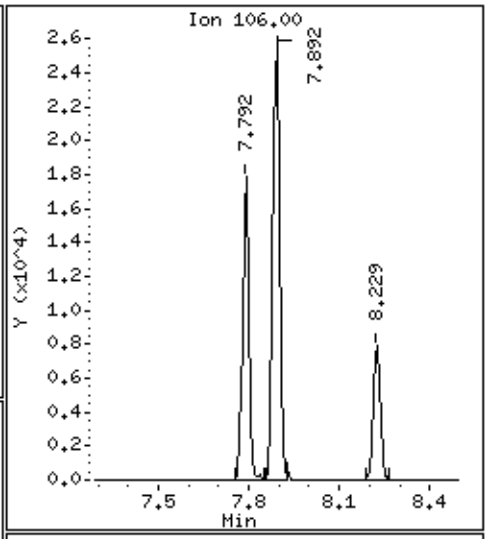
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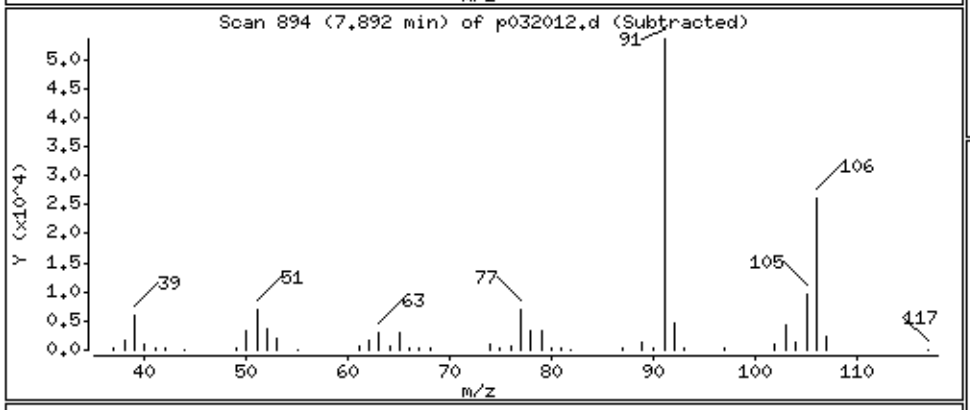
Column diameter: 0.53

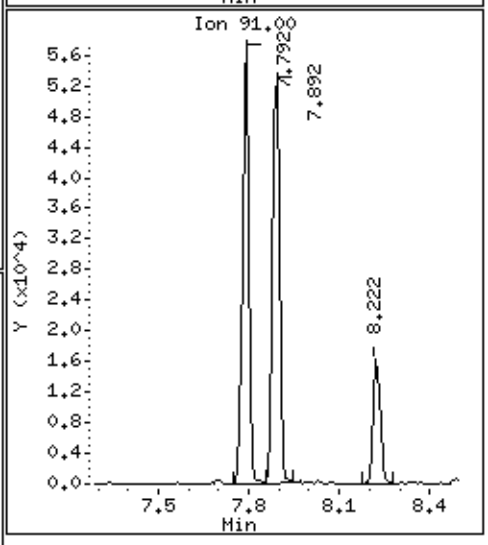
150 m,p-Xylene

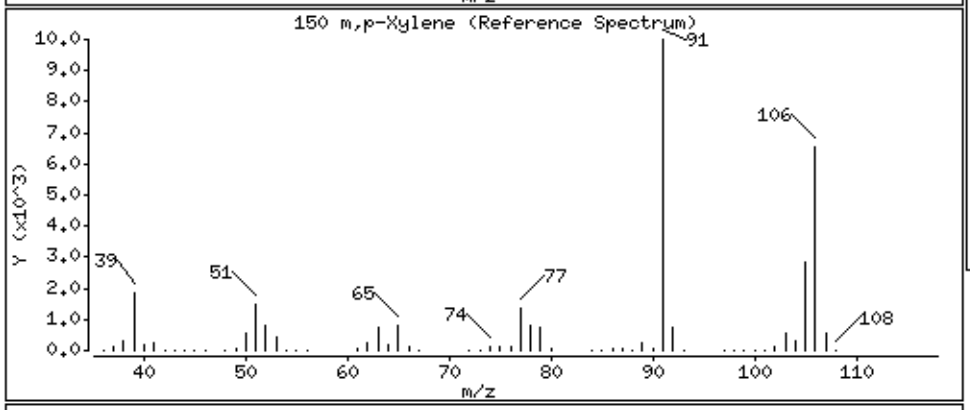
Concentration: 5.215 PPBV

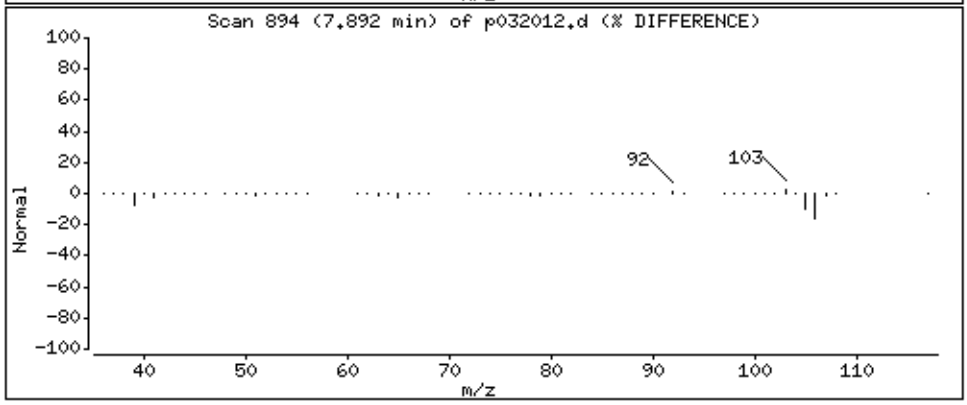


Data File: /chem/msdp.i/20mar10.b/p032012.d

Date : 20-MAR-2010 10:33

Client ID:

Instrument: msdp.i

Sample Info: 200ml #1580

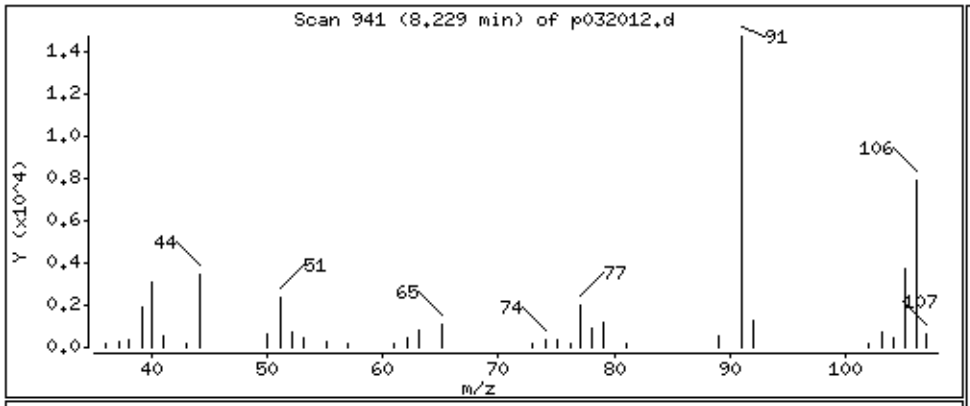
Operator: xp

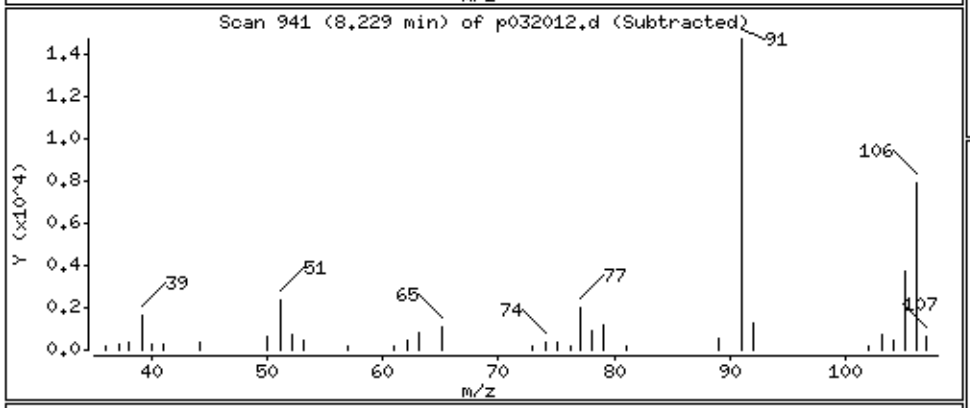
Column phase: RTx-624

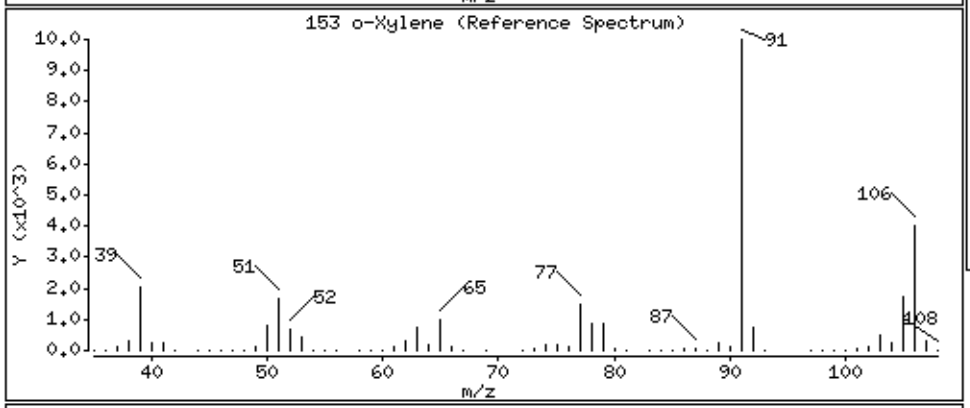
Column diameter: 0.53

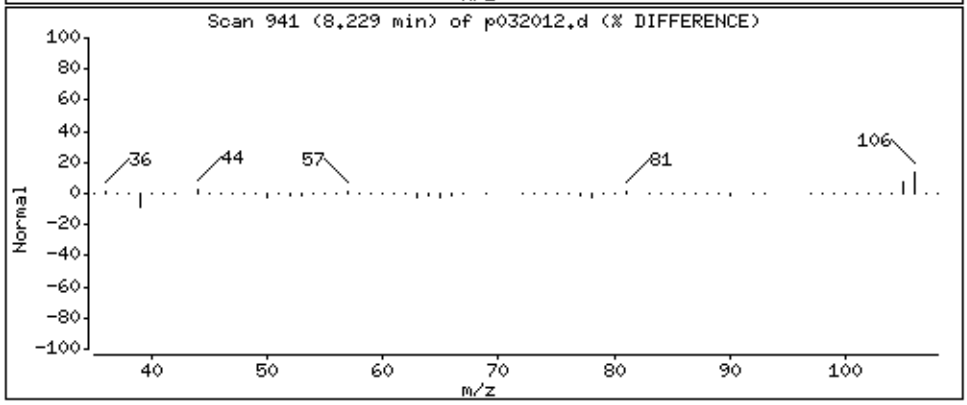
153 o-Xylene

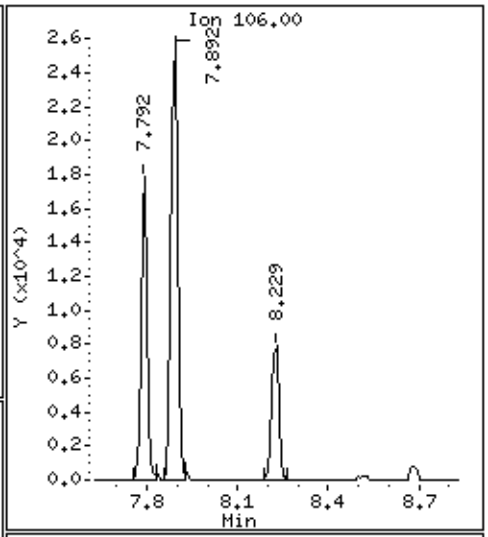
Concentration: 1.874 PPBV

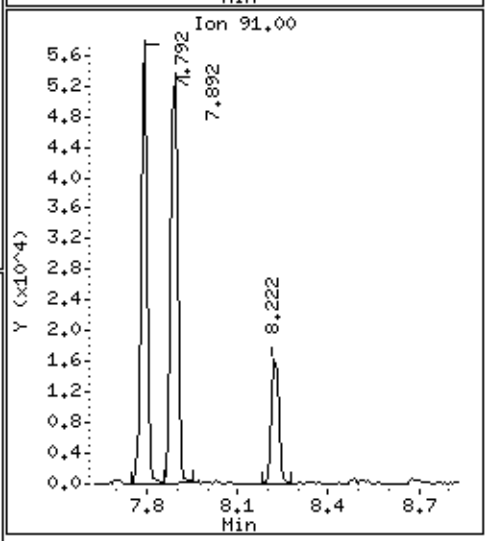


Data File: /chem/msdp.i/20mar10.b/p032012.d

Date : 20-MAR-2010 10:33

Client ID:

Instrument: msdp.i

Sample Info: 200ml #1580

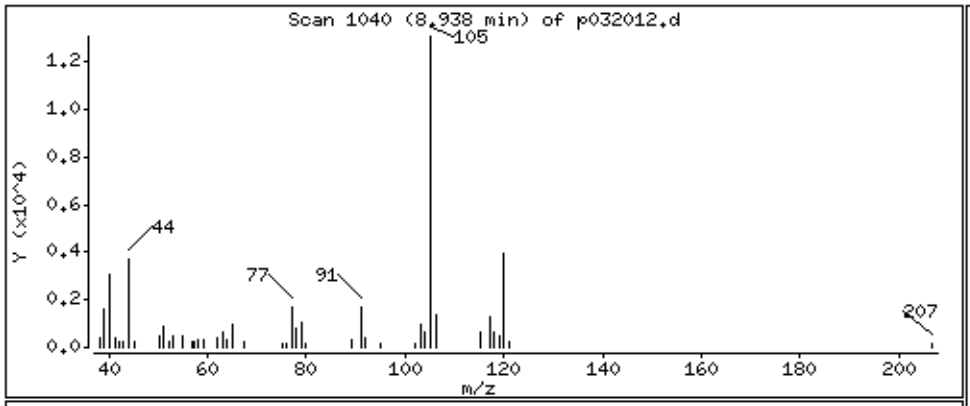
Operator: xp

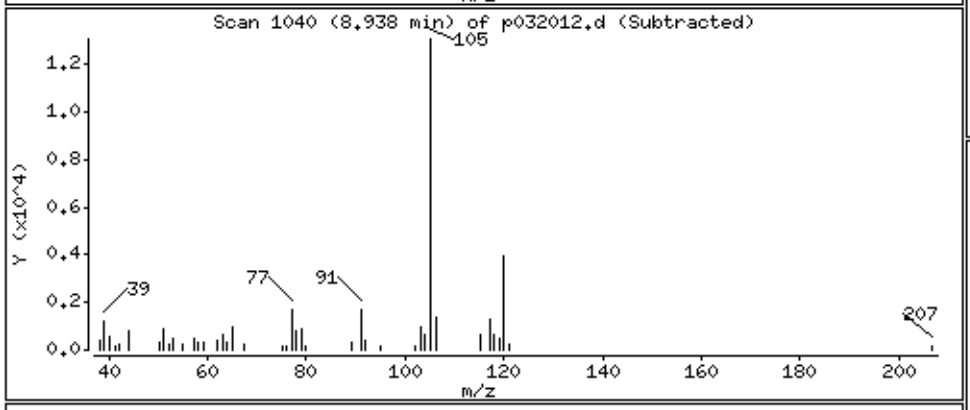
Column phase: RTx-624

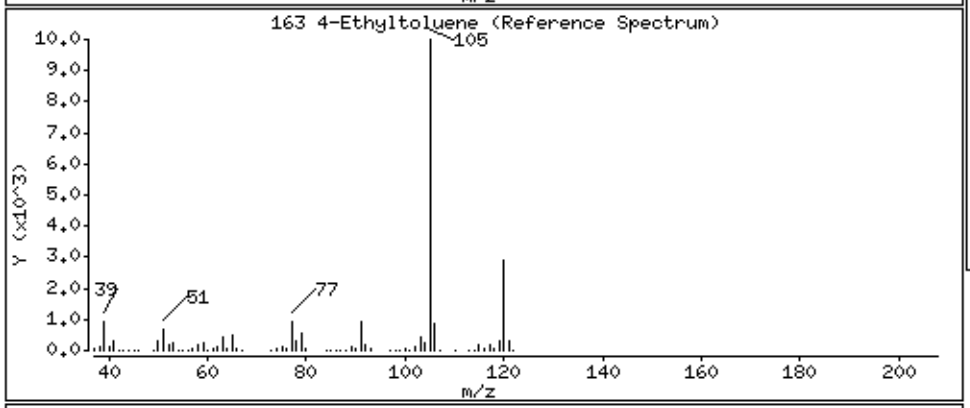
Column diameter: 0.53

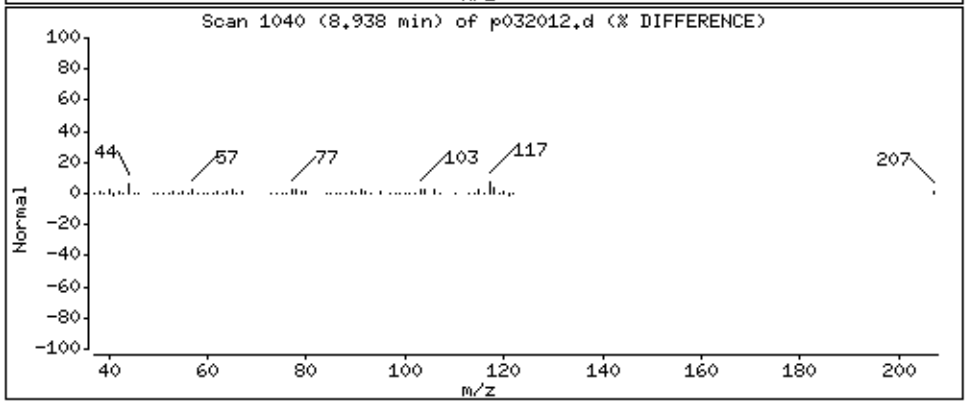
163 4-Ethyltoluene

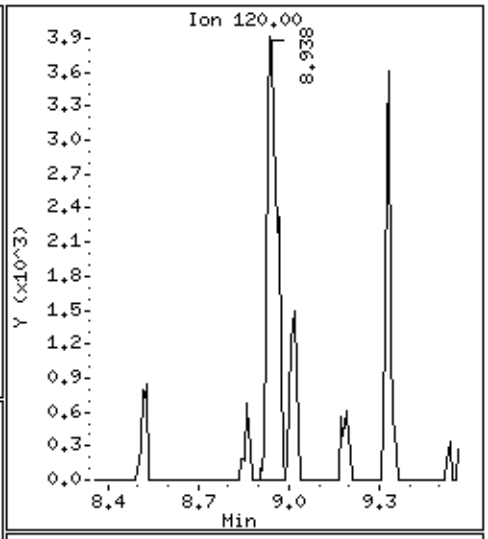
Concentration: 1.568 PPBV

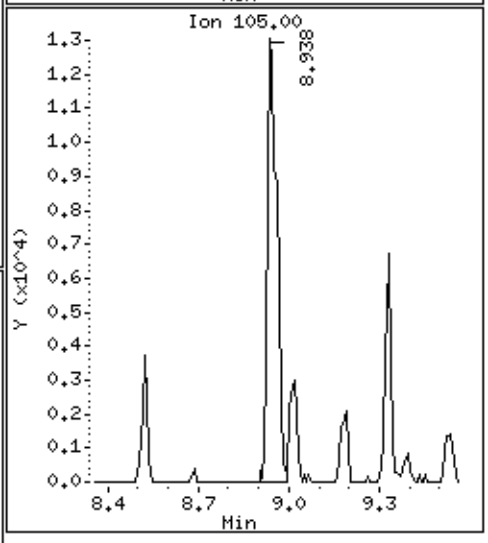


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# Summary of Detected Compounds
# MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: DW AMS 4**

**Lab ID#: 1003364-02A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (ug/m3) | Amount (ug/m3) |
|---|---|---|---|---|
| Ethanol | 3.2 | 6.0 | 6.1 | 11 |
| Acetone | 3.2 | 11 | 7.6 | 26 |
| Carbon Disulfide | 0.80 | 1.2 | 2.5 | 3.8 |
| 2-Butanone (Methyl Ethyl Ketone) | 0.80 | 1.3 | 2.4 | 3.9 |

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**Client Sample ID: DW AMS 4**

**Lab ID#: 1003364-02A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **p032013** | **Date of Collection:** | **3/11/10 2:48:00 PM** |
| **Dil. Factor:** | **1.61** | **Date of Analysis:** | **3/20/10 11:33 AM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (ug/m3) | Amount (ug/m3) |
|---|---|---|---|---|
| Freon 12 | 0.80 | Not Detected | 4.0 | Not Detected |
| Freon 114 | 0.80 | Not Detected | 5.6 | Not Detected |
| Chloromethane | 3.2 | Not Detected | 6.6 | Not Detected |
| Vinyl Chloride | 0.80 | Not Detected | 2.0 | Not Detected |
| 1,3-Butadiene | 0.80 | Not Detected | 1.8 | Not Detected |
| Bromomethane | 0.80 | Not Detected | 3.1 | Not Detected |
| Chloroethane | 0.80 | Not Detected | 2.1 | Not Detected |
| Freon 11 | 0.80 | Not Detected | 4.5 | Not Detected |
| Ethanol | 3.2 | 6.0 | 6.1 | 11 |
| Freon 113 | 0.80 | Not Detected | 6.2 | Not Detected |
| 1,1-Dichloroethene | 0.80 | Not Detected | 3.2 | Not Detected |
| Acetone | 3.2 | 11 | 7.6 | 26 |
| 2-Propanol | 3.2 | Not Detected | 7.9 | Not Detected |
| Carbon Disulfide | 0.80 | 1.2 | 2.5 | 3.8 |
| 3-Chloropropene | 3.2 | Not Detected | 10 | Not Detected |
| Methylene Chloride | 0.80 | Not Detected | 2.8 | Not Detected |
| Methyl tert-butyl ether | 0.80 | Not Detected | 2.9 | Not Detected |
| trans-1,2-Dichloroethene | 0.80 | Not Detected | 3.2 | Not Detected |
| Hexane | 0.80 | Not Detected | 2.8 | Not Detected |
| 1,1-Dichloroethane | 0.80 | Not Detected | 3.2 | Not Detected |
| 2-Butanone (Methyl Ethyl Ketone) | 0.80 | 1.3 | 2.4 | 3.9 |
| cis-1,2-Dichloroethene | 0.80 | Not Detected | 3.2 | Not Detected |
| Tetrahydrofuran | 0.80 | Not Detected | 2.4 | Not Detected |
| Chloroform | 0.80 | Not Detected | 3.9 | Not Detected |
| 1,1,1-Trichloroethane | 0.80 | Not Detected | 4.4 | Not Detected |
| Cyclohexane | 0.80 | Not Detected | 2.8 | Not Detected |
| Carbon Tetrachloride | 0.80 | Not Detected | 5.1 | Not Detected |
| 2,2,4-Trimethylpentane | 0.80 | Not Detected | 3.8 | Not Detected |
| Benzene | 0.80 | Not Detected | 2.6 | Not Detected |
| 1,2-Dichloroethane | 0.80 | Not Detected | 3.2 | Not Detected |
| Heptane | 0.80 | Not Detected | 3.3 | Not Detected |
| Trichloroethene | 0.80 | Not Detected | 4.3 | Not Detected |
| 1,2-Dichloropropane | 0.80 | Not Detected | 3.7 | Not Detected |
| 1,4-Dioxane | 3.2 | Not Detected | 12 | Not Detected |
| Bromodichloromethane | 0.80 | Not Detected | 5.4 | Not Detected |
| cis-1,3-Dichloropropene | 0.80 | Not Detected | 3.6 | Not Detected |
| 4-Methyl-2-pentanone | 0.80 | Not Detected | 3.3 | Not Detected |
| Toluene | 0.80 | Not Detected | 3.0 | Not Detected |
| trans-1,3-Dichloropropene | 0.80 | Not Detected | 3.6 | Not Detected |

Air Toxics LTD.
Laboratory Services Since 1989

**Client Sample ID: DW AMS 4**

**Lab ID#: 1003364-02A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **p032013** | **Date of Collection:** | **3/11/10 2:48:00 PM** |
| **Dil. Factor:** | **1.61** | **Date of Analysis:** | **3/20/10 11:33 AM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (ug/m3) | Amount (ug/m3) |
|---|---|---|---|---|
| 1,1,2-Trichloroethane | 0.80 | Not Detected | 4.4 | Not Detected |
| Tetrachloroethene | 0.80 | Not Detected | 5.5 | Not Detected |
| 2-Hexanone | 3.2 | Not Detected | 13 | Not Detected |
| Dibromochloromethane | 0.80 | Not Detected | 6.8 | Not Detected |
| 1,2-Dibromoethane (EDB) | 0.80 | Not Detected | 6.2 | Not Detected |
| Chlorobenzene | 0.80 | Not Detected | 3.7 | Not Detected |
| Ethyl Benzene | 0.80 | Not Detected | 3.5 | Not Detected |
| m,p-Xylene | 0.80 | Not Detected | 3.5 | Not Detected |
| o-Xylene | 0.80 | Not Detected | 3.5 | Not Detected |
| Styrene | 0.80 | Not Detected | 3.4 | Not Detected |
| Bromoform | 0.80 | Not Detected | 8.3 | Not Detected |
| Cumene | 0.80 | Not Detected | 4.0 | Not Detected |
| 1,1,2,2-Tetrachloroethane | 0.80 | Not Detected | 5.5 | Not Detected |
| Propylbenzene | 0.80 | Not Detected | 4.0 | Not Detected |
| 4-Ethyltoluene | 0.80 | Not Detected | 4.0 | Not Detected |
| 1,3,5-Trimethylbenzene | 0.80 | Not Detected | 4.0 | Not Detected |
| 1,2,4-Trimethylbenzene | 0.80 | Not Detected | 4.0 | Not Detected |
| 1,3-Dichlorobenzene | 0.80 | Not Detected | 4.8 | Not Detected |
| 1,4-Dichlorobenzene | 0.80 | Not Detected | 4.8 | Not Detected |
| alpha-Chlorotoluene | 0.80 | Not Detected | 4.2 | Not Detected |
| 1,2-Dichlorobenzene | 0.80 | Not Detected | 4.8 | Not Detected |
| 1,2,4-Trichlorobenzene | 3.2 | Not Detected | 24 | Not Detected |
| Hexachlorobutadiene | 3.2 | Not Detected | 34 | Not Detected |
| Naphthalene | 3.2 | Not Detected | 17 | Not Detected |

**Container Type: 6 Liter Summa Canister**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| Toluene-d8 | 98 | 70-130 |
| 1,2-Dichloroethane-d4 | 103 | 70-130 |
| 4-Bromofluorobenzene | 106 | 70-130 |

Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msdp.i/20mar10.b/p032013.d
Lab Smp Id: 1003364-02A
Inj Date : 20-MAR-2010 11:33
Operator : xp Inst ID: msdp.i
Smp Info : 200ml #5561
Misc Info : 5.0Hg->5psi
Comment :
Method : /chem/msdp.i/20mar10.b/p10q0311a.m
Meth Date : 26-Mar-2010 13:11 abarton Quant Type: ISTD
Cal Date : 11-MAR-2010 15:18 Cal File: p031117.d
Als bottle: 2
Dil Factor: 1.61000
Integrator: HP RTE Compound Sublist: TO15N.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| | | | | CONCENTRATIONS ON-COL | CONCENTRATIONS FINAL | | |
|---|---|---|---|---|---|---|---|
| RT | EXP RT (REL RT) | MASS | RESPONSE | ( PPBV) | ( PPBV) | TARGET RANGE | RATIO |
| * 76 Bromochloromethane | | | | | CAS #: 74-97-5 | | |
| 4.268 | 4.275 (1.000) | 130 | 140688 | 25.0000 | | 80.00- 120.00 | 100.00 |
| 4.275 | 4.275 (1.000) | 128 | 108833 | | | 29.36- 129.36 | 77.36 |
| 4.268 | 4.275 (1.000) | 49 | 213056 | | | 105.98- 205.98 | 151.44 |
| * 97 1,4-Difluorobenzene | | | | | CAS #: 540-36-3 | | |
| 5.220 | 5.227 (1.000) | 114 | 414205 | 25.0000 | | 80.00- 120.00 | 100.00 |
| 5.220 | 5.227 (1.000) | 88 | 62336 | | | 0.00- 65.66 | 15.05 |
| * 144 Chlorobenzene-d5 | | | | | CAS #: 3114-55-4 | | |
| 7.699 | 7.699 (1.000) | 117 | 359792 | 25.0000 | | 80.00- 120.00 | 100.00 |
| 7.699 | 7.699 (1.000) | 82 | 214030 | | | 7.05- 107.05 | 59.49 |
| $ 89 1,2-Dichloroethane-d4 | | | | | CAS #: 17060-07-0 | | |
| 4.834 | 4.833 (1.133) | 65 | 194896 | 25.8643 | 25.864 | 80.00- 120.00 | 100.00 |
| 4.834 | 4.833 (1.133) | 67 | 101094 | | | 6.22- 106.22 | 51.87 |
| $ 115 Toluene-d8 | | | | | CAS #: 2037-26-5 | | |
| 6.467 | 6.467 (1.239) | 98 | 419014 | 24.5275 | 24.528 | 80.00- 120.00 | 100.00 |
| 6.467 | 6.467 (1.239) | 70 | 52306 | | | 0.00- 61.60 | 12.48 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | CONCENTRATIONS FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 115 Toluene-d8 (continued) | | | | | | | |
| 6.467 | 6.467 (1.239) | 100 | 265811 | | | 15.04- 115.04 | 63.44 |
| $ 159 Bromofluorobenzene | | | | | CAS #: 460-00-4 | | |
| 8.687 | 8.687 (1.128) | 174 | 173723 | 26.3767 | 26.377 | 80.00- 120.00 | 100.00 |
| 8.687 | 8.687 (1.128) | 95 | 229640 | | | 90.03- 190.03 | 132.19 |
| 8.687 | 8.687 (1.128) | 176 | 159964 | | | 47.31- 147.31 | 92.08 |
| 29 Ethanol | | | | | CAS #: 64-17-5 | | |
| 1.992 | 1.964 (0.467) | 45 | 11637 | 3.71342 | 5.979 | 80.00- 120.00 | 100.00 |
| 1.992 | 1.964 (0.467) | 43 | 3430 | | | 0.00- 84.20 | 29.47 |
| 1.992 | 1.964 (0.467) | 46 | 6455 | | | 0.00- 96.43 | 55.47 |
| 34 Acetone | | | | | CAS #: 67-64-1 | | |
| 2.312 | 2.312 (0.542) | 58 | 25206 | 6.67114 | 10.740 | 80.00- 120.00 | 100.00 |
| 2.319 | 2.312 (0.543) | 43 | 92432 | | | 281.49- 381.49 | 366.70 |
| 35 Carbon Disulfide | | | | | CAS #: 75-15-0 | | |
| 2.405 | 2.412 (0.564) | 76 | 17148 | 0.75816 | 1.221 | 80.00- 120.00 | 100.00 |
| 74 2-Butanone | | | | | CAS #: 78-93-3 | | |
| 4.081 | 4.074 (0.956) | 72 | 3035 | 0.81940 | 1.319 | 80.00- 120.00 | 100.00 |
| 4.081 | 4.074 (0.956) | 43 | 17685 | | | 408.01- 508.01 | 582.68 |
| 4.074 | 4.074 (0.955) | 57 | 1483 | | | 25.94- 125.94 | 48.86 |

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdp.i
Lab File ID: p032013.d
Lab Smp Id: 1003364-02A
Analysis Type: VOA
Quant Type: ISTD
Operator: xp
Method File: /chem/msdp.i/20mar10.b/p10q0311a.m
Misc Info: 5.0Hg->5psi

Calibration Date: 19-MAR-2010
Calibration Time: 23:03
Level: LOW
Sample Type: AIR

| | | AREA LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 76 Bromochloromethan | 147132 | 88279 | 205985 | 140688 | -4.38 |
| 97 1,4-Difluorobenze | 499171 | 299503 | 698839 | 414205 | -17.02 |
| 144 Chlorobenzene-d5 | 450394 | 270236 | 630552 | 359792 | -20.12 |

| | | RT LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 76 Bromochloromethan | 4.27 | 3.94 | 4.60 | 4.27 | -0.17 |
| 97 1,4-Difluorobenze | 5.23 | 4.90 | 5.56 | 5.22 | -0.14 |
| 144 Chlorobenzene-d5 | 7.70 | 7.37 | 8.03 | 7.70 | 0.00 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Report Date: 29-Mar-2010 14:40

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: 20mar10
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1003364-02A
Level: LOW Operator: xp
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: 2926spectra.spk Quant Type: ISTD
Sublist File: TO15N.sub
Method File: /chem/msdp.i/20mar10.b/p10q0311a.m
Misc Info: 5.0Hg->5psi

| SURROGATE COMPOUND | CONC ADDED PPBV | CONC RECOVERED PPBV | % RECOVERED | LIMITS |
|---|---|---|---|---|
| $ 89 1,2-Dichloroethane | 25.000 | 25.864 | 103.46 | 70-130 |
| $ 115 Toluene-d8 | 25.000 | 24.528 | 98.11 | 70-130 |
| $ 159 Bromofluorobenzene | 25.000 | 26.377 | 105.51 | 70-130 |

Data File: /chem/msdp.i/20mar10.b/p032013.d



Date : 20-MAR-2010 11:33

Client ID:

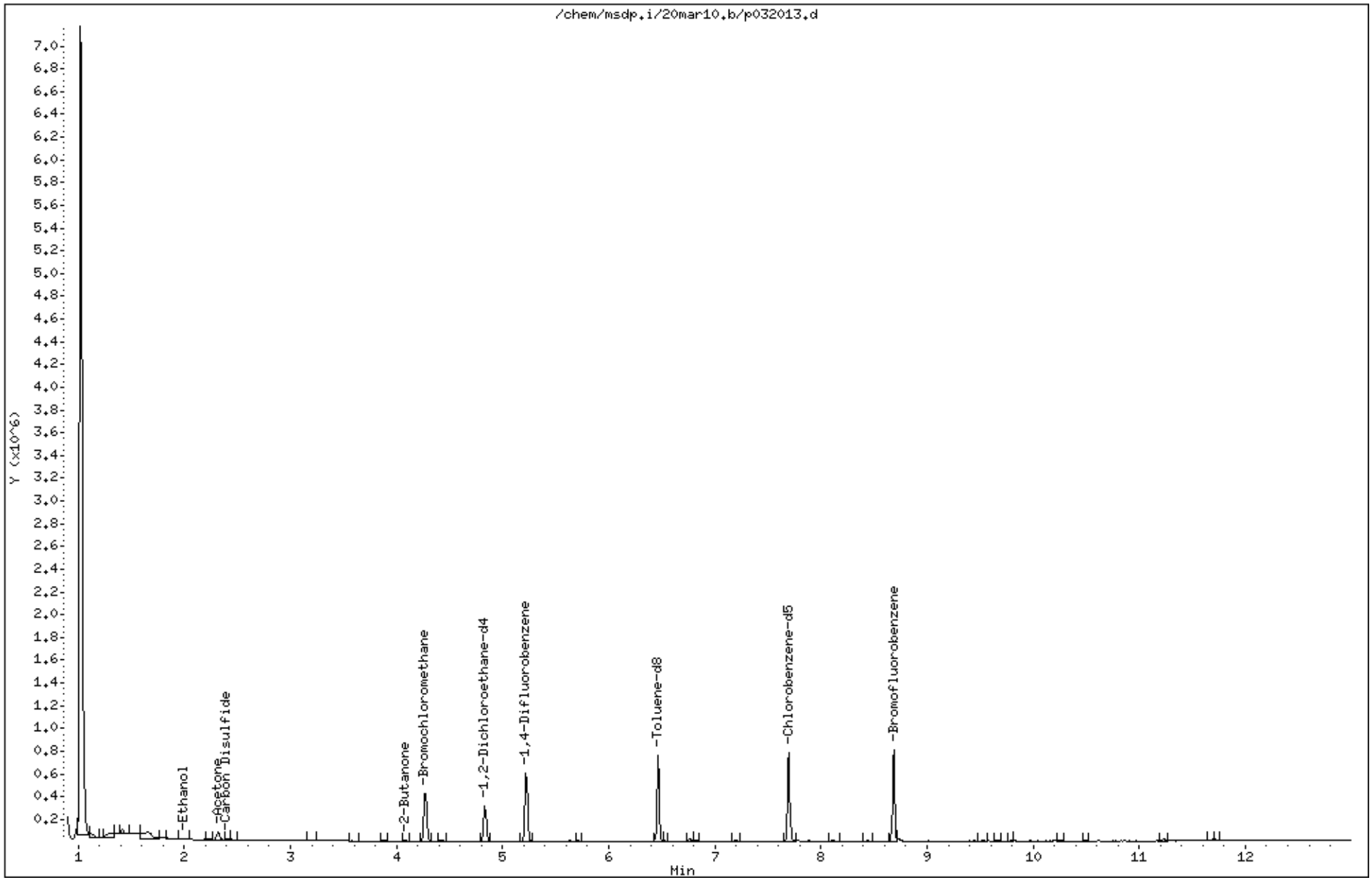
Instrument: msdp.i

Sample Info: 200ml #5561

Operator: xp

Column phase: RTx-624

Column diameter: 0.53



Data File: /chem/msdp.i/20mar10.b/p032013.d

Date : 20-MAR-2010 11:33

Client ID:

Instrument: msdp.i

Sample Info: 200ml #5561

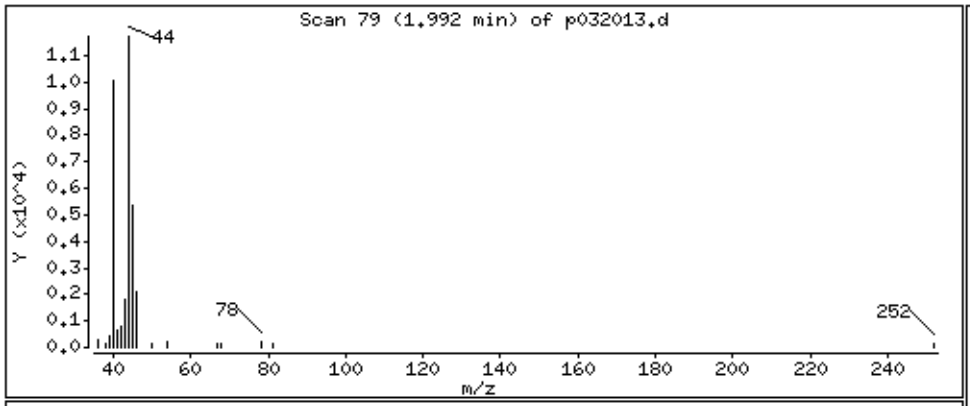
Operator: xp

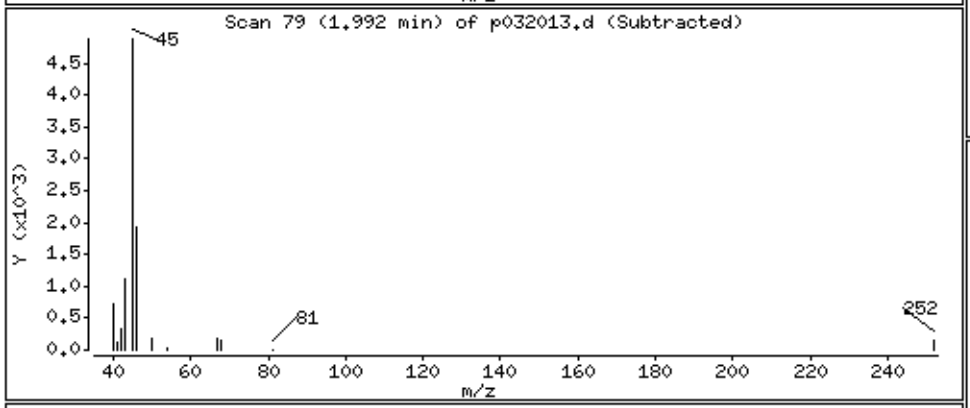
Column phase: RTx-624

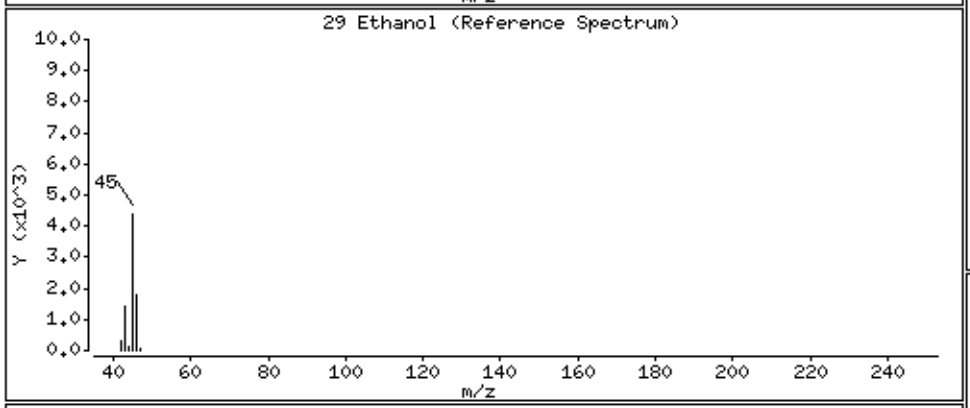
Column diameter: 0.53

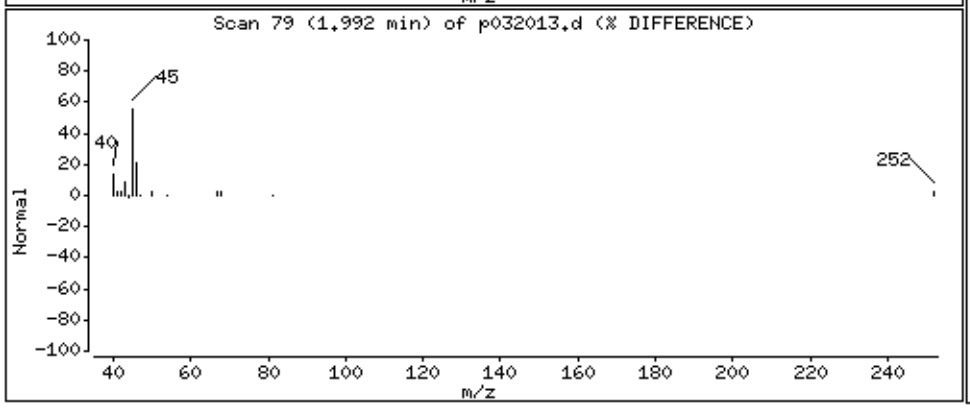
29 Ethanol

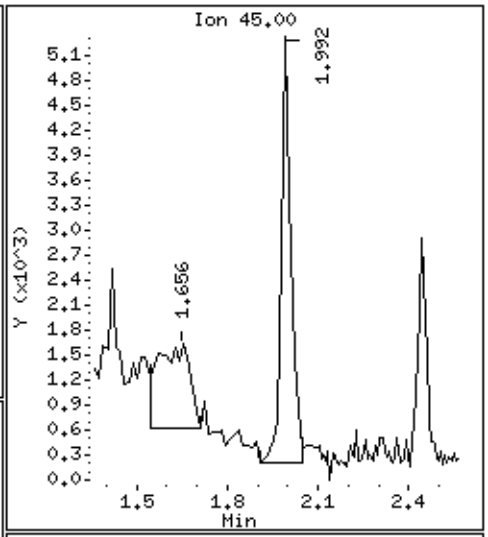
Concentration: 5.979 PPBV

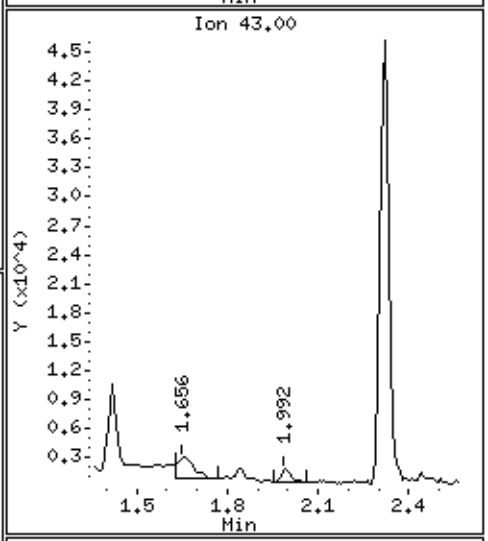


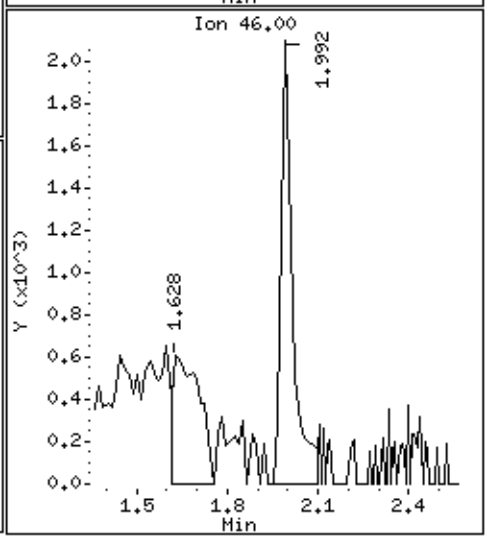



Data File: /chem/msdp.i/20mar10.b/p032013.d

Date : 20-MAR-2010 11:33

Client ID:

Instrument: msdp.i

Sample Info: 200ml #5561

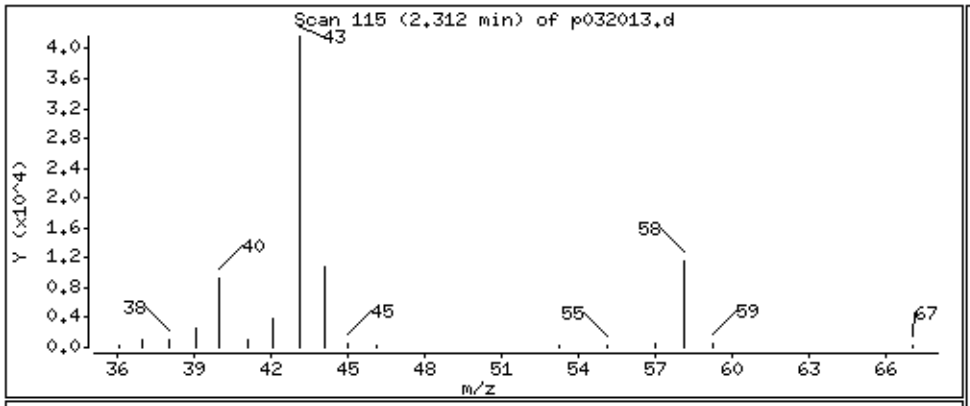
Operator: xp

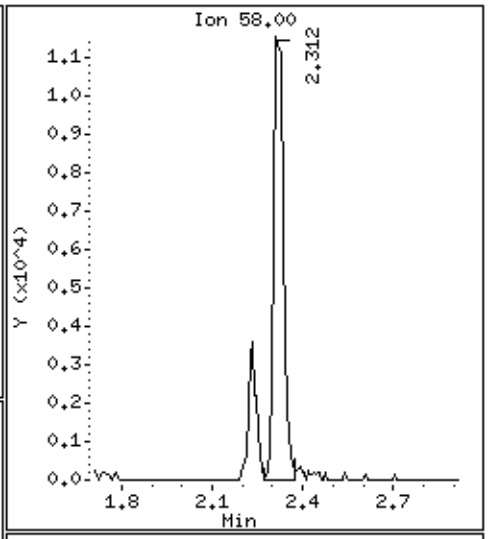
Column phase: RTx-624

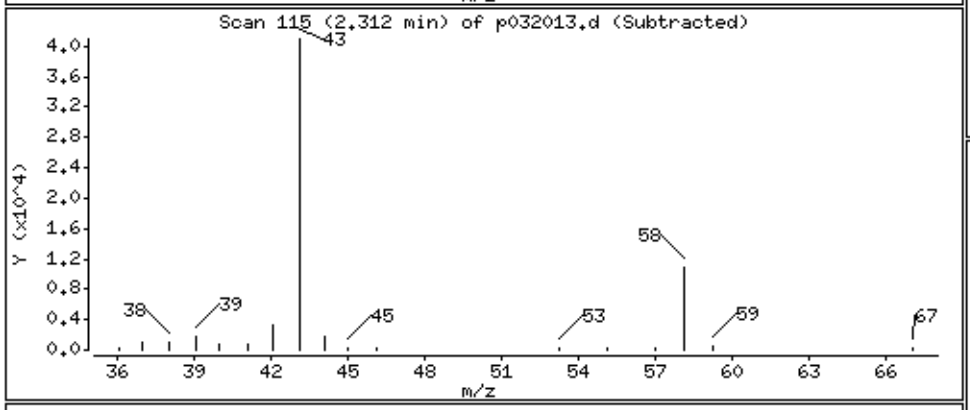
Column diameter: 0.53

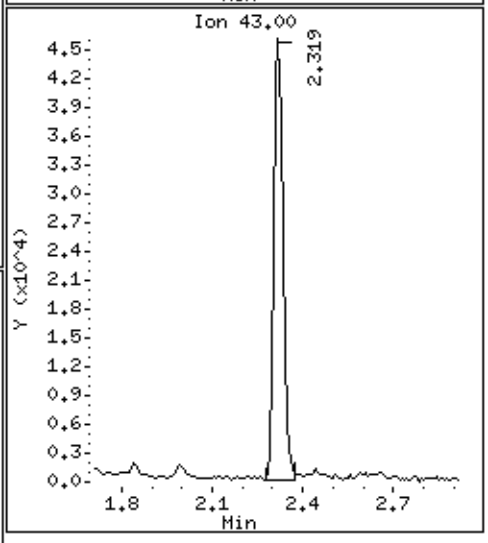
34 Acetone

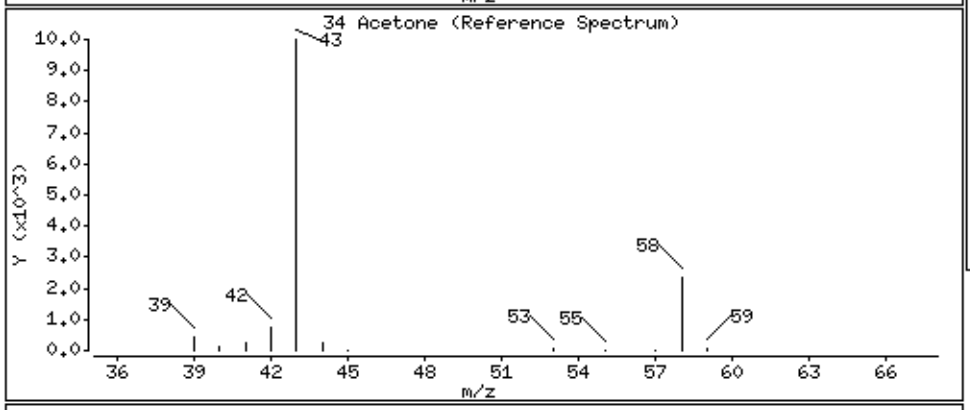
Concentration: 10.740 PPBV

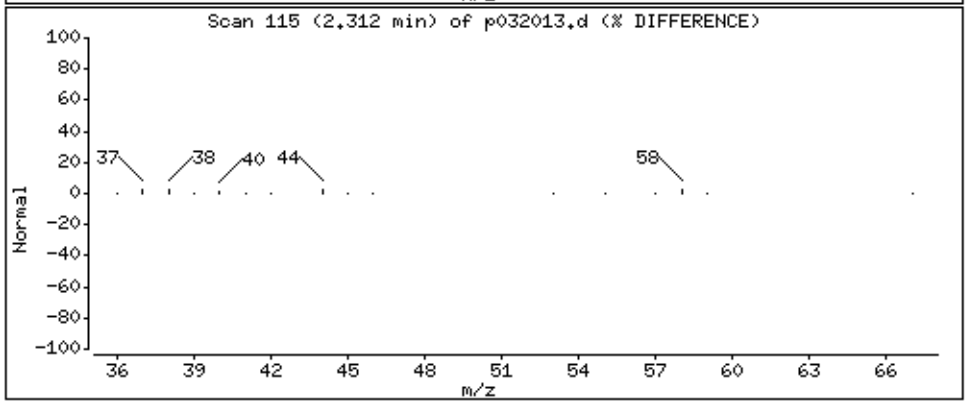


Data File: /chem/msdp.i/20mar10.b/p032013.d

Date : 20-MAR-2010 11:33

Client ID:

Instrument: msdp.i

Sample Info: 200ml #5561

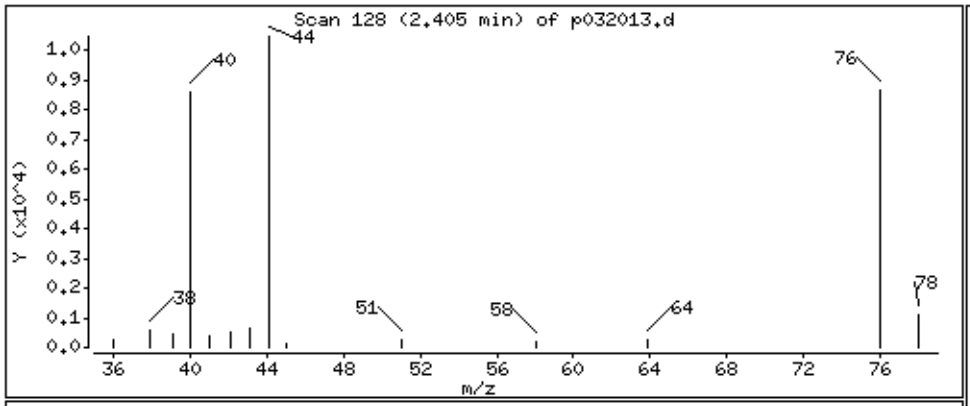
Operator: xp

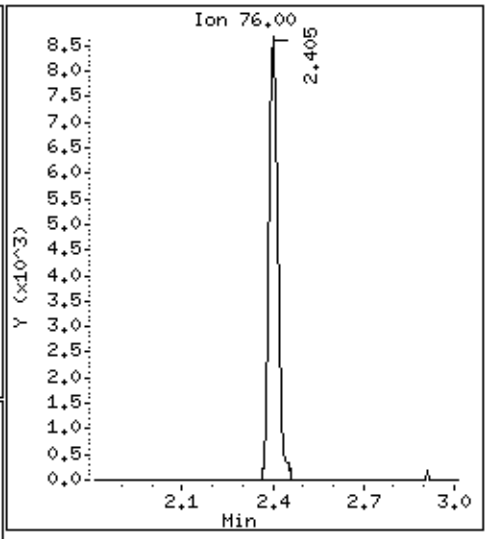
Column phase: RTx-624

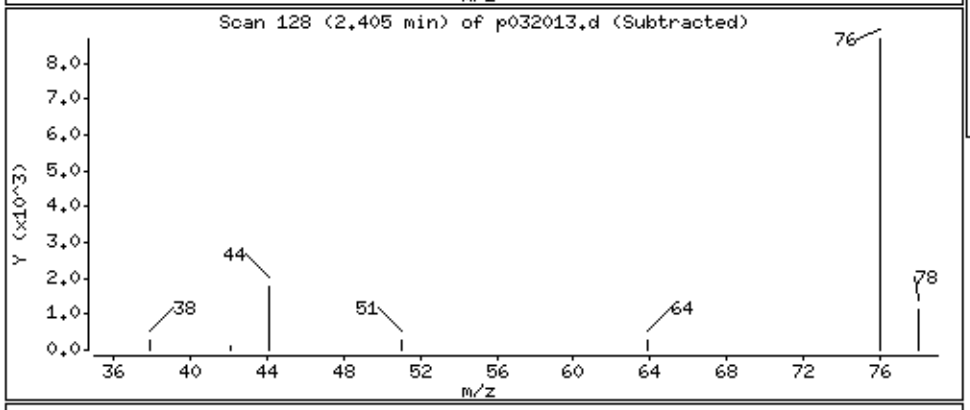
Column diameter: 0.53

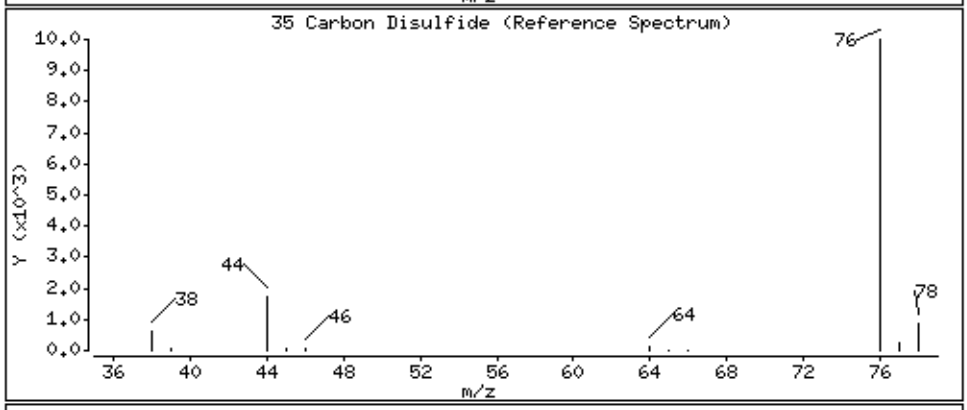
35 Carbon Disulfide

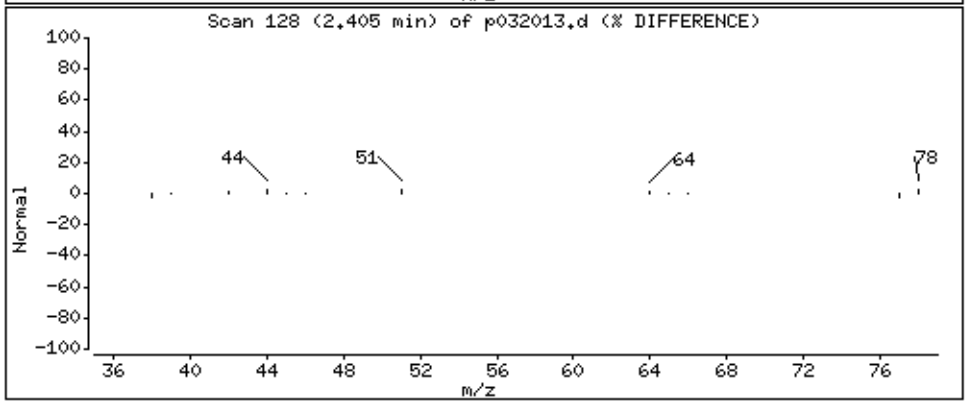
Concentration: 1.221 PPBV



Data File: /chem/msdp.i/20mar10.b/p032013.d

Date : 20-MAR-2010 11:33

Client ID:

Instrument: msdp.i

Sample Info: 200ml #5561

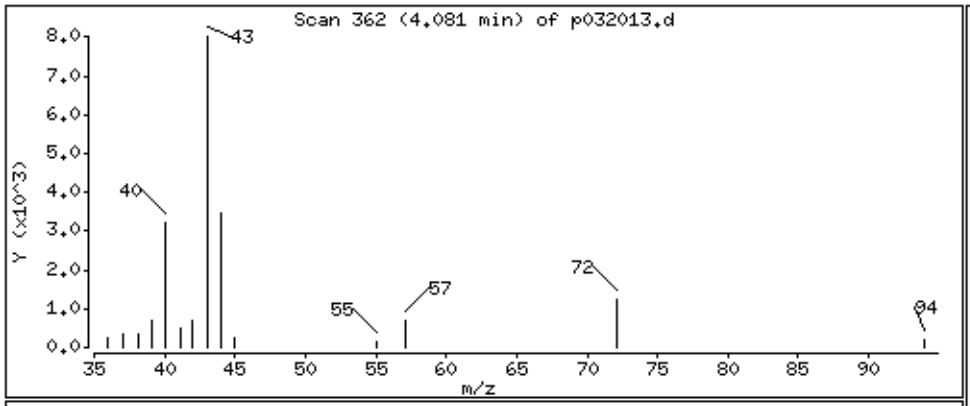
Operator: xp

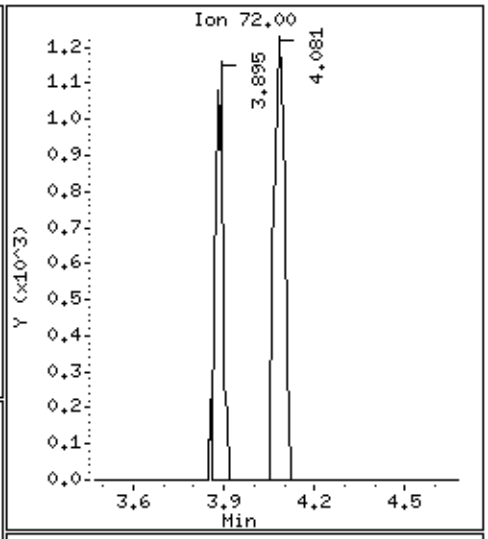
Column phase: RTx-624

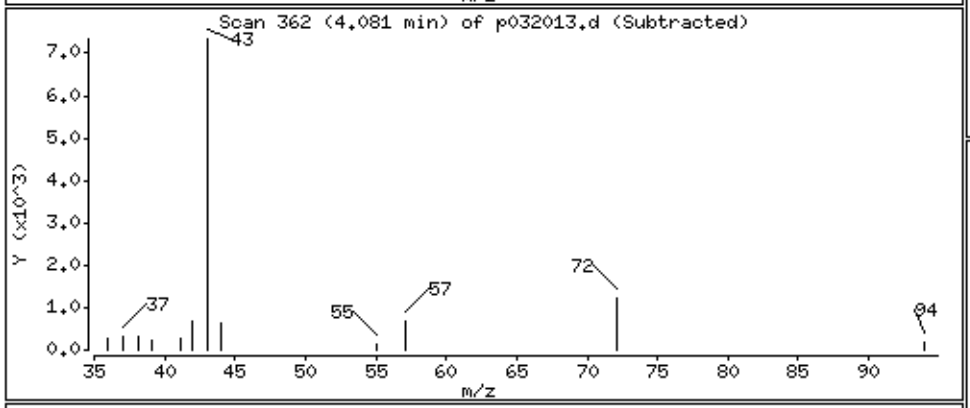
Column diameter: 0.53

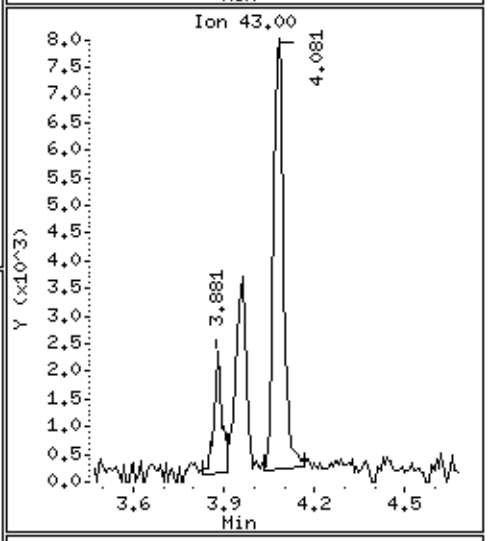
74 2-Butanone

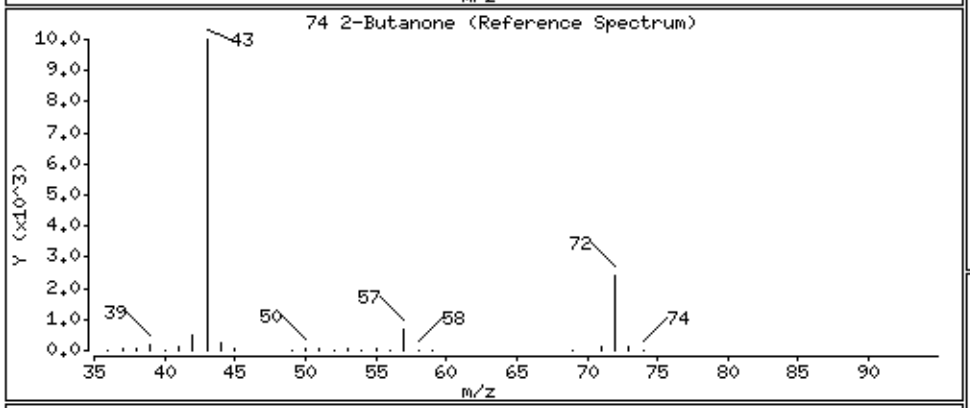
Concentration: 1.319 PPBV

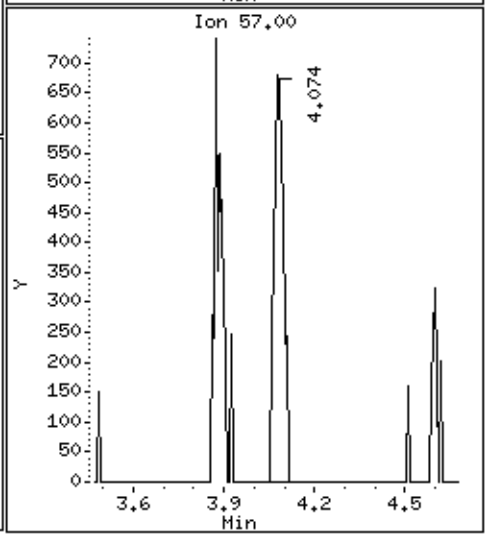


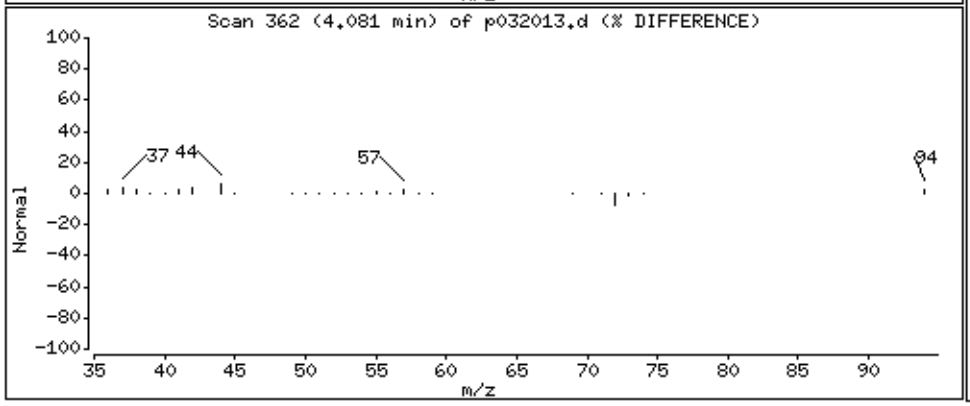



Air Toxics LTD.
Laboratory Services Since 1989

# Summary of Detected Compounds
# MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: DW AMS 4 Lab Duplicate**

**Lab ID#: 1003364-02AA**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (ug/m3) | Amount (ug/m3) |
|---|---|---|---|---|
| Ethanol | 3.2 | 6.7 | 6.1 | 13 |
| Acetone | 3.2 | 10 | 7.6 | 25 |
| Carbon Disulfide | 0.80 | 1.1 | 2.5 | 3.5 |
| 2-Butanone (Methyl Ethyl Ketone) | 0.80 | 1.1 | 2.4 | 3.2 |

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**Client Sample ID: DW AMS 4 Lab Duplicate**

**Lab ID#: 1003364-02AA**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **p032014** | **Date of Collection: 3/11/10 2:48:00 PM** | |
| **Dil. Factor:** | **1.61** | **Date of Analysis: 3/20/10 11:58 AM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (ug/m3) | Amount (ug/m3) |
|---|---|---|---|---|
| Freon 12 | 0.80 | Not Detected | 4.0 | Not Detected |
| Freon 114 | 0.80 | Not Detected | 5.6 | Not Detected |
| Chloromethane | 3.2 | Not Detected | 6.6 | Not Detected |
| Vinyl Chloride | 0.80 | Not Detected | 2.0 | Not Detected |
| 1,3-Butadiene | 0.80 | Not Detected | 1.8 | Not Detected |
| Bromomethane | 0.80 | Not Detected | 3.1 | Not Detected |
| Chloroethane | 0.80 | Not Detected | 2.1 | Not Detected |
| Freon 11 | 0.80 | Not Detected | 4.5 | Not Detected |
| Ethanol | 3.2 | 6.7 | 6.1 | 13 |
| Freon 113 | 0.80 | Not Detected | 6.2 | Not Detected |
| 1,1-Dichloroethene | 0.80 | Not Detected | 3.2 | Not Detected |
| Acetone | 3.2 | 10 | 7.6 | 25 |
| 2-Propanol | 3.2 | Not Detected | 7.9 | Not Detected |
| Carbon Disulfide | 0.80 | 1.1 | 2.5 | 3.5 |
| 3-Chloropropene | 3.2 | Not Detected | 10 | Not Detected |
| Methylene Chloride | 0.80 | Not Detected | 2.8 | Not Detected |
| Methyl tert-butyl ether | 0.80 | Not Detected | 2.9 | Not Detected |
| trans-1,2-Dichloroethene | 0.80 | Not Detected | 3.2 | Not Detected |
| Hexane | 0.80 | Not Detected | 2.8 | Not Detected |
| 1,1-Dichloroethane | 0.80 | Not Detected | 3.2 | Not Detected |
| 2-Butanone (Methyl Ethyl Ketone) | 0.80 | 1.1 | 2.4 | 3.2 |
| cis-1,2-Dichloroethene | 0.80 | Not Detected | 3.2 | Not Detected |
| Tetrahydrofuran | 0.80 | Not Detected | 2.4 | Not Detected |
| Chloroform | 0.80 | Not Detected | 3.9 | Not Detected |
| 1,1,1-Trichloroethane | 0.80 | Not Detected | 4.4 | Not Detected |
| Cyclohexane | 0.80 | Not Detected | 2.8 | Not Detected |
| Carbon Tetrachloride | 0.80 | Not Detected | 5.1 | Not Detected |
| 2,2,4-Trimethylpentane | 0.80 | Not Detected | 3.8 | Not Detected |
| Benzene | 0.80 | Not Detected | 2.6 | Not Detected |
| 1,2-Dichloroethane | 0.80 | Not Detected | 3.2 | Not Detected |
| Heptane | 0.80 | Not Detected | 3.3 | Not Detected |
| Trichloroethene | 0.80 | Not Detected | 4.3 | Not Detected |
| 1,2-Dichloropropane | 0.80 | Not Detected | 3.7 | Not Detected |
| 1,4-Dioxane | 3.2 | Not Detected | 12 | Not Detected |
| Bromodichloromethane | 0.80 | Not Detected | 5.4 | Not Detected |
| cis-1,3-Dichloropropene | 0.80 | Not Detected | 3.6 | Not Detected |
| 4-Methyl-2-pentanone | 0.80 | Not Detected | 3.3 | Not Detected |
| Toluene | 0.80 | Not Detected | 3.0 | Not Detected |
| trans-1,3-Dichloropropene | 0.80 | Not Detected | 3.6 | Not Detected |

Air Toxics LTD.
Laboratory Services Since 1989

**Client Sample ID: DW AMS 4 Lab Duplicate**

**Lab ID#: 1003364-02AA**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **p032014** | **Date of Collection: 3/11/10 2:48:00 PM** | |
| **Dil. Factor:** | **1.61** | **Date of Analysis: 3/20/10 11:58 AM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (ug/m3) | Amount (ug/m3) |
|---|---|---|---|---|
| 1,1,2-Trichloroethane | 0.80 | Not Detected | 4.4 | Not Detected |
| Tetrachloroethene | 0.80 | Not Detected | 5.5 | Not Detected |
| 2-Hexanone | 3.2 | Not Detected | 13 | Not Detected |
| Dibromochloromethane | 0.80 | Not Detected | 6.8 | Not Detected |
| 1,2-Dibromoethane (EDB) | 0.80 | Not Detected | 6.2 | Not Detected |
| Chlorobenzene | 0.80 | Not Detected | 3.7 | Not Detected |
| Ethyl Benzene | 0.80 | Not Detected | 3.5 | Not Detected |
| m,p-Xylene | 0.80 | Not Detected | 3.5 | Not Detected |
| o-Xylene | 0.80 | Not Detected | 3.5 | Not Detected |
| Styrene | 0.80 | Not Detected | 3.4 | Not Detected |
| Bromoform | 0.80 | Not Detected | 8.3 | Not Detected |
| Cumene | 0.80 | Not Detected | 4.0 | Not Detected |
| 1,1,2,2-Tetrachloroethane | 0.80 | Not Detected | 5.5 | Not Detected |
| Propylbenzene | 0.80 | Not Detected | 4.0 | Not Detected |
| 4-Ethyltoluene | 0.80 | Not Detected | 4.0 | Not Detected |
| 1,3,5-Trimethylbenzene | 0.80 | Not Detected | 4.0 | Not Detected |
| 1,2,4-Trimethylbenzene | 0.80 | Not Detected | 4.0 | Not Detected |
| 1,3-Dichlorobenzene | 0.80 | Not Detected | 4.8 | Not Detected |
| 1,4-Dichlorobenzene | 0.80 | Not Detected | 4.8 | Not Detected |
| alpha-Chlorotoluene | 0.80 | Not Detected | 4.2 | Not Detected |
| 1,2-Dichlorobenzene | 0.80 | Not Detected | 4.8 | Not Detected |
| 1,2,4-Trichlorobenzene | 3.2 | Not Detected | 24 | Not Detected |
| Hexachlorobutadiene | 3.2 | Not Detected | 34 | Not Detected |
| Naphthalene | 3.2 | Not Detected | 17 | Not Detected |

**Container Type: 6 Liter Summa Canister**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| Toluene-d8 | 99 | 70-130 |
| 1,2-Dichloroethane-d4 | 101 | 70-130 |
| 4-Bromofluorobenzene | 105 | 70-130 |

Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msdp.i/20mar10.b/p032014.d
Lab Smp Id: 1003364-02AA
Inj Date : 20-MAR-2010 11:58
Operator : xp Inst ID: msdp.i
Smp Info : 200ml #5561
Misc Info : 5.0Hg->5psi
Comment :
Method : /chem/msdp.i/20mar10.b/p10q0311a.m
Meth Date : 26-Mar-2010 13:11 abarton Quant Type: ISTD
Cal Date : 11-MAR-2010 15:18 Cal File: p031117.d
Als bottle: 2
Dil Factor: 1.61000
Integrator: HP RTE Compound Sublist: TO15N.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| | | | | CONCENTRATIONS ON-COL | CONCENTRATIONS FINAL | | |
|---|---|---|---|---|---|---|---|
| RT | EXP RT (REL RT) | MASS | RESPONSE | ( PPBV) | ( PPBV) | TARGET RANGE | RATIO |
| * 76 Bromochloromethane | | | | | CAS #: 74-97-5 | | |
| 4.275 | 4.275 (1.000) | 130 | 140642 | 25.0000 | | 80.00- 120.00 | 100.00 |
| 4.275 | 4.275 (1.000) | 128 | 107943 | | | 29.36- 129.36 | 76.75 |
| 4.275 | 4.275 (1.000) | 49 | 215728 | | | 105.98- 205.98 | 153.39 |
| * 97 1,4-Difluorobenzene | | | | | CAS #: 540-36-3 | | |
| 5.228 | 5.227 (1.000) | 114 | 409852 | 25.0000 | | 80.00- 120.00 | 100.00 |
| 5.228 | 5.227 (1.000) | 88 | 63252 | | | 0.00- 65.66 | 15.43 |
| * 144 Chlorobenzene-d5 | | | | | CAS #: 3114-55-4 | | |
| 7.699 | 7.699 (1.000) | 117 | 355860 | 25.0000 | | 80.00- 120.00 | 100.00 |
| 7.699 | 7.699 (1.000) | 82 | 211245 | | | 7.05- 107.05 | 59.36 |
| $ 89 1,2-Dichloroethane-d4 | | | | | CAS #: 17060-07-0 | | |
| 4.834 | 4.833 (1.131) | 65 | 191115 | 25.3709 | 25.371 | 80.00- 120.00 | 100.00 |
| 4.834 | 4.833 (1.131) | 67 | 98206 | | | 6.22- 106.22 | 51.39 |
| $ 115 Toluene-d8 | | | | | CAS #: 2037-26-5 | | |
| 6.467 | 6.467 (1.237) | 98 | 417203 | 24.6809 | 24.681 | 80.00- 120.00 | 100.00 |
| 6.467 | 6.467 (1.237) | 70 | 50749 | | | 0.00- 61.60 | 12.16 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | CONCENTRATIONS FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 115 Toluene-d8 (continued) | | | | | | | |
| 6.467 | 6.467 (1.237) | 100 | 267390 | | | 15.04- 115.04 | 64.09 |
| $ 159 Bromofluorobenzene | | | | | CAS #: 460-00-4 | | |
| 8.687 | 8.687 (1.128) | 174 | 171765 | 26.3676 | 26.368 | 80.00- 120.00 | 100.00 |
| 8.687 | 8.687 (1.128) | 95 | 234528 | | | 90.03- 190.03 | 136.54 |
| 8.687 | 8.687 (1.128) | 176 | 164559 | | | 47.31- 147.31 | 95.80 |
| 29 Ethanol | | | | | CAS #: 64-17-5 | | |
| 1.992 | 1.964 (0.466) | 45 | 13081 | 4.17557 | 6.723 | 80.00- 120.00 | 100.00 |
| 1.992 | 1.964 (0.466) | 43 | 3205 | | | 0.00- 84.20 | 24.50 |
| 1.992 | 1.964 (0.466) | 46 | 5421 | | | 0.00- 96.43 | 41.44 |
| 34 Acetone | | | | | CAS #: 67-64-1 | | |
| 2.319 | 2.312 (0.543) | 58 | 24309 | 6.43584 | 10.362 | 80.00- 120.00 | 100.00 |
| 2.319 | 2.312 (0.543) | 43 | 89132 | | | 281.49- 381.49 | 366.66 |
| 35 Carbon Disulfide | | | | | CAS #: 75-15-0 | | |
| 2.398 | 2.412 (0.561) | 76 | 15717 | 0.69512 | 1.119 | 80.00- 120.00 | 100.00 |
| 74 2-Butanone | | | | | CAS #: 78-93-3 | | |
| 4.082 | 4.074 (0.955) | 72 | 2534 | 0.68436 | 1.102 | 80.00- 120.00 | 100.00 |
| 4.074 | 4.074 (0.953) | 43 | 15441 | | | 408.01- 508.01 | 609.38 |
| 4.082 | 4.074 (0.955) | 57 | 1051 | | | 25.94- 125.94 | 41.49 |

Report Date: 29-Mar-2010 14:41

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdp.i
Lab File ID: p032014.d
Lab Smp Id: 1003364-02AA
Analysis Type: VOA
Quant Type: ISTD
Operator: xp
Method File: /chem/msdp.i/20mar10.b/p10q0311a.m
Misc Info: 5.0Hg->5psi

Calibration Date: 19-MAR-2010
Calibration Time: 23:03
Level: LOW
Sample Type: AIR

| | | AREA LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 76 Bromochloromethan | 147132 | 88279 | 205985 | 140642 | -4.41 |
| 97 1,4-Difluorobenze | 499171 | 299503 | 698839 | 409852 | -17.89 |
| 144 Chlorobenzene-d5 | 450394 | 270236 | 630552 | 355860 | -20.99 |

| | | RT LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 76 Bromochloromethan | 4.27 | 3.94 | 4.60 | 4.27 | 0.00 |
| 97 1,4-Difluorobenze | 5.23 | 4.90 | 5.56 | 5.23 | 0.00 |
| 144 Chlorobenzene-d5 | 7.70 | 7.37 | 8.03 | 7.70 | 0.00 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Report Date: 29-Mar-2010 14:41

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: 20mar10
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1003364-02AA
Level: LOW Operator: xp
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: 2926spectra.spk Quant Type: ISTD
Sublist File: TO15N.sub
Method File: /chem/msdp.i/20mar10.b/p10q0311a.m
Misc Info: 5.0Hg->5psi

| SURROGATE COMPOUND | CONC ADDED PPBV | CONC RECOVERED PPBV | % RECOVERED | LIMITS |
|---|---|---|---|---|
| $ 89 1,2-Dichloroethane | 25.000 | 25.371 | 101.48 | 70-130 |
| $ 115 Toluene-d8 | 25.000 | 24.681 | 98.72 | 70-130 |
| $ 159 Bromofluorobenzene | 25.000 | 26.368 | 105.47 | 70-130 |

Data File: /chem/msdp.i/20mar10.b/p032014.d



Date : 20-MAR-2010 11:58

Client ID:

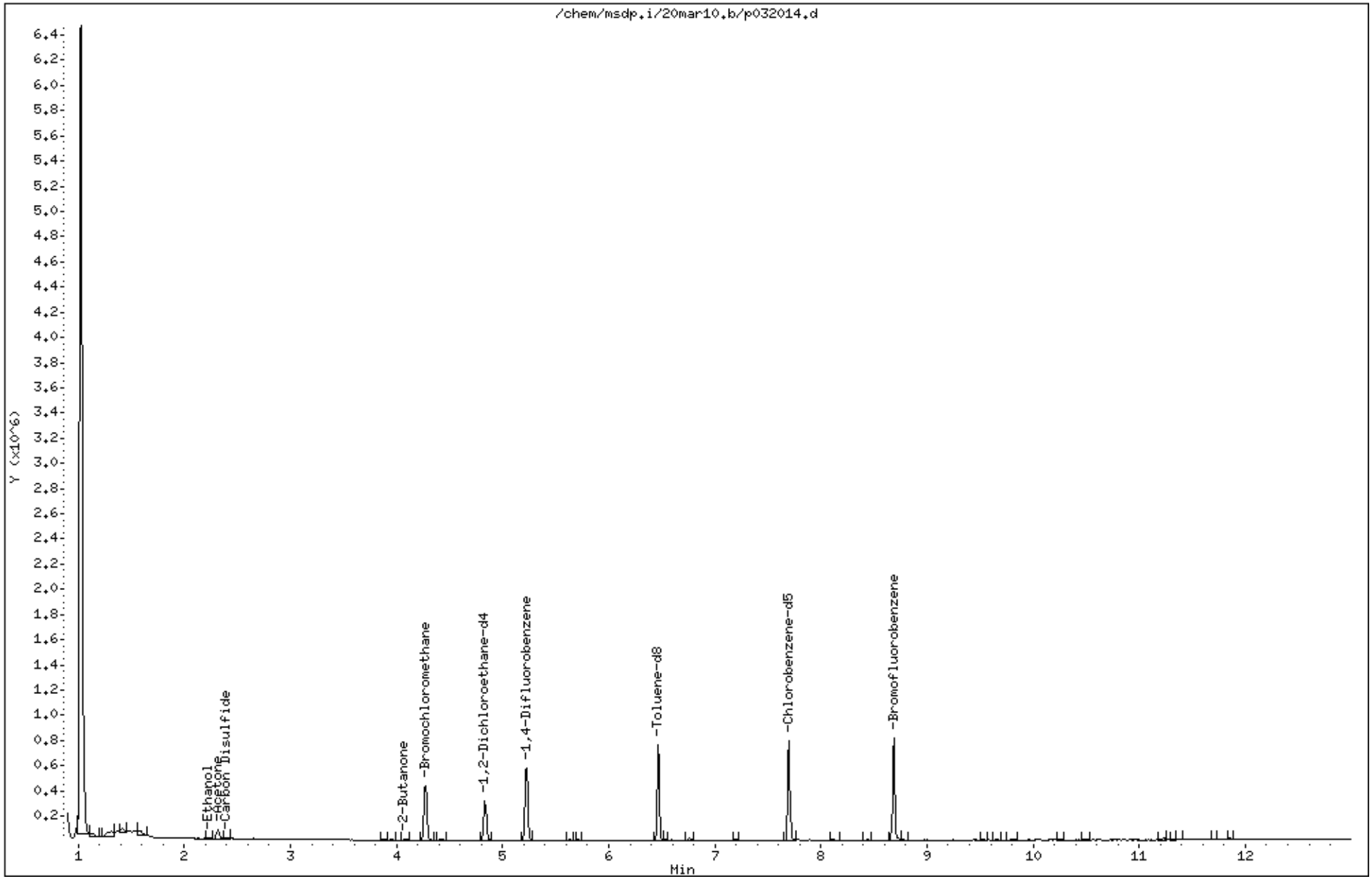
Instrument: msdp.i

Sample Info: 200ml #5561

Operator: xp

Column phase: RTx-624

Column diameter: 0.53



Data File: /chem/msdp.i/20mar10.b/p032014.d

Date : 20-MAR-2010 11:58

Client ID:

Instrument: msdp.i

Sample Info: 200ml #5561

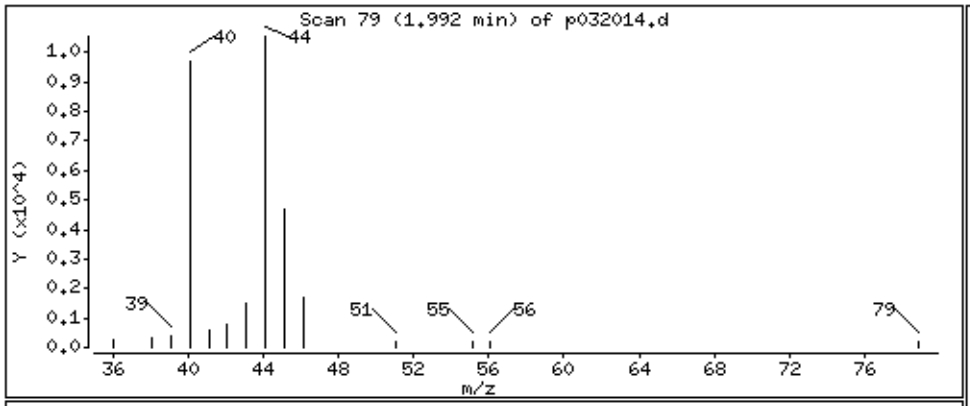
Operator: xp

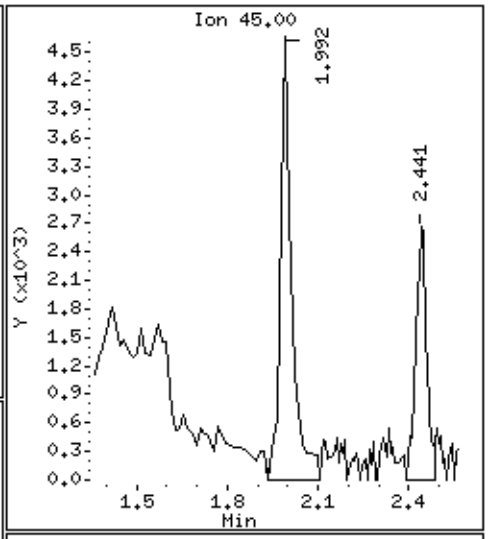
Column phase: RTx-624

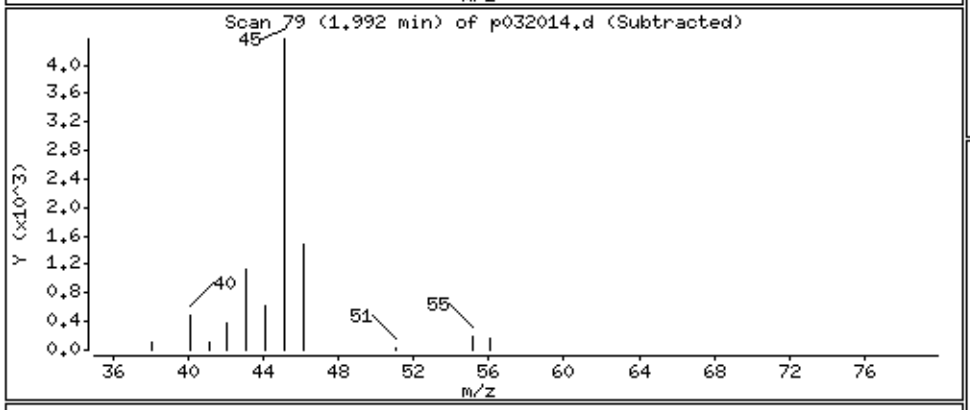
Column diameter: 0.53

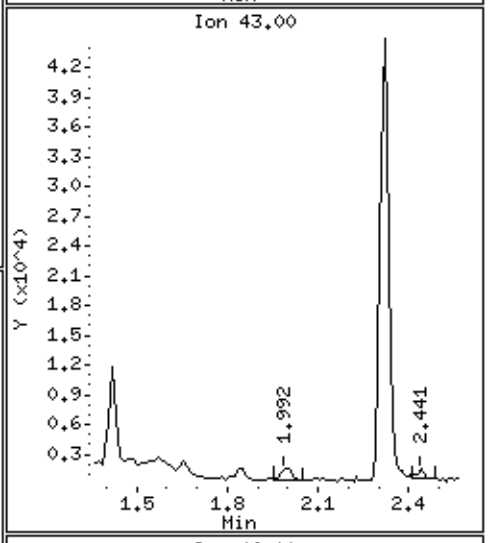
29 Ethanol

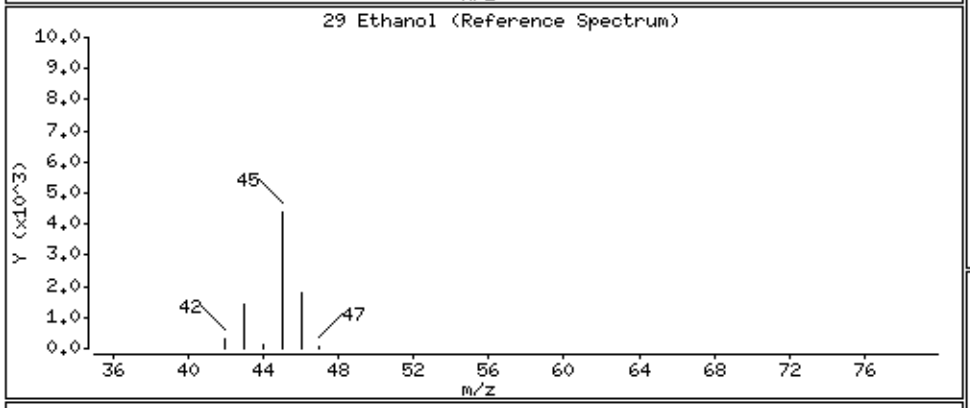
Concentration: 6.723 PPBV

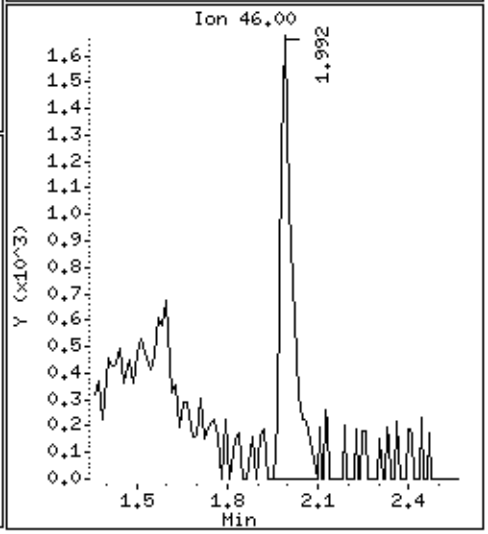


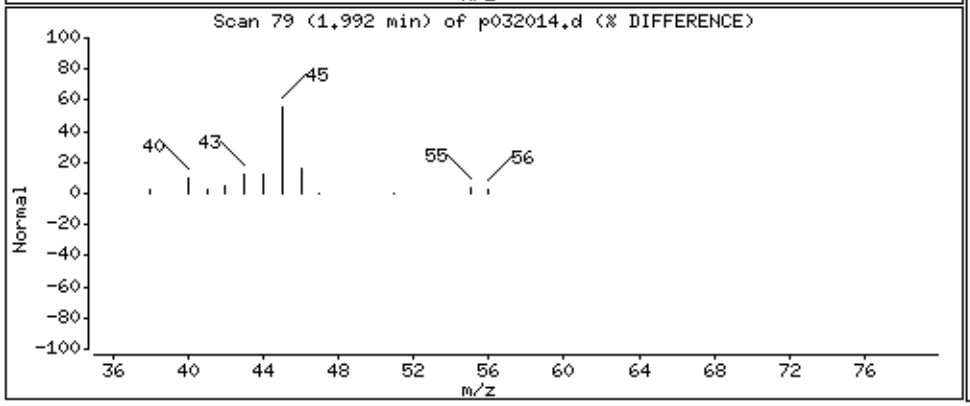



Data File: /chem/msdp.i/20mar10.b/p032014.d

Date : 20-MAR-2010 11:58

Client ID:

Instrument: msdp.i

Sample Info: 200ml #5561

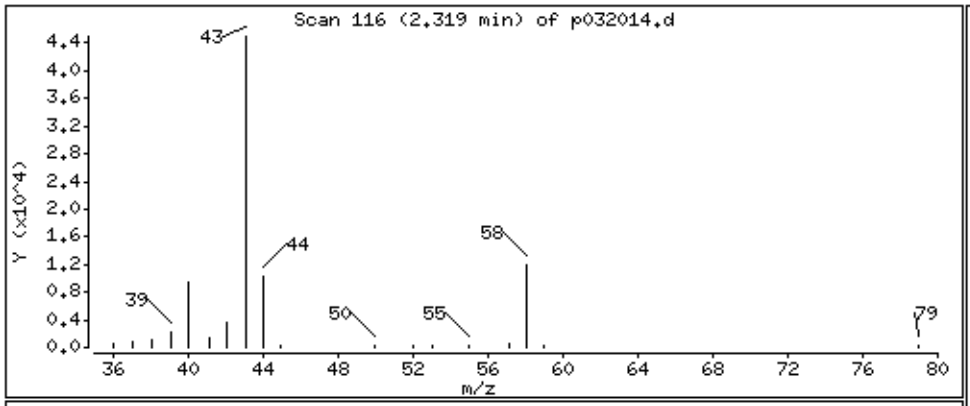
Operator: xp

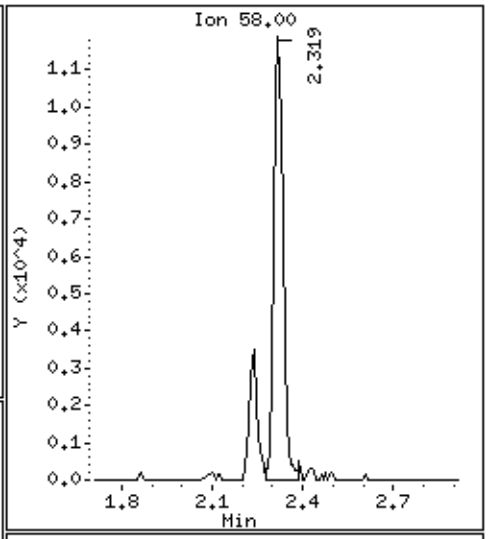
Column phase: RTx-624

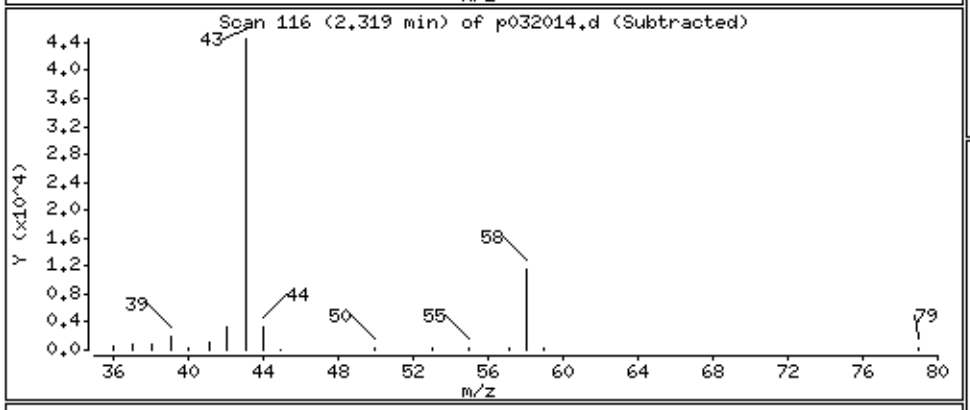
Column diameter: 0.53

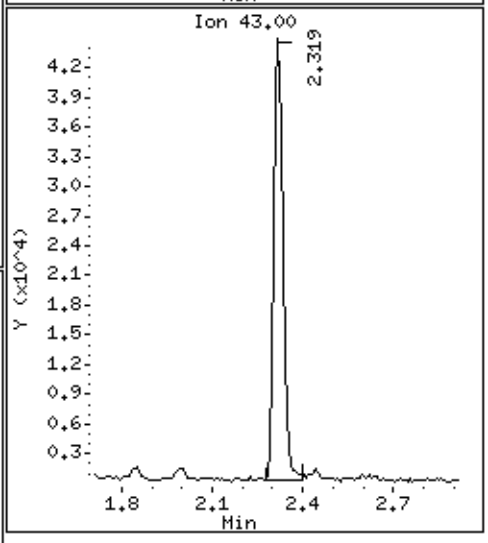
34 Acetone

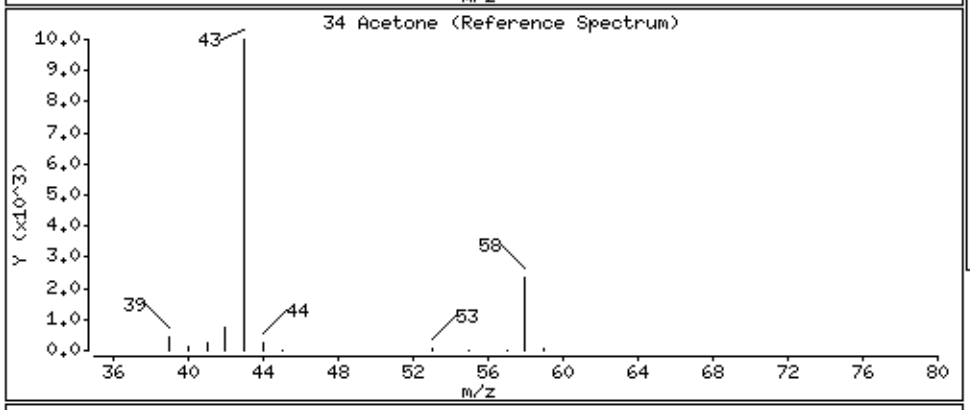
Concentration: 10.362 PPBV

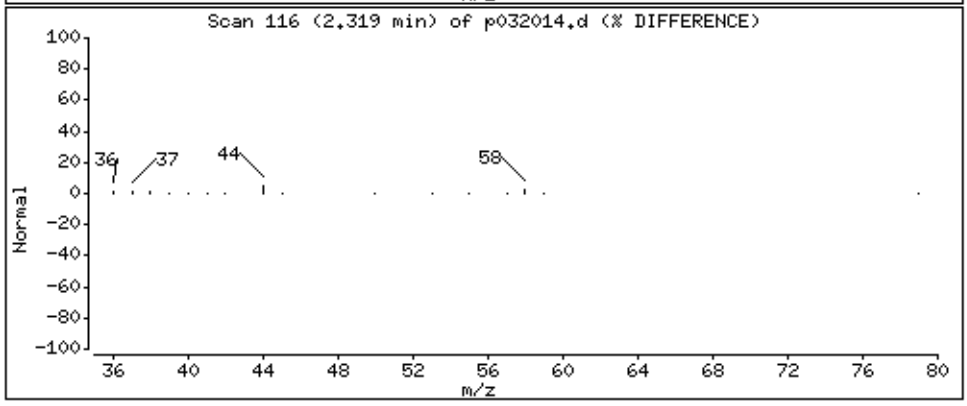


Data File: /chem/msdp.i/20mar10.b/p032014.d

Date : 20-MAR-2010 11:58

Client ID:

Instrument: msdp.i

Sample Info: 200ml #5561

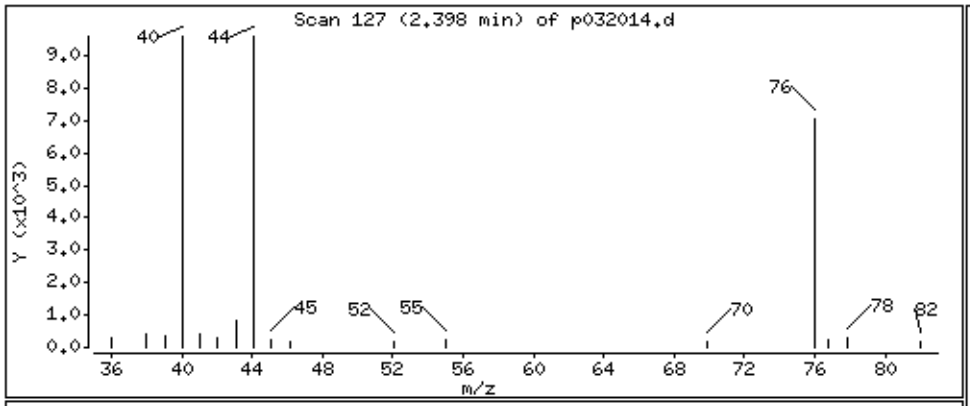
Operator: xp

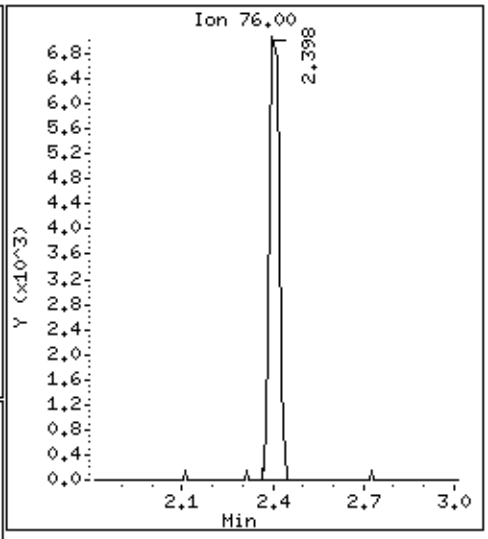
Column phase: RTx-624

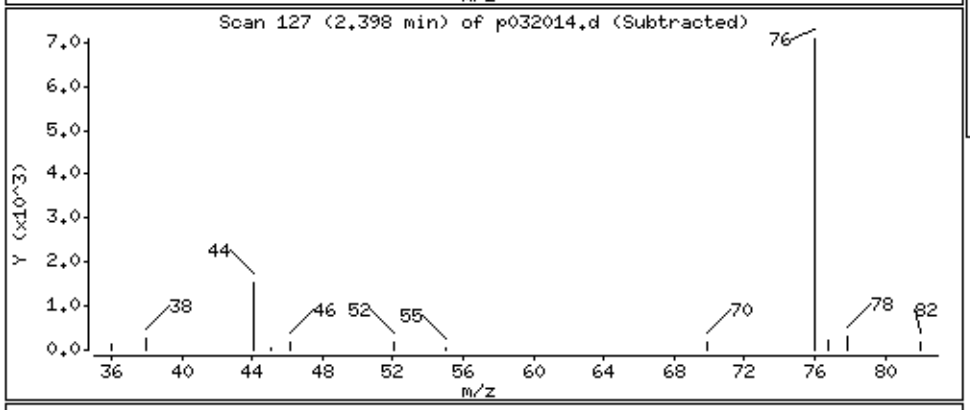
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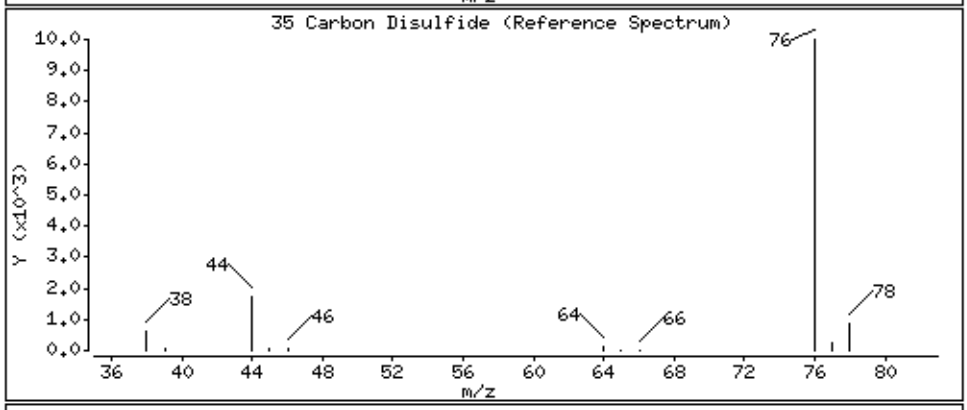
35 Carbon Disulfide

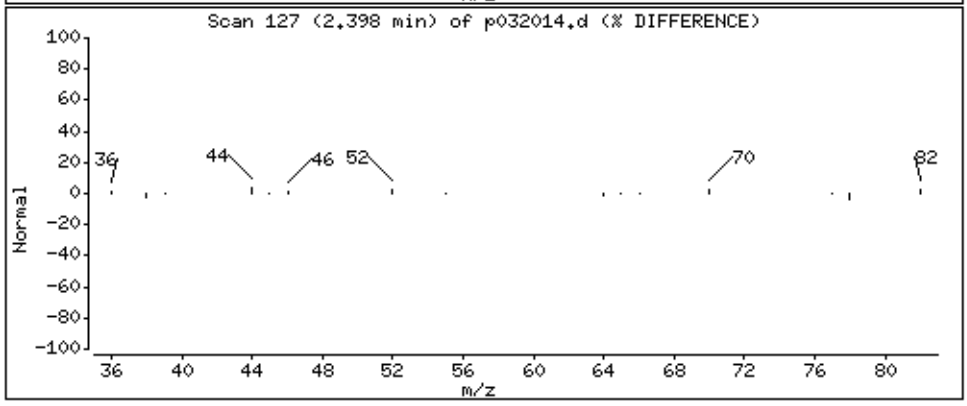
Concentration: 1.119 PPBV



Data File: /chem/msdp.i/20mar10.b/p032014.d

Date : 20-MAR-2010 11:58

Client ID:

Instrument: msdp.i

Sample Info: 200ml #5561

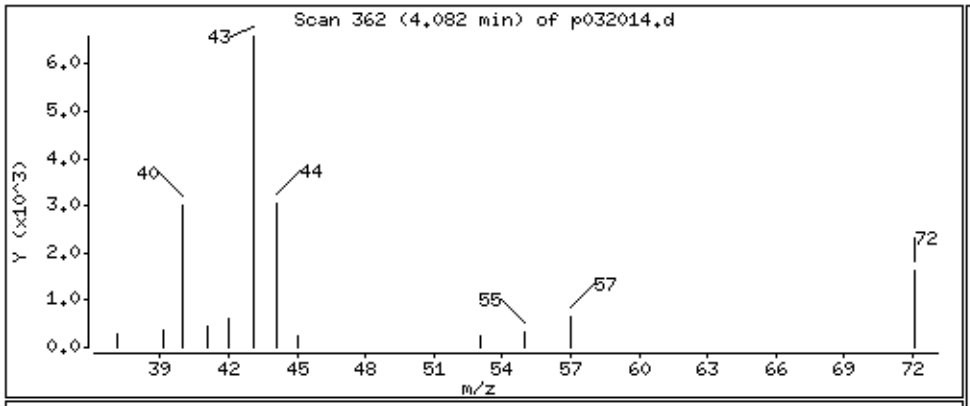
Operator: xp

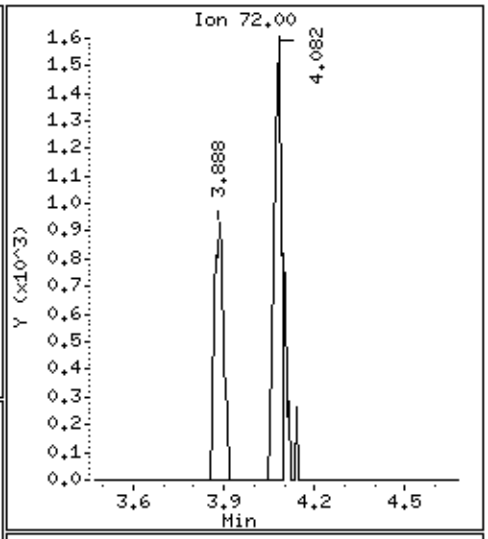
Column phase: RTx-624

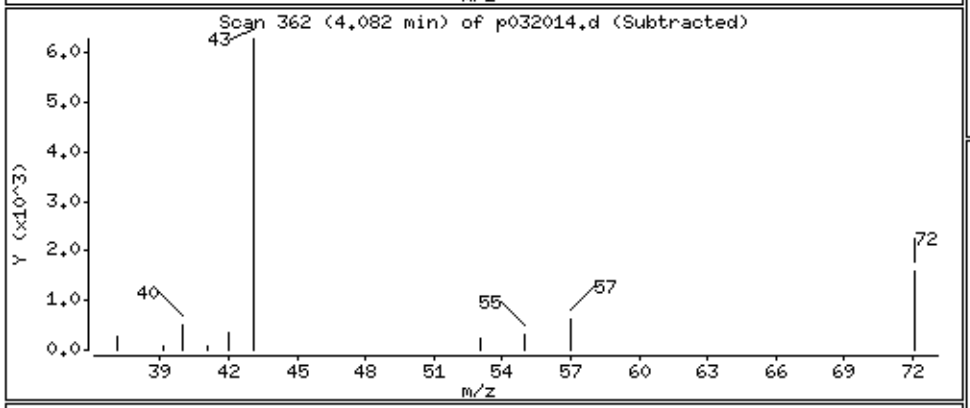
Column diameter: 0.53

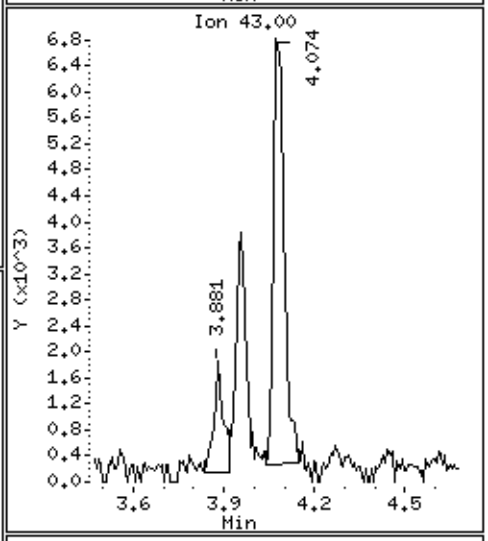
74 2-Butanone

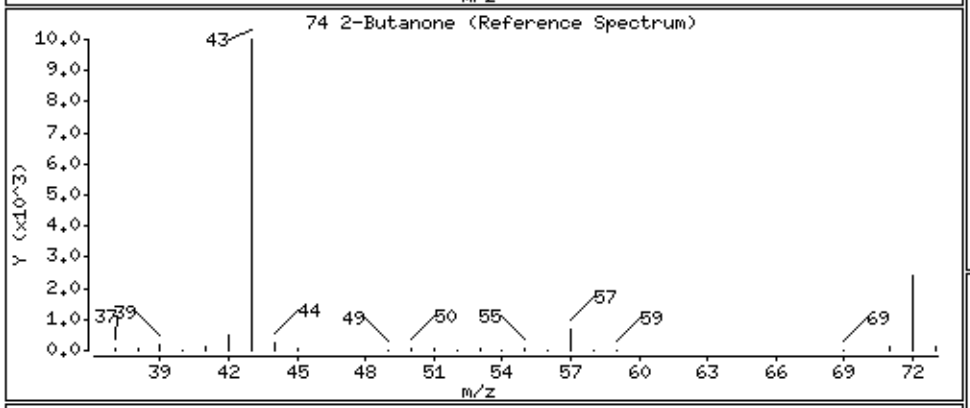
Concentration: 1.102 PPBV

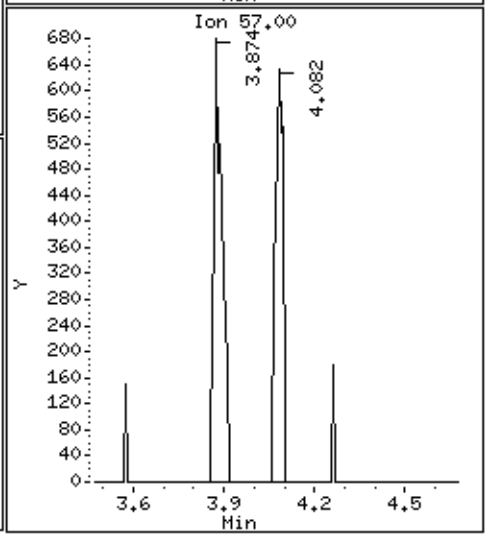


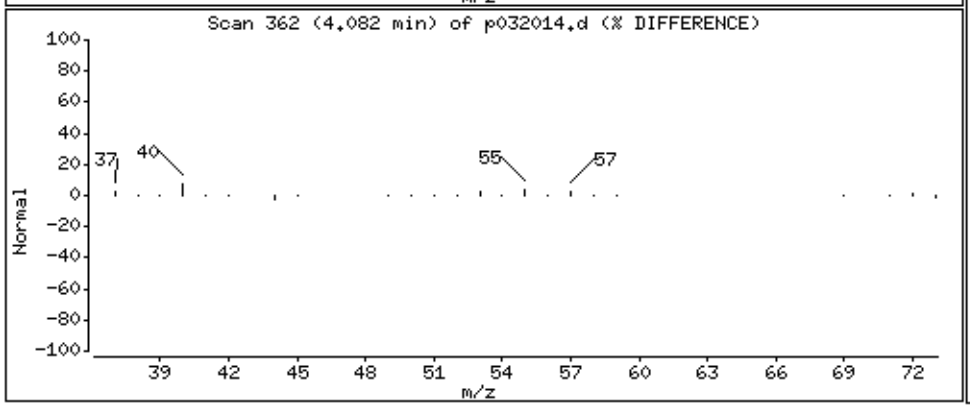



# QC Results and Raw Data

Air Toxics LTD.
Laboratory Services Since 1989

**Client Sample ID: Lab Blank**

**Lab ID#: 1003364-03A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **p032008** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 3/20/10 08:18 AM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (ug/m3) | Amount (ug/m3) |
|---|---|---|---|---|
| Freon 12 | 0.50 | Not Detected | 2.5 | Not Detected |
| Freon 114 | 0.50 | Not Detected | 3.5 | Not Detected |
| Chloromethane | 2.0 | Not Detected | 4.1 | Not Detected |
| Vinyl Chloride | 0.50 | Not Detected | 1.3 | Not Detected |
| 1,3-Butadiene | 0.50 | Not Detected | 1.1 | Not Detected |
| Bromomethane | 0.50 | Not Detected | 1.9 | Not Detected |
| Chloroethane | 0.50 | Not Detected | 1.3 | Not Detected |
| Freon 11 | 0.50 | Not Detected | 2.8 | Not Detected |
| Ethanol | 2.0 | Not Detected | 3.8 | Not Detected |
| Freon 113 | 0.50 | Not Detected | 3.8 | Not Detected |
| 1,1-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| Acetone | 2.0 | Not Detected | 4.8 | Not Detected |
| 2-Propanol | 2.0 | Not Detected | 4.9 | Not Detected |
| Carbon Disulfide | 0.50 | Not Detected | 1.6 | Not Detected |
| 3-Chloropropene | 2.0 | Not Detected | 6.3 | Not Detected |
| Methylene Chloride | 0.50 | Not Detected | 1.7 | Not Detected |
| Methyl tert-butyl ether | 0.50 | Not Detected | 1.8 | Not Detected |
| trans-1,2-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| Hexane | 0.50 | Not Detected | 1.8 | Not Detected |
| 1,1-Dichloroethane | 0.50 | Not Detected | 2.0 | Not Detected |
| 2-Butanone (Methyl Ethyl Ketone) | 0.50 | Not Detected | 1.5 | Not Detected |
| cis-1,2-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| Tetrahydrofuran | 0.50 | Not Detected | 1.5 | Not Detected |
| Chloroform | 0.50 | Not Detected | 2.4 | Not Detected |
| 1,1,1-Trichloroethane | 0.50 | Not Detected | 2.7 | Not Detected |
| Cyclohexane | 0.50 | Not Detected | 1.7 | Not Detected |
| Carbon Tetrachloride | 0.50 | Not Detected | 3.1 | Not Detected |
| 2,2,4-Trimethylpentane | 0.50 | Not Detected | 2.3 | Not Detected |
| Benzene | 0.50 | Not Detected | 1.6 | Not Detected |
| 1,2-Dichloroethane | 0.50 | Not Detected | 2.0 | Not Detected |
| Heptane | 0.50 | Not Detected | 2.0 | Not Detected |
| Trichloroethene | 0.50 | Not Detected | 2.7 | Not Detected |
| 1,2-Dichloropropane | 0.50 | Not Detected | 2.3 | Not Detected |
| 1,4-Dioxane | 2.0 | Not Detected | 7.2 | Not Detected |
| Bromodichloromethane | 0.50 | Not Detected | 3.4 | Not Detected |
| cis-1,3-Dichloropropene | 0.50 | Not Detected | 2.3 | Not Detected |
| 4-Methyl-2-pentanone | 0.50 | Not Detected | 2.0 | Not Detected |
| Toluene | 0.50 | Not Detected | 1.9 | Not Detected |
| trans-1,3-Dichloropropene | 0.50 | Not Detected | 2.3 | Not Detected |

Air Toxics LTD.
Laboratory Services Since 1989

**Client Sample ID: Lab Blank**

**Lab ID#: 1003364-03A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **p032008** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 3/20/10 08:18 AM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (ug/m3) | Amount (ug/m3) |
|---|---|---|---|---|
| 1,1,2-Trichloroethane | 0.50 | Not Detected | 2.7 | Not Detected |
| Tetrachloroethene | 0.50 | Not Detected | 3.4 | Not Detected |
| 2-Hexanone | 2.0 | Not Detected | 8.2 | Not Detected |
| Dibromochloromethane | 0.50 | Not Detected | 4.2 | Not Detected |
| 1,2-Dibromoethane (EDB) | 0.50 | Not Detected | 3.8 | Not Detected |
| Chlorobenzene | 0.50 | Not Detected | 2.3 | Not Detected |
| Ethyl Benzene | 0.50 | Not Detected | 2.2 | Not Detected |
| m,p-Xylene | 0.50 | Not Detected | 2.2 | Not Detected |
| o-Xylene | 0.50 | Not Detected | 2.2 | Not Detected |
| Styrene | 0.50 | Not Detected | 2.1 | Not Detected |
| Bromoform | 0.50 | Not Detected | 5.2 | Not Detected |
| Cumene | 0.50 | Not Detected | 2.4 | Not Detected |
| 1,1,2,2-Tetrachloroethane | 0.50 | Not Detected | 3.4 | Not Detected |
| Propylbenzene | 0.50 | Not Detected | 2.4 | Not Detected |
| 4-Ethyltoluene | 0.50 | Not Detected | 2.4 | Not Detected |
| 1,3,5-Trimethylbenzene | 0.50 | Not Detected | 2.4 | Not Detected |
| 1,2,4-Trimethylbenzene | 0.50 | Not Detected | 2.4 | Not Detected |
| 1,3-Dichlorobenzene | 0.50 | Not Detected | 3.0 | Not Detected |
| 1,4-Dichlorobenzene | 0.50 | Not Detected | 3.0 | Not Detected |
| alpha-Chlorotoluene | 0.50 | Not Detected | 2.6 | Not Detected |
| 1,2-Dichlorobenzene | 0.50 | Not Detected | 3.0 | Not Detected |
| 1,2,4-Trichlorobenzene | 2.0 | Not Detected | 15 | Not Detected |
| Hexachlorobutadiene | 2.0 | Not Detected | 21 | Not Detected |
| Naphthalene | 2.0 | Not Detected | 10 | Not Detected |

**Container Type: NA - Not Applicable**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| Toluene-d8 | 98 | 70-130 |
| 1,2-Dichloroethane-d4 | 100 | 70-130 |
| 4-Bromofluorobenzene | 102 | 70-130 |

Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msdp.i/20mar10.b/p032008.d
Lab Smp Id: lab blank Client Smp ID: lab blank
Inj Date : 20-MAR-2010 08:18
Operator : kjj Inst ID: msdp.i
Smp Info : 200ml #21017
Misc Info : humid
Comment :
Method : /var/chem/msdp.i/20mar10.b/p10q0311a.m
Meth Date : 19-Mar-2010 23:15 aburke Quant Type: ISTD
Cal Date : 11-MAR-2010 15:18 Cal File: p031117.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT09.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| | | | | CONCENTRATIONS ON-COL | FINAL | | |
|---|---|---|---|---|---|---|---|
| RT | EXP RT (REL RT) | MASS | RESPONSE | ( PPBV) | ( PPBV) | TARGET RANGE | RATIO |
| * 76 Bromochloromethane | | | | | CAS #: 74-97-5 | | |
| 4.275 | 4.275 (1.000) | 130 | 137102 | 25.0000 | | 80.00- 120.00 | 100.00 |
| 4.275 | 4.275 (1.000) | 128 | 109157 | | | 29.36- 129.36 | 79.62 |
| 4.275 | 4.275 (1.000) | 49 | 207837 | | | 105.98- 205.98 | 151.59 |
| * 97 1,4-Difluorobenzene | | | | | CAS #: 540-36-3 | | |
| 5.228 | 5.227 (1.000) | 114 | 427859 | 25.0000 | | 80.00- 120.00 | 100.00 |
| 5.220 | 5.227 (1.000) | 88 | 65191 | | | 0.00- 65.66 | 15.24 |
| * 144 Chlorobenzene-d5 | | | | | CAS #: 3114-55-4 | | |
| 7.699 | 7.699 (1.000) | 117 | 356375 | 25.0000 | | 80.00- 120.00 | 100.00 |
| 7.699 | 7.699 (1.000) | 82 | 213759 | | | 7.05- 107.05 | 59.98 |
| $ 89 1,2-Dichloroethane-d4 | | | | | CAS #: 17060-07-0 | | |
| 4.834 | 4.833 (1.131) | 65 | 183945 | 25.0495 | 25.050 | 80.00- 120.00 | 100.00 |
| 4.834 | 4.833 (1.131) | 67 | 93655 | | | 6.22- 106.22 | 50.92 |
| $ 115 Toluene-d8 | | | | | CAS #: 2037-26-5 | | |
| 6.467 | 6.467 (1.237) | 98 | 431591 | 24.4575 | 24.458 | 80.00- 120.00 | 100.00 |
| 6.467 | 6.467 (1.237) | 70 | 50961 | | | 0.00- 61.60 | 11.81 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 115 Toluene-d8 (continued) | | | | | | | |
| 6.467 | 6.467 (1.237) | 100 | 272662 | | | 15.04- 115.04 | 63.18 |
| $ 159 Bromofluorobenzene | | | | | CAS #: 460-00-4 | | |
| 8.687 | 8.687 (1.128) | 174 | 166269 | 25.4870 | 25.487 | 80.00- 120.00 | 100.00 |
| 8.687 | 8.687 (1.128) | 95 | 231440 | | | 90.03- 190.03 | 139.20 |
| 8.687 | 8.687 (1.128) | 176 | 160332 | | | 47.31- 147.31 | 96.43 |

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdp.i
Lab File ID: p032008.d
Lab Smp Id: lab blank
Analysis Type: VOA
Quant Type: ISTD
Operator: kjj
Method File: /var/chem/msdp.i/20mar10.b/p10q0311a.m
Misc Info: humid

Calibration Date: 19-MAR-2010
Calibration Time: 23:03
Client Smp ID: lab blank
Level: LOW
Sample Type: AIR

| | | AREA LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 76 Bromochloromethan | 147132 | 88279 | 205985 | 137102 | -6.82 |
| 97 1,4-Difluorobenze | 499171 | 299503 | 698839 | 427859 | -14.29 |
| 144 Chlorobenzene-d5 | 450394 | 270236 | 630552 | 356375 | -20.87 |

| | | RT LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 76 Bromochloromethan | 4.27 | 3.94 | 4.60 | 4.27 | 0.00 |
| 97 1,4-Difluorobenze | 5.23 | 4.90 | 5.56 | 5.23 | 0.00 |
| 144 Chlorobenzene-d5 | 7.70 | 7.37 | 8.03 | 7.70 | 0.00 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Report Date: 20-Mar-2010 08:33

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: 20mar10
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: lab blank Client Smp ID: lab blank
Level: LOW Operator: kjj
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: 2926spectra.spk Quant Type: ISTD
Sublist File: AT09.sub
Method File: /var/chem/msdp.i/20mar10.b/p10q0311a.m
Misc Info: humid

| SURROGATE COMPOUND | CONC ADDED PPBV | CONC RECOVERED PPBV | % RECOVERED | LIMITS |
|---|---|---|---|---|
| $ 89 1,2-Dichloroethane | 25.000 | 25.050 | 100.20 | 70-130 |
| $ 115 Toluene-d8 | 25.000 | 24.458 | 97.83 | 70-130 |
| $ 159 Bromofluorobenzene | 25.000 | 25.487 | 101.95 | 70-130 |

Data File: /chem/msdp.i/20mar10.b/p032008.d

Page 1

Date : 20-MAR-2010 08:18

Client ID: lab blank

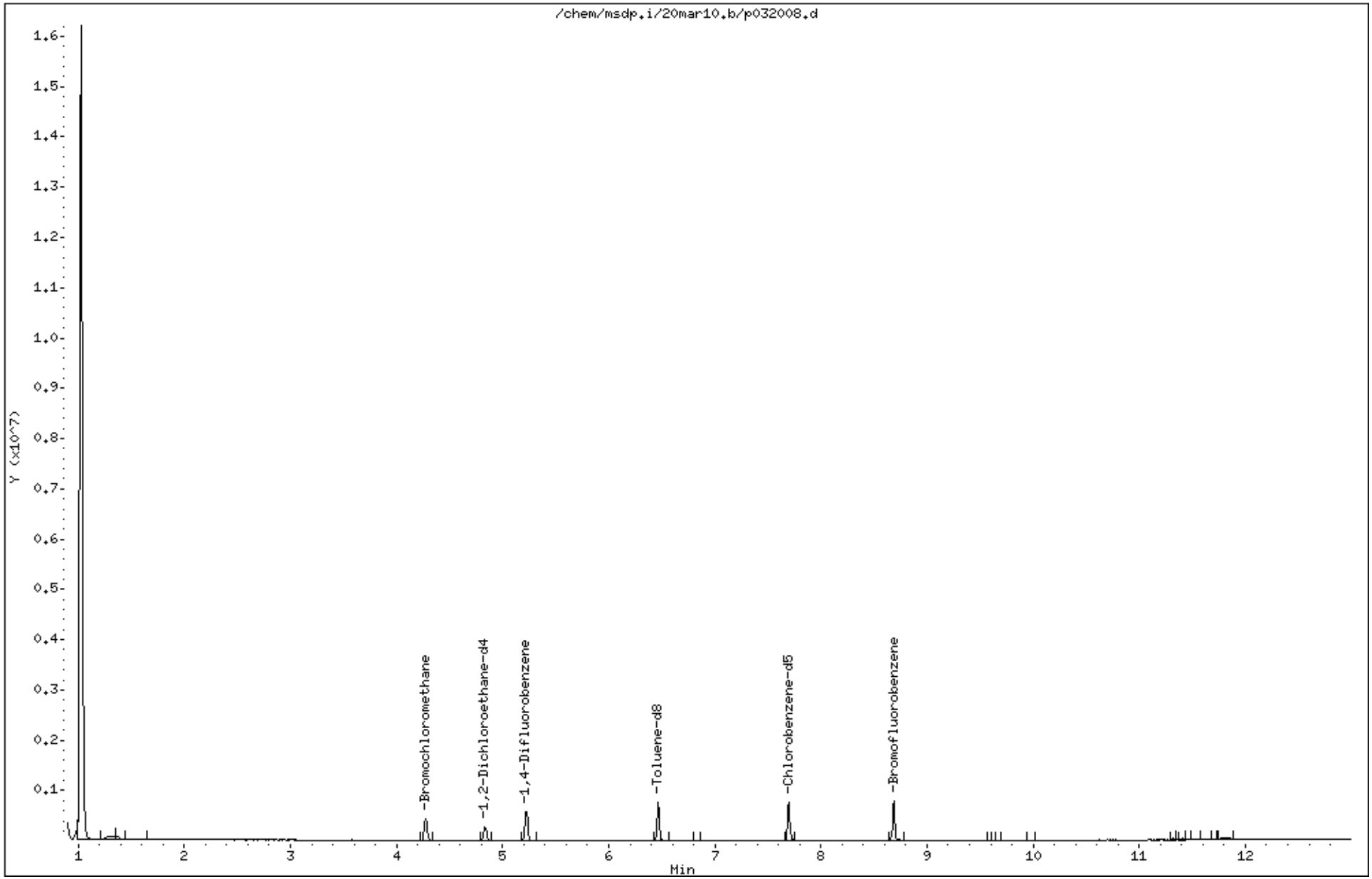
Instrument: msdp.i

Sample Info: 200ml #21017

Operator: kjj

Column phase: RTx-624

Column diameter: 0.53



# LEVEL-IV VALIDATABLE

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

SURROGATE RECOVERY FORM

Lab Name: AIR TOXICS LIMITED. SDG No.: 1003364

| | CLIENT SAMPLE NO. | SURROGATE % RECOVERY | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 1,2-Dichloroethane-d4 | # | Toluene-d8 | # | 4-Bromofluorobenzene | # | | # | TOTAL OUT |
| 01 | UW AMS 1 | 100 | | 98 | | 103 | | | | 0 |
| 02 | DW AMS 4 | 103 | | 98 | | 106 | | | | 0 |
| 03 | DW AMS 4 Lab Duplicate | 101 | | 99 | | 105 | | | | 0 |
| 04 | Lab Blank | 100 | | 98 | | 102 | | | | 0 |
| 05 | CCV | 109 | | 108 | | 110 | | | | 0 |
| 06 | LCS | 110 | | 111 | | 112 | | | | 0 |
| 07 | | | | | | | | | | 0 |
| 08 | | | | | | | | | | 0 |
| 09 | | | | | | | | | | 0 |
| 10 | | | | | | | | | | 0 |
| 11 | | | | | | | | | | 0 |
| 12 | | | | | | | | | | 0 |
| 13 | | | | | | | | | | 0 |
| 14 | | | | | | | | | | 0 |
| 15 | | | | | | | | | | 0 |
| 16 | | | | | | | | | | 0 |
| 17 | | | | | | | | | | 0 |
| 18 | | | | | | | | | | 0 |
| 19 | | | | | | | | | | 0 |
| 20 | | | | | | | | | | 0 |
| 21 | | | | | | | | | | 0 |
| 22 | | | | | | | | | | 0 |
| 23 | | | | | | | | | | 0 |
| 24 | | | | | | | | | | 0 |

Surrogate Recovery Limits

1,2-Dichloroethane-d4 70 - 130
Toluene-d8 70 - 130
4-Bromofluorobenzene 70 - 130

* Designates values outside of QC limits

# LEVEL-IV VALIDATABLE

Modified EPA Method TO-15 GC/MS Full Scan

INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: AIR TOXICS, LTD
SDG No: 1003364
Lab File ID: p032005.d
Date Analyzed: 03/19/2010
Instrument ID: msdp.i
Time Analyzed: 11:03 PM

| | | Chlorobenzene-d5 Area | # | RT | # | 1,4-Difluorobenzene Area | # | RT | # | Bromochloromethane Area | # | RT | # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 24-HOUR STD | 450394 | | 7.7 | | 499171 | | 5.23 | | 147132 | | 4.27 | |
| | UPPER LIMIT | 630552 | | 08.03 | | 698839 | | 05.56 | | 205985 | | 04.60 | |
| | LOWER LIMIT | 270236 | | 07.37 | | 299503 | | 04.90 | | 88279 | | 03.94 | |
| | CLIENT SAMPLE NO | | | | | | | | | | | | |
| 01 | UW AMS 1 | 372798 | | 7.7 | | 433216 | | 5.22 | | 147757 | | 4.27 | |
| 02 | DW AMS 4 | 359792 | | 7.7 | | 414205 | | 5.22 | | 140688 | | 4.27 | |
| 03 | DW AMS 4 Lab Duplicate | 355860 | | 7.7 | | 409852 | | 5.23 | | 140642 | | 4.27 | |
| 04 | Lab Blank | 356375 | | 7.7 | | 427859 | | 5.23 | | 137102 | | 4.27 | |
| 05 | CCV | 450394 | | 7.7 | | 499171 | | 5.23 | | 147132 | | 4.27 | |
| 06 | LCS | 392619 | | 7.7 | | 422507 | | 5.23 | | 129270 | | 4.27 | |
| 07 | | | | | | | | | | | | | |
| 08 | | | | | | | | | | | | | |
| 09 | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | |
| 13 | | | | | | | | | | | | | |
| 14 | | | | | | | | | | | | | |
| 15 | | | | | | | | | | | | | |
| 16 | | | | | | | | | | | | | |
| 17 | | | | | | | | | | | | | |
| 18 | | | | | | | | | | | | | |
| 19 | | | | | | | | | | | | | |
| 20 | | | | | | | | | | | | | |
| 21 | | | | | | | | | | | | | |
| 22 | | | | | | | | | | | | | |

'Area Upper Limit=+40% of internal standard area'
'Area Lower Limit=-40% of internal standard area'

RT Upper Limit=+0.33 minutes of internal standard RT
RT Lower Limit=-0.33 minutes of internal standard RT

* Designates values outside of QC limits

## SAMPLE RESULTS/SAMPLE RESULTS DUPLICATE

Lab Name: Air Toxics Ltd. Lab File ID: p032014.d & p032013.d

Lab Sample ID: 02A & 02AA Dilution: 1.61 & 1.61

Client Sample ID: & Date Analyzed: 3/20/10 & 3/20/10

| CAS Number | Compound | Original Amount | Original Flags | Duplicate Amount | Duplicate Flags | RPD | Result Less Than 5X RL |
|---|---|---|---|---|---|---|---|
| 71-55-6 | 1,1,1-Trichloroethane | ND | U | ND | U | 0 | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | U | ND | U | 0 | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | U | ND | U | 0 | |
| 75-34-3 | 1,1-Dichloroethane | ND | U | ND | U | 0 | |
| 75-35-4 | 1,1-Dichloroethene | ND | U | ND | U | 0 | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | U | ND | U | 0 | |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | U | ND | U | 0 | |
| 106-93-4 | 1,2-Dibromoethane (EDB) | ND | U | ND | U | 0 | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | U | ND | U | 0 | |
| 107-06-2 | 1,2-Dichloroethane | ND | U | ND | U | 0 | |
| 78-87-5 | 1,2-Dichloropropane | ND | U | ND | U | 0 | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | U | ND | U | 0 | |
| 106-99-0 | 1,3-Butadiene | ND | U | ND | U | 0 | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | U | ND | U | 0 | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | U | ND | U | 0 | |
| 123-91-1 | 1,4-Dioxane | ND | U | ND | U | 0 | |
| 540-84-1 | 2,2,4-Trimethylpentane | ND | U | ND | U | 0 | |
| 78-93-3 | 2-Butanone (Methyl Ethyl Ketone) | 1.319 | | 1.102 | | 18 | Y |
| 591-78-6 | 2-Hexanone | ND | U | ND | U | 0 | |
| 67-63-0 | 2-Propanol | ND | U | ND | U | 0 | |
| 107-05-1 | 3-Chloropropene | ND | U | ND | U | 0 | |
| 622-96-8 | 4-Ethyltoluene | ND | U | ND | U | 0 | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | U | ND | U | 0 | |
| 67-64-1 | Acetone | 10.74 | | 10.362 | | 3.6 | Y |
| 100-44-7 | alpha-Chlorotoluene | ND | U | ND | U | 0 | |
| 71-43-2 | Benzene | ND | U | ND | U | 0 | |
| 75-27-4 | Bromodichloromethane | ND | U | ND | U | 0 | |
| 75-25-2 | Bromoform | ND | U | ND | U | 0 | |
| 74-83-9 | Bromomethane | ND | U | ND | U | 0 | |
| 75-15-0 | Carbon Disulfide | 1.221 | | 1.119 | | 8.7 | Y |
| 56-23-5 | Carbon Tetrachloride | ND | U | ND | U | 0 | |
| 108-90-7 | Chlorobenzene | ND | U | ND | U | 0 | |
| 75-00-3 | Chloroethane | ND | U | ND | U | 0 | |
| 67-66-3 | Chloroform | ND | U | ND | U | 0 | |
| 74-87-3 | Chloromethane | ND | U | ND | U | 0 | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | U | ND | U | 0 | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | U | ND | U | 0 | |
| 98-82-8 | Cumene | ND | U | ND | U | 0 | |
| 110-82-7 | Cyclohexane | ND | U | ND | U | 0 | |
| 124-48-1 | Dibromochloromethane | ND | U | ND | U | 0 | |
| 64-17-5 | Ethanol | 5.979 | | 6.723 | | 12 | Y |
| 100-41-4 | Ethyl Benzene | ND | U | ND | U | 0 | |
| 75-69-4 | Freon 11 | ND | U | ND | U | 0 | |
| 76-13-1 | Freon 113 | ND | U | ND | U | 0 | |
| 76-14-2 | Freon 114 | ND | U | ND | U | 0 | |
| 75-71-8 | Freon 12 | ND | U | ND | U | 0 | |

Note: The results appearing in the Amount columns are the raw, unrounded numbers acquired from the instrument.

## SAMPLE RESULTS/SAMPLE RESULTS DUPLICATE

Lab Name: Air Toxics Ltd.
Lab File ID: p032014.d & p032013.d
Lab Sample ID: 02A & 02AA
Dilution: 1.61 & 1.61
Client Sample ID: &
Date Analyzed: 3/20/10 & 3/20/10

| CAS Number | Compound | Original Amount | Original Flags | Duplicate Amount | Duplicate Flags | RPD | Result Less Than 5X RL |
|---|---|---|---|---|---|---|---|
| 142-82-5 | Heptane | ND | U | ND | U | 0 | |
| 87-68-3 | Hexachlorobutadiene | ND | U | ND | U | 0 | |
| 110-54-3 | Hexane | ND | U | ND | U | 0 | |
| 108-38-3 | m,p-Xylene | ND | U | ND | U | 0 | |
| 1634-04-4 | Methyl tert-butyl ether | ND | U | ND | U | 0 | |
| 75-09-2 | Methylene Chloride | ND | U | ND | U | 0 | |
| 91-20-3 | Naphthalene | ND | U | ND | U | 0 | |
| 95-47-6 | o-Xylene | ND | U | ND | U | 0 | |
| 103-65-1 | Propylbenzene | ND | U | ND | U | 0 | |
| 100-42-5 | Styrene | ND | U | ND | U | 0 | |
| 127-18-4 | Tetrachloroethene | ND | U | ND | U | 0 | |
| 109-99-9 | Tetrahydrofuran | ND | U | ND | U | 0 | |
| 108-88-3 | Toluene | ND | U | ND | U | 0 | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | U | ND | U | 0 | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | U | ND | U | 0 | |
| 79-01-6 | Trichloroethene | ND | U | ND | U | 0 | |
| 75-01-4 | Vinyl Chloride | ND | U | ND | U | 0 | |

Note: The results appearing in the Amount columns are the raw, unrounded numbers acquired from the instrument.

# Air Toxics Ltd.

## INITIAL CALIBRATION DATA

Start Cal Date : 11-MAR-2010 09:08
End Cal Date : 11-MAR-2010 15:18
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msdp.i/11mar10.b/p10q0311a.m
Cal Date : 13-Mar-2010 10:37 jparker
Curve Type : Average

Calibration File Names:
Level 1: /chem/msdp.i/11mar10.b/p031103.d
Level 2: /chem/msdp.i/11mar10.b/p031104.d
Level 3: /chem/msdp.i/11mar10.b/p031115.d
Level 4: /chem/msdp.i/11mar10.b/p031106.d
Level 5: /chem/msdp.i/11mar10.b/p031116.d
Level 6: /chem/msdp.i/11mar10.b/p031108.d
Level 7: /chem/msdp.i/11mar10.b/p031117.d

| Compound | 0.30000 Level 1 | 0.50000 Level 2 | 2.000 Level 3 | 25.000 Level 4 | 50.000 Level 5 | 100.000 Level 6 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|
| | 200.000 Level 7 | | | | | | | |
| 1 Dimethyl Ether | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| 2 Acetaldehyde | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| 3 Freon 13 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| 4 Freon 134a | +++++ | +++++ | 0.88824 | +++++ | 0.77640 | +++++ | | |
| | 0.66819 | | | | | | 0.77761 | 14.150 |
| 5 Freon 152a | +++++ | +++++ | 0.57332 | +++++ | 0.47588 | +++++ | | |
| | 0.38017 | | | | | | 0.47645 | 20.271 |
| 6 Propylene | +++++ | +++++ | 1.14840 | 1.08606 | 1.03472 | 0.94559 | | |
| | 0.92793 | | | | | | 1.02854 | 9.058 |
| 7 Dichlorodifluoromethane/Fr12 | +++++ | 3.75621 | 3.59060 | 3.92448 | 3.70801 | 3.33876 | | |
| | 3.20607 | | | | | | 3.58735 | 7.520 |

# Air Toxics Ltd.

## INITIAL CALIBRATION DATA

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End Cal Date : 11-MAR-2010 15:18
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Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msdp.i/11mar10.b/p10q0311a.m
Cal Date : 13-Mar-2010 10:37 jparker
Curve Type : Average

| Compound | 0.30000 Level 1 | 0.50000 Level 2 | 2.000 Level 3 | 25.000 Level 4 | 50.000 Level 5 | 100.000 Level 6 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|
| | 200.000 Level 7 | | | | | | | |
| 8 2-Methyl-1-Butene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| 9 Freon 22 | +++++ | +++++ | 0.35280 | +++++ | 0.22703 | +++++ | | |
| | 0.17610 | | | | | | 0.25198 | 36.097 |
| 10 Freon 114 | +++++ | 2.60106 | 2.55070 | 2.81002 | 2.68553 | 2.44972 | | |
| | 2.59671 | | | | | | 2.61562 | 4.682 |
| 11 Chloromethane | +++++ | +++++ | 0.70919 | 1.10274 | 0.98416 | 0.83552 | | |
| | 0.58111 | | | | | | 0.84254 | 24.750 |
| 12 Isobutane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| 13 Butane | +++++ | +++++ | 0.25195 | 0.31392 | 0.29331 | 0.26455 | | |
| | 0.17250 | | | | | | 0.25925 | 20.912 |
| 14 Vinyl Chloride | +++++ | 1.49158 | 0.98845 | 1.49438 | 1.40804 | 1.26508 | | |
| | +++++ | | | | | | 1.32951 | 15.960 |
| 15 1,3-Butadiene | +++++ | 1.47340 | 0.61923 | 1.13650 | 1.09609 | 1.00711 | | |
| | +++++ | | | | | | 1.06647 | 28.707 |
| 16 Freon142b | +++++ | +++++ | 2.35533 | +++++ | 2.00810 | +++++ | | |
| | 1.88644 | | | | | | 2.08328 | 11.680 |
| 17 Freon 143a | +++++ | +++++ | 0.20566 | +++++ | 0.30637 | +++++ | | |
| | 0.23091 | | | | | | 0.24765 | 21.159 |

# Air Toxics Ltd.

## INITIAL CALIBRATION DATA

Start Cal Date : 11-MAR-2010 09:08
End Cal Date : 11-MAR-2010 15:18
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msdp.i/11mar10.b/p10q0311a.m
Cal Date : 13-Mar-2010 10:37 jparker
Curve Type : Average

| Compound | 0.30000 Level 1 | 0.50000 Level 2 | 2.000 Level 3 | 25.000 Level 4 | 50.000 Level 5 | 100.000 Level 6 | 200.000 Level 7 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 18 Propanal | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 19 Freon 14 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 20 Vinyl Fluoride | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 21 Bromomethane | +++++ | 1.30851 | 0.84042 | 1.32404 | 1.23853 | 1.11149 | 1.08050 | 1.15058 | 15.808 |
| 22 Bromoethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 23 Isobutylene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 24 Chloroethane | +++++ | 0.77970 | 0.44084 | 0.83369 | 0.76806 | 0.68672 | 0.68060 | 0.69827 | 19.901 |
| 25 Isopentane | +++++ | +++++ | 0.95137 | 1.84390 | 1.74366 | 1.58524 | 1.66319 | 1.55747 | 22.610 |
| 26 2,3-Dimethylbutane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 27 Freon143a | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |

Air Toxics Ltd.

INITIAL CALIBRATION DATA

Start Cal Date : 11-MAR-2010 09:08
End Cal Date : 11-MAR-2010 15:18
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msdp.i/11mar10.b/p10q0311a.m
Cal Date : 13-Mar-2010 10:37 jparker
Curve Type : Average

| Compound | 0.30000 Level 1 | 0.50000 Level 2 | 2.000 Level 3 | 25.000 Level 4 | 50.000 Level 5 | 100.000 Level 6 | 200.000 Level 7 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 28 Trichlorofluoromethane/Fr11 | +++++ | 3.75355 | 2.64748 | 4.12763 | 3.91868 | 3.57862 | 3.81994 | 3.64098 | 14.269 |
| 29 Ethanol | +++++ | +++++ | 0.66834 | 0.63087 | 0.53194 | 0.46713 | 0.48604 | 0.55686 | 15.960 |
| 30 Freon 113 | +++++ | 2.21365 | 2.14246 | 2.30533 | 2.17153 | 1.98980 | 2.03094 | 2.14228 | 5.451 |
| 31 Methanol | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 32 1,1-Dichloroethene | +++++ | 0.82890 | 0.88708 | 0.90789 | 0.85983 | 0.79586 | 0.85618 | 0.85596 | 4.680 |
| 33 2,4-Dimethylpentane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 34 Acetone | +++++ | +++++ | 0.78764 | 0.68382 | 0.64247 | 0.59288 | 0.65023 | 0.67141 | 10.822 |
| 35 Carbon Disulfide | +++++ | 4.13121 | 4.30733 | 4.21689 | 3.97573 | 3.63141 | 3.85235 | 4.01915 | 6.243 |
| 36 2-Butanol | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 37 2-Propanol | +++++ | +++++ | 2.52655 | 2.46074 | 2.37596 | 2.25461 | 2.54019 | 2.43161 | 4.869 |

# Air Toxics Ltd.

## INITIAL CALIBRATION DATA

Start Cal Date : 11-MAR-2010 09:08
End Cal Date : 11-MAR-2010 15:18
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msdp.i/11mar10.b/p10q0311a.m
Cal Date : 13-Mar-2010 10:37 jparker
Curve Type : Average

| Compound | 0.30000 Level 1 | 0.50000 Level 2 | 2.000 Level 3 | 25.000 Level 4 | 50.000 Level 5 | 100.000 Level 6 | 200.000 Level 7 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 38 3-Methyl-1-Hexene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 39 Vinyl Bromide | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 40 Methacrylonitrile | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 41 3-Chloropropene | +++++ | +++++ | 0.60762 | 0.64830 | 0.61729 | 0.57524 | 0.62718 | 0.61513 | 4.375 |
| 42 Pentane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 43 Methylene Chloride | +++++ | 1.88564 | 1.78017 | 1.78444 | 1.64795 | 1.49879 | 1.58998 | 1.69783 | 8.465 |
| 44 1-Pentene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 45 Dichlorofluoromethane/Fr21 | +++++ | +++++ | 3.10260 | +++++ | 2.85189 | +++++ | 3.01147 | 2.98864 | 4.246 |
| 46 tert-Butyl-Alcohol | +++++ | +++++ | 2.50709 | 2.67145 | 2.57195 | 2.48025 | 2.73319 | 2.59279 | 4.151 |
| 47 MTBE | +++++ | 3.54388 | 3.34089 | 3.85303 | 3.68565 | 3.49207 | 3.58341 | 3.58316 | 4.864 |

Air Toxics Ltd.

INITIAL CALIBRATION DATA

Start Cal Date : 11-MAR-2010 09:08
End Cal Date : 11-MAR-2010 15:18
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msdp.i/11mar10.b/p10q0311a.m
Cal Date : 13-Mar-2010 10:37 jparker
Curve Type : Average

| Compound | 0.30000 Level 1 | 0.50000 Level 2 | 2.000 Level 3 | 25.000 Level 4 | 50.000 Level 5 | 100.000 Level 6 | 200.000 Level 7 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 48 trans-1,2-Dichloroethene | +++++ | 0.86259 | 0.86833 | 0.98342 | 0.90342 | 0.84239 | 0.89032 | 0.89174 | 5.579 |
| 49 Acrolein | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 50 Ethyl Ether | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 51 Hexane | +++++ | 2.30363 | 1.95225 | 2.38693 | 2.22631 | 2.08733 | 2.07567 | 2.17202 | 7.458 |
| 52 2-Methylpentane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 53 Freon123a | +++++ | +++++ | 1.37911 | +++++ | 1.17267 | +++++ | 1.28418 | 1.27865 | 8.081 |
| 54 Freon123 | +++++ | +++++ | 4.02469 | +++++ | 3.67883 | +++++ | 4.18697 | 3.96349 | 6.548 |
| 55 Iodomethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 56 2,3,4-Trimethylpentane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 57 Methyl acetate | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |

# Air Toxics Ltd.

## INITIAL CALIBRATION DATA

Start Cal Date : 11-MAR-2010 09:08
End Cal Date : 11-MAR-2010 15:18
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msdp.i/11mar10.b/p10q0311a.m
Cal Date : 13-Mar-2010 10:37 jparker
Curve Type : Average

| Compound | 0.30000 Level 1 | 0.50000 Level 2 | 2.000 Level 3 | 25.000 Level 4 | 50.000 Level 5 | 100.000 Level 6 | 200.000 Level 7 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 58 Isopropyl ether | +++++ | +++++ | 4.37039 | 5.52609 | 5.20104 | 4.86567 | 4.65434 | 4.92351 | 9.206 |
| 59 1,1-Dichloroethane | +++++ | 2.80452 | 2.63658 | 2.82197 | 2.64748 | 2.43860 | 2.55778 | 2.65116 | 5.513 |
| 60 Pentanal | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 61 Vinyl Acetate | +++++ | +++++ | 0.28506 | 0.33405 | 0.32933 | 0.31695 | 0.34081 | 0.32124 | 6.855 |
| 62 Cyclopentene | +++++ | +++++ | 2.72689 | +++++ | 2.70912 | +++++ | 3.02923 | 2.82173 | 6.375 |
| 63 1-Propanol | +++++ | +++++ | 0.20743 | +++++ | 0.24793 | +++++ | 0.29037 | 0.24858 | 16.685 |
| 64 2,4,4-Trimethyl-1-pentene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 65 Cyclopentane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 66 Acetonitrile | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 67 2,4,4-Trimethyl-2-pentene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |

Air Toxics Ltd.

INITIAL CALIBRATION DATA

Start Cal Date : 11-MAR-2010 09:08
End Cal Date : 11-MAR-2010 15:18
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msdp.i/11mar10.b/p10q0311a.m
Cal Date : 13-Mar-2010 10:37 jparker
Curve Type : Average

| Compound | 0.30000 Level 1 | 0.50000 Level 2 | 2.000 Level 3 | 25.000 Level 4 | 50.000 Level 5 | 100.000 Level 6 | 200.000 Level 7 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 68 t-Butylethyl Ether | +++++ | +++++ | 3.31460 | 4.29261 | 4.03871 | 3.88966 | 3.78961 | 3.86504 | 9.349 |
| 69 Chloroprene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 70 Butanal | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 71 Acrylonitrile | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 72 1-Hexene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 73 cis-1,2-Dichloroethene | +++++ | 0.78723 | 0.91173 | 0.95673 | 0.89929 | 0.82883 | 0.87516 | 0.87650 | 6.929 |
| 74 2-Butanone | +++++ | 0.51729 | 0.63635 | 0.72314 | 0.71015 | 0.65855 | 0.70362 | 0.65818 | 11.633 |
| 75 Tetrahydrofuran | +++++ | 1.82402 | 1.54167 | 1.78713 | 1.69279 | 1.58434 | 1.66899 | 1.68316 | 6.548 |
| 77 2,3-Dimethylpentane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 78 Chloroform | +++++ | 2.88209 | 2.79124 | 3.10119 | 2.85392 | 2.64243 | 2.78212 | 2.84217 | 5.334 |

# Air Toxics Ltd.

## INITIAL CALIBRATION DATA

Start Cal Date : 11-MAR-2010 09:08
End Cal Date : 11-MAR-2010 15:18
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msdp.i/11mar10.b/p10q0311a.m
Cal Date : 13-Mar-2010 10:37 jparker
Curve Type : Average

| Compound | 0.30000 Level 1 | 0.50000 Level 2 | 2.000 Level 3 | 25.000 Level 4 | 50.000 Level 5 | 100.000 Level 6 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|
| | 200.000 Level 7 | | | | | | | |
| 79 1-Bromo-2-Chloroethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| 80 Cyclohexane | +++++ | 1.71720 | 1.52068 | 1.89854 | 1.83973 | 1.73217 | | |
| | 1.68061 | | | | | | 1.73149 | 7.612 |
| 81 1,1,1-Trichloroethane | +++++ | 2.52571 | 2.50088 | 2.97344 | 2.81052 | 2.64688 | | |
| | 2.59990 | | | | | | 2.67622 | 6.818 |
| 82 Carbon Tetrachloride | +++++ | 2.96410 | 2.72257 | 2.88605 | 2.66539 | 2.53432 | | |
| | 2.46440 | | | | | | 2.70614 | 7.181 |
| 83 2,2-Dichloropropane | +++++ | +++++ | 2.31329 | +++++ | 2.33814 | +++++ | | |
| | 2.39203 | | | | | | 2.34781 | 1.714 |
| 84 Ethyl Acetate | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| 85 Methyl Acrylate | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| 86 Thiophene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| 87 2,2,4-Trimethylpentane | +++++ | 6.13165 | 4.94592 | 7.09790 | 6.89036 | 6.48547 | | |
| | 6.23231 | | | | | | 6.29727 | 12.065 |
| 88 Benzene | +++++ | 1.24204 | 1.19176 | 1.25527 | 1.20329 | 1.12428 | | |
| | 1.14947 | | | | | | 1.19435 | 4.269 |

# Air Toxics Ltd.

## INITIAL CALIBRATION DATA

Start Cal Date : 11-MAR-2010 09:08
End Cal Date : 11-MAR-2010 15:18
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msdp.i/11mar10.b/p10q0311a.m
Cal Date : 13-Mar-2010 10:37 jparker
Curve Type : Average

| Compound | 0.30000 Level 1 | 0.50000 Level 2 | 2.000 Level 3 | 25.000 Level 4 | 50.000 Level 5 | 100.000 Level 6 | 200.000 Level 7 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 90 Isobutanol | +++++ | +++++ | 0.88232 | +++++ | 0.83709 | +++++ | 0.90538 | 0.87493 | 3.970 |
| 91 1,1-Dichloropropene | +++++ | +++++ | 0.20208 | +++++ | 0.20829 | +++++ | 0.23209 | 0.21415 | 7.399 |
| 92 tert-amyl-Methyl Ether | +++++ | +++++ | 2.88915 | 3.71525 | 3.48362 | 3.42030 | 3.36873 | 3.37541 | 8.958 |
| 93 1,2-Dichloroethane | +++++ | 0.55914 | 0.56447 | 0.59083 | 0.55543 | 0.51867 | 0.55383 | 0.55706 | 4.161 |
| 94 Heptane | +++++ | 0.41080 | 0.37871 | 0.46418 | 0.43733 | 0.41174 | 0.43237 | 0.42252 | 6.880 |
| 95 2-Pentanone | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 96 1-Butanol | +++++ | +++++ | 0.21455 | +++++ | 0.26518 | +++++ | 0.29044 | 0.25672 | 15.052 |
| 98 Ethyl acrylate | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 99 Methyl Methacrylate | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 100 Dibromomethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |

# Air Toxics Ltd.

## INITIAL CALIBRATION DATA

Start Cal Date : 11-MAR-2010 09:08
End Cal Date : 11-MAR-2010 15:18
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msdp.i/11mar10.b/p10q0311a.m
Cal Date : 13-Mar-2010 10:37 jparker
Curve Type : Average

| Compound | 0.30000 Level 1 | 0.50000 Level 2 | 2.000 Level 3 | 25.000 Level 4 | 50.000 Level 5 | 100.000 Level 6 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|
| | 200.000 Level 7 | | | | | | | |
| 101 Epichlorohydrin | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| 102 Trichloroethene | +++++ | 0.48655 | 0.51674 | 0.54825 | 0.51118 | 0.47580 | | |
| | 0.49710 | | | | | | 0.50594 | 5.075 |
| 103 2-Chloroethyl vinyl ether | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| 104 Methyl Cyclohexane | +++++ | 2.10106 | 1.90080 | 2.53122 | 2.40270 | 2.28030 | | |
| | 2.11395 | | | | | | 2.22167 | 10.287 |
| 105 Octane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| 106 1,2-Dichloropropane | +++++ | 0.41622 | 0.43844 | 0.47012 | 0.43440 | 0.40402 | | |
| | 0.41466 | | | | | | 0.42964 | 5.508 |
| 107 1,4-Dioxane | +++++ | +++++ | 0.23828 | 0.27520 | 0.26204 | 0.24321 | | |
| | 0.23979 | | | | | | 0.25171 | 6.446 |
| 108 1,3-Dichloropropane | +++++ | +++++ | 0.62691 | +++++ | 0.64945 | +++++ | | |
| | 0.66075 | | | | | | 0.64570 | 2.668 |
| 109 Bromodichloromethane | +++++ | 0.80255 | 0.81894 | 0.91446 | 0.84435 | 0.79213 | | |
| | 0.81682 | | | | | | 0.83154 | 5.326 |
| 110 Butyl Acetate | +++++ | +++++ | 0.37819 | +++++ | 0.42141 | +++++ | | |
| | 0.46440 | | | | | | 0.42133 | 10.230 |

# Air Toxics Ltd.

## INITIAL CALIBRATION DATA

Start Cal Date : 11-MAR-2010 09:08
End Cal Date : 11-MAR-2010 15:18
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msdp.i/11mar10.b/p10q0311a.m
Cal Date : 13-Mar-2010 10:37 jparker
Curve Type : Average

| Compound | 0.30000 Level 1 | 0.50000 Level 2 | 2.000 Level 3 | 25.000 Level 4 | 50.000 Level 5 | 100.000 Level 6 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|
| | 200.000 Level 7 | | | | | | | |
| 111 Nonane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| 112 cis-1,3-Dichloropropene | +++++ | 0.54552 | 0.57666 | 0.63981 | 0.61621 | 0.58586 | | |
| | 0.60716 | | | | | | 0.59520 | 5.559 |
| 113 2-Heptanone | +++++ | +++++ | 1.62657 | +++++ | 1.94149 | +++++ | | |
| | 2.17600 | | | | | | 1.91468 | 14.399 |
| 114 4-Methyl-2-pentanone | +++++ | 0.30423 | 0.31174 | 0.37438 | 0.36475 | 0.34801 | | |
| | 0.35121 | | | | | | 0.34239 | 8.290 |
| 116 Toluene | +++++ | 1.32956 | 1.35296 | 1.52020 | 1.43280 | 1.33723 | | |
| | 1.34657 | | | | | | 1.38655 | 5.436 |
| 117 Cyclohexanone | +++++ | +++++ | 0.46003 | +++++ | 0.46318 | +++++ | | |
| | 0.46498 | | | | | | 0.46273 | 0.541 |
| 118 Bromobenzene | +++++ | +++++ | 0.49252 | +++++ | 0.52890 | +++++ | | |
| | 0.59542 | | | | | | 0.53895 | 9.682 |
| 119 trans-1,4-dichloro-2-butene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| 120 1,2,3-Trichloropropane | +++++ | +++++ | 0.26916 | +++++ | 0.27740 | +++++ | | |
| | 0.29097 | | | | | | 0.27917 | 3.945 |
| 121 2-Chlorotoluene | +++++ | +++++ | 0.39748 | +++++ | 0.45310 | +++++ | | |
| | 0.47649 | | | | | | 0.44235 | 9.174 |

Air Toxics Ltd.

INITIAL CALIBRATION DATA

Start Cal Date : 11-MAR-2010 09:08
End Cal Date : 11-MAR-2010 15:18
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msdp.i/11mar10.b/p10q0311a.m
Cal Date : 13-Mar-2010 10:37 jparker
Curve Type : Average

| Compound | 0.30000 Level 1 | 0.50000 Level 2 | 2.000 Level 3 | 25.000 Level 4 | 50.000 Level 5 | 100.000 Level 6 | 200.000 Level 7 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 122 4-Chlorotoluene | +++++ | +++++ | 0.41160 | +++++ | 0.45779 | +++++ | 0.51929 | 0.46289 | 11.671 |
| 123 trans-1,3-Dichloropropene | +++++ | 0.74434 | 0.75408 | 0.80775 | 0.74133 | 0.68239 | 0.78218 | 0.75201 | 5.655 |
| 124 Diisobutyl Ketone | +++++ | +++++ | 0.92039 | +++++ | 1.14145 | +++++ | 1.34846 | 1.13676 | 18.832 |
| 125 tert-Butylbenzene | +++++ | +++++ | 1.30362 | +++++ | 1.51417 | +++++ | 1.72544 | 1.51441 | 13.927 |
| 126 1,1,1,2-Tetrachloroethane | +++++ | +++++ | 0.54967 | +++++ | 0.58673 | +++++ | 0.55473 | 0.56371 | 3.565 |
| 127 Pentachloroethane | +++++ | +++++ | 0.37708 | +++++ | 0.41104 | +++++ | 0.44141 | 0.40984 | 7.852 |
| 128 1,1,2-Trichloroethane | +++++ | 0.58162 | 0.58819 | 0.64482 | 0.55274 | 0.50921 | 0.55075 | 0.57122 | 7.991 |
| 129 sec-Butylbenzene | +++++ | +++++ | 0.36829 | +++++ | 0.44766 | +++++ | 0.48053 | 0.43216 | 13.353 |
| 130 bis(2-chloroethyl)ether | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 131 Tetrachloroethene | +++++ | 0.74322 | 0.76073 | 0.80367 | 0.73339 | 0.67286 | 0.73124 | 0.74085 | 5.764 |

Air Toxics Ltd.

INITIAL CALIBRATION DATA

Start Cal Date : 11-MAR-2010 09:08
End Cal Date : 11-MAR-2010 15:18
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msdp.i/11mar10.b/p10q0311a.m
Cal Date : 13-Mar-2010 10:37 jparker
Curve Type : Average

| Compound | 0.30000 Level 1 | 0.50000 Level 2 | 2.000 Level 3 | 25.000 Level 4 | 50.000 Level 5 | 100.000 Level 6 | 200.000 Level 7 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 132 p-Cymene | +++++ | +++++ | 1.48434 | +++++ | 1.85109 | +++++ | 2.02734 | 1.78759 | 15.496 |
| 133 1,2,3-Trimethylbenzene | +++++ | +++++ | 0.52155 | +++++ | 0.69247 | +++++ | 0.72633 | 0.64678 | 16.971 |
| 134 alpha-Pinene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 135 2-Hexanone | +++++ | 0.44709 | 0.50982 | 0.58677 | 0.56287 | 0.52845 | 0.60632 | 0.54022 | 10.725 |
| 136 Butylbenzene | +++++ | +++++ | 0.35565 | +++++ | 0.44133 | +++++ | 0.49651 | 0.43116 | 16.461 |
| 137 Decane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 138 Dibromochloromethane | +++++ | 0.88467 | 0.95112 | 1.05669 | 0.96440 | 0.88401 | 0.95189 | 0.94880 | 6.701 |
| 139 Alphamethylstyrene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 140 1,2-Dibromoethane | +++++ | 0.77737 | 0.85678 | 0.92145 | 0.84818 | 0.76434 | 0.84403 | 0.83536 | 6.880 |
| 141 1,2-Dibromo-3-Chloropropane | +++++ | +++++ | 0.34764 | +++++ | 0.40102 | +++++ | 0.44383 | 0.39750 | 12.123 |

# Air Toxics Ltd.

## INITIAL CALIBRATION DATA

Start Cal Date : 11-MAR-2010 09:08
End Cal Date : 11-MAR-2010 15:18
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msdp.i/11mar10.b/p10q0311a.m
Cal Date : 13-Mar-2010 10:37 jparker
Curve Type : Average

| Compound | 0.30000 Level 1 | 0.50000 Level 2 | 2.000 Level 3 | 25.000 Level 4 | 50.000 Level 5 | 100.000 Level 6 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|
| | 200.000 Level 7 | | | | | | | |
| 142 beta-Pinene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| 143 Dodecane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| 145 Chlorobenzene | +++++ | 1.23977 | 1.28016 | 1.38291 | 1.25889 | 1.15238 | | |
| | 1.23704 | | | | | | 1.25852 | 5.948 |
| 146 D-Limonene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| 147 Ethyl Benzene | +++++ | 0.54021 | 0.61652 | 0.70593 | 0.64742 | 0.60318 | | |
| | 0.64763 | | | | | | 0.62682 | 8.820 |
| 148 Hexachloroethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| 149 Undecane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| 150 m,p-Xylene | +++++ | 0.67023 | 0.74083 | 0.87590 | 0.81154 | 0.76231 | | |
| | 0.81878 | | | | | | 0.77993 | 9.173 |
| 151 Indan | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| 152 Indene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |

Air Toxics Ltd.

INITIAL CALIBRATION DATA

Start Cal Date : 11-MAR-2010 09:08
End Cal Date : 11-MAR-2010 15:18
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msdp.i/11mar10.b/p10q0311a.m
Cal Date : 13-Mar-2010 10:37 jparker
Curve Type : Average

| Compound | 0.30000 Level 1 | 0.50000 Level 2 | 2.000 Level 3 | 25.000 Level 4 | 50.000 Level 5 | 100.000 Level 6 | 200.000 Level 7 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 153 o-Xylene | +++++ | 0.57501 | 0.65982 | 0.80833 | 0.75461 | 0.71655 | 0.75679 | 0.71185 | 11.688 |
| 154 Styrene | +++++ | 0.95701 | 1.05576 | 1.28861 | 1.22309 | 1.17503 | 1.30416 | 1.16728 | 11.701 |
| 155 Bromoform | +++++ | 0.67007 | 0.73073 | 0.84707 | 0.81895 | 0.79255 | 0.84430 | 0.78394 | 8.970 |
| 156 Cumene | +++++ | 1.76049 | 1.83798 | 2.33102 | 2.24727 | 2.12925 | 2.22754 | 2.08893 | 11.234 |
| 157 1,2,3-Trichlorobenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 158 Aniline | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 160 Isooctyl Alcohol | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 161 1,1,2,2-Tetrachloroethane | +++++ | 1.03548 | 1.12975 | 1.22162 | 1.12765 | 1.06634 | 1.10415 | 1.11416 | 5.754 |
| 162 Propylbenzene | +++++ | 2.28121 | 2.31520 | 2.82481 | 2.67264 | 2.54347 | 2.73033 | 2.56128 | 8.726 |
| 163 4-Ethyltoluene | +++++ | 0.57405 | 0.58251 | 0.69655 | 0.67179 | 0.64708 | 0.69036 | 0.64372 | 8.327 |

Air Toxics Ltd.

INITIAL CALIBRATION DATA

Start Cal Date : 11-MAR-2010 09:08
End Cal Date : 11-MAR-2010 15:18
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msdp.i/11mar10.b/p10q0311a.m
Cal Date : 13-Mar-2010 10:37 jparker
Curve Type : Average

| Compound | 0.30000 Level 1 | 0.50000 Level 2 | 2.000 Level 3 | 25.000 Level 4 | 50.000 Level 5 | 100.000 Level 6 | 200.000 Level 7 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 164 1,3,5-Trimethylbenzene | 0.82071 | 0.69343 | 0.76033 | 0.93888 | 0.91189 | 0.87976 | 0.91481 | 0.84569 | 10.805 |
| 165 2-Methylnaphthalene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 166 1,2,4-Trimethylbenzene | 0.73776 | 0.57646 | 0.61016 | 0.81060 | 0.78608 | 0.76905 | 0.81413 | 0.72918 | 13.277 |
| 167 Quinoline | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 168 1,3-Dichlorobenzene | +++++ | 0.91883 | 0.97244 | 1.05943 | 1.02852 | 1.02076 | 1.12315 | 1.02052 | 6.896 |
| 169 1,4-Dichlorobenzene | +++++ | 0.83666 | 0.94816 | 1.06443 | 1.03742 | 1.02484 | 1.13696 | 1.00808 | 10.300 |
| 170 alpha-Chlorotoluene | +++++ | 0.98150 | 1.12590 | 1.37386 | 1.39083 | 1.40049 | 1.54152 | 1.30235 | 15.880 |
| 171 1,2-Dichlorobenzene | +++++ | 0.77512 | 0.81859 | 0.94097 | 0.92522 | 0.91573 | 0.99336 | 0.89483 | 9.126 |
| 172 1,3,5-Trichlorobenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 173 Isooctyl Acrylate | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |

# Air Toxics Ltd.

## INITIAL CALIBRATION DATA

Start Cal Date : 11-MAR-2010 09:08
End Cal Date : 11-MAR-2010 15:18
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msdp.i/11mar10.b/p10q0311a.m
Cal Date : 13-Mar-2010 10:37 jparker
Curve Type : Average

| Compound | 0.30000 Level 1 | 0.50000 Level 2 | 2.000 Level 3 | 25.000 Level 4 | 50.000 Level 5 | 100.000 Level 6 | 200.000 Level 7 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 174 1,2,4-Trichlorobenzene | +++++ | +++++ | 0.52470 | 0.52393 | 0.56487 | 0.56607 | 0.67086 | 0.57009 | 10.521 |
| 175 Hexachlorobutadiene | +++++ | +++++ | 0.46449 | 0.46805 | 0.48483 | 0.50483 | 0.66760 | 0.51796 | 16.442 |
| 176 Naphthalene | +++++ | +++++ | 1.08872 | 1.13309 | 1.23191 | 1.24686 | 1.46249 | 1.23261 | 11.733 |
| $ 89 1,2-Dichloroethane-d4 | 1.24803 | 1.26833 | 1.29608 | 1.32425 | 1.36023 | 1.38550 | 1.49066 | 1.33901 | 6.169 |
| $ 115 Toluene-d8 | 1.01192 | 1.02772 | 0.99350 | 1.03865 | 1.08009 | 1.05747 | 1.00832 | 1.03110 | 2.927 |
| $ 159 Bromofluorobenzene | 0.43846 | 0.42991 | 0.43209 | 0.44475 | 0.46447 | 0.49160 | 0.50222 | 0.45764 | 6.398 |

Calibration History

Method : /chem/msdp.i/11mar10.b/p10q0311a.m
Start Cal Date: 11-MAR-2010 09:08
End Cal Date : 11-MAR-2010 15:18

Initial Calibration

| Injection Date | Sublist | Calibration File |
|---|---|---|
| Cal Level: 1 , Cal Amount: 0.30000 | | |
| 11-MAR-2010 09:08 | AFCEElow | /chem/msdp.i/11mar10.b/p031103.d |
| Cal Level: 2 , Cal Amount: 0.50000 | | |
| 11-MAR-2010 09:27 | AT09low | /chem/msdp.i/11mar10.b/p031104.d |
| Cal Level: 3 , Cal Amount: 2.00000 | | |
| 11-MAR-2010 14:42 | spAer | /chem/msdp.i/11mar10.b/p031115.d |
| 11-MAR-2010 09:52 | AT09mdl | /chem/msdp.i/11mar10.b/p031105.d |
| Cal Level: 4 , Cal Amount: 25.00000 | | |
| 11-MAR-2010 10:11 | AT09 | /chem/msdp.i/11mar10.b/p031106.d |
| Cal Level: 5 , Cal Amount: 50.00000 | | |
| 11-MAR-2010 15:01 | spAer | /chem/msdp.i/11mar10.b/p031116.d |
| 11-MAR-2010 10:37 | AT09 | /chem/msdp.i/11mar10.b/p031107.d |
| Cal Level: 6 , Cal Amount: 100.00000 | | |
| 11-MAR-2010 10:59 | AT09 | /chem/msdp.i/11mar10.b/p031108.d |
| Cal Level: 7 , Cal Amount: 200.00000 | | |
| 11-MAR-2010 15:18 | spAer | /chem/msdp.i/11mar10.b/p031117.d |
| 11-MAR-2010 11:17 | AT09 | /chem/msdp.i/11mar10.b/p031109.d |

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 5

| | | |
|---|---|---|
| Ccal Level: 5 , Ccal Amount: 50.000 | | |
| 11-MAR-2010 15:01 | spAer | /chem/msdp.i/11mar10.b/p031116.d |
| Ccal Level: 5 , Ccal Amount: 50.000 | | |
| 11-MAR-2010 15:01 | spAerCCV | /chem/msdp.i/11mar10.b/p031116a.d |
| Ccal Level: 5 , Ccal Amount: 50.000 | | |
| 11-MAR-2010 10:37 | AT09 | /chem/msdp.i/11mar10.b/p031107a.d |
| Ccal Level: 5 , Ccal Amount: 50.000 | | |
| 11-MAR-2010 15:01 | spAerCCV | /chem/msdp.i/11mar10.b/p031116a.d |
| Ccal Level: 5 , Ccal Amount: 50.000 | | |
| 11-MAR-2010 10:37 | AT09 | /chem/msdp.i/11mar10.b/p031107.d |

RA 3/11/10
CR 3/15/10

Air Toxics Ltd.

INITIAL CALIBRATION DATA

* ICAL: Ø out

** Aerojet: Ø out

Start Cal Date : 11-MAR-2010 09:08
End Cal Date : 11-MAR-2010 15:18
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msdp.i/11mar10.b/p10q0311a.m
Cal Date : 11-Mar-2010 22:49 croush
Curve Type : Average

ICAL LCS: Ø out
P031112; 1911-194
50mL; 50ppbv (200ppbv)
Vinyl Chloride and 1,3-Butadiene
curved to 100ppbv
OK for AFCEE 4.0

Calibration File Names:
Level 1: /chem/msdp.i/11mar10.b/p031103.d
Level 2: /chem/msdp.i/11mar10.b/p031104.d
Level 3: /chem/msdp.i/11mar10.b/p031115.d
Level 4: /chem/msdp.i/11mar10.b/p031106.d
Level 5: /chem/msdp.i/11mar10.b/p031116.d
Level 6: /chem/msdp.i/11mar10.b/p031108.d
Level 7: /chem/msdp.i/11mar10.b/p031117.d

0.3ppbv: 1,3,5-TMB & 1,2,4-TMB

| Compound | 0.30000 Level 1 | 0.50000 Level 2 | 2.000 Level 3 | 25.000 Level 4 | 50.000 Level 5 | 100.000 Level 6 | 200.000 Level 7 | RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 1 Dimethyl Ether | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 2 Acetaldehyde | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 3 Freon 13 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 4 Freon 134a | +++++ | +++++ | 0.88824 | +++++ | 0.77640 | +++++ | 0.66819 | 0.77761 | 14.149 |
| 5 Freon 152a | +++++ | +++++ | 0.57332 | +++++ | 0.47588 | +++++ | 0.38017 | 0.47645 | 20.270 |
| 6 Propylene | +++++ | +++++ | 1.14840 | 1.08606 | 1.03472 | 0.94559 | 0.92793 | 1.02854 | 9.058 |
| 7 Dichlorodifluoromethane/Fr12 | +++++ | 3.75621 | 3.59060 | 3.92448 | 3.70801 | 3.33876 | 3.20607 | 3.58735 | 7.520 |

* 7pt Curve @ 0.3, 0.5, 2.0, 25, 50, 100 & 200ppbv

** 3pt Curve @ ~~Ø~~ 2.0, 50 & 200ppbv
CR 03/12/10

## Initial Calibration Narrative

A 7-point initial calibration was analyzed on MSD-P on 03/11/2010.

The following compounds used 0.3ppbv as the lowest calibration concentration:

1. 1,2,4-Trimethylbenzene
2. 1,3,5-Trimethylbenzene

A 3-point Aerojet Special was analyzed on 03/11/2010.

@ Air Toxics Ltd.

# MSD-P

Logbook #: 1921



| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9 | ✓ | P03110 09 | ICAL Level 7 | 1911-213 | 200ppbv | 200mL | 1.00 | CR | 03/11/2010 | 1117 | CR/ ~~ | |
| 10 | X | 10 | System Blank | 24217 | Humid | 200mL | 1.00 | CR | | 1139 | CR/ - | |
| 11 | ✓ | 11 | System Blank | 24217 | Humid | 200mL | 1.00 | CR | | 1208 | CR/ ~~ | |
| 12 | ✓ | 12 | ICAL LCS | 1911-194 | 50ppbv | 50mL | 1.00 | CR | | 1238 | CR/ ~~ | |
| 13 | X | 13 | System Blank | 24217 | Humid | 200 ~~50~~mL | 1.00 | CR | | 1310 | CR/ - | |
| 14 | ✓ | 14 | System Blank | 24217 | Humid | 200mL | 1.00 | CR | | 1412 | CR/ ~~ | |
| 15 | ✓ | 15 | ICAL Level 3 | 1911-290 | 2.0ppbv | 200mL | 1.00 | CR | | 1442 | Raj ~~ | Sp Aer |
| 16 | ✓ | 16 | 5 | 1911-123 | 50ppbv | 50mL | 1.00 | CR | | 1501 | CR/ ~~ | ↓ |
| 17 | ✓ | 17 | 7 | ↓ | 200ppbv | 200mL | 1.00 | CR | | 1518 | CR/ ~~ | |
| 18 | ✓ | 18 | System Blank | 21017 | Humid | 200mL | 1.00 | CR | | 1535 | ~~ | |
| 19 | | | | | | | | | | | | |
| 20 | | | | | | | | | | | | |
| 21 | | | | | | | | | | | | |
| 22 | | | | | | | | | | | | |
| 23 | | | | | | | | | | | | |
| 24 | | | | | | | | | | | | |
| 25 | | | | | | | | | | | | |
| 26 | | | | | | | | | | | | |
| 27 | | | | | | | | | | | | |
| 28 | | | | | | | | | | | | |
| 29 | | | | | | | | | | | | |
| 30 | | | | | | | | | | | | |
| 31 | | | | | | | | | | | | |

RR 3/11/10

**Comments:**

Signature

03/11/10
Date

@ Air Toxics Ltd.

# MSD-P

Logbook #: 1921



| m/z | ION ABUNDANCE CRITERIA | % REL. ABUNDANCE |
|---|---|---|
| 50 | 15.0 – 40.0% of mass 95 | 21.29 |
| 75 | 30.0 – 60.0% of mass 95 | 50.87 |
| 95 | Base peak, 100.00% relative abundance | 100 |
| 96 | 5.0 – 9.0% of mass 95 | 6.33 |
| 173 | Less than 2.0% of mass 174 | ( 0.63 )[1] |
| 174 | 50.0 – 100% of mass 95 | 73.28 |
| 175 | 5.0 – 9.0% of mass 174 | ( 7.36 )[1] |
| 176 | Greater than 95.0% but less than 101.0% of mass 174 | ( 97.28 )[1] |
| 177 | 5.0 – 9.0% of mass 176 | ( 6.88 )[2] |

[1] - value in parenthesis is % mass 174 [2] - value in parenthesis is % mass 176

BFB Injection Date: 03/11/2010
BFB Injection Time: 0857
BFB File ID: P031102
Tekmar Purge Flow: 7 CR
Vacuum: 7 03/11/10

| | | |
|---|---|---|
| IS/S Std.#: | 1911-157 | Exp. Date: 05/03/10 |
| BCM | 104418 | |
| 1,4-DFB | 353421 | |
| CB-d5 | 302185 | |

*Verified CCV IS vs ICAL mid-point (- 40%D)* NA (initials)

**Verify 176/174 m/z Ratio:** 65024/66858 *100% = 97.28% ✓

**NOAH Cart #:** NA **File #:** NA

**Calculation Check:**

ppbv of compound $= \frac{Area_{Sample}}{Area_{IS}} \times \frac{Conc._{IS}}{RRF} = \frac{(\ 381728\ )}{(\ 353421\ )} \times \frac{(\ 25.00\ )}{(\ 1.03110\ )} = 26.188$

| | |
|---|---|
| File ID: | P031108a |
| Compound: | Toluene-d8 |
| Initials: | CR |

*Reported Result* 26.188

**Method:** P10g0223B

| | Use | File # | Sample / Client Name | Can # | Pressure | Amt Loaded | DF | Loaded by Init. | Date Analyzed | Time Analyzed | Reviewed by Init. | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | X | P031101 | BFB Tune Check | 1911-157 | 36ng | 1.0mL | 1.00 | CR | 03/11/2010 | 0809 | CR/— | Raise to 1376 EM |
| 2 | ✓ | 02 | BFB Tune Check | 1911-157 | 36ng | 1.0mL | 1.00 | CR | | 0857 | CR/— | |
| 3 | ✓ | 03 | ICAL Level 1 | 1911-281 | 0.3ppbv | 30mL | 1.00 | CR | | 0908 | CR/— | |
| 4 | ✓ | 04 | 2 | | 0.5ppbv | 50mL | 1.00 | CR | | 0927 | CR/— | |
| 5 | ✓ | 05 | 3 | | 2.0ppbv | 200mL | 1.00 | CR | | 0952 | CR/— | |
| 6 | ✓ | 06 | 4 | 1911-213 | 25ppbv | 25mL | 1.00 | CR | | 1011 | CR/— | |
| 7 | ✓ | 07 | 5 | 1911-213 | 50ppbv | 50mL | 1.00 | CR | | 1037 | CR/— | |
| 8 | ✓ | 08 | 6 | | 100ppbv | 100mL | 1.00 | CR | | 1059 | CR/— | |

Signature

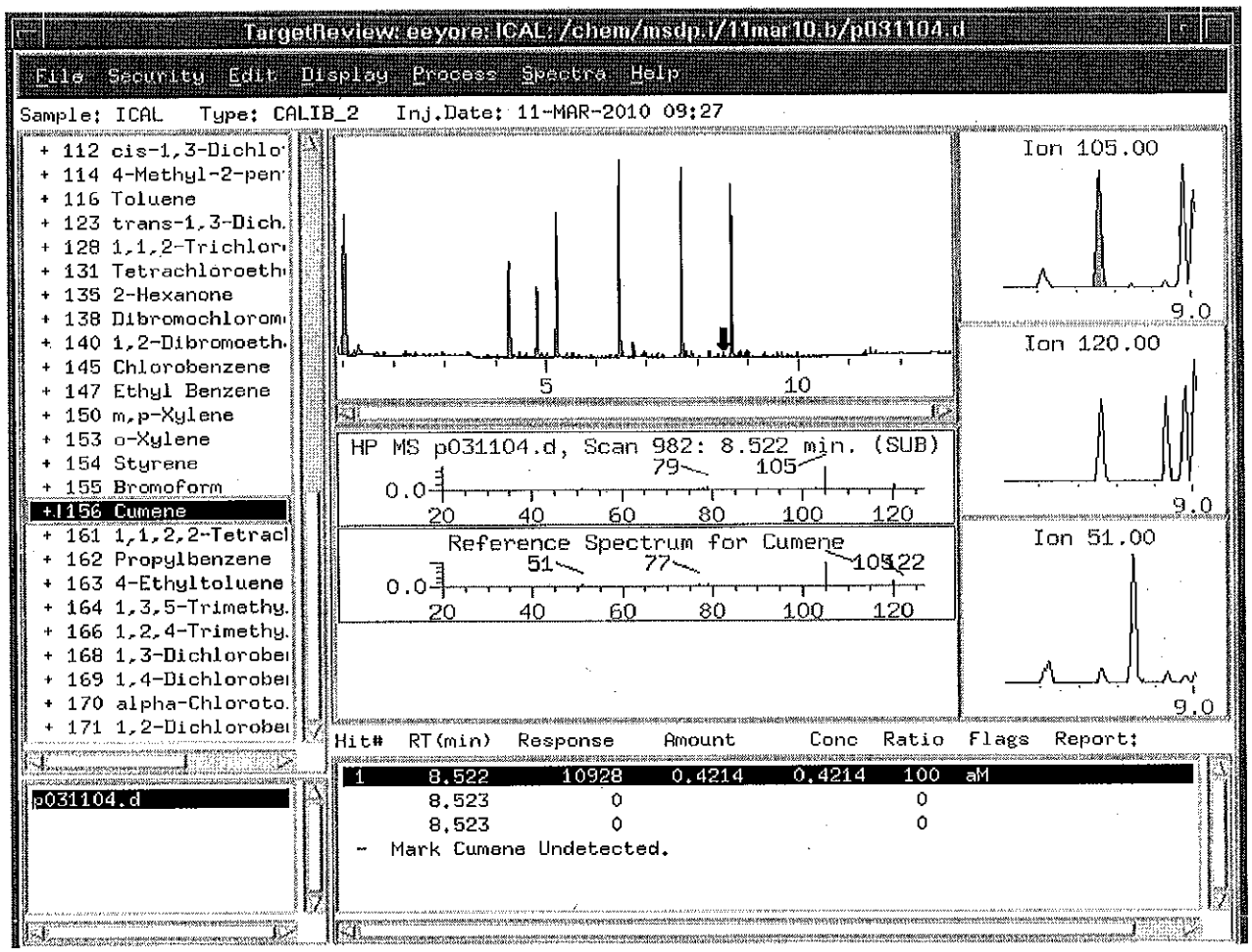
03/11/2010
Date

Air Toxics Ltd.
Modified EPA Methods TO-14A/TO-15
Internal Standard and Associated Target Compounds and Surrogates

| Bromochloromethane |
|---|
| **Target Compounds:** |
| Freon 12 |
| Freon 114 |
| Chloromethane |
| Vinyl Chloride |
| 1,3-Butadiene |
| Bromomethane |
| Chloroethane |
| Freon 11 |
| Ethanol |
| Freon 113 |
| 1,1-Dichloroethene |
| Acetone |
| 2-Propanol |
| Carbon Disulfide |
| 3-Chloropropene |
| Methylene Chloride |
| Methyl tert-butyl ether |
| trans-1,2-Dichloroethene |
| Hexane |
| 1,1-Dichloroethane |
| 2-Butanone (Methyl Ethyl Ketone) |
| cis-1,2-Dichloroethene |
| Tetrahydrofuran |
| Chloroform |
| 1,1,1-Trichloroethane |
| Cyclohexane |
| Carbon Tetrachloride |
| 2,2,4-Trimethylpentane |
| **Surrogates:** |
| 1,2-Dichloroethane-d4 |

| 1,4-Difluorobenzene |
|---|
| **Target Compounds:** |
| Benzene |
| 1,2-Dichloroethane |
| Heptane |
| Trichloroethene |
| 1,2-Dichloropropane |
| 1,4-Dioxane |
| Bromodichloromethane |
| cis-1,3-Dichloropropene |
| 4-Methyl-2-pentanone |
| Toluene |
| **Surrogates:** |
| Toluene-d8 |

| Chlorobenzene-d5 |
|---|
| **Target Compounds:** |
| trans-1,3-Dichloropropene |
| 1,1,2-Trichloroethane |
| Tetrachloroethene |
| 2-Hexanone |
| Dibromochloromethane |
| 1,2-Dibromoethane (EDB) |
| Chlorobenzene |
| Ethyl Benzene |
| m,p-Xylene |
| o-Xylene |
| Styrene |
| Bromoform |
| Cumene |
| 1,1,2,2-Tetrachloroethane |
| Propylbenzene |
| 4-Ethyltoluene |
| 1,3,5-Trimethylbenzene |
| 1,2,4-Trimethylbenzene |
| 1,3-Dichlorobenzene |
| 1,4-Dichlorobenzene |
| alpha-Chlorotoluene |
| 1,2-Dichlorobenzene |
| 1,2,4-Trichlorobenzene |
| Hexachlorobutadiene |
| **Surrogates:** |
| Bromofluorobenzene |

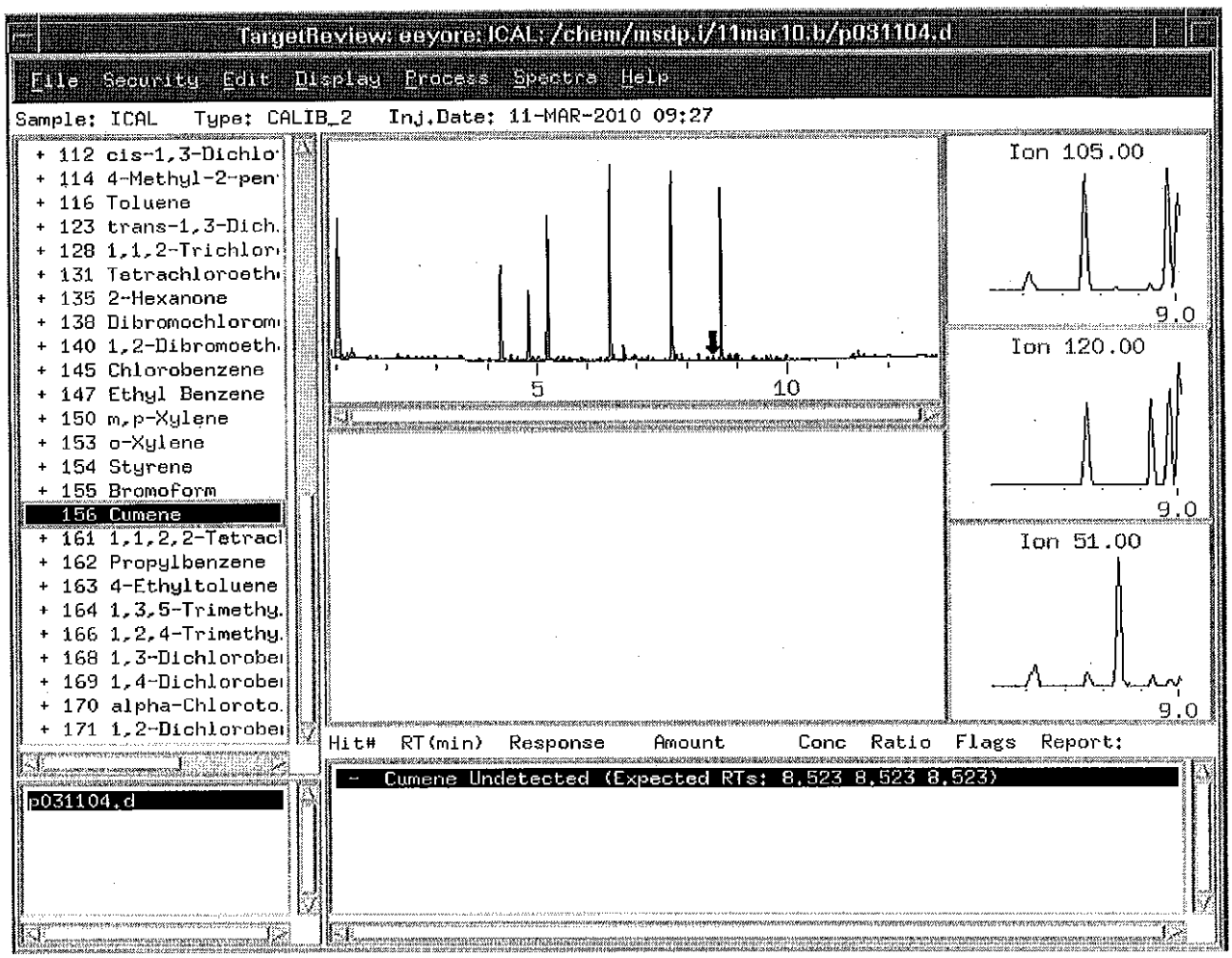



After

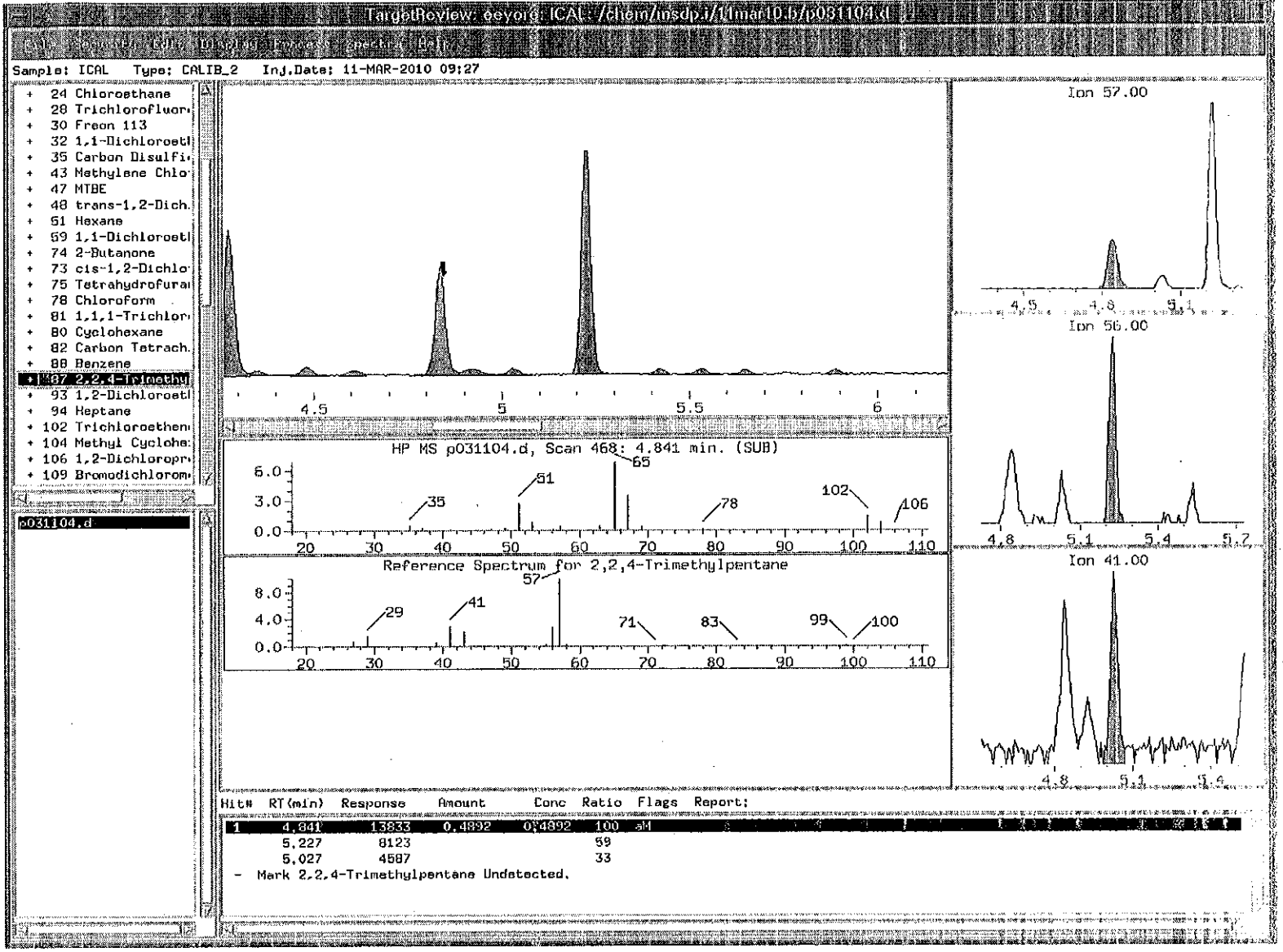
Team A

| Date / Initial | CP 3/13/10 |
|---|---|
| Poor Integration | |
| Split Peak | |
| Peak Tailing | |
| Background Subtraction | |
| Zoom In | |
| Missed Peak | X |
| Merged Peaks | |

SB 3/15/10




Before - Missed Peak

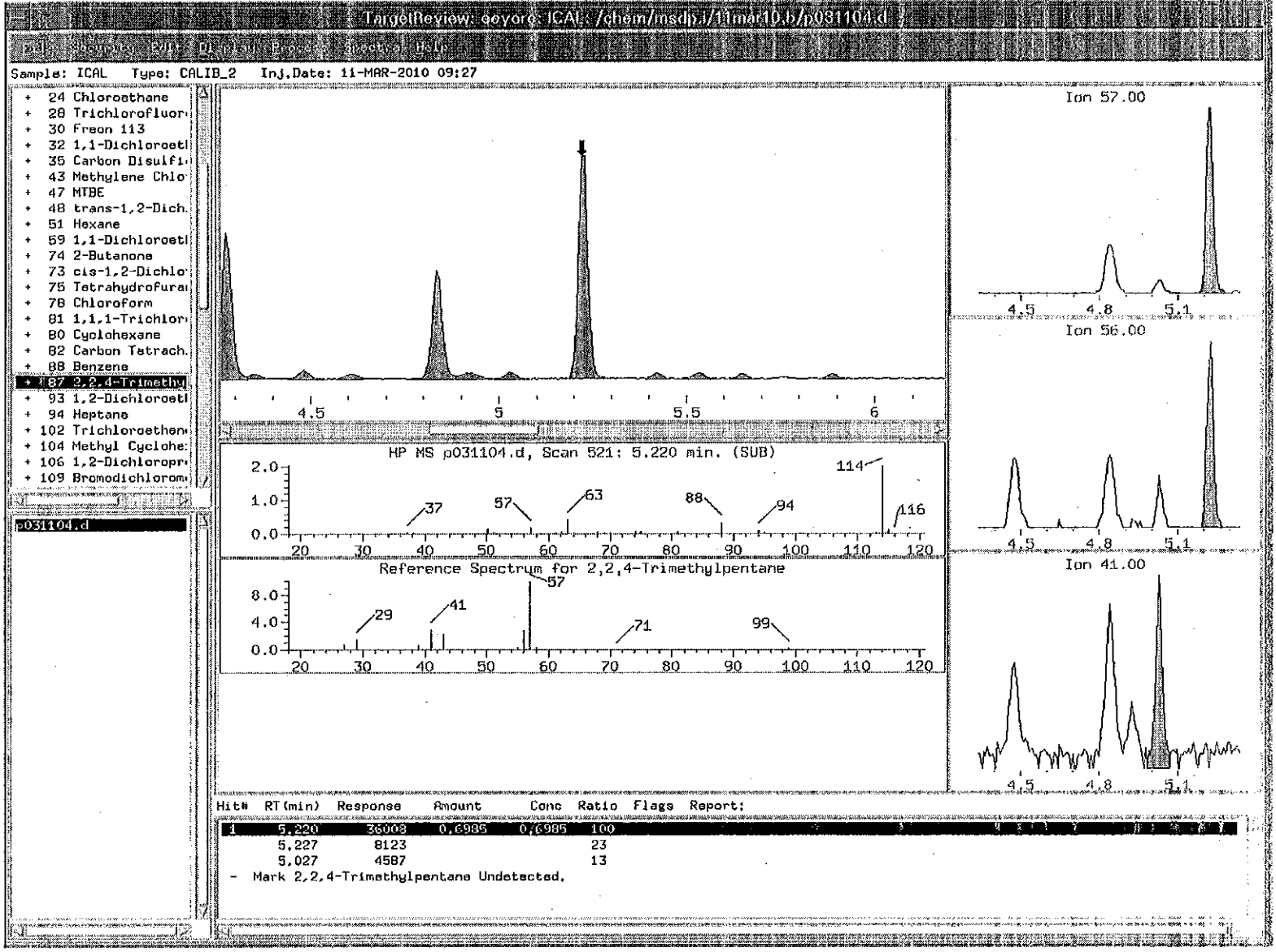



After

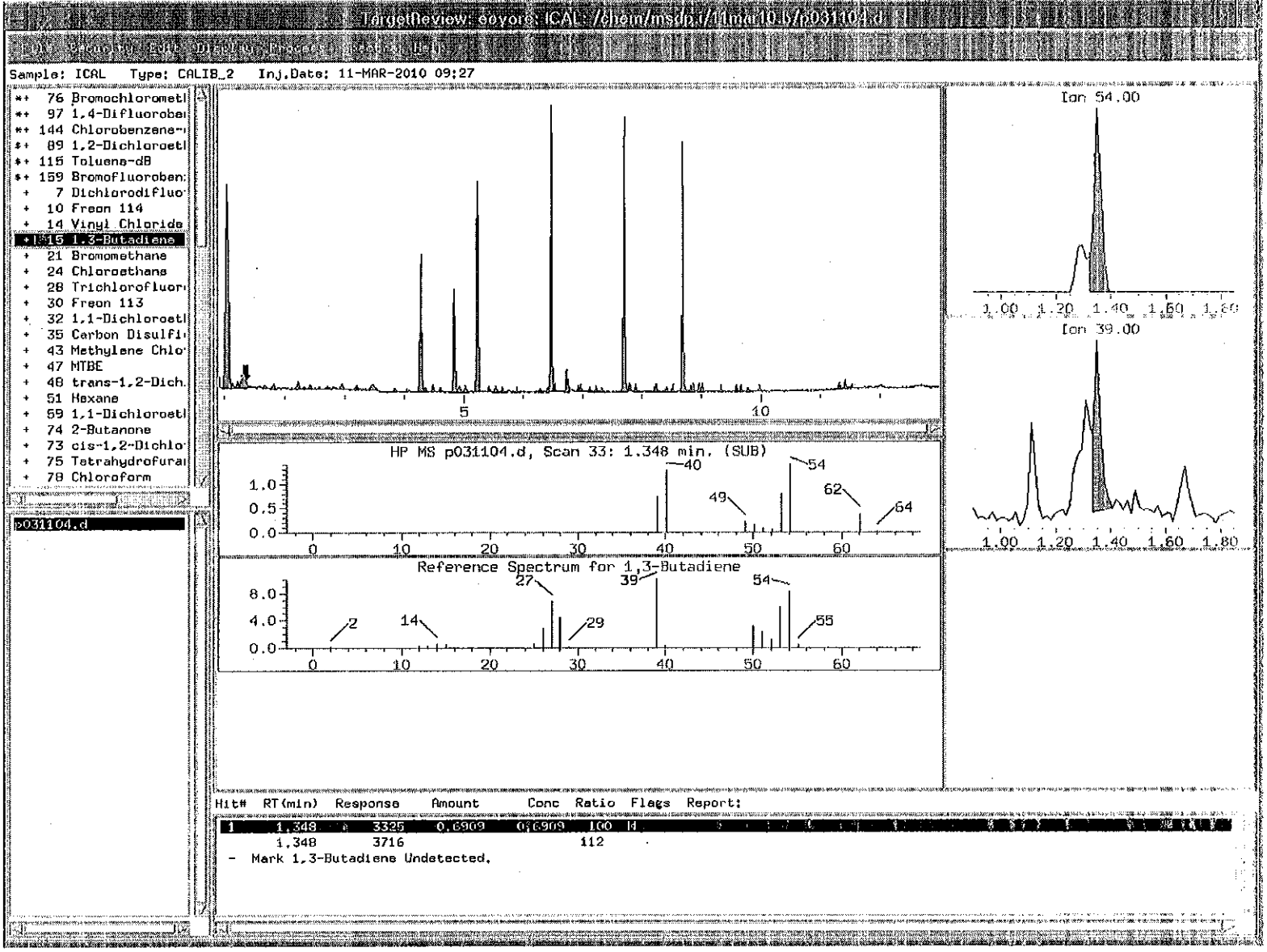
3/12/10

Item A

| Date/Initial | CR 03/11/10 |
|---|---|
| Poor Integration | |
| Split Peak | |
| Peak Tailing | |
| Background Subtraction | |
| Zoom In | |
| Missed Peak | ✓ |
| Merged Peaks | |


Targetreview: geyorg: ICAL: /chem/msdp.i/11mar10.b/p031104.d
Sample: ICAL Type: CALIB_2 Inj.Date: 11-MAR-2010 09:27
24 Chloroethane
28 Trichlorofluor
30 Freon 113
32 1,1-Dichloroetl
35 Carbon Disulfi
43 Methylene Chlo
47 MTBE
48 trans-1,2-Dich.
51 Hexane
59 1,1-Dichloroetl
74 2-Butanone
73 cis-1,2-Dichlo
75 Tetrahydrofura
78 Chloroform
81 1,1,1-Trichlor
80 Cyclohexane
82 Carbon Tetrach.
88 Benzene
87 2,2,4-Trimethy
93 1,2-Dichloroetl
94 Heptane
102 Trichloroethen
104 Methyl Cyclohe
106 1,2-Dichloropr
109 Bromodichlorom
p031104.d
4.5
5
5.5
6
HP MS p031104.d, Scan 521: 5.220 min. (SUB)
Reference Spectrum for 2,2,4-Trimethylpentane
Ion 57.00
Ion 56.00
Ion 41.00
4.5
4.8
5.1
Hit# RT(min) Response Amount Conc Ratio Flags Report:
1 5.220 36008 0.6985 0.6985 100
5.227 8123 23
5.027 4587 13
- Mark 2,2,4-Trimethylpentane Undetected.

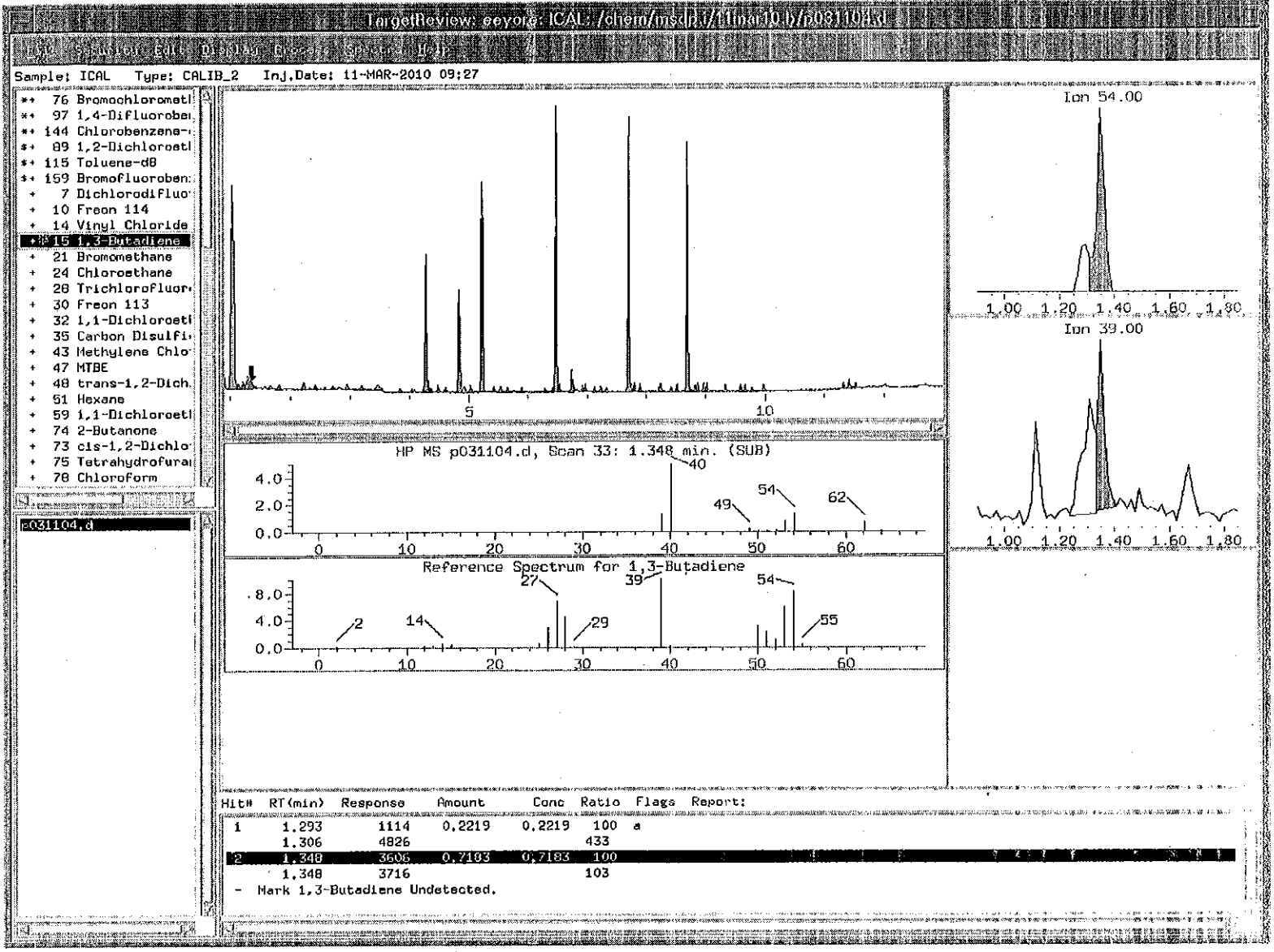
Before



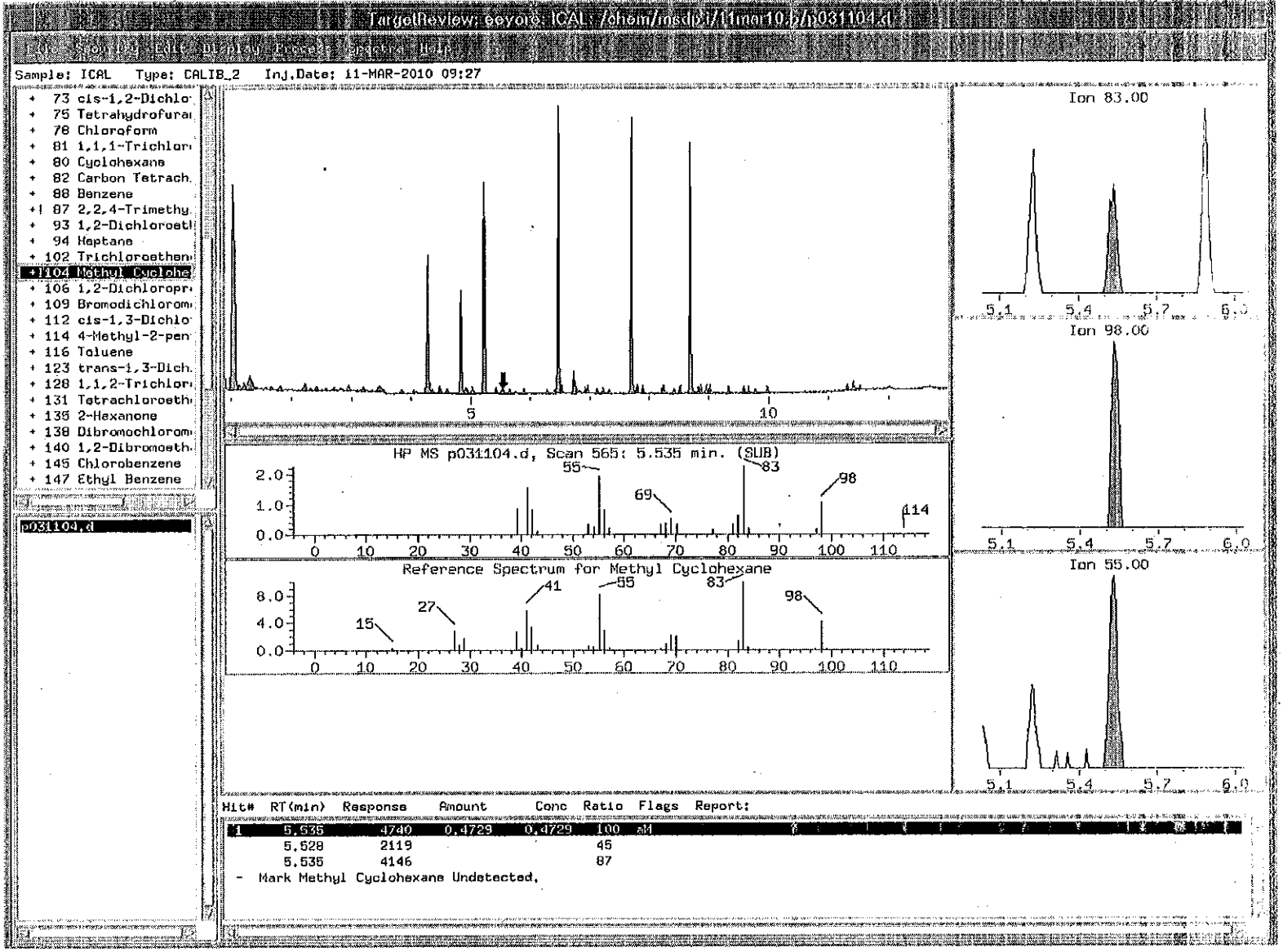

After QP 3/12/10

Team A

| Date/Initial | DAB 03/11/10 |
|---|---|
| Poor Integration | ✓ |
| Split Peak | |
| Peak Tailing | |
| Background Subtraction | |
| Zoom In | |
| Missed Peak | |
| Merged Peaks | |


TargetReview: eeyore: ICAL: /chem/msd.7/11mar10.b/p031104.d
Sample: ICAL Type: CALIB_2 Inj.Date: 11-MAR-2010 09:27
76 Bromochloromethane
97 1,4-Difluorobenzene
144 Chlorobenzene-d5
89 1,2-Dichloroethane-d4
115 Toluene-d8
159 Bromofluorobenzene
7 Dichlorodifluoromethane
10 Freon 114
14 Vinyl Chloride
15 1,3-Butadiene
21 Bromomethane
24 Chloroethane
28 Trichlorofluoromethane
30 Freon 113
32 1,1-Dichloroethene
35 Carbon Disulfide
43 Methylene Chloride
47 MTBE
48 trans-1,2-Dichloroethene
51 Hexane
59 1,1-Dichloroethane
74 2-Butanone
73 cis-1,2-Dichloroethene
75 Tetrahydrofuran
78 Chloroform
p031104.d
Ion 54.00
Ion 39.00
HP MS p031104.d, Scan 33: 1.348 min. (SUB)
Reference Spectrum for 1,3-Butadiene
Hit# RT(min) Response Amount Conc Ratio Flags Report:
1 1.293 1114 0.2219 0.2219 100 a
1.306 4826 433
2 1.348 3606 0.7183 0.7183 100
1.348 3716 103
- Mark 1,3-Butadiene Undetected.

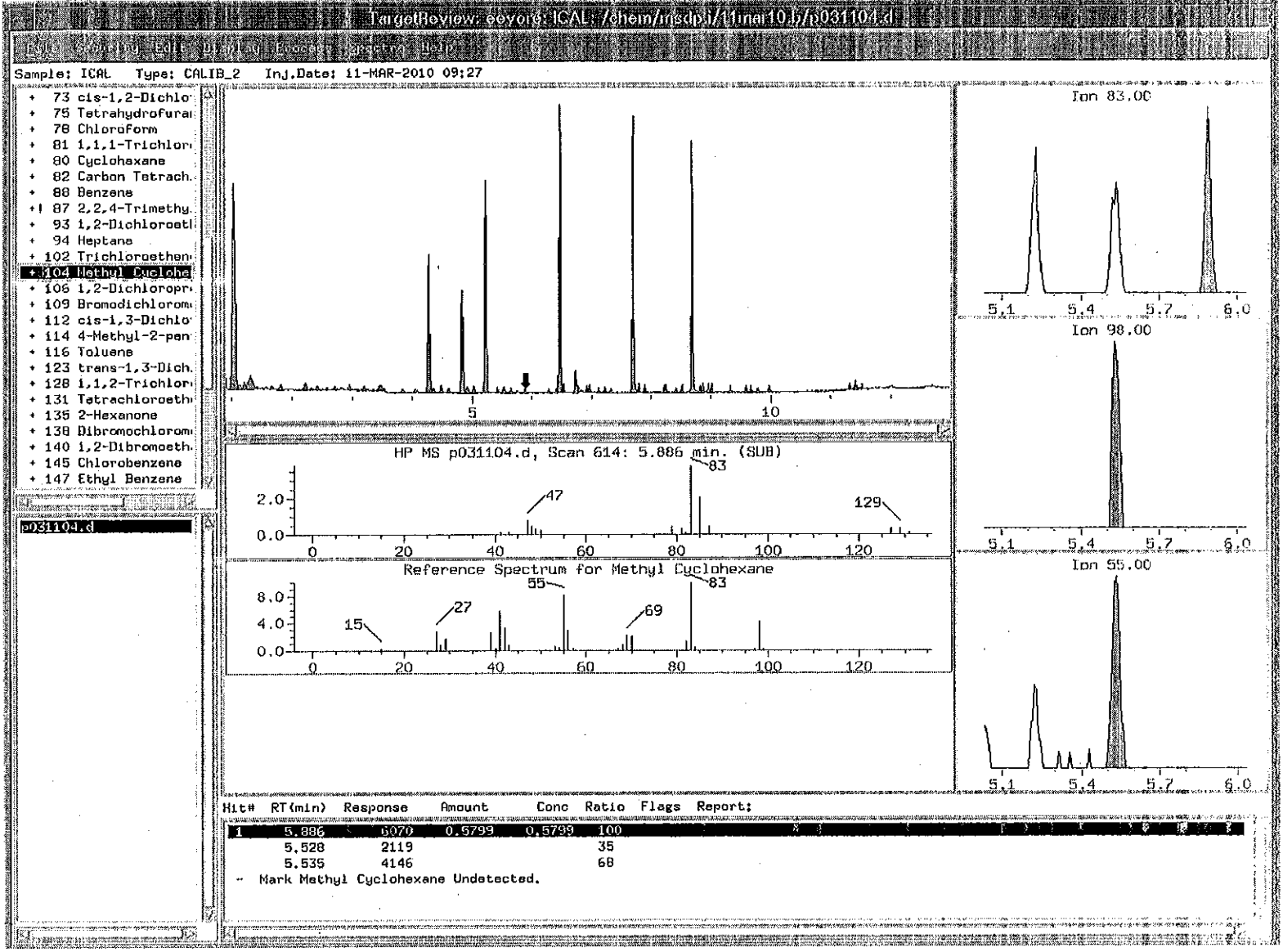
Before




After

3/12/10

| Date/Initial | CR 03/11/10 |
|---|---|
| Poor Integration | |
| Split Peak | |
| Peak Tailing | |
| Background Subtraction | |
| Zoom In | |
| Missed Peak | ✓ |
| [redacted] | |

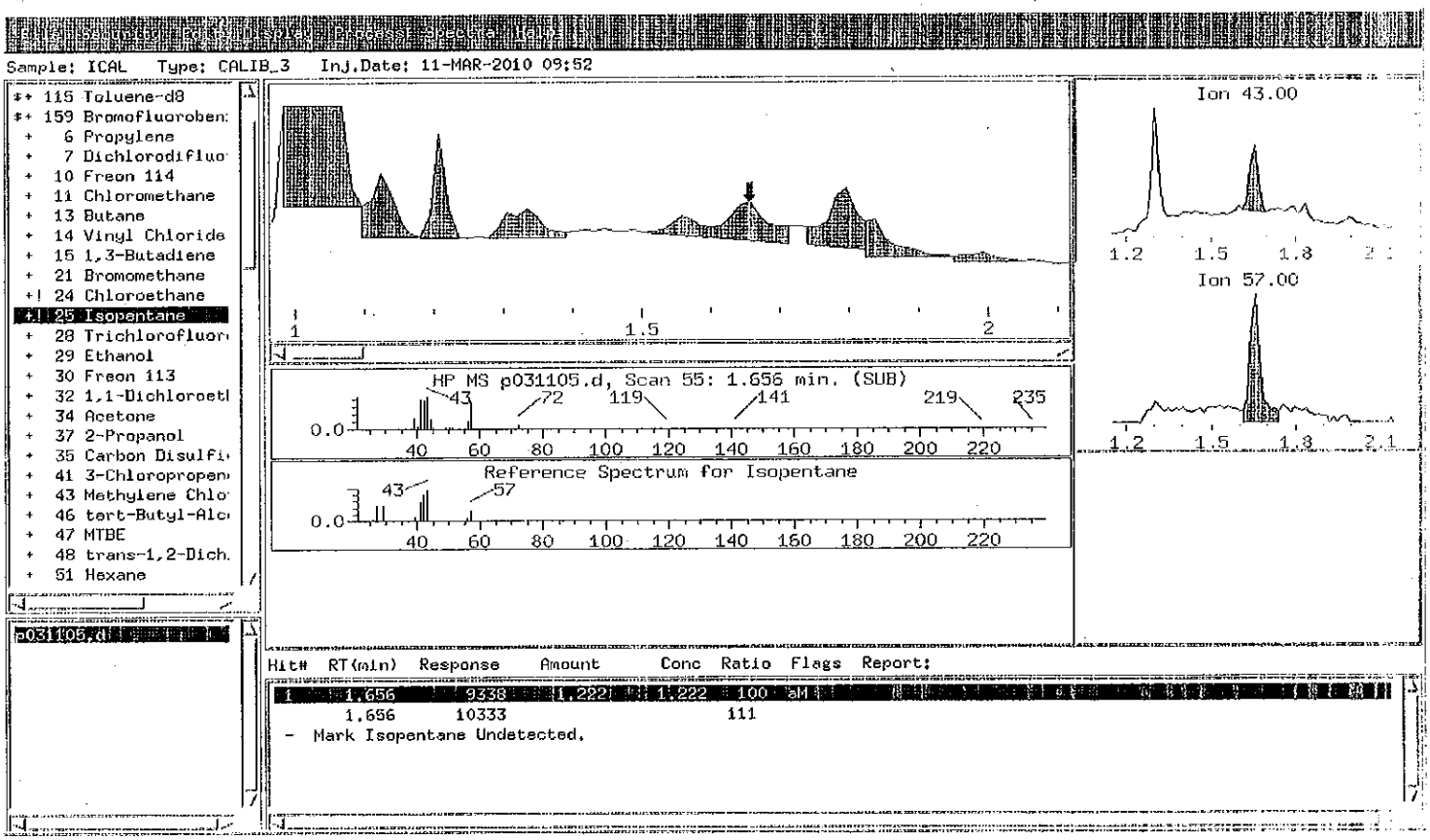

TargetReview: eeyore: ICAL: /chem/msdp.i/11mar10.b/p031104.d
Sample: ICAL Type: CALIB_2 Inj.Date: 11-MAR-2010 09:27
73 cis-1,2-Dichlo
75 Tetrahydrofura
78 Chloroform
81 1,1,1-Trichlor
80 Cyclohexane
82 Carbon Tetrach.
88 Benzene
87 2,2,4-Trimethy.
93 1,2-Dichloroetl
94 Heptane
102 Trichloroethen
104 Methyl Cyclohe
106 1,2-Dichloropr
109 Bromodichlorom
112 cis-1,3-Dichlo
114 4-Methyl-2-pen
116 Toluene
123 trans-1,3-Dich.
128 1,1,2-Trichlor
131 Tetrachloroeth
135 2-Hexanone
138 Dibromochlorom
140 1,2-Dibromoeth.
145 Chlorobenzene
147 Ethyl Benzene
p031104.d
HP MS p031104.d, Scan 614: 5.886 min. (SUB)
Reference Spectrum for Methyl Cyclohexane
Ion 83.00
Ion 98.00
Ion 55.00
Hit# RT(min) Response Amount Conc Ratio Flags Report:
1 5.886 6070 0.5799 0.5799 100
5.528 2119 35
5.535 4146 68
Mark Methyl Cyclohexane Undetected.

Before

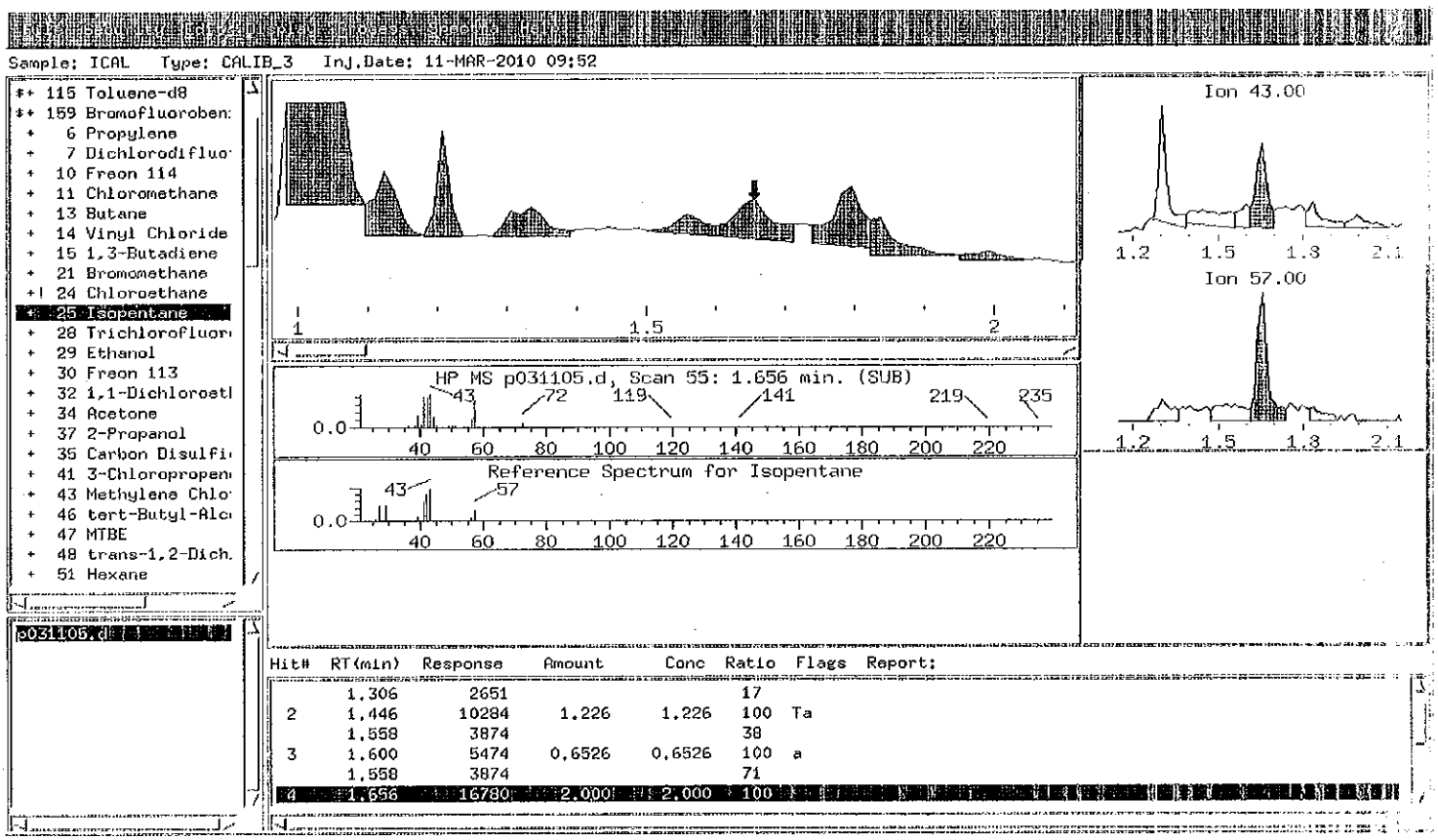
Team A

| Date/Initial | 3/11/10 ww |
|---|---|
| Poor Integration | X |
| Split Peak | |
| Peak Tailing | |
| Background Subtraction | |
| Zoom In | |
| Missed Peak | |

After 3/12/10



Before — Excess Baseline

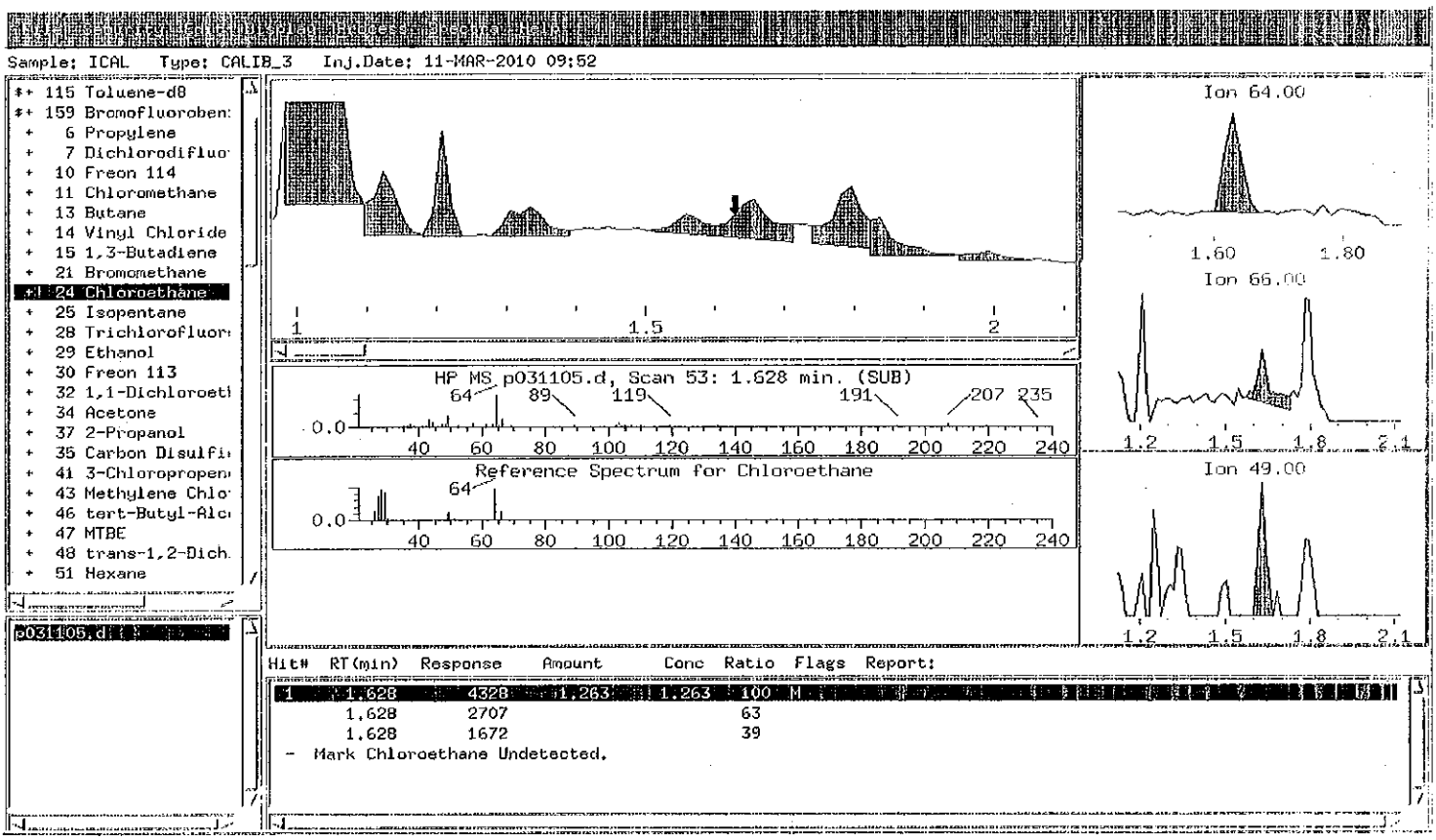


| | |
|---|---|
| Poor Integration | X |
| Split Peak | |
| Peak Tailing | |
| Background Subtraction | |
| Zoom In | |

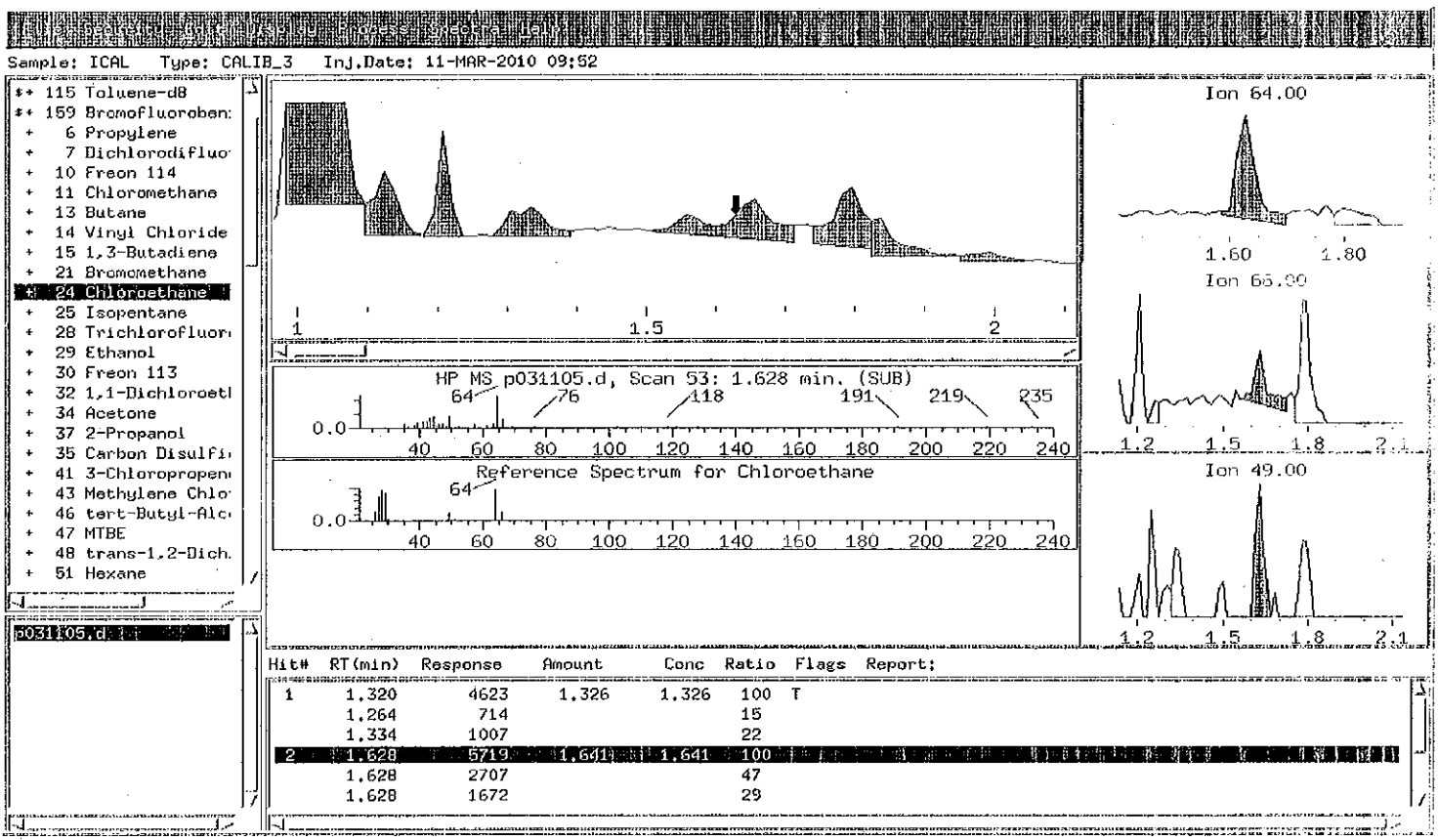
3/11/10 MW

Allen

GP 3/12/10



Before — Excess Baseline



Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msdp.i/11mar10.b/p031112.d
Lab Smp Id: LCS Client Smp ID: LCS
Inj Date : 11-MAR-2010 12:38
Operator : cr Inst ID: msdp.i
Smp Info : 50mL #1911-194
Misc Info : 50ppbv (200ppbv)
Comment :
Method : /chem/msdp.i/11mar10.b/p10q0311a.m
Meth Date : 11-Mar-2010 22:49 croush Quant Type: ISTD
Cal Date : 11-MAR-2010 15:18 Cal File: p031117.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT09.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| | | | | | CONCENTRATIONS ON-COL | CONCENTRATIONS FINAL | | |
|---|---|---|---|---|---|---|---|---|
| RT | EXP RT (REL RT) | MASS | RESPONSE | | ( PPBV) | ( PPBV) | TARGET RANGE | RATIO |
| * 76 Bromochloromethane | | | | | | CAS #: 74-97-5 | | |
| 4.275 | 4.282 (1.000) | 130 | 113088 | 25.0000 | | | 50.00- 150.00 | 100.00 |
| 4.275 | 4.275 (1.000) | 128 | 87746 | | | | 27.91- 127.91 | 77.59 |
| 4.275 | 4.275 (1.000) | 49 | 157402 | | | | 88.40- 188.40 | 139.19 |
| * 97 1,4-Difluorobenzene | | | | | | CAS #: 540-36-3 | | |
| 5.220 | 5.228 (1.000) | 114 | 390174 | 25.0000 | | | 50.00- 150.00 | 100.00 |
| 5.220 | 5.228 (1.000) | 88 | 62299 | | | | 0.00- 65.84 | 15.97 |
| * 144 Chlorobenzene-d5 | | | | | | CAS #: 3114-55-4 | | |
| 7.699 | 7.699 (1.000) | 117 | 332544 | 25.0000 | | | 50.00- 150.00 | 100.00 |
| 7.699 | 7.699 (1.000) | 82 | 185486 | | | | 6.75- 106.75 | 55.78 |
| $ 89 1,2-Dichloroethane-d4 | | | | | | CAS #: 17060-07-0 | | |
| 4.834 | 4.841 (1.131) | 65 | 156016 | 25.7577 | 25.758 | | 50.00- 150.00 | 100.00 |
| 4.834 | 4.841 (1.131) | 67 | 91251 | | | | 6.22- 106.22 | 58.49 |
| $ 115 Toluene-d8 | | | | | | CAS #: 2037-26-5 | | |
| 6.467 | 6.467 (1.239) | 98 | 409776 | 25.4641 | 25.464 | | 50.00- 150.00 | 100.00 |
| 6.467 | 6.467 (1.239) | 70 | 46834 | | | | 0.00- 61.60 | 11.43 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 115 Toluene-d8 (continued) | | | | | | | |
| 6.467 | 6.467 (1.239) | 100 | 265787 | | | 15.04- 115.04 | 64.86 |
| $ 159 Bromofluorobenzene | | | | | CAS #: 460-00-4 | | |
| 8.687 | 8.687 (1.128) | 174 | 157948 | 25.9466 | 25.946 | 50.00- 150.00 | 100.00 |
| 8.687 | 8.687 (1.128) | 95 | 214275 | | | 86.78- 186.78 | 135.66 |
| 8.687 | 8.687 (1.128) | 176 | 151018 | | | 46.17- 146.17 | 95.61 |
| 6 Propylene | | | | | CAS #: 115-07-1 | | |
| 1.111 | 1.125 (0.260) | 41 | 204127 | 43.8735 | 43.873 | 50.00- 150.00 | 100.00 |
| 1.111 | 1.125 (0.260) | 42 | 133534 | | | 16.22- 116.22 | 65.42 |
| 1.111 | 1.125 (0.260) | 39 | 150654 | | | 23.14- 123.14 | 73.80 |
| 7 Dichlorodifluoromethane/Fr12 | | | | | CAS #: 75-71-8 | | |
| 1.139 | 1.139 (0.266) | 85 | 791575 | 48.7799 | 48.780 | 50.00- 150.00 | 100.00 |
| 1.139 | 1.139 (0.266) | 87 | 256824 | | | 0.00- 81.77 | 32.44 |
| 10 Freon 114 | | | | | CAS #: 76-14-2 | | |
| 1.209 | 1.209 (0.283) | 135 | 572052 | 48.3486 | 48.348 | 50.00- 150.00 | 100.00 |
| 1.209 | 1.209 (0.283) | 137 | 180662 | | | 0.00- 82.41 | 31.58 |
| 11 Chloromethane | | | | | CAS #: 74-87-3 | | |
| 1.251 | 1.265 (0.293) | 50 | 186244 | 48.8667 | 48.867 | 50.00- 150.00 | 100.00 |
| 1.251 | 1.265 (0.293) | 52 | 59892 | | | 0.00- 85.01 | 32.16 |
| 13 Butane | | | | | CAS #: 106-97-8 | | |
| 1.307 | 1.307 (0.306) | 58 | 59805 | 50.9976 | 50.998 | 50.00- 150.00 | 100.00 |
| 1.307 | 1.307 (0.306) | 43 | 450671 | | | 664.85- 764.85 | 753.57 |
| 14 Vinyl Chloride | | | | | CAS #: 75-01-4 | | |
| 1.335 | 1.335 (0.312) | 62 | 296011 | 49.2199 | 49.220 | 50.00- 150.00 | 100.00 |
| 1.335 | 1.335 (0.312) | 64 | 94529 | | | 0.00- 88.01 | 31.93 |
| 15 1,3-Butadiene | | | | | CAS #: 106-99-0 | | |
| 1.349 | 1.349 (0.315) | 54 | 236581 | 49.0406 | 49.041 | 50.00- 150.00 | 100.00 |
| 1.349 | 1.349 (0.315) | 39 | 302036 | | | 67.29- 167.29 | 127.67 |
| 21 Bromomethane | | | | | CAS #: 74-83-9 | | |
| 1.572 | 1.572 (0.368) | 94 | 256695 | 49.3201 | 49.320 | 50.00- 150.00 | 100.00 |
| 1.572 | 1.572 (0.368) | 96 | 243300 | | | 45.21- 145.21 | 94.78 |
| 24 Chloroethane | | | | | CAS #: 75-00-3 | | |
| 1.642 | 1.642 (0.384) | 64 | 165920 | 52.5291 | 52.529 | 50.00- 150.00 | 100.00 |
| 1.642 | 1.642 (0.384) | 66 | 52431 | | | 0.00- 89.11 | 31.60 |
| 1.642 | 1.642 (0.384) | 49 | 44154 | | | 0.00- 79.55 | 26.61 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 25 Isopentane | | | | | CAS #: 78-78-4 | | |
| 1.670 | 1.670 (0.391) | 43 | 358416 | 50.8734 | 50.873 | 50.00- 150.00 | 100.00 |
| 1.670 | 1.670 (0.391) | 57 | 234405 | | | 25.98- 125.98 | 65.40 |
| 28 Trichlorofluoromethane/Fr11 | | | | | CAS #: 75-69-4 | | |
| 1.810 | 1.810 (0.423) | 101 | 817671 | 49.6459 | 49.646 | 50.00- 150.00 | 100.00 |
| 1.810 | 1.810 (0.423) | 103 | 529766 | | | 17.23- 117.23 | 64.79 |
| 29 Ethanol | | | | | CAS #: 64-17-5 | | |
| 1.964 | 1.978 (0.459) | 45 | 125612 | 49.8660 | 49.866 | 50.00- 150.00 | 100.00 |
| 1.964 | 1.978 (0.459) | 43 | 23270 | | | 0.00- 84.20 | 18.53 |
| 1.964 | 1.978 (0.459) | 46 | 46141 | | | 0.00- 96.43 | 36.73 |
| 30 Freon 113 | | | | | CAS #: 76-13-1 | | |
| 2.212 | 2.212 (0.517) | 151 | 405244 | 41.8180 | 41.818 | 50.00- 150.00 | 100.00 |
| 2.212 | 2.212 (0.517) | 153 | 258807 | | | 13.21- 113.21 | 63.86 |
| 2.212 | 2.212 (0.517) | 101 | 536248 | | | 82.01- 182.01 | 132.33 |
| 32 1,1-Dichloroethene | | | | | CAS #: 75-35-4 | | |
| 2.233 | 2.233 (0.522) | 98 | 160544 | 41.4634 | 41.463 | 50.00- 150.00 | 100.00 |
| 2.233 | 2.233 (0.522) | 96 | 255397 | | | 106.98- 206.98 | 159.08 |
| 2.233 | 2.233 (0.522) | 61 | 433265 | | | 215.33- 315.33 | 269.87 |
| 34 Acetone | | | | | CAS #: 67-64-1 | | |
| 2.312 | 2.312 (0.541) | 58 | 132348 | 43.5767 | 43.577 | 50.00- 150.00 | 100.00 |
| 2.305 | 2.312 (0.539) | 43 | 440632 | | | 281.49- 381.49 | 332.93 |
| 35 Carbon Disulfide | | | | | CAS #: 75-15-0 | | |
| 2.412 | 2.413 (0.564) | 76 | 803716 | 44.2071 | 44.207 | 50.00- 150.00 | 100.00 |
| 37 2-Propanol | | | | | CAS #: 67-63-0 | | |
| 2.420 | 2.427 (0.566) | 45 | 490662 | 44.6079 | 44.608 | 50.00- 150.00 | 100.00 |
| 2.420 | 2.427 (0.566) | 43 | 108315 | | | 0.00- 72.19 | 22.08 |
| 2.427 | 2.427 (0.568) | 59 | 18743 | | | 0.00- 77.65 | 3.82 |
| 41 3-Chloropropene | | | | | CAS #: 107-05-1 | | |
| 2.570 | 2.577 (0.601) | 76 | 128044 | 46.0169 | 46.017 | 50.00- 150.00 | 100.00 |
| 2.570 | 2.577 (0.601) | 41 | 387277 | | | 257.61- 357.61 | 302.46 |
| 43 Methylene Chloride | | | | | CAS #: 75-09-2 | | |
| 2.713 | 2.720 (0.635) | 49 | 318760 | 41.5044 | 41.504 | 50.00- 150.00 | 100.00 |
| 2.713 | 2.720 (0.635) | 84 | 236720 | | | 24.25- 124.25 | 74.26 |
| 2.713 | 2.720 (0.635) | 51 | 96671 | | | 0.00- 81.57 | 30.33 |
| 46 tert-Butyl-Alcohol | | | | | CAS #: 75-65-0 | | |
| 2.814 | 2.814 (0.658) | 59 | 551376 | 47.0115 | 47.012 | 50.00- 150.00 | 100.00 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | CONCENTRATIONS FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 46 tert-Butyl-Alcohol (continued) | | | | | | | |
| 2.814 | 2.821 (0.658) | 41 | 152110 | | | 0.00- 77.85 | 27.59 |
| 2.806 | 2.814 (0.656) | 57 | 58653 | | | 0.00- 61.24 | 10.64 |
| 47 MTBE | | | | | CAS #: 1634-04-4 | | |
| 2.943 | 2.943 (0.688) | 73 | 745927 | 46.0208 | 46.021 | 50.00- 150.00 | 100.00 |
| 2.943 | 2.943 (0.688) | 57 | 173084 | | | 0.00- 81.96 | 23.20 |
| 2.943 | 2.943 (0.688) | 41 | 197797 | | | 0.00- 76.94 | 26.52 |
| 48 trans-1,2-Dichloroethene | | | | | CAS #: 156-60-5 | | |
| 2.957 | 2.957 (0.692) | 98 | 191063 | 47.3653 | 47.365 | 50.00- 150.00 | 100.00 |
| 2.957 | 2.957 (0.692) | 61 | 444365 | | | 187.67- 287.67 | 232.58 |
| 2.957 | 2.964 (0.692) | 96 | 297317 | | | 111.49- 211.49 | 155.61 |
| 51 Hexane | | | | | CAS #: 110-54-3 | | |
| 3.193 | 3.200 (0.747) | 57 | 458363 | 46.6519 | 46.652 | 50.00- 150.00 | 100.00 |
| 3.193 | 3.200 (0.747) | 43 | 312189 | | | 17.17- 117.17 | 68.11 |
| 3.193 | 3.200 (0.747) | 86 | 75509 | | | 0.00- 70.58 | 16.47 |
| 59 1,1-Dichloroethane | | | | | CAS #: 75-34-3 | | |
| 3.444 | 3.451 (0.806) | 63 | 526621 | 43.9123 | 43.912 | 50.00- 150.00 | 100.00 |
| 3.444 | 3.451 (0.806) | 65 | 167530 | | | 0.00- 81.69 | 31.81 |
| 58 Isopropyl ether | | | | | CAS #: 108-20-3 | | |
| 3.465 | 3.473 (0.811) | 45 | 1070928 | 48.0850 | 48.085 | 50.00- 150.00 | 100.00 |
| 3.465 | 3.473 (0.811) | 87 | 258365 | | | 0.00- 73.95 | 24.13 |
| 3.465 | 3.473 (0.811) | 59 | 113431 | | | 0.00- 60.65 | 10.59 |
| 61 Vinyl Acetate | | | | | CAS #: 108-05-4 | | |
| 3.494 | 3.501 (0.817) | 86 | 67066 | 46.1524 | 46.152 | 50.00- 150.00 | 100.00 |
| 3.494 | 3.494 (0.817) | 43 | 1285551 | | | 1854.64-1954.64 | 1916.84 |
| 68 t-Butylethyl Ether | | | | | CAS #: 637-92-3 | | |
| 3.838 | 3.838 (0.898) | 59 | 846752 | 48.4313 | 48.431 | 50.00- 150.00 | 100.00 |
| 3.838 | 3.838 (0.898) | 87 | 339785 | | | 0.00- 89.71 | 40.13 |
| 3.838 | 3.838 (0.898) | 41 | 183094 | | | 0.00- 72.53 | 21.62 |
| 73 cis-1,2-Dichloroethene | | | | | CAS #: 156-59-2 | | |
| 4.046 | 4.046 (0.946) | 98 | 184688 | 46.5814 | 46.581 | 50.00- 150.00 | 100.00 |
| 4.038 | 4.046 (0.945) | 96 | 288684 | | | 109.55- 209.55 | 156.31 |
| 4.038 | 4.046 (0.945) | 61 | 388258 | | | 163.91- 263.91 | 210.22 |
| 74 2-Butanone | | | | | CAS #: 78-93-3 | | |
| 4.067 | 4.074 (0.951) | 72 | 146047 | 49.0535 | 49.054 | 50.00- 150.00 | 100.00 |
| 4.067 | 4.074 (0.951) | 43 | 620207 | | | 411.26- 511.26 | 424.66 |
| 4.067 | 4.074 (0.951) | 57 | 44198 | | | 25.94- 125.94 | 30.26 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 75 Tetrahydrofuran | | | | | CAS #: 109-99-9 | | |
| 4.282 | 4.282 (1.002) | 42 | 351731 | 46.1965 | 46.196 | 50.00- 150.00 | 100.00 |
| 4.282 | 4.282 (1.002) | 71 | 131785 | | | 0.00- 84.34 | 37.47 |
| 4.282 | 4.282 (1.002) | 72 | 136529 | | | 0.00- 88.12 | 38.82 |
| 78 Chloroform | | | | | CAS #: 67-66-3 | | |
| 4.354 | 4.354 (1.018) | 83 | 574919 | 44.7178 | 44.718 | 50.00- 150.00 | 100.00 |
| 4.354 | 4.354 (1.018) | 85 | 377984 | | | 15.20- 115.20 | 65.75 |
| 80 Cyclohexane | | | | | CAS #: 110-82-7 | | |
| 4.475 | 4.475 (1.047) | 84 | 374932 | 47.8692 | 47.869 | 50.00- 150.00 | 100.00 |
| 4.475 | 4.475 (1.047) | 56 | 448607 | | | 70.44- 170.44 | 119.65 |
| 4.475 | 4.475 (1.047) | 41 | 268869 | | | 25.90- 125.90 | 71.71 |
| 81 1,1,1-Trichloroethane | | | | | CAS #: 71-55-6 | | |
| 4.483 | 4.490 (1.049) | 97 | 561196 | 46.3571 | 46.357 | 50.00- 150.00 | 100.00 |
| 4.483 | 4.483 (1.049) | 99 | 358312 | | | 14.53- 114.53 | 63.85 |
| 82 Carbon Tetrachloride | | | | | CAS #: 56-23-5 | | |
| 4.604 | 4.612 (1.077) | 119 | 539706 | 44.0891 | 44.089 | 50.00- 150.00 | 100.00 |
| 4.604 | 4.612 (1.077) | 117 | 557724 | | | 52.63- 152.63 | 103.34 |
| 87 2,2,4-Trimethylpentane | | | | | CAS #: 540-84-1 | | |
| 4.841 | 4.848 (1.132) | 57 | 1419765 | 49.8411 | 49.841 | 50.00- 150.00 | 100.00 |
| 4.841 | 4.848 (1.132) | 56 | 461023 | | | 0.00- 88.69 | 32.47 |
| 4.841 | 4.848 (1.132) | 41 | 392542 | | | 0.00- 79.27 | 27.65 |
| 88 Benzene | | | | | CAS #: 71-43-2 | | |
| 4.819 | 4.826 (0.923) | 78 | 843532 | 45.2534 | 45.253 | 50.00- 150.00 | 100.00 |
| 4.819 | 4.826 (0.923) | 77 | 199612 | | | 0.00- 74.11 | 23.66 |
| 92 tert-amyl-Methyl Ether | | | | | CAS #: 994-05-8 | | |
| 4.927 | 4.927 (1.152) | 73 | 728839 | 47.7341 | 47.734 | 50.00- 150.00 | 100.00 |
| 4.927 | 4.927 (1.152) | 87 | 168340 | | | 0.00- 73.17 | 23.10 |
| 4.927 | 4.927 (1.152) | 55 | 222137 | | | 0.00- 81.18 | 30.48 |
| 93 1,2-Dichloroethane | | | | | CAS #: 107-06-2 | | |
| 4.905 | 4.905 (0.940) | 62 | 379124 | 43.6073 | 43.607 | 50.00- 150.00 | 100.00 |
| 4.905 | 4.905 (0.940) | 64 | 121116 | | | 0.00- 82.38 | 31.95 |
| 94 Heptane | | | | | CAS #: 142-82-5 | | |
| 5.027 | 5.034 (0.963) | 71 | 305096 | 46.2669 | 46.267 | 50.00- 150.00 | 100.00 |
| 5.027 | 5.034 (0.963) | 43 | 553722 | | | 135.49- 235.49 | 181.49 |
| 5.027 | 5.034 (0.963) | 57 | 296765 | | | 48.06- 148.06 | 97.27 |
| 102 Trichloroethene | | | | | CAS #: 79-01-6 | | |
| 5.421 | 5.421 (1.038) | 95 | 356522 | 45.1514 | 45.151 | 50.00- 150.00 | 100.00 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 102 Trichloroethene (continued) | | | | | | | |
| 5.421 | 5.421 (1.038) | 130 | 368362 | | | 53.53- 153.53 | 103.32 |
| 5.421 | 5.421 (1.038) | 97 | 226999 | | | 13.85- 113.85 | 63.67 |
| 104 Methyl Cyclohexane | | | | | CAS #: 108-87-2 | | |
| 5.536 | 5.536 (1.295) | 83 | 488955 | 46.5927 | 46.593 | 50.00- 150.00 | 100.00 |
| 5.528 | 5.536 (1.293) | 98 | 231399 | | | 0.00- 94.82 | 47.33 |
| 5.528 | 5.536 (1.293) | 55 | 400553 | | | 29.60- 129.60 | 81.92 |
| 106 1,2-Dichloropropane | | | | | CAS #: 78-87-5 | | |
| 5.650 | 5.650 (1.082) | 63 | 306906 | 45.7698 | 45.770 | 50.00- 150.00 | 100.00 |
| 5.650 | 5.650 (1.082) | 62 | 218784 | | | 23.18- 123.18 | 71.29 |
| 5.650 | 5.650 (1.082) | 41 | 190128 | | | 17.64- 117.64 | 61.95 |
| 107 1,4-Dioxane | | | | | CAS #: 123-91-1 | | |
| 5.750 | 5.750 (1.102) | 88 | 184669 | 47.0091 | 47.009 | 50.00- 150.00 | 100.00 |
| 5.750 | 5.750 (1.102) | 58 | 132176 | | | 22.06- 122.06 | 71.57 |
| 5.750 | 5.750 (1.102) | 57 | 44569 | | | 0.00- 73.47 | 24.13 |
| 109 Bromodichloromethane | | | | | CAS #: 75-27-4 | | |
| 5.887 | 5.887 (1.128) | 83 | 586529 | 45.1947 | 45.195 | 50.00- 150.00 | 100.00 |
| 5.887 | 5.887 (1.128) | 85 | 375416 | | | 13.70- 113.70 | 64.01 |
| 112 cis-1,3-Dichloropropene | | | | | CAS #: 10061-01-5 | | |
| 6.280 | 6.281 (1.203) | 75 | 437141 | 47.0584 | 47.058 | 50.00- 150.00 | 100.00 |
| 6.280 | 6.281 (1.203) | 77 | 140617 | | | 0.00- 84.04 | 32.17 |
| 6.280 | 6.281 (1.203) | 39 | 252797 | | | 11.78- 111.78 | 57.83 |
| 114 4-Methyl-2-pentanone | | | | | CAS #: 108-10-1 | | |
| 6.409 | 6.409 (1.228) | 58 | 249507 | 46.6927 | 46.693 | 50.00- 150.00 | 100.00 |
| 6.409 | 6.409 (1.228) | 43 | 693680 | | | 237.60- 337.60 | 278.02 |
| 6.409 | 6.409 (1.228) | 85 | 105936 | | | 0.00- 99.98 | 42.46 |
| 116 Toluene | | | | | CAS #: 108-88-3 | | |
| 6.524 | 6.524 (1.250) | 91 | 956108 | 44.1827 | 44.183 | 50.00- 150.00 | 100.00 |
| 6.524 | 6.524 (1.250) | 92 | 555675 | | | 8.25- 108.25 | 58.12 |
| 123 trans-1,3-Dichloropropene | | | | | CAS #: 10061-02-6 | | |
| 6.768 | 6.775 (0.879) | 75 | 451572 | 45.1432 | 45.143 | 50.00- 150.00 | 100.00 |
| 6.775 | 6.775 (0.880) | 77 | 142131 | | | 302.12- 402.12 | 31.47 |
| 6.768 | 6.775 (0.879) | 39 | 245318 | | | 4.41- 104.41 | 54.33 |
| 128 1,1,2-Trichloroethane | | | | | CAS #: 79-00-5 | | |
| 6.918 | 6.918 (0.899) | 97 | 338570 | 44.5589 | 44.559 | 50.00- 150.00 | 100.00 |
| 6.918 | 6.918 (0.899) | 99 | 207137 | | | 12.50- 112.50 | 61.18 |
| 6.918 | 6.918 (0.899) | 83 | 291616 | | | 34.85- 134.85 | 86.13 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 131 Tetrachloroethene | | | | | CAS #: 127-18-4 | | |
| 6.968 | 6.968 (0.905) | 166 | 439222 | 44.5701 | 44.570 | 50.00- 150.00 | 100.00 |
| 6.968 | 6.968 (0.905) | 129 | 333019 | | | 26.92- 126.92 | 75.82 |
| 6.968 | 6.968 (0.905) | 131 | 323116 | | | 21.94- 121.94 | 73.57 |
| 135 2-Hexanone | | | | | CAS #: 591-78-6 | | |
| 7.111 | 7.111 (0.924) | 58 | 340455 | 47.3783 | 47.378 | 50.00- 150.00 | 100.00 |
| 7.111 | 7.111 (0.924) | 43 | 671693 | | | 157.46- 257.46 | 197.29 |
| 7.111 | 7.119 (0.924) | 100 | 66193 | | | 0.00- 69.68 | 19.44 |
| 138 Dibromochloromethane | | | | | CAS #: 124-48-1 | | |
| 7.226 | 7.226 (0.939) | 129 | 573745 | 45.4607 | 45.461 | 50.00- 150.00 | 100.00 |
| 7.226 | 7.226 (0.939) | 127 | 447215 | | | 27.83- 127.83 | 77.95 |
| 140 1,2-Dibromoethane | | | | | CAS #: 106-93-4 | | |
| 7.326 | 7.326 (0.952) | 107 | 522401 | 47.0134 | 47.013 | 50.00- 150.00 | 100.00 |
| 7.326 | 7.326 (0.952) | 109 | 497565 | | | 46.78- 146.78 | 95.25 |
| 145 Chlorobenzene | | | | | CAS #: 108-90-7 | | |
| 7.720 | 7.720 (1.003) | 112 | 745138 | 44.5109 | 44.511 | 50.00- 150.00 | 100.00 |
| 7.720 | 7.720 (1.003) | 114 | 236795 | | | 0.00- 81.68 | 31.78 |
| 7.720 | 7.720 (1.003) | 77 | 435036 | | | 19.10- 119.10 | 58.38 |
| 147 Ethyl Benzene | | | | | CAS #: 100-41-4 | | |
| 7.792 | 7.792 (1.012) | 106 | 395374 | 47.4197 | 47.420 | 50.00- 150.00 | 100.00 |
| 7.792 | 7.792 (1.012) | 91 | 1232396 | | | 270.93- 370.93 | 311.70 |
| 150 m,p-Xylene | | | | | CAS #: 108-38-3 | | |
| 7.892 | 7.892 (1.025) | 106 | 484052 | 46.6579 | 46.658 | 50.00- 150.00 | 100.00 |
| 7.892 | 7.892 (1.025) | 91 | 983024 | | | 151.38- 251.38 | 203.08 |
| 153 o-Xylene | | | | | CAS #: 95-47-6 | | |
| 8.222 | 8.229 (1.068) | 106 | 446775 | 47.1835 | 47.183 | 50.00- 150.00 | 100.00 |
| 8.222 | 8.222 (1.068) | 91 | 935722 | | | 164.77- 264.77 | 209.44 |
| 154 Styrene | | | | | CAS #: 100-42-5 | | |
| 8.243 | 8.243 (1.071) | 104 | 735661 | 47.3800 | 47.380 | 50.00- 150.00 | 100.00 |
| 8.243 | 8.243 (1.071) | 78 | 372045 | | | 1.89- 101.89 | 50.57 |
| 155 Bromoform | | | | | CAS #: 75-25-2 | | |
| 8.415 | 8.415 (1.093) | 173 | 485009 | 46.5110 | 46.511 | 50.00- 150.00 | 100.00 |
| 8.415 | 8.415 (1.093) | 171 | 250341 | | | 0.59- 100.59 | 51.62 |
| 156 Cumene | | | | | CAS #: 98-82-8 | | |
| 8.523 | 8.523 (1.107) | 105 | 1278304 | 44.6021 | 44.602 | 50.00- 150.00 | 100.00 |
| 8.523 | 8.523 (1.107) | 120 | 346200 | | | 0.00- 76.38 | 27.08 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 156 Cumene (continued) | | | | | | | |
| 8.523 | 8.523 (1.107) | 51 | 132844 | | | 0.00- 60.64 | 10.39 |
| 161 1,1,2,2-Tetrachloroethane | | | | | CAS #: 79-34-5 | | |
| 8.823 | 8.823 (1.146) | 83 | 683039 | 46.0879 | 46.088 | 50.00- 150.00 | 100.00 |
| 8.823 | 8.823 (1.146) | 85 | 441485 | | | 16.07- 116.07 | 64.64 |
| 162 Propylbenzene | | | | | CAS #: 103-65-1 | | |
| 8.866 | 8.866 (1.152) | 91 | 1540798 | 45.2252 | 45.225 | 50.00- 150.00 | 100.00 |
| 8.866 | 8.866 (1.152) | 120 | 346509 | | | 0.00- 72.00 | 22.49 |
| 8.866 | 8.866 (1.152) | 105 | 55981 | | | 0.00- 68.11 | 3.63 |
| 163 4-Ethyltoluene | | | | | CAS #: 622-96-8 | | |
| 8.959 | 8.960 (1.164) | 120 | 393873 | 45.9990 | 45.999 | 50.00- 150.00 | 100.00 |
| 8.959 | 8.960 (1.164) | 105 | 1313893 | | | 275.52- 375.52 | 333.58 |
| 164 1,3,5-Trimethylbenzene | | | | | CAS #: 108-67-8 | | |
| 9.017 | 9.017 (1.171) | 120 | 539753 | 47.9817 | 47.982 | 50.00- 150.00 | 100.00 |
| 9.017 | 9.017 (1.171) | 105 | 1104730 | | | 157.61- 257.61 | 204.67 |
| 166 1,2,4-Trimethylbenzene | | | | | CAS #: 95-63-6 | | |
| 9.332 | 9.332 (1.212) | 120 | 463502 | 47.7870 | 47.787 | 50.00- 150.00 | 100.00 |
| 9.332 | 9.332 (1.212) | 105 | 1008854 | | | 171.83- 271.83 | 217.66 |
| 168 1,3-Dichlorobenzene | | | | | CAS #: 541-73-1 | | |
| 9.583 | 9.583 (1.245) | 146 | 621368 | 45.7738 | 45.774 | 50.00- 150.00 | 100.00 |
| 9.583 | 9.583 (1.245) | 148 | 393860 | | | 11.58- 111.58 | 63.39 |
| 9.583 | 9.583 (1.245) | 111 | 261177 | | | 0.00- 91.95 | 42.03 |
| 169 1,4-Dichlorobenzene | | | | | CAS #: 106-46-7 | | |
| 9.669 | 9.669 (1.256) | 146 | 637509 | 47.5425 | 47.542 | 50.00- 150.00 | 100.00 |
| 9.669 | 9.669 (1.256) | 148 | 402950 | | | 14.35- 114.35 | 63.21 |
| 9.669 | 9.669 (1.256) | 111 | 259398 | | | 0.00- 91.42 | 40.69 |
| 170 alpha-Chlorotoluene | | | | | CAS #: 100-44-7 | | |
| 9.783 | 9.783 (1.271) | 91 | 873043 | 50.3964 | 50.396 | 50.00- 150.00 | 100.00 |
| 9.783 | 9.783 (1.271) | 126 | 174556 | | | 0.00- 69.60 | 19.99 |
| 171 1,2-Dichlorobenzene | | | | | CAS #: 95-50-1 | | |
| 9.977 | 9.977 (1.296) | 146 | 570892 | 47.9627 | 47.963 | 50.00- 150.00 | 100.00 |
| 9.977 | 9.977 (1.296) | 148 | 357078 | | | 14.46- 114.46 | 62.55 |
| 9.977 | 9.977 (1.296) | 111 | 252312 | | | 0.00- 94.23 | 44.20 |
| 174 1,2,4-Trichlorobenzene | | | | | CAS #: 120-82-1 | | |
| 11.316 | 11.302 (1.470) | 180 | 370445 | 48.8511 | 48.851 | 50.00- 150.00 | 100.00 |
| 11.316 | 11.302 (1.470) | 182 | 356457 | | | 46.77- 146.77 | 96.22 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 175 Hexachlorobutadiene | | | | | CAS #: 87-68-3 | | |
| 11.416 | 11.402 (1.483) | 225 | 287354 | 41.7074 | 41.707 | 50.00- 150.00 | 100.00 |
| 11.416 | 11.402 (1.483) | 223 | 181782 | | | 13.27- 113.27 | 63.26 |
| 176 Naphthalene | | | | | CAS #: 91-20-3 | | |
| 11.524 | 11.517 (1.497) | 128 | 781108 | 47.6403 | 47.640 | 50.00- 150.00 | 100.00 |
| 11.524 | 11.517 (1.497) | 127 | 97542 | | | 0.00- 62.46 | 12.49 |

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdp.i
Lab File ID: p031112.d
Lab Smp Id: LCS
Analysis Type: VOA
Quant Type: ISTD
Operator: cr
Method File: /chem/msdp.i/11mar10.b/p10q0311a.m
Misc Info: 50ppbv (200ppbv)

Calibration Date: 11-MAR-2010
Calibration Time: 10:37
Client Smp ID: LCS
Level: LOW
Sample Type: AIR

| | | AREA LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 76 Bromochloromethan | 104418 | 62651 | 146185 | 113088 | 8.30 |
| 97 1,4-Difluorobenze | 353421 | 212053 | 494789 | 390174 | 10.40 |
| 144 Chlorobenzene-d5 | 302185 | 181311 | 423059 | 332544 | 10.05 |

| | | RT LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 76 Bromochloromethan | 4.27 | 3.94 | 4.60 | 4.27 | 0.00 |
| 97 1,4-Difluorobenze | 5.23 | 4.90 | 5.56 | 5.22 | -0.14 |
| 144 Chlorobenzene-d5 | 7.70 | 7.37 | 8.03 | 7.70 | 0.00 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Report Date: 11-Mar-2010 22:50

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: 11mar10
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: LCS Client Smp ID: LCS
Level: LOW Operator: cr
Data Type: MS DATA SampleType: LCS
SpikeList File: 2926spectra.spk Quant Type: ISTD
Sublist File: AT09.sub
Method File: /chem/msdp.i/11mar10.b/p10q0311a.m
Misc Info: 50ppbv (200ppbv)

| SPIKE | COMPOUND | CONC ADDED PPBV | CONC RECOVERED PPBV | % RECOVERED | LIMITS |
|---|---|---|---|---|---|
| 6 | Propylene | 50.000 | 43.873 | 87.75 | 60-140 |
| 7 | Dichlorodifluorome | 50.000 | 48.780 | 97.56 | 70-130 |
| 10 | Freon 114 | 50.000 | 48.348 | 96.70 | 70-130 |
| 11 | Chloromethane | 50.000 | 48.867 | 97.73 | 70-130 |
| 14 | Vinyl Chloride | 50.000 | 49.220 | 98.44 | 70-130 |
| 15 | 1,3-Butadiene | 50.000 | 49.041 | 98.08 | 60-140 |
| 21 | Bromomethane | 50.000 | 49.320 | 98.64 | 70-130 |
| 24 | Chloroethane | 50.000 | 52.529 | 105.06 | 70-130 |
| 28 | Trichlorofluoromet | 50.000 | 49.646 | 99.29 | 70-130 |
| 29 | Ethanol | 50.000 | 49.866 | 99.73 | 60-140 |
| 30 | Freon 113 | 50.000 | 41.818 | 83.64 | 70-130 |
| 32 | 1,1-Dichloroethene | 50.000 | 41.463 | 82.93 | 70-130 |
| 34 | Acetone | 50.000 | 43.577 | 87.15 | 60-140 |
| 35 | Carbon Disulfide | 50.000 | 44.207 | 88.41 | 60-140 |
| 37 | 2-Propanol | 50.000 | 44.608 | 89.22 | 60-140 |
| 43 | Methylene Chloride | 50.000 | 41.504 | 83.01 | 70-130 |
| 47 | MTBE | 50.000 | 46.021 | 92.04 | 60-140 |
| 48 | trans-1,2-Dichloro | 50.000 | 47.365 | 94.73 | 60-140 |
| 51 | Hexane | 50.000 | 46.652 | 93.30 | 60-140 |
| 61 | Vinyl Acetate | 50.000 | 46.152 | 92.30 | 60-140 |
| 59 | 1,1-Dichloroethane | 50.000 | 43.912 | 87.82 | 70-130 |
| 73 | cis-1,2-Dichloroet | 50.000 | 46.581 | 93.16 | 70-130 |
| 74 | 2-Butanone | 50.000 | 49.054 | 98.11 | 60-140 |
| 75 | Tetrahydrofuran | 50.000 | 46.196 | 92.39 | 60-140 |
| 78 | Chloroform | 50.000 | 44.718 | 89.44 | 70-130 |
| 80 | Cyclohexane | 50.000 | 47.869 | 95.74 | 60-140 |
| 81 | 1,1,1-Trichloroeth | 50.000 | 46.357 | 92.71 | 70-130 |
| 82 | Carbon Tetrachlori | 50.000 | 44.089 | 88.18 | 70-130 |
| 88 | Benzene | 50.000 | 45.253 | 90.51 | 70-130 |
| 93 | 1,2-Dichloroethane | 50.000 | 43.607 | 87.21 | 70-130 |
| 94 | Heptane | 50.000 | 46.267 | 92.53 | 60-140 |
| 102 | Trichloroethene | 50.000 | 45.151 | 90.30 | 70-130 |
| 106 | 1,2-Dichloropropan | 50.000 | 45.770 | 91.54 | 70-130 |

| SPIKE COMPOUND | CONC ADDED PPBV | CONC RECOVERED PPBV | % RECOVERED | LIMITS |
|---|---|---|---|---|
| 107 1,4-Dioxane | 50.000 | 47.009 | 94.02 | 60-140 |
| 109 Bromodichlorometha | 50.000 | 45.195 | 90.39 | 60-140 |
| 112 cis-1,3-Dichloropr | 50.000 | 47.058 | 94.12 | 70-130 |
| 114 4-Methyl-2-pentano | 50.000 | 46.693 | 93.39 | 60-140 |
| 116 Toluene | 50.000 | 44.183 | 88.37 | 70-130 |
| 123 trans-1,3-Dichloro | 50.000 | 45.143 | 90.29 | 70-130 |
| 128 1,1,2-Trichloroeth | 50.000 | 44.559 | 89.12 | 70-130 |
| 131 Tetrachloroethene | 50.000 | 44.570 | 89.14 | 70-130 |
| 135 2-Hexanone | 50.000 | 47.378 | 94.76 | 60-140 |
| 138 Dibromochlorometha | 50.000 | 45.461 | 90.92 | 60-140 |
| 140 1,2-Dibromoethane | 50.000 | 47.013 | 94.03 | 70-130 |
| 145 Chlorobenzene | 50.000 | 44.511 | 89.02 | 70-130 |
| 147 Ethyl Benzene | 50.000 | 47.420 | 94.84 | 70-130 |
| 150 m,p-Xylene | 50.000 | 46.658 | 93.32 | 70-130 |
| 153 o-Xylene | 50.000 | 47.183 | 94.37 | 70-130 |
| 154 Styrene | 50.000 | 47.380 | 94.76 | 70-130 |
| 155 Bromoform | 50.000 | 46.511 | 93.02 | 60-140 |
| 161 1,1,2,2-Tetrachlor | 50.000 | 46.088 | 92.18 | 70-130 |
| 163 4-Ethyltoluene | 50.000 | 45.999 | 92.00 | 60-140 |
| 164 1,3,5-Trimethylben | 50.000 | 47.982 | 95.96 | 70-130 |
| 166 1,2,4-Trimethylben | 50.000 | 47.787 | 95.57 | 70-130 |
| 168 1,3-Dichlorobenzen | 50.000 | 45.774 | 91.55 | 70-130 |
| 169 1,4-Dichlorobenzen | 50.000 | 47.542 | 95.09 | 70-130 |
| 170 alpha-Chlorotoluen | 50.000 | 50.396 | 100.79 | 70-130 |
| 171 1,2-Dichlorobenzen | 50.000 | 47.963 | 95.93 | 70-130 |
| 174 1,2,4-Trichloroben | 50.000 | 48.851 | 97.70 | 70-130 |
| 175 Hexachlorobutadien | 50.000 | 41.707 | 83.41 | 70-130 |
| 162 Propylbenzene | 50.000 | 45.225 | 90.45 | 60-140 |
| 156 Cumene | 50.000 | 44.602 | 89.20 | 60-140 |
| 41 3-Chloropropene | 50.000 | 46.017 | 92.03 | 60-140 |
| 87 2,2,4-Trimethylpen | 50.000 | 49.841 | 99.68 | 60-140 |
| 25 Isopentane | 50.000 | 50.873 | 101.75 | 70-130 |
| 13 Butane | 50.000 | 50.998 | 102.00 | 70-130 |
| 104 Methyl Cyclohexane | 50.000 | 46.593 | 93.19 | 70-130 |
| 46 tert-Butyl-Alcohol | 50.000 | 47.012 | 94.02 | 60-140 |
| 176 Naphthalene | 50.000 | 47.640 | 95.28 | 60-140 |
| 58 Isopropyl ether | 50.000 | 48.085 | 96.17 | 60-140 |
| 68 t-Butylethyl Ether | 50.000 | 48.431 | 96.86 | 60-140 |
| 92 tert-amyl-Methyl E | 50.000 | 47.734 | 95.47 | 60-140 |

| SURROGATE COMPOUND | CONC ADDED PPBV | CONC RECOVERED PPBV | % RECOVERED | LIMITS |
|---|---|---|---|---|
| $ 89 1,2-Dichloroethane | 25.000 | 25.758 | 103.03 | 70-130 |

| SURROGATE COMPOUND | CONC ADDED PPBV | CONC RECOVERED PPBV | % RECOVERED | LIMITS |
|---|---|---|---|---|
| $ 115 Toluene-d8 | 25.000 | 25.464 | 101.86 | 70-130 |
| $ 159 Bromofluorobenzene | 25.000 | 25.946 | 103.79 | 70-130 |

Data File: /chem/msdp.i/11mar10.b/p031112.d

Date : 11-MAR-2010 12:38

Client ID: LCS

Sample Info: 50mL #1911-194

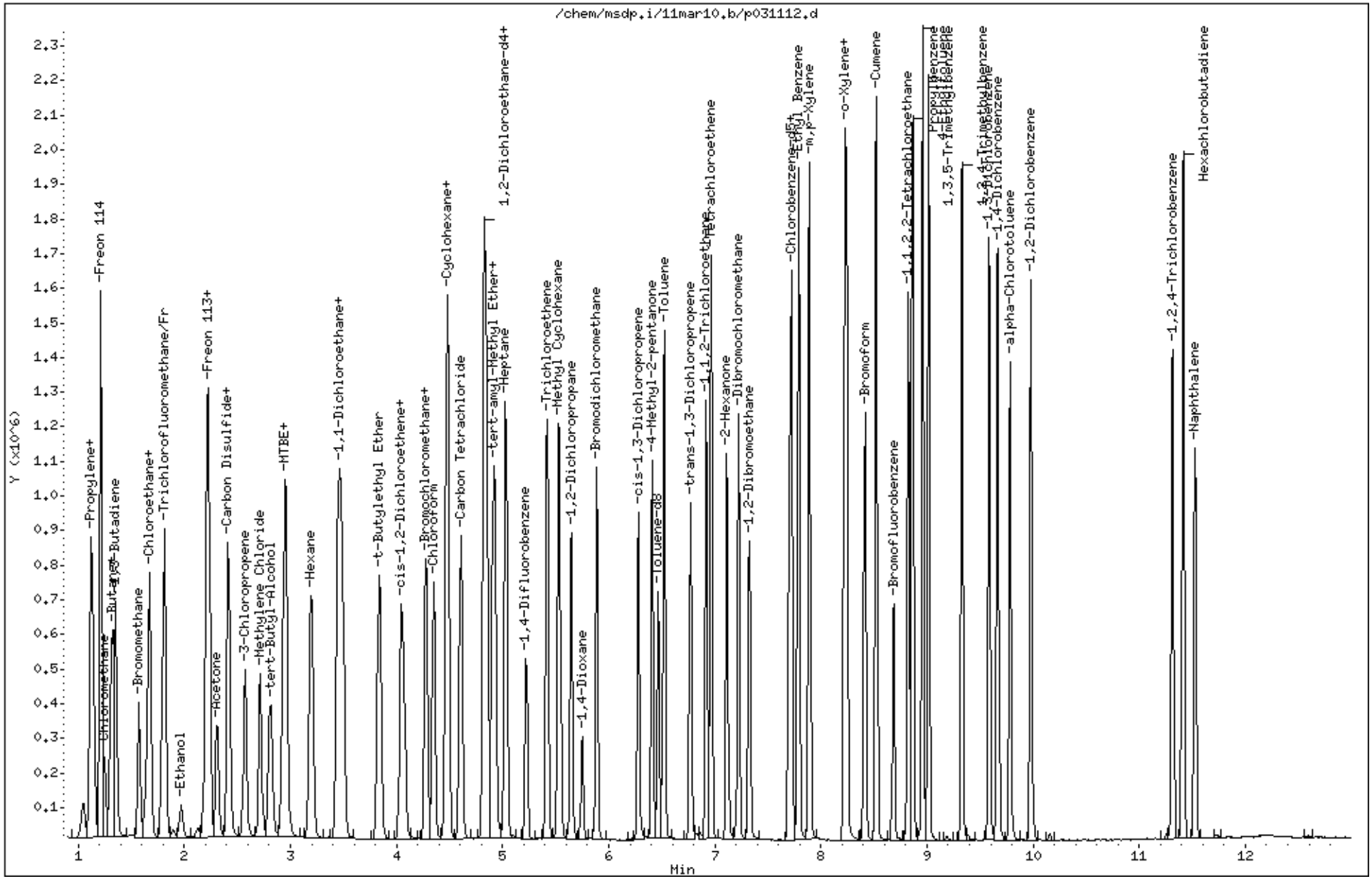
Column phase: RTx-624



Instrument: msdp.i

Operator: cr

Column diameter: 0.53



Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msdp.i/11mar10.b/p031103.d
Lab Smp Id: ICAL Client Smp ID: Level 1
Inj Date : 11-MAR-2010 09:08
Operator : cr Inst ID: msdp.i
Smp Info : 30mL #1911-281
Misc Info : 0.3ppbv (2.0ppbv)
Comment :
Method : /chem/msdp.i/11mar10.b/p10q0311a.m
Meth Date : 13-Mar-2010 09:22 jparker Quant Type: ISTD
Cal Date : 11-MAR-2010 09:08 Cal File: p031103.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AFCEElow.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| | | | | AMOUNTS | | | |
|---|---|---|---|---|---|---|---|
| | | | | CAL-AMT | ON-COL | | |
| RT | EXP RT (REL RT) | MASS | RESPONSE | ( PPBV) | ( PPBV) | TARGET RANGE | RATIO |
| == | ====== ======== | ==== | ======== | ======= | ======= | ========== | ===== |
| * 76 Bromochloromethane | | | | | CAS #: 74-97-5 | | |
| 4.275 | 4.275 (1.000) | 130 | 110575 | 25.0000 | | 50.00- 150.00 | 100.00 |
| 4.275 | 4.275 (1.000) | 128 | 86791 | | | 27.91- 127.91 | 78.49 |
| 4.275 | 4.275 (1.000) | 49 | 150546 | | | 88.40- 188.40 | 136.15 |
| * 97 1,4-Difluorobenzene | | | | | CAS #: 540-36-3 | | |
| 5.220 | 5.220 (1.000) | 114 | 374522 | 25.0000 | | 50.00- 150.00 | 100.00 |
| 5.220 | 5.220 (1.000) | 88 | 59093 | | | 0.00- 65.84 | 15.78 |
| * 144 Chlorobenzene-d5 | | | | | CAS #: 3114-55-4 | | |
| 7.699 | 7.699 (1.000) | 117 | 294359 | 25.0000 | | 50.00- 150.00 | 100.00 |
| 7.699 | 7.699 (1.000) | 82 | 170918 | | | 6.75- 106.75 | 58.06 |
| $ 89 1,2-Dichloroethane-d4 | | | | | CAS #: 17060-07-0 | | |
| 4.833 | 4.833 (1.131) | 65 | 138001 | 25.0000 | 23.301 | 50.00- 150.00 | 100.00 |
| 4.833 | 4.833 (1.131) | 67 | 72968 | | | 6.22- 106.22 | 52.87 |
| $ 115 Toluene-d8 | | | | | CAS #: 2037-26-5 | | |
| 6.467 | 6.467 (1.239) | 98 | 378986 | 25.0000 | 24.535 | 50.00- 150.00 | 100.00 |
| 6.467 | 6.467 (1.239) | 70 | 44307 | | | 0.00- 61.60 | 11.69 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 115 Toluene-d8 (continued) | | | | | | | |
| 6.467 | 6.467 (1.239) | 100 | 244827 | | | 15.04- 115.04 | 64.60 |
| $ 159 Bromofluorobenzene | | | | | CAS #: 460-00-4 | | |
| 8.687 | 8.687 (1.128) | 174 | 129065 | 25.0000 | 23.952 | 50.00- 150.00 | 100.00 |
| 8.680 | 8.680 (1.127) | 95 | 177341 | | | 86.78- 186.78 | 137.40 |
| 8.687 | 8.687 (1.128) | 176 | 122568 | | | 46.17- 146.17 | 94.97 |
| 166 1,2,4-Trimethylbenzene | | | | | CAS #: 95-63-6 | | |
| 9.325 | 9.325 (1.211) | 120 | 2606 | 0.30000 | 0.3035 | 50.00- 150.00 | 100.00(a) |
| 9.325 | 9.325 (1.211) | 105 | 5619 | | | 171.83- 271.83 | 215.62 |
| 164 1,3,5-Trimethylbenzene | | | | | CAS #: 108-67-8 | | |
| 9.009 | 9.009 (1.170) | 120 | 2899 | 0.30000 | 0.2911 | 50.00- 150.00 | 100.00(a) |
| 9.009 | 9.009 (1.170) | 105 | 6262 | | | 157.61- 257.61 | 216.01 |

## QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Report Date: 13-Mar-2010 09:22

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdp.i
Lab File ID: p031103.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: cr
Method File: /chem/msdp.i/11mar10.b/p10q0311a.m
Misc Info: 0.3ppbv (2.0ppbv)

Calibration Date: 11-MAR-2010
Calibration Time: 10:37
Client Smp ID: Level 1
Level: LOW
Sample Type: AIR

| | | AREA LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 76 Bromochloromethan | 104418 | 62651 | 146185 | 110575 | 5.90 |
| 97 1,4-Difluorobenze | 353421 | 212053 | 494789 | 374522 | 5.97 |
| 144 Chlorobenzene-d5 | 302185 | 181311 | 423059 | 294359 | -2.59 |

| | | RT LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 76 Bromochloromethan | 4.27 | 3.94 | 4.60 | 4.27 | 0.00 |
| 97 1,4-Difluorobenze | 5.23 | 4.90 | 5.56 | 5.22 | -0.14 |
| 144 Chlorobenzene-d5 | 7.70 | 7.37 | 8.03 | 7.70 | 0.00 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msdp.i/11mar10.b/p031103.d

Date : 11-MAR-2010 09:08

Client ID: Level 1

Sample Info: 30mL #1911-281

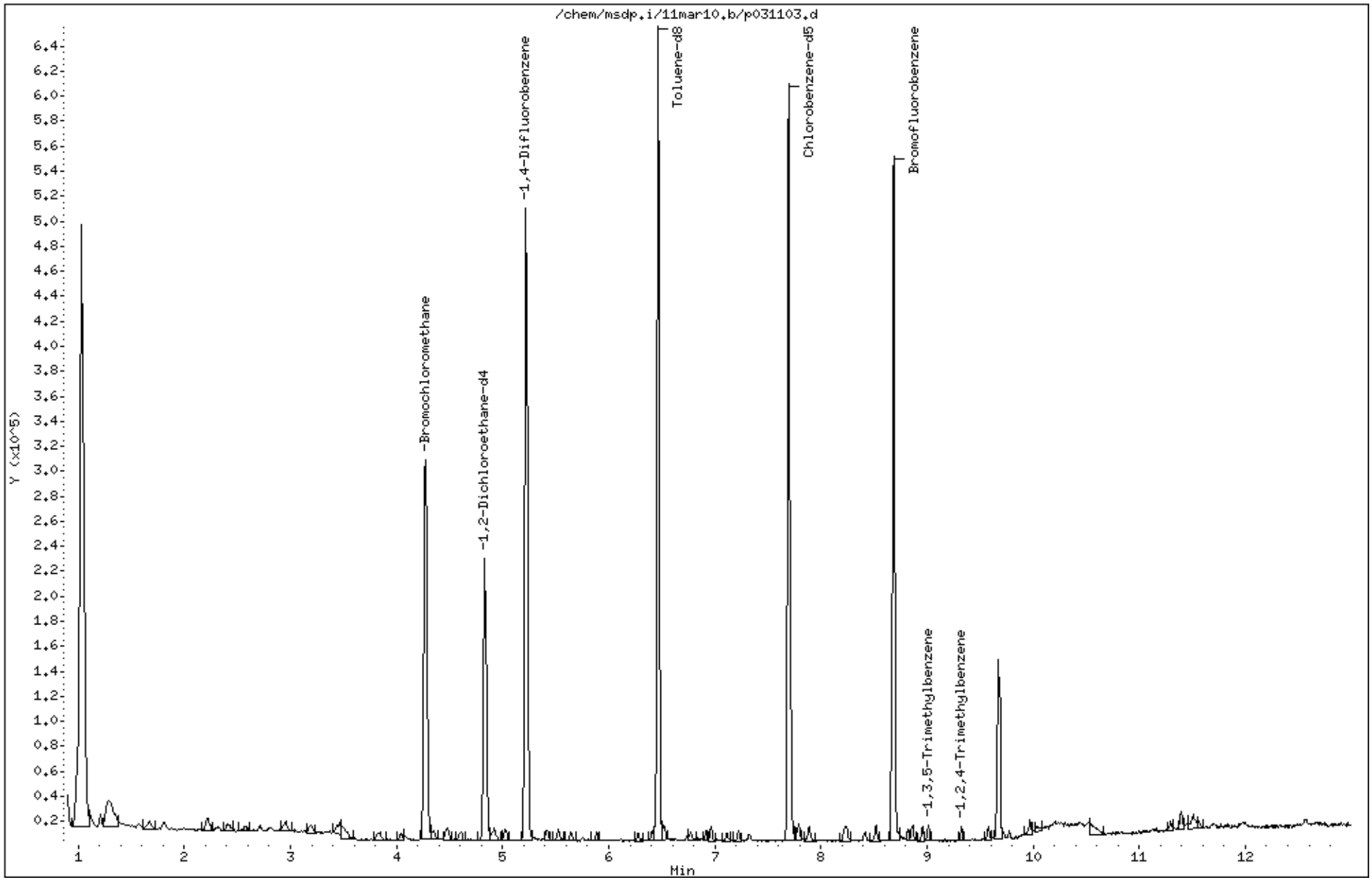
Column phase: RTx-624



Instrument: msdp.i

Operator: cr

Column diameter: 0.53



Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msdp.i/11mar10.b/p031104.d
Lab Smp Id: ICAL Client Smp ID: Level 2
Inj Date : 11-MAR-2010 09:27
Operator : cr Inst ID: msdp.i
Smp Info : 50mL #1911-281
Misc Info : 0.5ppbv (2.0ppbv)
Comment :
Method : /chem/msdp.i/11mar10.b/p10q0311a.m
Meth Date : 13-Mar-2010 09:23 jparker Quant Type: ISTD
Cal Date : 11-MAR-2010 09:27 Cal File: p031104.d
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT09low.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| | | | | AMOUNTS | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | CAL-AMT | ON-COL | | | |
| RT | EXP RT (REL RT) | MASS | RESPONSE | ( PPBV) | ( PPBV) | TARGET RANGE | | RATIO |
| == | ====== ======== | ==== | ======== | ======= | ======= | ========== | | ===== |
| * 76 Bromochloromethane | | | | | CAS #: 74-97-5 | | | |
| 4.275 | 4.282 (1.000) | 130 | 112800 | 25.0000 | | 50.00- | 150.00 | 100.00 |
| 4.275 | 4.275 (1.000) | 128 | 87138 | | | 27.91- | 127.91 | 77.25 |
| 4.275 | 4.275 (1.000) | 49 | 154488 | | | 88.40- | 188.40 | 136.96 |
| * 97 1,4-Difluorobenzene | | | | | CAS #: 540-36-3 | | | |
| 5.227 | 5.228 (1.000) | 114 | 378169 | 25.0000 | | 50.00- | 150.00 | 100.00 |
| 5.220 | 5.228 (1.000) | 88 | 60849 | | | 0.00- | 65.84 | 16.09 |
| * 144 Chlorobenzene-d5 | | | | | CAS #: 3114-55-4 | | | |
| 7.699 | 7.699 (1.000) | 117 | 310340 | 25.0000 | | 50.00- | 150.00 | 100.00 |
| 7.699 | 7.699 (1.000) | 82 | 176099 | | | 6.75- | 106.75 | 56.74 |
| $ 89 1,2-Dichloroethane-d4 | | | | | CAS #: 17060-07-0 | | | |
| 4.833 | 4.841 (1.131) | 65 | 143068 | 25.0000 | 23.680 | 50.00- | 150.00 | 100.00 |
| 4.833 | 4.841 (1.131) | 67 | 73186 | | | 6.22- | 106.22 | 51.15 |
| $ 115 Toluene-d8 | | | | | CAS #: 2037-26-5 | | | |
| 6.467 | 6.467 (1.237) | 98 | 388652 | 25.0000 | 24.918 | 50.00- | 150.00 | 100.00 |
| 6.467 | 6.467 (1.237) | 70 | 44906 | | | 0.00- | 61.60 | 11.55 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 115 Toluene-d8 (continued) | | | | | | | |
| 6.467 | 6.467 (1.237) | 100 | 252421 | | | 15.04- 115.04 | 64.95 |
| $ 159 Bromofluorobenzene | | | | | CAS #: 460-00-4 | | |
| 8.687 | 8.687 (1.128) | 174 | 133417 | 25.0000 | 23.485 | 50.00- 150.00 | 100.00 |
| 8.687 | 8.687 (1.128) | 95 | 182018 | | | 86.78- 186.78 | 136.43 |
| 8.687 | 8.687 (1.128) | 176 | 130193 | | | 46.17- 146.17 | 97.58 |
| 7 Dichlorodifluoromethane/Fr12 | | | | | CAS #: 75-71-8 | | |
| 1.139 | 1.139 (0.266) | 85 | 8474 | 0.50000 | 0.5235 | 50.00- 150.00 | 100.00 |
| 1.139 | 1.139 (0.266) | 87 | 2447 | | | 0.00- 81.77 | 28.88 |
| 10 Freon 114 | | | | | CAS #: 76-14-2 | | |
| 1.209 | 1.209 (0.283) | 135 | 5868 | 0.50000 | 0.4972 | 50.00- 150.00 | 100.00(a) |
| 1.209 | 1.209 (0.283) | 137 | 1993 | | | 0.00- 82.41 | 33.96 |
| 14 Vinyl Chloride | | | | | CAS #: 75-01-4 | | |
| 1.320 | 1.335 (0.309) | 62 | 3365 | 0.50000 | 0.5610 | 50.00- 150.00 | 100.00 |
| 1.320 | 1.335 (0.309) | 64 | 1585 | | | 0.00- 88.01 | 47.10 |
| 15 1,3-Butadiene | | | | | CAS #: 106-99-0 | | |
| 1.348 | 1.349 (0.315) | 54 | 3324 | 0.50000 | 0.6908 | 50.00- 150.00 | 100.00(M) |
| 1.348 | 1.349 (0.315) | 39 | 3716 | | | 67.29- 167.29 | 111.79 |
| 21 Bromomethane | | | | | CAS #: 74-83-9 | | |
| 1.572 | 1.572 (0.368) | 94 | 2952 | 0.50000 | 0.5686 | 50.00- 150.00 | 100.00 |
| 1.572 | 1.572 (0.368) | 96 | 2648 | | | 45.21- 145.21 | 89.70 |
| 24 Chloroethane | | | | | CAS #: 75-00-3 | | |
| 1.642 | 1.642 (0.384) | 64 | 1759 | 0.50000 | 0.5583 | 50.00- 150.00 | 100.00(T) |
| 1.642 | 1.642 (0.384) | 66 | 656 | | | 0.00- 89.11 | 37.29 |
| 0.000 | 1.642 (0.000) | 49 | 0 | | | 0.00- 79.55 | 0.00 |
| 28 Trichlorofluoromethane/Fr11 | | | | | CAS #: 75-69-4 | | |
| 1.810 | 1.810 (0.423) | 101 | 8468 | 0.50000 | 0.5154 | 50.00- 150.00 | 100.00 |
| 1.810 | 1.810 (0.423) | 103 | 5969 | | | 17.23- 117.23 | 70.49 |
| 30 Freon 113 | | | | | CAS #: 76-13-1 | | |
| 2.212 | 2.212 (0.517) | 151 | 4994 | 0.50000 | 0.5166 | 50.00- 150.00 | 100.00 |
| 2.212 | 2.212 (0.517) | 153 | 3108 | | | 13.21- 113.21 | 62.23 |
| 2.212 | 2.212 (0.517) | 101 | 6611 | | | 82.01- 182.01 | 132.38 |
| 32 1,1-Dichloroethene | | | | | CAS #: 75-35-4 | | |
| 2.233 | 2.233 (0.522) | 98 | 1870 | 0.50000 | 0.4842 | 50.00- 150.00 | 100.00(a) |
| 2.226 | 2.233 (0.521) | 96 | 3041 | | | 106.98- 206.98 | 162.62 |
| 2.233 | 2.233 (0.522) | 61 | 4938 | | | 215.33- 315.33 | 264.06 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 35 Carbon Disulfide | | | | | CAS #: 75-15-0 | | |
| 2.412 | 2.413 (0.564) | 76 | 9320 | 0.50000 | 0.5139 | 50.00- 150.00 | 100.00 |
| 43 Methylene Chloride | | | | | CAS #: 75-09-2 | | |
| 2.713 | 2.720 (0.635) | 49 | 4254 | 0.50000 | 0.5553 | 50.00- 150.00 | 100.00 |
| 2.713 | 2.720 (0.635) | 84 | 3313 | | | 24.25- 124.25 | 77.88 |
| 2.720 | 2.720 (0.636) | 51 | 1343 | | | 0.00- 81.57 | 31.57 |
| 47 MTBE | | | | | CAS #: 1634-04-4 | | |
| 2.942 | 2.943 (0.688) | 73 | 7995 | 0.50000 | 0.4945 | 50.00- 150.00 | 100.00(a) |
| 3.200 | 2.943 (0.749) | 57 | 5197 | | | 0.00- 81.96 | 65.00 |
| 2.942 | 2.943 (0.688) | 41 | 2197 | | | 0.00- 76.94 | 27.48 |
| 48 trans-1,2-Dichloroethene | | | | | CAS #: 156-60-5 | | |
| 2.964 | 2.957 (0.693) | 98 | 1946 | 0.50000 | 0.4836 | 50.00- 150.00 | 100.00(a) |
| 2.964 | 2.957 (0.693) | 61 | 4756 | | | 187.67- 287.67 | 244.40 |
| 2.964 | 2.964 (0.693) | 96 | 3190 | | | 111.49- 211.49 | 163.93 |
| 51 Hexane | | | | | CAS #: 110-54-3 | | |
| 3.200 | 3.200 (0.749) | 57 | 5197 | 0.50000 | 0.5303 | 50.00- 150.00 | 100.00 |
| 3.207 | 3.200 (0.750) | 43 | 2624 | | | 17.17- 117.17 | 50.49 |
| 2.713 | 3.200 (0.635) | 86 | 1942 | | | 0.00- 70.58 | 37.37 |
| 59 1,1-Dichloroethane | | | | | CAS #: 75-34-3 | | |
| 3.451 | 3.451 (0.807) | 63 | 6327 | 0.50000 | 0.5289 | 50.00- 150.00 | 100.00 |
| 3.444 | 3.451 (0.806) | 65 | 1896 | | | 0.00- 81.69 | 29.97 |
| 74 2-Butanone | | | | | CAS #: 78-93-3 | | |
| 4.089 | 4.074 (0.956) | 72 | 1167 | 0.50000 | 0.3930 | 50.00- 150.00 | 100.00(a) |
| 4.081 | 4.074 (0.955) | 43 | 6659 | | | 411.26- 511.26 | 570.61 |
| 3.845 | 4.074 (0.899) | 57 | 2954 | | | 25.94- 125.94 | 253.13 |
| 73 cis-1,2-Dichloroethene | | | | | CAS #: 156-59-2 | | |
| 4.046 | 4.046 (0.946) | 98 | 1776 | 0.50000 | 0.4491 | 50.00- 150.00 | 100.00(a) |
| 4.046 | 4.046 (0.946) | 96 | 3232 | | | 109.55- 209.55 | 181.98 |
| 4.046 | 4.046 (0.946) | 61 | 4198 | | | 163.91- 263.91 | 236.37 |
| 75 Tetrahydrofuran | | | | | CAS #: 109-99-9 | | |
| 4.289 | 4.282 (1.003) | 42 | 4115 | 0.50000 | 0.5418 | 50.00- 150.00 | 100.00 |
| 4.289 | 4.282 (1.003) | 71 | 1035 | | | 0.00- 84.34 | 25.15 |
| 4.289 | 4.282 (1.003) | 72 | 1383 | | | 0.00- 88.12 | 33.61 |
| 78 Chloroform | | | | | CAS #: 67-66-3 | | |
| 4.354 | 4.354 (1.018) | 83 | 6502 | 0.50000 | 0.5070 | 50.00- 150.00 | 100.00 |
| 4.354 | 4.354 (1.018) | 85 | 4328 | | | 15.20- 115.20 | 66.56 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 81 1,1,1-Trichloroethane | | | | | | CAS #: 71-55-6 | |
| 4.482 | 4.490 (1.049) | 97 | 5698 | 0.50000 | 0.4719 | 50.00- 150.00 | 100.00(a) |
| 4.482 | 4.483 (1.049) | 99 | 3952 | | | 14.53- 114.53 | 69.36 |
| 80 Cyclohexane | | | | | | CAS #: 110-82-7 | |
| 4.482 | 4.475 (1.049) | 84 | 3874 | 0.50000 | 0.4959 | 50.00- 150.00 | 100.00(a) |
| 4.475 | 4.475 (1.047) | 56 | 4370 | | | 70.44- 170.44 | 112.80 |
| 4.475 | 4.475 (1.047) | 41 | 2864 | | | 25.90- 125.90 | 73.93 |
| 82 Carbon Tetrachloride | | | | | | CAS #: 56-23-5 | |
| 4.611 | 4.612 (1.079) | 119 | 6687 | 0.50000 | 0.5477 | 50.00- 150.00 | 100.00 |
| 4.604 | 4.612 (1.077) | 117 | 6492 | | | 52.63- 152.63 | 97.08 |
| 88 Benzene | | | | | | CAS #: 71-43-2 | |
| 4.826 | 4.826 (0.923) | 78 | 9394 | 0.50000 | 0.5200 | 50.00- 150.00 | 100.00 |
| 4.819 | 4.826 (0.922) | 77 | 2304 | | | 0.00- 74.11 | 24.53 |
| 87 2,2,4-Trimethylpentane | | | | | | CAS #: 540-84-1 | |
| 4.841 | 4.848 (1.132) | 57 | 13833 | 0.50000 | 0.4868 | 50.00- 150.00 | 100.00(aM) |
| 5.227 | 4.848 (1.223) | 56 | 8123 | | | 0.00- 88.69 | 58.72 |
| 5.027 | 4.848 (1.176) | 41 | 4587 | | | 0.00- 79.27 | 33.16 |
| 93 1,2-Dichloroethane | | | | | | CAS #: 107-06-2 | |
| 4.905 | 4.905 (0.938) | 62 | 4229 | 0.50000 | 0.5019 | 50.00- 150.00 | 100.00 |
| 4.912 | 4.905 (0.940) | 64 | 1345 | | | 0.00- 82.38 | 31.80 |
| 94 Heptane | | | | | | CAS #: 142-82-5 | |
| 5.034 | 5.034 (0.963) | 71 | 3107 | 0.50000 | 0.4861 | 50.00- 150.00 | 100.00(a) |
| 5.027 | 5.034 (0.962) | 43 | 6433 | | | 135.49- 235.49 | 207.05 |
| 5.027 | 5.034 (0.962) | 57 | 3001 | | | 48.06- 148.06 | 96.59 |
| 102 Trichloroethene | | | | | | CAS #: 79-01-6 | |
| 5.421 | 5.421 (1.037) | 95 | 3680 | 0.50000 | 0.4808 | 50.00- 150.00 | 100.00(a) |
| 5.414 | 5.421 (1.036) | 130 | 3932 | | | 53.53- 153.53 | 106.85 |
| 5.421 | 5.421 (1.037) | 97 | 2519 | | | 13.85- 113.85 | 68.45 |
| 104 Methyl Cyclohexane | | | | | | CAS #: 108-87-2 | |
| 5.535 | 5.536 (1.295) | 83 | 4740 | 0.50000 | 0.4728 | 50.00- 150.00 | 100.00(aM) |
| 5.528 | 5.536 (1.293) | 98 | 2119 | | | 0.00- 96.78 | 44.70 |
| 5.535 | 5.536 (1.295) | 55 | 4146 | | | 33.43- 133.43 | 87.47 |
| 106 1,2-Dichloropropane | | | | | | CAS #: 78-87-5 | |
| 5.643 | 5.650 (1.079) | 63 | 3148 | 0.50000 | 0.4844 | 50.00- 150.00 | 100.00(a) |
| 5.650 | 5.650 (1.081) | 62 | 2486 | | | 23.18- 123.18 | 78.97 |
| 5.650 | 5.650 (1.081) | 41 | 2825 | | | 17.64- 117.64 | 89.74 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 109 Bromodichloromethane | | | | | CAS #: 75-27-4 | | |
| 5.886 | 5.887 (1.126) | 83 | 6070 | 0.50000 | 0.4826 | 50.00- 150.00 | 100.00(a) |
| 5.886 | 5.887 (1.126) | 85 | 3877 | | | 13.70- 113.70 | 63.87 |
| 112 cis-1,3-Dichloropropene | | | | | CAS #: 10061-01-5 | | |
| 6.280 | 6.281 (1.201) | 75 | 4126 | 0.50000 | 0.4583 | 50.00- 150.00 | 100.00(a) |
| 6.280 | 6.281 (1.201) | 77 | 1554 | | | 0.00- 84.04 | 37.66 |
| 6.280 | 6.281 (1.201) | 39 | 3045 | | | 11.78- 111.78 | 73.80 |
| 114 4-Methyl-2-pentanone | | | | | CAS #: 108-10-1 | | |
| 6.409 | 6.409 (1.226) | 58 | 2301 | 0.50000 | 0.4443 | 50.00- 150.00 | 100.00(a) |
| 6.409 | 6.409 (1.226) | 43 | 7309 | | | 237.60- 337.60 | 317.64 |
| 6.918 | 6.409 (1.323) | 85 | 1993 | | | 0.00- 99.98 | 86.61 |
| 116 Toluene | | | | | CAS #: 108-88-3 | | |
| 6.524 | 6.524 (1.248) | 91 | 10056 | 0.50000 | 0.4794 | 50.00- 150.00 | 100.00(a) |
| 6.524 | 6.524 (1.248) | 92 | 5976 | | | 8.25- 108.25 | 59.43 |
| 123 trans-1,3-Dichloropropene | | | | | CAS #: 10061-02-6 | | |
| 6.775 | 6.775 (0.880) | 75 | 4620 | 0.50000 | 0.4949 | 50.00- 150.00 | 100.00(a) |
| 6.732 | 6.775 (0.874) | 77 | 70559 | | | 302.12- 402.12 | 1527.25 |
| 6.768 | 6.775 (0.879) | 39 | 2359 | | | 4.41- 104.41 | 51.06 |
| 128 1,1,2-Trichloroethane | | | | | CAS #: 79-00-5 | | |
| 6.918 | 6.918 (0.899) | 97 | 3610 | 0.50000 | 0.5091 | 50.00- 150.00 | 100.00 |
| 6.918 | 6.918 (0.899) | 99 | 2318 | | | 12.50- 112.50 | 64.21 |
| 6.925 | 6.918 (0.900) | 83 | 2966 | | | 34.85- 134.85 | 82.16 |
| 131 Tetrachloroethene | | | | | CAS #: 127-18-4 | | |
| 6.968 | 6.968 (0.905) | 166 | 4613 | 0.50000 | 0.5016 | 50.00- 150.00 | 100.00 |
| 6.968 | 6.968 (0.905) | 129 | 3523 | | | 26.92- 126.92 | 76.37 |
| 6.968 | 6.968 (0.905) | 131 | 3123 | | | 21.94- 121.94 | 67.70 |
| 135 2-Hexanone | | | | | CAS #: 591-78-6 | | |
| 7.111 | 7.111 (0.924) | 58 | 2775 | 0.50000 | 0.4138 | 50.00- 150.00 | 100.00(Ta) |
| 7.119 | 7.111 (0.925) | 43 | 6646 | | | 157.46- 257.46 | 239.50 |
| 0.000 | 7.119 (0.000) | 100 | 0 | | | 0.00- 69.68 | 0.00 |
| 138 Dibromochloromethane | | | | | CAS #: 124-48-1 | | |
| 7.219 | 7.226 (0.938) | 129 | 5491 | 0.50000 | 0.4662 | 50.00- 150.00 | 100.00(a) |
| 7.219 | 7.226 (0.938) | 127 | 4213 | | | 27.83- 127.83 | 76.73 |
| 140 1,2-Dibromoethane | | | | | CAS #: 106-93-4 | | |
| 7.326 | 7.326 (0.952) | 107 | 4825 | 0.50000 | 0.4653 | 50.00- 150.00 | 100.00(a) |
| 7.326 | 7.326 (0.952) | 109 | 4963 | | | 46.78- 146.78 | 102.86 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 145 Chlorobenzene | | | | | CAS #: 108-90-7 | | |
| 7.720 | 7.720 (1.003) | 112 | 7695 | 0.50000 | 0.4925 | 50.00- 150.00 | 100.00(a) |
| 7.720 | 7.720 (1.003) | 114 | 2406 | | | 0.00- 81.68 | 31.27 |
| 7.720 | 7.720 (1.003) | 77 | 7939 | | | 19.10- 119.10 | 103.17 |
| 147 Ethyl Benzene | | | | | CAS #: 100-41-4 | | |
| 7.792 | 7.792 (1.012) | 106 | 3353 | 0.50000 | 0.4309 | 50.00- 150.00 | 100.00(a) |
| 7.792 | 7.792 (1.012) | 91 | 11668 | | | 270.93- 370.93 | 347.99 |
| 150 m,p-Xylene | | | | | CAS #: 108-38-3 | | |
| 7.892 | 7.892 (1.025) | 106 | 4160 | 0.50000 | 0.4297 | 50.00- 150.00 | 100.00(a) |
| 7.892 | 7.892 (1.025) | 91 | 8646 | | | 151.38- 251.38 | 207.84 |
| 153 o-Xylene | | | | | CAS #: 95-47-6 | | |
| 8.222 | 8.229 (1.068) | 106 | 3569 | 0.50000 | 0.4039 | 50.00- 150.00 | 100.00(a) |
| 8.229 | 8.222 (1.069) | 91 | 8299 | | | 164.77- 264.77 | 232.53 |
| 154 Styrene | | | | | CAS #: 100-42-5 | | |
| 8.243 | 8.243 (1.071) | 104 | 5940 | 0.50000 | 0.4099 | 50.00- 150.00 | 100.00(a) |
| 8.250 | 8.243 (1.072) | 78 | 3269 | | | 1.89- 101.89 | 55.03 |
| 155 Bromoform | | | | | CAS #: 75-25-2 | | |
| 8.415 | 8.415 (1.093) | 173 | 4159 | 0.50000 | 0.4274 | 50.00- 150.00 | 100.00(a) |
| 8.415 | 8.415 (1.093) | 171 | 2017 | | | 0.59- 100.59 | 48.50 |
| 156 Cumene | | | | | CAS #: 98-82-8 | | |
| 8.522 | 8.523 (1.107) | 105 | 10927 | 0.50000 | 0.4214 | 50.00- 150.00 | 100.00(aM) |
| 8.523 | 8.523 (1.107) | 120 | 0 | | | 0.00- 76.38 | 0.00 |
| 8.523 | 8.523 (1.107) | 51 | 0 | | | 0.00- 60.64 | 0.00 |
| 161 1,1,2,2-Tetrachloroethane | | | | | CAS #: 79-34-5 | | |
| 8.823 | 8.823 (1.146) | 83 | 6427 | 0.50000 | 0.4647 | 50.00- 150.00 | 100.00(a) |
| 8.823 | 8.823 (1.146) | 85 | 4427 | | | 16.07- 116.07 | 68.88 |
| 162 Propylbenzene | | | | | CAS #: 103-65-1 | | |
| 8.859 | 8.866 (1.151) | 91 | 14159 | 0.50000 | 0.4453 | 50.00- 150.00 | 100.00(a) |
| 8.866 | 8.866 (1.152) | 120 | 2972 | | | 0.00- 72.00 | 20.99 |
| 8.959 | 8.866 (1.164) | 105 | 10769 | | | 0.00- 68.11 | 76.06 |
| 163 4-Ethyltoluene | | | | | CAS #: 622-96-8 | | |
| 8.967 | 8.960 (1.165) | 120 | 3563 | 0.50000 | 0.4459 | 50.00- 150.00 | 100.00(a) |
| 8.959 | 8.960 (1.164) | 105 | 10769 | | | 275.52- 375.52 | 302.25 |
| 164 1,3,5-Trimethylbenzene | | | | | CAS #: 108-67-8 | | |
| 9.017 | 9.017 (1.171) | 120 | 4304 | 0.50000 | 0.4100 | 50.00- 150.00 | 100.00(a) |
| 9.017 | 9.017 (1.171) | 105 | 9003 | | | 157.61- 257.61 | 209.18 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 166 1,2,4-Trimethylbenzene | | | | | CAS #: 95-63-6 | | |
| 9.332 | 9.332 (1.212) | 120 | 3578 | 0.50000 | 0.3953 | 50.00- 150.00 | 100.00(a) |
| 9.332 | 9.332 (1.212) | 105 | 8272 | | | 171.83- 271.83 | 231.19 |
| 168 1,3-Dichlorobenzene | | | | | CAS #: 541-73-1 | | |
| 9.583 | 9.583 (1.245) | 146 | 5703 | 0.50000 | 0.4502 | 50.00- 150.00 | 100.00(a) |
| 9.590 | 9.583 (1.246) | 148 | 3273 | | | 11.58- 111.58 | 57.39 |
| 9.590 | 9.583 (1.246) | 111 | 2335 | | | 0.00- 91.95 | 40.94 |
| 169 1,4-Dichlorobenzene | | | | | CAS #: 106-46-7 | | |
| 9.661 | 9.669 (1.255) | 146 | 5193 | 0.50000 | 0.4150 | 50.00- 150.00 | 100.00(a) |
| 9.661 | 9.669 (1.255) | 148 | 3517 | | | 14.35- 114.35 | 67.73 |
| 9.661 | 9.669 (1.255) | 111 | 2385 | | | 0.00- 91.42 | 45.93 |
| 170 alpha-Chlorotoluene | | | | | CAS #: 100-44-7 | | |
| 9.783 | 9.783 (1.271) | 91 | 6092 | 0.50000 | 0.3768 | 50.00- 150.00 | 100.00(a) |
| 9.783 | 9.783 (1.271) | 126 | 1055 | | | 0.00- 69.60 | 17.32 |
| 171 1,2-Dichlorobenzene | | | | | CAS #: 95-50-1 | | |
| 9.984 | 9.977 (1.297) | 146 | 4811 | 0.50000 | 0.4331 | 50.00- 150.00 | 100.00(a) |
| 9.977 | 9.977 (1.296) | 148 | 3410 | | | 14.46- 114.46 | 70.88 |
| 9.977 | 9.977 (1.296) | 111 | 2250 | | | 0.00- 94.23 | 46.77 |

QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Report Date: 13-Mar-2010 09:38

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdp.i
Lab File ID: p031104.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: cr
Method File: /chem/msdp.i/11mar10.b/p10q0311a.m
Misc Info: 0.5ppbv (2.0ppbv)

Calibration Date: 11-MAR-2010
Calibration Time: 10:37
Client Smp ID: Level 2
Level: LOW
Sample Type: AIR

| | | AREA LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 76 Bromochloromethan | 104418 | 62651 | 146185 | 112800 | 8.03 |
| 97 1,4-Difluorobenze | 353421 | 212053 | 494789 | 378169 | 7.00 |
| 144 Chlorobenzene-d5 | 302185 | 181311 | 423059 | 310340 | 2.70 |

| | | RT LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 76 Bromochloromethan | 4.27 | 3.94 | 4.60 | 4.27 | 0.00 |
| 97 1,4-Difluorobenze | 5.23 | 4.90 | 5.56 | 5.23 | 0.00 |
| 144 Chlorobenzene-d5 | 7.70 | 7.37 | 8.03 | 7.70 | 0.00 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msdp.i/11mar10.b/p031104.d

Date : 11-MAR-2010 09:27

Client ID: Level 2

Sample Info: 50mL #1911-281

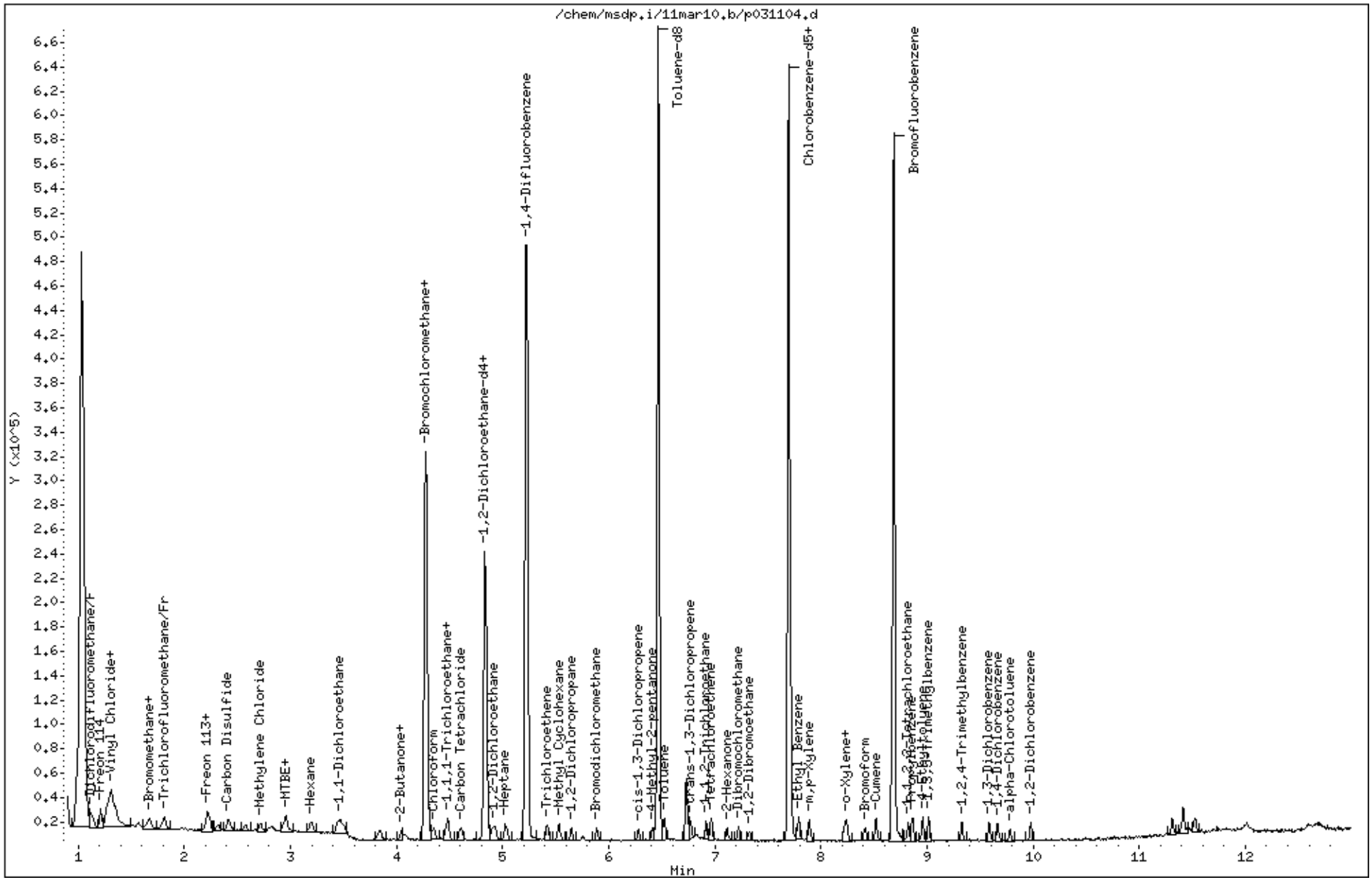
Column phase: RTx-624



Instrument: msdp.i

Operator: cr

Column diameter: 0.53



Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msdp.i/11mar10.b/p031115.d
Lab Smp Id: ICAL Client Smp ID: Level 3
Inj Date : 11-MAR-2010 14:42
Operator : cr Inst ID: msdp.i
Smp Info : 200mL #1911-290
Misc Info : 2.0ppbv (2.0ppbv)
Comment :
Method : /chem/msdp.i/11mar10.b/p10q0311a.m
Meth Date : 13-Mar-2010 10:28 jparker Quant Type: ISTD
Cal Date : 11-MAR-2010 14:42 Cal File: p031115.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: spAer.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| | | | | AMOUNTS | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | CAL-AMT | ON-COL | | | |
| RT | EXP RT (REL RT) | MASS | RESPONSE | ( PPBV) | ( PPBV) | TARGET RANGE | | RATIO |
| == | ====== ======== | ==== | ======== | ======= | ======= | ========== | | ===== |
| * 76 Bromochloromethane | | | | | CAS #: 74-97-5 | | | |
| 4.268 | 4.268 (1.000) | 130 | 99312 | 25.0000 | | 50.00- 150.00 | | 100.00 |
| 4.268 | 4.268 (1.000) | 128 | 79140 | | | 28.05- 128.05 | | 79.69 |
| 4.268 | 4.268 (1.000) | 49 | 141824 | | | 88.95- 188.95 | | 142.81 |
| * 97 1,4-Difluorobenzene | | | | | CAS #: 540-36-3 | | | |
| 5.213 | 5.213 (1.000) | 114 | 362612 | 25.0000 | | 50.00- 150.00 | | 100.00 |
| 5.213 | 5.213 (1.000) | 88 | 56804 | | | 0.00- 65.84 | | 15.67 |
| * 144 Chlorobenzene-d5 | | | | | CAS #: 3114-55-4 | | | |
| 7.677 | 7.677 (1.000) | 117 | 302752 | 25.0000 | | 50.00- 150.00 | | 100.00 |
| 7.677 | 7.677 (1.000) | 82 | 174936 | | | 7.05- 107.05 | | 57.78 |
| 17 Freon 143a | | | | | CAS #: 420-46-2 | | | |
| 1.069 | 1.069 (0.250) | 65 | 1634 | 2.00000 | 1.662 | 50.00- 150.00 | | 100.00(a) |
| 1.055 | 1.055 (0.247) | 69 | 15038 | | | 869.90- 969.90 | | 919.90 |
| 1.041 | 1.041 (0.244) | 64 | 10634 | | | 184.61- 284.61 | | 650.47 |
| 4 Freon 134a | | | | | CAS #: 811-97-2 | | | |
| 1.083 | 1.083 (0.254) | 83 | 7057 | 2.00000 | 2.285 | 50.00- 150.00 | | 100.00(T) |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 4 Freon 134a (continued) | | | | | | | |
| 1.055 | 1.055 (0.247) | 69 | 15038 | | | 147.90- 247.90 | 213.08 |
| 0.000 | 1.000 (0.000) | 63 | 0 | | | 0.00- 62.98 | 0.00 |
| 5 Freon 152a | | | | | CAS #: 75-37-6 | | |
| 1.125 | 1.125 (0.264) | 65 | 4555 | 2.00000 | 2.407 | 50.00- 150.00 | 100.00 |
| 1.153 | 1.153 (0.270) | 51 | 21512 | | | 438.60- 538.60 | 472.23 |
| 1.125 | 1.125 (0.264) | 47 | 2033 | | | 0.00- 96.02 | 44.65 |
| 9 Freon 22 | | | | | CAS #: 75-45-6 | | |
| 1.153 | 1.153 (0.270) | 67 | 2803 | 2.00000 | 2.800 | 50.00- 150.00 | 100.00 |
| 1.153 | 1.153 (0.270) | 51 | 21512 | | | 854.18- 954.18 | 767.40 |
| 1.236 | 1.236 (0.290) | 85 | 2537 | | | 0.00- 99.92 | 90.53 |
| 16 Freon142b | | | | | CAS #: 75-68-3 | | |
| 1.236 | 1.236 (0.290) | 65 | 18713 | 2.00000 | 2.261 | 50.00- 150.00 | 100.00 |
| 1.236 | 1.236 (0.290) | 45 | 4683 | | | 0.00- 75.07 | 25.03 |
| 45 Dichlorofluoromethane/Fr21 | | | | | CAS #: 75-43-4 | | |
| 1.796 | 1.796 (0.421) | 67 | 24650 | 2.00000 | 2.076 | 50.00- 150.00 | 100.00 |
| 1.796 | 1.796 (0.421) | 69 | 8059 | | | 0.00- 82.58 | 32.69 |
| 1.796 | 1.796 (0.421) | 35 | 1656 | | | 0.00- 56.88 | 6.72 |
| 53 Freon123a | | | | | CAS #: 354-23-4 | | |
| 2.062 | 2.062 (0.483) | 117 | 10957 | 2.00000 | 2.157 | 50.00- 150.00 | 100.00 |
| 2.062 | 2.062 (0.483) | 67 | 17096 | | | 119.46- 219.46 | 156.02 |
| 54 Freon123 | | | | | CAS #: 306-83-2 | | |
| 2.140 | 2.140 (0.501) | 83 | 31976 | 2.00000 | 2.031 | 50.00- 150.00 | 100.00 |
| 2.140 | 2.140 (0.501) | 133 | 4619 | | | 0.00- 67.48 | 14.45 |
| 2.140 | 2.140 (0.501) | 85 | 16435 | | | 2.87- 102.87 | 51.40 |
| 62 Cyclopentene | | | | | CAS #: 142-29-0 | | |
| 2.606 | 2.606 (0.611) | 67 | 21665 | 2.00000 | 1.933 | 50.00- 150.00 | 100.00(a) |
| 2.606 | 2.606 (0.611) | 68 | 8680 | | | 0.00- 89.51 | 40.06 |
| 2.599 | 2.599 (0.609) | 53 | 4782 | | | 0.00- 70.45 | 22.07 |
| 63 1-Propanol | | | | | CAS #: 71-23-8 | | |
| 3.587 | 3.587 (0.841) | 59 | 1648 | 2.00000 | 1.710 | 50.00- 150.00 | 100.00(a) |
| 3.594 | 3.594 (0.842) | 42 | 2259 | | | 68.13- 168.13 | 137.02 |
| 3.587 | 3.587 (0.841) | 41 | 2057 | | | 44.35- 144.35 | 124.80 |
| 83 2,2-Dichloropropane | | | | | CAS #: 594-20-7 | | |
| 4.010 | 4.010 (0.940) | 77 | 18379 | 2.00000 | 1.971 | 50.00- 150.00 | 100.00(a) |
| 4.017 | 4.017 (0.941) | 79 | 6334 | | | 0.00- 83.41 | 34.46 |
| 4.010 | 4.010 (0.940) | 97 | 3805 | | | 0.00- 70.15 | 20.70 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 91 1,1-Dichloropropene | | | | | CAS #: 563-58-6 | | |
| 4.633 | 4.633 (0.889) | 110 | 5862 | 2.00000 | 1.887 | 50.00- 150.00 | 100.00(a) |
| 4.633 | 4.633 (0.889) | 75 | 16845 | | | 234.32- 334.32 | 287.36 |
| 90 Isobutanol | | | | | CAS #: 78-83-1 | | |
| 4.812 | 4.812 (1.128) | 41 | 7010 | 2.00000 | 2.017 | 50.00- 150.00 | 100.00(T) |
| 4.812 | 4.812 (1.128) | 43 | 8903 | | | 78.26- 178.26 | 127.01 |
| 0.000 | 1.000 (0.000) | 59 | 0 | | | 0.00- 53.93 | 0.00 |
| 96 1-Butanol | | | | | CAS #: 71-36-3 | | |
| 5.414 | 5.414 (1.038) | 56 | 6224 | 2.00000 | 1.672 | 50.00- 150.00 | 100.00(a) |
| 5.406 | 5.406 (1.037) | 41 | 6189 | | | 39.10- 139.10 | 99.45 |
| 5.414 | 5.414 (1.038) | 43 | 3821 | | | 10.85- 110.85 | 61.39 |
| 108 1,3-Dichloropropane | | | | | CAS #: 142-28-9 | | |
| 7.047 | 7.047 (1.352) | 76 | 18186 | 2.00000 | 1.942 | 50.00- 150.00 | 100.00(a) |
| 7.047 | 7.047 (1.352) | 41 | 12031 | | | 17.30- 117.30 | 66.16 |
| 7.047 | 7.047 (1.352) | 78 | 6097 | | | 0.00- 82.69 | 33.53 |
| 110 Butyl Acetate | | | | | CAS #: 123-86-4 | | |
| 7.183 | 7.183 (1.378) | 56 | 10971 | 2.00000 | 1.795 | 50.00- 150.00 | 100.00(a) |
| 7.183 | 7.183 (1.378) | 73 | 3932 | | | 0.00- 87.77 | 35.84 |
| 7.183 | 7.183 (1.378) | 43 | 26749 | | | 200.03- 300.03 | 243.80 |
| 126 1,1,1,2-Tetrachloroethane | | | | | CAS #: 630-20-6 | | |
| 7.777 | 7.777 (1.013) | 131 | 13313 | 2.00000 | 1.950 | 50.00- 150.00 | 100.00(a) |
| 7.777 | 7.777 (1.013) | 117 | 11224 | | | 27.75- 127.75 | 84.31 |
| 7.777 | 7.777 (1.013) | 95 | 5448 | | | 0.00- 90.26 | 40.93 |
| 113 2-Heptanone | | | | | CAS #: 110-43-0 | | |
| 8.329 | 8.329 (1.952) | 58 | 12923 | 2.00000 | 1.699 | 50.00- 150.00 | 100.00(a) |
| 8.329 | 8.329 (1.952) | 43 | 22789 | | | 122.27- 222.27 | 176.34 |
| 117 Cyclohexanone | | | | | CAS #: 108-94-1 | | |
| 8.630 | 8.630 (1.124) | 55 | 11142 | 2.00000 | 1.988 | 50.00- 150.00 | 100.00(a) |
| 8.630 | 8.630 (1.124) | 98 | 4011 | | | 0.00- 89.81 | 36.00 |
| 8.630 | 8.630 (1.124) | 42 | 8030 | | | 25.43- 125.43 | 72.07 |
| 118 Bromobenzene | | | | | CAS #: 108-86-1 | | |
| 8.787 | 8.787 (1.145) | 156 | 11929 | 2.00000 | 1.828 | 50.00- 150.00 | 100.00(a) |
| 8.787 | 8.787 (1.145) | 158 | 11709 | | | 47.23- 147.23 | 98.15 |
| 8.780 | 8.780 (1.144) | 77 | 21784 | | | 129.55- 229.55 | 182.60 |
| 120 1,2,3-Trichloropropane | | | | | CAS #: 96-18-4 | | |
| 8.845 | 8.845 (1.152) | 110 | 6519 | 2.00000 | 1.928 | 50.00- 150.00 | 100.00(a) |
| 8.845 | 8.845 (1.152) | 75 | 17642 | | | 222.37- 322.37 | 270.61 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 120 1,2,3-Trichloropropane (continued) | | | | | | | |
| 8.845 | 8.845 (1.152) | 61 | 4586 | | | 22.50- 122.50 | 70.34 |
| 121 2-Chlorotoluene | | | | | CAS #: 95-49-8 | | |
| 8.938 | 8.938 (1.164) | 126 | 9627 | 2.00000 | 1.797 | 50.00- 150.00 | 100.00(a) |
| 8.938 | 8.938 (1.164) | 91 | 28620 | | | 247.50- 347.50 | 297.28 |
| 8.931 | 8.931 (1.163) | 65 | 2930 | | | 0.00- 79.83 | 30.44 |
| 122 4-Chlorotoluene | | | | | CAS #: 106-43-4 | | |
| 9.031 | 9.031 (1.176) | 126 | 9969 | 2.00000 | 1.778 | 50.00- 150.00 | 100.00(a) |
| 9.031 | 9.031 (1.176) | 91 | 29031 | | | 245.49- 345.49 | 291.21 |
| 9.038 | 9.038 (1.177) | 63 | 3996 | | | 0.00- 91.21 | 40.09 |
| 124 Diisobutyl Ketone | | | | | CAS #: 108-83-8 | | |
| 9.110 | 9.110 (1.187) | 57 | 22292 | 2.00000 | 1.619 | 50.00- 150.00 | 100.00(a) |
| 9.110 | 9.110 (1.187) | 85 | 19490 | | | 36.39- 136.39 | 87.43 |
| 125 tert-Butylbenzene | | | | | CAS #: 98-06-6 | | |
| 9.260 | 9.260 (1.206) | 119 | 31574 | 2.00000 | 1.722 | 50.00- 150.00 | 100.00(a) |
| 9.260 | 9.260 (1.206) | 134 | 7997 | | | 0.00- 75.17 | 25.33 |
| 9.260 | 9.260 (1.206) | 91 | 21500 | | | 18.47- 118.47 | 68.10 |
| 127 Pentachloroethane | | | | | CAS #: 76-01-7 | | |
| 9.303 | 9.303 (1.212) | 167 | 9133 | 2.00000 | 1.840 | 50.00- 150.00 | 100.00(a) |
| 9.303 | 9.303 (1.212) | 117 | 10446 | | | 62.35- 162.35 | 114.37 |
| 9.303 | 9.303 (1.212) | 169 | 4174 | | | 0.00- 96.70 | 45.71 |
| 129 sec-Butylbenzene | | | | | CAS #: 135-98-8 | | |
| 9.439 | 9.439 (1.230) | 134 | 8920 | 2.00000 | 1.704 | 50.00- 150.00 | 100.00(a) |
| 9.439 | 9.439 (1.230) | 105 | 47087 | | | 474.33- 574.33 | 527.83 |
| 9.439 | 9.439 (1.230) | 91 | 7577 | | | 33.50- 133.50 | 84.94 |
| 132 p-Cymene | | | | | CAS #: 99-87-6 | | |
| 9.561 | 9.561 (1.245) | 119 | 35951 | 2.00000 | 1.661 | 50.00- 150.00 | 100.00(a) |
| 9.561 | 9.561 (1.245) | 134 | 8912 | | | 0.00- 75.39 | 24.79 |
| 9.561 | 9.561 (1.245) | 91 | 8892 | | | 0.00- 74.45 | 24.74 |
| 133 1,2,3-Trimethylbenzene | | | | | CAS #: 526-73-8 | | |
| 9.661 | 9.661 (1.258) | 120 | 12632 | 2.00000 | 1.613 | 50.00- 150.00 | 100.00(a) |
| 9.661 | 9.661 (1.258) | 105 | 32805 | | | 197.21- 297.21 | 259.69 |
| 9.661 | 9.661 (1.258) | 77 | 4402 | | | 0.00- 83.29 | 34.85 |
| 136 Butylbenzene | | | | | CAS #: 104-51-8 | | |
| 9.898 | 9.898 (1.289) | 134 | 8614 | 2.00000 | 1.650 | 50.00- 150.00 | 100.00(a) |
| 9.898 | 9.898 (1.289) | 91 | 35164 | | | 359.90- 459.90 | 408.18 |
| 9.898 | 9.898 (1.289) | 92 | 18200 | | | 166.93- 266.93 | 211.27 |

| | | | | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| RT | EXP RT (REL RT) | MASS | RESPONSE | | | | |
| == | ====== ======== | ==== | ======== | ======= | ======= | ========== | ===== |
| 141 1,2-Dibromo-3-Chloropropane | | | | | CAS #: 96-12-8 | | |
| 10.621 | 10.621 (1.383) | 157 | 8420 | 2.00000 | 1.749 | 50.00- 150.00 | 100.00(a) |
| 10.621 | 10.621 (1.383) | 75 | 9009 | | | 56.89- 156.89 | 106.99 |
| 10.621 | 10.621 (1.383) | 155 | 6434 | | | 27.28- 127.28 | 76.42 |

QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Report Date: 13-Mar-2010 10:28

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdp.i
Lab File ID: p031115.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: cr
Method File: /chem/msdp.i/11mar10.b/p10q0311a.m
Misc Info: 2.0ppbv (2.0ppbv)

Calibration Date: 11-MAR-2010
Calibration Time: 15:01
Client Smp ID: Level 3
Level: LOW
Sample Type: AIR

| | | AREA LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 76 Bromochloromethan | 98264 | 58958 | 137570 | 99312 | 1.07 |
| 97 1,4-Difluorobenze | 341562 | 204937 | 478187 | 362612 | 6.16 |
| 144 Chlorobenzene-d5 | 283469 | 170081 | 396857 | 302752 | 6.80 |

| | | RT LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 76 Bromochloromethan | 4.27 | 3.94 | 4.60 | 4.27 | -0.17 |
| 97 1,4-Difluorobenze | 5.22 | 4.89 | 5.55 | 5.21 | -0.14 |
| 144 Chlorobenzene-d5 | 7.68 | 7.35 | 8.01 | 7.68 | -0.09 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msdp.i/11mar10.b/p031115.d

Date : 11-MAR-2010 14:42

Client ID: Level 3

Sample Info: 200mL #1911-290

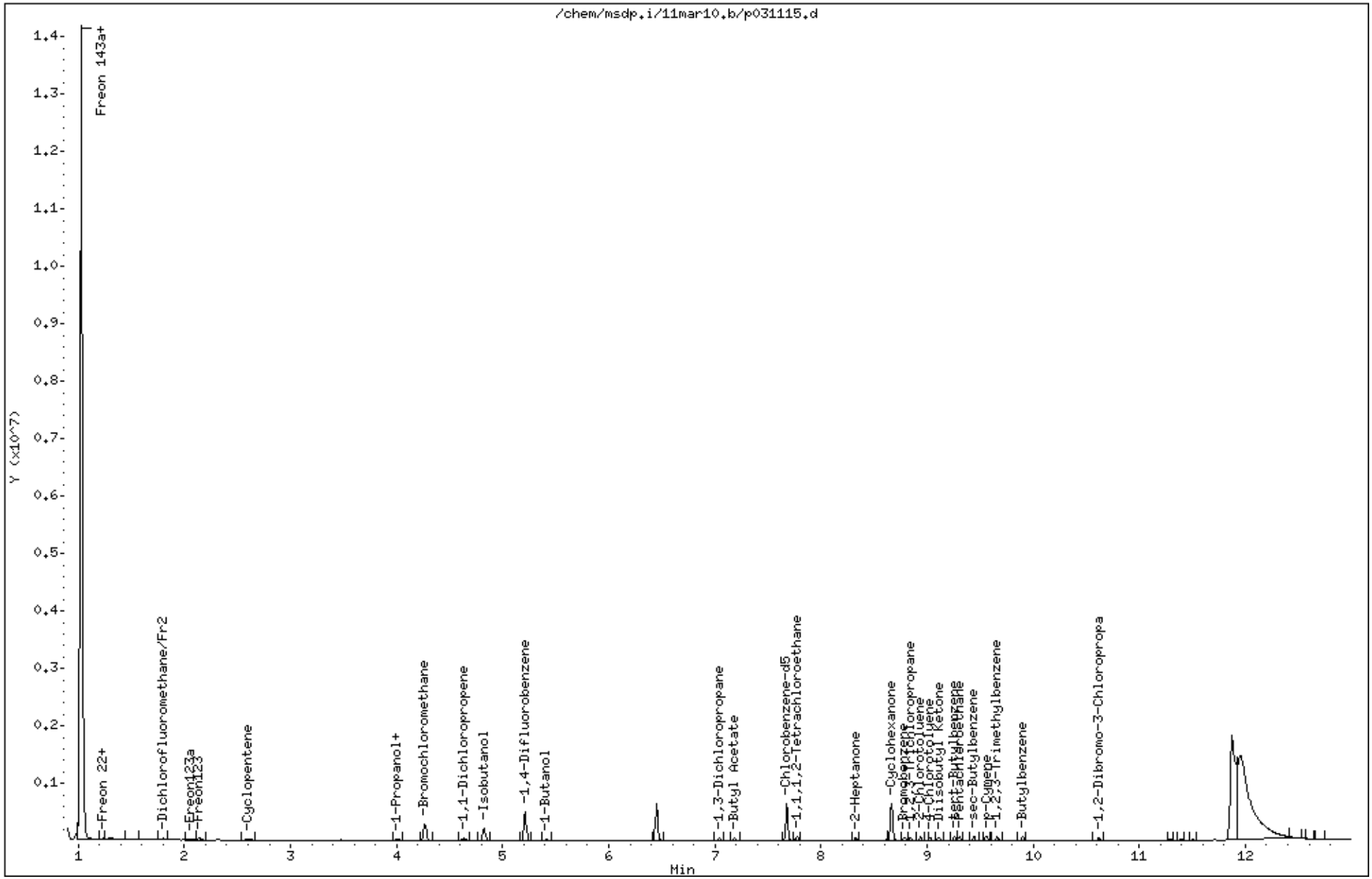
Column phase: RTx-624

Instrument: msdp.i

Operator: cr

Column diameter: 0.53





Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msdp.i/11mar10.b/p031105.d
Lab Smp Id: ICAL Client Smp ID: Level 3
Inj Date : 11-MAR-2010 09:52
Operator : cr Inst ID: msdp.i
Smp Info : 200mL #1911-281
Misc Info : 2.0ppbv (2.0ppbv)
Comment :
Method : /chem/msdp.i/11mar10.b/p10q0311a.m
Meth Date : 13-Mar-2010 09:22 jparker Quant Type: ISTD
Cal Date : 11-MAR-2010 14:42 Cal File: p031115.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT09mdl.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| | | | | AMOUNTS | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | CAL-AMT | ON-COL | | | |
| RT | EXP RT (REL RT) | MASS | RESPONSE | ( PPBV) | ( PPBV) | TARGET RANGE | | RATIO |
| == | ====== ======== | ==== | ======== | ======= | ======= | ========== | | ===== |
| * 76 Bromochloromethane | | | | | CAS #: 74-97-5 | | | |
| 4.268 | 4.268 (1.000) | 130 | 122692 | 25.0000 | | 50.00- | 150.00 | 100.00 |
| 4.268 | 4.268 (1.000) | 128 | 96808 | | | 27.91- | 127.91 | 78.90 |
| 4.268 | 4.268 (1.000) | 49 | 172965 | | | 88.40- | 188.40 | 140.97 |
| * 97 1,4-Difluorobenzene | | | | | CAS #: 540-36-3 | | | |
| 5.213 | 5.213 (1.000) | 114 | 397008 | 25.0000 | | 50.00- | 150.00 | 100.00 |
| 5.213 | 5.213 (1.000) | 88 | 62849 | | | 0.00- | 65.84 | 15.83 |
| * 144 Chlorobenzene-d5 | | | | | CAS #: 3114-55-4 | | | |
| 7.677 | 7.677 (1.000) | 117 | 308321 | 25.0000 | | 50.00- | 150.00 | 100.00 |
| 7.677 | 7.677 (1.000) | 82 | 175001 | | | 6.75- | 106.75 | 56.76 |
| $ 89 1,2-Dichloroethane-d4 | | | | | CAS #: 17060-07-0 | | | |
| 4.826 | 4.826 (1.131) | 65 | 159019 | 25.0000 | 24.198 | 50.00- | 150.00 | 100.00 |
| 4.826 | 4.826 (1.131) | 67 | 83653 | | | 6.22- | 106.22 | 52.61 |
| $ 115 Toluene-d8 | | | | | CAS #: 2037-26-5 | | | |
| 6.452 | 6.452 (1.238) | 98 | 394427 | 25.0000 | 24.088 | 50.00- | 150.00 | 100.00 |
| 6.452 | 6.452 (1.238) | 70 | 45995 | | | 0.00- | 61.60 | 11.66 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 115 Toluene-d8 (continued) | | | | | | | |
| 6.452 | 6.452 (1.238) | 100 | 251912 | | | 15.04- 115.04 | 63.87 |
| $ 159 Bromofluorobenzene | | | | | CAS #: 460-00-4 | | |
| 8.666 | 8.666 (1.129) | 174 | 133222 | 25.0000 | 23.604 | 50.00- 150.00 | 100.00 |
| 8.666 | 8.666 (1.129) | 95 | 183931 | | | 86.78- 186.78 | 138.06 |
| 8.666 | 8.666 (1.129) | 176 | 127398 | | | 46.17- 146.17 | 95.63 |
| 6 Propylene | | | | | CAS #: 115-07-1 | | |
| 1.111 | 1.111 (0.260) | 41 | 11272 | 2.00000 | 2.233 | 50.00- 150.00 | 100.00 |
| 1.111 | 1.111 (0.260) | 42 | 7536 | | | 16.22- 116.22 | 66.86 |
| 1.111 | 1.111 (0.260) | 39 | 7623 | | | 23.14- 123.14 | 67.63 |
| 7 Dichlorodifluoromethane/Fr12 | | | | | CAS #: 75-71-8 | | |
| 1.125 | 1.125 (0.264) | 85 | 35243 | 2.00000 | 2.002 | 50.00- 150.00 | 100.00 |
| 1.125 | 1.125 (0.264) | 87 | 11458 | | | 0.00- 81.77 | 32.51 |
| 10 Freon 114 | | | | | CAS #: 76-14-2 | | |
| 1.209 | 1.209 (0.283) | 135 | 25036 | 2.00000 | 1.950 | 50.00- 150.00 | 100.00 |
| 1.209 | 1.209 (0.283) | 137 | 8310 | | | 0.00- 82.41 | 33.19 |
| 11 Chloromethane | | | | | CAS #: 74-87-3 | | |
| 1.251 | 1.251 (0.293) | 50 | 6961 | 2.00000 | 1.683 | 50.00- 150.00 | 100.00(a) |
| 1.251 | 1.251 (0.293) | 52 | 3123 | | | 0.00- 85.01 | 44.86 |
| 13 Butane | | | | | CAS #: 106-97-8 | | |
| 1.306 | 1.306 (0.306) | 58 | 2473 | 2.00000 | 1.944 | 50.00- 150.00 | 100.00(a) |
| 1.306 | 1.306 (0.306) | 43 | 13295 | | | 664.85- 764.85 | 537.61 |
| 14 Vinyl Chloride | | | | | CAS #: 75-01-4 | | |
| 1.320 | 1.320 (0.309) | 62 | 9702 | 2.00000 | 1.487 | 50.00- 150.00 | 100.00 |
| 1.320 | 1.320 (0.309) | 64 | 4623 | | | 0.00- 88.01 | 47.65 |
| 15 1,3-Butadiene | | | | | CAS #: 106-99-0 | | |
| 1.334 | 1.334 (0.313) | 54 | 6078 | 2.00000 | 1.161 | 50.00- 150.00 | 100.00 |
| 1.334 | 1.334 (0.313) | 39 | 7323 | | | 67.29- 167.29 | 120.48 |
| 21 Bromomethane | | | | | CAS #: 74-83-9 | | |
| 1.558 | 1.558 (0.365) | 94 | 8249 | 2.00000 | 1.461 | 50.00- 150.00 | 100.00 |
| 1.558 | 1.558 (0.365) | 96 | 8960 | | | 45.21- 145.21 | 108.62 |
| 24 Chloroethane | | | | | CAS #: 75-00-3 | | |
| 1.628 | 1.628 (0.382) | 64 | 4327 | 2.00000 | 1.263 | 50.00- 150.00 | 100.00(M) |
| 1.628 | 1.628 (0.382) | 66 | 2707 | | | 0.00- 89.11 | 62.56 |
| 1.628 | 1.628 (0.382) | 49 | 1672 | | | 0.00- 79.55 | 38.64 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 25 Isopentane | | | | | CAS #: 78-78-4 | | |
| 1.656 | 1.656 (0.388) | 43 | 9338 | 2.00000 | 1.222 | 50.00- 150.00 | 100.00(aM) |
| 1.656 | 1.656 (0.388) | 57 | 10333 | | | 25.98- 125.98 | 110.66 |
| 28 Trichlorofluoromethane/Fr11 | | | | | CAS #: 75-69-4 | | |
| 1.796 | 1.796 (0.421) | 101 | 25986 | 2.00000 | 1.454 | 50.00- 150.00 | 100.00 |
| 1.796 | 1.796 (0.421) | 103 | 18819 | | | 17.23- 117.23 | 72.42 |
| 29 Ethanol | | | | | CAS #: 64-17-5 | | |
| 1.992 | 1.992 (0.467) | 45 | 6560 | 2.00000 | 2.400 | 50.00- 150.00 | 100.00 |
| 1.992 | 1.992 (0.467) | 43 | 4305 | | | 0.00- 84.20 | 65.62 |
| 1.992 | 1.992 (0.467) | 46 | 4056 | | | 0.00- 96.43 | 61.83 |
| 30 Freon 113 | | | | | CAS #: 76-13-1 | | |
| 2.197 | 2.197 (0.515) | 151 | 21029 | 2.00000 | 2.000 | 50.00- 150.00 | 100.00 |
| 2.205 | 2.205 (0.517) | 153 | 13119 | | | 13.21- 113.21 | 62.39 |
| 2.197 | 2.197 (0.515) | 101 | 27023 | | | 82.01- 182.01 | 128.50 |
| 32 1,1-Dichloroethene | | | | | CAS #: 75-35-4 | | |
| 2.226 | 2.226 (0.522) | 98 | 8707 | 2.00000 | 2.073 | 50.00- 150.00 | 100.00 |
| 2.219 | 2.219 (0.520) | 96 | 13157 | | | 106.98- 206.98 | 151.11 |
| 2.219 | 2.219 (0.520) | 61 | 22150 | | | 215.33- 315.33 | 254.39 |
| 34 Acetone | | | | | CAS #: 67-64-1 | | |
| 2.319 | 2.319 (0.543) | 58 | 7731 | 2.00000 | 2.346 | 50.00- 150.00 | 100.00 |
| 2.319 | 2.319 (0.543) | 43 | 24809 | | | 281.49- 381.49 | 320.90 |
| 37 2-Propanol | | | | | CAS #: 67-63-0 | | |
| 2.448 | 2.448 (0.574) | 45 | 24799 | 2.00000 | 2.078 | 50.00- 150.00 | 100.00 |
| 2.448 | 2.448 (0.574) | 43 | 5438 | | | 0.00- 72.19 | 21.93 |
| 2.842 | 2.842 (0.666) | 59 | 24608 | | | 0.00- 77.65 | 99.23 |
| 35 Carbon Disulfide | | | | | CAS #: 75-15-0 | | |
| 2.398 | 2.398 (0.562) | 76 | 42278 | 2.00000 | 2.143 | 50.00- 150.00 | 100.00 |
| 41 3-Chloropropene | | | | | CAS #: 107-05-1 | | |
| 2.563 | 2.563 (0.601) | 76 | 5964 | 2.00000 | 1.976 | 50.00- 150.00 | 100.00(a) |
| 2.563 | 2.563 (0.601) | 41 | 18357 | | | 257.61- 357.61 | 307.80 |
| 43 Methylene Chloride | | | | | CAS #: 75-09-2 | | |
| 2.706 | 2.706 (0.634) | 49 | 17473 | 2.00000 | 2.097 | 50.00- 150.00 | 100.00 |
| 2.699 | 2.699 (0.632) | 84 | 12515 | | | 24.25- 124.25 | 71.62 |
| 2.699 | 2.699 (0.632) | 51 | 6004 | | | 0.00- 81.57 | 34.36 |
| 46 tert-Butyl-Alcohol | | | | | CAS #: 75-65-0 | | |
| 2.842 | 2.842 (0.666) | 59 | 24608 | 2.00000 | 1.934 | 50.00- 150.00 | 100.00(a) |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 46 tert-Butyl-Alcohol (continued) | | | | | | | |
| 2.842 | 2.842 (0.666) | 41 | 6854 | | | 0.00- 77.85 | 27.85 |
| 2.835 | 2.835 (0.664) | 57 | 2766 | | | 0.00- 61.24 | 11.24 |
| 47 MTBE | | | | | CAS #: 1634-04-4 | | |
| 2.950 | 2.950 (0.691) | 73 | 32792 | 2.00000 | 1.865 | 50.00- 150.00 | 100.00 |
| 2.942 | 2.942 (0.689) | 57 | 8485 | | | 0.00- 81.96 | 25.88 |
| 2.942 | 2.942 (0.689) | 41 | 9370 | | | 0.00- 76.94 | 28.57 |
| 48 trans-1,2-Dichloroethene | | | | | CAS #: 156-60-5 | | |
| 2.950 | 2.950 (0.691) | 98 | 8523 | 2.00000 | 1.947 | 50.00- 150.00 | 100.00 |
| 2.942 | 2.942 (0.689) | 61 | 20820 | | | 187.67- 287.67 | 244.28 |
| 2.950 | 2.950 (0.691) | 96 | 14485 | | | 111.49- 211.49 | 169.95 |
| 51 Hexane | | | | | CAS #: 110-54-3 | | |
| 3.186 | 3.186 (0.747) | 57 | 19162 | 2.00000 | 1.798 | 50.00- 150.00 | 100.00 |
| 3.186 | 3.186 (0.747) | 43 | 15720 | | | 17.17- 117.17 | 82.04 |
| 3.186 | 3.186 (0.747) | 86 | 3219 | | | 0.00- 70.58 | 16.80 |
| 61 Vinyl Acetate | | | | | CAS #: 108-05-4 | | |
| 3.501 | 3.501 (0.820) | 86 | 2798 | 2.00000 | 1.775 | 50.00- 150.00 | 100.00(a) |
| 3.494 | 3.494 (0.819) | 43 | 53135 | | | 1854.64-1954.64 | 1899.04 |
| 59 1,1-Dichloroethane | | | | | CAS #: 75-34-3 | | |
| 3.444 | 3.444 (0.807) | 63 | 25879 | 2.00000 | 1.989 | 50.00- 150.00 | 100.00 |
| 3.437 | 3.437 (0.805) | 65 | 8676 | | | 0.00- 81.69 | 33.53 |
| 58 Isopropyl ether | | | | | CAS #: 108-20-3 | | |
| 3.472 | 3.472 (0.814) | 45 | 42897 | 2.00000 | 1.775 | 50.00- 150.00 | 100.00(a) |
| 3.472 | 3.472 (0.814) | 87 | 10295 | | | 0.00- 73.95 | 24.00 |
| 3.465 | 3.465 (0.812) | 59 | 4465 | | | 0.00- 60.65 | 10.41 |
| 68 t-Butylethyl Ether | | | | | CAS #: 637-92-3 | | |
| 3.838 | 3.838 (0.899) | 59 | 32534 | 2.00000 | 1.715 | 50.00- 150.00 | 100.00(a) |
| 3.838 | 3.838 (0.899) | 87 | 12984 | | | 0.00- 89.71 | 39.91 |
| 3.845 | 3.845 (0.901) | 41 | 8163 | | | 0.00- 72.53 | 25.09 |
| 74 2-Butanone | | | | | CAS #: 78-93-3 | | |
| 4.081 | 4.081 (0.956) | 72 | 6246 | 2.00000 | 1.934 | 50.00- 150.00 | 100.00 |
| 4.081 | 4.081 (0.956) | 43 | 27759 | | | 411.26- 511.26 | 444.43 |
| 4.081 | 4.081 (0.956) | 57 | 1999 | | | 25.94- 125.94 | 32.00 |
| 73 cis-1,2-Dichloroethene | | | | | CAS #: 156-59-2 | | |
| 4.031 | 4.031 (0.945) | 98 | 8949 | 2.00000 | 2.080 | 50.00- 150.00 | 100.00 |
| 4.038 | 4.038 (0.946) | 96 | 12806 | | | 109.55- 209.55 | 143.10 |
| 4.038 | 4.038 (0.946) | 61 | 17218 | | | 163.91- 263.91 | 192.40 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 75 Tetrahydrofuran | | | | | CAS #: 109-99-9 | | |
| 4.289 | 4.289 (1.005) | 42 | 15132 | 2.00000 | 1.832 | 50.00- 150.00 | 100.00 |
| 4.289 | 4.289 (1.005) | 71 | 5660 | | | 0.00- 84.34 | 37.40 |
| 4.282 | 4.282 (1.003) | 72 | 6022 | | | 0.00- 88.12 | 39.80 |
| 78 Chloroform | | | | | CAS #: 67-66-3 | | |
| 4.346 | 4.346 (1.018) | 83 | 27397 | 2.00000 | 1.964 | 50.00- 150.00 | 100.00 |
| 4.346 | 4.346 (1.018) | 85 | 17729 | | | 15.20- 115.20 | 64.71 |
| 81 1,1,1-Trichloroethane | | | | | CAS #: 71-55-6 | | |
| 4.475 | 4.475 (1.049) | 97 | 24547 | 2.00000 | 1.869 | 50.00- 150.00 | 100.00 |
| 4.475 | 4.475 (1.049) | 99 | 15548 | | | 14.53- 114.53 | 63.34 |
| 80 Cyclohexane | | | | | CAS #: 110-82-7 | | |
| 4.468 | 4.468 (1.047) | 84 | 14926 | 2.00000 | 1.756 | 50.00- 150.00 | 100.00 |
| 4.468 | 4.468 (1.047) | 56 | 18481 | | | 70.44- 170.44 | 123.82 |
| 4.468 | 4.468 (1.047) | 41 | 12855 | | | 25.90- 125.90 | 86.12 |
| 82 Carbon Tetrachloride | | | | | CAS #: 56-23-5 | | |
| 4.597 | 4.597 (1.077) | 119 | 26723 | 2.00000 | 2.012 | 50.00- 150.00 | 100.00 |
| 4.604 | 4.604 (1.079) | 117 | 28086 | | | 52.63- 152.63 | 105.10 |
| 88 Benzene | | | | | CAS #: 71-43-2 | | |
| 4.812 | 4.812 (0.923) | 78 | 37851 | 2.00000 | 1.996 | 50.00- 150.00 | 100.00 |
| 4.812 | 4.812 (0.923) | 77 | 9249 | | | 0.00- 74.11 | 24.44 |
| 87 2,2,4-Trimethylpentane | | | | | CAS #: 540-84-1 | | |
| 4.833 | 4.833 (1.133) | 57 | 48546 | 2.00000 | 1.571 | 50.00- 150.00 | 100.00 |
| 4.833 | 4.833 (1.133) | 56 | 16615 | | | 0.00- 88.69 | 34.23 |
| 4.833 | 4.833 (1.133) | 41 | 14590 | | | 0.00- 79.27 | 30.05 |
| 93 1,2-Dichloroethane | | | | | CAS #: 107-06-2 | | |
| 4.898 | 4.898 (0.940) | 62 | 17928 | 2.00000 | 2.027 | 50.00- 150.00 | 100.00 |
| 4.898 | 4.898 (0.940) | 64 | 6115 | | | 0.00- 82.38 | 34.11 |
| 92 tert-amyl-Methyl Ether | | | | | CAS #: 994-05-8 | | |
| 4.919 | 4.919 (1.153) | 73 | 28358 | 2.00000 | 1.712 | 50.00- 150.00 | 100.00(a) |
| 4.919 | 4.919 (1.153) | 87 | 6754 | | | 0.00- 73.17 | 23.82 |
| 4.919 | 4.919 (1.153) | 55 | 9551 | | | 0.00- 81.18 | 33.68 |
| 94 Heptane | | | | | CAS #: 142-82-5 | | |
| 5.020 | 5.020 (0.963) | 71 | 12028 | 2.00000 | 1.793 | 50.00- 150.00 | 100.00 |
| 5.020 | 5.020 (0.963) | 43 | 21544 | | | 135.49- 235.49 | 179.12 |
| 5.013 | 5.013 (0.962) | 57 | 11880 | | | 48.06- 148.06 | 98.77 |
| 102 Trichloroethene | | | | | CAS #: 79-01-6 | | |
| 5.407 | 5.407 (1.037) | 95 | 16412 | 2.00000 | 2.043 | 50.00- 150.00 | 100.00 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 102 Trichloroethene (continued) | | | | | | | |
| 5.407 | 5.407 (1.037) | 130 | 17225 | | | 53.53- 153.53 | 104.95 |
| 5.407 | 5.407 (1.037) | 97 | 9866 | | | 13.85- 113.85 | 60.11 |
| 104 Methyl Cyclohexane | | | | | CAS #: 108-87-2 | | |
| 5.514 | 5.514 (1.292) | 83 | 18657 | 2.00000 | 1.711 | 50.00- 150.00 | 100.00 |
| 5.514 | 5.514 (1.292) | 98 | 8485 | | | 0.00- 96.78 | 45.48 |
| 5.514 | 5.514 (1.292) | 55 | 15418 | | | 33.43- 133.43 | 82.64 |
| 106 1,2-Dichloropropane | | | | | CAS #: 78-87-5 | | |
| 5.636 | 5.636 (1.081) | 63 | 13925 | 2.00000 | 2.041 | 50.00- 150.00 | 100.00 |
| 5.636 | 5.636 (1.081) | 62 | 10050 | | | 23.18- 123.18 | 72.17 |
| 5.636 | 5.636 (1.081) | 41 | 8786 | | | 17.64- 117.64 | 63.10 |
| 107 1,4-Dioxane | | | | | CAS #: 123-91-1 | | |
| 5.743 | 5.743 (1.102) | 88 | 7568 | 2.00000 | 1.893 | 50.00- 150.00 | 100.00(a) |
| 5.743 | 5.743 (1.102) | 58 | 5598 | | | 22.06- 122.06 | 73.97 |
| 5.750 | 5.750 (1.103) | 57 | 1730 | | | 0.00- 73.47 | 22.86 |
| 109 Bromodichloromethane | | | | | CAS #: 75-27-4 | | |
| 5.872 | 5.872 (1.126) | 83 | 26010 | 2.00000 | 1.970 | 50.00- 150.00 | 100.00 |
| 5.872 | 5.872 (1.126) | 85 | 16419 | | | 13.70- 113.70 | 63.13 |
| 112 cis-1,3-Dichloropropene | | | | | CAS #: 10061-01-5 | | |
| 6.266 | 6.266 (1.202) | 75 | 18315 | 2.00000 | 1.938 | 50.00- 150.00 | 100.00 |
| 6.266 | 6.266 (1.202) | 77 | 6494 | | | 0.00- 84.04 | 35.46 |
| 6.266 | 6.266 (1.202) | 39 | 11239 | | | 11.78- 111.78 | 61.37 |
| 114 4-Methyl-2-pentanone | | | | | CAS #: 108-10-1 | | |
| 6.395 | 6.395 (1.227) | 58 | 9901 | 2.00000 | 1.821 | 50.00- 150.00 | 100.00 |
| 6.395 | 6.395 (1.227) | 43 | 28480 | | | 237.60- 337.60 | 287.65 |
| 6.395 | 6.395 (1.227) | 85 | 3762 | | | 0.00- 99.98 | 38.00 |
| 116 Toluene | | | | | CAS #: 108-88-3 | | |
| 6.502 | 6.502 (1.247) | 91 | 42971 | 2.00000 | 1.952 | 50.00- 150.00 | 100.00 |
| 6.502 | 6.502 (1.247) | 92 | 24541 | | | 8.25- 108.25 | 57.11 |
| 123 trans-1,3-Dichloropropene | | | | | CAS #: 10061-02-6 | | |
| 6.753 | 6.753 (0.880) | 75 | 18600 | 2.00000 | 2.006 | 50.00- 150.00 | 100.00 |
| 6.760 | 6.760 (0.881) | 77 | 25453 | | | 302.12- 402.12 | 136.84 |
| 6.753 | 6.753 (0.880) | 39 | 10486 | | | 4.41- 104.41 | 56.38 |
| 128 1,1,2-Trichloroethane | | | | | CAS #: 79-00-5 | | |
| 6.904 | 6.904 (0.899) | 97 | 14508 | 2.00000 | 2.059 | 50.00- 150.00 | 100.00 |
| 6.904 | 6.904 (0.899) | 99 | 9198 | | | 12.50- 112.50 | 63.40 |
| 6.904 | 6.904 (0.899) | 83 | 12617 | | | 34.85- 134.85 | 86.97 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 131 Tetrachloroethene | | | | | CAS #: 127-18-4 | | |
| 6.947 | 6.947 (0.905) | 166 | 18764 | 2.00000 | 2.054 | 50.00- 150.00 | 100.00 |
| 6.947 | 6.947 (0.905) | 129 | 14635 | | | 26.92- 126.92 | 78.00 |
| 6.947 | 6.947 (0.905) | 131 | 13682 | | | 21.94- 121.94 | 72.92 |
| 135 2-Hexanone | | | | | CAS #: 591-78-6 | | |
| 7.097 | 7.097 (0.924) | 58 | 12575 | 2.00000 | 1.887 | 50.00- 150.00 | 100.00(a) |
| 7.097 | 7.097 (0.924) | 43 | 25467 | | | 157.46- 257.46 | 202.52 |
| 7.097 | 7.097 (0.924) | 100 | 2447 | | | 0.00- 69.68 | 19.46 |
| 138 Dibromochloromethane | | | | | CAS #: 124-48-1 | | |
| 7.204 | 7.204 (0.938) | 129 | 23460 | 2.00000 | 2.005 | 50.00- 150.00 | 100.00 |
| 7.204 | 7.204 (0.938) | 127 | 18318 | | | 27.83- 127.83 | 78.08 |
| 140 1,2-Dibromoethane | | | | | CAS #: 106-93-4 | | |
| 7.305 | 7.305 (0.951) | 107 | 21133 | 2.00000 | 2.051 | 50.00- 150.00 | 100.00 |
| 7.305 | 7.305 (0.951) | 109 | 19808 | | | 46.78- 146.78 | 93.73 |
| 145 Chlorobenzene | | | | | CAS #: 108-90-7 | | |
| 7.699 | 7.699 (1.003) | 112 | 31576 | 2.00000 | 2.034 | 50.00- 150.00 | 100.00 |
| 7.699 | 7.699 (1.003) | 114 | 10115 | | | 0.00- 81.68 | 32.03 |
| 7.699 | 7.699 (1.003) | 77 | 21802 | | | 19.10- 119.10 | 69.05 |
| 147 Ethyl Benzene | | | | | CAS #: 100-41-4 | | |
| 7.770 | 7.770 (1.012) | 106 | 15207 | 2.00000 | 1.967 | 50.00- 150.00 | 100.00 |
| 7.770 | 7.770 (1.012) | 91 | 46756 | | | 270.93- 370.93 | 307.46 |
| 150 m,p-Xylene | | | | | CAS #: 108-38-3 | | |
| 7.871 | 7.871 (1.025) | 106 | 18273 | 2.00000 | 1.900 | 50.00- 150.00 | 100.00 |
| 7.871 | 7.871 (1.025) | 91 | 36174 | | | 151.38- 251.38 | 197.96 |
| 153 o-Xylene | | | | | CAS #: 95-47-6 | | |
| 8.207 | 8.207 (1.069) | 106 | 16275 | 2.00000 | 1.854 | 50.00- 150.00 | 100.00 |
| 8.207 | 8.207 (1.069) | 91 | 34445 | | | 164.77- 264.77 | 211.64 |
| 154 Styrene | | | | | CAS #: 100-42-5 | | |
| 8.229 | 8.229 (1.072) | 104 | 26041 | 2.00000 | 1.809 | 50.00- 150.00 | 100.00 |
| 8.222 | 8.222 (1.071) | 78 | 13168 | | | 1.89- 101.89 | 50.57 |
| 155 Bromoform | | | | | CAS #: 75-25-2 | | |
| 8.393 | 8.393 (1.093) | 173 | 18024 | 2.00000 | 1.864 | 50.00- 150.00 | 100.00 |
| 8.393 | 8.393 (1.093) | 171 | 8928 | | | 0.59- 100.59 | 49.53 |
| 156 Cumene | | | | | CAS #: 98-82-8 | | |
| 8.501 | 8.501 (1.107) | 105 | 45335 | 2.00000 | 1.706 | 50.00- 150.00 | 100.00 |
| 8.501 | 8.501 (1.107) | 120 | 11368 | | | 0.00- 76.38 | 25.08 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 156 Cumene (continued) | | | | | | | |
| 8.501 | 8.501 (1.107) | 51 | 5077 | | | 0.00- 60.64 | 11.20 |
| 161 1,1,2,2-Tetrachloroethane | | | | | CAS #: 79-34-5 | | |
| 8.802 | 8.802 (1.146) | 83 | 27866 | 2.00000 | 2.028 | 50.00- 150.00 | 100.00 |
| 8.802 | 8.802 (1.146) | 85 | 18558 | | | 16.07- 116.07 | 66.60 |
| 162 Propylbenzene | | | | | CAS #: 103-65-1 | | |
| 8.845 | 8.845 (1.152) | 91 | 57106 | 2.00000 | 1.808 | 50.00- 150.00 | 100.00 |
| 8.845 | 8.845 (1.152) | 120 | 12542 | | | 0.00- 72.00 | 21.96 |
| 8.845 | 8.845 (1.152) | 105 | 2193 | | | 0.00- 68.11 | 3.84 |
| 163 4-Ethyltoluene | | | | | CAS #: 622-96-8 | | |
| 8.945 | 8.945 (1.165) | 120 | 14368 | 2.00000 | 1.810 | 50.00- 150.00 | 100.00 |
| 8.938 | 8.938 (1.164) | 105 | 46127 | | | 275.52- 375.52 | 321.04 |
| 164 1,3,5-Trimethylbenzene | | | | | CAS #: 108-67-8 | | |
| 8.995 | 8.995 (1.172) | 120 | 18754 | 2.00000 | 1.798 | 50.00- 150.00 | 100.00 |
| 8.995 | 8.995 (1.172) | 105 | 38277 | | | 157.61- 257.61 | 204.10 |
| 166 1,2,4-Trimethylbenzene | | | | | CAS #: 95-63-6 | | |
| 9.310 | 9.310 (1.213) | 120 | 15050 | 2.00000 | 1.674 | 50.00- 150.00 | 100.00 |
| 9.310 | 9.310 (1.213) | 105 | 34730 | | | 171.83- 271.83 | 230.76 |
| 168 1,3-Dichlorobenzene | | | | | CAS #: 541-73-1 | | |
| 9.561 | 9.561 (1.245) | 146 | 23986 | 2.00000 | 1.906 | 50.00- 150.00 | 100.00 |
| 9.568 | 9.568 (1.246) | 148 | 14606 | | | 11.58- 111.58 | 60.89 |
| 9.561 | 9.561 (1.245) | 111 | 10064 | | | 0.00- 91.95 | 41.96 |
| 169 1,4-Dichlorobenzene | | | | | CAS #: 106-46-7 | | |
| 9.647 | 9.647 (1.257) | 146 | 23387 | 2.00000 | 1.881 | 50.00- 150.00 | 100.00 |
| 9.647 | 9.647 (1.257) | 148 | 14951 | | | 14.35- 114.35 | 63.93 |
| 9.640 | 9.640 (1.256) | 111 | 9488 | | | 0.00- 91.42 | 40.57 |
| 170 alpha-Chlorotoluene | | | | | CAS #: 100-44-7 | | |
| 9.762 | 9.762 (1.272) | 91 | 27771 | 2.00000 | 1.729 | 50.00- 150.00 | 100.00 |
| 9.762 | 9.762 (1.272) | 126 | 5652 | | | 0.00- 69.60 | 20.35 |
| 171 1,2-Dichlorobenzene | | | | | CAS #: 95-50-1 | | |
| 9.955 | 9.955 (1.297) | 146 | 20191 | 2.00000 | 1.830 | 50.00- 150.00 | 100.00 |
| 9.955 | 9.955 (1.297) | 148 | 12520 | | | 14.46- 114.46 | 62.01 |
| 9.955 | 9.955 (1.297) | 111 | 8934 | | | 0.00- 94.23 | 44.25 |
| 174 1,2,4-Trichlorobenzene | | | | | CAS #: 120-82-1 | | |
| 11.287 | 11.287 (1.470) | 180 | 12942 | 2.00000 | 1.841 | 50.00- 150.00 | 100.00(a) |
| 11.295 | 11.295 (1.471) | 182 | 13034 | | | 46.77- 146.77 | 100.71 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 175 Hexachlorobutadiene | | | | | CAS #: 87-68-3 | | |
| 11.388 | 11.388 (1.483) | 225 | 11457 | 2.00000 | 1.794 | 50.00- 150.00 | 100.00(a) |
| 11.388 | 11.388 (1.483) | 223 | 7246 | | | 13.27- 113.27 | 63.25 |
| 176 Naphthalene | | | | | CAS #: 91-20-3 | | |
| 11.502 | 11.502 (1.498) | 128 | 26854 | 2.00000 | 1.766 | 50.00- 150.00 | 100.00(a) |
| 11.495 | 11.495 (1.497) | 127 | 3372 | | | 0.00- 62.46 | 12.56 |

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdp.i
Lab File ID: p031105.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: cr
Method File: /chem/msdp.i/11mar10.b/p10q0311a.m
Misc Info: 2.0ppbv (2.0ppbv)

Calibration Date: 11-MAR-2010
Calibration Time: 10:37
Client Smp ID: Level 3
Level: LOW
Sample Type: AIR

| | | AREA LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 76 Bromochloromethan | 104418 | 62651 | 146185 | 122692 | 17.50 |
| 97 1,4-Difluorobenze | 353421 | 212053 | 494789 | 397008 | 12.33 |
| 144 Chlorobenzene-d5 | 302185 | 181311 | 423059 | 308321 | 2.03 |

| | | RT LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 76 Bromochloromethan | 4.27 | 3.94 | 4.60 | 4.27 | -0.17 |
| 97 1,4-Difluorobenze | 5.23 | 4.90 | 5.56 | 5.21 | -0.27 |
| 144 Chlorobenzene-d5 | 7.70 | 7.37 | 8.03 | 7.68 | -0.28 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msdp.i/11mar10.b/p031105.d



Date : 11-MAR-2010 09:52

Client ID: Level 3

Instrument: msdp.i

Sample Info: 200mL #1911-281

Operator: cr

Column phase: RTx-624

Column diameter: 0.53

Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msdp.i/11mar10.b/p031106.d
Lab Smp Id: ICAL Client Smp ID: Level 4
Inj Date : 11-MAR-2010 10:11
Operator : cr Inst ID: msdp.i
Smp Info : 25mL #1911-281
Misc Info : 25ppbv (200ppbv)
Comment :
Method : /chem/msdp.i/11mar10.b/p10q0311a.m
Meth Date : 13-Mar-2010 09:23 jparker Quant Type: ISTD
Cal Date : 11-MAR-2010 10:11 Cal File: p031106.d
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT09.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| | | | | AMOUNTS | | | |
|---|---|---|---|---|---|---|---|
| | | | | CAL-AMT | ON-COL | | |
| RT | EXP RT (REL RT) | MASS | RESPONSE | ( PPBV) | ( PPBV) | TARGET RANGE | RATIO |
| * 76 Bromochloromethane | | | | | CAS #: 74-97-5 | | |
| 4.275 | 4.275 (1.000) | 130 | 97322 | 25.0000 | | 50.00- 150.00 | 100.00 |
| 4.275 | 4.275 (1.000) | 128 | 75377 | | | 27.91- 127.91 | 77.45 |
| 4.275 | 4.275 (1.000) | 49 | 137748 | | | 88.40- 188.40 | 141.54 |
| * 97 1,4-Difluorobenzene | | | | | CAS #: 540-36-3 | | |
| 5.227 | 5.227 (1.000) | 114 | 332429 | 25.0000 | | 50.00- 150.00 | 100.00 |
| 5.227 | 5.227 (1.000) | 88 | 52302 | | | 0.00- 65.84 | 15.73 |
| * 144 Chlorobenzene-d5 | | | | | CAS #: 3114-55-4 | | |
| 7.699 | 7.699 (1.000) | 117 | 269929 | 25.0000 | | 50.00- 150.00 | 100.00 |
| 7.699 | 7.699 (1.000) | 82 | 153068 | | | 6.75- 106.75 | 56.71 |
| $ 89 1,2-Dichloroethane-d4 | | | | | CAS #: 17060-07-0 | | |
| 4.833 | 4.833 (1.131) | 65 | 128879 | 25.0000 | 24.724 | 50.00- 150.00 | 100.00 |
| 4.833 | 4.833 (1.131) | 67 | 72814 | | | 6.22- 106.22 | 56.50 |
| $ 115 Toluene-d8 | | | | | CAS #: 2037-26-5 | | |
| 6.467 | 6.467 (1.237) | 98 | 345278 | 25.0000 | 25.183 | 50.00- 150.00 | 100.00 |
| 6.467 | 6.467 (1.237) | 70 | 39831 | | | 0.00- 61.60 | 11.54 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 115 Toluene-d8 (continued) | | | | | | | |
| 6.467 | 6.467 (1.237) | 100 | 226920 | | | 15.04- 115.04 | 65.72 |
| $ 159 Bromofluorobenzene | | | | | CAS #: 460-00-4 | | |
| 8.687 | 8.687 (1.128) | 174 | 120050 | 25.0000 | 24.296 | 50.00- 150.00 | 100.00 |
| 8.687 | 8.687 (1.128) | 95 | 166200 | | | 86.78- 186.78 | 138.44 |
| 8.687 | 8.687 (1.128) | 176 | 115770 | | | 46.17- 146.17 | 96.43 |
| 6 Propylene | | | | | CAS #: 115-07-1 | | |
| 1.111 | 1.111 (0.260) | 41 | 105698 | 25.0000 | 26.398 | 50.00- 150.00 | 100.00 |
| 1.111 | 1.111 (0.260) | 42 | 69145 | | | 16.22- 116.22 | 65.42 |
| 1.111 | 1.111 (0.260) | 39 | 79373 | | | 23.14- 123.14 | 75.09 |
| 7 Dichlorodifluoromethane/Fr12 | | | | | CAS #: 75-71-8 | | |
| 1.139 | 1.139 (0.266) | 85 | 381938 | 25.0000 | 27.349 | 50.00- 150.00 | 100.00 |
| 1.139 | 1.139 (0.266) | 87 | 124751 | | | 0.00- 81.77 | 32.66 |
| 10 Freon 114 | | | | | CAS #: 76-14-2 | | |
| 1.209 | 1.209 (0.283) | 135 | 273477 | 25.0000 | 26.858 | 50.00- 150.00 | 100.00 |
| 1.209 | 1.209 (0.283) | 137 | 87518 | | | 0.00- 82.41 | 32.00 |
| 11 Chloromethane | | | | | CAS #: 74-87-3 | | |
| 1.264 | 1.264 (0.296) | 50 | 107321 | 25.0000 | 32.720 | 50.00- 150.00 | 100.00 |
| 1.264 | 1.264 (0.296) | 52 | 34465 | | | 0.00- 85.01 | 32.11 |
| 13 Butane | | | | | CAS #: 106-97-8 | | |
| 1.320 | 1.320 (0.309) | 58 | 30551 | 25.0000 | 30.272 | 50.00- 150.00 | 100.00 |
| 1.320 | 1.320 (0.309) | 43 | 236721 | | | 664.85- 764.85 | 774.84 |
| 14 Vinyl Chloride | | | | | CAS #: 75-01-4 | | |
| 1.334 | 1.334 (0.312) | 62 | 145436 | 25.0000 | 28.100 | 50.00- 150.00 | 100.00 |
| 1.334 | 1.334 (0.312) | 64 | 46264 | | | 0.00- 88.01 | 31.81 |
| 15 1,3-Butadiene | | | | | CAS #: 106-99-0 | | |
| 1.348 | 1.348 (0.315) | 54 | 110606 | 25.0000 | 26.642 | 50.00- 150.00 | 100.00 |
| 1.348 | 1.348 (0.315) | 39 | 131597 | | | 67.29- 167.29 | 118.98 |
| 21 Bromomethane | | | | | CAS #: 74-83-9 | | |
| 1.572 | 1.572 (0.368) | 94 | 128858 | 25.0000 | 28.769 | 50.00- 150.00 | 100.00 |
| 1.572 | 1.572 (0.368) | 96 | 118419 | | | 45.21- 145.21 | 91.90 |
| 24 Chloroethane | | | | | CAS #: 75-00-3 | | |
| 1.642 | 1.642 (0.384) | 64 | 81136 | 25.0000 | 29.848 | 50.00- 150.00 | 100.00 |
| 1.642 | 1.642 (0.384) | 66 | 25711 | | | 0.00- 89.11 | 31.69 |
| 1.642 | 1.642 (0.384) | 49 | 22435 | | | 0.00- 79.55 | 27.65 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 25 Isopentane | | | | | CAS #: 78-78-4 | | |
| 1.670 | 1.670 (0.391) | 43 | 179452 | 25.0000 | 29.598 | 50.00- 150.00 | 100.00 |
| 1.670 | 1.670 (0.391) | 57 | 114504 | | | 25.98- 125.98 | 63.81 |
| 28 Trichlorofluoromethane/Fr11 | | | | | CAS #: 75-69-4 | | |
| 1.810 | 1.810 (0.423) | 101 | 401709 | 25.0000 | 28.341 | 50.00- 150.00 | 100.00 |
| 1.810 | 1.810 (0.423) | 103 | 262489 | | | 17.23- 117.23 | 65.34 |
| 29 Ethanol | | | | | CAS #: 64-17-5 | | |
| 1.964 | 1.964 (0.459) | 45 | 61398 | 25.0000 | 28.323 | 50.00- 150.00 | 100.00 |
| 1.964 | 1.964 (0.459) | 43 | 12559 | | | 0.00- 84.20 | 20.46 |
| 1.964 | 1.964 (0.459) | 46 | 23864 | | | 0.00- 96.43 | 38.87 |
| 30 Freon 113 | | | | | CAS #: 76-13-1 | | |
| 2.219 | 2.219 (0.519) | 151 | 224359 | 25.0000 | 26.903 | 50.00- 150.00 | 100.00 |
| 2.219 | 2.219 (0.519) | 153 | 141309 | | | 13.21- 113.21 | 62.98 |
| 2.219 | 2.219 (0.519) | 101 | 299447 | | | 82.01- 182.01 | 133.47 |
| 32 1,1-Dichloroethene | | | | | CAS #: 75-35-4 | | |
| 2.233 | 2.233 (0.522) | 98 | 88358 | 25.0000 | 26.517 | 50.00- 150.00 | 100.00 |
| 2.233 | 2.233 (0.522) | 96 | 138387 | | | 106.98- 206.98 | 156.62 |
| 2.233 | 2.233 (0.522) | 61 | 238867 | | | 215.33- 315.33 | 270.34 |
| 34 Acetone | | | | | CAS #: 67-64-1 | | |
| 2.312 | 2.312 (0.541) | 58 | 66551 | 25.0000 | 25.462 | 50.00- 150.00 | 100.00 |
| 2.312 | 2.312 (0.541) | 43 | 226097 | | | 281.49- 381.49 | 339.73 |
| 35 Carbon Disulfide | | | | | CAS #: 75-15-0 | | |
| 2.412 | 2.412 (0.564) | 76 | 410396 | 25.0000 | 26.230 | 50.00- 150.00 | 100.00 |
| 37 2-Propanol | | | | | CAS #: 67-63-0 | | |
| 2.420 | 2.420 (0.566) | 45 | 239484 | 25.0000 | 25.299 | 50.00- 150.00 | 100.00 |
| 2.420 | 2.420 (0.566) | 43 | 55590 | | | 0.00- 72.19 | 23.21 |
| 2.427 | 2.427 (0.568) | 59 | 9176 | | | 0.00- 77.65 | 3.83 |
| 41 3-Chloropropene | | | | | CAS #: 107-05-1 | | |
| 2.577 | 2.577 (0.603) | 76 | 63094 | 25.0000 | 26.348 | 50.00- 150.00 | 100.00 |
| 2.577 | 2.577 (0.603) | 41 | 195453 | | | 257.61- 357.61 | 309.78 |
| 43 Methylene Chloride | | | | | CAS #: 75-09-2 | | |
| 2.713 | 2.713 (0.635) | 49 | 173665 | 25.0000 | 26.275 | 50.00- 150.00 | 100.00 |
| 2.713 | 2.713 (0.635) | 84 | 127515 | | | 24.25- 124.25 | 73.43 |
| 2.713 | 2.713 (0.635) | 51 | 52804 | | | 0.00- 81.57 | 30.41 |
| 46 tert-Butyl-Alcohol | | | | | CAS #: 75-65-0 | | |
| 2.813 | 2.813 (0.658) | 59 | 259991 | 25.0000 | 25.758 | 50.00- 150.00 | 100.00 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 46 tert-Butyl-Alcohol (continued) | | | | | | | |
| 2.813 | 2.813 (0.658) | 41 | 75022 | | | 0.00- 77.85 | 28.86 |
| 2.821 | 2.821 (0.660) | 57 | 28420 | | | 0.00- 61.24 | 10.93 |
| 47 MTBE | | | | | CAS #: 1634-04-4 | | |
| 2.942 | 2.942 (0.688) | 73 | 374985 | 25.0000 | 26.883 | 50.00- 150.00 | 100.00 |
| 2.942 | 2.942 (0.688) | 57 | 85391 | | | 0.00- 81.96 | 22.77 |
| 2.942 | 2.942 (0.688) | 41 | 101542 | | | 0.00- 76.94 | 27.08 |
| 48 trans-1,2-Dichloroethene | | | | | CAS #: 156-60-5 | | |
| 2.957 | 2.957 (0.692) | 98 | 95708 | 25.0000 | 27.570 | 50.00- 150.00 | 100.00 |
| 2.957 | 2.957 (0.692) | 61 | 220661 | | | 187.67- 287.67 | 230.56 |
| 2.957 | 2.957 (0.692) | 96 | 149633 | | | 111.49- 211.49 | 156.34 |
| 51 Hexane | | | | | CAS #: 110-54-3 | | |
| 3.200 | 3.200 (0.749) | 57 | 232301 | 25.0000 | 27.474 | 50.00- 150.00 | 100.00 |
| 3.200 | 3.200 (0.749) | 43 | 158655 | | | 17.17- 117.17 | 68.30 |
| 3.200 | 3.200 (0.749) | 86 | 38402 | | | 0.00- 70.58 | 16.53 |
| 59 1,1-Dichloroethane | | | | | CAS #: 75-34-3 | | |
| 3.444 | 3.444 (0.806) | 63 | 274640 | 25.0000 | 26.611 | 50.00- 150.00 | 100.00 |
| 3.444 | 3.444 (0.806) | 65 | 87146 | | | 0.00- 81.69 | 31.73 |
| 58 Isopropyl ether | | | | | CAS #: 108-20-3 | | |
| 3.465 | 3.465 (0.811) | 45 | 537810 | 25.0000 | 28.060 | 50.00- 150.00 | 100.00 |
| 3.465 | 3.465 (0.811) | 87 | 128035 | | | 0.00- 73.95 | 23.81 |
| 3.465 | 3.465 (0.811) | 59 | 57940 | | | 0.00- 60.65 | 10.77 |
| 61 Vinyl Acetate | | | | | CAS #: 108-05-4 | | |
| 3.501 | 3.501 (0.819) | 86 | 32510 | 25.0000 | 25.996 | 50.00- 150.00 | 100.00 |
| 3.494 | 3.494 (0.817) | 43 | 648451 | | | 1854.64-1954.64 | 1994.62 |
| 68 t-Butylethyl Ether | | | | | CAS #: 637-92-3 | | |
| 3.838 | 3.838 (0.898) | 59 | 417765 | 25.0000 | 27.766 | 50.00- 150.00 | 100.00 |
| 3.838 | 3.838 (0.898) | 87 | 165742 | | | 0.00- 89.71 | 39.67 |
| 3.838 | 3.838 (0.898) | 41 | 93682 | | | 0.00- 72.53 | 22.42 |
| 73 cis-1,2-Dichloroethene | | | | | CAS #: 156-59-2 | | |
| 4.046 | 4.046 (0.946) | 98 | 93111 | 25.0000 | 27.288 | 50.00- 150.00 | 100.00 |
| 4.046 | 4.046 (0.946) | 96 | 145286 | | | 109.55- 209.55 | 156.04 |
| 4.046 | 4.046 (0.946) | 61 | 199229 | | | 163.91- 263.91 | 213.97 |
| 74 2-Butanone | | | | | CAS #: 78-93-3 | | |
| 4.074 | 4.074 (0.953) | 72 | 70377 | 25.0000 | 27.467 | 50.00- 150.00 | 100.00 |
| 4.074 | 4.074 (0.953) | 43 | 311739 | | | 411.26- 511.26 | 442.96 |
| 4.074 | 4.074 (0.953) | 57 | 22626 | | | 25.94- 125.94 | 32.15 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 75 Tetrahydrofuran | | | | | CAS #: 109-99-9 | | |
| 4.282 | 4.282 (1.002) | 42 | 173927 | 25.0000 | 26.544 | 50.00- 150.00 | 100.00 |
| 4.282 | 4.282 (1.002) | 71 | 62148 | | | 0.00- 84.34 | 35.73 |
| 4.282 | 4.282 (1.002) | 72 | 67918 | | | 0.00- 88.12 | 39.05 |
| 78 Chloroform | | | | | CAS #: 67-66-3 | | |
| 4.354 | 4.354 (1.018) | 83 | 301814 | 25.0000 | 27.278 | 50.00- 150.00 | 100.00 |
| 4.354 | 4.354 (1.018) | 85 | 195788 | | | 15.20- 115.20 | 64.87 |
| 80 Cyclohexane | | | | | CAS #: 110-82-7 | | |
| 4.475 | 4.475 (1.047) | 84 | 184770 | 25.0000 | 27.412 | 50.00- 150.00 | 100.00 |
| 4.475 | 4.475 (1.047) | 56 | 228596 | | | 70.44- 170.44 | 123.72 |
| 4.475 | 4.475 (1.047) | 41 | 138826 | | | 25.90- 125.90 | 75.13 |
| 81 1,1,1-Trichloroethane | | | | | CAS #: 71-55-6 | | |
| 4.482 | 4.482 (1.049) | 97 | 289381 | 25.0000 | 27.776 | 50.00- 150.00 | 100.00 |
| 4.482 | 4.482 (1.049) | 99 | 182967 | | | 14.53- 114.53 | 63.23 |
| 82 Carbon Tetrachloride | | | | | CAS #: 56-23-5 | | |
| 4.611 | 4.611 (1.079) | 119 | 280876 | 25.0000 | 26.662 | 50.00- 150.00 | 100.00 |
| 4.611 | 4.611 (1.079) | 117 | 290252 | | | 52.63- 152.63 | 103.34 |
| 87 2,2,4-Trimethylpentane | | | | | CAS #: 540-84-1 | | |
| 4.841 | 4.841 (1.132) | 57 | 690782 | 25.0000 | 28.178 | 50.00- 150.00 | 100.00 |
| 4.841 | 4.841 (1.132) | 56 | 232384 | | | 0.00- 88.69 | 33.64 |
| 4.841 | 4.841 (1.132) | 41 | 201123 | | | 0.00- 79.27 | 29.12 |
| 88 Benzene | | | | | CAS #: 71-43-2 | | |
| 4.826 | 4.826 (0.923) | 78 | 417287 | 25.0000 | 26.275 | 50.00- 150.00 | 100.00 |
| 4.826 | 4.826 (0.923) | 77 | 101768 | | | 0.00- 74.11 | 24.39 |
| 92 tert-amyl-Methyl Ether | | | | | CAS #: 994-05-8 | | |
| 4.927 | 4.927 (1.152) | 73 | 361576 | 25.0000 | 27.517 | 50.00- 150.00 | 100.00 |
| 4.927 | 4.927 (1.152) | 87 | 84216 | | | 0.00- 73.17 | 23.29 |
| 4.927 | 4.927 (1.152) | 55 | 113214 | | | 0.00- 81.18 | 31.31 |
| 93 1,2-Dichloroethane | | | | | CAS #: 107-06-2 | | |
| 4.905 | 4.905 (0.938) | 62 | 196408 | 25.0000 | 26.515 | 50.00- 150.00 | 100.00 |
| 4.905 | 4.905 (0.938) | 64 | 61253 | | | 0.00- 82.38 | 31.19 |
| 94 Heptane | | | | | CAS #: 142-82-5 | | |
| 5.034 | 5.034 (0.963) | 71 | 154308 | 25.0000 | 27.465 | 50.00- 150.00 | 100.00 |
| 5.027 | 5.027 (0.962) | 43 | 275937 | | | 135.49- 235.49 | 178.82 |
| 5.027 | 5.027 (0.962) | 57 | 144078 | | | 48.06- 148.06 | 93.37 |
| 102 Trichloroethene | | | | | CAS #: 79-01-6 | | |
| 5.421 | 5.421 (1.037) | 95 | 182255 | 25.0000 | 27.091 | 50.00- 150.00 | 100.00 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 102 Trichloroethene (continued) | | | | | | | |
| 5.421 | 5.421 (1.037) | 130 | 182857 | | | 53.53- 153.53 | 100.33 |
| 5.421 | 5.421 (1.037) | 97 | 115772 | | | 13.85- 113.85 | 63.52 |
| 104 Methyl Cyclohexane | | | | | CAS #: 108-87-2 | | |
| 5.535 | 5.535 (1.295) | 83 | 246343 | 25.0000 | 28.483 | 50.00- 150.00 | 100.00 |
| 5.535 | 5.535 (1.295) | 98 | 116054 | | | 0.00- 96.78 | 47.11 |
| 5.528 | 5.528 (1.293) | 55 | 201868 | | | 33.43- 133.43 | 81.95 |
| 106 1,2-Dichloropropane | | | | | CAS #: 78-87-5 | | |
| 5.650 | 5.650 (1.081) | 63 | 156283 | 25.0000 | 27.356 | 50.00- 150.00 | 100.00 |
| 5.650 | 5.650 (1.081) | 62 | 112657 | | | 23.18- 123.18 | 72.09 |
| 5.650 | 5.650 (1.081) | 41 | 96655 | | | 17.64- 117.64 | 61.85 |
| 107 1,4-Dioxane | | | | | CAS #: 123-91-1 | | |
| 5.750 | 5.750 (1.100) | 88 | 91484 | 25.0000 | 27.333 | 50.00- 150.00 | 100.00 |
| 5.750 | 5.750 (1.100) | 58 | 65626 | | | 22.06- 122.06 | 71.73 |
| 5.750 | 5.750 (1.100) | 57 | 21947 | | | 0.00- 73.47 | 23.99 |
| 109 Bromodichloromethane | | | | | CAS #: 75-27-4 | | |
| 5.886 | 5.886 (1.126) | 83 | 303993 | 25.0000 | 27.493 | 50.00- 150.00 | 100.00 |
| 5.886 | 5.886 (1.126) | 85 | 196161 | | | 13.70- 113.70 | 64.53 |
| 112 cis-1,3-Dichloropropene | | | | | CAS #: 10061-01-5 | | |
| 6.280 | 6.280 (1.201) | 75 | 212693 | 25.0000 | 26.874 | 50.00- 150.00 | 100.00 |
| 6.280 | 6.280 (1.201) | 77 | 70674 | | | 0.00- 84.04 | 33.23 |
| 6.280 | 6.280 (1.201) | 39 | 125653 | | | 11.78- 111.78 | 59.08 |
| 114 4-Methyl-2-pentanone | | | | | CAS #: 108-10-1 | | |
| 6.409 | 6.409 (1.226) | 58 | 124456 | 25.0000 | 27.336 | 50.00- 150.00 | 100.00 |
| 6.409 | 6.409 (1.226) | 43 | 350112 | | | 237.60- 337.60 | 281.31 |
| 6.409 | 6.409 (1.226) | 85 | 51778 | | | 0.00- 99.98 | 41.60 |
| 116 Toluene | | | | | CAS #: 108-88-3 | | |
| 6.524 | 6.524 (1.248) | 91 | 505360 | 25.0000 | 27.410 | 50.00- 150.00 | 100.00 |
| 6.524 | 6.524 (1.248) | 92 | 295356 | | | 8.25- 108.25 | 58.44 |
| 123 trans-1,3-Dichloropropene | | | | | CAS #: 10061-02-6 | | |
| 6.775 | 6.775 (0.880) | 75 | 218036 | 25.0000 | 26.853 | 50.00- 150.00 | 100.00 |
| 6.775 | 6.775 (0.880) | 77 | 69912 | | | 302.12- 402.12 | 32.06 |
| 6.775 | 6.775 (0.880) | 39 | 118530 | | | 4.41- 104.41 | 54.36 |
| 128 1,1,2-Trichloroethane | | | | | CAS #: 79-00-5 | | |
| 6.918 | 6.918 (0.899) | 97 | 174056 | 25.0000 | 28.221 | 50.00- 150.00 | 100.00 |
| 6.918 | 6.918 (0.899) | 99 | 105545 | | | 12.50- 112.50 | 60.64 |
| 6.918 | 6.918 (0.899) | 83 | 146946 | | | 34.85- 134.85 | 84.42 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 131 Tetrachloroethene | | | | | CAS #: 127-18-4 | | |
| 6.968 | 6.968 (0.905) | 166 | 216934 | 25.0000 | 27.120 | 50.00- 150.00 | 100.00 |
| 6.968 | 6.968 (0.905) | 129 | 169247 | | | 26.92- 126.92 | 78.02 |
| 6.968 | 6.968 (0.905) | 131 | 158986 | | | 21.94- 121.94 | 73.29 |
| 135 2-Hexanone | | | | | CAS #: 591-78-6 | | |
| 7.111 | 7.111 (0.924) | 58 | 158385 | 25.0000 | 27.154 | 50.00- 150.00 | 100.00 |
| 7.111 | 7.111 (0.924) | 43 | 320098 | | | 157.46- 257.46 | 202.10 |
| 7.118 | 7.118 (0.925) | 100 | 31619 | | | 0.00- 69.68 | 19.96 |
| 138 Dibromochloromethane | | | | | CAS #: 124-48-1 | | |
| 7.226 | 7.226 (0.939) | 129 | 285232 | 25.0000 | 27.843 | 50.00- 150.00 | 100.00 |
| 7.226 | 7.226 (0.939) | 127 | 223075 | | | 27.83- 127.83 | 78.21 |
| 140 1,2-Dibromoethane | | | | | CAS #: 106-93-4 | | |
| 7.326 | 7.326 (0.952) | 107 | 248727 | 25.0000 | 27.576 | 50.00- 150.00 | 100.00 |
| 7.326 | 7.326 (0.952) | 109 | 241331 | | | 46.78- 146.78 | 97.03 |
| 145 Chlorobenzene | | | | | CAS #: 108-90-7 | | |
| 7.720 | 7.720 (1.003) | 112 | 373288 | 25.0000 | 27.471 | 50.00- 150.00 | 100.00 |
| 7.720 | 7.720 (1.003) | 114 | 117709 | | | 0.00- 81.68 | 31.53 |
| 7.720 | 7.720 (1.003) | 77 | 216508 | | | 19.10- 119.10 | 58.00 |
| 147 Ethyl Benzene | | | | | CAS #: 100-41-4 | | |
| 7.792 | 7.792 (1.012) | 106 | 190552 | 25.0000 | 28.156 | 50.00- 150.00 | 100.00 |
| 7.792 | 7.792 (1.012) | 91 | 599973 | | | 270.93- 370.93 | 314.86 |
| 150 m,p-Xylene | | | | | CAS #: 108-38-3 | | |
| 7.892 | 7.892 (1.025) | 106 | 236432 | 25.0000 | 28.076 | 50.00- 150.00 | 100.00 |
| 7.892 | 7.892 (1.025) | 91 | 472702 | | | 151.38- 251.38 | 199.93 |
| 153 o-Xylene | | | | | CAS #: 95-47-6 | | |
| 8.222 | 8.222 (1.068) | 106 | 218193 | 25.0000 | 28.388 | 50.00- 150.00 | 100.00 |
| 8.222 | 8.222 (1.068) | 91 | 457465 | | | 164.77- 264.77 | 209.66 |
| 154 Styrene | | | | | CAS #: 100-42-5 | | |
| 8.243 | 8.243 (1.071) | 104 | 347832 | 25.0000 | 27.598 | 50.00- 150.00 | 100.00 |
| 8.243 | 8.243 (1.071) | 78 | 179559 | | | 1.89- 101.89 | 51.62 |
| 155 Bromoform | | | | | CAS #: 75-25-2 | | |
| 8.415 | 8.415 (1.093) | 173 | 228648 | 25.0000 | 27.013 | 50.00- 150.00 | 100.00 |
| 8.415 | 8.415 (1.093) | 171 | 118827 | | | 0.59- 100.59 | 51.97 |
| 156 Cumene | | | | | CAS #: 98-82-8 | | |
| 8.522 | 8.522 (1.107) | 105 | 629211 | 25.0000 | 27.047 | 50.00- 150.00 | 100.00 |
| 8.522 | 8.522 (1.107) | 120 | 169642 | | | 0.00- 76.38 | 26.96 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 156 Cumene (continued) | | | | | | | |
| 8.522 | 8.522 (1.107) | 51 | 68270 | | | 0.00- 60.64 | 10.85 |
| 161 1,1,2,2-Tetrachloroethane | | | | | CAS #: 79-34-5 | | |
| 8.823 | 8.823 (1.146) | 83 | 329752 | 25.0000 | 27.411 | 50.00- 150.00 | 100.00 |
| 8.823 | 8.823 (1.146) | 85 | 214890 | | | 16.07- 116.07 | 65.17 |
| 162 Propylbenzene | | | | | CAS #: 103-65-1 | | |
| 8.866 | 8.866 (1.152) | 91 | 762497 | 25.0000 | 27.572 | 50.00- 150.00 | 100.00 |
| 8.866 | 8.866 (1.152) | 120 | 168205 | | | 0.00- 72.00 | 22.06 |
| 8.866 | 8.866 (1.152) | 105 | 27092 | | | 0.00- 68.11 | 3.55 |
| 163 4-Ethyltoluene | | | | | CAS #: 622-96-8 | | |
| 8.959 | 8.959 (1.164) | 120 | 188020 | 25.0000 | 27.052 | 50.00- 150.00 | 100.00 |
| 8.959 | 8.959 (1.164) | 105 | 631137 | | | 275.52- 375.52 | 335.68 |
| 164 1,3,5-Trimethylbenzene | | | | | CAS #: 108-67-8 | | |
| 9.017 | 9.017 (1.171) | 120 | 253430 | 25.0000 | 27.755 | 50.00- 150.00 | 100.00 |
| 9.017 | 9.017 (1.171) | 105 | 525430 | | | 157.61- 257.61 | 207.33 |
| 166 1,2,4-Trimethylbenzene | | | | | CAS #: 95-63-6 | | |
| 9.332 | 9.332 (1.212) | 120 | 218804 | 25.0000 | 27.792 | 50.00- 150.00 | 100.00 |
| 9.332 | 9.332 (1.212) | 105 | 472426 | | | 171.83- 271.83 | 215.91 |
| 168 1,3-Dichlorobenzene | | | | | CAS #: 541-73-1 | | |
| 9.583 | 9.583 (1.245) | 146 | 285972 | 25.0000 | 25.953 | 50.00- 150.00 | 100.00 |
| 9.583 | 9.583 (1.245) | 148 | 181559 | | | 11.58- 111.58 | 63.49 |
| 9.583 | 9.583 (1.245) | 111 | 122337 | | | 0.00- 91.95 | 42.78 |
| 169 1,4-Dichlorobenzene | | | | | CAS #: 106-46-7 | | |
| 9.668 | 9.668 (1.256) | 146 | 287321 | 25.0000 | 26.397 | 50.00- 150.00 | 100.00 |
| 9.668 | 9.668 (1.256) | 148 | 180010 | | | 14.35- 114.35 | 62.65 |
| 9.668 | 9.668 (1.256) | 111 | 116017 | | | 0.00- 91.42 | 40.38 |
| 170 alpha-Chlorotoluene | | | | | CAS #: 100-44-7 | | |
| 9.783 | 9.783 (1.271) | 91 | 370844 | 25.0000 | 26.373 | 50.00- 150.00 | 100.00 |
| 9.783 | 9.783 (1.271) | 126 | 73369 | | | 0.00- 69.60 | 19.78 |
| 171 1,2-Dichlorobenzene | | | | | CAS #: 95-50-1 | | |
| 9.977 | 9.977 (1.296) | 146 | 253995 | 25.0000 | 26.289 | 50.00- 150.00 | 100.00 |
| 9.977 | 9.977 (1.296) | 148 | 159973 | | | 14.46- 114.46 | 62.98 |
| 9.977 | 9.977 (1.296) | 111 | 109871 | | | 0.00- 94.23 | 43.26 |
| 174 1,2,4-Trichlorobenzene | | | | | CAS #: 120-82-1 | | |
| 11.316 | 11.316 (1.470) | 180 | 141423 | 25.0000 | 22.976 | 50.00- 150.00 | 100.00 |
| 11.316 | 11.316 (1.470) | 182 | 134759 | | | 46.77- 146.77 | 95.29 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 175 Hexachlorobutadiene | | | | | CAS #: 87-68-3 | | |
| 11.416 | 11.416 (1.483) | 225 | 126340 | 25.0000 | 22.591 | 50.00- 150.00 | 100.00 |
| 11.416 | 11.416 (1.483) | 223 | 79427 | | | 13.27- 113.27 | 62.87 |
| 176 Naphthalene | | | | | CAS #: 91-20-3 | | |
| 11.524 | 11.524 (1.497) | 128 | 305853 | 25.0000 | 22.981 | 50.00- 150.00 | 100.00 |
| 11.524 | 11.524 (1.497) | 127 | 37535 | | | 0.00- 62.46 | 12.27 |

Report Date: 13-Mar-2010 09:23

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdp.i
Lab File ID: p031106.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: cr
Method File: /chem/msdp.i/11mar10.b/p10q0311a.m
Misc Info: 25ppbv (200ppbv)

Calibration Date: 11-MAR-2010
Calibration Time: 10:37
Client Smp ID: Level 4
Level: LOW
Sample Type: AIR

| | | AREA LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 76 Bromochloromethan | 104418 | 62651 | 146185 | 97322 | -6.80 |
| 97 1,4-Difluorobenze | 353421 | 212053 | 494789 | 332429 | -5.94 |
| 144 Chlorobenzene-d5 | 302185 | 181311 | 423059 | 269929 | -10.67 |

| | | RT LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 76 Bromochloromethan | 4.27 | 3.94 | 4.60 | 4.27 | 0.00 |
| 97 1,4-Difluorobenze | 5.23 | 4.90 | 5.56 | 5.23 | 0.00 |
| 144 Chlorobenzene-d5 | 7.70 | 7.37 | 8.03 | 7.70 | 0.00 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

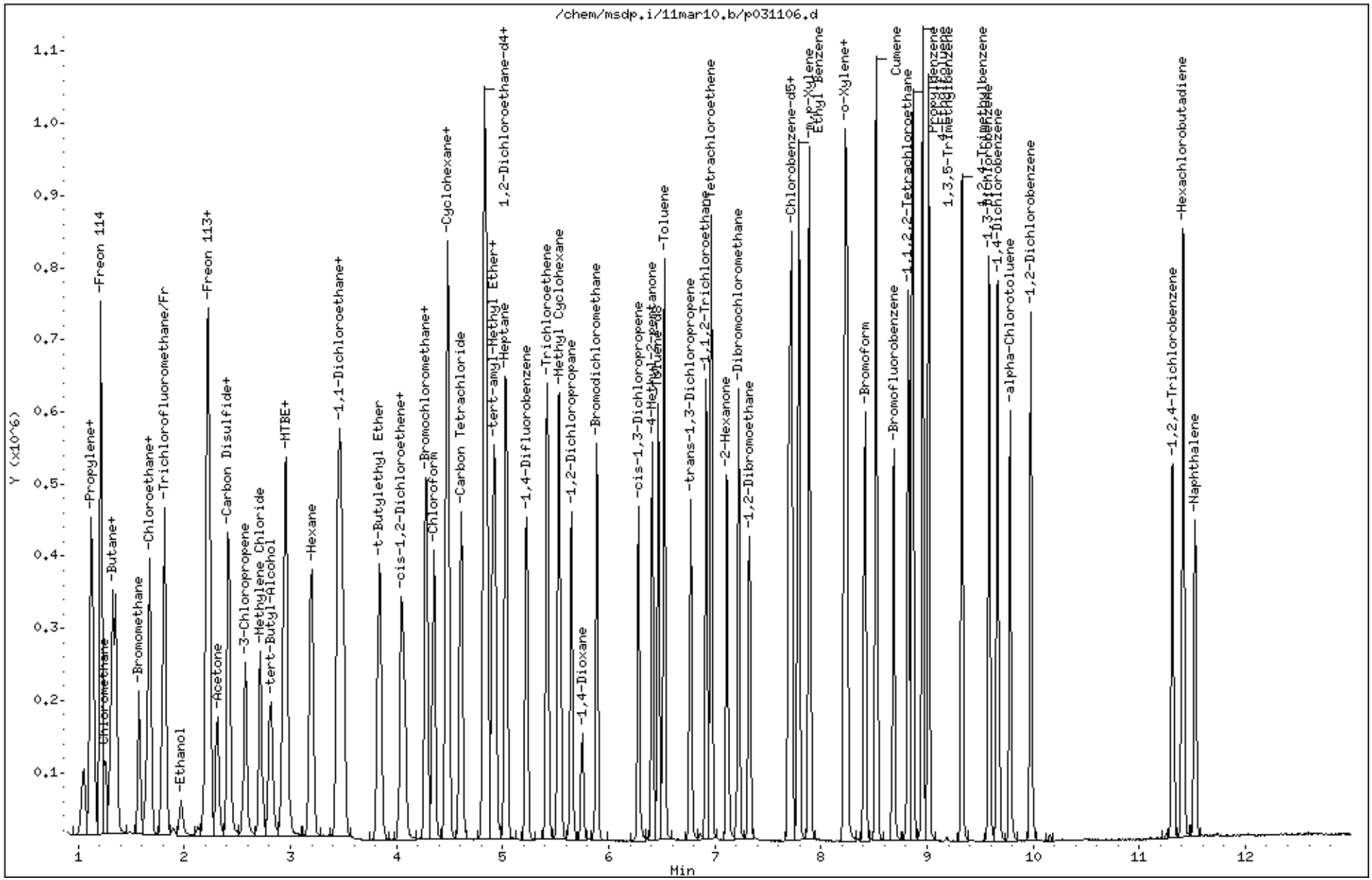
Data File: /chem/msdp.i/11mar10.b/p031106.d
Date : 11-MAR-2010 10:11
Client ID: Level 4
Sample Info: 25mL #1911-281

Instrument: msdp.i

Operator: cr

Column phase: RTx-624

Column diameter: 0.53



Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msdp.i/11mar10.b/p031116.d
Lab Smp Id: ICAL Client Smp ID: Level 5
Inj Date : 11-MAR-2010 15:01
Operator : cr Inst ID: msdp.i
Smp Info : 50mL #1911-123
Misc Info : 50ppbv (200ppbv)
Comment :
Method : /chem/msdp.i/11mar10.b/p10q0311a.m
Meth Date : 13-Mar-2010 10:28 jparker Quant Type: ISTD
Cal Date : 11-MAR-2010 15:01 Cal File: p031116.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: spAer.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| | | | | AMOUNTS | | | |
|---|---|---|---|---|---|---|---|
| | | | | CAL-AMT | ON-COL | | |
| RT | EXP RT (REL RT) | MASS | RESPONSE | ( PPBV) | ( PPBV) | TARGET RANGE | RATIO |
| == | ====== ======== | ==== | ======== | ======= | ======= | ========== | ===== |
| * 76 Bromochloromethane | | | | | CAS #: 74-97-5 | | |
| 4.275 | 4.275 (1.000) | 130 | 98264 | 25.0000 | | 80.00- 120.00 | 100.00 |
| 4.275 | 4.275 (1.000) | 128 | 76935 | | | 28.29- 128.29 | 78.29 |
| 4.275 | 4.275 (1.000) | 49 | 139127 | | | 91.58- 191.58 | 141.58 |
| * 97 1,4-Difluorobenzene | | | | | CAS #: 540-36-3 | | |
| 5.220 | 5.220 (1.000) | 114 | 341562 | 25.0000 | | 80.00- 120.00 | 100.00 |
| 5.220 | 5.220 (1.000) | 88 | 54683 | | | 0.00- 66.01 | 16.01 |
| * 144 Chlorobenzene-d5 | | | | | CAS #: 3114-55-4 | | |
| 7.684 | 7.684 (1.000) | 117 | 283469 | 25.0000 | | 80.00- 120.00 | 100.00 |
| 7.677 | 7.677 (1.000) | 82 | 162881 | | | 7.05- 107.05 | 57.46 |
| 17 Freon 143a | | | | | CAS #: 420-46-2 | | |
| 1.055 | 1.055 (0.247) | 65 | 60211 | 50.0000 | 61.857 | 80.00- 120.00 | 100.00 |
| 1.055 | 1.055 (0.247) | 69 | 299144 | | | 870.32- 970.32 | 496.82 |
| 1.055 | 1.055 (0.247) | 64 | 17074 | | | 184.72- 284.72 | 28.36 |
| 4 Freon 134a | | | | | CAS #: 811-97-2 | | |
| 1.083 | 1.083 (0.253) | 83 | 152585 | 50.0000 | 49.922 | 80.00- 120.00 | 100.00 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 4 Freon 134a (continued) | | | | | | | |
| 1.055 | 1.055 (0.247) | 69 | 299144 | | | 147.90- 247.90 | 196.05 |
| 1.083 | 1.083 (0.253) | 63 | 20031 | | | 0.00- 62.98 | 13.13 |
| 5 Freon 152a | | | | | CAS #: 75-37-6 | | |
| 1.125 | 1.125 (0.263) | 65 | 93523 | 50.0000 | 49.939 | 80.00- 120.00 | 100.00 |
| 1.153 | 1.153 (0.270) | 51 | 464455 | | | 438.61- 538.61 | 496.62 |
| 1.125 | 1.125 (0.263) | 47 | 43837 | | | 0.00- 96.01 | 46.87 |
| 9 Freon 22 | | | | | CAS #: 75-45-6 | | |
| 1.153 | 1.153 (0.270) | 67 | 44618 | 50.0000 | 45.050 | 80.00- 120.00 | 100.00 |
| 1.153 | 1.153 (0.270) | 51 | 464455 | | | 854.21- 954.21 | 1040.96 |
| 1.153 | 1.153 (0.270) | 85 | 4152 | | | 0.00- 99.91 | 9.31 |
| 16 Freon142b | | | | | CAS #: 75-68-3 | | |
| 1.237 | 1.237 (0.289) | 65 | 394647 | 50.0000 | 48.195 | 80.00- 120.00 | 100.00 |
| 1.237 | 1.237 (0.289) | 45 | 99095 | | | 0.00- 75.07 | 25.11 |
| 45 Dichlorofluoromethane/Fr21 | | | | | CAS #: 75-43-4 | | |
| 1.796 | 1.796 (0.420) | 67 | 560477 | 50.0000 | 47.712 | 80.00- 120.00 | 100.00 |
| 1.796 | 1.796 (0.420) | 69 | 181967 | | | 0.00- 82.58 | 32.47 |
| 1.796 | 1.796 (0.420) | 35 | 39415 | | | 0.00- 56.88 | 7.03 |
| 53 Freon123a | | | | | CAS #: 354-23-4 | | |
| 2.062 | 2.062 (0.482) | 117 | 230462 | 50.0000 | 45.855 | 80.00- 120.00 | 100.00 |
| 2.062 | 2.062 (0.482) | 67 | 421510 | | | 119.46- 219.46 | 182.90 |
| 54 Freon123 | | | | | CAS #: 306-83-2 | | |
| 2.140 | 2.140 (0.501) | 83 | 722994 | 50.0000 | 46.409 | 80.00- 120.00 | 100.00 |
| 2.140 | 2.140 (0.501) | 133 | 148292 | | | 0.00- 67.48 | 20.51 |
| 2.140 | 2.140 (0.501) | 85 | 392906 | | | 2.87- 102.87 | 54.34 |
| 62 Cyclopentene | | | | | CAS #: 142-29-0 | | |
| 2.606 | 2.606 (0.610) | 67 | 532417 | 50.0000 | 48.004 | 80.00- 120.00 | 100.00 |
| 2.606 | 2.606 (0.610) | 68 | 207968 | | | 0.00- 89.51 | 39.06 |
| 2.606 | 2.606 (0.610) | 53 | 104203 | | | 0.00- 70.45 | 19.57 |
| 63 1-Propanol | | | | | CAS #: 71-23-8 | | |
| 3.580 | 3.580 (0.837) | 59 | 48726 | 50.0000 | 51.223 | 80.00- 120.00 | 100.00 |
| 3.580 | 3.580 (0.837) | 42 | 49098 | | | 68.92- 168.92 | 100.76 |
| 3.587 | 3.587 (0.839) | 41 | 31369 | | | 44.60- 144.60 | 64.38 |
| 83 2,2-Dichloropropane | | | | | CAS #: 594-20-7 | | |
| 4.017 | 4.017 (0.940) | 77 | 459509 | 50.0000 | 49.794 | 80.00- 120.00 | 100.00 |
| 4.017 | 4.017 (0.940) | 79 | 148674 | | | 0.00- 82.36 | 32.36 |
| 4.017 | 4.017 (0.940) | 97 | 90045 | | | 0.00- 70.15 | 19.60 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 91 1,1-Dichloropropene | | | | | CAS #: 563-58-6 | | |
| 4.647 | 4.647 (0.890) | 110 | 142286 | 50.0000 | 48.631 | 80.00- 120.00 | 100.00 |
| 4.640 | 4.640 (0.889) | 75 | 406916 | | | 234.32- 334.32 | 285.98 |
| 90 Isobutanol | | | | | CAS #: 78-83-1 | | |
| 4.819 | 4.819 (1.127) | 41 | 164512 | 50.0000 | 47.837 | 80.00- 120.00 | 100.00 |
| 4.819 | 4.819 (1.127) | 43 | 213068 | | | 78.26- 178.26 | 129.52 |
| 4.826 | 4.826 (1.129) | 59 | 6470 | | | 0.00- 53.93 | 3.93 |
| 96 1-Butanol | | | | | CAS #: 71-36-3 | | |
| 5.414 | 5.414 (1.037) | 56 | 181152 | 50.0000 | 51.647 | 80.00- 120.00 | 100.00 |
| 5.414 | 5.414 (1.037) | 41 | 142673 | | | 39.10- 139.10 | 78.76 |
| 5.414 | 5.414 (1.037) | 43 | 109240 | | | 10.85- 110.85 | 60.30 |
| 108 1,3-Dichloropropane | | | | | CAS #: 142-28-9 | | |
| 7.047 | 7.047 (1.350) | 76 | 443658 | 50.0000 | 50.290 | 80.00- 120.00 | 100.00 |
| 7.047 | 7.047 (1.350) | 41 | 303672 | | | 18.45- 118.45 | 68.45 |
| 7.047 | 7.047 (1.350) | 78 | 141327 | | | 0.00- 82.69 | 31.86 |
| 110 Butyl Acetate | | | | | CAS #: 123-86-4 | | |
| 7.183 | 7.183 (1.376) | 56 | 287873 | 50.0000 | 50.009 | 80.00- 120.00 | 100.00 |
| 7.183 | 7.183 (1.376) | 73 | 114256 | | | 0.00- 89.69 | 39.69 |
| 7.183 | 7.183 (1.376) | 43 | 737726 | | | 206.27- 306.27 | 256.27 |
| 126 1,1,1,2-Tetrachloroethane | | | | | CAS #: 630-20-6 | | |
| 7.777 | 7.777 (1.012) | 131 | 332640 | 50.0000 | 52.042 | 80.00- 120.00 | 100.00 |
| 7.777 | 7.777 (1.012) | 117 | 236816 | | | 27.75- 127.75 | 71.19 |
| 7.777 | 7.777 (1.012) | 95 | 131677 | | | 0.00- 90.25 | 39.59 |
| 113 2-Heptanone | | | | | CAS #: 110-43-0 | | |
| 8.329 | 8.329 (1.948) | 58 | 381557 | 50.0000 | 50.700 | 80.00- 120.00 | 100.00 |
| 8.329 | 8.329 (1.948) | 43 | 641777 | | | 122.27- 222.27 | 168.20 |
| 117 Cyclohexanone | | | | | CAS #: 108-94-1 | | |
| 8.630 | 8.630 (1.123) | 55 | 262594 | 50.0000 | 50.049 | 80.00- 120.00 | 100.00 |
| 8.630 | 8.630 (1.123) | 98 | 108918 | | | 0.00- 89.81 | 41.48 |
| 8.630 | 8.630 (1.123) | 42 | 205571 | | | 25.43- 125.43 | 78.28 |
| 118 Bromobenzene | | | | | CAS #: 108-86-1 | | |
| 8.787 | 8.787 (1.144) | 156 | 299851 | 50.0000 | 49.068 | 80.00- 120.00 | 100.00 |
| 8.787 | 8.787 (1.144) | 158 | 288782 | | | 46.31- 146.31 | 96.31 |
| 8.787 | 8.787 (1.144) | 77 | 529232 | | | 129.56- 229.56 | 176.50 |
| 120 1,2,3-Trichloropropane | | | | | CAS #: 96-18-4 | | |
| 8.845 | 8.845 (1.151) | 110 | 157269 | 50.0000 | 49.682 | 80.00- 120.00 | 100.00 |
| 8.845 | 8.845 (1.151) | 75 | 431136 | | | 224.14- 324.14 | 274.14 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 120 1,2,3-Trichloropropane (continued) | | | | | | | |
| 8.845 | 8.845 (1.151) | 61 | 117413 | | | 22.50- 122.50 | 74.66 |
| 121 2-Chlorotoluene | | | | | CAS #: 95-49-8 | | |
| 8.938 | 8.938 (1.163) | 126 | 256878 | 50.0000 | 51.214 | 80.00- 120.00 | 100.00 |
| 8.938 | 8.938 (1.163) | 91 | 764787 | | | 247.72- 347.72 | 297.72 |
| 8.938 | 8.938 (1.163) | 65 | 75038 | | | 0.00- 79.82 | 29.21 |
| 122 4-Chlorotoluene | | | | | CAS #: 106-43-4 | | |
| 9.038 | 9.038 (1.176) | 126 | 259540 | 50.0000 | 49.449 | 80.00- 120.00 | 100.00 |
| 9.031 | 9.031 (1.175) | 91 | 778028 | | | 249.77- 349.77 | 299.77 |
| 9.031 | 9.031 (1.175) | 63 | 109861 | | | 0.00- 91.21 | 42.33 |
| 124 Diisobutyl Ketone | | | | | CAS #: 108-83-8 | | |
| 9.110 | 9.110 (1.185) | 57 | 647129 | 50.0000 | 50.206 | 80.00- 120.00 | 100.00 |
| 9.110 | 9.110 (1.185) | 85 | 552353 | | | 35.35- 135.35 | 85.35 |
| 125 tert-Butylbenzene | | | | | CAS #: 98-06-6 | | |
| 9.260 | 9.260 (1.205) | 119 | 858441 | 50.0000 | 49.992 | 80.00- 120.00 | 100.00 |
| 9.260 | 9.260 (1.205) | 134 | 214747 | | | 0.00- 75.02 | 25.02 |
| 9.260 | 9.260 (1.205) | 91 | 591047 | | | 18.47- 118.47 | 68.85 |
| 127 Pentachloroethane | | | | | CAS #: 76-01-7 | | |
| 9.303 | 9.303 (1.211) | 167 | 233034 | 50.0000 | 50.146 | 80.00- 120.00 | 100.00 |
| 9.303 | 9.303 (1.211) | 117 | 261941 | | | 62.35- 162.35 | 112.40 |
| 9.303 | 9.303 (1.211) | 169 | 110103 | | | 0.00- 96.70 | 47.25 |
| 129 sec-Butylbenzene | | | | | CAS #: 135-98-8 | | |
| 9.439 | 9.439 (1.228) | 134 | 253794 | 50.0000 | 51.793 | 80.00- 120.00 | 100.00 |
| 9.439 | 9.439 (1.228) | 105 | 1321850 | | | 470.84- 570.84 | 520.84 |
| 9.439 | 9.439 (1.228) | 91 | 208275 | | | 33.50- 133.50 | 82.06 |
| 132 p-Cymene | | | | | CAS #: 99-87-6 | | |
| 9.561 | 9.561 (1.244) | 119 | 1049453 | 50.0000 | 51.776 | 80.00- 120.00 | 100.00 |
| 9.561 | 9.561 (1.244) | 134 | 272827 | | | 0.00- 75.39 | 26.00 |
| 9.561 | 9.561 (1.244) | 91 | 253635 | | | 0.00- 74.45 | 24.17 |
| 133 1,2,3-Trimethylbenzene | | | | | CAS #: 526-73-8 | | |
| 9.661 | 9.661 (1.257) | 120 | 392587 | 50.0000 | 53.532 | 80.00- 120.00 | 100.00 |
| 9.661 | 9.661 (1.257) | 105 | 921500 | | | 184.72- 284.72 | 234.72 |
| 9.661 | 9.661 (1.257) | 77 | 124559 | | | 0.00- 83.29 | 31.73 |
| 136 Butylbenzene | | | | | CAS #: 104-51-8 | | |
| 9.898 | 9.898 (1.288) | 134 | 250204 | 50.0000 | 51.178 | 80.00- 120.00 | 100.00 |
| 9.898 | 9.898 (1.288) | 91 | 1029907 | | | 361.63- 461.63 | 411.63 |
| 9.898 | 9.898 (1.288) | 92 | 556933 | | | 166.94- 266.94 | 222.59 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 141 1,2-Dibromo-3-Chloropropane | | | | | CAS #: 96-12-8 | | |
| 10.621 | 10.621 (1.382) | 157 | 227352 | 50.0000 | 50.443 | 80.00- 120.00 | 100.00 |
| 10.621 | 10.621 (1.382) | 75 | 242781 | | | 56.79- 156.79 | 106.79 |
| 10.621 | 10.621 (1.382) | 155 | 177649 | | | 27.28- 127.28 | 78.14 |

Report Date: 13-Mar-2010 10:28

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdp.i
Lab File ID: p031116.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: cr
Method File: /chem/msdp.i/11mar10.b/p10q0311a.m
Misc Info: 50ppbv (200ppbv)

Calibration Date: 11-MAR-2010
Calibration Time: 15:01
Client Smp ID: Level 5
Level: LOW
Sample Type: AIR

| | | AREA LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 76 Bromochloromethan | 98264 | 58958 | 137570 | 98264 | 0.00 |
| 97 1,4-Difluorobenze | 341562 | 204937 | 478187 | 341562 | 0.00 |
| 144 Chlorobenzene-d5 | 283469 | 170081 | 396857 | 283469 | 0.00 |

| | | RT LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 76 Bromochloromethan | 4.27 | 3.94 | 4.60 | 4.27 | 0.00 |
| 97 1,4-Difluorobenze | 5.22 | 4.89 | 5.55 | 5.22 | 0.00 |
| 144 Chlorobenzene-d5 | 7.68 | 7.35 | 8.01 | 7.68 | 0.00 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msdp.i/11mar10.b/p031116.d

Date : 11-MAR-2010 15:01

Client ID: Level 5

Sample Info: 50mL #1911-123

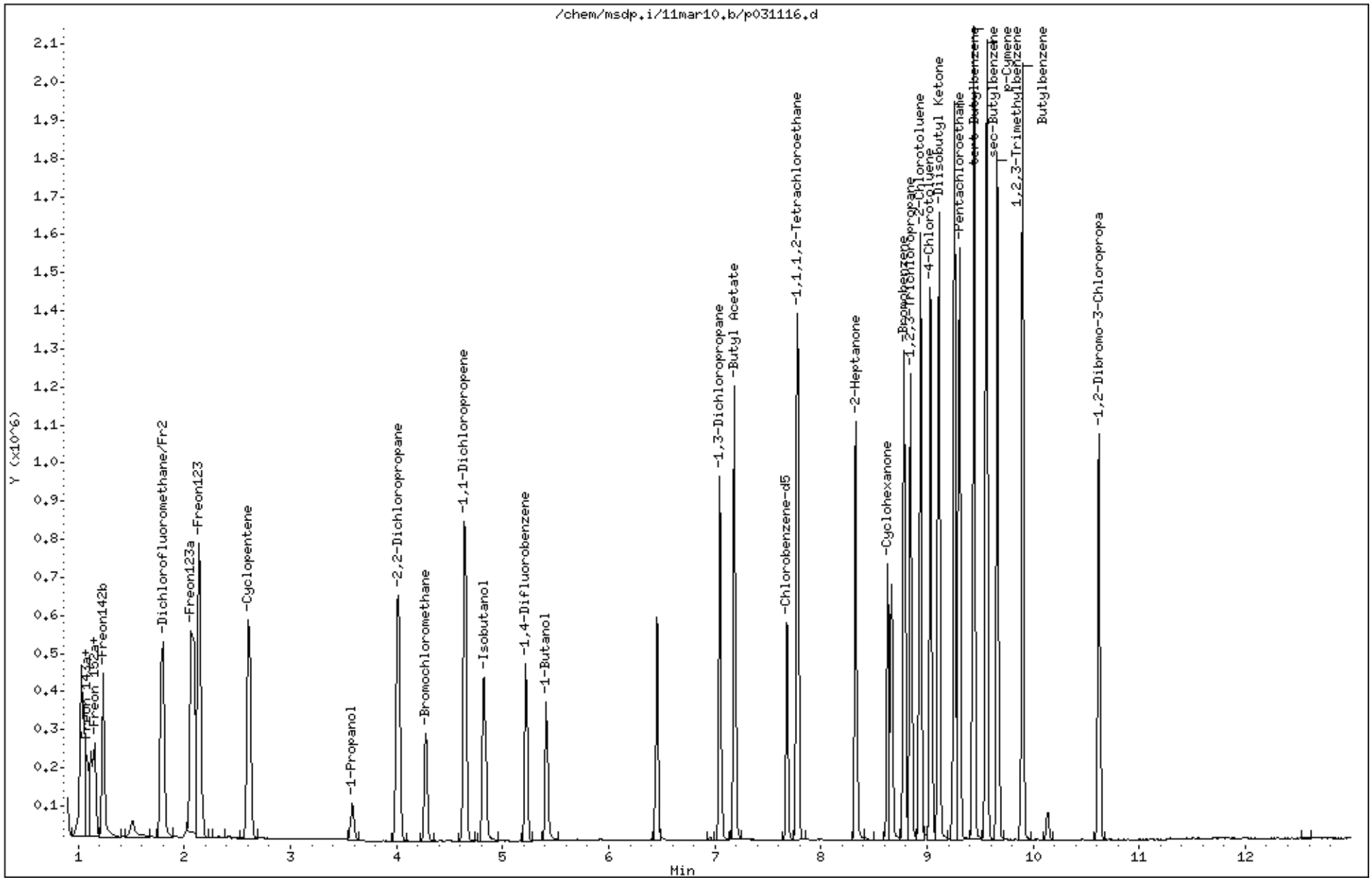
Column phase: RTx-624

Instrument: msdp.i

Operator: cr

Column diameter: 0.53





Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msdp.i/11mar10.b/p031107.d
Lab Smp Id: ICAL Client Smp ID: Level 5
Inj Date : 11-MAR-2010 10:37
Operator : cr Inst ID: msdp.i
Smp Info : 50mL #1911-281
Misc Info : 50ppbv (200ppbv)
Comment :
Method : /chem/msdp.i/11mar10.b/p10q0311a.m
Meth Date : 13-Mar-2010 09:23 jparker Quant Type: ISTD
Cal Date : 11-MAR-2010 15:01 Cal File: p031116.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT09.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| | | | | AMOUNTS | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | CAL-AMT | ON-COL | | | |
| RT | EXP RT (REL RT) | MASS | RESPONSE | ( PPBV) | ( PPBV) | TARGET RANGE | | RATIO |
| == | ====== ======== | ==== | ======== | ======= | ======= | ========== | | ===== |
| * 76 Bromochloromethane | | | | | CAS #: 74-97-5 | | | |
| 4.275 | 4.275 (1.000) | 130 | 104418 | 25.0000 | | 80.00- 120.00 | | 100.00 |
| 4.275 | 4.275 (1.000) | 128 | 81732 | | | 28.27- 128.27 | | 78.27 |
| 4.275 | 4.275 (1.000) | 49 | 146303 | | | 90.11- 190.11 | | 140.11 |
| * 97 1,4-Difluorobenzene | | | | | CAS #: 540-36-3 | | | |
| 5.227 | 5.227 (1.000) | 114 | 353421 | 25.0000 | | 80.00- 120.00 | | 100.00 |
| 5.220 | 5.220 (1.000) | 88 | 55964 | | | 0.00- 65.83 | | 15.83 |
| * 144 Chlorobenzene-d5 | | | | | CAS #: 3114-55-4 | | | |
| 7.699 | 7.699 (1.000) | 117 | 302185 | 25.0000 | | 80.00- 120.00 | | 100.00 |
| 7.699 | 7.699 (1.000) | 82 | 171232 | | | 6.75- 106.75 | | 56.66 |
| $ 89 1,2-Dichloroethane-d4 | | | | | CAS #: 17060-07-0 | | | |
| 4.833 | 4.833 (1.131) | 65 | 142032 | 25.0000 | 25.396 | 80.00- 120.00 | | 100.00 |
| 4.833 | 4.833 (1.131) | 67 | 84627 | | | 6.22- 106.22 | | 59.58 |
| $ 115 Toluene-d8 | | | | | CAS #: 2037-26-5 | | | |
| 6.467 | 6.467 (1.237) | 98 | 381728 | 25.0000 | 26.188 | 80.00- 120.00 | | 100.00 |
| 6.467 | 6.467 (1.237) | 70 | 43801 | | | 0.00- 61.60 | | 11.47 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 115 Toluene-d8 (continued) | | | | | | | |
| 6.467 | 6.467 (1.237) | 100 | 249170 | | | 15.04- 115.04 | 65.27 |
| $ 159 Bromofluorobenzene | | | | | CAS #: 460-00-4 | | |
| 8.687 | 8.687 (1.128) | 174 | 140355 | 25.0000 | 25.373 | 80.00- 120.00 | 100.00 |
| 8.687 | 8.687 (1.128) | 95 | 191481 | | | 86.43- 186.43 | 136.43 |
| 8.687 | 8.687 (1.128) | 176 | 134887 | | | 46.10- 146.10 | 96.10 |
| 6 Propylene | | | | | CAS #: 115-07-1 | | |
| 1.111 | 1.111 (0.260) | 41 | 216086 | 50.0000 | 50.300 | 80.00- 120.00 | 100.00 |
| 1.111 | 1.111 (0.260) | 42 | 145500 | | | 16.22- 116.22 | 67.33 |
| 1.111 | 1.111 (0.260) | 39 | 161733 | | | 23.14- 123.14 | 74.85 |
| 7 Dichlorodifluoromethane/Fr12 | | | | | CAS #: 75-71-8 | | |
| 1.139 | 1.139 (0.266) | 85 | 774366 | 50.0000 | 51.682 | 80.00- 120.00 | 100.00 |
| 1.139 | 1.139 (0.266) | 87 | 251575 | | | 0.00- 81.77 | 32.49 |
| 10 Freon 114 | | | | | CAS #: 76-14-2 | | |
| 1.209 | 1.209 (0.283) | 135 | 560835 | 50.0000 | 51.336 | 80.00- 120.00 | 100.00 |
| 1.209 | 1.209 (0.283) | 137 | 176463 | | | 0.00- 81.46 | 31.46 |
| 11 Chloromethane | | | | | CAS #: 74-87-3 | | |
| 1.251 | 1.251 (0.293) | 50 | 205528 | 50.0000 | 58.404 | 80.00- 120.00 | 100.00 |
| 1.265 | 1.265 (0.296) | 52 | 64891 | | | 0.00- 85.01 | 31.57 |
| 13 Butane | | | | | CAS #: 106-97-8 | | |
| 1.320 | 1.320 (0.309) | 58 | 61254 | 50.0000 | 56.570 | 80.00- 120.00 | 100.00 |
| 1.320 | 1.320 (0.309) | 43 | 471410 | | | 664.85- 764.85 | 769.60 |
| 14 Vinyl Chloride | | | | | CAS #: 75-01-4 | | |
| 1.334 | 1.334 (0.312) | 62 | 294049 | 50.0000 | 52.953 | 80.00- 120.00 | 100.00 |
| 1.334 | 1.334 (0.312) | 64 | 94110 | | | 0.00- 88.01 | 32.00 |
| 15 1,3-Butadiene | | | | | CAS #: 106-99-0 | | |
| 1.348 | 1.348 (0.315) | 54 | 228903 | 50.0000 | 51.389 | 80.00- 120.00 | 100.00 |
| 1.348 | 1.348 (0.315) | 39 | 268195 | | | 67.29- 167.29 | 117.17 |
| 21 Bromomethane | | | | | CAS #: 74-83-9 | | |
| 1.572 | 1.572 (0.368) | 94 | 258649 | 50.0000 | 53.822 | 80.00- 120.00 | 100.00 |
| 1.572 | 1.572 (0.368) | 96 | 239422 | | | 42.57- 142.57 | 92.57 |
| 24 Chloroethane | | | | | CAS #: 75-00-3 | | |
| 1.642 | 1.642 (0.384) | 64 | 160399 | 50.0000 | 54.998 | 80.00- 120.00 | 100.00 |
| 1.642 | 1.642 (0.384) | 66 | 51084 | | | 0.00- 89.11 | 31.85 |
| 1.642 | 1.642 (0.384) | 49 | 43757 | | | 0.00- 79.55 | 27.28 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 25 Isopentane | | | | | CAS #: 78-78-4 | | |
| 1.670 | 1.670 (0.391) | 43 | 364139 | 50.0000 | 55.977 | 80.00- 120.00 | 100.00 |
| 1.670 | 1.670 (0.391) | 57 | 233589 | | | 25.98- 125.98 | 64.15 |
| 28 Trichlorofluoromethane/Fr11 | | | | | CAS #: 75-69-4 | | |
| 1.810 | 1.810 (0.423) | 101 | 818362 | 50.0000 | 53.814 | 80.00- 120.00 | 100.00 |
| 1.810 | 1.810 (0.423) | 103 | 521541 | | | 13.73- 113.73 | 63.73 |
| 29 Ethanol | | | | | CAS #: 64-17-5 | | |
| 1.964 | 1.964 (0.459) | 45 | 111088 | 50.0000 | 47.762 | 80.00- 120.00 | 100.00 |
| 1.964 | 1.964 (0.459) | 43 | 27511 | | | 0.00- 84.20 | 24.77 |
| 1.964 | 1.964 (0.459) | 46 | 45604 | | | 0.00- 96.43 | 41.05 |
| 30 Freon 113 | | | | | CAS #: 76-13-1 | | |
| 2.219 | 2.219 (0.519) | 151 | 453493 | 50.0000 | 50.682 | 80.00- 120.00 | 100.00 |
| 2.212 | 2.212 (0.517) | 153 | 290566 | | | 14.07- 114.07 | 64.07 |
| 2.212 | 2.212 (0.517) | 101 | 599760 | | | 82.25- 182.25 | 132.25 |
| 32 1,1-Dichloroethene | | | | | CAS #: 75-35-4 | | |
| 2.233 | 2.233 (0.522) | 98 | 179564 | 50.0000 | 50.226 | 80.00- 120.00 | 100.00 |
| 2.233 | 2.233 (0.522) | 96 | 284066 | | | 108.20- 208.20 | 158.20 |
| 2.233 | 2.233 (0.522) | 61 | 482229 | | | 218.56- 318.56 | 268.56 |
| 34 Acetone | | | | | CAS #: 67-64-1 | | |
| 2.305 | 2.305 (0.539) | 58 | 134170 | 50.0000 | 47.845 | 80.00- 120.00 | 100.00 |
| 2.312 | 2.312 (0.541) | 43 | 447305 | | | 281.49- 381.49 | 333.39 |
| 35 Carbon Disulfide | | | | | CAS #: 75-15-0 | | |
| 2.412 | 2.412 (0.564) | 76 | 830276 | 50.0000 | 49.460 | 80.00- 120.00 | 100.00 |
| 37 2-Propanol | | | | | CAS #: 67-63-0 | | |
| 2.420 | 2.420 (0.566) | 45 | 496186 | 50.0000 | 48.856 | 80.00- 120.00 | 100.00 |
| 2.420 | 2.420 (0.566) | 43 | 111974 | | | 0.00- 72.19 | 22.57 |
| 2.420 | 2.420 (0.566) | 59 | 19075 | | | 0.00- 77.65 | 3.84 |
| 41 3-Chloropropene | | | | | CAS #: 107-05-1 | | |
| 2.577 | 2.577 (0.603) | 76 | 128913 | 50.0000 | 50.176 | 80.00- 120.00 | 100.00 |
| 2.577 | 2.577 (0.603) | 41 | 395904 | | | 257.61- 357.61 | 307.11 |
| 43 Methylene Chloride | | | | | CAS #: 75-09-2 | | |
| 2.713 | 2.713 (0.635) | 49 | 344151 | 50.0000 | 48.531 | 80.00- 120.00 | 100.00 |
| 2.713 | 2.713 (0.635) | 84 | 256945 | | | 24.66- 124.66 | 74.66 |
| 2.713 | 2.713 (0.635) | 51 | 106531 | | | 0.00- 81.57 | 30.95 |
| 46 tert-Butyl-Alcohol | | | | | CAS #: 75-65-0 | | |
| 2.814 | 2.814 (0.658) | 59 | 537116 | 50.0000 | 49.598 | 80.00- 120.00 | 100.00 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 46 tert-Butyl-Alcohol (continued) | | | | | | | |
| 2.814 | 2.814 (0.658) | 41 | 150547 | | | 0.00- 77.85 | 28.03 |
| 2.814 | 2.814 (0.658) | 57 | 56396 | | | 0.00- 61.24 | 10.50 |
| 47 MTBE | | | | | CAS #: 1634-04-4 | | |
| 2.942 | 2.942 (0.688) | 73 | 769696 | 50.0000 | 51.430 | 80.00- 120.00 | 100.00 |
| 2.942 | 2.942 (0.688) | 57 | 179358 | | | 0.00- 73.30 | 23.30 |
| 2.942 | 2.942 (0.688) | 41 | 201841 | | | 0.00- 76.94 | 26.22 |
| 48 trans-1,2-Dichloroethene | | | | | CAS #: 156-60-5 | | |
| 2.957 | 2.957 (0.692) | 98 | 188666 | 50.0000 | 50.654 | 80.00- 120.00 | 100.00 |
| 2.957 | 2.957 (0.692) | 61 | 445193 | | | 185.97- 285.97 | 235.97 |
| 2.957 | 2.957 (0.692) | 96 | 300968 | | | 111.49- 211.49 | 159.52 |
| 51 Hexane | | | | | CAS #: 110-54-3 | | |
| 3.200 | 3.200 (0.749) | 57 | 464933 | 50.0000 | 51.250 | 80.00- 120.00 | 100.00 |
| 3.200 | 3.200 (0.749) | 43 | 316709 | | | 17.17- 117.17 | 68.12 |
| 3.200 | 3.200 (0.749) | 86 | 74216 | | | 0.00- 70.58 | 15.96 |
| 59 1,1-Dichloroethane | | | | | CAS #: 75-34-3 | | |
| 3.444 | 3.444 (0.806) | 63 | 552890 | 50.0000 | 49.931 | 80.00- 120.00 | 100.00 |
| 3.444 | 3.444 (0.806) | 65 | 175438 | | | 0.00- 81.73 | 31.73 |
| 58 Isopropyl ether | | | | | CAS #: 108-20-3 | | |
| 3.465 | 3.465 (0.811) | 45 | 1086164 | 50.0000 | 52.818 | 80.00- 120.00 | 100.00 |
| 3.465 | 3.465 (0.811) | 87 | 258727 | | | 0.00- 73.95 | 23.82 |
| 3.473 | 3.473 (0.812) | 59 | 117852 | | | 0.00- 60.65 | 10.85 |
| 61 Vinyl Acetate | | | | | CAS #: 108-05-4 | | |
| 3.494 | 3.494 (0.817) | 86 | 68777 | 50.0000 | 51.260 | 80.00- 120.00 | 100.00 |
| 3.494 | 3.494 (0.817) | 43 | 1295546 | | | 1854.64-1954.64 | 1883.69 |
| 68 t-Butylethyl Ether | | | | | CAS #: 637-92-3 | | |
| 3.838 | 3.838 (0.898) | 59 | 843428 | 50.0000 | 52.247 | 80.00- 120.00 | 100.00 |
| 3.838 | 3.838 (0.898) | 87 | 333522 | | | 0.00- 89.71 | 39.54 |
| 3.838 | 3.838 (0.898) | 41 | 184052 | | | 0.00- 72.53 | 21.82 |
| 73 cis-1,2-Dichloroethene | | | | | CAS #: 156-59-2 | | |
| 4.046 | 4.046 (0.946) | 98 | 187804 | 50.0000 | 51.300 | 80.00- 120.00 | 100.00 |
| 4.046 | 4.046 (0.946) | 96 | 296464 | | | 107.86- 207.86 | 157.86 |
| 4.046 | 4.046 (0.946) | 61 | 401469 | | | 163.77- 263.77 | 213.77 |
| 74 2-Butanone | | | | | CAS #: 78-93-3 | | |
| 4.074 | 4.074 (0.953) | 72 | 148305 | 50.0000 | 53.948 | 80.00- 120.00 | 100.00 |
| 4.067 | 4.067 (0.951) | 43 | 626819 | | | 372.66- 472.66 | 422.66 |
| 4.074 | 4.074 (0.953) | 57 | 46063 | | | 25.94- 125.94 | 31.06 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 75 Tetrahydrofuran | | | | | CAS #: 109-99-9 | | |
| 4.282 | 4.282 (1.002) | 42 | 353516 | 50.0000 | 50.286 | 80.00- 120.00 | 100.00 |
| 4.282 | 4.282 (1.002) | 71 | 129069 | | | 0.00- 84.34 | 36.51 |
| 4.282 | 4.282 (1.002) | 72 | 137784 | | | 0.00- 88.12 | 38.98 |
| 78 Chloroform | | | | | CAS #: 67-66-3 | | |
| 4.354 | 4.354 (1.018) | 83 | 596002 | 50.0000 | 50.207 | 80.00- 120.00 | 100.00 |
| 4.354 | 4.354 (1.018) | 85 | 386446 | | | 14.84- 114.84 | 64.84 |
| 80 Cyclohexane | | | | | CAS #: 110-82-7 | | |
| 4.475 | 4.475 (1.047) | 84 | 384201 | 50.0000 | 53.126 | 80.00- 120.00 | 100.00 |
| 4.475 | 4.475 (1.047) | 56 | 464715 | | | 70.96- 170.96 | 120.96 |
| 4.475 | 4.475 (1.047) | 41 | 278404 | | | 22.46- 122.46 | 72.46 |
| 81 1,1,1-Trichloroethane | | | | | CAS #: 71-55-6 | | |
| 4.482 | 4.482 (1.049) | 97 | 586937 | 50.0000 | 52.509 | 80.00- 120.00 | 100.00 |
| 4.482 | 4.482 (1.049) | 99 | 371220 | | | 13.25- 113.25 | 63.25 |
| 82 Carbon Tetrachloride | | | | | CAS #: 56-23-5 | | |
| 4.611 | 4.611 (1.079) | 119 | 556630 | 50.0000 | 49.247 | 80.00- 120.00 | 100.00 |
| 4.611 | 4.611 (1.079) | 117 | 578791 | | | 53.98- 153.98 | 103.98 |
| 87 2,2,4-Trimethylpentane | | | | | CAS #: 540-84-1 | | |
| 4.848 | 4.848 (1.134) | 57 | 1438956 | 50.0000 | 54.709 | 80.00- 120.00 | 100.00 |
| 4.848 | 4.848 (1.134) | 56 | 471406 | | | 0.00- 88.69 | 32.76 |
| 4.848 | 4.848 (1.134) | 41 | 390868 | | | 0.00- 79.27 | 27.16 |
| 88 Benzene | | | | | CAS #: 71-43-2 | | |
| 4.819 | 4.819 (0.922) | 78 | 850539 | 50.0000 | 50.374 | 80.00- 120.00 | 100.00 |
| 4.826 | 4.826 (0.923) | 77 | 201580 | | | 0.00- 74.11 | 23.70 |
| 92 tert-amyl-Methyl Ether | | | | | CAS #: 994-05-8 | | |
| 4.927 | 4.927 (1.152) | 73 | 727505 | 50.0000 | 51.603 | 80.00- 120.00 | 100.00 |
| 4.927 | 4.927 (1.152) | 87 | 164531 | | | 0.00- 73.17 | 22.62 |
| 4.927 | 4.927 (1.152) | 55 | 223021 | | | 0.00- 81.18 | 30.66 |
| 93 1,2-Dichloroethane | | | | | CAS #: 107-06-2 | | |
| 4.905 | 4.905 (0.938) | 62 | 392601 | 50.0000 | 49.853 | 80.00- 120.00 | 100.00 |
| 4.905 | 4.905 (0.938) | 64 | 127506 | | | 0.00- 82.38 | 32.48 |
| 94 Heptane | | | | | CAS #: 142-82-5 | | |
| 5.027 | 5.027 (0.962) | 71 | 309123 | 50.0000 | 51.752 | 80.00- 120.00 | 100.00 |
| 5.027 | 5.027 (0.962) | 43 | 557640 | | | 135.49- 235.49 | 180.39 |
| 5.027 | 5.027 (0.962) | 57 | 308587 | | | 48.06- 148.06 | 99.83 |
| 102 Trichloroethene | | | | | CAS #: 79-01-6 | | |
| 5.421 | 5.421 (1.037) | 95 | 361322 | 50.0000 | 50.518 | 80.00- 120.00 | 100.00 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 102 Trichloroethene (continued) | | | | | | | |
| 5.421 | 5.421 (1.037) | 130 | 373458 | | | 53.36- 153.36 | 103.36 |
| 5.421 | 5.421 (1.037) | 97 | 228835 | | | 13.33- 113.33 | 63.33 |
| 104 Methyl Cyclohexane | | | | | CAS #: 108-87-2 | | |
| 5.535 | 5.535 (1.295) | 83 | 501771 | 50.0000 | 54.074 | 80.00- 120.00 | 100.00 |
| 5.535 | 5.535 (1.295) | 98 | 244023 | | | 0.00- 96.78 | 48.63 |
| 5.535 | 5.535 (1.295) | 55 | 414353 | | | 33.43- 133.43 | 82.58 |
| 106 1,2-Dichloropropane | | | | | CAS #: 78-87-5 | | |
| 5.650 | 5.650 (1.081) | 63 | 307055 | 50.0000 | 50.554 | 80.00- 120.00 | 100.00 |
| 5.650 | 5.650 (1.081) | 62 | 218912 | | | 21.29- 121.29 | 71.29 |
| 5.650 | 5.650 (1.081) | 41 | 191938 | | | 12.51- 112.51 | 62.51 |
| 107 1,4-Dioxane | | | | | CAS #: 123-91-1 | | |
| 5.750 | 5.750 (1.100) | 88 | 185222 | 50.0000 | 52.053 | 80.00- 120.00 | 100.00 |
| 5.750 | 5.750 (1.100) | 58 | 132757 | | | 21.67- 121.67 | 71.67 |
| 5.750 | 5.750 (1.100) | 57 | 43962 | | | 0.00- 73.47 | 23.73 |
| 109 Bromodichloromethane | | | | | CAS #: 75-27-4 | | |
| 5.886 | 5.886 (1.126) | 83 | 596819 | 50.0000 | 50.770 | 80.00- 120.00 | 100.00 |
| 5.886 | 5.886 (1.126) | 85 | 378672 | | | 13.45- 113.45 | 63.45 |
| 112 cis-1,3-Dichloropropene | | | | | CAS #: 10061-01-5 | | |
| 6.280 | 6.280 (1.201) | 75 | 435566 | 50.0000 | 51.765 | 80.00- 120.00 | 100.00 |
| 6.280 | 6.280 (1.201) | 77 | 138672 | | | 0.00- 81.84 | 31.84 |
| 6.280 | 6.280 (1.201) | 39 | 251754 | | | 7.80- 107.80 | 57.80 |
| 114 4-Methyl-2-pentanone | | | | | CAS #: 108-10-1 | | |
| 6.409 | 6.409 (1.226) | 58 | 257818 | 50.0000 | 53.265 | 80.00- 120.00 | 100.00 |
| 6.409 | 6.409 (1.226) | 43 | 713067 | | | 237.60- 337.60 | 276.58 |
| 6.409 | 6.409 (1.226) | 85 | 108814 | | | 0.00- 99.98 | 42.21 |
| 116 Toluene | | | | | CAS #: 108-88-3 | | |
| 6.524 | 6.524 (1.248) | 91 | 1012761 | 50.0000 | 51.668 | 80.00- 120.00 | 100.00 |
| 6.524 | 6.524 (1.248) | 92 | 585253 | | | 7.79- 107.79 | 57.79 |
| 123 trans-1,3-Dichloropropene | | | | | CAS #: 10061-02-6 | | |
| 6.775 | 6.775 (0.880) | 75 | 448037 | 50.0000 | 49.290 | 80.00- 120.00 | 100.00 |
| 6.775 | 6.775 (0.880) | 77 | 143810 | | | 0.00- 82.10 | 32.10 |
| 6.768 | 6.768 (0.879) | 39 | 246837 | | | 5.09- 105.09 | 55.09 |
| 128 1,1,2-Trichloroethane | | | | | CAS #: 79-00-5 | | |
| 6.918 | 6.918 (0.899) | 97 | 334059 | 50.0000 | 48.382 | 80.00- 120.00 | 100.00 |
| 6.918 | 6.918 (0.899) | 99 | 209323 | | | 12.66- 112.66 | 62.66 |
| 6.918 | 6.918 (0.899) | 83 | 287382 | | | 36.03- 136.03 | 86.03 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 131 Tetrachloroethene | | | | | CAS #: 127-18-4 | | |
| 6.968 | 6.968 (0.905) | 166 | 443238 | 50.0000 | 49.496 | 80.00- 120.00 | 100.00 |
| 6.968 | 6.968 (0.905) | 129 | 337166 | | | 26.07- 126.07 | 76.07 |
| 6.968 | 6.968 (0.905) | 131 | 321666 | | | 22.57- 122.57 | 72.57 |
| 135 2-Hexanone | | | | | CAS #: 591-78-6 | | |
| 7.111 | 7.111 (0.924) | 58 | 340183 | 50.0000 | 52.096 | 80.00- 120.00 | 100.00 |
| 7.111 | 7.111 (0.924) | 43 | 672233 | | | 147.61- 247.61 | 197.61 |
| 7.111 | 7.111 (0.924) | 100 | 65767 | | | 0.00- 69.68 | 19.33 |
| 138 Dibromochloromethane | | | | | CAS #: 124-48-1 | | |
| 7.226 | 7.226 (0.939) | 129 | 582856 | 50.0000 | 50.822 | 80.00- 120.00 | 100.00 |
| 7.226 | 7.226 (0.939) | 127 | 455372 | | | 27.83- 127.83 | 78.13 |
| 140 1,2-Dibromoethane | | | | | CAS #: 106-93-4 | | |
| 7.326 | 7.326 (0.952) | 107 | 512614 | 50.0000 | 50.767 | 80.00- 120.00 | 100.00 |
| 7.326 | 7.326 (0.952) | 109 | 485672 | | | 44.74- 144.74 | 94.74 |
| 145 Chlorobenzene | | | | | CAS #: 108-90-7 | | |
| 7.720 | 7.720 (1.003) | 112 | 760835 | 50.0000 | 50.014 | 80.00- 120.00 | 100.00 |
| 7.720 | 7.720 (1.003) | 114 | 240451 | | | 0.00- 81.60 | 31.60 |
| 7.720 | 7.720 (1.003) | 77 | 437407 | | | 7.49- 107.49 | 57.49 |
| 147 Ethyl Benzene | | | | | CAS #: 100-41-4 | | |
| 7.792 | 7.792 (1.012) | 106 | 391280 | 50.0000 | 51.643 | 80.00- 120.00 | 100.00 |
| 7.792 | 7.792 (1.012) | 91 | 1238638 | | | 270.93- 370.93 | 316.56 |
| 150 m,p-Xylene | | | | | CAS #: 108-38-3 | | |
| 7.892 | 7.892 (1.025) | 106 | 490472 | 50.0000 | 52.026 | 80.00- 120.00 | 100.00 |
| 7.892 | 7.892 (1.025) | 91 | 985214 | | | 151.38- 251.38 | 200.87 |
| 153 o-Xylene | | | | | CAS #: 95-47-6 | | |
| 8.222 | 8.222 (1.068) | 106 | 456061 | 50.0000 | 53.003 | 80.00- 120.00 | 100.00 |
| 8.222 | 8.222 (1.068) | 91 | 958653 | | | 160.20- 260.20 | 210.20 |
| 154 Styrene | | | | | CAS #: 100-42-5 | | |
| 8.243 | 8.243 (1.071) | 104 | 739200 | 50.0000 | 52.391 | 80.00- 120.00 | 100.00 |
| 8.243 | 8.243 (1.071) | 78 | 380442 | | | 1.47- 101.47 | 51.47 |
| 155 Bromoform | | | | | CAS #: 75-25-2 | | |
| 8.415 | 8.415 (1.093) | 173 | 494949 | 50.0000 | 52.233 | 80.00- 120.00 | 100.00 |
| 8.415 | 8.415 (1.093) | 171 | 254737 | | | 1.47- 101.47 | 51.47 |
| 156 Cumene | | | | | CAS #: 98-82-8 | | |
| 8.522 | 8.522 (1.107) | 105 | 1358183 | 50.0000 | 52.150 | 80.00- 120.00 | 100.00 |
| 8.522 | 8.522 (1.107) | 120 | 361157 | | | 0.00- 76.38 | 26.59 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 156 Cumene (continued) | | | | | | | |
| 8.522 | 8.522 (1.107) | 51 | 140406 | | | 0.00- 60.64 | 10.34 |
| 161 1,1,2,2-Tetrachloroethane | | | | | CAS #: 79-34-5 | | |
| 8.823 | 8.823 (1.146) | 83 | 681519 | 50.0000 | 50.605 | 80.00- 120.00 | 100.00 |
| 8.823 | 8.823 (1.146) | 85 | 442498 | | | 14.93- 114.93 | 64.93 |
| 162 Propylbenzene | | | | | CAS #: 103-65-1 | | |
| 8.866 | 8.866 (1.152) | 91 | 1615265 | 50.0000 | 52.174 | 80.00- 120.00 | 100.00 |
| 8.866 | 8.866 (1.152) | 120 | 363047 | | | 0.00- 72.00 | 22.48 |
| 8.866 | 8.866 (1.152) | 105 | 58161 | | | 0.00- 68.11 | 3.60 |
| 163 4-Ethyltoluene | | | | | CAS #: 622-96-8 | | |
| 8.959 | 8.959 (1.164) | 120 | 406010 | 50.0000 | 52.180 | 80.00- 120.00 | 100.00 |
| 8.959 | 8.959 (1.164) | 105 | 1360196 | | | 285.02- 385.02 | 335.02 |
| 164 1,3,5-Trimethylbenzene | | | | | CAS #: 108-67-8 | | |
| 9.017 | 9.017 (1.171) | 120 | 551119 | 50.0000 | 53.914 | 80.00- 120.00 | 100.00 |
| 9.017 | 9.017 (1.171) | 105 | 1127345 | | | 157.61- 257.61 | 204.56 |
| 166 1,2,4-Trimethylbenzene | | | | | CAS #: 95-63-6 | | |
| 9.332 | 9.332 (1.212) | 120 | 475084 | 50.0000 | 53.902 | 80.00- 120.00 | 100.00 |
| 9.332 | 9.332 (1.212) | 105 | 1040252 | | | 171.83- 271.83 | 218.96 |
| 168 1,3-Dichlorobenzene | | | | | CAS #: 541-73-1 | | |
| 9.583 | 9.583 (1.245) | 146 | 621605 | 50.0000 | 50.392 | 80.00- 120.00 | 100.00 |
| 9.590 | 9.590 (1.246) | 148 | 393846 | | | 11.58- 111.58 | 63.36 |
| 9.583 | 9.583 (1.245) | 111 | 263894 | | | 0.00- 91.95 | 42.45 |
| 169 1,4-Dichlorobenzene | | | | | CAS #: 106-46-7 | | |
| 9.669 | 9.669 (1.256) | 146 | 626988 | 50.0000 | 51.455 | 80.00- 120.00 | 100.00 |
| 9.669 | 9.669 (1.256) | 148 | 397187 | | | 14.35- 114.35 | 63.35 |
| 9.669 | 9.669 (1.256) | 111 | 252617 | | | 0.00- 91.42 | 40.29 |
| 170 alpha-Chlorotoluene | | | | | CAS #: 100-44-7 | | |
| 9.783 | 9.783 (1.271) | 91 | 840574 | 50.0000 | 53.397 | 80.00- 120.00 | 100.00 |
| 9.783 | 9.783 (1.271) | 126 | 169176 | | | 0.00- 69.60 | 20.13 |
| 171 1,2-Dichlorobenzene | | | | | CAS #: 95-50-1 | | |
| 9.977 | 9.977 (1.296) | 146 | 559176 | 50.0000 | 51.698 | 80.00- 120.00 | 100.00 |
| 9.977 | 9.977 (1.296) | 148 | 353029 | | | 13.13- 113.13 | 63.13 |
| 9.977 | 9.977 (1.296) | 111 | 243745 | | | 0.00- 93.59 | 43.59 |
| 174 1,2,4-Trichlorobenzene | | | | | CAS #: 120-82-1 | | |
| 11.309 | 11.309 (1.469) | 180 | 341393 | 50.0000 | 49.543 | 80.00- 120.00 | 100.00 |
| 11.309 | 11.309 (1.469) | 182 | 326521 | | | 45.64- 145.64 | 95.64 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 175 Hexachlorobutadiene | | | | | CAS #: 87-68-3 | | |
| 11.409 | 11.409 (1.482) | 225 | 293016 | 50.0000 | 46.802 | 80.00- 120.00 | 100.00 |
| 11.409 | 11.409 (1.482) | 223 | 186347 | | | 13.27- 113.27 | 63.60 |
| 176 Naphthalene | | | | | CAS #: 91-20-3 | | |
| 11.517 | 11.517 (1.496) | 128 | 744530 | 50.0000 | 49.971 | 80.00- 120.00 | 100.00 |
| 11.517 | 11.517 (1.496) | 127 | 92693 | | | 0.00- 62.46 | 12.45 |

Report Date: 13-Mar-2010 09:23

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdp.i
Lab File ID: p031107.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: cr
Method File: /chem/msdp.i/11mar10.b/p10q0311a.m
Misc Info: 50ppbv (200ppbv)

Calibration Date: 11-MAR-2010
Calibration Time: 10:37
Client Smp ID: Level 5
Level: LOW
Sample Type: AIR

| | | AREA LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 76 Bromochloromethan | 104418 | 62651 | 146185 | 104418 | 0.00 |
| 97 1,4-Difluorobenze | 353421 | 212053 | 494789 | 353421 | 0.00 |
| 144 Chlorobenzene-d5 | 302185 | 181311 | 423059 | 302185 | 0.00 |

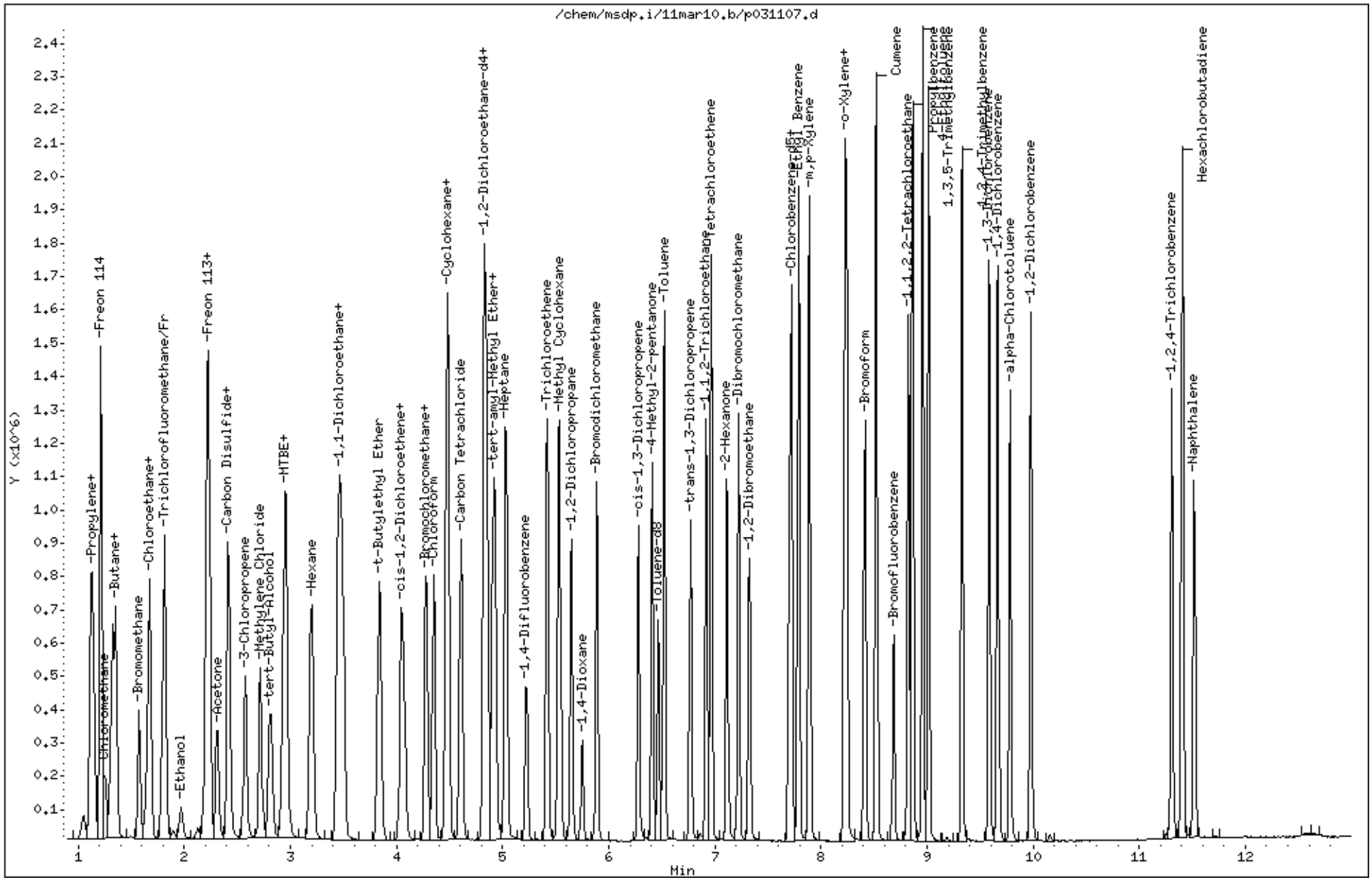
| | | RT LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 76 Bromochloromethan | 4.27 | 3.94 | 4.60 | 4.27 | 0.00 |
| 97 1,4-Difluorobenze | 5.23 | 4.90 | 5.56 | 5.23 | 0.00 |
| 144 Chlorobenzene-d5 | 7.70 | 7.37 | 8.03 | 7.70 | 0.00 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msdp.i/11mar10.b/p031107.d
Date : 11-MAR-2010 10:37
Client ID: Level 5
Sample Info: 50mL #1911-281

Instrument: msdp.i
Operator: cr
Column diameter: 0.53

Column phase: RTx-624



Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msdp.i/11mar10.b/p031108.d
Lab Smp Id: ICAL Client Smp ID: Level 6
Inj Date : 11-MAR-2010 10:59
Operator : cr Inst ID: msdp.i
Smp Info : 100mL #1911-281
Misc Info : 100ppbv (200ppbv)
Comment :
Method : /chem/msdp.i/11mar10.b/p10q0311a.m
Meth Date : 13-Mar-2010 09:23 jparker Quant Type: ISTD
Cal Date : 11-MAR-2010 10:59 Cal File: p031108.d
Als bottle: 1 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT09.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| | | | | AMOUNTS | | | |
|---|---|---|---|---|---|---|---|
| | | | | CAL-AMT | ON-COL | | |
| RT | EXP RT (REL RT) | MASS | RESPONSE | ( PPBV) | ( PPBV) | TARGET RANGE | RATIO |
| == | ====== ======== | ==== | ======== | ======= | ======= | ========== | ===== |
| * 76 Bromochloromethane | | | | | CAS #: 74-97-5 | | |
| 4.275 | 4.275 (1.000) | 130 | 117829 | 25.0000 | | 50.00- 150.00 | 100.00 |
| 4.275 | 4.275 (1.000) | 128 | 90869 | | | 27.91- 127.91 | 77.12 |
| 4.275 | 4.275 (1.000) | 49 | 158695 | | | 88.40- 188.40 | 134.68 |
| * 97 1,4-Difluorobenzene | | | | | CAS #: 540-36-3 | | |
| 5.227 | 5.227 (1.000) | 114 | 403315 | 25.0000 | | 50.00- 150.00 | 100.00 |
| 5.227 | 5.227 (1.000) | 88 | 63678 | | | 0.00- 65.84 | 15.79 |
| * 144 Chlorobenzene-d5 | | | | | CAS #: 3114-55-4 | | |
| 7.692 | 7.692 (1.000) | 117 | 355847 | 25.0000 | | 50.00- 150.00 | 100.00 |
| 7.692 | 7.692 (1.000) | 82 | 197701 | | | 6.75- 106.75 | 55.56 |
| $ 89 1,2-Dichloroethane-d4 | | | | | CAS #: 17060-07-0 | | |
| 4.833 | 4.833 (1.131) | 65 | 163252 | 25.0000 | 25.868 | 50.00- 150.00 | 100.00 |
| 4.833 | 4.833 (1.131) | 67 | 105451 | | | 6.22- 106.22 | 64.59 |
| $ 115 Toluene-d8 | | | | | CAS #: 2037-26-5 | | |
| 6.467 | 6.467 (1.237) | 98 | 426495 | 25.0000 | 25.640 | 50.00- 150.00 | 100.00 |
| 6.467 | 6.467 (1.237) | 70 | 49856 | | | 0.00- 61.60 | 11.69 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 115 Toluene-d8 (continued) | | | | | | | |
| 6.467 | 6.467 (1.237) | 100 | 280778 | | | 15.04- 115.04 | 65.83 |
| $ 159 Bromofluorobenzene | | | | | CAS #: 460-00-4 | | |
| 8.673 | 8.673 (1.128) | 174 | 174934 | 25.0000 | 26.855 | 50.00- 150.00 | 100.00 |
| 8.673 | 8.673 (1.128) | 95 | 234232 | | | 86.78- 186.78 | 133.90 |
| 8.673 | 8.673 (1.128) | 176 | 168488 | | | 46.17- 146.17 | 96.32 |
| 6 Propylene | | | | | CAS #: 115-07-1 | | |
| 1.111 | 1.111 (0.260) | 41 | 445674 | 100.000 | 91.935 | 50.00- 150.00 | 100.00 |
| 1.111 | 1.111 (0.260) | 42 | 290843 | | | 16.22- 116.22 | 65.26 |
| 1.111 | 1.111 (0.260) | 39 | 334171 | | | 23.14- 123.14 | 74.98 |
| 7 Dichlorodifluoromethane/Fr12 | | | | | CAS #: 75-71-8 | | |
| 1.139 | 1.139 (0.266) | 85 | 1573612 | 100.000 | 93.070 | 50.00- 150.00 | 100.00 |
| 1.139 | 1.139 (0.266) | 87 | 508740 | | | 0.00- 81.77 | 32.33 |
| 10 Freon 114 | | | | | CAS #: 76-14-2 | | |
| 1.223 | 1.223 (0.286) | 135 | 1154591 | 100.000 | 93.657 | 50.00- 150.00 | 100.00 |
| 1.223 | 1.223 (0.286) | 137 | 363127 | | | 0.00- 82.41 | 31.45 |
| 11 Chloromethane | | | | | CAS #: 74-87-3 | | |
| 1.265 | 1.265 (0.296) | 50 | 393793 | 100.000 | 99.166 | 50.00- 150.00 | 100.00 |
| 1.265 | 1.265 (0.296) | 52 | 123945 | | | 0.00- 85.01 | 31.47 |
| 13 Butane | | | | | CAS #: 106-97-8 | | |
| 1.320 | 1.320 (0.309) | 58 | 124687 | 100.000 | 102.05 | 50.00- 150.00 | 100.00 |
| 1.320 | 1.320 (0.309) | 43 | 969282 | | | 664.85- 764.85 | 777.37 |
| 14 Vinyl Chloride | | | | | CAS #: 75-01-4 | | |
| 1.334 | 1.334 (0.312) | 62 | 596254 | 100.000 | 95.154 | 50.00- 150.00 | 100.00 |
| 1.334 | 1.334 (0.312) | 64 | 187856 | | | 0.00- 88.01 | 31.51 |
| 15 1,3-Butadiene | | | | | CAS #: 106-99-0 | | |
| 1.348 | 1.348 (0.315) | 54 | 474668 | 100.000 | 94.434 | 50.00- 150.00 | 100.00 |
| 1.348 | 1.348 (0.315) | 39 | 560222 | | | 67.29- 167.29 | 118.02 |
| 21 Bromomethane | | | | | CAS #: 74-83-9 | | |
| 1.572 | 1.572 (0.368) | 94 | 523864 | 100.000 | 96.603 | 50.00- 150.00 | 100.00 |
| 1.572 | 1.572 (0.368) | 96 | 488555 | | | 45.21- 145.21 | 93.26 |
| 24 Chloroethane | | | | | CAS #: 75-00-3 | | |
| 1.642 | 1.642 (0.384) | 64 | 323662 | 100.000 | 98.346 | 50.00- 150.00 | 100.00 |
| 1.642 | 1.642 (0.384) | 66 | 104079 | | | 0.00- 89.11 | 32.16 |
| 1.642 | 1.642 (0.384) | 49 | 88155 | | | 0.00- 79.55 | 27.24 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 25 Isopentane | | | | | CAS #: 78-78-4 | | |
| 1.670 | 1.670 (0.391) | 43 | 747151 | 100.000 | 101.78 | 50.00- 150.00 | 100.00 |
| 1.670 | 1.670 (0.391) | 57 | 487993 | | | 25.98- 125.98 | 65.31 |
| 28 Trichlorofluoromethane/Fr11 | | | | | CAS #: 75-69-4 | | |
| 1.810 | 1.810 (0.423) | 101 | 1686662 | 100.000 | 98.287 | 50.00- 150.00 | 100.00 |
| 1.810 | 1.810 (0.423) | 103 | 1082156 | | | 17.23- 117.23 | 64.16 |
| 29 Ethanol | | | | | CAS #: 64-17-5 | | |
| 1.978 | 1.978 (0.463) | 45 | 220167 | 100.000 | 83.886 | 50.00- 150.00 | 100.00 |
| 1.978 | 1.978 (0.463) | 43 | 57183 | | | 0.00- 84.20 | 25.97 |
| 1.978 | 1.978 (0.463) | 46 | 96808 | | | 0.00- 96.43 | 43.97 |
| 30 Freon 113 | | | | | CAS #: 76-13-1 | | |
| 2.219 | 2.219 (0.519) | 151 | 937826 | 100.000 | 92.882 | 50.00- 150.00 | 100.00 |
| 2.219 | 2.219 (0.519) | 153 | 603488 | | | 13.21- 113.21 | 64.35 |
| 2.219 | 2.219 (0.519) | 101 | 1251410 | | | 82.01- 182.01 | 133.44 |
| 32 1,1-Dichloroethene | | | | | CAS #: 75-35-4 | | |
| 2.233 | 2.233 (0.522) | 98 | 375103 | 100.000 | 92.979 | 50.00- 150.00 | 100.00 |
| 2.233 | 2.233 (0.522) | 96 | 586566 | | | 106.98- 206.98 | 156.37 |
| 2.233 | 2.233 (0.522) | 61 | 1010191 | | | 215.33- 315.33 | 269.31 |
| 34 Acetone | | | | | CAS #: 67-64-1 | | |
| 2.312 | 2.312 (0.541) | 58 | 279432 | 100.000 | 88.303 | 50.00- 150.00 | 100.00 |
| 2.312 | 2.312 (0.541) | 43 | 927517 | | | 281.49- 381.49 | 331.93 |
| 35 Carbon Disulfide | | | | | CAS #: 75-15-0 | | |
| 2.412 | 2.412 (0.564) | 76 | 1711540 | 100.000 | 90.352 | 50.00- 150.00 | 100.00 |
| 37 2-Propanol | | | | | CAS #: 67-63-0 | | |
| 2.420 | 2.420 (0.566) | 45 | 1062635 | 100.000 | 92.721 | 50.00- 150.00 | 100.00 |
| 2.420 | 2.420 (0.566) | 43 | 223513 | | | 0.00- 72.19 | 21.03 |
| 2.420 | 2.420 (0.566) | 59 | 39076 | | | 0.00- 77.65 | 3.68 |
| 41 3-Chloropropene | | | | | CAS #: 107-05-1 | | |
| 2.577 | 2.577 (0.603) | 76 | 271122 | 100.000 | 93.516 | 50.00- 150.00 | 100.00 |
| 2.577 | 2.577 (0.603) | 41 | 828957 | | | 257.61- 357.61 | 305.75 |
| 43 Methylene Chloride | | | | | CAS #: 75-09-2 | | |
| 2.720 | 2.720 (0.636) | 49 | 706404 | 100.000 | 88.277 | 50.00- 150.00 | 100.00 |
| 2.720 | 2.720 (0.636) | 84 | 520442 | | | 24.25- 124.25 | 73.67 |
| 2.713 | 2.713 (0.635) | 51 | 216002 | | | 0.00- 81.57 | 30.58 |
| 46 tert-Butyl-Alcohol | | | | | CAS #: 75-65-0 | | |
| 2.814 | 2.814 (0.658) | 59 | 1168983 | 100.000 | 95.660 | 50.00- 150.00 | 100.00 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 46 tert-Butyl-Alcohol (continued) | | | | | | | |
| 2.814 | 2.814 (0.658) | 41 | 308750 | | | 0.00- 77.85 | 26.41 |
| 2.814 | 2.814 (0.658) | 57 | 120287 | | | 0.00- 61.24 | 10.29 |
| 47 MTBE | | | | | CAS #: 1634-04-4 | | |
| 2.942 | 2.942 (0.688) | 73 | 1645868 | 100.000 | 97.458 | 50.00- 150.00 | 100.00 |
| 2.942 | 2.942 (0.688) | 57 | 376113 | | | 0.00- 81.96 | 22.85 |
| 2.942 | 2.942 (0.688) | 41 | 416951 | | | 0.00- 76.94 | 25.33 |
| 48 trans-1,2-Dichloroethene | | | | | CAS #: 156-60-5 | | |
| 2.964 | 2.964 (0.693) | 98 | 397030 | 100.000 | 94.465 | 50.00- 150.00 | 100.00 |
| 2.957 | 2.957 (0.692) | 61 | 925751 | | | 187.67- 287.67 | 233.17 |
| 2.957 | 2.957 (0.692) | 96 | 626139 | | | 111.49- 211.49 | 157.71 |
| 51 Hexane | | | | | CAS #: 110-54-3 | | |
| 3.200 | 3.200 (0.749) | 57 | 983791 | 100.000 | 96.101 | 50.00- 150.00 | 100.00 |
| 3.200 | 3.200 (0.749) | 43 | 658432 | | | 17.17- 117.17 | 66.93 |
| 3.200 | 3.200 (0.749) | 86 | 159561 | | | 0.00- 70.58 | 16.22 |
| 59 1,1-Dichloroethane | | | | | CAS #: 75-34-3 | | |
| 3.444 | 3.444 (0.806) | 63 | 1149350 | 100.000 | 91.982 | 50.00- 150.00 | 100.00 |
| 3.444 | 3.444 (0.806) | 65 | 361925 | | | 0.00- 81.69 | 31.49 |
| 58 Isopropyl ether | | | | | CAS #: 108-20-3 | | |
| 3.473 | 3.473 (0.812) | 45 | 2293266 | 100.000 | 98.825 | 50.00- 150.00 | 100.00 |
| 3.473 | 3.473 (0.812) | 87 | 554260 | | | 0.00- 73.95 | 24.17 |
| 3.473 | 3.473 (0.812) | 59 | 242770 | | | 0.00- 60.65 | 10.59 |
| 61 Vinyl Acetate | | | | | CAS #: 108-05-4 | | |
| 3.501 | 3.501 (0.819) | 86 | 149384 | 100.000 | 98.664 | 50.00- 150.00 | 100.00 |
| 3.494 | 3.494 (0.817) | 43 | 2750506 | | | 1854.64-1954.64 | 1841.23 |
| 68 t-Butylethyl Ether | | | | | CAS #: 637-92-3 | | |
| 3.838 | 3.838 (0.898) | 59 | 1833257 | 100.000 | 100.64 | 50.00- 150.00 | 100.00 |
| 3.838 | 3.838 (0.898) | 87 | 727794 | | | 0.00- 89.71 | 39.70 |
| 3.838 | 3.838 (0.898) | 41 | 381166 | | | 0.00- 72.53 | 20.79 |
| 73 cis-1,2-Dichloroethene | | | | | CAS #: 156-59-2 | | |
| 4.046 | 4.046 (0.946) | 98 | 390639 | 100.000 | 94.561 | 50.00- 150.00 | 100.00 |
| 4.046 | 4.046 (0.946) | 96 | 620195 | | | 109.55- 209.55 | 158.76 |
| 4.046 | 4.046 (0.946) | 61 | 832107 | | | 163.91- 263.91 | 213.01 |
| 74 2-Butanone | | | | | CAS #: 78-93-3 | | |
| 4.074 | 4.074 (0.953) | 72 | 310383 | 100.000 | 100.06 | 50.00- 150.00 | 100.00 |
| 4.074 | 4.074 (0.953) | 43 | 1321117 | | | 411.26- 511.26 | 425.64 |
| 4.067 | 4.067 (0.951) | 57 | 97282 | | | 25.94- 125.94 | 31.34 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 75 Tetrahydrofuran | | | | | CAS #: 109-99-9 | | |
| 4.282 | 4.282 (1.002) | 42 | 746727 | 100.000 | 94.129 | 50.00- 150.00 | 100.00 |
| 4.282 | 4.282 (1.002) | 71 | 275731 | | | 0.00- 84.34 | 36.93 |
| 4.282 | 4.282 (1.002) | 72 | 292508 | | | 0.00- 88.12 | 39.17 |
| 78 Chloroform | | | | | CAS #: 67-66-3 | | |
| 4.354 | 4.354 (1.018) | 83 | 1245419 | 100.000 | 92.972 | 50.00- 150.00 | 100.00 |
| 4.354 | 4.354 (1.018) | 85 | 809903 | | | 15.20- 115.20 | 65.03 |
| 80 Cyclohexane | | | | | CAS #: 110-82-7 | | |
| 4.475 | 4.475 (1.047) | 84 | 816400 | 100.000 | 100.04 | 50.00- 150.00 | 100.00 |
| 4.475 | 4.475 (1.047) | 56 | 986998 | | | 70.44- 170.44 | 120.90 |
| 4.475 | 4.475 (1.047) | 41 | 586494 | | | 25.90- 125.90 | 71.84 |
| 81 1,1,1-Trichloroethane | | | | | CAS #: 71-55-6 | | |
| 4.483 | 4.483 (1.049) | 97 | 1247515 | 100.000 | 98.904 | 50.00- 150.00 | 100.00 |
| 4.483 | 4.483 (1.049) | 99 | 791756 | | | 14.53- 114.53 | 63.47 |
| 82 Carbon Tetrachloride | | | | | CAS #: 56-23-5 | | |
| 4.611 | 4.611 (1.079) | 119 | 1194464 | 100.000 | 93.651 | 50.00- 150.00 | 100.00 |
| 4.611 | 4.611 (1.079) | 117 | 1238189 | | | 52.63- 152.63 | 103.66 |
| 87 2,2,4-Trimethylpentane | | | | | CAS #: 540-84-1 | | |
| 4.848 | 4.848 (1.134) | 57 | 3056704 | 100.000 | 102.99 | 50.00- 150.00 | 100.00 |
| 4.848 | 4.848 (1.134) | 56 | 1042912 | | | 0.00- 88.69 | 34.12 |
| 4.848 | 4.848 (1.134) | 41 | 821573 | | | 0.00- 79.27 | 26.88 |
| 88 Benzene | | | | | CAS #: 71-43-2 | | |
| 4.826 | 4.826 (0.923) | 78 | 1813760 | 100.000 | 94.133 | 50.00- 150.00 | 100.00 |
| 4.826 | 4.826 (0.923) | 77 | 426141 | | | 0.00- 74.11 | 23.49 |
| 92 tert-amyl-Methyl Ether | | | | | CAS #: 994-05-8 | | |
| 4.927 | 4.927 (1.152) | 73 | 1612040 | 100.000 | 101.33 | 50.00- 150.00 | 100.00 |
| 4.927 | 4.927 (1.152) | 87 | 370175 | | | 0.00- 73.17 | 22.96 |
| 4.927 | 4.927 (1.152) | 55 | 468925 | | | 0.00- 81.18 | 29.09 |
| 93 1,2-Dichloroethane | | | | | CAS #: 107-06-2 | | |
| 4.905 | 4.905 (0.938) | 62 | 836752 | 100.000 | 93.108 | 50.00- 150.00 | 100.00 |
| 4.905 | 4.905 (0.938) | 64 | 270547 | | | 0.00- 82.38 | 32.33 |
| 94 Heptane | | | | | CAS #: 142-82-5 | | |
| 5.034 | 5.034 (0.963) | 71 | 664246 | 100.000 | 97.449 | 50.00- 150.00 | 100.00 |
| 5.034 | 5.034 (0.963) | 43 | 1209523 | | | 135.49- 235.49 | 182.09 |
| 5.034 | 5.034 (0.963) | 57 | 675882 | | | 48.06- 148.06 | 101.75 |
| 102 Trichloroethene | | | | | CAS #: 79-01-6 | | |
| 5.421 | 5.421 (1.037) | 95 | 767596 | 100.000 | 94.044 | 50.00- 150.00 | 100.00 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 102 Trichloroethene (continued) | | | | | | | |
| 5.421 | 5.421 (1.037) | 130 | 784355 | | | 53.53- 153.53 | 102.18 |
| 5.421 | 5.421 (1.037) | 97 | 489809 | | | 13.85- 113.85 | 63.81 |
| 104 Methyl Cyclohexane | | | | | CAS #: 108-87-2 | | |
| 5.535 | 5.535 (1.295) | 83 | 1074742 | 100.000 | 102.64 | 50.00- 150.00 | 100.00 |
| 5.535 | 5.535 (1.295) | 98 | 515609 | | | 0.00- 96.78 | 47.98 |
| 5.535 | 5.535 (1.295) | 55 | 887120 | | | 33.43- 133.43 | 82.54 |
| 106 1,2-Dichloropropane | | | | | CAS #: 78-87-5 | | |
| 5.650 | 5.650 (1.081) | 63 | 651789 | 100.000 | 94.036 | 50.00- 150.00 | 100.00 |
| 5.650 | 5.650 (1.081) | 62 | 465238 | | | 23.18- 123.18 | 71.38 |
| 5.650 | 5.650 (1.081) | 41 | 397667 | | | 17.64- 117.64 | 61.01 |
| 107 1,4-Dioxane | | | | | CAS #: 123-91-1 | | |
| 5.750 | 5.750 (1.100) | 88 | 392369 | 100.000 | 96.626 | 50.00- 150.00 | 100.00 |
| 5.750 | 5.750 (1.100) | 58 | 277965 | | | 22.06- 122.06 | 70.84 |
| 5.750 | 5.750 (1.100) | 57 | 91393 | | | 0.00- 73.47 | 23.29 |
| 109 Bromodichloromethane | | | | | CAS #: 75-27-4 | | |
| 5.886 | 5.886 (1.126) | 83 | 1277913 | 100.000 | 95.260 | 50.00- 150.00 | 100.00 |
| 5.886 | 5.886 (1.126) | 85 | 812021 | | | 13.70- 113.70 | 63.54 |
| 112 cis-1,3-Dichloropropene | | | | | CAS #: 10061-01-5 | | |
| 6.280 | 6.280 (1.201) | 75 | 945141 | 100.000 | 98.430 | 50.00- 150.00 | 100.00 |
| 6.280 | 6.280 (1.201) | 77 | 302418 | | | 0.00- 84.04 | 32.00 |
| 6.280 | 6.280 (1.201) | 39 | 537192 | | | 11.78- 111.78 | 56.84 |
| 114 4-Methyl-2-pentanone | | | | | CAS #: 108-10-1 | | |
| 6.409 | 6.409 (1.226) | 58 | 561434 | 100.000 | 101.64 | 50.00- 150.00 | 100.00 |
| 6.409 | 6.409 (1.226) | 43 | 1542944 | | | 237.60- 337.60 | 274.82 |
| 6.409 | 6.409 (1.226) | 85 | 232957 | | | 0.00- 99.98 | 41.49 |
| 116 Toluene | | | | | CAS #: 108-88-3 | | |
| 6.524 | 6.524 (1.248) | 91 | 2157295 | 100.000 | 96.442 | 50.00- 150.00 | 100.00 |
| 6.524 | 6.524 (1.248) | 92 | 1261910 | | | 8.25- 108.25 | 58.50 |
| 123 trans-1,3-Dichloropropene | | | | | CAS #: 10061-02-6 | | |
| 6.775 | 6.775 (0.881) | 75 | 971299 | 100.000 | 90.741 | 50.00- 150.00 | 100.00 |
| 6.775 | 6.775 (0.881) | 77 | 314338 | | | 302.12- 402.12 | 32.36 |
| 6.775 | 6.775 (0.881) | 39 | 535914 | | | 4.41- 104.41 | 55.17 |
| 128 1,1,2-Trichloroethane | | | | | CAS #: 79-00-5 | | |
| 6.918 | 6.918 (0.899) | 97 | 724809 | 100.000 | 89.145 | 50.00- 150.00 | 100.00 |
| 6.918 | 6.918 (0.899) | 99 | 446588 | | | 12.50- 112.50 | 61.61 |
| 6.918 | 6.918 (0.899) | 83 | 613680 | | | 34.85- 134.85 | 84.67 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 131 Tetrachloroethene | | | | | CAS #: 127-18-4 | | |
| 6.968 | 6.968 (0.906) | 166 | 957740 | 100.000 | 90.822 | 50.00- 150.00 | 100.00 |
| 6.968 | 6.968 (0.906) | 129 | 729282 | | | 26.92- 126.92 | 76.15 |
| 6.968 | 6.968 (0.906) | 131 | 701431 | | | 21.94- 121.94 | 73.24 |
| 135 2-Hexanone | | | | | CAS #: 591-78-6 | | |
| 7.111 | 7.111 (0.925) | 58 | 752194 | 100.000 | 97.822 | 50.00- 150.00 | 100.00 |
| 7.111 | 7.111 (0.925) | 43 | 1470989 | | | 157.46- 257.46 | 195.56 |
| 7.111 | 7.111 (0.925) | 100 | 150164 | | | 0.00- 69.68 | 19.96 |
| 138 Dibromochloromethane | | | | | CAS #: 124-48-1 | | |
| 7.226 | 7.226 (0.939) | 129 | 1258292 | 100.000 | 93.172 | 50.00- 150.00 | 100.00 |
| 7.226 | 7.226 (0.939) | 127 | 981301 | | | 27.83- 127.83 | 77.99 |
| 140 1,2-Dibromoethane | | | | | CAS #: 106-93-4 | | |
| 7.326 | 7.326 (0.952) | 107 | 1087949 | 100.000 | 91.498 | 50.00- 150.00 | 100.00 |
| 7.326 | 7.326 (0.952) | 109 | 1039200 | | | 46.78- 146.78 | 95.52 |
| 145 Chlorobenzene | | | | | CAS #: 108-90-7 | | |
| 7.720 | 7.720 (1.004) | 112 | 1640279 | 100.000 | 91.566 | 50.00- 150.00 | 100.00 |
| 7.720 | 7.720 (1.004) | 114 | 524422 | | | 0.00- 81.68 | 31.97 |
| 7.720 | 7.720 (1.004) | 77 | 947990 | | | 19.10- 119.10 | 57.79 |
| 147 Ethyl Benzene | | | | | CAS #: 100-41-4 | | |
| 7.785 | 7.785 (1.012) | 106 | 858555 | 100.000 | 96.229 | 50.00- 150.00 | 100.00 |
| 7.785 | 7.785 (1.012) | 91 | 2728475 | | | 270.93- 370.93 | 317.80 |
| 150 m,p-Xylene | | | | | CAS #: 108-38-3 | | |
| 7.885 | 7.885 (1.025) | 106 | 1085069 | 100.000 | 97.741 | 50.00- 150.00 | 100.00 |
| 7.885 | 7.885 (1.025) | 91 | 2173583 | | | 151.38- 251.38 | 200.32 |
| 153 o-Xylene | | | | | CAS #: 95-47-6 | | |
| 8.214 | 8.214 (1.068) | 106 | 1019926 | 100.000 | 100.66 | 50.00- 150.00 | 100.00 |
| 8.214 | 8.214 (1.068) | 91 | 2139719 | | | 164.77- 264.77 | 209.79 |
| 154 Styrene | | | | | CAS #: 100-42-5 | | |
| 8.236 | 8.236 (1.071) | 104 | 1672518 | 100.000 | 100.66 | 50.00- 150.00 | 100.00 |
| 8.236 | 8.236 (1.071) | 78 | 848910 | | | 1.89- 101.89 | 50.76 |
| 155 Bromoform | | | | | CAS #: 75-25-2 | | |
| 8.408 | 8.408 (1.093) | 173 | 1128103 | 100.000 | 101.10 | 50.00- 150.00 | 100.00 |
| 8.408 | 8.408 (1.093) | 171 | 580615 | | | 0.59- 100.59 | 51.47 |
| 156 Cumene | | | | | CAS #: 98-82-8 | | |
| 8.508 | 8.508 (1.106) | 105 | 3030751 | 100.000 | 98.823 | 50.00- 150.00 | 100.00 |
| 8.508 | 8.508 (1.106) | 120 | 814644 | | | 0.00- 76.38 | 26.88 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 156 Cumene (continued) | | | | | | | |
| 8.508 | 8.508 (1.106) | 51 | 307797 | | | 0.00- 60.64 | 10.16 |
| 161 1,1,2,2-Tetrachloroethane | | | | | CAS #: 79-34-5 | | |
| 8.809 | 8.809 (1.145) | 83 | 1517813 | 100.000 | 95.707 | 50.00- 150.00 | 100.00 |
| 8.809 | 8.809 (1.145) | 85 | 983495 | | | 16.07- 116.07 | 64.80 |
| 162 Propylbenzene | | | | | CAS #: 103-65-1 | | |
| 8.852 | 8.852 (1.151) | 91 | 3620340 | 100.000 | 99.305 | 50.00- 150.00 | 100.00 |
| 8.852 | 8.852 (1.151) | 120 | 815613 | | | 0.00- 72.00 | 22.53 |
| 8.852 | 8.852 (1.151) | 105 | 126776 | | | 0.00- 68.11 | 3.50 |
| 163 4-Ethyltoluene | | | | | CAS #: 622-96-8 | | |
| 8.945 | 8.945 (1.163) | 120 | 921039 | 100.000 | 100.52 | 50.00- 150.00 | 100.00 |
| 8.945 | 8.945 (1.163) | 105 | 3072686 | | | 275.52- 375.52 | 333.61 |
| 164 1,3,5-Trimethylbenzene | | | | | CAS #: 108-67-8 | | |
| 9.002 | 9.002 (1.170) | 120 | 1252244 | 100.000 | 104.03 | 50.00- 150.00 | 100.00 |
| 9.002 | 9.002 (1.170) | 105 | 2560998 | | | 157.61- 257.61 | 204.51 |
| 166 1,2,4-Trimethylbenzene | | | | | CAS #: 95-63-6 | | |
| 9.318 | 9.318 (1.211) | 120 | 1094654 | 100.000 | 105.47 | 50.00- 150.00 | 100.00 |
| 9.318 | 9.318 (1.211) | 105 | 2392465 | | | 171.83- 271.83 | 218.56 |
| 168 1,3-Dichlorobenzene | | | | | CAS #: 541-73-1 | | |
| 9.568 | 9.568 (1.244) | 146 | 1452941 | 100.000 | 100.02 | 50.00- 150.00 | 100.00 |
| 9.568 | 9.568 (1.244) | 148 | 912164 | | | 11.58- 111.58 | 62.78 |
| 9.568 | 9.568 (1.244) | 111 | 604973 | | | 0.00- 91.95 | 41.64 |
| 169 1,4-Dichlorobenzene | | | | | CAS #: 106-46-7 | | |
| 9.647 | 9.647 (1.254) | 146 | 1458746 | 100.000 | 101.66 | 50.00- 150.00 | 100.00 |
| 9.647 | 9.647 (1.254) | 148 | 934855 | | | 14.35- 114.35 | 64.09 |
| 9.647 | 9.647 (1.254) | 111 | 582789 | | | 0.00- 91.42 | 39.95 |
| 170 alpha-Chlorotoluene | | | | | CAS #: 100-44-7 | | |
| 9.762 | 9.762 (1.269) | 91 | 1993441 | 100.000 | 107.54 | 50.00- 150.00 | 100.00 |
| 9.769 | 9.769 (1.270) | 126 | 407000 | | | 0.00- 69.60 | 20.42 |
| 171 1,2-Dichlorobenzene | | | | | CAS #: 95-50-1 | | |
| 9.962 | 9.962 (1.295) | 146 | 1303443 | 100.000 | 102.34 | 50.00- 150.00 | 100.00 |
| 9.962 | 9.962 (1.295) | 148 | 824811 | | | 14.46- 114.46 | 63.28 |
| 9.962 | 9.962 (1.295) | 111 | 564043 | | | 0.00- 94.23 | 43.27 |
| 174 1,2,4-Trichlorobenzene | | | | | CAS #: 120-82-1 | | |
| 11.295 | 11.295 (1.468) | 180 | 805736 | 100.000 | 99.295 | 50.00- 150.00 | 100.00 |
| 11.295 | 11.295 (1.468) | 182 | 768918 | | | 46.77- 146.77 | 95.43 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 175 Hexachlorobutadiene | | | | | CAS #: 87-68-3 | | |
| 11.395 | 11.395 (1.481) | 225 | 718564 | 100.000 | 97.465 | 50.00- 150.00 | 100.00 |
| 11.395 | 11.395 (1.481) | 223 | 455362 | | | 13.27- 113.27 | 63.37 |
| 176 Naphthalene | | | | | CAS #: 91-20-3 | | |
| 11.502 | 11.502 (1.495) | 128 | 1774772 | 100.000 | 101.16 | 50.00- 150.00 | 100.00 |
| 11.502 | 11.502 (1.495) | 127 | 222904 | | | 0.00- 62.46 | 12.56 |

Report Date: 13-Mar-2010 09:23

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdp.i
Lab File ID: p031108.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: cr
Method File: /chem/msdp.i/11mar10.b/p10q0311a.m
Misc Info: 100ppbv (200ppbv)

Calibration Date: 11-MAR-2010
Calibration Time: 10:37
Client Smp ID: Level 6
Level: LOW
Sample Type: AIR

| | | AREA LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 76 Bromochloromethan | 104418 | 62651 | 146185 | 117829 | 12.84 |
| 97 1,4-Difluorobenze | 353421 | 212053 | 494789 | 403315 | 14.12 |
| 144 Chlorobenzene-d5 | 302185 | 181311 | 423059 | 355847 | 17.76 |

| | | RT LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 76 Bromochloromethan | 4.27 | 3.94 | 4.60 | 4.27 | 0.00 |
| 97 1,4-Difluorobenze | 5.23 | 4.90 | 5.56 | 5.23 | 0.00 |
| 144 Chlorobenzene-d5 | 7.70 | 7.37 | 8.03 | 7.69 | -0.09 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msdp.i/11mar10.b/p031108.d

Date : 11-MAR-2010 10:59

Client ID: Level 6

Sample Info: 100mL #1911-281

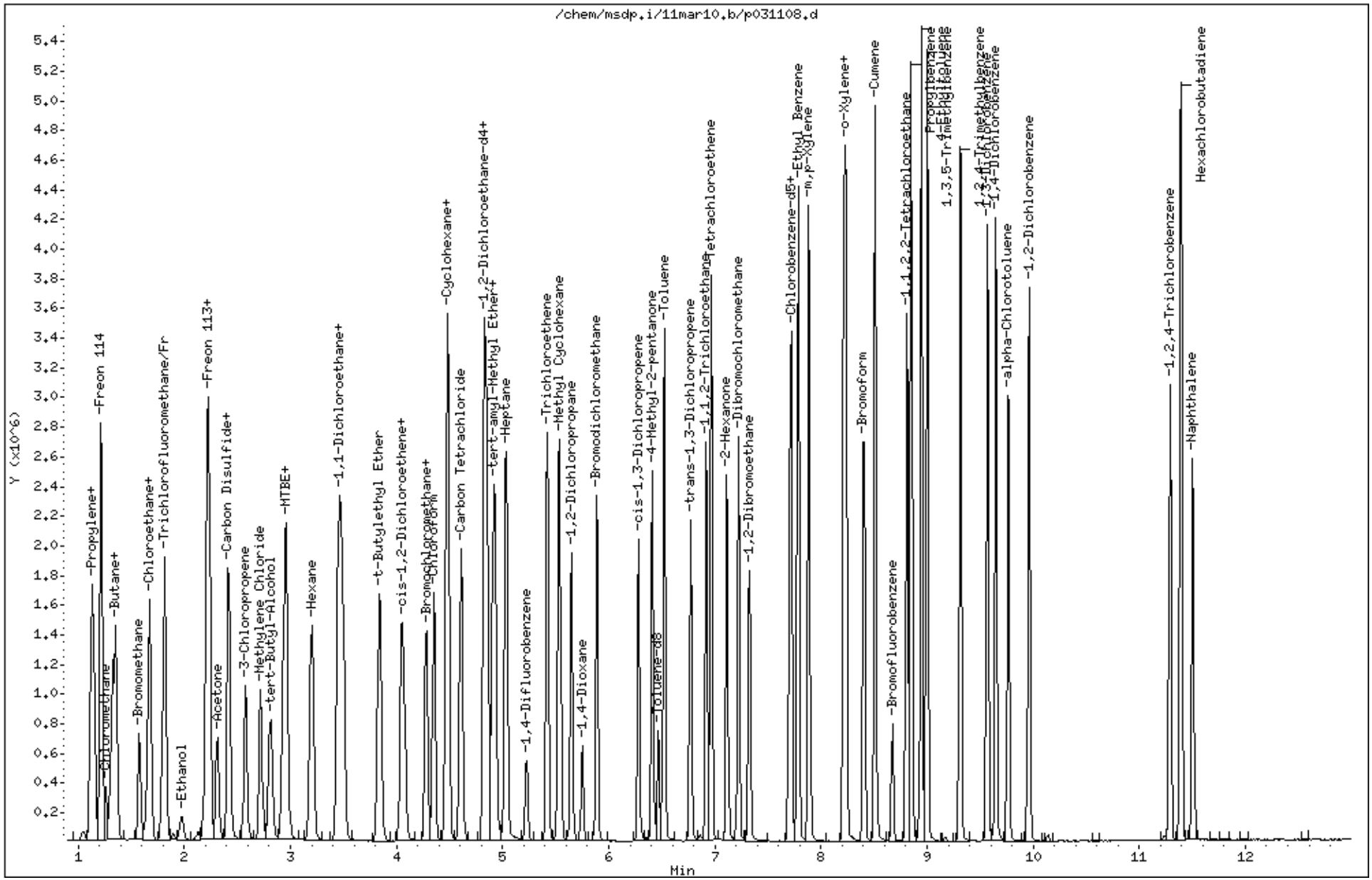
Column phase: RTx-624

Instrument: msdp.i

Operator: cr

Column diameter: 0.53





Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msdp.i/11mar10.b/p031117.d
Lab Smp Id: ICAL Client Smp ID: Level 7
Inj Date : 11-MAR-2010 15:18
Operator : cr Inst ID: msdp.i
Smp Info : 200mL #1911-123
Misc Info : 200ppbv (200ppbv)
Comment :
Method : /chem/msdp.i/11mar10.b/p10q0311a.m
Meth Date : 13-Mar-2010 10:28 jparker Quant Type: ISTD
Cal Date : 11-MAR-2010 15:18 Cal File: p031117.d
Als bottle: 1 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: spAer.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| | | | | AMOUNTS | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | CAL-AMT | ON-COL | | | |
| RT | EXP RT (REL RT) | MASS | RESPONSE | ( PPBV) | ( PPBV) | TARGET RANGE | | RATIO |
| == | ====== ======== | ==== | ======== | ======= | ======= | ========== | | ===== |
| * 76 Bromochloromethane | | | | | CAS #: 74-97-5 | | | |
| 4.275 | 4.275 (1.000) | 130 | 93643 | 25.0000 | | 50.00- 150.00 | | 100.00 |
| 4.275 | 4.275 (1.000) | 128 | 74216 | | | 28.05- 128.05 | | 79.25 |
| 4.275 | 4.275 (1.000) | 49 | 133178 | | | 88.95- 188.95 | | 142.22 |
| * 97 1,4-Difluorobenzene | | | | | CAS #: 540-36-3 | | | |
| 5.213 | 5.213 (1.000) | 114 | 328673 | 25.0000 | | 50.00- 150.00 | | 100.00 |
| 5.213 | 5.213 (1.000) | 88 | 52128 | | | 0.00- 65.84 | | 15.86 |
| * 144 Chlorobenzene-d5 | | | | | CAS #: 3114-55-4 | | | |
| 7.677 | 7.677 (1.000) | 117 | 257589 | 25.0000 | | 50.00- 150.00 | | 100.00 |
| 7.677 | 7.677 (1.000) | 82 | 147490 | | | 7.05- 107.05 | | 57.26 |
| 17 Freon 143a | | | | | CAS #: 420-46-2 | | | |
| 1.069 | 1.069 (0.250) | 65 | 172983 | 200.000 | 186.48 | 50.00- 150.00 | | 100.00 |
| 1.069 | 1.069 (0.250) | 69 | 923850 | | | 870.32- 970.32 | | 534.07 |
| 1.069 | 1.069 (0.250) | 64 | 43282 | | | 184.72- 284.72 | | 25.02 |
| 4 Freon 134a | | | | | CAS #: 811-97-2 | | | |
| 1.097 | 1.097 (0.257) | 83 | 500574 | 200.000 | 171.86 | 50.00- 150.00 | | 100.00 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 4 Freon 134a (continued) | | | | | | | |
| 1.069 | 1.069 (0.250) | 69 | 923850 | | | 147.90- 247.90 | 184.56 |
| 1.097 | 1.097 (0.257) | 63 | 64190 | | | 0.00- 62.98 | 12.82 |
| 5 Freon 152a | | | | | CAS #: 75-37-6 | | |
| 1.125 | 1.125 (0.263) | 65 | 284799 | 200.000 | 159.58 | 50.00- 150.00 | 100.00 |
| 1.153 | 1.153 (0.270) | 51 | 1415292 | | | 438.61- 538.61 | 496.94 |
| 1.125 | 1.125 (0.263) | 47 | 132534 | | | 0.00- 96.01 | 46.54 |
| 9 Freon 22 | | | | | CAS #: 75-45-6 | | |
| 1.153 | 1.153 (0.270) | 67 | 131923 | 200.000 | 139.77 | 50.00- 150.00 | 100.00 |
| 1.153 | 1.153 (0.270) | 51 | 1415292 | | | 854.21- 954.21 | 1072.81 |
| 1.153 | 1.153 (0.270) | 85 | 14377 | | | 0.00- 99.91 | 10.90 |
| 16 Freon142b | | | | | CAS #: 75-68-3 | | |
| 1.237 | 1.237 (0.289) | 65 | 1413217 | 200.000 | 181.10 | 50.00- 150.00 | 100.00 |
| 1.237 | 1.237 (0.289) | 45 | 331936 | | | 0.00- 75.07 | 23.49 |
| 45 Dichlorofluoromethane/Fr21 | | | | | CAS #: 75-43-4 | | |
| 1.782 | 1.782 (0.417) | 67 | 2256028 | 200.000 | 201.52 | 50.00- 150.00 | 100.00(A) |
| 1.782 | 1.782 (0.417) | 69 | 731202 | | | 0.00- 82.58 | 32.41 |
| 1.782 | 1.782 (0.417) | 35 | 154322 | | | 0.00- 56.88 | 6.84 |
| 53 Freon123a | | | | | CAS #: 354-23-4 | | |
| 2.062 | 2.062 (0.482) | 117 | 962034 | 200.000 | 200.86 | 50.00- 150.00 | 100.00(A) |
| 2.062 | 2.062 (0.482) | 67 | 1828794 | | | 119.46- 219.46 | 190.10 |
| 54 Freon123 | | | | | CAS #: 306-83-2 | | |
| 2.133 | 2.133 (0.499) | 83 | 3136645 | 200.000 | 211.28 | 50.00- 150.00 | 100.00(A) |
| 2.133 | 2.133 (0.499) | 133 | 619291 | | | 0.00- 67.48 | 19.74 |
| 2.133 | 2.133 (0.499) | 85 | 1654118 | | | 2.87- 102.87 | 52.74 |
| 62 Cyclopentene | | | | | CAS #: 142-29-0 | | |
| 2.599 | 2.599 (0.608) | 67 | 2269330 | 200.000 | 214.70 | 50.00- 150.00 | 100.00(A) |
| 2.599 | 2.599 (0.608) | 68 | 894140 | | | 0.00- 89.51 | 39.40 |
| 2.599 | 2.599 (0.608) | 53 | 447153 | | | 0.00- 70.45 | 19.70 |
| 63 1-Propanol | | | | | CAS #: 71-23-8 | | |
| 3.594 | 3.594 (0.841) | 59 | 217529 | 200.000 | 233.62 | 50.00- 150.00 | 100.00(A) |
| 3.594 | 3.594 (0.841) | 42 | 202778 | | | 68.92- 168.92 | 93.22 |
| 3.594 | 3.594 (0.841) | 41 | 131555 | | | 44.60- 144.60 | 60.48 |
| 83 2,2-Dichloropropane | | | | | CAS #: 594-20-7 | | |
| 4.010 | 4.010 (0.938) | 77 | 1791972 | 200.000 | 203.76 | 50.00- 150.00 | 100.00(A) |
| 4.010 | 4.010 (0.938) | 79 | 576280 | | | 0.00- 83.41 | 32.16 |
| 4.010 | 4.010 (0.938) | 97 | 352665 | | | 0.00- 70.15 | 19.68 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 91 1,1-Dichloropropene | | | | | CAS #: 563-58-6 | | |
| 4.633 | 4.633 (0.889) | 110 | 610261 | 200.000 | 216.76 | 50.00- 150.00 | 100.00(A) |
| 4.633 | 4.633 (0.889) | 75 | 1706355 | | | 234.32- 334.32 | 279.61 |
| 90 Isobutanol | | | | | CAS #: 78-83-1 | | |
| 4.812 | 4.812 (1.126) | 41 | 678258 | 200.000 | 206.96 | 50.00- 150.00 | 100.00(A) |
| 4.812 | 4.812 (1.126) | 43 | 910332 | | | 78.26- 178.26 | 134.22 |
| 4.812 | 4.812 (1.126) | 59 | 26760 | | | 0.00- 53.93 | 3.95 |
| 96 1-Butanol | | | | | CAS #: 71-36-3 | | |
| 5.414 | 5.414 (1.038) | 56 | 763672 | 200.000 | 226.26 | 50.00- 150.00 | 100.00(A) |
| 5.414 | 5.414 (1.038) | 41 | 597955 | | | 39.10- 139.10 | 78.30 |
| 5.414 | 5.414 (1.038) | 43 | 465201 | | | 10.85- 110.85 | 60.92 |
| 108 1,3-Dichloropropane | | | | | CAS #: 142-28-9 | | |
| 7.047 | 7.047 (1.352) | 76 | 1737354 | 200.000 | 204.66 | 50.00- 150.00 | 100.00(A) |
| 7.047 | 7.047 (1.352) | 41 | 1184648 | | | 17.30- 117.30 | 68.19 |
| 7.047 | 7.047 (1.352) | 78 | 559538 | | | 0.00- 82.69 | 32.21 |
| 110 Butyl Acetate | | | | | CAS #: 123-86-4 | | |
| 7.183 | 7.183 (1.378) | 56 | 1221092 | 200.000 | 220.44 | 50.00- 150.00 | 100.00(A) |
| 7.183 | 7.183 (1.378) | 73 | 476578 | | | 0.00- 87.76 | 39.03 |
| 7.183 | 7.183 (1.378) | 43 | 3137302 | | | 200.04- 300.04 | 256.93 |
| 126 1,1,1,2-Tetrachloroethane | | | | | CAS #: 630-20-6 | | |
| 7.778 | 7.778 (1.013) | 131 | 1143133 | 200.000 | 196.81 | 50.00- 150.00 | 100.00 |
| 7.778 | 7.778 (1.013) | 117 | 810550 | | | 27.75- 127.75 | 70.91 |
| 7.778 | 7.778 (1.013) | 95 | 444597 | | | 0.00- 90.25 | 38.89 |
| 113 2-Heptanone | | | | | CAS #: 110-43-0 | | |
| 8.329 | 8.329 (1.948) | 58 | 1630136 | 200.000 | 227.29 | 50.00- 150.00 | 100.00(A) |
| 8.329 | 8.329 (1.948) | 43 | 2734511 | | | 122.27- 222.27 | 167.75 |
| 117 Cyclohexanone | | | | | CAS #: 108-94-1 | | |
| 8.630 | 8.630 (1.124) | 55 | 958185 | 200.000 | 200.97 | 50.00- 150.00 | 100.00(A) |
| 8.630 | 8.630 (1.124) | 98 | 402072 | | | 0.00- 89.81 | 41.96 |
| 8.630 | 8.630 (1.124) | 42 | 727501 | | | 25.43- 125.43 | 75.92 |
| 118 Bromobenzene | | | | | CAS #: 108-86-1 | | |
| 8.788 | 8.788 (1.145) | 156 | 1226989 | 200.000 | 220.96 | 50.00- 150.00 | 100.00(A) |
| 8.788 | 8.788 (1.145) | 158 | 1186401 | | | 47.23- 147.23 | 96.69 |
| 8.780 | 8.780 (1.144) | 77 | 2097880 | | | 129.56- 229.56 | 170.98 |
| 120 1,2,3-Trichloropropane | | | | | CAS #: 96-18-4 | | |
| 8.845 | 8.845 (1.152) | 110 | 599597 | 200.000 | 208.45 | 50.00- 150.00 | 100.00(A) |
| 8.845 | 8.845 (1.152) | 75 | 1589082 | | | 222.38- 322.38 | 265.02 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 120 1,2,3-Trichloropropane (continued) | | | | | | | |
| 8.845 | 8.845 (1.152) | 61 | 429510 | | | 22.50- 122.50 | 71.63 |
| 121 2-Chlorotoluene | | | | | CAS #: 95-49-8 | | |
| 8.938 | 8.938 (1.164) | 126 | 981899 | 200.000 | 215.43 | 50.00- 150.00 | 100.00(A) |
| 8.938 | 8.938 (1.164) | 91 | 2936179 | | | 247.51- 347.51 | 299.03 |
| 8.938 | 8.938 (1.164) | 65 | 279308 | | | 0.00- 79.82 | 28.45 |
| 122 4-Chlorotoluene | | | | | CAS #: 106-43-4 | | |
| 9.038 | 9.038 (1.177) | 126 | 1070102 | 200.000 | 224.36 | 50.00- 150.00 | 100.00(A) |
| 9.031 | 9.031 (1.176) | 91 | 3200508 | | | 245.49- 345.49 | 299.08 |
| 9.031 | 9.031 (1.176) | 63 | 435204 | | | 0.00- 91.21 | 40.67 |
| 124 Diisobutyl Ketone | | | | | CAS #: 108-83-8 | | |
| 9.110 | 9.110 (1.187) | 57 | 2778791 | 200.000 | 237.24 | 50.00- 150.00 | 100.00(A) |
| 9.110 | 9.110 (1.187) | 85 | 2392989 | | | 36.39- 136.39 | 86.12 |
| 125 tert-Butylbenzene | | | | | CAS #: 98-06-6 | | |
| 9.260 | 9.260 (1.206) | 119 | 3555639 | 200.000 | 227.87 | 50.00- 150.00 | 100.00(A) |
| 9.260 | 9.260 (1.206) | 134 | 893796 | | | 0.00- 75.17 | 25.14 |
| 9.260 | 9.260 (1.206) | 91 | 2433904 | | | 18.47- 118.47 | 68.45 |
| 127 Pentachloroethane | | | | | CAS #: 76-01-7 | | |
| 9.303 | 9.303 (1.212) | 167 | 909617 | 200.000 | 215.40 | 50.00- 150.00 | 100.00(A) |
| 9.303 | 9.303 (1.212) | 117 | 1003000 | | | 62.35- 162.35 | 110.27 |
| 9.303 | 9.303 (1.212) | 169 | 428762 | | | 0.00- 96.70 | 47.14 |
| 129 sec-Butylbenzene | | | | | CAS #: 135-98-8 | | |
| 9.440 | 9.440 (1.230) | 134 | 990242 | 200.000 | 222.39 | 50.00- 150.00 | 100.00(A) |
| 9.440 | 9.440 (1.230) | 105 | 5142735 | | | 474.36- 574.36 | 519.34 |
| 9.440 | 9.440 (1.230) | 91 | 798201 | | | 33.50- 133.50 | 80.61 |
| 132 p-Cymene | | | | | CAS #: 99-87-6 | | |
| 9.561 | 9.561 (1.245) | 119 | 4177772 | 200.000 | 226.82 | 50.00- 150.00 | 100.00(A) |
| 9.561 | 9.561 (1.245) | 134 | 1092868 | | | 0.00- 75.39 | 26.16 |
| 9.561 | 9.561 (1.245) | 91 | 981294 | | | 0.00- 74.45 | 23.49 |
| 133 1,2,3-Trimethylbenzene | | | | | CAS #: 526-73-8 | | |
| 9.662 | 9.662 (1.258) | 120 | 1496749 | 200.000 | 224.60 | 50.00- 150.00 | 100.00(A) |
| 9.662 | 9.662 (1.258) | 105 | 3517972 | | | 197.21- 297.21 | 235.04 |
| 9.662 | 9.662 (1.258) | 77 | 449009 | | | 0.00- 83.29 | 30.00 |
| 136 Butylbenzene | | | | | CAS #: 104-51-8 | | |
| 9.905 | 9.905 (1.290) | 134 | 1023167 | 200.000 | 230.31 | 50.00- 150.00 | 100.00(A) |
| 9.898 | 9.898 (1.289) | 91 | 4183036 | | | 359.92- 459.92 | 408.83 |
| 9.898 | 9.898 (1.289) | 92 | 2259415 | | | 166.94- 266.94 | 220.83 |

| | | | | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | | |
|---|---|---|---|---|---|---|---|
| RT | EXP RT (REL RT) | MASS | RESPONSE | | | TARGET RANGE | RATIO |
| 141 1,2-Dibromo-3-Chloropropane | | | | | CAS #: 96-12-8 | | |
| 10.621 | 10.621 (1.383) | 157 | 914596 | 200.000 | 223.31 | 50.00- 150.00 | 100.00(A) |
| 10.621 | 10.621 (1.383) | 75 | 929352 | | | 56.89- 156.89 | 101.61 |
| 10.621 | 10.621 (1.383) | 155 | 716201 | | | 27.28- 127.28 | 78.31 |

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Report Date: 13-Mar-2010 10:28

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdp.i
Lab File ID: p031117.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: cr
Method File: /chem/msdp.i/11mar10.b/p10q0311a.m
Misc Info: 200ppbv (200ppbv)

Calibration Date: 11-MAR-2010
Calibration Time: 15:01
Client Smp ID: Level 7
Level: LOW
Sample Type: AIR

| | | AREA LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 76 Bromochloromethan | 98264 | 58958 | 137570 | 93643 | -4.70 |
| 97 1,4-Difluorobenze | 341562 | 204937 | 478187 | 328673 | -3.77 |
| 144 Chlorobenzene-d5 | 283469 | 170081 | 396857 | 257589 | -9.13 |

| | | RT LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 76 Bromochloromethan | 4.27 | 3.94 | 4.60 | 4.27 | 0.00 |
| 97 1,4-Difluorobenze | 5.22 | 4.89 | 5.55 | 5.21 | -0.13 |
| 144 Chlorobenzene-d5 | 7.68 | 7.35 | 8.01 | 7.68 | -0.09 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msdp.i/11mar10.b/p031117.d

Date : 11-MAR-2010 15:18

Client ID: Level 7

Sample Info: 200mL #1911-123

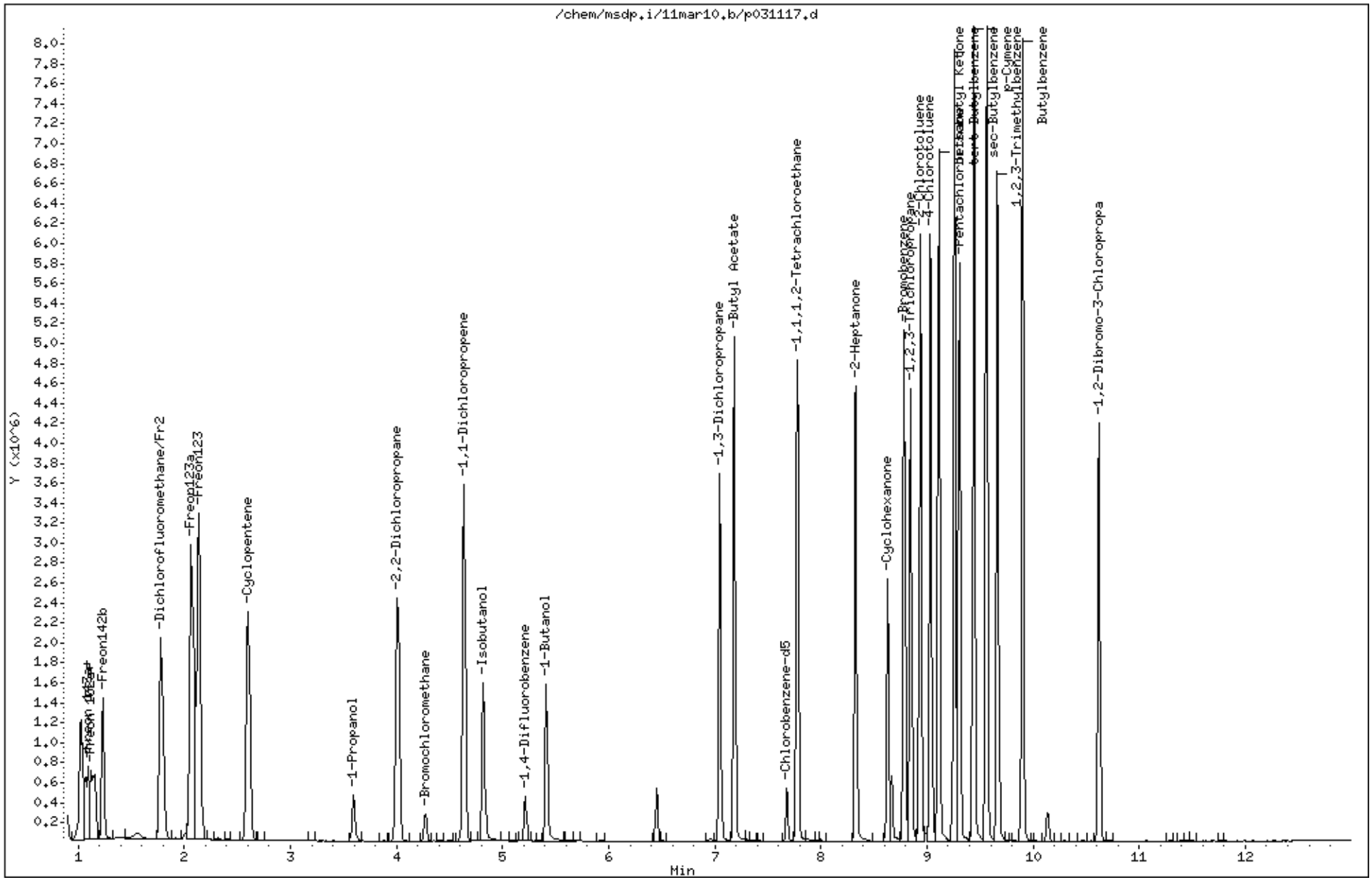
Column phase: RTx-624

Instrument: msdp.i

Operator: cr

Column diameter: 0.53





Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msdp.i/11mar10.b/p031109.d
Lab Smp Id: ICAL Client Smp ID: Level 7
Inj Date : 11-MAR-2010 11:17
Operator : cr Inst ID: msdp.i
Smp Info : 200mL #1911-281
Misc Info : 200ppbv (200ppbv)
Comment :
Method : /chem/msdp.i/11mar10.b/p10q0311a.m
Meth Date : 13-Mar-2010 09:23 jparker Quant Type: ISTD
Cal Date : 11-MAR-2010 15:18 Cal File: p031117.d
Als bottle: 1 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT09.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| | | | | AMOUNTS | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | CAL-AMT | ON-COL | | | |
| RT | EXP RT (REL RT) | MASS | RESPONSE | ( PPBV) | ( PPBV) | TARGET RANGE | | RATIO |
| == | ====== ======== | ==== | ======== | ======= | ======= | ========== | | ===== |
| * 76 Bromochloromethane | | | | | CAS #: 74-97-5 | | | |
| 4.282 | 4.282 (1.000) | 130 | 125112 | 25.0000 | | 50.00- | 150.00 | 100.00 |
| 4.275 | 4.275 (1.000) | 128 | 98082 | | | 27.91- | 127.91 | 78.40 |
| 4.275 | 4.275 (1.000) | 49 | 173271 | | | 88.40- | 188.40 | 138.49 |
| * 97 1,4-Difluorobenzene | | | | | CAS #: 540-36-3 | | | |
| 5.228 | 5.228 (1.000) | 114 | 422961 | 25.0000 | | 50.00- | 150.00 | 100.00 |
| 5.228 | 5.228 (1.000) | 88 | 66961 | | | 0.00- | 65.84 | 15.83 |
| * 144 Chlorobenzene-d5 | | | | | CAS #: 3114-55-4 | | | |
| 7.699 | 7.699 (1.000) | 117 | 343705 | 25.0000 | | 50.00- | 150.00 | 100.00 |
| 7.699 | 7.699 (1.000) | 82 | 194573 | | | 6.75- | 106.75 | 56.61 |
| $ 89 1,2-Dichloroethane-d4 | | | | | CAS #: 17060-07-0 | | | |
| 4.841 | 4.841 (1.130) | 65 | 186500 | 25.0000 | 27.831 | 50.00- | 150.00 | 100.00 |
| 4.841 | 4.841 (1.130) | 67 | 135314 | | | 6.22- | 106.22 | 72.55 |
| $ 115 Toluene-d8 | | | | | CAS #: 2037-26-5 | | | |
| 6.467 | 6.467 (1.237) | 98 | 426480 | 25.0000 | 24.448 | 50.00- | 150.00 | 100.00 |
| 6.467 | 6.467 (1.237) | 70 | 47534 | | | 0.00- | 61.60 | 11.15 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 115 Toluene-d8 (continued) | | | | | | | |
| 6.467 | 6.467 (1.237) | 100 | 293256 | | | 15.04- 115.04 | 68.76 |
| $ 159 Bromofluorobenzene | | | | | CAS #: 460-00-4 | | |
| 8.687 | 8.687 (1.128) | 174 | 172616 | 25.0000 | 27.435 | 50.00- 150.00 | 100.00 |
| 8.687 | 8.687 (1.128) | 95 | 232582 | | | 86.78- 186.78 | 134.74 |
| 8.687 | 8.687 (1.128) | 176 | 164788 | | | 46.17- 146.17 | 95.47 |
| 6 Propylene | | | | | CAS #: 115-07-1 | | |
| 1.125 | 1.125 (0.263) | 41 | 928760 | 200.000 | 180.44 | 50.00- 150.00 | 100.00 |
| 1.125 | 1.125 (0.263) | 42 | 613353 | | | 16.22- 116.22 | 66.04 |
| 1.125 | 1.125 (0.263) | 39 | 687929 | | | 23.14- 123.14 | 74.07 |
| 7 Dichlorodifluoromethane/Fr12 | | | | | CAS #: 75-71-8 | | |
| 1.139 | 1.139 (0.266) | 85 | 3208945 | 200.000 | 178.74 | 50.00- 150.00 | 100.00 |
| 1.139 | 1.139 (0.266) | 87 | 1027399 | | | 0.00- 81.77 | 32.02 |
| 10 Freon 114 | | | | | CAS #: 76-14-2 | | |
| 1.209 | 1.209 (0.282) | 135 | 2599035 | 200.000 | 198.55 | 50.00- 150.00 | 100.00 |
| 1.209 | 1.209 (0.282) | 137 | 821338 | | | 0.00- 82.41 | 31.60 |
| 11 Chloromethane | | | | | CAS #: 74-87-3 | | |
| 1.265 | 1.265 (0.295) | 50 | 581626 | 200.000 | 137.94 | 50.00- 150.00 | 100.00 |
| 1.265 | 1.265 (0.295) | 52 | 188120 | | | 0.00- 85.01 | 32.34 |
| 13 Butane | | | | | CAS #: 106-97-8 | | |
| 1.307 | 1.307 (0.305) | 58 | 172652 | 200.000 | 133.08 | 50.00- 150.00 | 100.00 |
| 1.307 | 1.307 (0.305) | 43 | 1079477 | | | 664.85- 764.85 | 625.23 |
| 14 Vinyl Chloride | | | | | CAS #: 75-01-4 | | |
| 1.335 | 1.335 (0.312) | 62 | 765323 | 200.000 | 115.02 | 50.00- 150.00 | 100.00 |
| 1.335 | 1.335 (0.312) | 64 | 239835 | | | 0.00- 88.01 | 31.34 |
| 15 1,3-Butadiene | | | | | CAS #: 106-99-0 | | |
| 1.349 | 1.349 (0.315) | 54 | 643835 | 200.000 | 120.63 | 50.00- 150.00 | 100.00 |
| 1.349 | 1.349 (0.315) | 39 | 772168 | | | 67.29- 167.29 | 119.93 |
| 21 Bromomethane | | | | | CAS #: 74-83-9 | | |
| 1.572 | 1.572 (0.367) | 94 | 1081469 | 200.000 | 187.82 | 50.00- 150.00 | 100.00 |
| 1.572 | 1.572 (0.367) | 96 | 1001044 | | | 45.21- 145.21 | 92.56 |
| 24 Chloroethane | | | | | CAS #: 75-00-3 | | |
| 1.642 | 1.642 (0.384) | 64 | 681213 | 200.000 | 194.94 | 50.00- 150.00 | 100.00 |
| 1.642 | 1.642 (0.384) | 66 | 216849 | | | 0.00- 89.11 | 31.83 |
| 1.642 | 1.642 (0.384) | 49 | 183553 | | | 0.00- 79.55 | 26.95 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 25 Isopentane | | | | | CAS #: 78-78-4 | | |
| 1.670 | 1.670 (0.390) | 43 | 1664682 | 200.000 | 213.58 | 50.00- 150.00 | 100.00(A) |
| 1.670 | 1.670 (0.390) | 57 | 1083738 | | | 25.98- 125.98 | 65.10 |
| 28 Trichlorofluoromethane/Fr11 | | | | | CAS #: 75-69-4 | | |
| 1.810 | 1.810 (0.423) | 101 | 3823365 | 200.000 | 209.83 | 50.00- 150.00 | 100.00(A) |
| 1.810 | 1.810 (0.423) | 103 | 2451091 | | | 17.23- 117.23 | 64.11 |
| 29 Ethanol | | | | | CAS #: 64-17-5 | | |
| 1.978 | 1.978 (0.462) | 45 | 486473 | 200.000 | 174.56 | 50.00- 150.00 | 100.00 |
| 1.978 | 1.978 (0.462) | 43 | 122061 | | | 0.00- 84.20 | 25.09 |
| 1.978 | 1.978 (0.462) | 46 | 191339 | | | 0.00- 96.43 | 39.33 |
| 30 Freon 113 | | | | | CAS #: 76-13-1 | | |
| 2.212 | 2.212 (0.517) | 151 | 2032756 | 200.000 | 189.60 | 50.00- 150.00 | 100.00 |
| 2.212 | 2.212 (0.517) | 153 | 1306810 | | | 13.21- 113.21 | 64.29 |
| 2.212 | 2.212 (0.517) | 101 | 2719830 | | | 82.01- 182.01 | 133.80 |
| 32 1,1-Dichloroethene | | | | | CAS #: 75-35-4 | | |
| 2.233 | 2.233 (0.522) | 98 | 856945 | 200.000 | 200.05 | 50.00- 150.00 | 100.00(A) |
| 2.233 | 2.233 (0.522) | 96 | 1353531 | | | 106.98- 206.98 | 157.95 |
| 2.233 | 2.233 (0.522) | 61 | 2325610 | | | 215.33- 315.33 | 271.38 |
| 34 Acetone | | | | | CAS #: 67-64-1 | | |
| 2.312 | 2.312 (0.540) | 58 | 650817 | 200.000 | 193.69 | 50.00- 150.00 | 100.00 |
| 2.312 | 2.312 (0.540) | 43 | 2179447 | | | 281.49- 381.49 | 334.88 |
| 35 Carbon Disulfide | | | | | CAS #: 75-15-0 | | |
| 2.413 | 2.413 (0.563) | 76 | 3855801 | 200.000 | 191.70 | 50.00- 150.00 | 100.00 |
| 37 2-Propanol | | | | | CAS #: 67-63-0 | | |
| 2.427 | 2.427 (0.567) | 45 | 2542467 | 200.000 | 208.93 | 50.00- 150.00 | 100.00(A) |
| 2.427 | 2.427 (0.567) | 43 | 512062 | | | 0.00- 72.19 | 20.14 |
| 2.427 | 2.427 (0.567) | 59 | 94841 | | | 0.00- 77.65 | 3.73 |
| 41 3-Chloropropene | | | | | CAS #: 107-05-1 | | |
| 2.577 | 2.577 (0.602) | 76 | 627744 | 200.000 | 203.92 | 50.00- 150.00 | 100.00(A) |
| 2.577 | 2.577 (0.602) | 41 | 1896257 | | | 257.61- 357.61 | 302.07 |
| 43 Methylene Chloride | | | | | CAS #: 75-09-2 | | |
| 2.720 | 2.720 (0.635) | 49 | 1591403 | 200.000 | 187.30 | 50.00- 150.00 | 100.00 |
| 2.720 | 2.720 (0.635) | 84 | 1174067 | | | 24.25- 124.25 | 73.78 |
| 2.720 | 2.720 (0.635) | 51 | 478576 | | | 0.00- 81.57 | 30.07 |
| 46 tert-Butyl-Alcohol | | | | | CAS #: 75-65-0 | | |
| 2.814 | 2.814 (0.657) | 59 | 2735643 | 200.000 | 210.83 | 50.00- 150.00 | 100.00(A) |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 46 tert-Butyl-Alcohol (continued) | | | | | | | |
| 2.821 | 2.821 (0.659) | 41 | 689143 | | | 0.00- 77.85 | 25.19 |
| 2.814 | 2.814 (0.657) | 57 | 277152 | | | 0.00- 61.24 | 10.13 |
| 47 MTBE | | | | | CAS #: 1634-04-4 | | |
| 2.943 | 2.943 (0.687) | 73 | 3586625 | 200.000 | 200.01 | 50.00- 150.00 | 100.00(A) |
| 2.943 | 2.943 (0.687) | 57 | 821403 | | | 0.00- 81.96 | 22.90 |
| 2.943 | 2.943 (0.687) | 41 | 880756 | | | 0.00- 76.94 | 24.56 |
| 48 trans-1,2-Dichloroethene | | | | | CAS #: 156-60-5 | | |
| 2.957 | 2.957 (0.691) | 98 | 891119 | 200.000 | 199.68 | 50.00- 150.00 | 100.00 |
| 2.957 | 2.957 (0.691) | 61 | 2095772 | | | 187.67- 287.67 | 235.18 |
| 2.964 | 2.964 (0.692) | 96 | 1401157 | | | 111.49- 211.49 | 157.24 |
| 51 Hexane | | | | | CAS #: 110-54-3 | | |
| 3.200 | 3.200 (0.747) | 57 | 2077533 | 200.000 | 191.13 | 50.00- 150.00 | 100.00 |
| 3.200 | 3.200 (0.747) | 43 | 1388960 | | | 17.17- 117.17 | 66.86 |
| 3.200 | 3.200 (0.747) | 86 | 331585 | | | 0.00- 70.58 | 15.96 |
| 59 1,1-Dichloroethane | | | | | CAS #: 75-34-3 | | |
| 3.451 | 3.451 (0.806) | 63 | 2560069 | 200.000 | 192.96 | 50.00- 150.00 | 100.00 |
| 3.451 | 3.451 (0.806) | 65 | 807334 | | | 0.00- 81.69 | 31.54 |
| 58 Isopropyl ether | | | | | CAS #: 108-20-3 | | |
| 3.473 | 3.473 (0.811) | 45 | 4658510 | 200.000 | 189.07 | 50.00- 150.00 | 100.00 |
| 3.473 | 3.473 (0.811) | 87 | 1119184 | | | 0.00- 73.95 | 24.02 |
| 3.473 | 3.473 (0.811) | 59 | 493958 | | | 0.00- 60.65 | 10.60 |
| 61 Vinyl Acetate | | | | | CAS #: 108-05-4 | | |
| 3.501 | 3.501 (0.818) | 86 | 341117 | 200.000 | 212.18 | 50.00- 150.00 | 100.00(A) |
| 3.494 | 3.494 (0.816) | 43 | 6071370 | | | 1854.64-1954.64 | 1779.85 |
| 68 t-Butylethyl Ether | | | | | CAS #: 637-92-3 | | |
| 3.838 | 3.838 (0.896) | 59 | 3793010 | 200.000 | 196.10 | 50.00- 150.00 | 100.00 |
| 3.838 | 3.838 (0.896) | 87 | 1501202 | | | 0.00- 89.71 | 39.58 |
| 3.838 | 3.838 (0.896) | 41 | 765927 | | | 0.00- 72.53 | 20.19 |
| 73 cis-1,2-Dichloroethene | | | | | CAS #: 156-59-2 | | |
| 4.046 | 4.046 (0.945) | 98 | 875943 | 200.000 | 199.69 | 50.00- 150.00 | 100.00 |
| 4.046 | 4.046 (0.945) | 96 | 1385118 | | | 109.55- 209.55 | 158.13 |
| 4.046 | 4.046 (0.945) | 61 | 1861266 | | | 163.91- 263.91 | 212.49 |
| 74 2-Butanone | | | | | CAS #: 78-93-3 | | |
| 4.074 | 4.074 (0.951) | 72 | 704253 | 200.000 | 213.81 | 50.00- 150.00 | 100.00(A) |
| 4.074 | 4.074 (0.951) | 43 | 3046620 | | | 411.26- 511.26 | 432.60 |
| 4.074 | 4.074 (0.951) | 57 | 227819 | | | 25.94- 125.94 | 32.35 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 75 Tetrahydrofuran | | | | | CAS #: 109-99-9 | | |
| 4.282 | 4.282 (1.000) | 42 | 1670487 | 200.000 | 198.32 | 50.00- 150.00 | 100.00 |
| 4.282 | 4.282 (1.000) | 71 | 622688 | | | 0.00- 84.34 | 37.28 |
| 4.282 | 4.282 (1.000) | 72 | 660482 | | | 0.00- 88.12 | 39.54 |
| 78 Chloroform | | | | | CAS #: 67-66-3 | | |
| 4.354 | 4.354 (1.017) | 83 | 2784614 | 200.000 | 195.77 | 50.00- 150.00 | 100.00 |
| 4.354 | 4.354 (1.017) | 85 | 1810497 | | | 15.20- 115.20 | 65.02 |
| 80 Cyclohexane | | | | | CAS #: 110-82-7 | | |
| 4.475 | 4.475 (1.045) | 84 | 1682116 | 200.000 | 194.12 | 50.00- 150.00 | 100.00 |
| 4.475 | 4.475 (1.045) | 56 | 2039635 | | | 70.44- 170.44 | 121.25 |
| 4.475 | 4.475 (1.045) | 41 | 1206682 | | | 25.90- 125.90 | 71.74 |
| 81 1,1,1-Trichloroethane | | | | | CAS #: 71-55-6 | | |
| 4.490 | 4.490 (1.048) | 97 | 2602225 | 200.000 | 194.30 | 50.00- 150.00 | 100.00 |
| 4.483 | 4.483 (1.047) | 99 | 1641975 | | | 14.53- 114.53 | 63.10 |
| 82 Carbon Tetrachloride | | | | | CAS #: 56-23-5 | | |
| 4.612 | 4.612 (1.077) | 119 | 2466604 | 200.000 | 182.13 | 50.00- 150.00 | 100.00 |
| 4.612 | 4.612 (1.077) | 117 | 2564354 | | | 52.63- 152.63 | 103.96 |
| 87 2,2,4-Trimethylpentane | | | | | CAS #: 540-84-1 | | |
| 4.848 | 4.848 (1.132) | 57 | 6237898 | 200.000 | 197.94 | 50.00- 150.00 | 100.00 |
| 4.848 | 4.848 (1.132) | 56 | 1973521 | | | 0.00- 88.69 | 31.64 |
| 4.848 | 4.848 (1.132) | 41 | 1610431 | | | 0.00- 79.27 | 25.82 |
| 88 Benzene | | | | | CAS #: 71-43-2 | | |
| 4.826 | 4.826 (0.923) | 78 | 3889446 | 200.000 | 192.48 | 50.00- 150.00 | 100.00 |
| 4.826 | 4.826 (0.923) | 77 | 919141 | | | 0.00- 74.11 | 23.63 |
| 92 tert-amyl-Methyl Ether | | | | | CAS #: 994-05-8 | | |
| 4.927 | 4.927 (1.151) | 73 | 3371753 | 200.000 | 199.60 | 50.00- 150.00 | 100.00 |
| 4.927 | 4.927 (1.151) | 87 | 771905 | | | 0.00- 73.17 | 22.89 |
| 4.927 | 4.927 (1.151) | 55 | 945528 | | | 0.00- 81.18 | 28.04 |
| 93 1,2-Dichloroethane | | | | | CAS #: 107-06-2 | | |
| 4.905 | 4.905 (0.938) | 62 | 1874001 | 200.000 | 198.84 | 50.00- 150.00 | 100.00 |
| 4.905 | 4.905 (0.938) | 64 | 603288 | | | 0.00- 82.38 | 32.19 |
| 94 Heptane | | | | | CAS #: 142-82-5 | | |
| 5.034 | 5.034 (0.963) | 71 | 1462995 | 200.000 | 204.66 | 50.00- 150.00 | 100.00(A) |
| 5.034 | 5.034 (0.963) | 43 | 2662277 | | | 135.49- 235.49 | 181.97 |
| 5.034 | 5.034 (0.963) | 57 | 1512902 | | | 48.06- 148.06 | 103.41 |
| 102 Trichloroethene | | | | | CAS #: 79-01-6 | | |
| 5.421 | 5.421 (1.037) | 95 | 1682022 | 200.000 | 196.50 | 50.00- 150.00 | 100.00 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 102 Trichloroethene (continued) | | | | | | | |
| 5.421 | 5.421 (1.037) | 130 | 1721535 | | | 53.53- 153.53 | 102.35 |
| 5.421 | 5.421 (1.037) | 97 | 1074283 | | | 13.85- 113.85 | 63.87 |
| 104 Methyl Cyclohexane | | | | | CAS #: 108-87-2 | | |
| 5.536 | 5.536 (1.293) | 83 | 2115841 | 200.000 | 190.30 | 50.00- 150.00 | 100.00 |
| 5.536 | 5.536 (1.293) | 98 | 1001677 | | | 0.00- 96.78 | 47.34 |
| 5.536 | 5.536 (1.293) | 55 | 1751997 | | | 33.43- 133.43 | 82.80 |
| 106 1,2-Dichloropropane | | | | | CAS #: 78-87-5 | | |
| 5.650 | 5.650 (1.081) | 63 | 1403072 | 200.000 | 193.02 | 50.00- 150.00 | 100.00 |
| 5.650 | 5.650 (1.081) | 62 | 1002412 | | | 23.18- 123.18 | 71.44 |
| 5.650 | 5.650 (1.081) | 41 | 858583 | | | 17.64- 117.64 | 61.19 |
| 107 1,4-Dioxane | | | | | CAS #: 123-91-1 | | |
| 5.750 | 5.750 (1.100) | 88 | 811388 | 200.000 | 190.53 | 50.00- 150.00 | 100.00 |
| 5.750 | 5.750 (1.100) | 58 | 571476 | | | 22.06- 122.06 | 70.43 |
| 5.750 | 5.750 (1.100) | 57 | 187055 | | | 0.00- 73.47 | 23.05 |
| 109 Bromodichloromethane | | | | | CAS #: 75-27-4 | | |
| 5.887 | 5.887 (1.126) | 83 | 2763863 | 200.000 | 196.46 | 50.00- 150.00 | 100.00 |
| 5.887 | 5.887 (1.126) | 85 | 1760516 | | | 13.70- 113.70 | 63.70 |
| 112 cis-1,3-Dichloropropene | | | | | CAS #: 10061-01-5 | | |
| 6.281 | 6.281 (1.201) | 75 | 2054435 | 200.000 | 204.02 | 50.00- 150.00 | 100.00(A) |
| 6.281 | 6.281 (1.201) | 77 | 653961 | | | 0.00- 84.04 | 31.83 |
| 6.281 | 6.281 (1.201) | 39 | 1167681 | | | 11.78- 111.78 | 56.84 |
| 114 4-Methyl-2-pentanone | | | | | CAS #: 108-10-1 | | |
| 6.409 | 6.409 (1.226) | 58 | 1188369 | 200.000 | 205.15 | 50.00- 150.00 | 100.00(A) |
| 6.409 | 6.409 (1.226) | 43 | 3232822 | | | 237.60- 337.60 | 272.04 |
| 6.409 | 6.409 (1.226) | 85 | 488275 | | | 0.00- 99.98 | 41.09 |
| 116 Toluene | | | | | CAS #: 108-88-3 | | |
| 6.524 | 6.524 (1.248) | 91 | 4556358 | 200.000 | 194.23 | 50.00- 150.00 | 100.00 |
| 6.524 | 6.524 (1.248) | 92 | 2648357 | | | 8.25- 108.25 | 58.12 |
| 123 trans-1,3-Dichloropropene | | | | | CAS #: 10061-02-6 | | |
| 6.775 | 6.775 (0.880) | 75 | 2150726 | 200.000 | 208.02 | 50.00- 150.00 | 100.00(A) |
| 6.775 | 6.775 (0.880) | 77 | 692044 | | | 302.12- 402.12 | 32.18 |
| 6.775 | 6.775 (0.880) | 39 | 1175827 | | | 4.41- 104.41 | 54.67 |
| 128 1,1,2-Trichloroethane | | | | | CAS #: 79-00-5 | | |
| 6.918 | 6.918 (0.899) | 97 | 1514371 | 200.000 | 192.83 | 50.00- 150.00 | 100.00 |
| 6.918 | 6.918 (0.899) | 99 | 940195 | | | 12.50- 112.50 | 62.08 |
| 6.918 | 6.918 (0.899) | 83 | 1298315 | | | 34.85- 134.85 | 85.73 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 131 Tetrachloroethene | | | | | CAS #: 127-18-4 | | |
| 6.968 | 6.968 (0.905) | 166 | 2010654 | 200.000 | 197.40 | 50.00- 150.00 | 100.00 |
| 6.968 | 6.968 (0.905) | 129 | 1514919 | | | 26.92- 126.92 | 75.34 |
| 6.968 | 6.968 (0.905) | 131 | 1470311 | | | 21.94- 121.94 | 73.13 |
| 135 2-Hexanone | | | | | CAS #: 591-78-6 | | |
| 7.111 | 7.111 (0.924) | 58 | 1667167 | 200.000 | 224.47 | 50.00- 150.00 | 100.00(A) |
| 7.111 | 7.111 (0.924) | 43 | 3275423 | | | 157.46- 257.46 | 196.47 |
| 7.119 | 7.119 (0.925) | 100 | 329701 | | | 0.00- 69.68 | 19.78 |
| 138 Dibromochloromethane | | | | | CAS #: 124-48-1 | | |
| 7.226 | 7.226 (0.939) | 129 | 2617349 | 200.000 | 200.65 | 50.00- 150.00 | 100.00(A) |
| 7.226 | 7.226 (0.939) | 127 | 2050870 | | | 27.83- 127.83 | 78.36 |
| 140 1,2-Dibromoethane | | | | | CAS #: 106-93-4 | | |
| 7.326 | 7.326 (0.952) | 107 | 2320790 | 200.000 | 202.08 | 50.00- 150.00 | 100.00(A) |
| 7.326 | 7.326 (0.952) | 109 | 2183885 | | | 46.78- 146.78 | 94.10 |
| 145 Chlorobenzene | | | | | CAS #: 108-90-7 | | |
| 7.720 | 7.720 (1.003) | 112 | 3401416 | 200.000 | 196.58 | 50.00- 150.00 | 100.00 |
| 7.720 | 7.720 (1.003) | 114 | 1084253 | | | 0.00- 81.68 | 31.88 |
| 7.720 | 7.720 (1.003) | 77 | 1950268 | | | 19.10- 119.10 | 57.34 |
| 147 Ethyl Benzene | | | | | CAS #: 100-41-4 | | |
| 7.792 | 7.792 (1.012) | 106 | 1780744 | 200.000 | 206.64 | 50.00- 150.00 | 100.00(A) |
| 7.792 | 7.792 (1.012) | 91 | 5704581 | | | 270.93- 370.93 | 320.35 |
| 150 m,p-Xylene | | | | | CAS #: 108-38-3 | | |
| 7.892 | 7.892 (1.025) | 106 | 2251359 | 200.000 | 209.96 | 50.00- 150.00 | 100.00(A) |
| 7.892 | 7.892 (1.025) | 91 | 4563554 | | | 151.38- 251.38 | 202.70 |
| 153 o-Xylene | | | | | CAS #: 95-47-6 | | |
| 8.229 | 8.229 (1.069) | 106 | 2080891 | 200.000 | 212.62 | 50.00- 150.00 | 100.00(A) |
| 8.222 | 8.222 (1.068) | 91 | 4383103 | | | 164.77- 264.77 | 210.64 |
| 154 Styrene | | | | | CAS #: 100-42-5 | | |
| 8.243 | 8.243 (1.071) | 104 | 3585961 | 200.000 | 223.45 | 50.00- 150.00 | 100.00(A) |
| 8.243 | 8.243 (1.071) | 78 | 1810084 | | | 1.89- 101.89 | 50.48 |
| 155 Bromoform | | | | | CAS #: 75-25-2 | | |
| 8.415 | 8.415 (1.093) | 173 | 2321520 | 200.000 | 215.40 | 50.00- 150.00 | 100.00(A) |
| 8.415 | 8.415 (1.093) | 171 | 1196960 | | | 0.59- 100.59 | 51.56 |
| 156 Cumene | | | | | CAS #: 98-82-8 | | |
| 8.523 | 8.523 (1.107) | 105 | 6124944 | 200.000 | 206.77 | 50.00- 150.00 | 100.00(A) |
| 8.523 | 8.523 (1.107) | 120 | 1613764 | | | 0.00- 76.38 | 26.35 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 156 Cumene (continued) | | | | | | | |
| 8.523 | 8.523 (1.107) | 51 | 612781 | | | 0.00- 60.64 | 10.00 |
| 161 1,1,2,2-Tetrachloroethane | | | | | CAS #: 79-34-5 | | |
| 8.823 | 8.823 (1.146) | 83 | 3036002 | 200.000 | 198.20 | 50.00- 150.00 | 100.00 |
| 8.823 | 8.823 (1.146) | 85 | 1960225 | | | 16.07- 116.07 | 64.57 |
| 162 Propylbenzene | | | | | CAS #: 103-65-1 | | |
| 8.866 | 8.866 (1.152) | 91 | 7507421 | 200.000 | 213.20 | 50.00- 150.00 | 100.00(A) |
| 8.866 | 8.866 (1.152) | 120 | 1666457 | | | 0.00- 72.00 | 22.20 |
| 8.866 | 8.866 (1.152) | 105 | 263846 | | | 0.00- 68.11 | 3.51 |
| 163 4-Ethyltoluene | | | | | CAS #: 622-96-8 | | |
| 8.960 | 8.960 (1.164) | 120 | 1898245 | 200.000 | 214.49 | 50.00- 150.00 | 100.00(A) |
| 8.960 | 8.960 (1.164) | 105 | 6448968 | | | 275.52- 375.52 | 339.73 |
| 164 1,3,5-Trimethylbenzene | | | | | CAS #: 108-67-8 | | |
| 9.017 | 9.017 (1.171) | 120 | 2515407 | 200.000 | 216.35 | 50.00- 150.00 | 100.00(A) |
| 9.017 | 9.017 (1.171) | 105 | 5208479 | | | 157.61- 257.61 | 207.06 |
| 166 1,2,4-Trimethylbenzene | | | | | CAS #: 95-63-6 | | |
| 9.332 | 9.332 (1.212) | 120 | 2238553 | 200.000 | 223.30 | 50.00- 150.00 | 100.00(A) |
| 9.332 | 9.332 (1.212) | 105 | 4954858 | | | 171.83- 271.83 | 221.34 |
| 168 1,3-Dichlorobenzene | | | | | CAS #: 541-73-1 | | |
| 9.583 | 9.583 (1.245) | 146 | 3088248 | 200.000 | 220.11 | 50.00- 150.00 | 100.00(A) |
| 9.583 | 9.583 (1.245) | 148 | 1944385 | | | 11.58- 111.58 | 62.96 |
| 9.583 | 9.583 (1.245) | 111 | 1258797 | | | 0.00- 91.95 | 40.76 |
| 169 1,4-Dichlorobenzene | | | | | CAS #: 106-46-7 | | |
| 9.669 | 9.669 (1.256) | 146 | 3126235 | 200.000 | 225.57 | 50.00- 150.00 | 100.00(A) |
| 9.669 | 9.669 (1.256) | 148 | 1961255 | | | 14.35- 114.35 | 62.74 |
| 9.669 | 9.669 (1.256) | 111 | 1225132 | | | 0.00- 91.42 | 39.19 |
| 170 alpha-Chlorotoluene | | | | | CAS #: 100-44-7 | | |
| 9.783 | 9.783 (1.271) | 91 | 4238624 | 200.000 | 236.73 | 50.00- 150.00 | 100.00(A) |
| 9.783 | 9.783 (1.271) | 126 | 866746 | | | 0.00- 69.60 | 20.45 |
| 171 1,2-Dichlorobenzene | | | | | CAS #: 95-50-1 | | |
| 9.977 | 9.977 (1.296) | 146 | 2731389 | 200.000 | 222.02 | 50.00- 150.00 | 100.00(A) |
| 9.977 | 9.977 (1.296) | 148 | 1724547 | | | 14.46- 114.46 | 63.14 |
| 9.977 | 9.977 (1.296) | 111 | 1165311 | | | 0.00- 94.23 | 42.66 |
| 174 1,2,4-Trichlorobenzene | | | | | CAS #: 120-82-1 | | |
| 11.302 | 11.302 (1.468) | 180 | 1844630 | 200.000 | 235.35 | 50.00- 150.00 | 100.00(A) |
| 11.302 | 11.302 (1.468) | 182 | 1780596 | | | 46.77- 146.77 | 96.53 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 175 Hexachlorobutadiene | | | | | CAS #: 87-68-3 | | |
| 11.402 | 11.402 (1.481) | 225 | 1835655 | 200.000 | 257.78 | 50.00- 150.00 | 100.00(A) |
| 11.402 | 11.402 (1.481) | 223 | 1157314 | | | 13.27- 113.27 | 63.05 |
| 176 Naphthalene | | | | | CAS #: 91-20-3 | | |
| 11.517 | 11.517 (1.496) | 128 | 4021327 | 200.000 | 237.30 | 50.00- 150.00 | 100.00(A) |
| 11.517 | 11.517 (1.496) | 127 | 503523 | | | 0.00- 62.46 | 12.52 |

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Report Date: 13-Mar-2010 09:23

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdp.i
Lab File ID: p031109.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: cr
Method File: /chem/msdp.i/11mar10.b/p10q0311a.m
Misc Info: 200ppbv (200ppbv)

Calibration Date: 11-MAR-2010
Calibration Time: 10:37
Client Smp ID: Level 7
Level: LOW
Sample Type: AIR

| | | AREA LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 76 Bromochloromethan | 104418 | 62651 | 146185 | 125112 | 19.82 |
| 97 1,4-Difluorobenze | 353421 | 212053 | 494789 | 422961 | 19.68 |
| 144 Chlorobenzene-d5 | 302185 | 181311 | 423059 | 343705 | 13.74 |

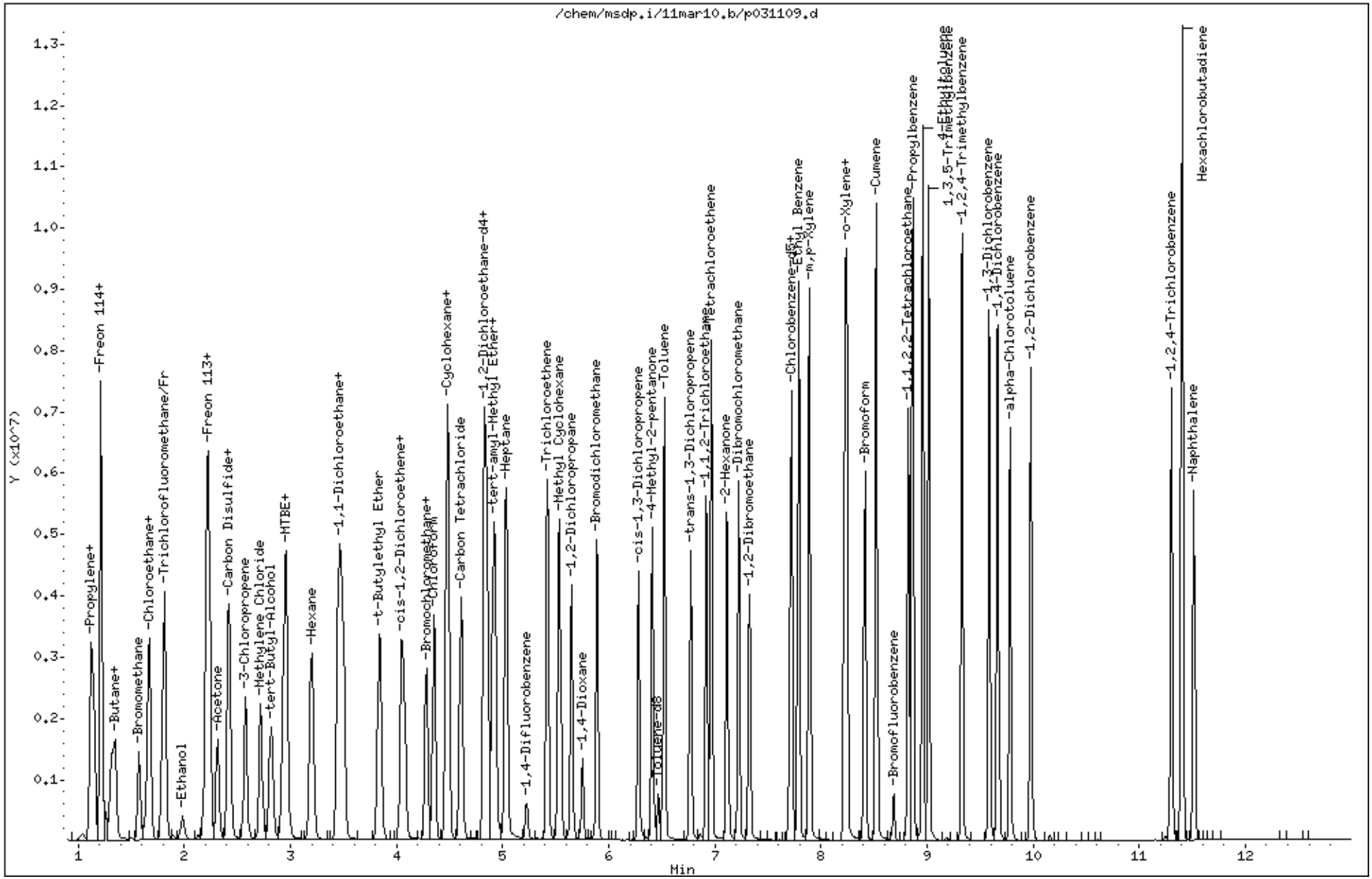
| | | RT LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 76 Bromochloromethan | 4.27 | 3.94 | 4.60 | 4.28 | 0.17 |
| 97 1,4-Difluorobenze | 5.23 | 4.90 | 5.56 | 5.23 | 0.00 |
| 144 Chlorobenzene-d5 | 7.70 | 7.37 | 8.03 | 7.70 | 0.00 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msdp.i/11mar10.b/p031109.d
Date : 11-MAR-2010 11:17
Client ID: Level 7
Sample Info: 200mL #1911-281

Instrument: msdp.i
Operator: cr
Column diameter: 0.53

Column phase: RTx-624



Air Toxics LTD.
Laboratory Services Since 1989

**Client Sample ID: CCV**

**Lab ID#: 1003364-04A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **p032005** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 3/19/10 11:03 PM** | |

| Compound | %Recovery |
|---|---|
| Freon 12 | 108 |
| Freon 114 | 100 |
| Chloromethane | 138 Q |
| Vinyl Chloride | 108 |
| 1,3-Butadiene | 108 |
| Bromomethane | 101 |
| Chloroethane | 111 |
| Freon 11 | 110 |
| Ethanol | 101 |
| Freon 113 | 95 |
| 1,1-Dichloroethene | 93 |
| Acetone | 94 |
| 2-Propanol | 96 |
| Carbon Disulfide | 96 |
| 3-Chloropropene | 94 |
| Methylene Chloride | 104 |
| Methyl tert-butyl ether | 97 |
| trans-1,2-Dichloroethene | 96 |
| Hexane | 99 |
| 1,1-Dichloroethane | 100 |
| 2-Butanone (Methyl Ethyl Ketone) | 100 |
| cis-1,2-Dichloroethene | 95 |
| Tetrahydrofuran | 100 |
| Chloroform | 98 |
| 1,1,1-Trichloroethane | 101 |
| Cyclohexane | 99 |
| Carbon Tetrachloride | 96 |
| 2,2,4-Trimethylpentane | 110 |
| Benzene | 98 |
| 1,2-Dichloroethane | 103 |
| Heptane | 101 |
| Trichloroethene | 98 |
| 1,2-Dichloropropane | 107 |
| 1,4-Dioxane | 100 |
| Bromodichloromethane | 102 |
| cis-1,3-Dichloropropene | 100 |
| 4-Methyl-2-pentanone | 107 |
| Toluene | 101 |
| trans-1,3-Dichloropropene | 91 |

Air Toxics LTD.
Laboratory Services Since 1989

**Client Sample ID: CCV**

**Lab ID#: 1003364-04A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **p032005** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 3/19/10 11:03 PM** | |

| Compound | %Recovery |
|---|---|
| 1,1,2-Trichloroethane | 94 |
| Tetrachloroethene | 86 |
| 2-Hexanone | 99 |
| Dibromochloromethane | 94 |
| 1,2-Dibromoethane (EDB) | 93 |
| Chlorobenzene | 92 |
| Ethyl Benzene | 96 |
| m,p-Xylene | 97 |
| o-Xylene | 97 |
| Styrene | 98 |
| Bromoform | 93 |
| Cumene | 100 |
| 1,1,2,2-Tetrachloroethane | 101 |
| Propylbenzene | 101 |
| 4-Ethyltoluene | 97 |
| 1,3,5-Trimethylbenzene | 101 |
| 1,2,4-Trimethylbenzene | 100 |
| 1,3-Dichlorobenzene | 92 |
| 1,4-Dichlorobenzene | 96 |
| alpha-Chlorotoluene | 96 |
| 1,2-Dichlorobenzene | 96 |
| 1,2,4-Trichlorobenzene | 93 |
| Hexachlorobutadiene | 89 |
| Naphthalene | 92 |

Q = Exceeds Quality Control limits.

**Container Type: NA - Not Applicable**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| Toluene-d8 | 108 | 70-130 |
| 1,2-Dichloroethane-d4 | 109 | 70-130 |
| 4-Bromofluorobenzene | 110 | 70-130 |

Air Toxics Ltd.

## CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msdp.i Injection Date: 19-MAR-2010 23:03
Lab File ID: p032005.d Init. Cal. Date(s): 11-MAR-2010 11-MAR-2010
Analysis Type: AIR Init. Cal. Times: 09:08 15:18
Lab Sample ID: CCV Quant Type: ISTD
Method: /var/chem/msdp.i/20mar10.b/p10q0311a.m

| COMPOUND | RRF / AMOUNT | RF50 | MIN RRF | %D / %DRIFT | MAX %D / %DRIFT | CURVE TYPE | |
|---|---|---|---|---|---|---|---|
| $ 89 1,2-Dichloroethane-d4 | 1.33901 | 1.46188 | 0.010 | -9.17630 | 30.00000 | Averaged | |
| $ 115 Toluene-d8 | 1.03110 | 1.11243 | 0.010 | -7.88786 | 30.00000 | Averaged | |
| $ 159 Bromofluorobenzene | 0.45764 | 0.50224 | 0.010 | -9.74634 | 30.00000 | Averaged | |
| 6 Propylene | 1.02854 | 1.07903 | 0.010 | -4.90850 | 30.00000 | Averaged | |
| 7 Dichlorodifluoromethane/Fr1 | 3.58735 | 3.88325 | 0.010 | -8.24824 | 30.00000 | Averaged | |
| 10 Freon 114 | 2.61562 | 2.61076 | 0.010 | 0.18587 | 30.00000 | Averaged | |
| 11 Chloromethane | 0.84254 | 1.16027 | 0.010 | -37.71047 | 30.00000 | Averaged | <- |
| 13 Butane | 0.25925 | 0.30817 | 0.010 | -18.87267 | 30.00000 | Averaged | |
| 14 Vinyl Chloride | 1.32951 | 1.43207 | 0.010 | -7.71480 | 30.00000 | Averaged | |
| 15 1,3-Butadiene | 1.06647 | 1.14666 | 0.010 | -7.51958 | 30.00000 | Averaged | |
| 21 Bromomethane | 1.15058 | 1.16701 | 0.010 | -1.42818 | 30.00000 | Averaged | |
| 24 Chloroethane | 0.69827 | 0.77714 | 0.010 | -11.29518 | 30.00000 | Averaged | |
| 25 Isopentane | 1.55747 | 1.81038 | 0.010 | -16.23819 | 30.00000 | Averaged | |
| 28 Trichlorofluoromethane/Fr11 | 3.64098 | 3.99727 | 0.010 | -9.78537 | 30.00000 | Averaged | |
| 29 Ethanol | 0.55686 | 0.56386 | 0.010 | -1.25575 | 30.00000 | Averaged | |
| 30 Freon 113 | 2.14228 | 2.04000 | 0.010 | 4.77446 | 30.00000 | Averaged | |
| 32 1,1-Dichloroethene | 0.85596 | 0.79274 | 0.010 | 7.38556 | 30.00000 | Averaged | |
| 34 Acetone | 0.67141 | 0.63261 | 0.010 | 5.77884 | 30.00000 | Averaged | |
| 35 Carbon Disulfide | 4.01915 | 3.86845 | 0.010 | 3.74956 | 30.00000 | Averaged | |
| 37 2-Propanol | 2.43161 | 2.32407 | 0.010 | 4.42262 | 30.00000 | Averaged | |
| 41 3-Chloropropene | 0.61513 | 0.57603 | 0.010 | 6.35602 | 30.00000 | Averaged | |
| 43 Methylene Chloride | 1.69783 | 1.76910 | 0.010 | -4.19760 | 30.00000 | Averaged | |
| 46 tert-Butyl-Alcohol | 2.59279 | 2.42718 | 0.010 | 6.38735 | 30.00000 | Averaged | |
| 47 MTBE | 3.58316 | 3.48112 | 0.010 | 2.84758 | 30.00000 | Averaged | |
| 48 trans-1,2-Dichloroethene | 0.89174 | 0.85238 | 0.010 | 4.41452 | 30.00000 | Averaged | |
| 51 Hexane | 2.17202 | 2.14629 | 0.010 | 1.18444 | 30.00000 | Averaged | |
| 59 1,1-Dichloroethane | 2.65116 | 2.65647 | 0.010 | -0.20039 | 30.00000 | Averaged | |
| 58 Isopropyl ether | 4.92351 | 5.25336 | 0.010 | -6.69954 | 30.00000 | Averaged | |
| 61 Vinyl Acetate | 0.32124 | 0.30621 | 0.010 | 4.67869 | 30.00000 | Averaged | |
| 68 t-Butylethyl Ether | 3.86504 | 3.79349 | 0.010 | 1.85110 | 30.00000 | Averaged | |
| 73 cis-1,2-Dichloroethene | 0.87650 | 0.83118 | 0.010 | 5.16984 | 30.00000 | Averaged | |
| 74 2-Butanone | 0.65818 | 0.66087 | 0.010 | -0.40830 | 30.00000 | Averaged | |
| 75 Tetrahydrofuran | 1.68316 | 1.68936 | 0.010 | -0.36871 | 30.00000 | Averaged | |
| 78 Chloroform | 2.84217 | 2.79125 | 0.010 | 1.79136 | 30.00000 | Averaged | |
| 80 Cyclohexane | 1.73149 | 1.72183 | 0.010 | 0.55769 | 30.00000 | Averaged | |
| 81 1,1,1-Trichloroethane | 2.67622 | 2.71495 | 0.010 | -1.44724 | 30.00000 | Averaged | |

Air Toxics Ltd.

## CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msdp.i Injection Date: 19-MAR-2010 23:03
Lab File ID: p032005.d Init. Cal. Date(s): 11-MAR-2010 11-MAR-2010
Analysis Type: AIR Init. Cal. Times: 09:08 15:18
Lab Sample ID: CCV Quant Type: ISTD
Method: /var/chem/msdp.i/20mar10.b/p10q0311a.m

| | | | MIN | | MAX | |
|---|---|---|---|---|---|---|
| COMPOUND | RRF / AMOUNT | RF50 | RRF | %D / %DRIFT | %D / %DRIFT | CURVE TYPE |
| 82 Carbon Tetrachloride | 2.70614 | 2.60929 | 0.010 | 3.57866 | 30.00000 | Averaged |
| 87 2,2,4-Trimethylpentane | 6.29727 | 6.95118 | 0.010 | -10.38398 | 30.00000 | Averaged |
| 88 Benzene | 1.19435 | 1.17684 | 0.010 | 1.46625 | 30.00000 | Averaged |
| 92 tert-amyl-Methyl Ether | 3.37541 | 3.26917 | 0.010 | 3.14747 | 30.00000 | Averaged |
| 93 1,2-Dichloroethane | 0.55706 | 0.57634 | 0.010 | -3.46100 | 30.00000 | Averaged |
| 94 Heptane | 0.42252 | 0.42766 | 0.010 | -1.21730 | 30.00000 | Averaged |
| 102 Trichloroethene | 0.50594 | 0.49501 | 0.010 | 2.16017 | 30.00000 | Averaged |
| 104 Methyl Cyclohexane | 2.22167 | 2.39313 | 0.010 | -7.71756 | 30.00000 | Averaged |
| 106 1,2-Dichloropropane | 0.42964 | 0.45995 | 0.010 | -7.05485 | 30.00000 | Averaged |
| 107 1,4-Dioxane | 0.25171 | 0.25116 | 0.010 | 0.21647 | 30.00000 | Averaged |
| 109 Bromodichloromethane | 0.83154 | 0.84846 | 0.010 | -2.03488 | 30.00000 | Averaged |
| 112 cis-1,3-Dichloropropene | 0.59520 | 0.59578 | 0.010 | -0.09686 | 30.00000 | Averaged |
| 114 4-Methyl-2-pentanone | 0.34239 | 0.36549 | 0.010 | -6.74684 | 30.00000 | Averaged |
| 116 Toluene | 1.38655 | 1.39882 | 0.010 | -0.88432 | 30.00000 | Averaged |
| 123 trans-1,3-Dichloropropene | 0.75201 | 0.68289 | 0.010 | 9.19122 | 30.00000 | Averaged |
| 128 1,1,2-Trichloroethane | 0.57122 | 0.53604 | 0.010 | 6.15996 | 30.00000 | Averaged |
| 131 Tetrachloroethene | 0.74085 | 0.64109 | 0.010 | 13.46571 | 30.00000 | Averaged |
| 135 2-Hexanone | 0.54022 | 0.53414 | 0.010 | 1.12588 | 30.00000 | Averaged |
| 138 Dibromochloromethane | 0.94880 | 0.89115 | 0.010 | 6.07629 | 30.00000 | Averaged |
| 140 1,2-Dibromoethane | 0.83536 | 0.77780 | 0.010 | 6.89034 | 30.00000 | Averaged |
| 145 Chlorobenzene | 1.25852 | 1.16291 | 0.010 | 7.59703 | 30.00000 | Averaged |
| 147 Ethyl Benzene | 0.62682 | 0.60170 | 0.010 | 4.00675 | 30.00000 | Averaged |
| 150 m,p-Xylene | 0.77993 | 0.75430 | 0.010 | 3.28731 | 30.00000 | Averaged |
| 153 o-Xylene | 0.71185 | 0.69020 | 0.010 | 3.04197 | 30.00000 | Averaged |
| 154 Styrene | 1.16728 | 1.14192 | 0.010 | 2.17180 | 30.00000 | Averaged |
| 155 Bromoform | 0.78394 | 0.72675 | 0.010 | 7.29600 | 30.00000 | Averaged |
| 156 Cumene | 2.08893 | 2.09647 | 0.010 | -0.36102 | 30.00000 | Averaged |
| 161 1,1,2,2-Tetrachloroethane | 1.11416 | 1.12777 | 0.010 | -1.22129 | 40.00000 | Averaged |
| 162 Propylbenzene | 2.56128 | 2.59798 | 0.010 | -1.43305 | 30.00000 | Averaged |
| 163 4-Ethyltoluene | 0.64372 | 0.62723 | 0.010 | 2.56269 | 30.00000 | Averaged |
| 164 1,3,5-Trimethylbenzene | 0.84569 | 0.85124 | 0.010 | -0.65698 | 30.00000 | Averaged |
| 166 1,2,4-Trimethylbenzene | 0.72918 | 0.72784 | 0.010 | 0.18390 | 30.00000 | Averaged |
| 168 1,3-Dichlorobenzene | 1.02052 | 0.94278 | 0.010 | 7.61780 | 30.00000 | Averaged |
| 169 1,4-Dichlorobenzene | 1.00808 | 0.96332 | 0.010 | 4.44048 | 30.00000 | Averaged |
| 170 alpha-Chlorotoluene | 1.30235 | 1.25378 | 0.010 | 3.72901 | 30.00000 | Averaged |

Air Toxics Ltd.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msdp.i Injection Date: 19-MAR-2010 23:03
Lab File ID: p032005.d Init. Cal. Date(s): 11-MAR-2010 11-MAR-2010
Analysis Type: AIR Init. Cal. Times: 09:08 15:18
Lab Sample ID: CCV Quant Type: ISTD
Method: /var/chem/msdp.i/20mar10.b/p10q0311a.m

| COMPOUND | RRF / AMOUNT | RF50 | MIN RRF | %D / %DRIFT | MAX %D / %DRIFT | CURVE TYPE |
|---|---|---|---|---|---|---|
| 171 1,2-Dichlorobenzene | 0.89483 | 0.85630 | 0.010 | 4.30625 | 30.00000 | Averaged |
| 174 1,2,4-Trichlorobenzene | 0.57009 | 0.53078 | 0.010 | 6.89477 | 30.00000 | Averaged |
| 175 Hexachlorobutadiene | 0.51796 | 0.46081 | 0.010 | 11.03414 | 30.00000 | Averaged |
| 176 Naphthalene | 1.23261 | 1.13274 | 0.010 | 8.10291 | 40.00000 | Averaged |

Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msdp.i/20mar10.b/p032005.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 19-MAR-2010 23:03
Operator : ra Inst ID: msdp.i
Smp Info : 50ml 1911-213
Misc Info : 50ppbv (200ppbv)
Comment :
Method : /var/chem/msdp.i/20mar10.b/p10q0311a.m
Meth Date : 26-Mar-2010 11:46 jparker Quant Type: ISTD
Cal Date : 11-MAR-2010 15:18 Cal File: p031117.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT09.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| | | | | AMOUNTS | | | |
|---|---|---|---|---|---|---|---|
| | | | | CAL-AMT | ON-COL | | |
| RT | EXP RT (REL RT) | MASS | RESPONSE | ( PPBV) | ( PPBV) | TARGET RANGE | RATIO |
| == | ====== ======== | ==== | ======== | ======= | ======= | ========== | ===== |
| * 76 Bromochloromethane | | | | | CAS #: 74-97-5 | | |
| 4.275 | 4.275 (1.000) | 130 | 147132 | 25.0000 | | 80.00- 120.00 | 100.00 |
| 4.275 | 4.275 (1.000) | 128 | 116759 | | | 29.36- 129.36 | 79.36 |
| 4.275 | 4.275 (1.000) | 49 | 229498 | | | 105.98- 205.98 | 155.98 |
| * 97 1,4-Difluorobenzene | | | | | CAS #: 540-36-3 | | |
| 5.227 | 5.227 (1.000) | 114 | 499171 | 25.0000 | | 80.00- 120.00 | 100.00 |
| 5.227 | 5.227 (1.000) | 88 | 78171 | | | 0.00- 65.66 | 15.66 |
| * 144 Chlorobenzene-d5 | | | | | CAS #: 3114-55-4 | | |
| 7.699 | 7.699 (1.000) | 117 | 450394 | 25.0000 | | 80.00- 120.00 | 100.00 |
| 7.699 | 7.699 (1.000) | 82 | 262769 | | | 7.05- 107.05 | 58.34 |
| $ 89 1,2-Dichloroethane-d4 | | | | | CAS #: 17060-07-0 | | |
| 4.833 | 4.833 (1.131) | 65 | 215090 | 25.0000 | 27.294 | 80.00- 120.00 | 100.00 |
| 4.833 | 4.833 (1.131) | 67 | 129188 | | | 6.22- 106.22 | 60.06 |
| $ 115 Toluene-d8 | | | | | CAS #: 2037-26-5 | | |
| 6.467 | 6.467 (1.237) | 98 | 555292 | 25.0000 | 26.972 | 80.00- 120.00 | 100.00 |
| 6.467 | 6.467 (1.237) | 70 | 65875 | | | 0.00- 61.60 | 11.86 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 115 Toluene-d8 (continued) | | | | | | | |
| 6.467 | 6.467 (1.237) | 100 | 366706 | | | 15.04- 115.04 | 66.04 |
| $ 159 Bromofluorobenzene | | | | | CAS #: 460-00-4 | | |
| 8.687 | 8.687 (1.128) | 174 | 226208 | 25.0000 | 27.436 | 80.00- 120.00 | 100.00 |
| 8.687 | 8.687 (1.128) | 95 | 316770 | | | 90.03- 190.03 | 140.03 |
| 8.687 | 8.687 (1.128) | 176 | 220122 | | | 47.31- 147.31 | 97.31 |
| 6 Propylene | | | | | CAS #: 115-07-1 | | |
| 1.111 | 1.111 (0.260) | 41 | 317519 | 50.0000 | 52.454 | 80.00- 120.00 | 100.00 |
| 1.111 | 1.111 (0.260) | 42 | 208486 | | | 16.22- 116.22 | 65.66 |
| 1.111 | 1.111 (0.260) | 39 | 245212 | | | 23.14- 123.14 | 77.23 |
| 7 Dichlorodifluoromethane/Fr12 | | | | | CAS #: 75-71-8 | | |
| 1.139 | 1.139 (0.266) | 85 | 1142700 | 50.0000 | 54.124 | 80.00- 120.00 | 100.00 |
| 1.139 | 1.139 (0.266) | 87 | 366144 | | | 0.00- 81.77 | 32.04 |
| 10 Freon 114 | | | | | CAS #: 76-14-2 | | |
| 1.209 | 1.209 (0.283) | 135 | 768253 | 50.0000 | 49.907 | 80.00- 120.00 | 100.00 |
| 1.209 | 1.209 (0.283) | 137 | 238628 | | | 0.00- 81.06 | 31.06 |
| 11 Chloromethane | | | | | CAS #: 74-87-3 | | |
| 1.264 | 1.264 (0.296) | 50 | 341426 | 50.0000 | 68.855 | 80.00- 120.00 | 100.00 |
| 1.264 | 1.264 (0.296) | 52 | 108685 | | | 0.00- 85.01 | 31.83 |
| 13 Butane | | | | | CAS #: 106-97-8 | | |
| 1.320 | 1.320 (0.309) | 58 | 90684 | 50.0000 | 59.436 | 80.00- 120.00 | 100.00 |
| 1.320 | 1.320 (0.309) | 43 | 730518 | | | 664.85- 764.85 | 805.56 |
| 14 Vinyl Chloride | | | | | CAS #: 75-01-4 | | |
| 1.334 | 1.334 (0.312) | 62 | 421408 | 50.0000 | 53.857 | 80.00- 120.00 | 100.00 |
| 1.334 | 1.334 (0.312) | 64 | 133967 | | | 0.00- 88.01 | 31.79 |
| 15 1,3-Butadiene | | | | | CAS #: 106-99-0 | | |
| 1.348 | 1.348 (0.315) | 54 | 337421 | 50.0000 | 53.760 | 80.00- 120.00 | 100.00 |
| 1.348 | 1.348 (0.315) | 39 | 421949 | | | 67.29- 167.29 | 125.05 |
| 21 Bromomethane | | | | | CAS #: 74-83-9 | | |
| 1.572 | 1.572 (0.368) | 94 | 343410 | 50.0000 | 50.714 | 80.00- 120.00 | 100.00 |
| 1.572 | 1.572 (0.368) | 96 | 318048 | | | 42.61- 142.61 | 92.61 |
| 24 Chloroethane | | | | | CAS #: 75-00-3 | | |
| 1.642 | 1.642 (0.384) | 64 | 228684 | 50.0000 | 55.648 | 80.00- 120.00 | 100.00 |
| 1.642 | 1.642 (0.384) | 66 | 72283 | | | 0.00- 89.11 | 31.61 |
| 1.642 | 1.642 (0.384) | 49 | 69546 | | | 0.00- 79.55 | 30.41 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 25 Isopentane | | | | | CAS #: 78-78-4 | | |
| 1.670 | 1.670 (0.391) | 43 | 532729 | 50.0000 | 58.119 | 80.00- 120.00 | 100.00 |
| 1.670 | 1.670 (0.391) | 57 | 334463 | | | 25.98- 125.98 | 62.78 |
| 28 Trichlorofluoromethane/Fr11 | | | | | CAS #: 75-69-4 | | |
| 1.810 | 1.810 (0.423) | 101 | 1176252 | 50.0000 | 54.893 | 80.00- 120.00 | 100.00 |
| 1.810 | 1.810 (0.423) | 103 | 753104 | | | 14.03- 114.03 | 64.03 |
| 29 Ethanol | | | | | CAS #: 64-17-5 | | |
| 1.964 | 1.964 (0.459) | 45 | 165923 | 50.0000 | 50.628 | 80.00- 120.00 | 100.00 |
| 1.964 | 1.964 (0.459) | 43 | 43719 | | | 0.00- 84.20 | 26.35 |
| 1.964 | 1.964 (0.459) | 46 | 62835 | | | 0.00- 96.43 | 37.87 |
| 30 Freon 113 | | | | | CAS #: 76-13-1 | | |
| 2.212 | 2.212 (0.517) | 151 | 600299 | 50.0000 | 47.613 | 80.00- 120.00 | 100.00 |
| 2.219 | 2.219 (0.519) | 153 | 384825 | | | 14.11- 114.11 | 64.11 |
| 2.212 | 2.212 (0.517) | 101 | 818774 | | | 86.39- 186.39 | 136.39 |
| 32 1,1-Dichloroethene | | | | | CAS #: 75-35-4 | | |
| 2.233 | 2.233 (0.522) | 98 | 233275 | 50.0000 | 46.307 | 80.00- 120.00 | 100.00 |
| 2.233 | 2.233 (0.522) | 96 | 374350 | | | 110.48- 210.48 | 160.48 |
| 2.233 | 2.233 (0.522) | 61 | 696998 | | | 248.79- 348.79 | 298.79 |
| 34 Acetone | | | | | CAS #: 67-64-1 | | |
| 2.312 | 2.312 (0.541) | 58 | 186154 | 50.0000 | 47.110 | 80.00- 120.00 | 100.00 |
| 2.312 | 2.312 (0.541) | 43 | 674455 | | | 281.49- 381.49 | 362.31 |
| 35 Carbon Disulfide | | | | | CAS #: 75-15-0 | | |
| 2.412 | 2.412 (0.564) | 76 | 1138346 | 50.0000 | 48.125 | 80.00- 120.00 | 100.00 |
| 37 2-Propanol | | | | | CAS #: 67-63-0 | | |
| 2.420 | 2.420 (0.566) | 45 | 683890 | 50.0000 | 47.789 | 80.00- 120.00 | 100.00 |
| 2.420 | 2.420 (0.566) | 43 | 178277 | | | 0.00- 72.19 | 26.07 |
| 2.420 | 2.420 (0.566) | 59 | 24521 | | | 0.00- 77.65 | 3.59 |
| 41 3-Chloropropene | | | | | CAS #: 107-05-1 | | |
| 2.577 | 2.577 (0.603) | 76 | 169505 | 50.0000 | 46.822 | 80.00- 120.00 | 100.00 |
| 2.577 | 2.577 (0.603) | 41 | 557225 | | | 257.61- 357.61 | 328.74 |
| 43 Methylene Chloride | | | | | CAS #: 75-09-2 | | |
| 2.713 | 2.713 (0.635) | 49 | 520581 | 50.0000 | 52.099 | 80.00- 120.00 | 100.00 |
| 2.713 | 2.713 (0.635) | 84 | 344672 | | | 16.21- 116.21 | 66.21 |
| 2.713 | 2.713 (0.635) | 51 | 153055 | | | 0.00- 81.57 | 29.40 |
| 46 tert-Butyl-Alcohol | | | | | CAS #: 75-65-0 | | |
| 2.813 | 2.813 (0.658) | 59 | 714231 | 50.0000 | 46.806 | 80.00- 120.00 | 100.00 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 46 tert-Butyl-Alcohol (continued) | | | | | | | |
| 2.813 | 2.813 (0.658) | 41 | 241685 | | | 0.00- 77.85 | 33.84 |
| 2.806 | 2.806 (0.656) | 57 | 77979 | | | 0.00- 61.24 | 10.92 |
| 47 MTBE | | | | | CAS #: 1634-04-4 | | |
| 2.942 | 2.942 (0.688) | 73 | 1024369 | 50.0000 | 48.576 | 80.00- 120.00 | 100.00 |
| 2.942 | 2.942 (0.688) | 57 | 239926 | | | 0.00- 73.42 | 23.42 |
| 2.942 | 2.942 (0.688) | 41 | 306922 | | | 0.00- 76.94 | 29.96 |
| 48 trans-1,2-Dichloroethene | | | | | CAS #: 156-60-5 | | |
| 2.964 | 2.964 (0.693) | 98 | 250824 | 50.0000 | 47.793 | 80.00- 120.00 | 100.00 |
| 2.957 | 2.957 (0.692) | 61 | 639906 | | | 205.12- 305.12 | 255.12 |
| 2.964 | 2.964 (0.693) | 96 | 397300 | | | 111.49- 211.49 | 158.40 |
| 51 Hexane | | | | | CAS #: 110-54-3 | | |
| 3.200 | 3.200 (0.749) | 57 | 631577 | 50.0000 | 49.408 | 80.00- 120.00 | 100.00 |
| 3.200 | 3.200 (0.749) | 43 | 454768 | | | 17.17- 117.17 | 72.01 |
| 3.200 | 3.200 (0.749) | 86 | 93376 | | | 0.00- 70.58 | 14.78 |
| 59 1,1-Dichloroethane | | | | | CAS #: 75-34-3 | | |
| 3.444 | 3.444 (0.806) | 63 | 781703 | 50.0000 | 50.100 | 80.00- 120.00 | 100.00 |
| 3.444 | 3.444 (0.806) | 65 | 244565 | | | 0.00- 81.29 | 31.29 |
| 58 Isopropyl ether | | | | | CAS #: 108-20-3 | | |
| 3.473 | 3.473 (0.812) | 45 | 1545874 | 50.0000 | 53.350 | 80.00- 120.00 | 100.00 |
| 3.473 | 3.473 (0.812) | 87 | 341425 | | | 0.00- 73.95 | 22.09 |
| 3.465 | 3.465 (0.811) | 59 | 160469 | | | 0.00- 60.65 | 10.38 |
| 61 Vinyl Acetate | | | | | CAS #: 108-05-4 | | |
| 3.501 | 3.501 (0.819) | 86 | 90107 | 50.0000 | 47.661 | 80.00- 120.00 | 100.00 |
| 3.494 | 3.494 (0.817) | 43 | 1885449 | | | 1854.64-1954.64 | 2092.46 |
| 68 t-Butylethyl Ether | | | | | CAS #: 637-92-3 | | |
| 3.838 | 3.838 (0.898) | 59 | 1116288 | 50.0000 | 49.074 | 80.00- 120.00 | 100.00 |
| 3.838 | 3.838 (0.898) | 87 | 422975 | | | 0.00- 89.71 | 37.89 |
| 3.838 | 3.838 (0.898) | 41 | 286692 | | | 0.00- 72.53 | 25.68 |
| 73 cis-1,2-Dichloroethene | | | | | CAS #: 156-59-2 | | |
| 4.046 | 4.046 (0.946) | 98 | 244587 | 50.0000 | 47.415 | 80.00- 120.00 | 100.00 |
| 4.046 | 4.046 (0.946) | 96 | 381350 | | | 105.92- 205.92 | 155.92 |
| 4.046 | 4.046 (0.946) | 61 | 533273 | | | 168.03- 268.03 | 218.03 |
| 74 2-Butanone | | | | | CAS #: 78-93-3 | | |
| 4.074 | 4.074 (0.953) | 72 | 194470 | 50.0000 | 50.204 | 80.00- 120.00 | 100.00 |
| 4.067 | 4.067 (0.951) | 43 | 890696 | | | 408.01- 508.01 | 458.01 |
| 4.074 | 4.074 (0.953) | 57 | 64365 | | | 25.94- 125.94 | 33.10 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 75 Tetrahydrofuran | | | | | CAS #: 109-99-9 | | |
| 4.282 | 4.282 (1.002) | 42 | 497119 | 50.0000 | 50.184 | 80.00- 120.00 | 100.00 |
| 4.282 | 4.282 (1.002) | 71 | 170088 | | | 0.00- 84.34 | 34.21 |
| 4.282 | 4.282 (1.002) | 72 | 180136 | | | 0.00- 88.12 | 36.24 |
| 78 Chloroform | | | | | CAS #: 67-66-3 | | |
| 4.354 | 4.354 (1.018) | 83 | 821365 | 50.0000 | 49.104 | 80.00- 120.00 | 100.00 |
| 4.354 | 4.354 (1.018) | 85 | 527418 | | | 14.21- 114.21 | 64.21 |
| 80 Cyclohexane | | | | | CAS #: 110-82-7 | | |
| 4.475 | 4.475 (1.047) | 84 | 506673 | 50.0000 | 49.721 | 80.00- 120.00 | 100.00 |
| 4.475 | 4.475 (1.047) | 56 | 633593 | | | 75.05- 175.05 | 125.05 |
| 4.475 | 4.475 (1.047) | 41 | 409261 | | | 30.77- 130.77 | 80.77 |
| 81 1,1,1-Trichloroethane | | | | | CAS #: 71-55-6 | | |
| 4.482 | 4.482 (1.049) | 97 | 798912 | 50.0000 | 50.724 | 80.00- 120.00 | 100.00 |
| 4.482 | 4.482 (1.049) | 99 | 496893 | | | 12.20- 112.20 | 62.20 |
| 82 Carbon Tetrachloride | | | | | CAS #: 56-23-5 | | |
| 4.611 | 4.611 (1.079) | 119 | 767821 | 50.0000 | 48.211 | 80.00- 120.00 | 100.00 |
| 4.611 | 4.611 (1.079) | 117 | 806045 | | | 54.98- 154.98 | 104.98 |
| 87 2,2,4-Trimethylpentane | | | | | CAS #: 540-84-1 | | |
| 4.848 | 4.848 (1.134) | 57 | 2045481 | 50.0000 | 55.192 | 80.00- 120.00 | 100.00 |
| 4.848 | 4.848 (1.134) | 56 | 716808 | | | 0.00- 88.69 | 35.04 |
| 4.848 | 4.848 (1.134) | 41 | 579763 | | | 0.00- 79.27 | 28.34 |
| 88 Benzene | | | | | CAS #: 71-43-2 | | |
| 4.826 | 4.826 (0.923) | 78 | 1174888 | 50.0000 | 49.267 | 80.00- 120.00 | 100.00 |
| 4.826 | 4.826 (0.923) | 77 | 283109 | | | 0.00- 74.11 | 24.10 |
| 92 tert-amyl-Methyl Ether | | | | | CAS #: 994-05-8 | | |
| 4.927 | 4.927 (1.152) | 73 | 961999 | 50.0000 | 48.426 | 80.00- 120.00 | 100.00 |
| 4.927 | 4.927 (1.152) | 87 | 221443 | | | 0.00- 73.17 | 23.02 |
| 4.927 | 4.927 (1.152) | 55 | 344422 | | | 0.00- 81.18 | 35.80 |
| 93 1,2-Dichloroethane | | | | | CAS #: 107-06-2 | | |
| 4.905 | 4.905 (0.938) | 62 | 575387 | 50.0000 | 51.730 | 80.00- 120.00 | 100.00 |
| 4.905 | 4.905 (0.938) | 64 | 184374 | | | 0.00- 82.38 | 32.04 |
| 94 Heptane | | | | | CAS #: 142-82-5 | | |
| 5.034 | 5.034 (0.963) | 71 | 426955 | 50.0000 | 50.609 | 80.00- 120.00 | 100.00 |
| 5.034 | 5.034 (0.963) | 43 | 802110 | | | 135.49- 235.49 | 187.87 |
| 5.034 | 5.034 (0.963) | 57 | 431440 | | | 48.06- 148.06 | 101.05 |
| 102 Trichloroethene | | | | | CAS #: 79-01-6 | | |
| 5.421 | 5.421 (1.037) | 95 | 494188 | 50.0000 | 48.920 | 80.00- 120.00 | 100.00 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 102 Trichloroethene (continued) | | | | | | | |
| 5.421 | 5.421 (1.037) | 130 | 491761 | | | 49.51- 149.51 | 99.51 |
| 5.421 | 5.421 (1.037) | 97 | 316533 | | | 14.05- 114.05 | 64.05 |
| 104 Methyl Cyclohexane | | | | | CAS #: 108-87-2 | | |
| 5.535 | 5.535 (1.295) | 83 | 704212 | 50.0000 | 53.859 | 80.00- 120.00 | 100.00 |
| 5.535 | 5.535 (1.295) | 98 | 335058 | | | 0.00- 96.78 | 47.58 |
| 5.535 | 5.535 (1.295) | 55 | 591644 | | | 33.43- 133.43 | 84.02 |
| 106 1,2-Dichloropropane | | | | | CAS #: 78-87-5 | | |
| 5.650 | 5.650 (1.081) | 63 | 459191 | 50.0000 | 53.527 | 80.00- 120.00 | 100.00 |
| 5.650 | 5.650 (1.081) | 62 | 323648 | | | 20.48- 120.48 | 70.48 |
| 5.650 | 5.650 (1.081) | 41 | 287674 | | | 12.65- 112.65 | 62.65 |
| 107 1,4-Dioxane | | | | | CAS #: 123-91-1 | | |
| 5.750 | 5.750 (1.100) | 88 | 250745 | 50.0000 | 49.892 | 80.00- 120.00 | 100.00 |
| 5.750 | 5.750 (1.100) | 58 | 186565 | | | 24.40- 124.40 | 74.40 |
| 5.750 | 5.750 (1.100) | 57 | 62599 | | | 0.00- 73.47 | 24.97 |
| 109 Bromodichloromethane | | | | | CAS #: 75-27-4 | | |
| 5.886 | 5.886 (1.126) | 83 | 847055 | 50.0000 | 51.017 | 80.00- 120.00 | 100.00 |
| 5.886 | 5.886 (1.126) | 85 | 543192 | | | 14.13- 114.13 | 64.13 |
| 112 cis-1,3-Dichloropropene | | | | | CAS #: 10061-01-5 | | |
| 6.280 | 6.280 (1.201) | 75 | 594793 | 50.0000 | 50.048 | 80.00- 120.00 | 100.00 |
| 6.280 | 6.280 (1.201) | 77 | 186341 | | | 0.00- 81.33 | 31.33 |
| 6.280 | 6.280 (1.201) | 39 | 349490 | | | 8.76- 108.76 | 58.76 |
| 114 4-Methyl-2-pentanone | | | | | CAS #: 108-10-1 | | |
| 6.409 | 6.409 (1.226) | 58 | 364880 | 50.0000 | 53.373 | 80.00- 120.00 | 100.00 |
| 6.409 | 6.409 (1.226) | 43 | 1061312 | | | 237.60- 337.60 | 290.87 |
| 6.409 | 6.409 (1.226) | 85 | 146463 | | | 0.00- 99.98 | 40.14 |
| 116 Toluene | | | | | CAS #: 108-88-3 | | |
| 6.524 | 6.524 (1.248) | 91 | 1396496 | 50.0000 | 50.442 | 80.00- 120.00 | 100.00 |
| 6.524 | 6.524 (1.248) | 92 | 825948 | | | 9.14- 109.14 | 59.14 |
| 123 trans-1,3-Dichloropropene | | | | | CAS #: 10061-02-6 | | |
| 6.775 | 6.775 (0.880) | 75 | 615143 | 50.0000 | 45.404 | 80.00- 120.00 | 100.00 |
| 6.775 | 6.775 (0.880) | 77 | 198914 | | | 0.00- 82.34 | 32.34 |
| 6.775 | 6.775 (0.880) | 39 | 346143 | | | 6.27- 106.27 | 56.27 |
| 128 1,1,2-Trichloroethane | | | | | CAS #: 79-00-5 | | |
| 6.918 | 6.918 (0.899) | 97 | 482854 | 50.0000 | 46.920 | 80.00- 120.00 | 100.00 |
| 6.918 | 6.918 (0.899) | 99 | 289918 | | | 10.04- 110.04 | 60.04 |
| 6.918 | 6.918 (0.899) | 83 | 416690 | | | 36.30- 136.30 | 86.30 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 131 Tetrachloroethene | | | | | CAS #: 127-18-4 | | |
| 6.968 | 6.968 (0.905) | 166 | 577487 | 50.0000 | 43.267 | 80.00- 120.00 | 100.00 |
| 6.968 | 6.968 (0.905) | 129 | 453813 | | | 28.58- 128.58 | 78.58 |
| 6.968 | 6.968 (0.905) | 131 | 430237 | | | 24.50- 124.50 | 74.50 |
| 135 2-Hexanone | | | | | CAS #: 591-78-6 | | |
| 7.111 | 7.111 (0.924) | 58 | 481145 | 50.0000 | 49.437 | 80.00- 120.00 | 100.00 |
| 7.111 | 7.111 (0.924) | 43 | 997709 | | | 157.36- 257.36 | 207.36 |
| 7.111 | 7.111 (0.924) | 100 | 89207 | | | 0.00- 69.68 | 18.54 |
| 138 Dibromochloromethane | | | | | CAS #: 124-48-1 | | |
| 7.226 | 7.226 (0.939) | 129 | 802734 | 50.0000 | 46.962 | 80.00- 120.00 | 100.00 |
| 7.226 | 7.226 (0.939) | 127 | 618327 | | | 27.83- 127.83 | 77.03 |
| 140 1,2-Dibromoethane | | | | | CAS #: 106-93-4 | | |
| 7.326 | 7.326 (0.952) | 107 | 700633 | 50.0000 | 46.555 | 80.00- 120.00 | 100.00 |
| 7.326 | 7.326 (0.952) | 109 | 673615 | | | 46.14- 146.14 | 96.14 |
| 145 Chlorobenzene | | | | | CAS #: 108-90-7 | | |
| 7.720 | 7.720 (1.003) | 112 | 1047539 | 50.0000 | 46.201 | 80.00- 120.00 | 100.00 |
| 7.720 | 7.720 (1.003) | 114 | 324985 | | | 0.00- 81.02 | 31.02 |
| 7.720 | 7.720 (1.003) | 77 | 623726 | | | 9.54- 109.54 | 59.54 |
| 147 Ethyl Benzene | | | | | CAS #: 100-41-4 | | |
| 7.792 | 7.792 (1.012) | 106 | 542005 | 50.0000 | 47.997 | 80.00- 120.00 | 100.00 |
| 7.792 | 7.792 (1.012) | 91 | 1746990 | | | 270.93- 370.93 | 322.32 |
| 150 m,p-Xylene | | | | | CAS #: 108-38-3 | | |
| 7.892 | 7.892 (1.025) | 106 | 679460 | 50.0000 | 48.356 | 80.00- 120.00 | 100.00 |
| 7.892 | 7.892 (1.025) | 91 | 1365311 | | | 151.38- 251.38 | 200.94 |
| 153 o-Xylene | | | | | CAS #: 95-47-6 | | |
| 8.229 | 8.229 (1.069) | 106 | 621722 | 50.0000 | 48.479 | 80.00- 120.00 | 100.00 |
| 8.229 | 8.229 (1.069) | 91 | 1333146 | | | 164.43- 264.43 | 214.43 |
| 154 Styrene | | | | | CAS #: 100-42-5 | | |
| 8.243 | 8.243 (1.071) | 104 | 1028632 | 50.0000 | 48.914 | 80.00- 120.00 | 100.00 |
| 8.243 | 8.243 (1.071) | 78 | 532585 | | | 1.78- 101.78 | 51.78 |
| 155 Bromoform | | | | | CAS #: 75-25-2 | | |
| 8.415 | 8.415 (1.093) | 173 | 654646 | 50.0000 | 46.352 | 80.00- 120.00 | 100.00 |
| 8.415 | 8.415 (1.093) | 171 | 335579 | | | 1.26- 101.26 | 51.26 |
| 156 Cumene | | | | | CAS #: 98-82-8 | | |
| 8.522 | 8.522 (1.107) | 105 | 1888473 | 50.0000 | 50.180 | 80.00- 120.00 | 100.00 |
| 8.522 | 8.522 (1.107) | 120 | 497354 | | | 0.00- 76.38 | 26.34 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 156 Cumene (continued) | | | | | | | |
| 8.522 | 8.522 (1.107) | 51 | 217351 | | | 0.00- 60.64 | 11.51 |
| 161 1,1,2,2-Tetrachloroethane | | | | | CAS #: 79-34-5 | | |
| 8.823 | 8.823 (1.146) | 83 | 1015883 | 50.0000 | 50.611 | 80.00- 120.00 | 100.00 |
| 8.823 | 8.823 (1.146) | 85 | 657104 | | | 14.68- 114.68 | 64.68 |
| 162 Propylbenzene | | | | | CAS #: 103-65-1 | | |
| 8.866 | 8.866 (1.152) | 91 | 2340229 | 50.0000 | 50.716 | 80.00- 120.00 | 100.00 |
| 8.866 | 8.866 (1.152) | 120 | 502050 | | | 0.00- 72.00 | 21.45 |
| 8.866 | 8.866 (1.152) | 105 | 79614 | | | 0.00- 68.11 | 3.40 |
| 163 4-Ethyltoluene | | | | | CAS #: 622-96-8 | | |
| 8.959 | 8.959 (1.164) | 120 | 564998 | 50.0000 | 48.719 | 80.00- 120.00 | 100.00 |
| 8.959 | 8.959 (1.164) | 105 | 1898291 | | | 285.98- 385.98 | 335.98 |
| 164 1,3,5-Trimethylbenzene | | | | | CAS #: 108-67-8 | | |
| 9.017 | 9.017 (1.171) | 120 | 766790 | 50.0000 | 50.328 | 80.00- 120.00 | 100.00 |
| 9.017 | 9.017 (1.171) | 105 | 1585047 | | | 157.61- 257.61 | 206.71 |
| 166 1,2,4-Trimethylbenzene | | | | | CAS #: 95-63-6 | | |
| 9.332 | 9.332 (1.212) | 120 | 655626 | 50.0000 | 49.908 | 80.00- 120.00 | 100.00 |
| 9.332 | 9.332 (1.212) | 105 | 1452551 | | | 171.83- 271.83 | 221.55 |
| 168 1,3-Dichlorobenzene | | | | | CAS #: 541-73-1 | | |
| 9.590 | 9.590 (1.246) | 146 | 849246 | 50.0000 | 46.191 | 80.00- 120.00 | 100.00 |
| 9.590 | 9.590 (1.246) | 148 | 538926 | | | 11.58- 111.58 | 63.46 |
| 9.583 | 9.583 (1.245) | 111 | 356220 | | | 0.00- 91.95 | 41.95 |
| 169 1,4-Dichlorobenzene | | | | | CAS #: 106-46-7 | | |
| 9.669 | 9.669 (1.256) | 146 | 867744 | 50.0000 | 47.780 | 80.00- 120.00 | 100.00 |
| 9.669 | 9.669 (1.256) | 148 | 549985 | | | 14.35- 114.35 | 63.38 |
| 9.669 | 9.669 (1.256) | 111 | 352299 | | | 0.00- 91.42 | 40.60 |
| 170 alpha-Chlorotoluene | | | | | CAS #: 100-44-7 | | |
| 9.783 | 9.783 (1.271) | 91 | 1129394 | 50.0000 | 48.135 | 80.00- 120.00 | 100.00 |
| 9.783 | 9.783 (1.271) | 126 | 216287 | | | 0.00- 69.60 | 19.15 |
| 171 1,2-Dichlorobenzene | | | | | CAS #: 95-50-1 | | |
| 9.984 | 9.984 (1.297) | 146 | 771343 | 50.0000 | 47.847 | 80.00- 120.00 | 100.00 |
| 9.984 | 9.984 (1.297) | 148 | 484892 | | | 12.86- 112.86 | 62.86 |
| 9.984 | 9.984 (1.297) | 111 | 331905 | | | 0.00- 93.03 | 43.03 |
| 174 1,2,4-Trichlorobenzene | | | | | CAS #: 120-82-1 | | |
| 11.316 | 11.316 (1.470) | 180 | 478120 | 50.0000 | 46.553 | 80.00- 120.00 | 100.00 |
| 11.316 | 11.316 (1.470) | 182 | 450384 | | | 44.20- 144.20 | 94.20 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 175 Hexachlorobutadiene | | | | | CAS #: 87-68-3 | | |
| 11.416 | 11.416 (1.483) | 225 | 415089 | 50.0000 | 44.483 | 80.00- 120.00 | 100.00 |
| 11.416 | 11.416 (1.483) | 223 | 259974 | | | 13.27- 113.27 | 62.63 |
| 176 Naphthalene | | | | | CAS #: 91-20-3 | | |
| 11.524 | 11.524 (1.497) | 128 | 1020356 | 50.0000 | 45.948 | 80.00- 120.00 | 100.00 |
| 11.524 | 11.524 (1.497) | 127 | 128894 | | | 0.00- 62.46 | 12.63 |

Report Date: 26-Mar-2010 11:46

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdp.i
Lab File ID: p032005.d
Lab Smp Id: CCV
Analysis Type: VOA
Quant Type: ISTD
Operator: ra
Method File: /var/chem/msdp.i/20mar10.b/p10q0311a.m
Misc Info: 50ppbv (200ppbv)

Calibration Date: 22-MAR-2010
Calibration Time: 08:47
Client Smp ID: CCV
Level: LOW
Sample Type: AIR

| | | AREA LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 76 Bromochloromethan | 154740 | 92844 | 216636 | 147132 | -4.92 |
| 97 1,4-Difluorobenze | 546367 | 327820 | 764914 | 499171 | -8.64 |
| 144 Chlorobenzene-d5 | 497683 | 298610 | 696756 | 450394 | -9.50 |

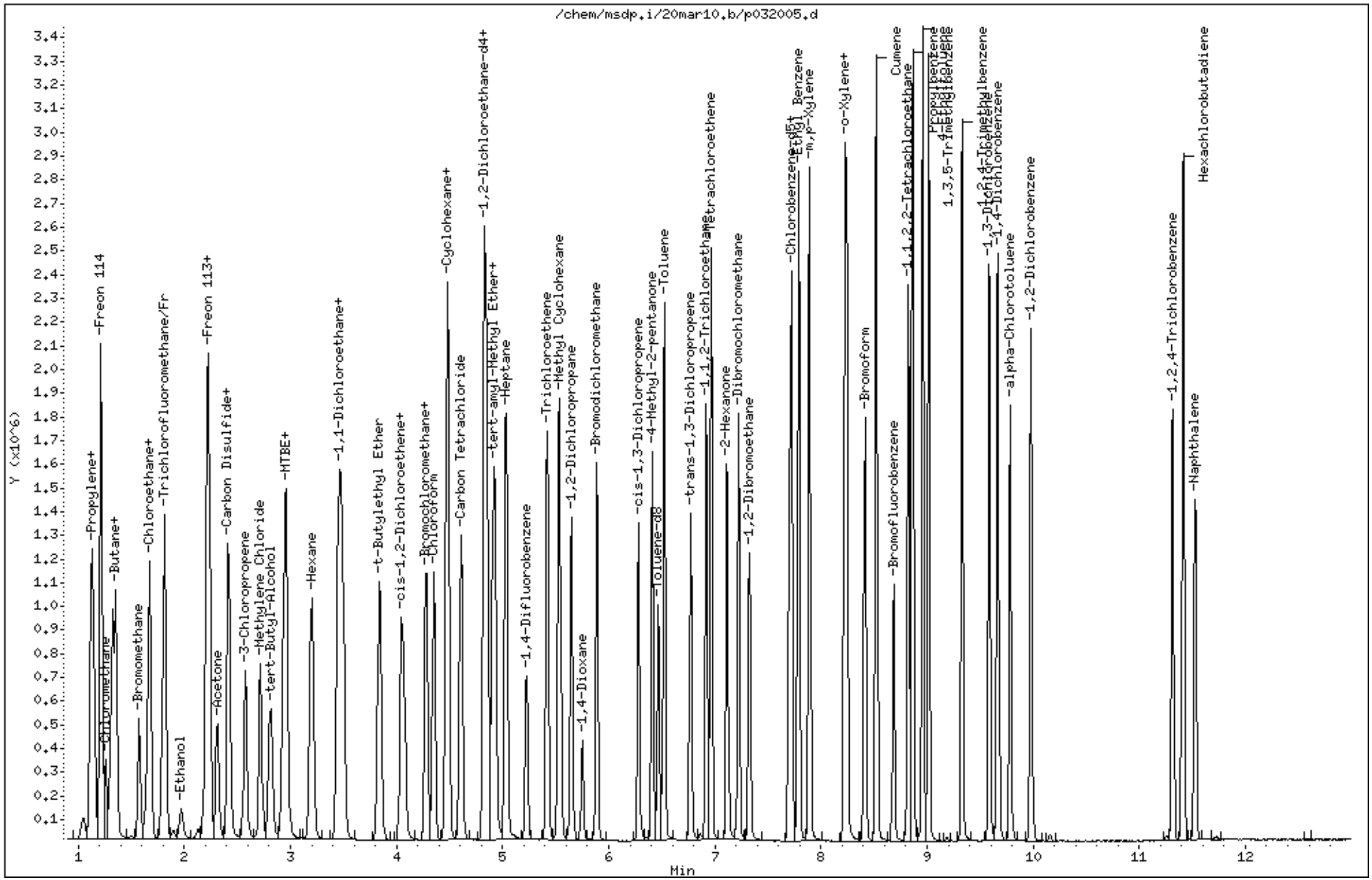
| | | RT LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 76 Bromochloromethan | 4.27 | 3.94 | 4.60 | 4.27 | 0.00 |
| 97 1,4-Difluorobenze | 5.22 | 4.89 | 5.55 | 5.23 | 0.13 |
| 144 Chlorobenzene-d5 | 7.70 | 7.37 | 8.03 | 7.70 | 0.00 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msdp.i/20mar10.b/p032005.d
Date : 19-MAR-2010 23:03
Client ID: CCV
Sample Info: 50ml 1911-213

Instrument: msdp.i
Operator: ra
Column diameter: 0.53

Column phase: RTx-624



Air Toxics LTD.
Laboratory Services Since 1989

**Client Sample ID: LCS**

**Lab ID#: 1003364-05A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **p032004** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 3/19/10 10:35 PM** | |

| Compound | %Recovery |
|---|---|
| Freon 12 | 110 |
| Freon 114 | 102 |
| Chloromethane | 143 Q |
| Vinyl Chloride | 112 |
| 1,3-Butadiene | 108 |
| Bromomethane | 102 |
| Chloroethane | 113 |
| Freon 11 | 111 |
| Ethanol | 99 |
| Freon 113 | 86 |
| 1,1-Dichloroethene | 82 |
| Acetone | 91 |
| 2-Propanol | 93 |
| Carbon Disulfide | 96 |
| 3-Chloropropene | 91 |
| Methylene Chloride | 97 |
| Methyl tert-butyl ether | 95 |
| trans-1,2-Dichloroethene | 96 |
| Hexane | 96 |
| 1,1-Dichloroethane | 97 |
| 2-Butanone (Methyl Ethyl Ketone) | 100 |
| cis-1,2-Dichloroethene | 92 |
| Tetrahydrofuran | 103 |
| Chloroform | 98 |
| 1,1,1-Trichloroethane | 101 |
| Cyclohexane | 99 |
| Carbon Tetrachloride | 99 |
| 2,2,4-Trimethylpentane | 111 |
| Benzene | 104 |
| 1,2-Dichloroethane | 106 |
| Heptane | 106 |
| Trichloroethene | 103 |
| 1,2-Dichloropropane | 113 |
| 1,4-Dioxane | 106 |
| Bromodichloromethane | 108 |
| cis-1,3-Dichloropropene | 106 |
| 4-Methyl-2-pentanone | 110 |
| Toluene | 103 |
| trans-1,3-Dichloropropene | 95 |

Air Toxics LTD.
Laboratory Services Since 1989

**Client Sample ID: LCS**

**Lab ID#: 1003364-05A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **p032004** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 3/19/10 10:35 PM** | |

| Compound | %Recovery |
|---|---|
| 1,1,2-Trichloroethane | 97 |
| Tetrachloroethene | 87 |
| 2-Hexanone | 104 |
| Dibromochloromethane | 96 |
| 1,2-Dibromoethane (EDB) | 101 |
| Chlorobenzene | 94 |
| Ethyl Benzene | 100 |
| m,p-Xylene | 100 |
| o-Xylene | 100 |
| Styrene | 103 |
| Bromoform | 97 |
| Cumene | 102 |
| 1,1,2,2-Tetrachloroethane | 110 |
| Propylbenzene | 103 |
| 4-Ethyltoluene | 101 |
| 1,3,5-Trimethylbenzene | 106 |
| 1,2,4-Trimethylbenzene | 104 |
| 1,3-Dichlorobenzene | 102 |
| 1,4-Dichlorobenzene | 106 |
| alpha-Chlorotoluene | 114 |
| 1,2-Dichlorobenzene | 108 |
| 1,2,4-Trichlorobenzene | 122 |
| Hexachlorobutadiene | 101 |
| Naphthalene | 121 |

Q = Exceeds Quality Control limits.

**Container Type: NA - Not Applicable**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| Toluene-d8 | 111 | 70-130 |
| 1,2-Dichloroethane-d4 | 110 | 70-130 |
| 4-Bromofluorobenzene | 112 | 70-130 |

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: 20mar10
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: LCS-1 Client Smp ID: LCS-1
Level: LOW Operator: ra
Data Type: MS DATA SampleType: LCS
SpikeList File: 2926spectra.spk Quant Type: ISTD
Sublist File: AT09.sub
Method File: /var/chem/msdp.i/20mar10.b/p10q0311a.m
Misc Info: 50ppbv (200ppbv)

| SPIKE | COMPOUND | CONC ADDED PPBV | CONC RECOVERED PPBV | % RECOVERED | LIMITS |
|---|---|---|---|---|---|
| 6 | Propylene | 50.000 | 49.865 | 99.73 | 60-140 |
| 7 | Dichlorodifluorome | 50.000 | 55.003 | 110.01 | 70-130 |
| 10 | Freon 114 | 50.000 | 50.871 | 101.74 | 70-130 |
| 11 | Chloromethane | 50.000 | 71.334 | 142.67* | 70-130 |
| 14 | Vinyl Chloride | 50.000 | 55.980 | 111.96 | 70-130 |
| 15 | 1,3-Butadiene | 50.000 | 54.135 | 108.27 | 60-140 |
| 21 | Bromomethane | 50.000 | 50.821 | 101.64 | 70-130 |
| 24 | Chloroethane | 50.000 | 56.531 | 113.06 | 70-130 |
| 28 | Trichlorofluoromet | 50.000 | 55.661 | 111.32 | 70-130 |
| 29 | Ethanol | 50.000 | 49.451 | 98.90 | 60-140 |
| 30 | Freon 113 | 50.000 | 43.004 | 86.01 | 70-130 |
| 32 | 1,1-Dichloroethene | 50.000 | 41.147 | 82.29 | 70-130 |
| 34 | Acetone | 50.000 | 45.552 | 91.10 | 60-140 |
| 35 | Carbon Disulfide | 50.000 | 48.228 | 96.46 | 60-140 |
| 37 | 2-Propanol | 50.000 | 46.452 | 92.91 | 60-140 |
| 43 | Methylene Chloride | 50.000 | 48.710 | 97.42 | 70-130 |
| 47 | MTBE | 50.000 | 47.734 | 95.47 | 60-140 |
| 48 | trans-1,2-Dichloro | 50.000 | 48.236 | 96.47 | 60-140 |
| 51 | Hexane | 50.000 | 47.858 | 95.72 | 60-140 |
| 61 | Vinyl Acetate | 50.000 | 45.381 | 90.76 | 60-140 |
| 59 | 1,1-Dichloroethane | 50.000 | 48.550 | 97.10 | 70-130 |
| 73 | cis-1,2-Dichloroet | 50.000 | 46.019 | 92.04 | 70-130 |
| 74 | 2-Butanone | 50.000 | 50.256 | 100.51 | 60-140 |
| 75 | Tetrahydrofuran | 50.000 | 51.318 | 102.64 | 60-140 |
| 78 | Chloroform | 50.000 | 49.194 | 98.39 | 70-130 |
| 80 | Cyclohexane | 50.000 | 49.742 | 99.48 | 60-140 |
| 81 | 1,1,1-Trichloroeth | 50.000 | 50.340 | 100.68 | 70-130 |
| 82 | Carbon Tetrachlori | 50.000 | 49.607 | 99.21 | 70-130 |
| 88 | Benzene | 50.000 | 51.762 | 103.52 | 70-130 |
| 93 | 1,2-Dichloroethane | 50.000 | 53.087 | 106.17 | 70-130 |
| 94 | Heptane | 50.000 | 53.255 | 106.51 | 60-140 |
| 102 | Trichloroethene | 50.000 | 51.518 | 103.04 | 70-130 |
| 106 | 1,2-Dichloropropan | 50.000 | 56.627 | 113.25 | 70-130 |

| SPIKE COMPOUND | CONC ADDED PPBV | CONC RECOVERED PPBV | % RECOVERED | LIMITS |
|---|---|---|---|---|
| 107 1,4-Dioxane | 50.000 | 53.008 | 106.02 | 60-140 |
| 109 Bromodichlorometha | 50.000 | 54.115 | 108.23 | 60-140 |
| 112 cis-1,3-Dichloropr | 50.000 | 53.084 | 106.17 | 70-130 |
| 114 4-Methyl-2-pentano | 50.000 | 55.146 | 110.29 | 60-140 |
| 116 Toluene | 50.000 | 51.414 | 102.83 | 70-130 |
| 123 trans-1,3-Dichloro | 50.000 | 47.670 | 95.34 | 70-130 |
| 128 1,1,2-Trichloroeth | 50.000 | 48.454 | 96.91 | 70-130 |
| 131 Tetrachloroethene | 50.000 | 43.710 | 87.42 | 70-130 |
| 135 2-Hexanone | 50.000 | 51.982 | 103.96 | 60-140 |
| 138 Dibromochlorometha | 50.000 | 48.207 | 96.41 | 60-140 |
| 140 1,2-Dibromoethane | 50.000 | 50.602 | 101.20 | 70-130 |
| 145 Chlorobenzene | 50.000 | 47.060 | 94.12 | 70-130 |
| 147 Ethyl Benzene | 50.000 | 49.751 | 99.50 | 70-130 |
| 150 m,p-Xylene | 50.000 | 50.180 | 100.36 | 70-130 |
| 153 o-Xylene | 50.000 | 49.766 | 99.53 | 70-130 |
| 154 Styrene | 50.000 | 51.737 | 103.47 | 70-130 |
| 155 Bromoform | 50.000 | 48.698 | 97.40 | 60-140 |
| 161 1,1,2,2-Tetrachlor | 50.000 | 54.970 | 109.94 | 70-130 |
| 163 4-Ethyltoluene | 50.000 | 50.312 | 100.62 | 60-140 |
| 164 1,3,5-Trimethylben | 50.000 | 53.041 | 106.08 | 70-130 |
| 166 1,2,4-Trimethylben | 50.000 | 52.164 | 104.33 | 70-130 |
| 168 1,3-Dichlorobenzen | 50.000 | 51.032 | 102.06 | 70-130 |
| 169 1,4-Dichlorobenzen | 50.000 | 53.282 | 106.56 | 70-130 |
| 170 alpha-Chlorotoluen | 50.000 | 56.862 | 113.72 | 70-130 |
| 171 1,2-Dichlorobenzen | 50.000 | 54.282 | 108.56 | 70-130 |
| 174 1,2,4-Trichloroben | 50.000 | 61.018 | 122.04 | 70-130 |
| 175 Hexachlorobutadien | 50.000 | 50.697 | 101.39 | 70-130 |
| 162 Propylbenzene | 50.000 | 51.635 | 103.27 | 60-140 |
| 156 Cumene | 50.000 | 50.839 | 101.68 | 60-140 |
| 41 3-Chloropropene | 50.000 | 45.489 | 90.98 | 60-140 |
| 87 2,2,4-Trimethylpen | 50.000 | 55.704 | 111.41 | 60-140 |
| 25 Isopentane | 50.000 | 59.537 | 119.07 | 70-130 |
| 13 Butane | 50.000 | 59.138 | 118.28 | 70-130 |
| 104 Methyl Cyclohexane | 50.000 | 53.860 | 107.72 | 70-130 |
| 46 tert-Butyl-Alcohol | 50.000 | 47.110 | 94.22 | 60-140 |
| 176 Naphthalene | 50.000 | 60.448 | 120.90 | 60-140 |
| 58 Isopropyl ether | 50.000 | 53.457 | 106.91 | 60-140 |
| 68 t-Butylethyl Ether | 50.000 | 49.456 | 98.91 | 60-140 |
| 92 tert-amyl-Methyl E | 50.000 | 49.533 | 99.07 | 60-140 |

| SURROGATE COMPOUND | CONC ADDED PPBV | CONC RECOVERED PPBV | % RECOVERED | LIMITS |
|---|---|---|---|---|
| $ 89 1,2-Dichloroethane | 25.000 | 27.379 | 109.52 | 70-130 |

| SURROGATE COMPOUND | CONC ADDED PPBV | CONC RECOVERED PPBV | % RECOVERED | LIMITS |
|---|---|---|---|---|
| $ 115 Toluene-d8 | 25.000 | 27.675 | 110.70 | 70-130 |
| $ 159 Bromofluorobenzene | 25.000 | 27.998 | 111.99 | 70-130 |

Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msdp.i/20mar10.b/p032004.d
Lab Smp Id: LCS-1 Client Smp ID: LCS-1
Inj Date : 19-MAR-2010 22:35
Operator : ra Inst ID: msdp.i
Smp Info : 50ml 1911-194
Misc Info : 50ppbv (200ppbv)
Comment :
Method : /var/chem/msdp.i/20mar10.b/p10q0311a.m
Meth Date : 19-Mar-2010 23:15 aburke Quant Type: ISTD
Cal Date : 11-MAR-2010 15:18 Cal File: p031117.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT09.sub
Target Version: 3.50 Sample Matrix: AIR

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| | | | | CONCENTRATIONS ON-COL | FINAL | | |
|---|---|---|---|---|---|---|---|
| RT | EXP RT (REL RT) | MASS | RESPONSE | ( PPBV) | ( PPBV) | TARGET RANGE | RATIO |
| * 76 Bromochloromethane | | | | | | CAS #: 74-97-5 | |
| 4.275 | 4.275 (1.000) | 130 | 129270 | 25.0000 | | 80.00- 120.00 | 100.00 |
| 4.275 | 4.275 (1.000) | 128 | 99129 | | | 29.36- 129.36 | 76.68 |
| 4.275 | 4.275 (1.000) | 49 | 198222 | | | 105.98- 205.98 | 153.34 |
| * 97 1,4-Difluorobenzene | | | | | | CAS #: 540-36-3 | |
| 5.228 | 5.227 (1.000) | 114 | 422507 | 25.0000 | | 80.00- 120.00 | 100.00 |
| 5.228 | 5.227 (1.000) | 88 | 66448 | | | 0.00- 65.66 | 15.73 |
| * 144 Chlorobenzene-d5 | | | | | | CAS #: 3114-55-4 | |
| 7.699 | 7.699 (1.000) | 117 | 392619 | 25.0000 | | 80.00- 120.00 | 100.00 |
| 7.699 | 7.699 (1.000) | 82 | 228479 | | | 7.05- 107.05 | 58.19 |
| $ 89 1,2-Dichloroethane-d4 | | | | | | CAS #: 17060-07-0 | |
| 4.834 | 4.833 (1.131) | 65 | 189569 | 27.3795 | 27.379 | 80.00- 120.00 | 100.00 |
| 4.841 | 4.833 (1.132) | 67 | 109266 | | | 6.22- 106.22 | 57.64 |
| $ 115 Toluene-d8 | | | | | | CAS #: 2037-26-5 | |
| 6.467 | 6.467 (1.237) | 98 | 482255 | 27.6747 | 27.675 | 80.00- 120.00 | 100.00 |
| 6.467 | 6.467 (1.237) | 70 | 57714 | | | 0.00- 61.60 | 11.97 |
| 6.467 | 6.467 (1.237) | 100 | 314619 | | | 15.04- 115.04 | 65.24 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | CONCENTRATIONS FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 159 Bromofluorobenzene | | | | | CAS #: 460-00-4 | | |
| 8.687 | 8.687 (1.128) | 174 | 201223 | 27.9976 | 27.998 | 80.00- 120.00 | 100.00 |
| 8.687 | 8.687 (1.128) | 95 | 275064 | | | 90.03- 190.03 | 136.70 |
| 8.687 | 8.687 (1.128) | 176 | 195090 | | | 47.31- 147.31 | 96.95 |
| 6 Propylene | | | | | CAS #: 115-07-1 | | |
| 1.111 | 1.111 (0.260) | 41 | 265201 | 49.8650 | 49.865 | 80.00- 120.00 | 100.00 |
| 1.111 | 1.111 (0.260) | 42 | 169992 | | | 16.22- 116.22 | 64.10 |
| 1.111 | 1.111 (0.260) | 39 | 197442 | | | 23.14- 123.14 | 74.45 |
| 7 Dichlorodifluoromethane/Fr12 | | | | | CAS #: 75-71-8 | | |
| 1.139 | 1.139 (0.266) | 85 | 1020273 | 55.0028 | 55.003 | 80.00- 120.00 | 100.00 |
| 1.139 | 1.139 (0.266) | 87 | 328172 | | | 0.00- 81.77 | 32.17 |
| 10 Freon 114 | | | | | CAS #: 76-14-2 | | |
| 1.209 | 1.209 (0.283) | 135 | 688025 | 50.8711 | 50.871 | 80.00- 120.00 | 100.00 |
| 1.209 | 1.209 (0.283) | 137 | 218795 | | | 0.00- 81.06 | 31.80 |
| 11 Chloromethane | | | | | CAS #: 74-87-3 | | |
| 1.265 | 1.264 (0.296) | 50 | 310776 | 71.3341 | 71.334 | 80.00- 120.00 | 100.00(R) |
| 1.265 | 1.264 (0.296) | 52 | 98381 | | | 0.00- 85.01 | 31.66 |
| 13 Butane | | | | | CAS #: 106-97-8 | | |
| 1.321 | 1.320 (0.309) | 58 | 79275 | 59.1380 | 59.138 | 80.00- 120.00 | 100.00 |
| 1.321 | 1.320 (0.309) | 43 | 636380 | | | 664.85- 764.85 | 802.75 |
| 14 Vinyl Chloride | | | | | CAS #: 75-01-4 | | |
| 1.335 | 1.334 (0.312) | 62 | 384844 | 55.9805 | 55.980 | 80.00- 120.00 | 100.00 |
| 1.335 | 1.334 (0.312) | 64 | 120412 | | | 0.00- 88.01 | 31.29 |
| 15 1,3-Butadiene | | | | | CAS #: 106-99-0 | | |
| 1.349 | 1.348 (0.315) | 54 | 298528 | 54.1352 | 54.135 | 80.00- 120.00 | 100.00 |
| 1.349 | 1.348 (0.315) | 39 | 378574 | | | 67.29- 167.29 | 126.81 |
| 21 Bromomethane | | | | | CAS #: 74-83-9 | | |
| 1.573 | 1.572 (0.368) | 94 | 302357 | 50.8212 | 50.821 | 80.00- 120.00 | 100.00 |
| 1.573 | 1.572 (0.368) | 96 | 282645 | | | 42.61- 142.61 | 93.48 |
| 24 Chloroethane | | | | | CAS #: 75-00-3 | | |
| 1.642 | 1.642 (0.384) | 64 | 204110 | 56.5307 | 56.531 | 80.00- 120.00 | 100.00 |
| 1.642 | 1.642 (0.384) | 66 | 63770 | | | 0.00- 89.11 | 31.24 |
| 1.642 | 1.642 (0.384) | 49 | 60737 | | | 0.00- 79.55 | 29.76 |
| 25 Isopentane | | | | | CAS #: 78-78-4 | | |
| 1.670 | 1.670 (0.391) | 43 | 479475 | 59.5371 | 59.537 | 80.00- 120.00 | 100.00 |
| 1.670 | 1.670 (0.391) | 57 | 297669 | | | 25.98- 125.98 | 62.08 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 28 Trichlorofluoromethane/Fr11 | | | | | CAS #: 75-69-4 | | |
| 1.810 | 1.810 (0.423) | 101 | 1047922 | 55.6612 | 55.661 | 80.00- 120.00 | 100.00 |
| 1.810 | 1.810 (0.423) | 103 | 668021 | | | 14.03- 114.03 | 63.75 |
| 29 Ethanol | | | | | CAS #: 64-17-5 | | |
| 1.964 | 1.964 (0.459) | 45 | 142392 | 49.4513 | 49.451 | 80.00- 120.00 | 100.00 |
| 1.964 | 1.964 (0.459) | 43 | 32761 | | | 0.00- 84.20 | 23.01 |
| 1.964 | 1.964 (0.459) | 46 | 49196 | | | 0.00- 96.43 | 34.55 |
| 30 Freon 113 | | | | | CAS #: 76-13-1 | | |
| 2.219 | 2.212 (0.519) | 151 | 476372 | 43.0043 | 43.004 | 80.00- 120.00 | 100.00 |
| 2.219 | 2.219 (0.519) | 153 | 307757 | | | 14.11- 114.11 | 64.60 |
| 2.219 | 2.212 (0.519) | 101 | 647146 | | | 86.39- 186.39 | 135.85 |
| 32 1,1-Dichloroethene | | | | | CAS #: 75-35-4 | | |
| 2.233 | 2.233 (0.522) | 98 | 182118 | 41.1474 | 41.147 | 80.00- 120.00 | 100.00 |
| 2.233 | 2.233 (0.522) | 96 | 291310 | | | 110.48- 210.48 | 159.96 |
| 2.233 | 2.233 (0.522) | 61 | 547756 | | | 248.79- 348.79 | 300.77 |
| 34 Acetone | | | | | CAS #: 67-64-1 | | |
| 2.312 | 2.312 (0.541) | 58 | 158145 | 45.5524 | 45.552 | 80.00- 120.00 | 100.00 |
| 2.312 | 2.312 (0.541) | 43 | 576927 | | | 281.49- 381.49 | 364.81 |
| 35 Carbon Disulfide | | | | | CAS #: 75-15-0 | | |
| 2.413 | 2.412 (0.564) | 76 | 1002282 | 48.2278 | 48.228 | 80.00- 120.00 | 100.00 |
| 37 2-Propanol | | | | | CAS #: 67-63-0 | | |
| 2.420 | 2.420 (0.566) | 45 | 584065 | 46.4525 | 46.452 | 80.00- 120.00 | 100.00 |
| 2.420 | 2.420 (0.566) | 43 | 149160 | | | 0.00- 72.19 | 25.54 |
| 2.420 | 2.420 (0.566) | 59 | 19872 | | | 0.00- 77.65 | 3.40 |
| 41 3-Chloropropene | | | | | CAS #: 107-05-1 | | |
| 2.577 | 2.577 (0.603) | 76 | 144687 | 45.4890 | 45.489 | 80.00- 120.00 | 100.00 |
| 2.577 | 2.577 (0.603) | 41 | 477894 | | | 257.61- 357.61 | 330.30 |
| 43 Methylene Chloride | | | | | CAS #: 75-09-2 | | |
| 2.713 | 2.713 (0.635) | 49 | 427630 | 48.7099 | 48.710 | 80.00- 120.00 | 100.00 |
| 2.721 | 2.713 (0.636) | 84 | 281404 | | | 16.21- 116.21 | 65.81 |
| 2.713 | 2.713 (0.635) | 51 | 130316 | | | 0.00- 81.57 | 30.47 |
| 46 tert-Butyl-Alcohol | | | | | CAS #: 75-65-0 | | |
| 2.814 | 2.813 (0.658) | 59 | 631599 | 47.1104 | 47.110 | 80.00- 120.00 | 100.00 |
| 2.814 | 2.813 (0.658) | 41 | 219605 | | | 0.00- 77.85 | 34.77 |
| 2.814 | 2.806 (0.658) | 57 | 68088 | | | 0.00- 61.24 | 10.78 |
| 47 MTBE | | | | | CAS #: 1634-04-4 | | |
| 2.943 | 2.942 (0.688) | 73 | 884405 | 47.7340 | 47.734 | 80.00- 120.00 | 100.00 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 47 MTBE (continued) | | | | | | | |
| 2.943 | 2.942 (0.688) | 57 | 206316 | | | 0.00- 73.42 | 23.33 |
| 2.943 | 2.942 (0.688) | 41 | 282054 | | | 0.00- 76.94 | 31.89 |
| 48 trans-1,2-Dichloroethene | | | | | CAS #: 156-60-5 | | |
| 2.964 | 2.964 (0.693) | 98 | 222418 | 48.2361 | 48.236 | 80.00- 120.00 | 100.00 |
| 2.957 | 2.957 (0.692) | 61 | 560095 | | | 205.12- 305.12 | 251.82 |
| 2.964 | 2.964 (0.693) | 96 | 351758 | | | 111.49- 211.49 | 158.15 |
| 51 Hexane | | | | | CAS #: 110-54-3 | | |
| 3.200 | 3.200 (0.749) | 57 | 537496 | 47.8579 | 47.858 | 80.00- 120.00 | 100.00 |
| 3.200 | 3.200 (0.749) | 43 | 395131 | | | 17.17- 117.17 | 73.51 |
| 3.208 | 3.200 (0.750) | 86 | 83385 | | | 0.00- 70.58 | 15.51 |
| 59 1,1-Dichloroethane | | | | | CAS #: 75-34-3 | | |
| 3.451 | 3.444 (0.807) | 63 | 665547 | 48.5496 | 48.550 | 80.00- 120.00 | 100.00 |
| 3.444 | 3.444 (0.806) | 65 | 212547 | | | 0.00- 81.29 | 31.94 |
| 58 Isopropyl ether | | | | | CAS #: 108-20-3 | | |
| 3.473 | 3.473 (0.812) | 45 | 1360938 | 53.4572 | 53.457 | 80.00- 120.00 | 100.00 |
| 3.473 | 3.473 (0.812) | 87 | 291498 | | | 0.00- 73.95 | 21.42 |
| 3.466 | 3.465 (0.811) | 59 | 142421 | | | 0.00- 60.65 | 10.46 |
| 61 Vinyl Acetate | | | | | CAS #: 108-05-4 | | |
| 3.501 | 3.501 (0.819) | 86 | 75382 | 45.3815 | 45.381 | 80.00- 120.00 | 100.00 |
| 3.494 | 3.494 (0.817) | 43 | 1633237 | | | 1854.64-1954.64 | 2166.61 |
| 68 t-Butylethyl Ether | | | | | CAS #: 637-92-3 | | |
| 3.838 | 3.838 (0.898) | 59 | 988392 | 49.4559 | 49.456 | 80.00- 120.00 | 100.00 |
| 3.845 | 3.838 (0.899) | 87 | 366041 | | | 0.00- 89.71 | 37.03 |
| 3.838 | 3.838 (0.898) | 41 | 265629 | | | 0.00- 72.53 | 26.87 |
| 73 cis-1,2-Dichloroethene | | | | | CAS #: 156-59-2 | | |
| 4.046 | 4.046 (0.946) | 98 | 208568 | 46.0193 | 46.019 | 80.00- 120.00 | 100.00 |
| 4.046 | 4.046 (0.946) | 96 | 332365 | | | 105.92- 205.92 | 159.36 |
| 4.046 | 4.046 (0.946) | 61 | 472597 | | | 168.03- 268.03 | 226.59 |
| 74 2-Butanone | | | | | CAS #: 78-93-3 | | |
| 4.074 | 4.074 (0.953) | 72 | 171039 | 50.2564 | 50.256 | 80.00- 120.00 | 100.00 |
| 4.074 | 4.067 (0.953) | 43 | 782992 | | | 408.01- 508.01 | 457.79 |
| 4.067 | 4.074 (0.951) | 57 | 55598 | | | 25.94- 125.94 | 32.51 |
| 75 Tetrahydrofuran | | | | | CAS #: 109-99-9 | | |
| 4.282 | 4.282 (1.002) | 42 | 446634 | 51.3179 | 51.318 | 80.00- 120.00 | 100.00 |
| 4.282 | 4.282 (1.002) | 71 | 151038 | | | 0.00- 84.34 | 33.82 |
| 4.282 | 4.282 (1.002) | 72 | 158435 | | | 0.00- 88.12 | 35.47 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 78 Chloroform | | | | | CAS #: 67-66-3 | | |
| 4.354 | 4.354 (1.018) | 83 | 722973 | 49.1943 | 49.194 | 80.00- 120.00 | 100.00 |
| 4.354 | 4.354 (1.018) | 85 | 470445 | | | 14.21- 114.21 | 65.07 |
| 80 Cyclohexane | | | | | CAS #: 110-82-7 | | |
| 4.476 | 4.475 (1.047) | 84 | 445347 | 49.7418 | 49.742 | 80.00- 120.00 | 100.00 |
| 4.476 | 4.475 (1.047) | 56 | 554330 | | | 75.05- 175.05 | 124.47 |
| 4.476 | 4.475 (1.047) | 41 | 363064 | | | 30.77- 130.77 | 81.52 |
| 81 1,1,1-Trichloroethane | | | | | CAS #: 71-55-6 | | |
| 4.490 | 4.482 (1.050) | 97 | 696622 | 50.3405 | 50.340 | 80.00- 120.00 | 100.00 |
| 4.490 | 4.482 (1.050) | 99 | 450000 | | | 12.20- 112.20 | 64.60 |
| 82 Carbon Tetrachloride | | | | | CAS #: 56-23-5 | | |
| 4.612 | 4.611 (1.079) | 119 | 694149 | 49.6073 | 49.607 | 80.00- 120.00 | 100.00 |
| 4.612 | 4.611 (1.079) | 117 | 719927 | | | 54.98- 154.98 | 103.71 |
| 87 2,2,4-Trimethylpentane | | | | | CAS #: 540-84-1 | | |
| 4.848 | 4.848 (1.134) | 57 | 1813819 | 55.7037 | 55.704 | 80.00- 120.00 | 100.00 |
| 4.848 | 4.848 (1.134) | 56 | 594520 | | | 0.00- 88.69 | 32.78 |
| 4.848 | 4.848 (1.134) | 41 | 521416 | | | 0.00- 79.27 | 28.75 |
| 88 Benzene | | | | | CAS #: 71-43-2 | | |
| 4.827 | 4.826 (0.923) | 78 | 1044806 | 51.7618 | 51.762 | 80.00- 120.00 | 100.00 |
| 4.827 | 4.826 (0.923) | 77 | 250303 | | | 0.00- 74.11 | 23.96 |
| 92 tert-amyl-Methyl Ether | | | | | CAS #: 994-05-8 | | |
| 4.927 | 4.927 (1.152) | 73 | 864529 | 49.5331 | 49.533 | 80.00- 120.00 | 100.00 |
| 4.927 | 4.927 (1.152) | 87 | 196890 | | | 0.00- 73.17 | 22.77 |
| 4.927 | 4.927 (1.152) | 55 | 314799 | | | 0.00- 81.18 | 36.41 |
| 93 1,2-Dichloroethane | | | | | CAS #: 107-06-2 | | |
| 4.905 | 4.905 (0.938) | 62 | 499790 | 53.0872 | 53.087 | 80.00- 120.00 | 100.00 |
| 4.905 | 4.905 (0.938) | 64 | 159628 | | | 0.00- 82.38 | 31.94 |
| 94 Heptane | | | | | CAS #: 142-82-5 | | |
| 5.034 | 5.034 (0.963) | 71 | 380278 | 53.2549 | 53.255 | 80.00- 120.00 | 100.00 |
| 5.034 | 5.034 (0.963) | 43 | 722165 | | | 135.49- 235.49 | 189.90 |
| 5.034 | 5.034 (0.963) | 57 | 388479 | | | 48.06- 148.06 | 102.16 |
| 102 Trichloroethene | | | | | CAS #: 79-01-6 | | |
| 5.421 | 5.421 (1.037) | 95 | 440503 | 51.5179 | 51.518 | 80.00- 120.00 | 100.00 |
| 5.421 | 5.421 (1.037) | 130 | 441764 | | | 49.51- 149.51 | 100.29 |
| 5.421 | 5.421 (1.037) | 97 | 276289 | | | 14.05- 114.05 | 62.72 |
| 104 Methyl Cyclohexane | | | | | CAS #: 108-87-2 | | |
| 5.536 | 5.535 (1.295) | 83 | 618732 | 53.8598 | 53.860 | 80.00- 120.00 | 100.00 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 104 Methyl Cyclohexane (continued) | | | | | | | |
| 5.536 | 5.535 (1.295) | 98 | 286470 | | | 0.00- 96.78 | 46.30 |
| 5.536 | 5.535 (1.295) | 55 | 527952 | | | 33.43- 133.43 | 85.33 |
| 106 1,2-Dichloropropane | | | | | CAS #: 78-87-5 | | |
| 5.650 | 5.650 (1.081) | 63 | 411173 | 56.6269 | 56.627 | 80.00- 120.00 | 100.00 |
| 5.650 | 5.650 (1.081) | 62 | 295173 | | | 20.48- 120.48 | 71.79 |
| 5.650 | 5.650 (1.081) | 41 | 262710 | | | 12.65- 112.65 | 63.89 |
| 107 1,4-Dioxane | | | | | CAS #: 123-91-1 | | |
| 5.751 | 5.750 (1.100) | 88 | 225492 | 53.0082 | 53.008 | 80.00- 120.00 | 100.00 |
| 5.751 | 5.750 (1.100) | 58 | 171082 | | | 24.40- 124.40 | 75.87 |
| 5.751 | 5.750 (1.100) | 57 | 60797 | | | 0.00- 73.47 | 26.96 |
| 109 Bromodichloromethane | | | | | CAS #: 75-27-4 | | |
| 5.887 | 5.886 (1.126) | 83 | 760497 | 54.1153 | 54.115 | 80.00- 120.00 | 100.00 |
| 5.887 | 5.886 (1.126) | 85 | 483479 | | | 14.13- 114.13 | 63.57 |
| 112 cis-1,3-Dichloropropene | | | | | CAS #: 10061-01-5 | | |
| 6.281 | 6.280 (1.201) | 75 | 533977 | 53.0839 | 53.084 | 80.00- 120.00 | 100.00 |
| 6.281 | 6.280 (1.201) | 77 | 168976 | | | 0.00- 81.33 | 31.64 |
| 6.281 | 6.280 (1.201) | 39 | 315911 | | | 8.76- 108.76 | 59.16 |
| 114 4-Methyl-2-pentanone | | | | | CAS #: 108-10-1 | | |
| 6.410 | 6.409 (1.226) | 58 | 319095 | 55.1455 | 55.146 | 80.00- 120.00 | 100.00 |
| 6.410 | 6.409 (1.226) | 43 | 942127 | | | 237.60- 337.60 | 295.25 |
| 6.410 | 6.409 (1.226) | 85 | 125027 | | | 0.00- 99.98 | 39.18 |
| 116 Toluene | | | | | CAS #: 108-88-3 | | |
| 6.524 | 6.524 (1.248) | 91 | 1204802 | 51.4144 | 51.414 | 80.00- 120.00 | 100.00 |
| 6.524 | 6.524 (1.248) | 92 | 696619 | | | 9.14- 109.14 | 57.82 |
| 123 trans-1,3-Dichloropropene | | | | | CAS #: 10061-02-6 | | |
| 6.775 | 6.775 (0.880) | 75 | 562994 | 47.6702 | 47.670 | 80.00- 120.00 | 100.00 |
| 6.775 | 6.775 (0.880) | 77 | 179172 | | | 0.00- 82.34 | 31.82 |
| 6.775 | 6.775 (0.880) | 39 | 311961 | | | 6.27- 106.27 | 55.41 |
| 128 1,1,2-Trichloroethane | | | | | CAS #: 79-00-5 | | |
| 6.918 | 6.918 (0.899) | 97 | 434679 | 48.4543 | 48.454 | 80.00- 120.00 | 100.00 |
| 6.918 | 6.918 (0.899) | 99 | 262565 | | | 10.04- 110.04 | 60.40 |
| 6.918 | 6.918 (0.899) | 83 | 377609 | | | 36.30- 136.30 | 86.87 |
| 131 Tetrachloroethene | | | | | CAS #: 127-18-4 | | |
| 6.968 | 6.968 (0.905) | 166 | 508560 | 43.7099 | 43.710 | 80.00- 120.00 | 100.00 |
| 6.968 | 6.968 (0.905) | 129 | 394211 | | | 28.58- 128.58 | 77.52 |
| 6.968 | 6.968 (0.905) | 131 | 383004 | | | 24.50- 124.50 | 75.31 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 135 2-Hexanone | | | | | CAS #: 591-78-6 | | |
| 7.112 | 7.111 (0.924) | 58 | 441020 | 51.9824 | 51.982 | 80.00- 120.00 | 100.00 |
| 7.112 | 7.111 (0.924) | 43 | 926969 | | | 157.36- 257.36 | 210.19 |
| 7.119 | 7.111 (0.925) | 100 | 80545 | | | 0.00- 69.68 | 18.26 |
| 138 Dibromochloromethane | | | | | CAS #: 124-48-1 | | |
| 7.226 | 7.226 (0.939) | 129 | 718312 | 48.2068 | 48.207 | 80.00- 120.00 | 100.00 |
| 7.226 | 7.226 (0.939) | 127 | 554917 | | | 27.83- 127.83 | 77.25 |
| 140 1,2-Dibromoethane | | | | | CAS #: 106-93-4 | | |
| 7.326 | 7.326 (0.952) | 107 | 663858 | 50.6023 | 50.602 | 80.00- 120.00 | 100.00 |
| 7.326 | 7.326 (0.952) | 109 | 625366 | | | 46.14- 146.14 | 94.20 |
| 145 Chlorobenzene | | | | | CAS #: 108-90-7 | | |
| 7.720 | 7.720 (1.003) | 112 | 930136 | 47.0602 | 47.060 | 80.00- 120.00 | 100.00 |
| 7.720 | 7.720 (1.003) | 114 | 299207 | | | 0.00- 81.02 | 32.17 |
| 7.720 | 7.720 (1.003) | 77 | 558811 | | | 9.54- 109.54 | 60.08 |
| 147 Ethyl Benzene | | | | | CAS #: 100-41-4 | | |
| 7.792 | 7.792 (1.012) | 106 | 489748 | 49.7509 | 49.751 | 80.00- 120.00 | 100.00 |
| 7.792 | 7.792 (1.012) | 91 | 1591224 | | | 270.93- 370.93 | 324.91 |
| 150 m,p-Xylene | | | | | CAS #: 108-38-3 | | |
| 7.892 | 7.892 (1.025) | 106 | 614639 | 50.1800 | 50.180 | 80.00- 120.00 | 100.00 |
| 7.892 | 7.892 (1.025) | 91 | 1245966 | | | 151.38- 251.38 | 202.72 |
| 153 o-Xylene | | | | | CAS #: 95-47-6 | | |
| 8.229 | 8.229 (1.069) | 106 | 556362 | 49.7664 | 49.766 | 80.00- 120.00 | 100.00 |
| 8.222 | 8.229 (1.068) | 91 | 1191679 | | | 164.43- 264.43 | 214.19 |
| 154 Styrene | | | | | CAS #: 100-42-5 | | |
| 8.243 | 8.243 (1.071) | 104 | 948431 | 51.7370 | 51.737 | 80.00- 120.00 | 100.00 |
| 8.243 | 8.243 (1.071) | 78 | 494808 | | | 1.78- 101.78 | 52.17 |
| 155 Bromoform | | | | | CAS #: 75-25-2 | | |
| 8.415 | 8.415 (1.093) | 173 | 599553 | 48.6980 | 48.698 | 80.00- 120.00 | 100.00 |
| 8.415 | 8.415 (1.093) | 171 | 304634 | | | 1.26- 101.26 | 50.81 |
| 156 Cumene | | | | | CAS #: 98-82-8 | | |
| 8.523 | 8.522 (1.107) | 105 | 1667834 | 50.8392 | 50.839 | 80.00- 120.00 | 100.00 |
| 8.523 | 8.522 (1.107) | 120 | 436599 | | | 0.00- 76.38 | 26.18 |
| 8.523 | 8.522 (1.107) | 51 | 189477 | | | 0.00- 60.64 | 11.36 |
| 161 1,1,2,2-Tetrachloroethane | | | | | CAS #: 79-34-5 | | |
| 8.823 | 8.823 (1.146) | 83 | 961839 | 54.9695 | 54.970 | 80.00- 120.00 | 100.00 |
| 8.823 | 8.823 (1.146) | 85 | 618026 | | | 14.68- 114.68 | 64.25 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 162 Propylbenzene | | | | | CAS #: 103-65-1 | | |
| 8.866 | 8.866 (1.152) | 91 | 2076966 | 51.6347 | 51.635 | 80.00- 120.00 | 100.00 |
| 8.866 | 8.866 (1.152) | 120 | 450213 | | | 0.00- 72.00 | 21.68 |
| 8.866 | 8.866 (1.152) | 105 | 72431 | | | 0.00- 68.11 | 3.49 |
| 163 4-Ethyltoluene | | | | | CAS #: 622-96-8 | | |
| 8.960 | 8.959 (1.164) | 120 | 508627 | 50.3117 | 50.312 | 80.00- 120.00 | 100.00 |
| 8.960 | 8.959 (1.164) | 105 | 1714741 | | | 285.98- 385.98 | 337.13 |
| 164 1,3,5-Trimethylbenzene | | | | | CAS #: 108-67-8 | | |
| 9.017 | 9.017 (1.171) | 120 | 704451 | 53.0407 | 53.041 | 80.00- 120.00 | 100.00 |
| 9.017 | 9.017 (1.171) | 105 | 1452564 | | | 157.61- 257.61 | 206.20 |
| 166 1,2,4-Trimethylbenzene | | | | | CAS #: 95-63-6 | | |
| 9.332 | 9.332 (1.212) | 120 | 597365 | 52.1646 | 52.164 | 80.00- 120.00 | 100.00 |
| 9.332 | 9.332 (1.212) | 105 | 1321136 | | | 171.83- 271.83 | 221.16 |
| 168 1,3-Dichlorobenzene | | | | | CAS #: 541-73-1 | | |
| 9.583 | 9.590 (1.245) | 146 | 817900 | 51.0324 | 51.032 | 80.00- 120.00 | 100.00 |
| 9.590 | 9.590 (1.246) | 148 | 516124 | | | 11.58- 111.58 | 63.10 |
| 9.583 | 9.583 (1.245) | 111 | 342156 | | | 0.00- 91.95 | 41.83 |
| 169 1,4-Dichlorobenzene | | | | | CAS #: 106-46-7 | | |
| 9.669 | 9.669 (1.256) | 146 | 843542 | 53.2820 | 53.282 | 80.00- 120.00 | 100.00 |
| 9.669 | 9.669 (1.256) | 148 | 529711 | | | 14.35- 114.35 | 62.80 |
| 9.669 | 9.669 (1.256) | 111 | 336436 | | | 0.00- 91.42 | 39.88 |
| 170 alpha-Chlorotoluene | | | | | CAS #: 100-44-7 | | |
| 9.783 | 9.783 (1.271) | 91 | 1162994 | 56.8616 | 56.862 | 80.00- 120.00 | 100.00 |
| 9.783 | 9.783 (1.271) | 126 | 223998 | | | 0.00- 69.60 | 19.26 |
| 171 1,2-Dichlorobenzene | | | | | CAS #: 95-50-1 | | |
| 9.977 | 9.984 (1.296) | 146 | 762830 | 54.2819 | 54.282 | 80.00- 120.00 | 100.00 |
| 9.977 | 9.984 (1.296) | 148 | 478305 | | | 12.86- 112.86 | 62.70 |
| 9.977 | 9.984 (1.296) | 111 | 328442 | | | 0.00- 93.03 | 43.06 |
| 174 1,2,4-Trichlorobenzene | | | | | CAS #: 120-82-1 | | |
| 11.316 | 11.316 (1.470) | 180 | 546295 | 61.0177 | 61.018 | 80.00- 120.00 | 100.00 |
| 11.316 | 11.316 (1.470) | 182 | 514232 | | | 44.20- 144.20 | 94.13 |
| 175 Hexachlorobutadiene | | | | | CAS #: 87-68-3 | | |
| 11.416 | 11.416 (1.483) | 225 | 412389 | 50.6968 | 50.697 | 80.00- 120.00 | 100.00 |
| 11.416 | 11.416 (1.483) | 223 | 258214 | | | 13.27- 113.27 | 62.61 |
| 176 Naphthalene | | | | | CAS #: 91-20-3 | | |
| 11.524 | 11.524 (1.497) | 128 | 1170155 | 60.4484 | 60.448 | 80.00- 120.00 | 100.00 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | CONCENTRATIONS FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 176 Naphthalene (continued) | | | | | | | |
| 11.524 | 11.524 (1.497) | 127 | 146155 | | | 0.00- 62.46 | 12.49 |

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdp.i
Lab File ID: p032004.d
Lab Smp Id: LCS-1
Analysis Type: VOA
Quant Type: ISTD
Operator: ra
Method File: /var/chem/msdp.i/20mar10.b/p10q0311a.m
Misc Info: 50ppbv (200ppbv)

Calibration Date: 19-MAR-2010
Calibration Time: 23:03
Client Smp ID: LCS-1
Level: LOW
Sample Type: AIR

| | | AREA LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 76 Bromochloromethan | 147132 | 88279 | 205985 | 129270 | -12.14 |
| 97 1,4-Difluorobenze | 499171 | 299503 | 698839 | 422507 | -15.36 |
| 144 Chlorobenzene-d5 | 450394 | 270236 | 630552 | 392619 | -12.83 |

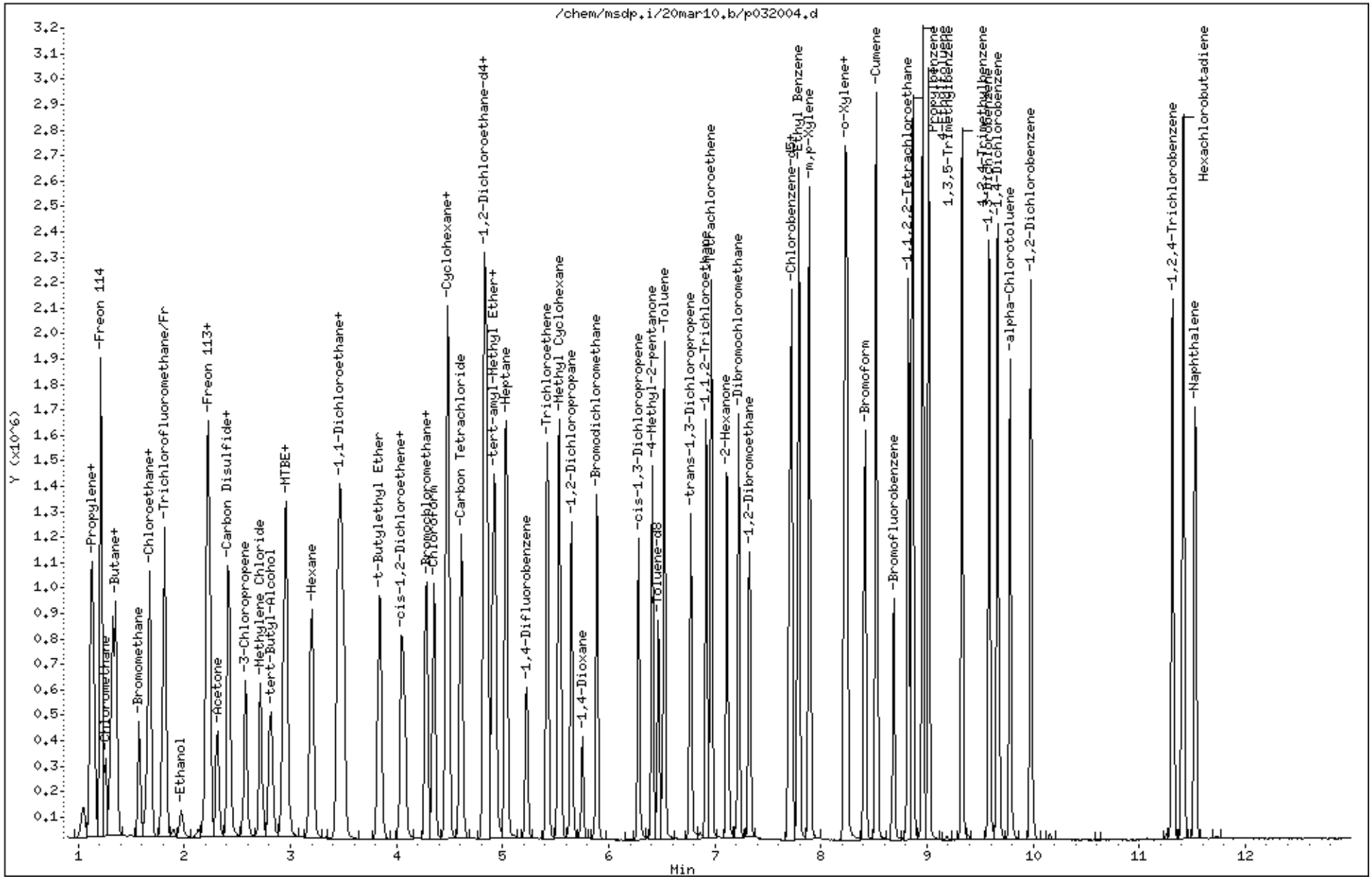
| | | RT LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 76 Bromochloromethan | 4.27 | 3.94 | 4.60 | 4.27 | 0.00 |
| 97 1,4-Difluorobenze | 5.23 | 4.90 | 5.56 | 5.23 | 0.00 |
| 144 Chlorobenzene-d5 | 7.70 | 7.37 | 8.03 | 7.70 | 0.00 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msdp.i/20mar10.b/p032004.d
Date : 19-MAR-2010 22:35
Client ID: LCS-1
Sample Info: 50ml 1911-194

Instrument: msdp.i
Operator: ra
Column diameter: 0.53

Column phase: RTx-624



Data File: /chem/msdp.i/20mar10.b/p032004.d

Date : 19-MAR-2010 22:35

Client ID: LCS-1

Instrument: msdp.i

Sample Info: 50ml 1911-194

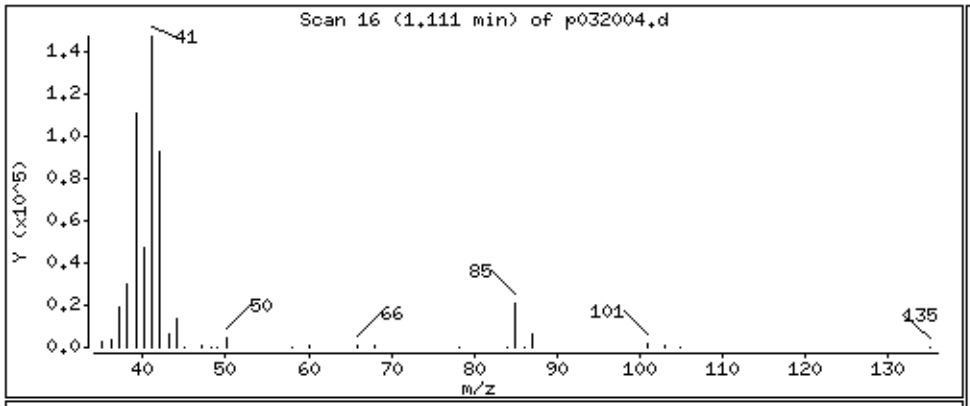
Operator: ra

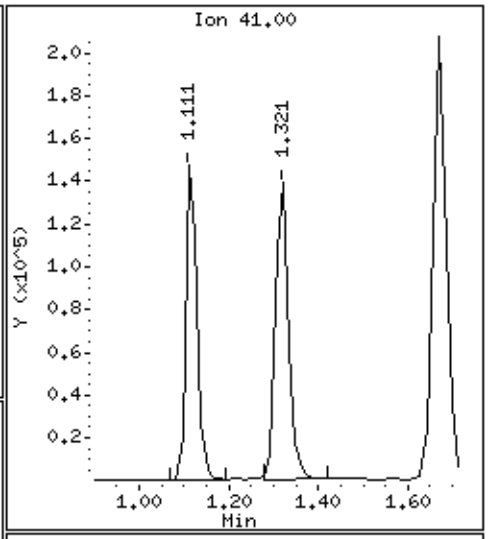
Column phase: RTx-624

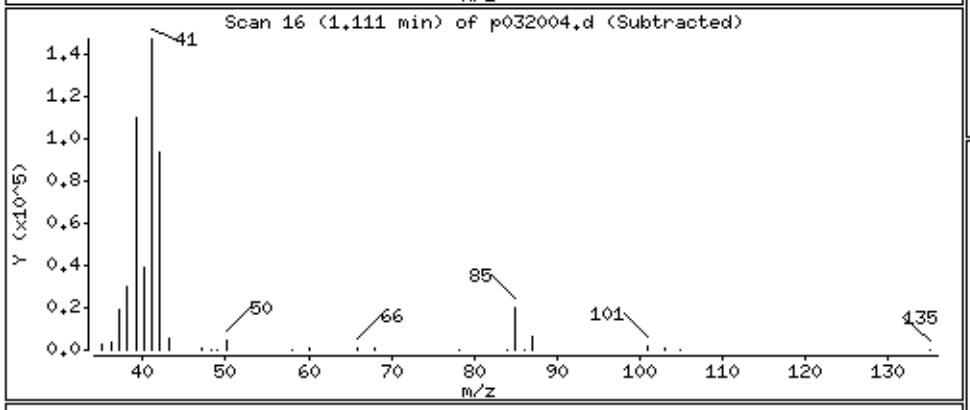
Column diameter: 0.53

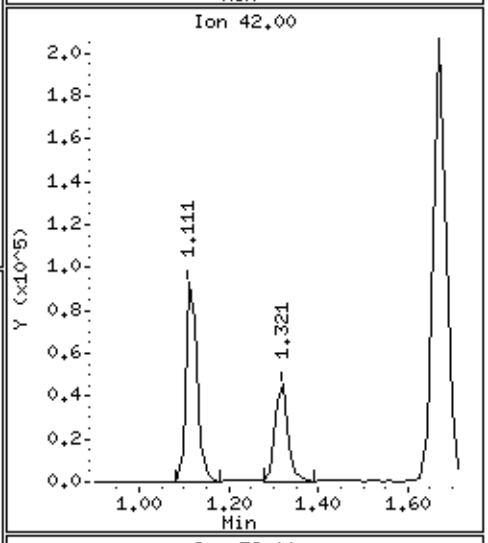
6 Propylene

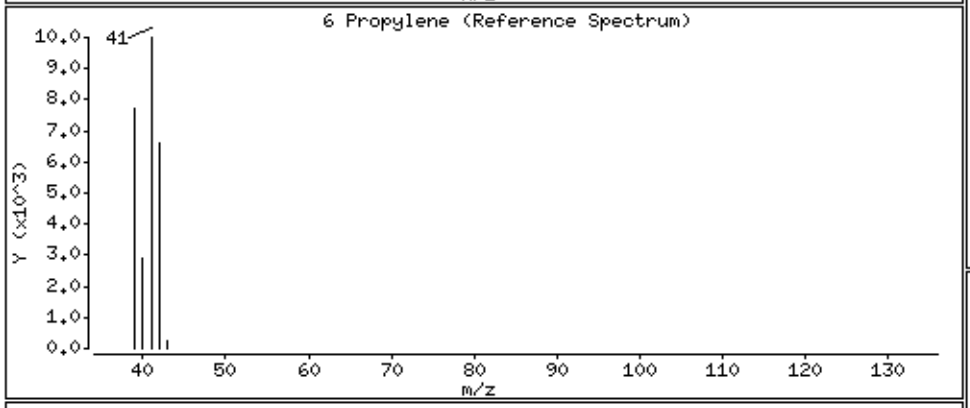
Concentration: 49.865 PPBV

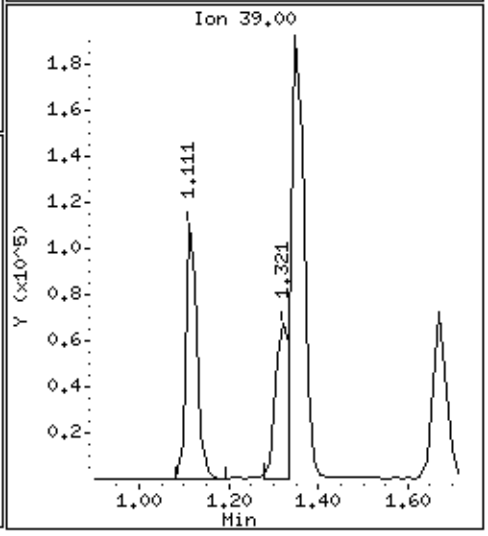


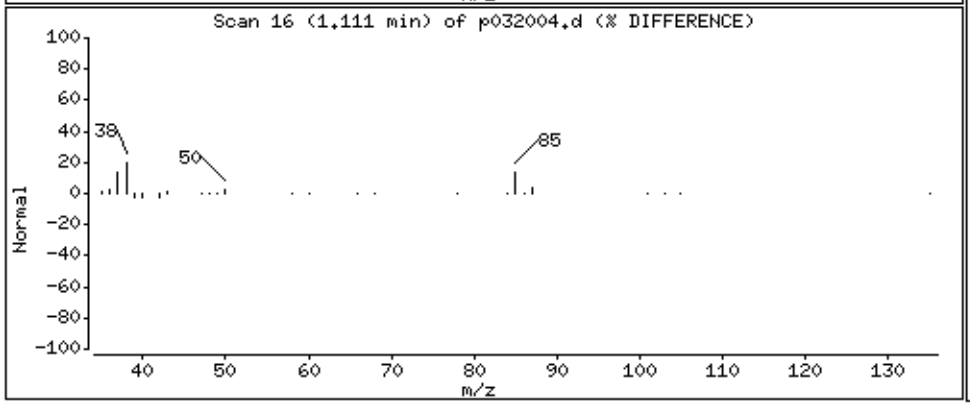



Data File: /chem/msdp.i/20mar10.b/p032004.d

Date : 19-MAR-2010 22:35

Client ID: LCS-1

Instrument: msdp.i

Sample Info: 50ml 1911-194

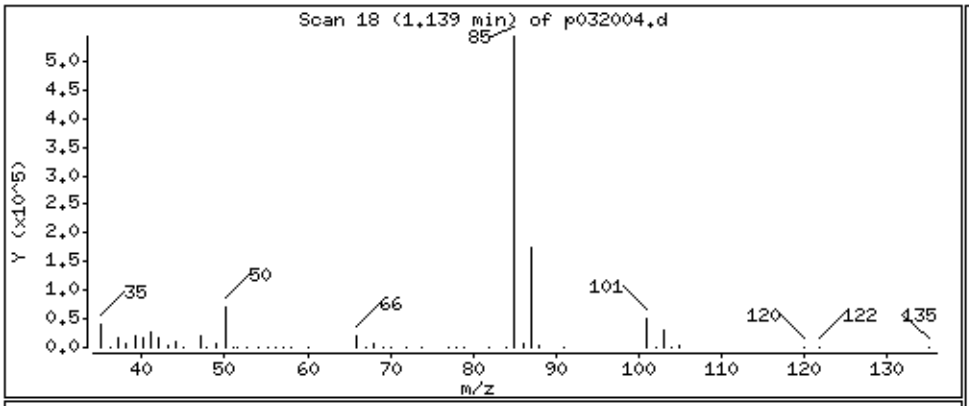
Operator: ra

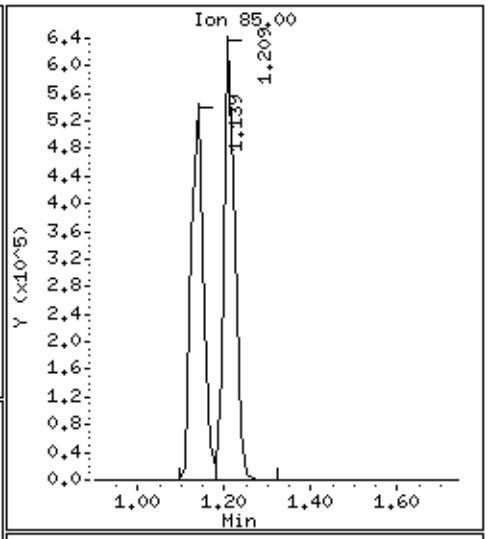
Column phase: RTx-624

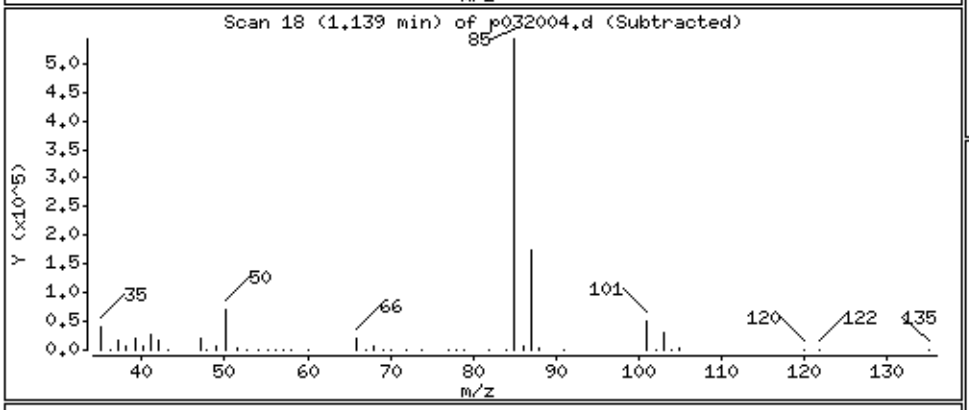
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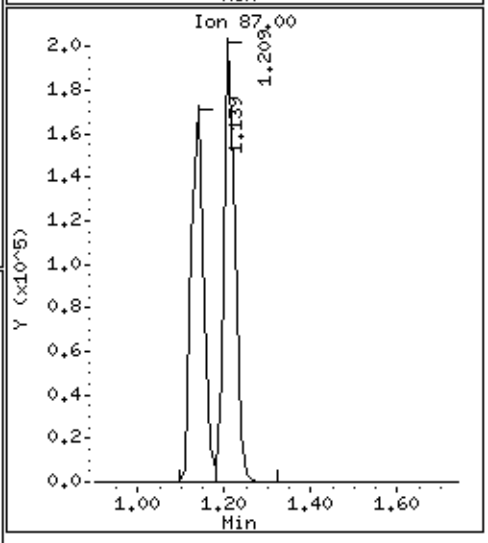
7 Dichlorodifluoromethane/Fr12

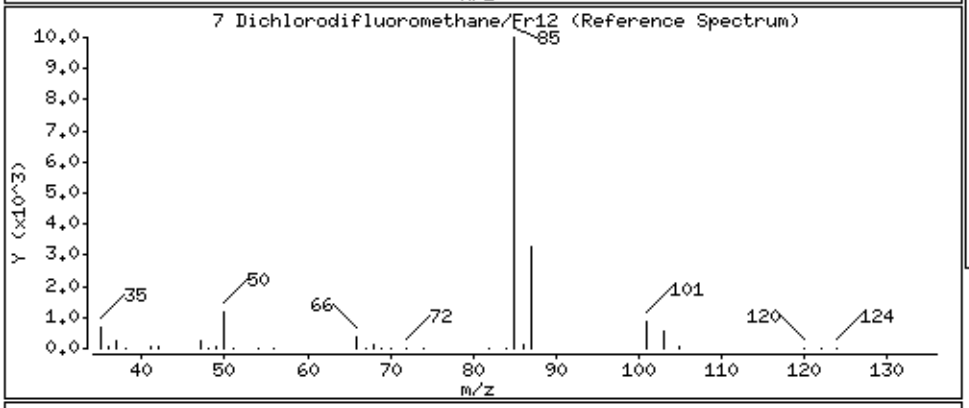
Concentration: 55.003 PPBV

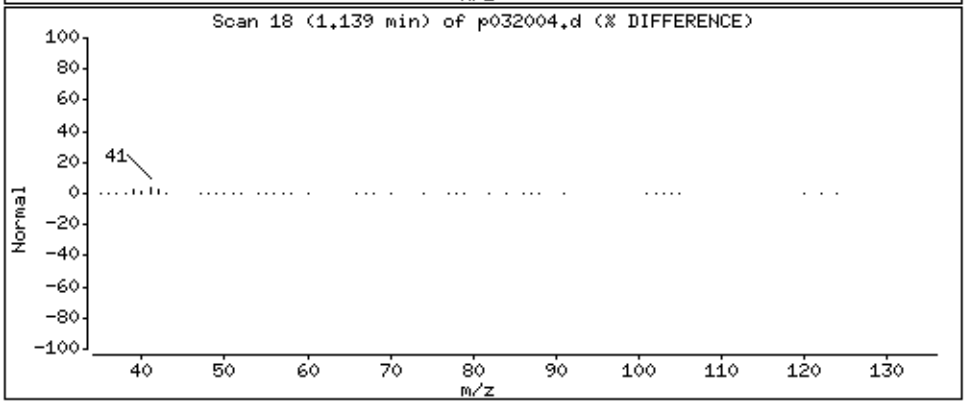


Data File: /chem/msdp.i/20mar10.b/p032004.d

Date : 19-MAR-2010 22:35

Client ID: LCS-1

Instrument: msdp.i

Sample Info: 50ml 1911-194

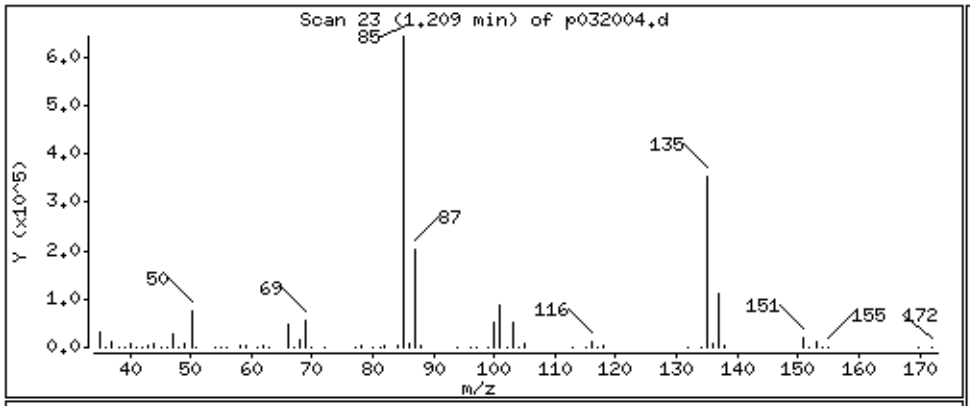
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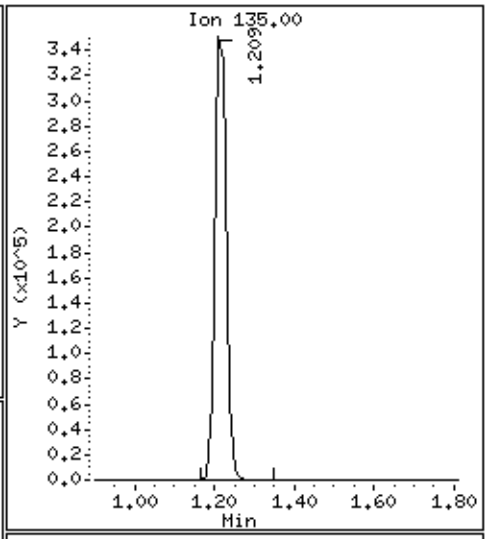
Column phase: RTx-624

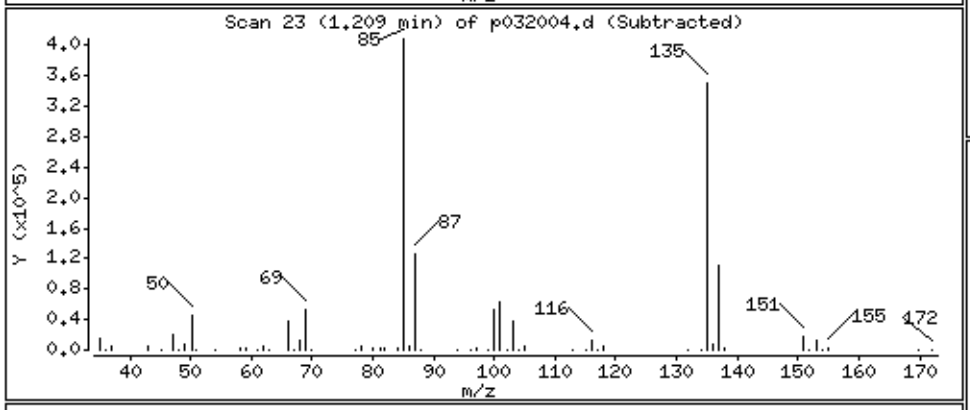
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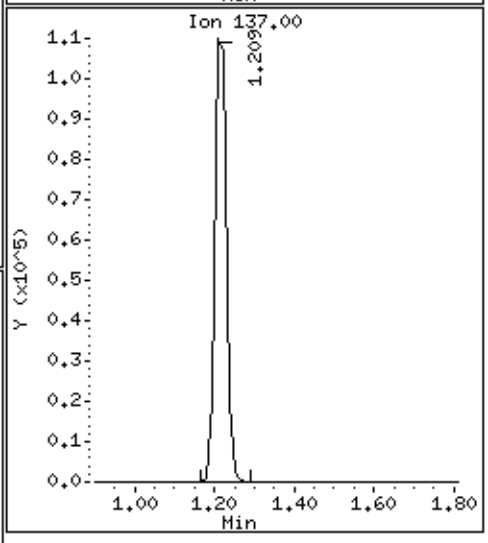
10 Freon 114

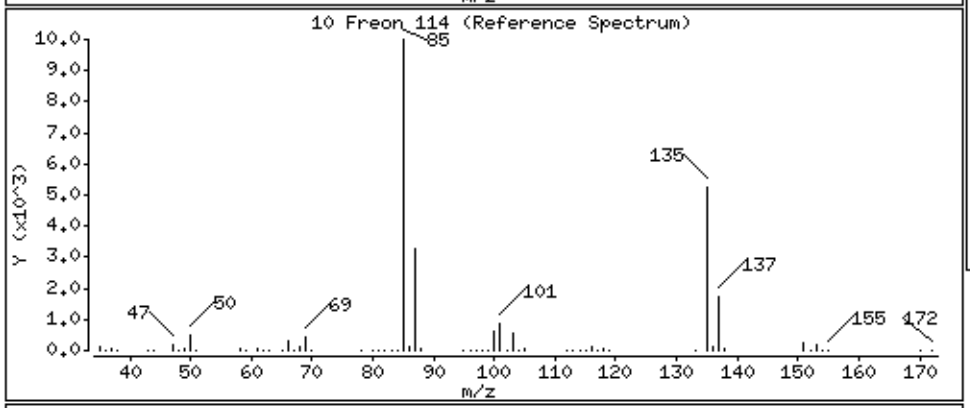
Concentration: 50.871 PPBV

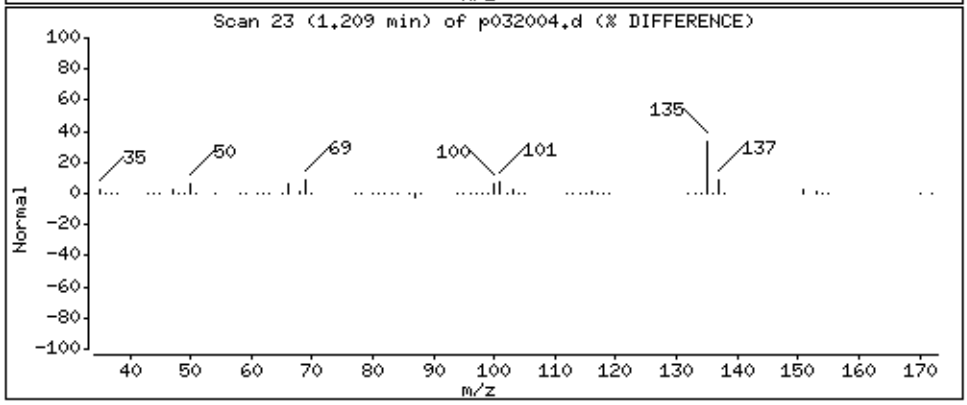


Data File: /chem/msdp.i/20mar10.b/p032004.d

Date : 19-MAR-2010 22:35

Client ID: LCS-1

Instrument: msdp.i

Sample Info: 50ml 1911-194

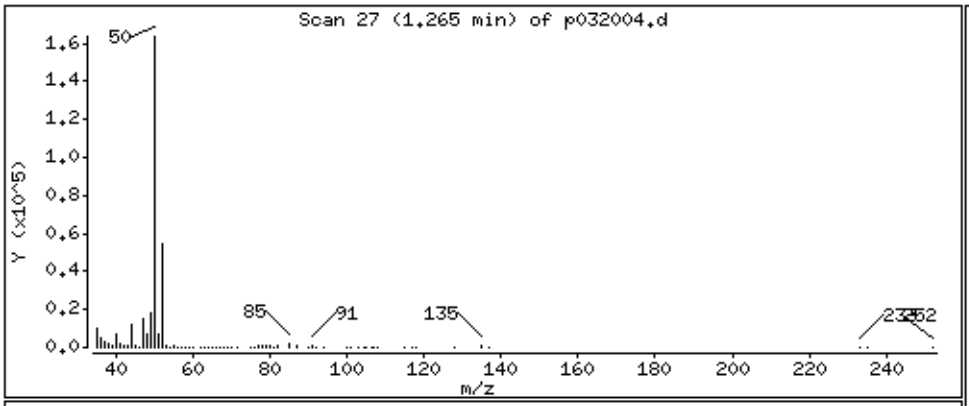
Operator: ra

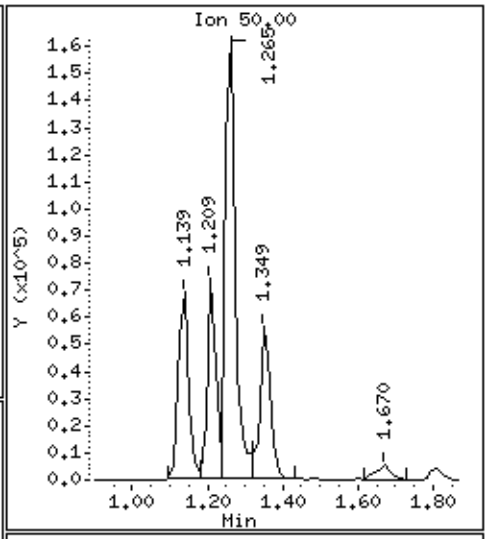
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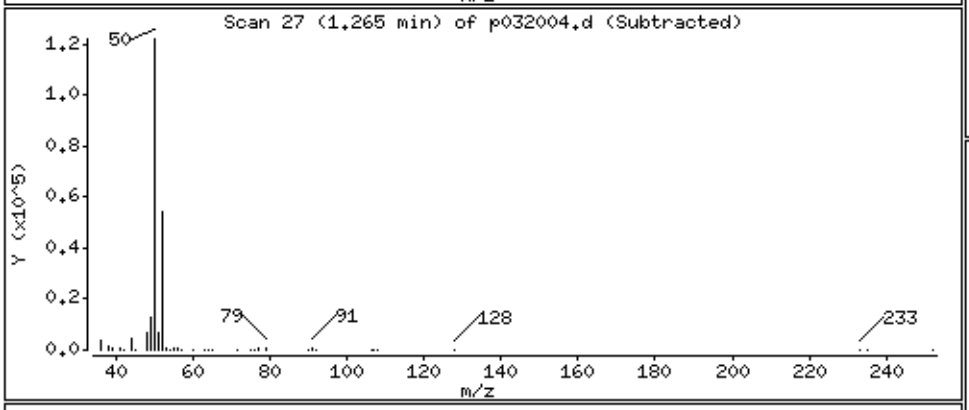
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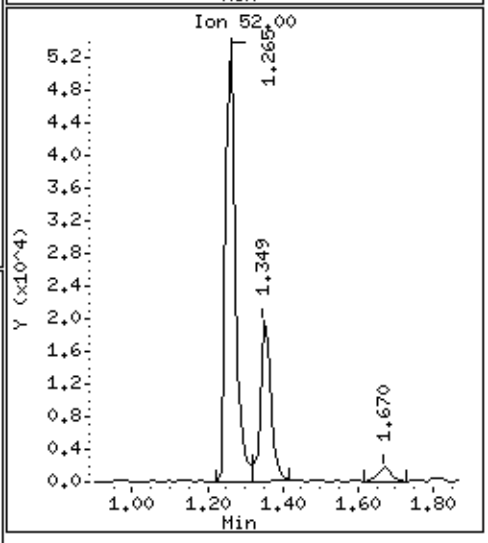
11 Chloromethane

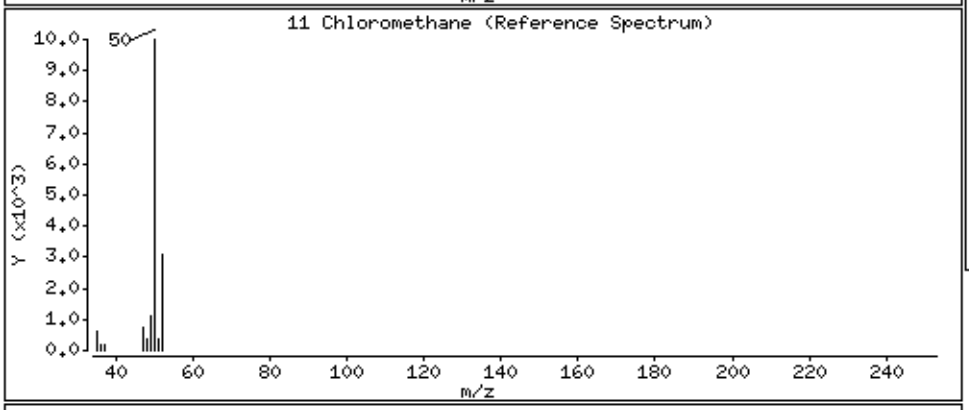
Concentration: 71.334 PPBV

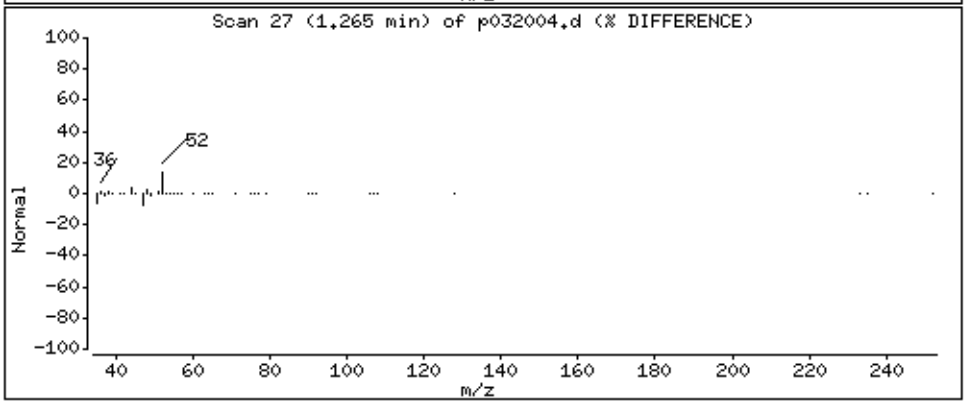


Data File: /chem/msdp.i/20mar10.b/p032004.d

Date : 19-MAR-2010 22:35

Client ID: LCS-1

Instrument: msdp.i

Sample Info: 50ml 1911-194

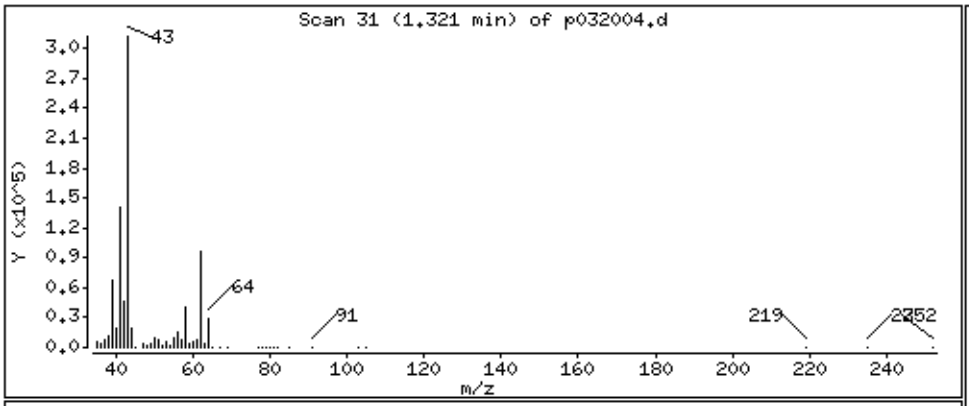
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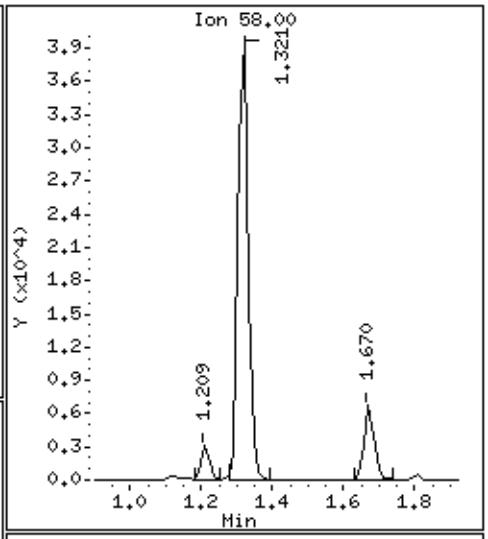
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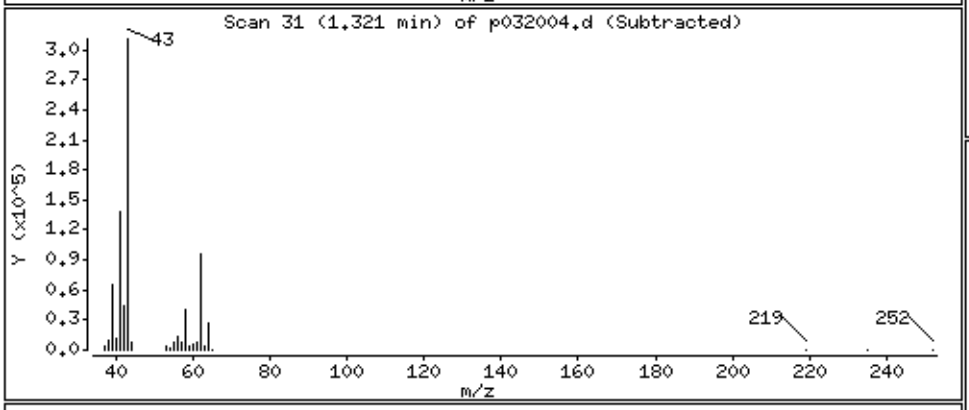
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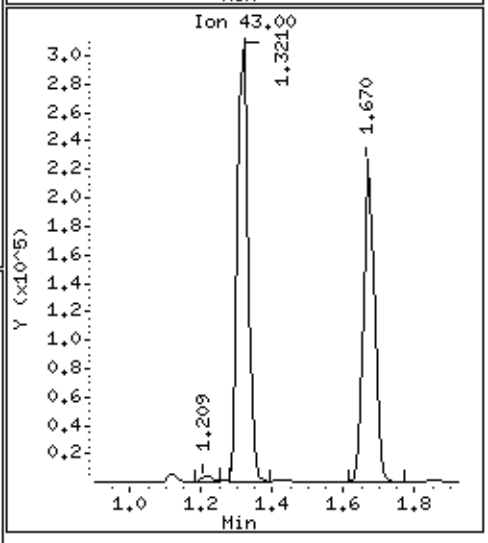
13 Butane

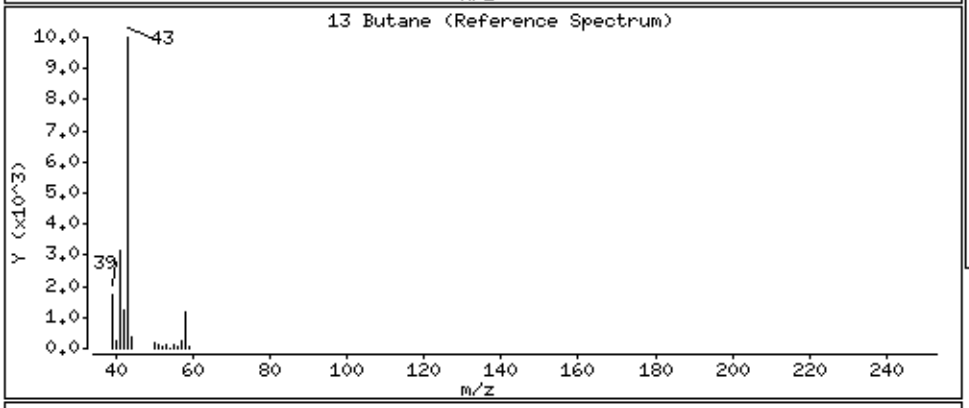
Concentration: 59.138 PPBV

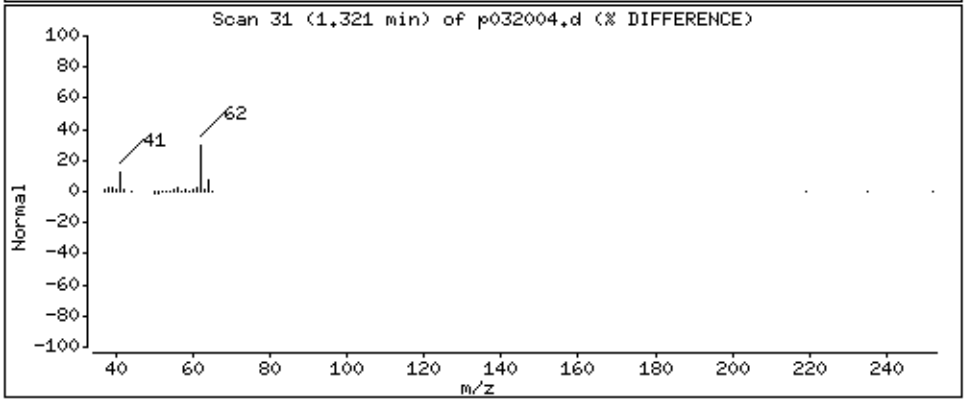


Data File: /chem/msdp.i/20mar10.b/p032004.d

Date : 19-MAR-2010 22:35

Client ID: LCS-1

Instrument: msdp.i

Sample Info: 50ml 1911-194

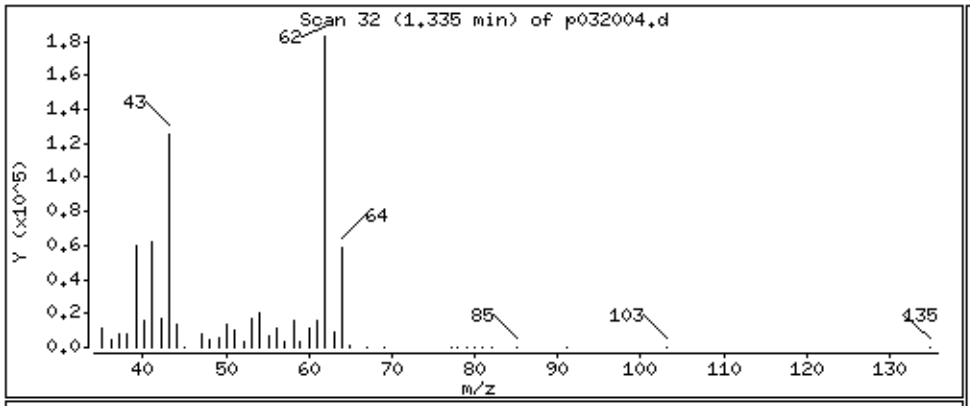
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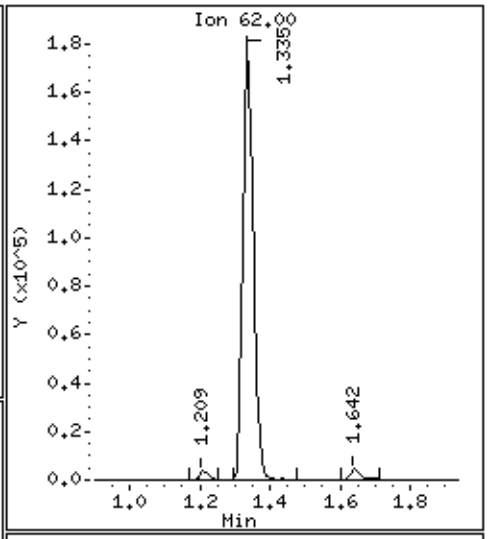
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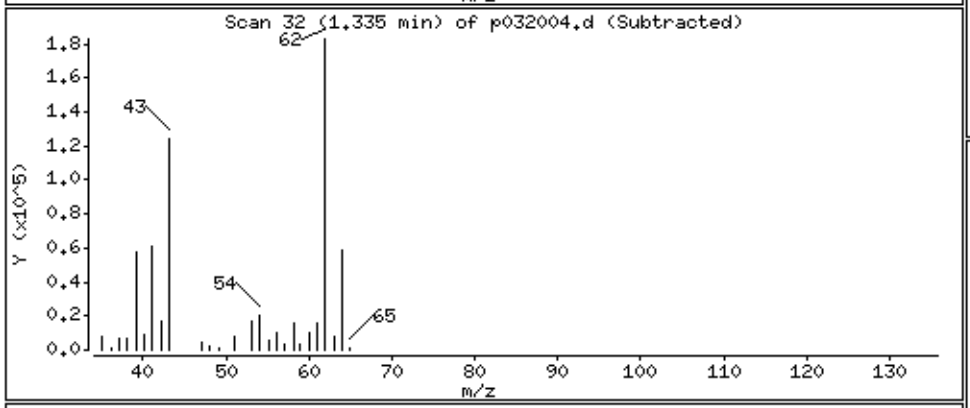
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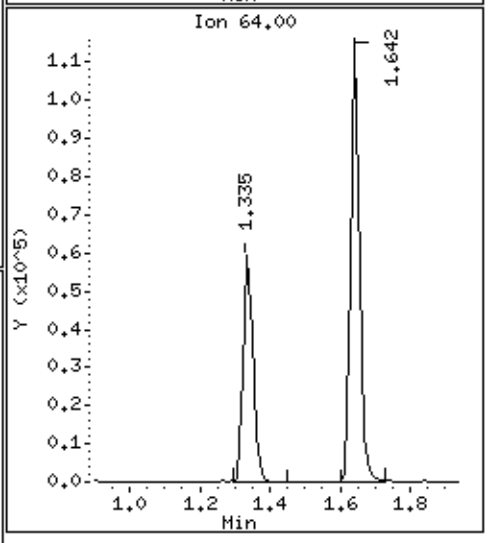
14 Vinyl Chloride

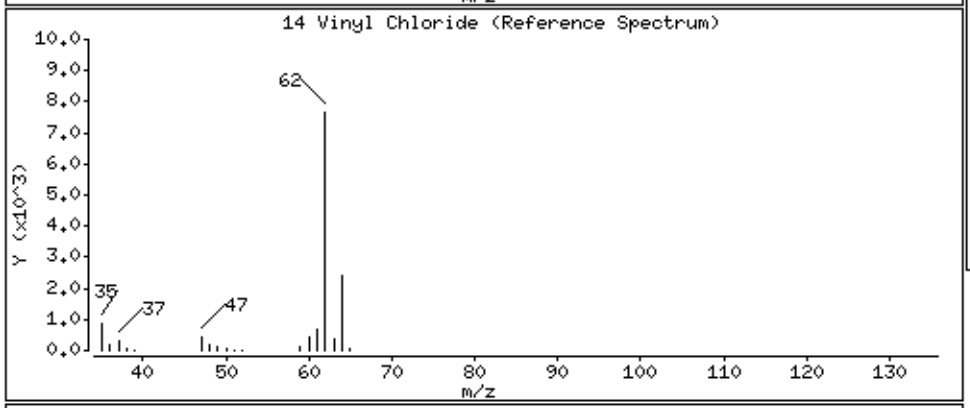
Concentration: 55.980 PPBV

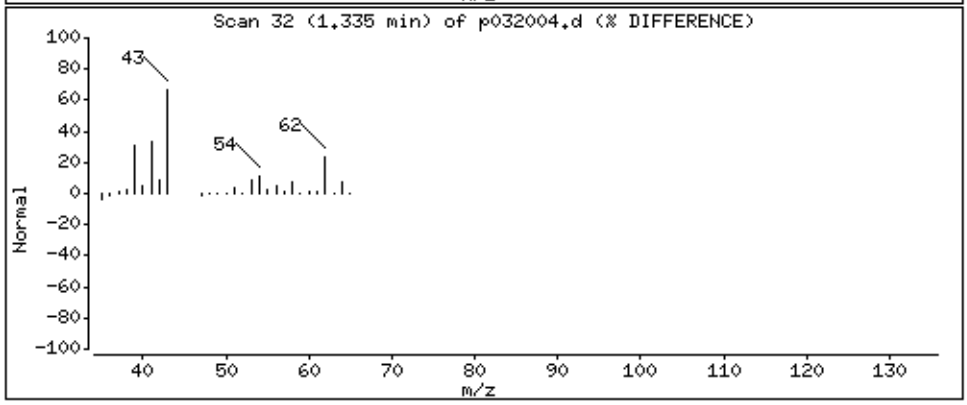


Data File: /chem/msdp.i/20mar10.b/p032004.d

Date : 19-MAR-2010 22:35

Client ID: LCS-1

Instrument: msdp.i

Sample Info: 50ml 1911-194

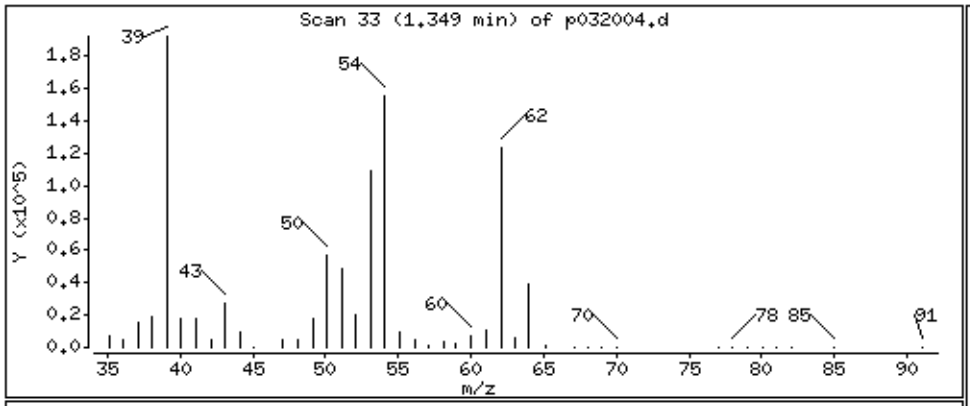
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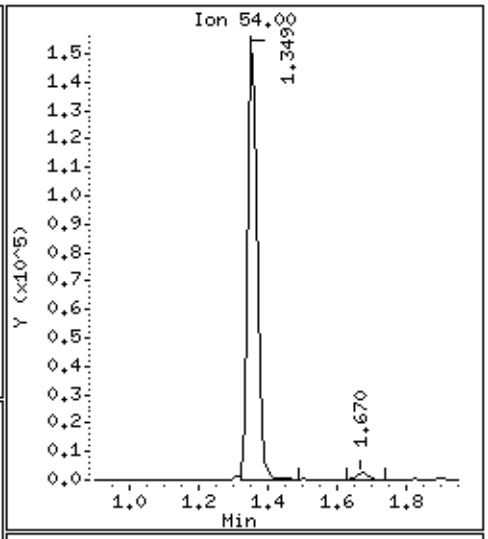
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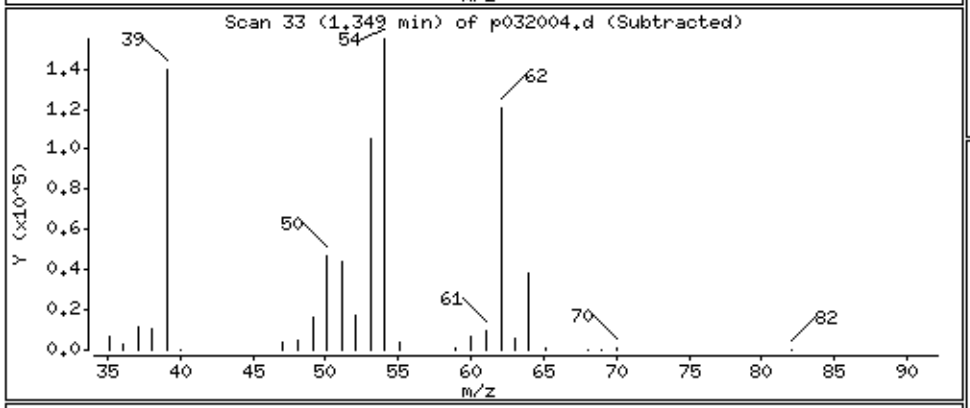
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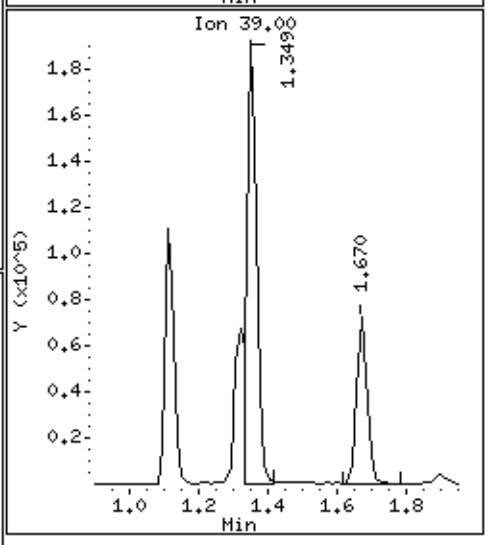
15 1,3-Butadiene

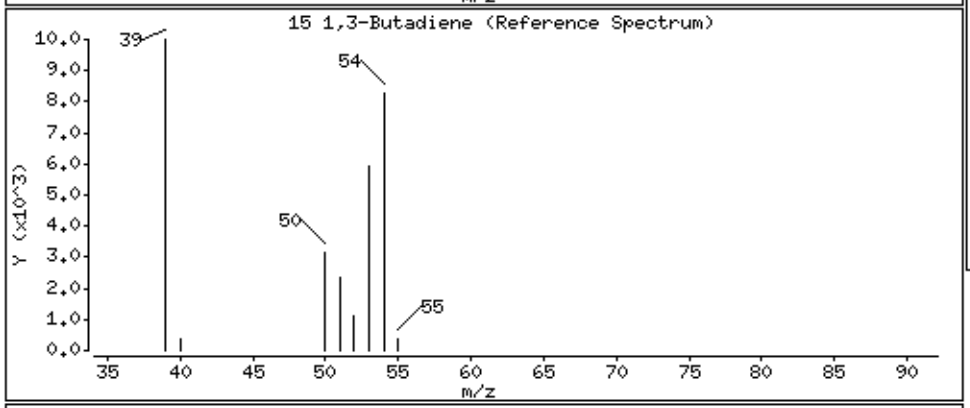
Concentration: 54.135 PPBV

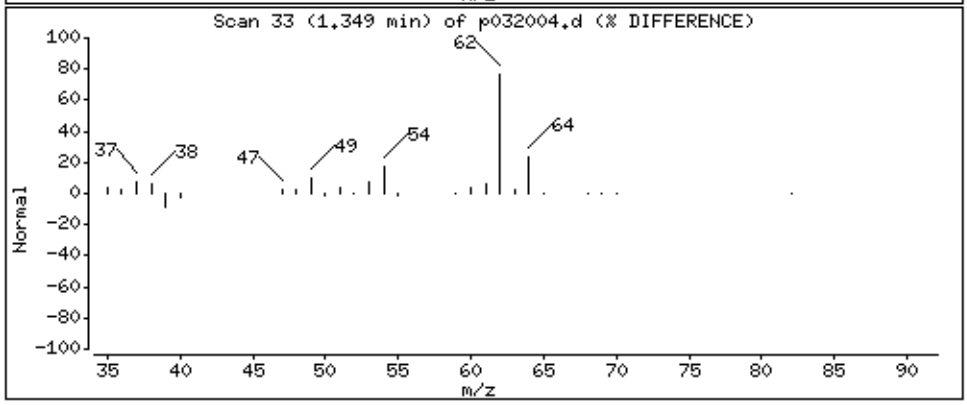


Data File: /chem/msdp.i/20mar10.b/p032004.d

Date : 19-MAR-2010 22:35

Client ID: LCS-1

Instrument: msdp.i

Sample Info: 50ml 1911-194

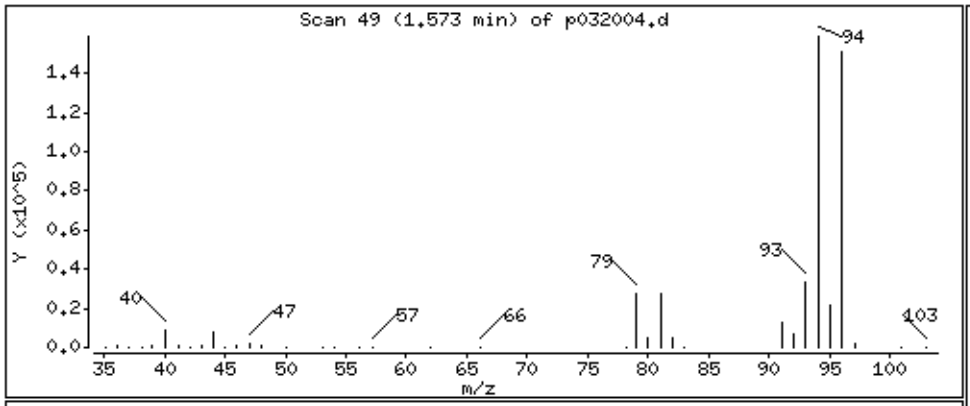
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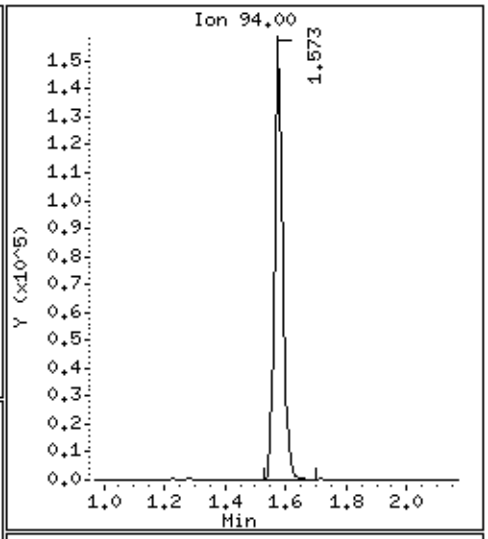
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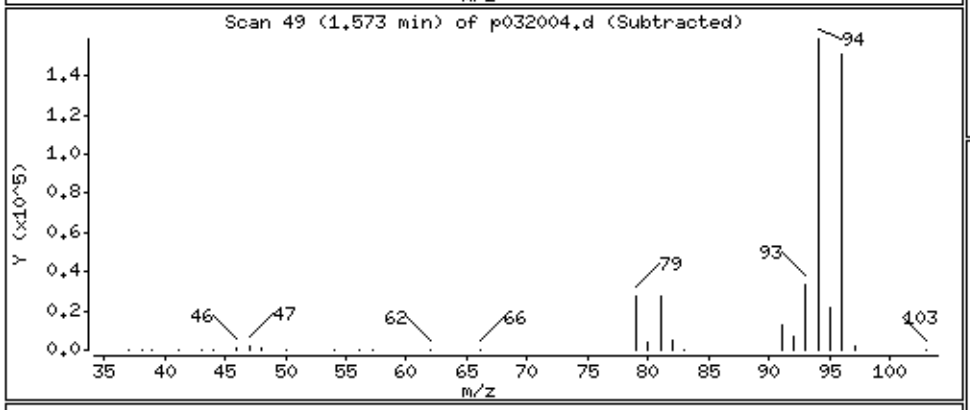
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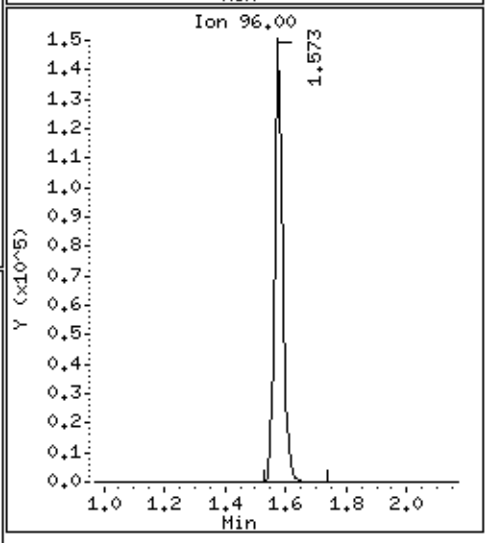
21 Bromomethane

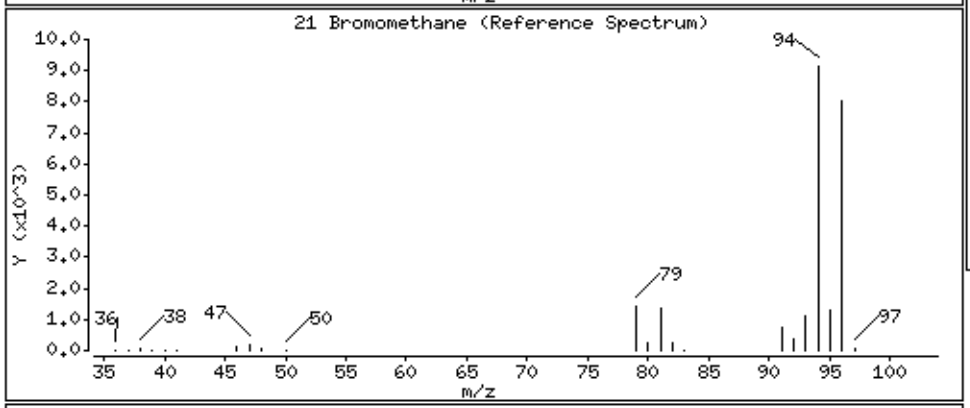
Concentration: 50.821 PPBV

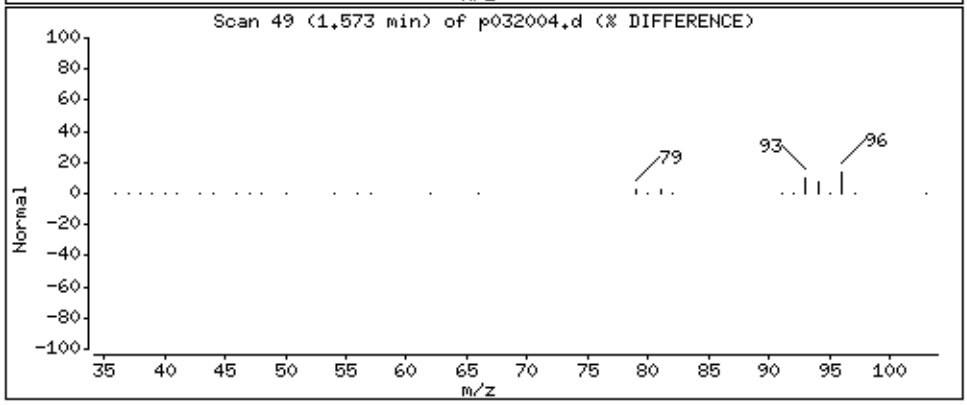


Data File: /chem/msdp.i/20mar10.b/p032004.d

Date : 19-MAR-2010 22:35

Client ID: LCS-1

Instrument: msdp.i

Sample Info: 50ml 1911-194

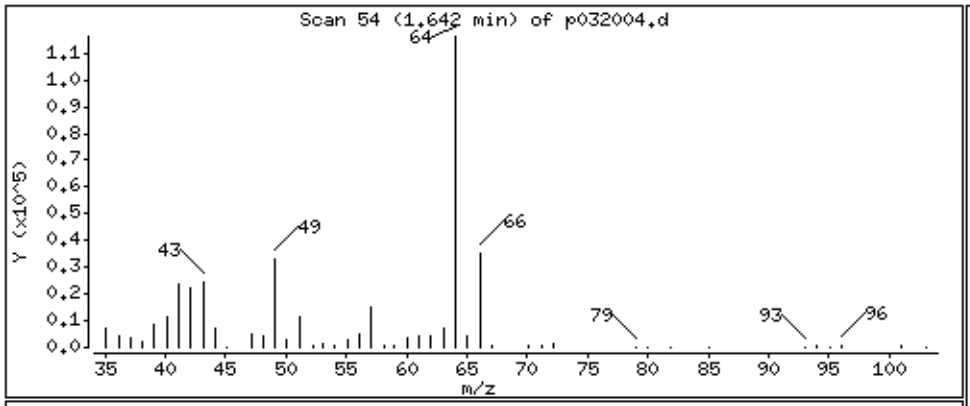
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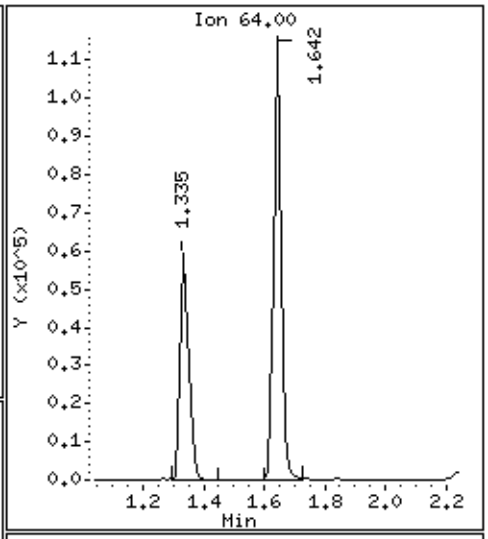
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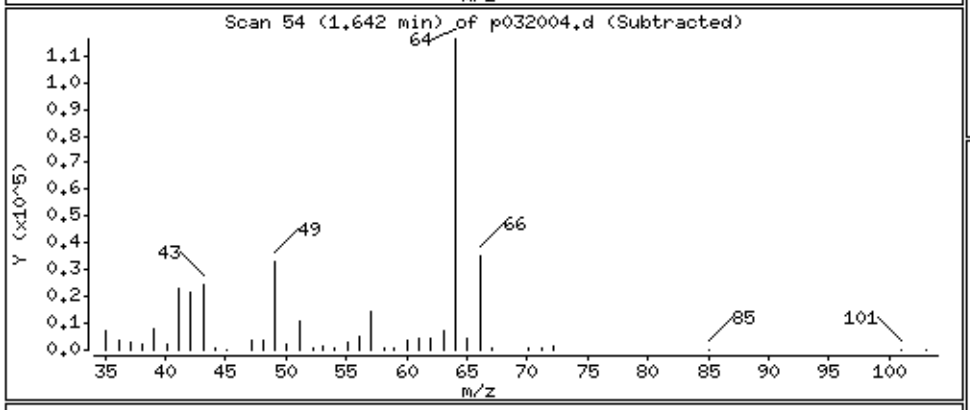
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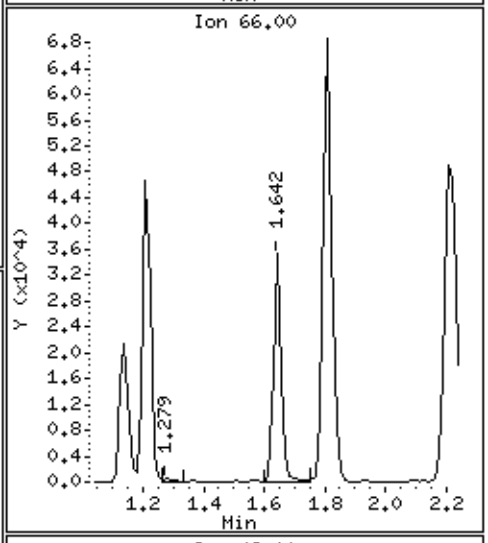
24 Chloroethane

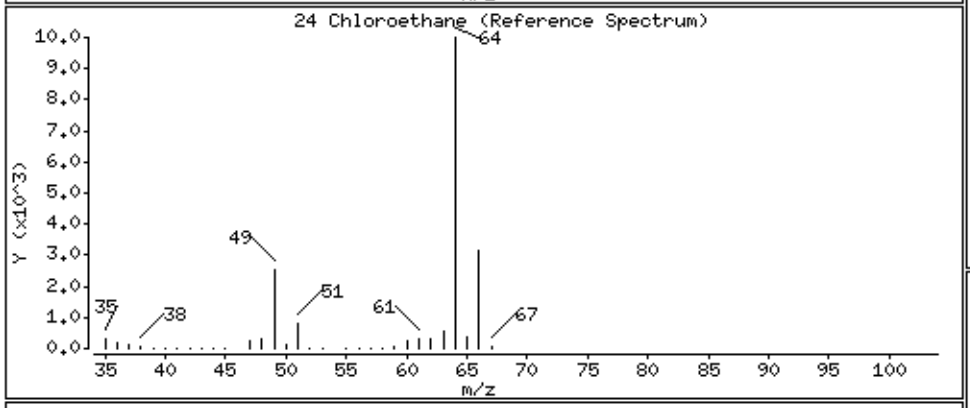
Concentration: 56.531 PPBV

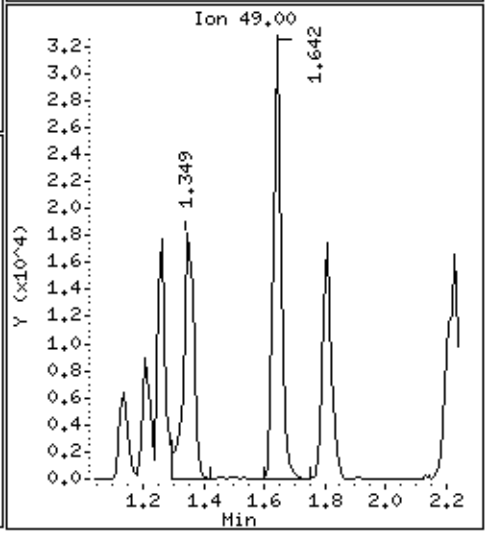


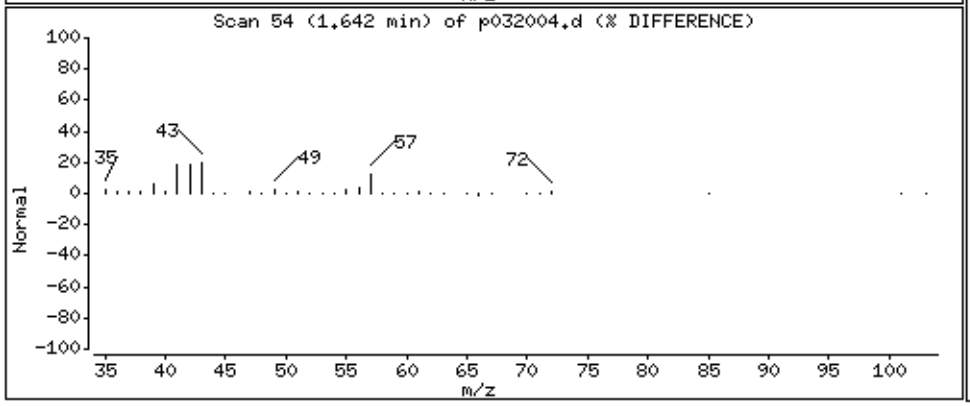



Data File: /chem/msdp.i/20mar10.b/p032004.d

Date : 19-MAR-2010 22:35

Client ID: LCS-1

Instrument: msdp.i

Sample Info: 50ml 1911-194

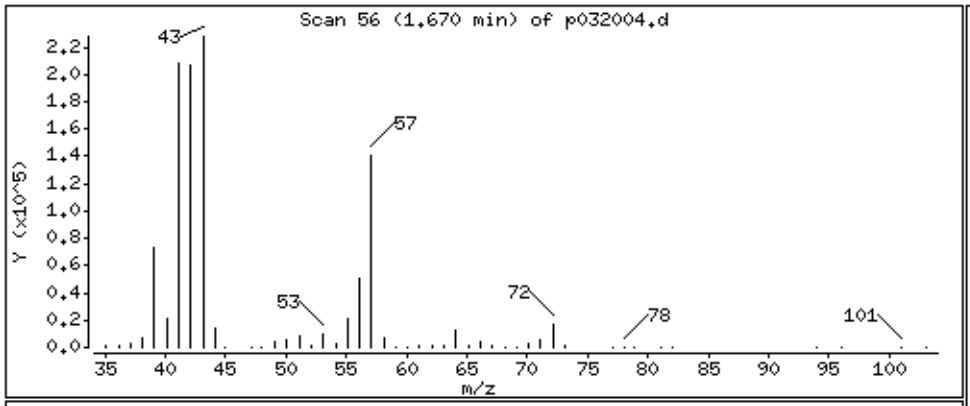
Operator: ra

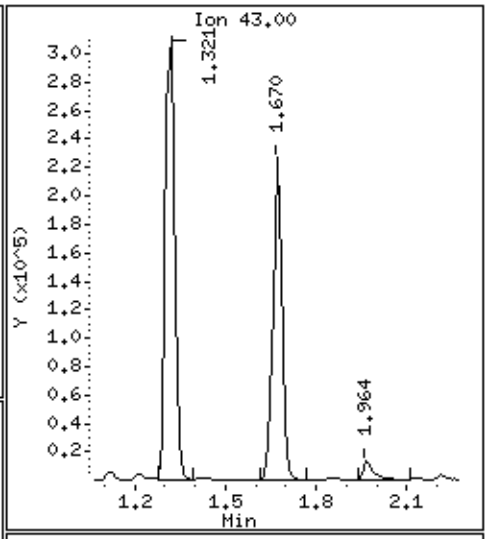
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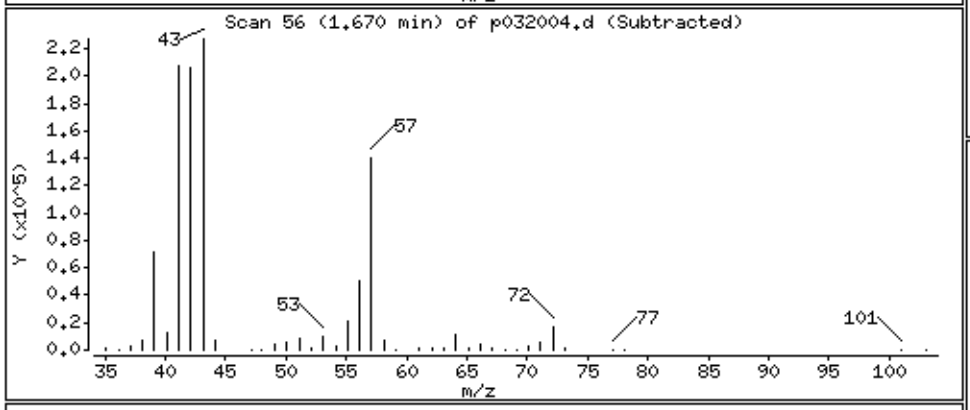
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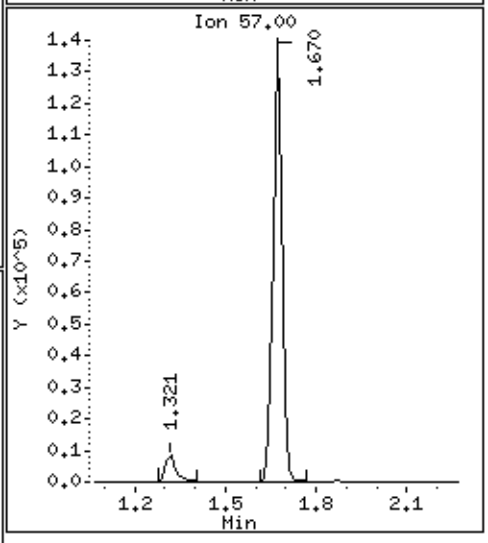
25 Isopentane

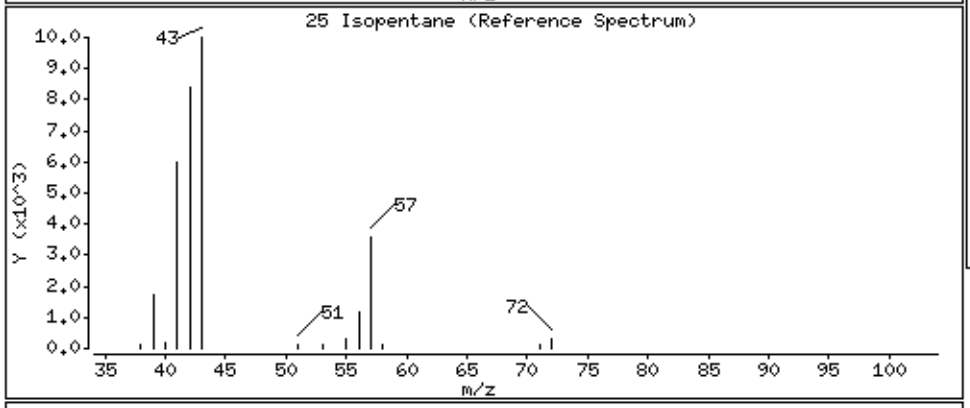
Concentration: 59.537 PPBV

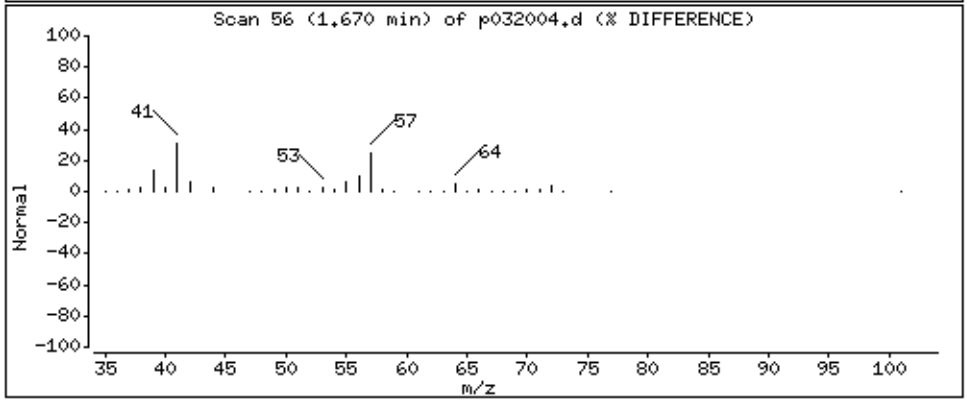


Data File: /chem/msdp.i/20mar10.b/p032004.d

Date : 19-MAR-2010 22:35

Client ID: LCS-1

Instrument: msdp.i

Sample Info: 50ml 1911-194

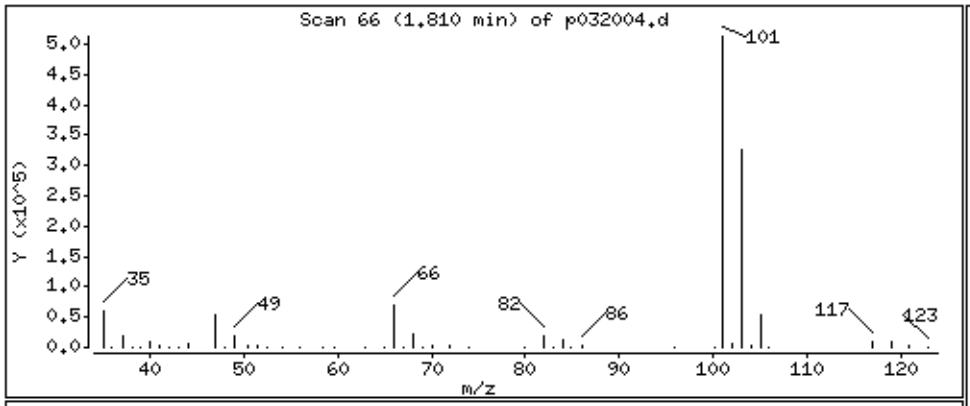
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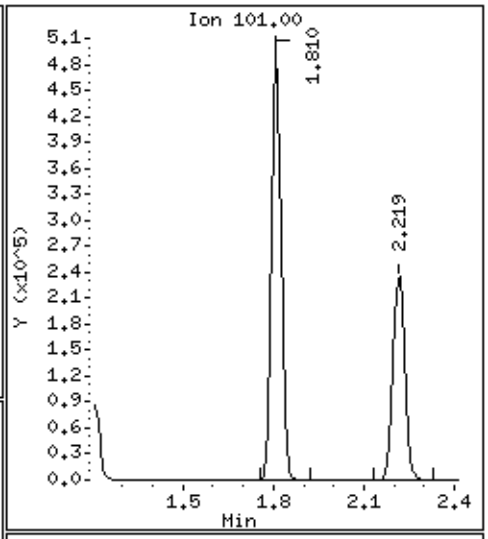
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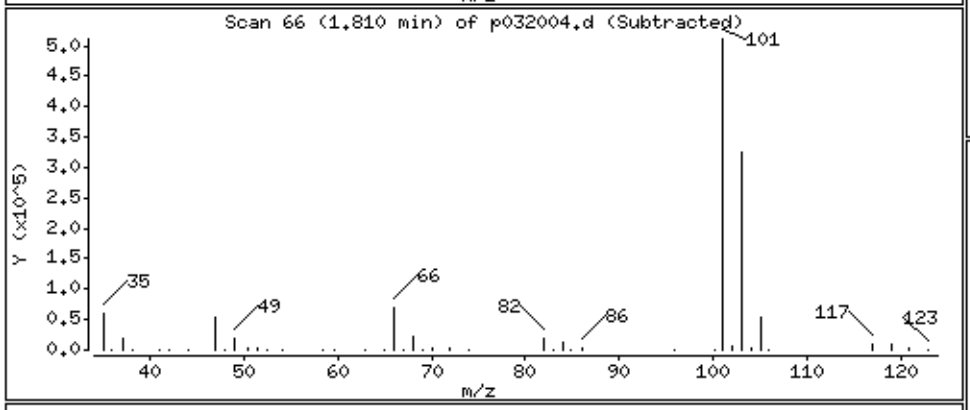
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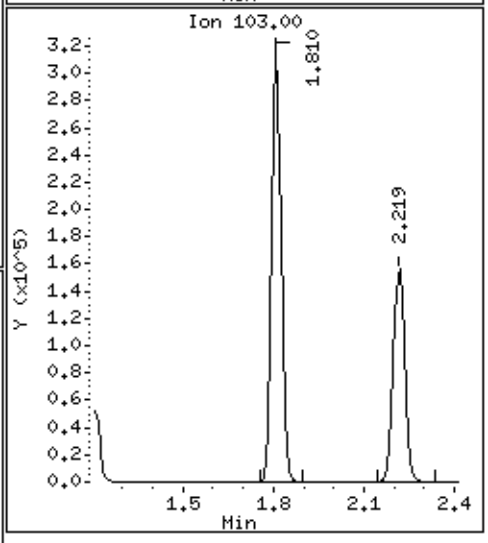
28 Trichlorofluoromethane/Fr11

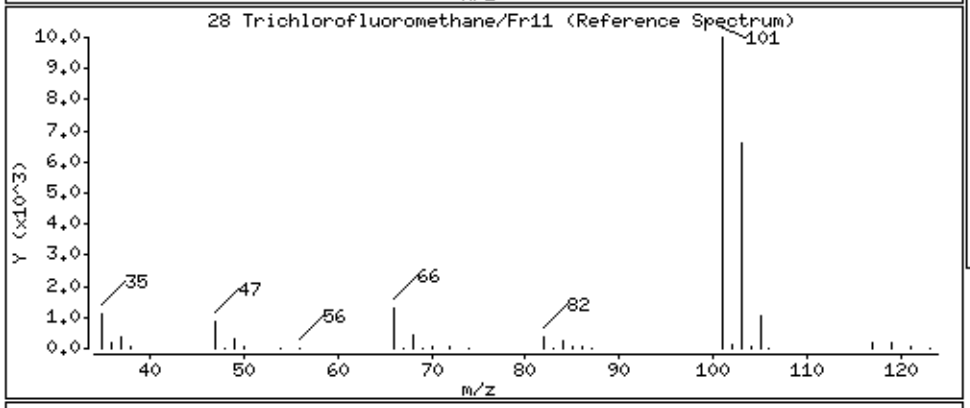
Concentration: 55.661 PPBV

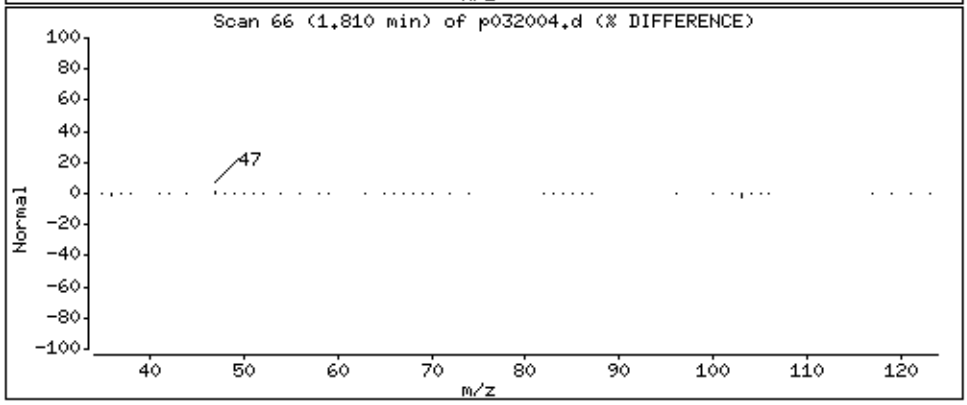


Data File: /chem/msdp.i/20mar10.b/p032004.d

Date : 19-MAR-2010 22:35

Client ID: LCS-1

Instrument: msdp.i

Sample Info: 50ml 1911-194

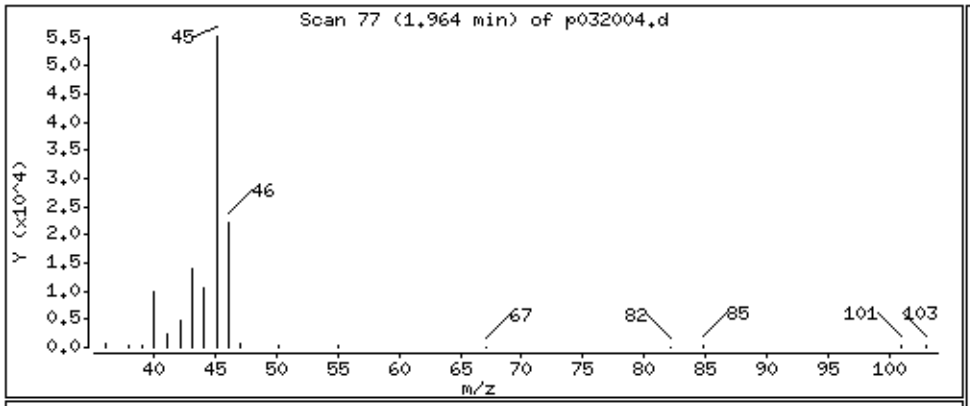
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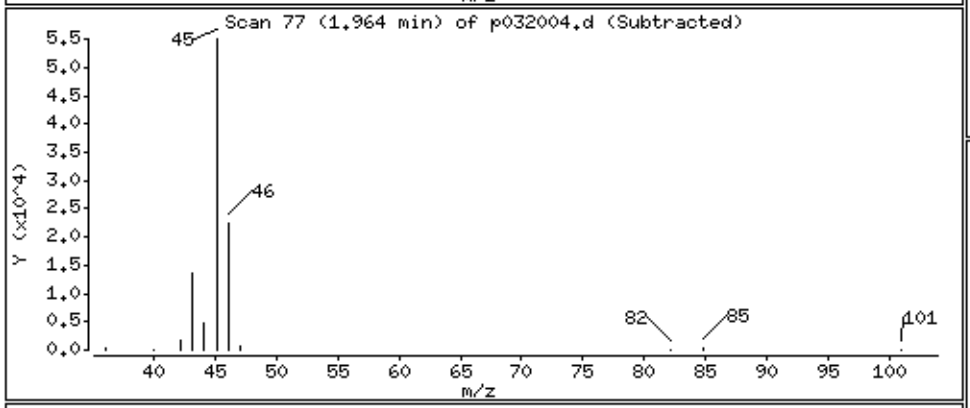
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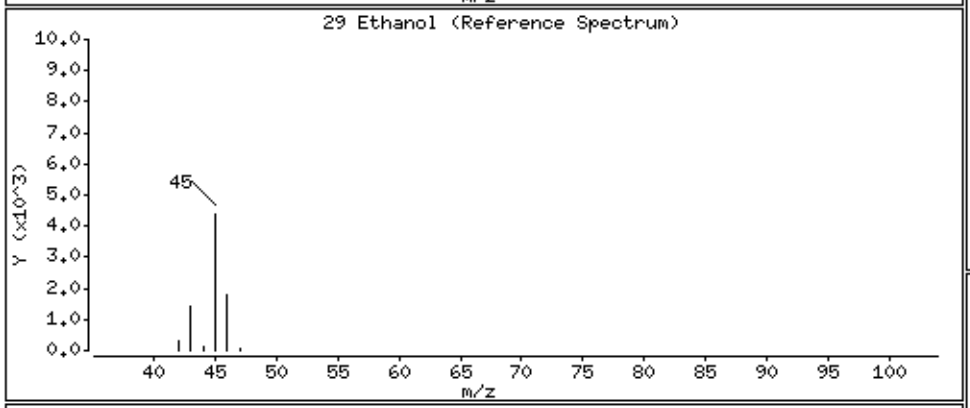
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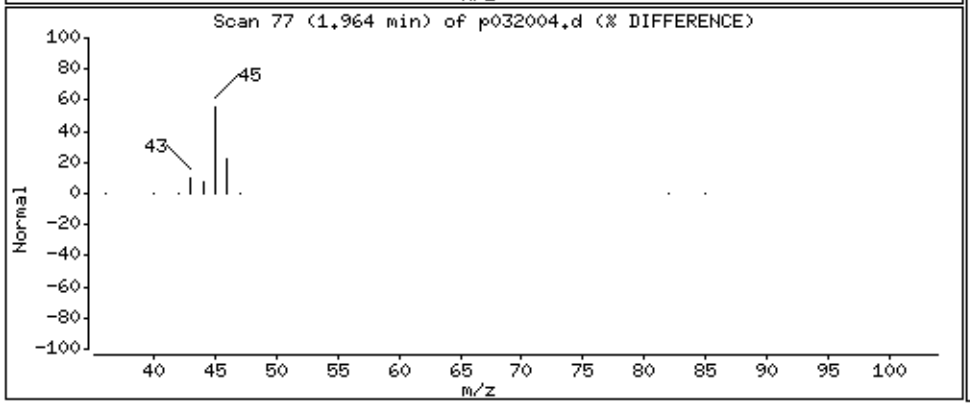
29 Ethanol

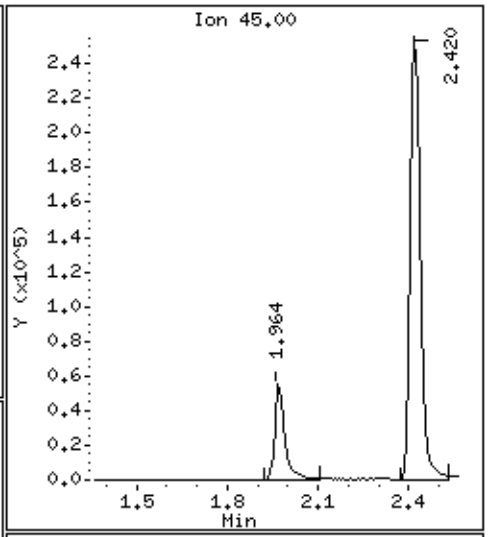
Concentration: 49.451 PPBV

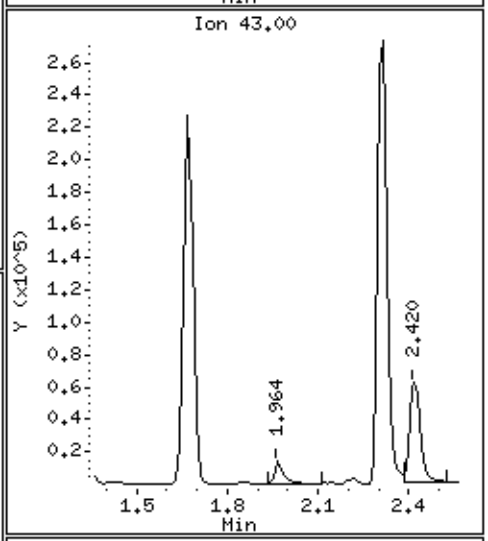


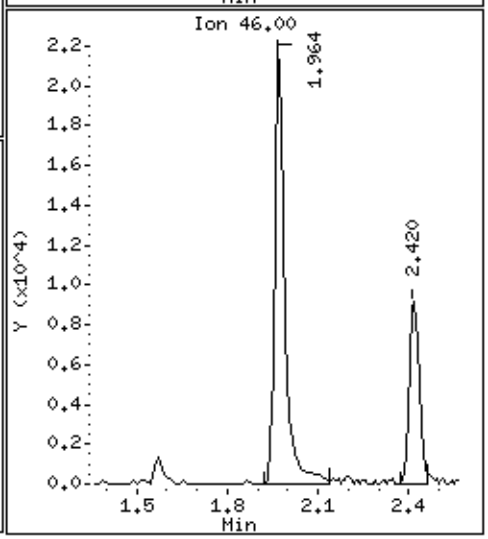



Data File: /chem/msdp.i/20mar10.b/p032004.d

Date : 19-MAR-2010 22:35

Client ID: LCS-1

Instrument: msdp.i

Sample Info: 50ml 1911-194

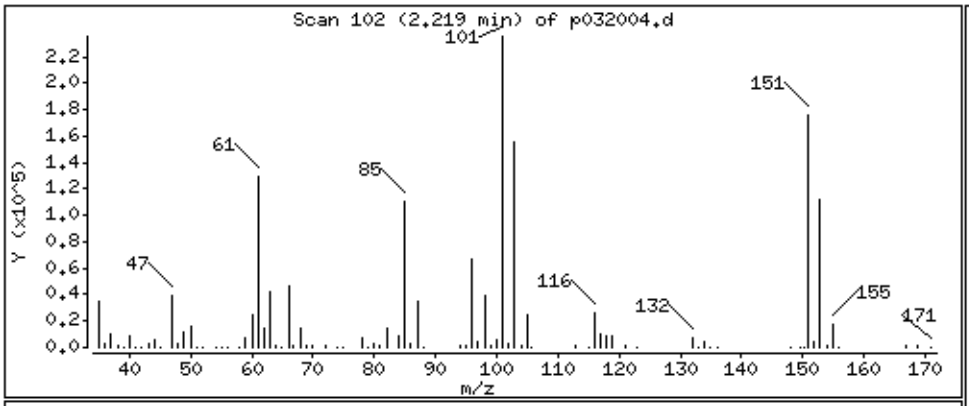
Operator: ra

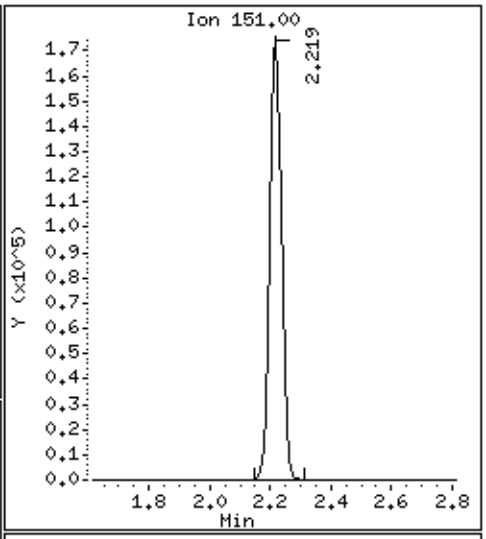
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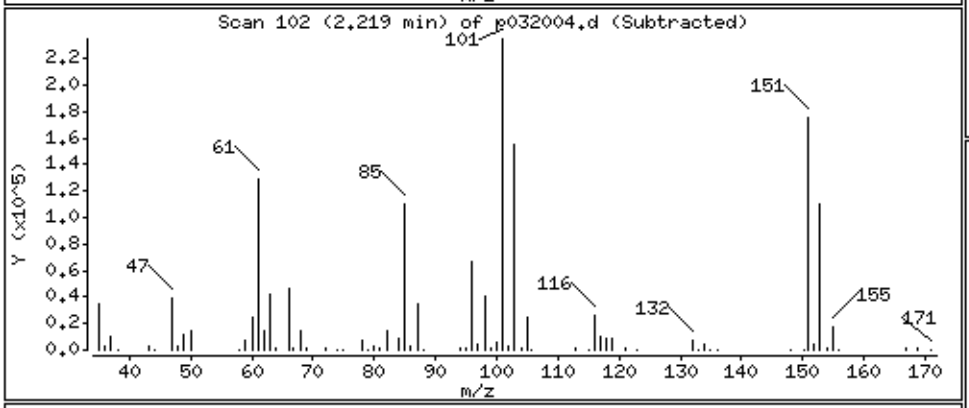
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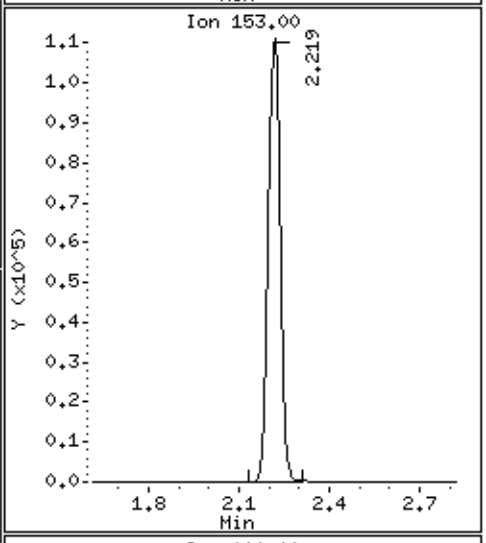
30 Freon 113

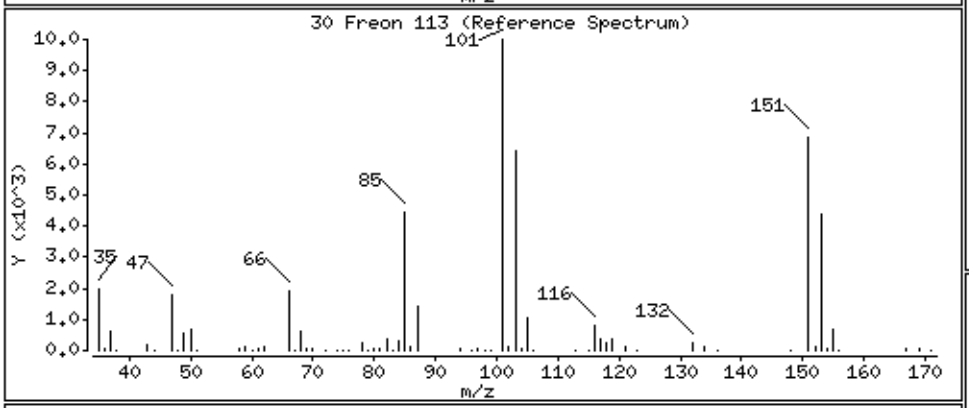
Concentration: 43.004 PPBV

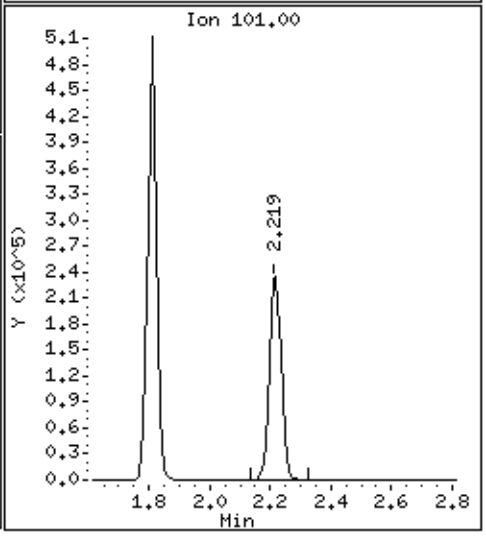


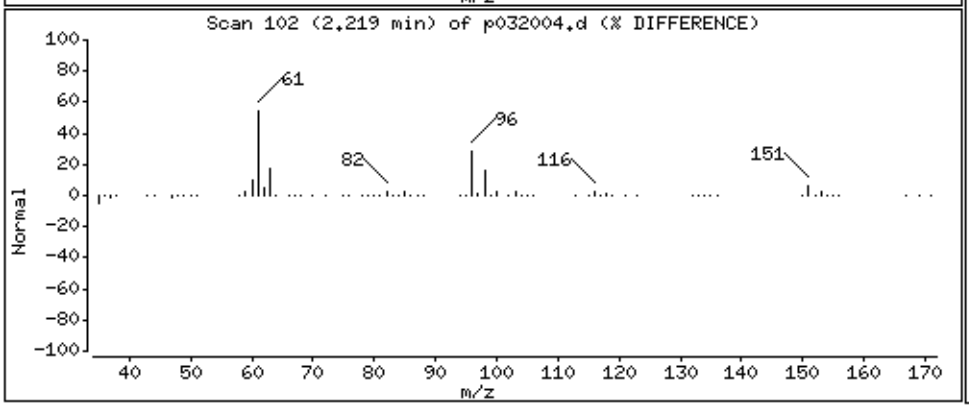



Data File: /chem/msdp.i/20mar10.b/p032004.d

Date : 19-MAR-2010 22:35

Client ID: LCS-1

Instrument: msdp.i

Sample Info: 50ml 1911-194

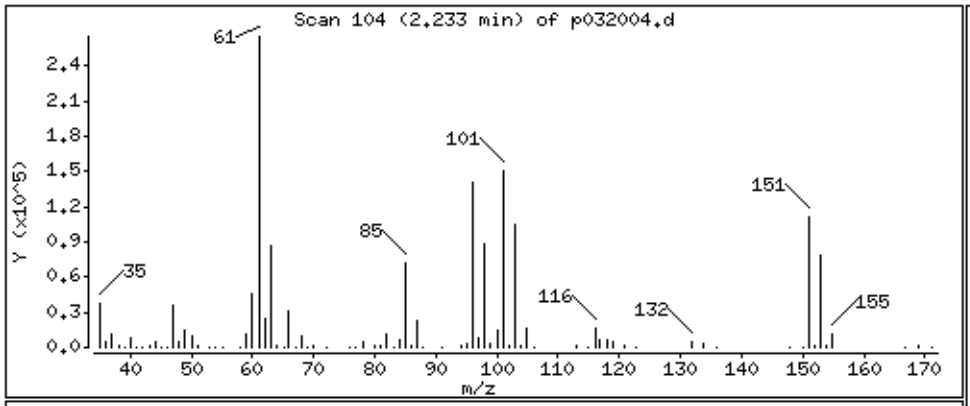
Operator: ra

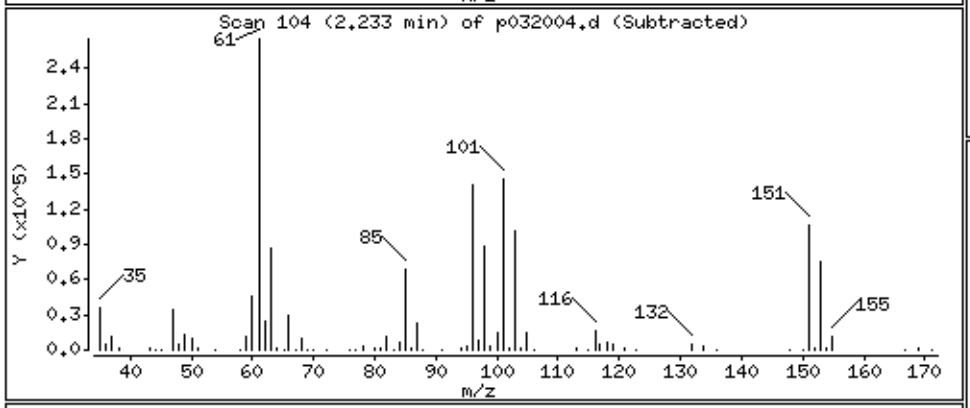
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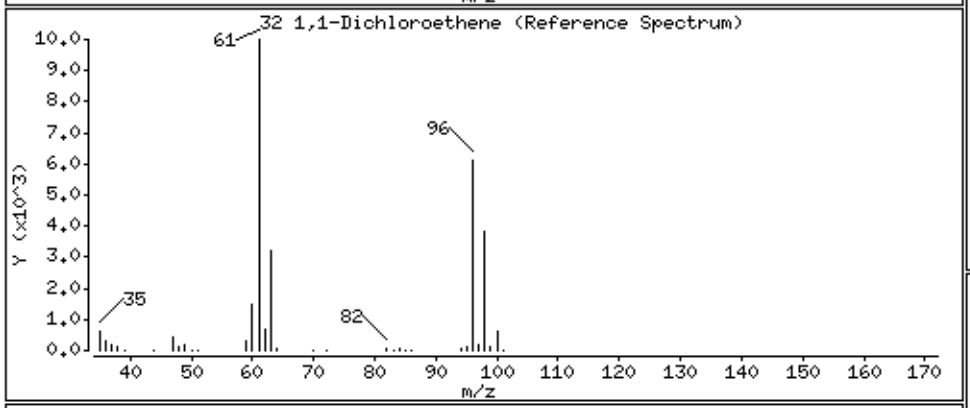
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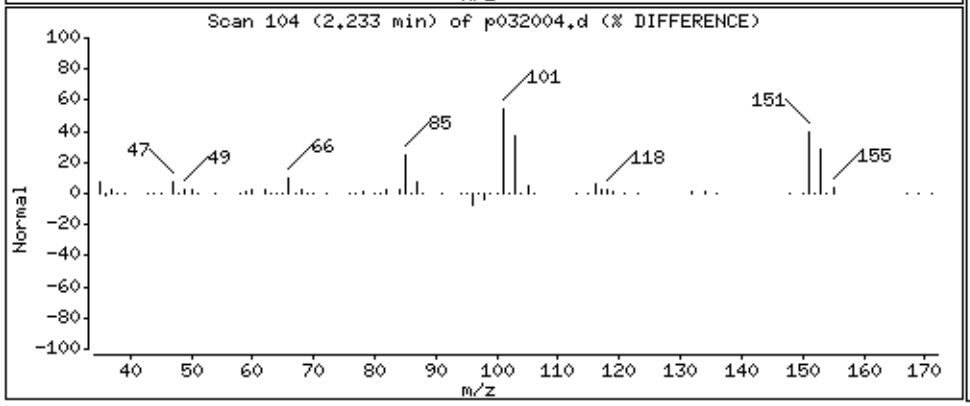
32 1,1-Dichloroethene

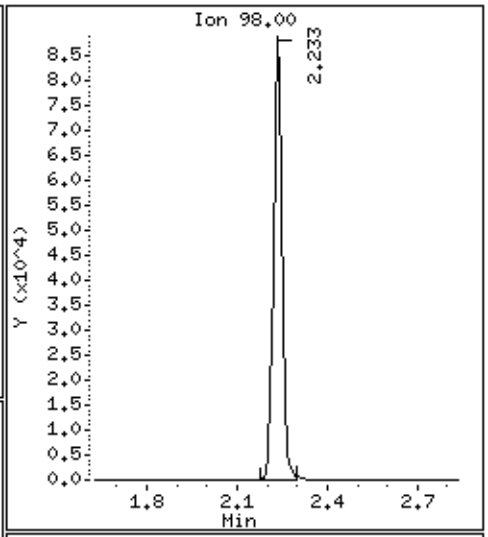
Concentration: 41.147 PPBV

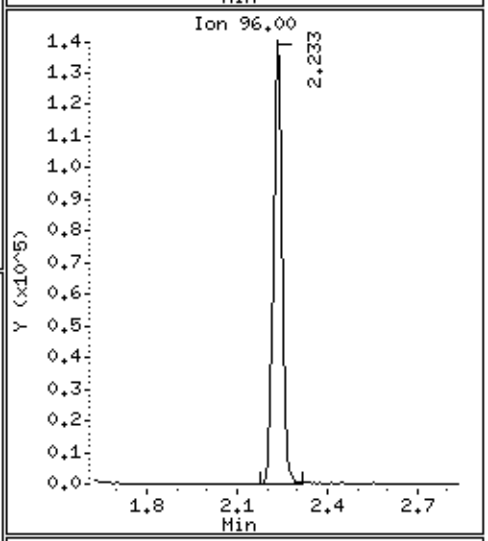


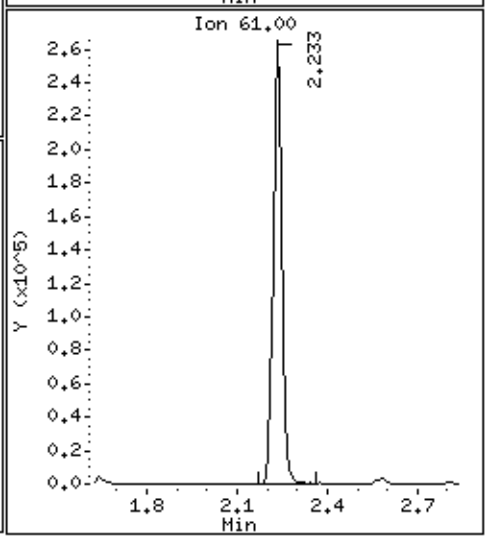



Data File: /chem/msdp.i/20mar10.b/p032004.d

Date : 19-MAR-2010 22:35

Client ID: LCS-1

Instrument: msdp.i

Sample Info: 50ml 1911-194

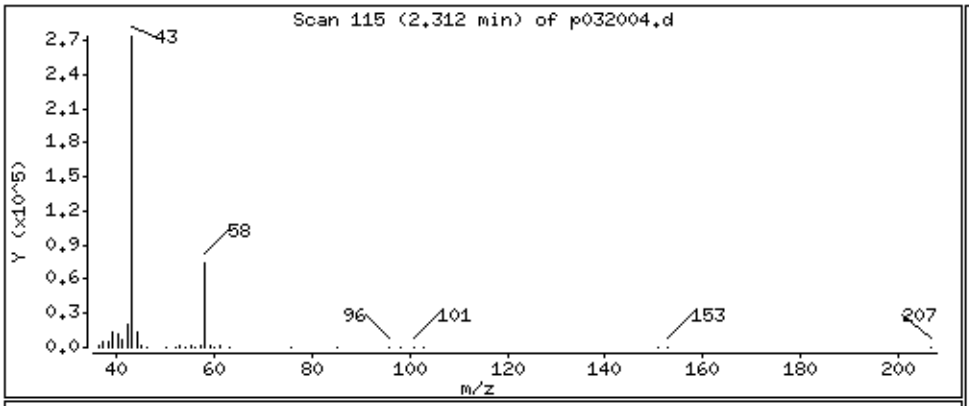
Operator: ra

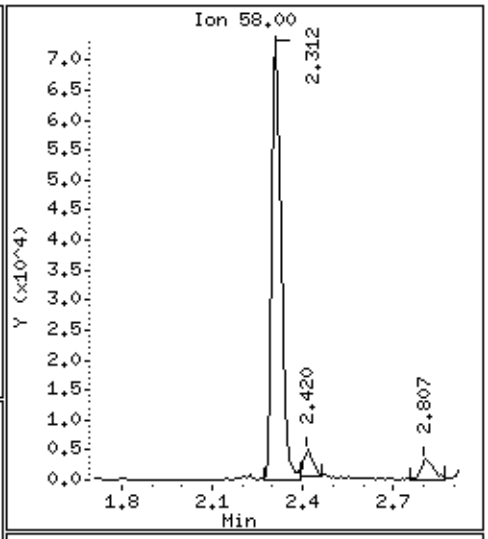
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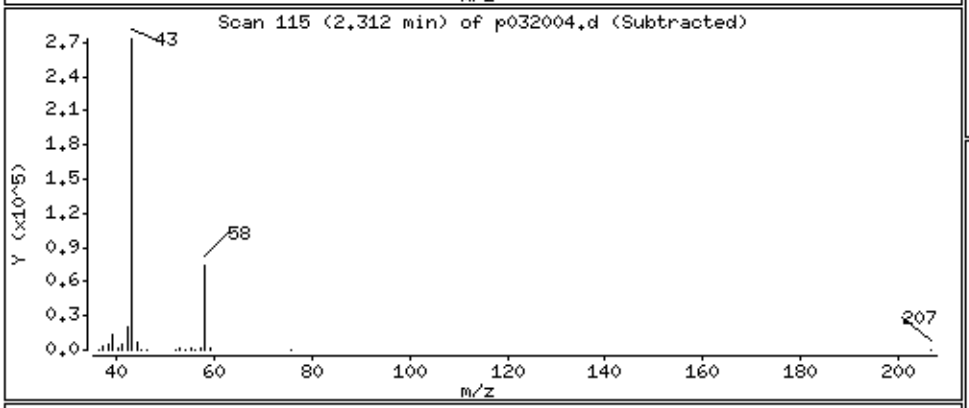
Column diameter: 0.53

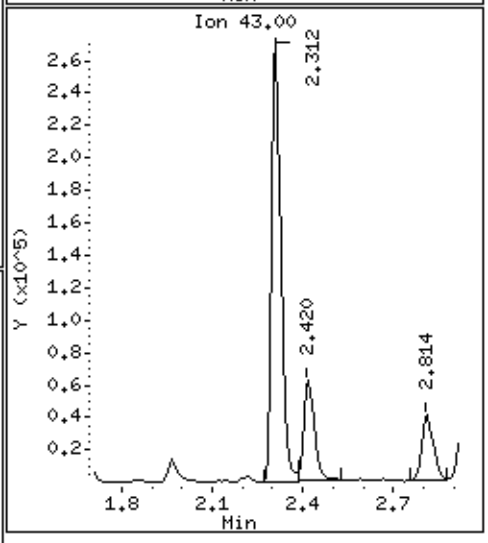
34 Acetone

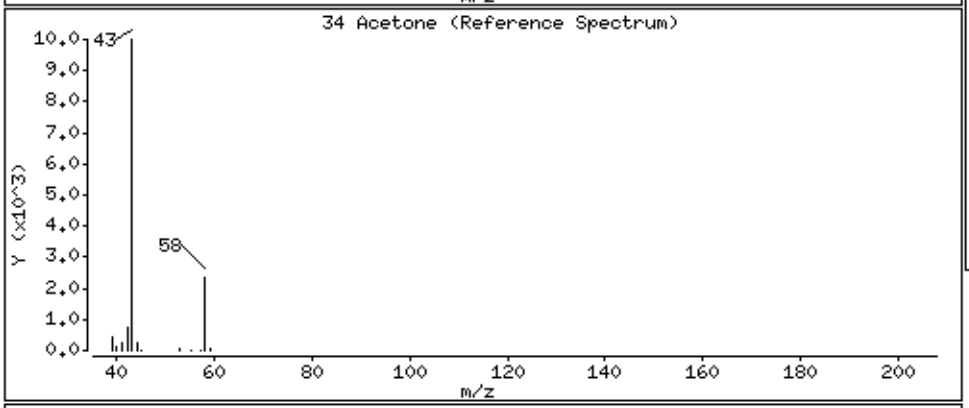
Concentration: 45.552 PPBV

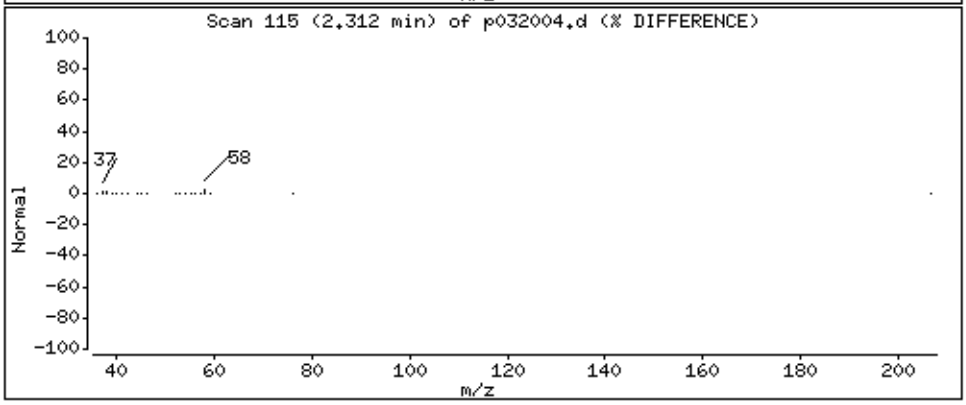


Data File: /chem/msdp.i/20mar10.b/p032004.d

Date : 19-MAR-2010 22:35

Client ID: LCS-1

Instrument: msdp.i

Sample Info: 50ml 1911-194

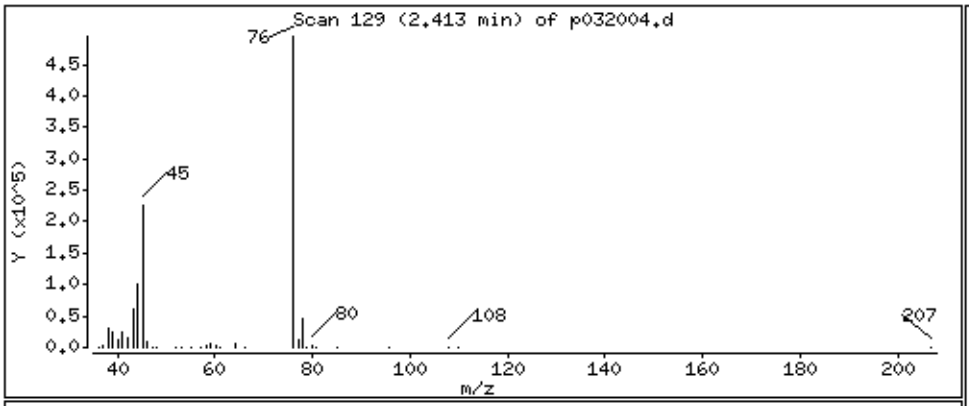
Operator: ra

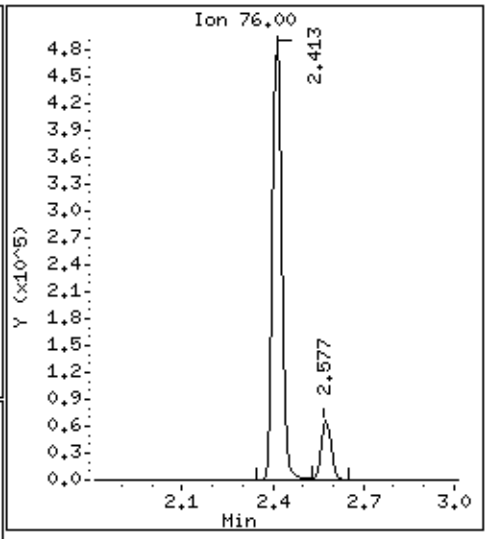
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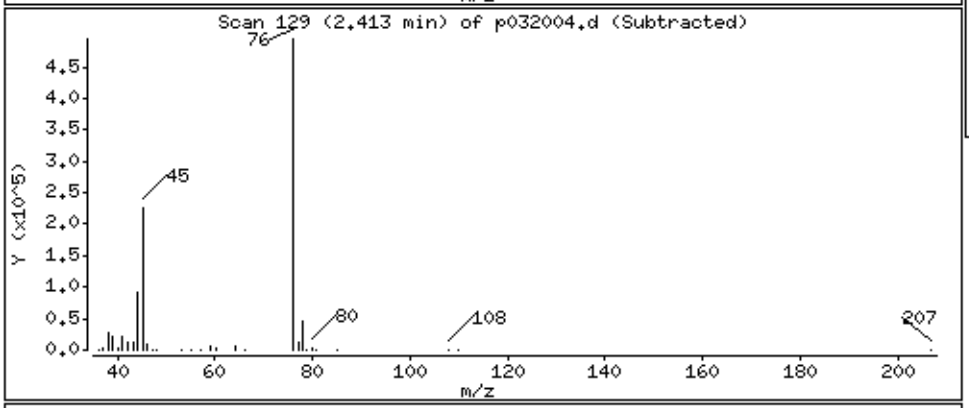
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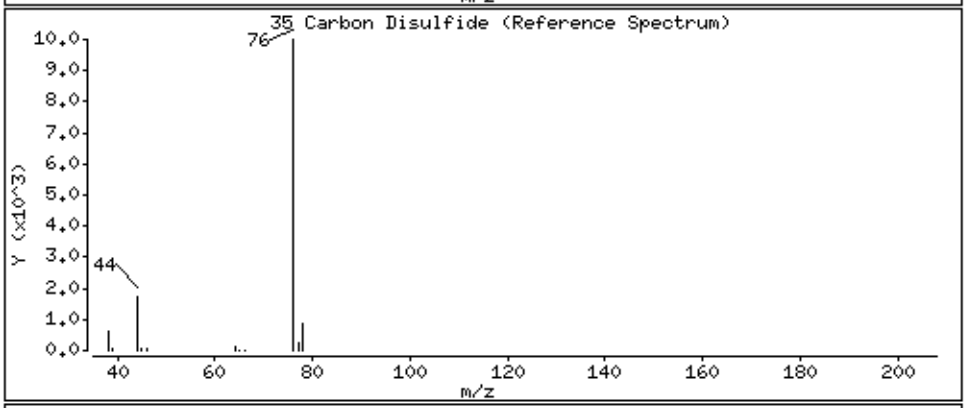
35 Carbon Disulfide

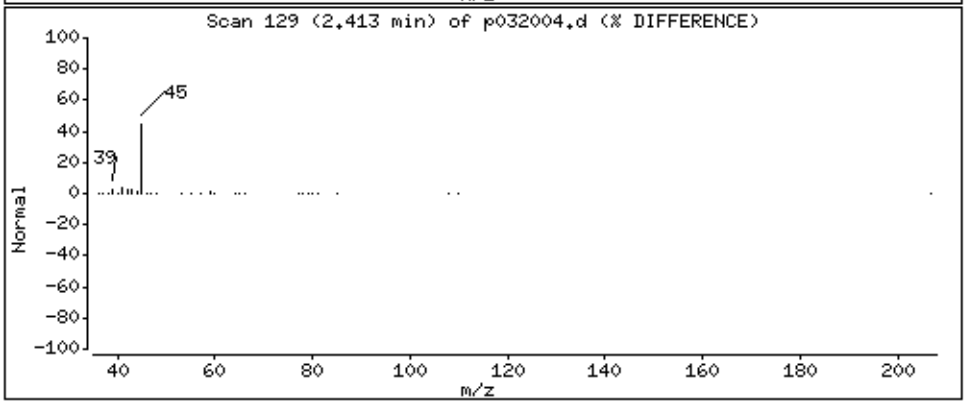
Concentration: 48.228 PPBV



Data File: /chem/msdp.i/20mar10.b/p032004.d

Date : 19-MAR-2010 22:35

Client ID: LCS-1

Instrument: msdp.i

Sample Info: 50ml 1911-194

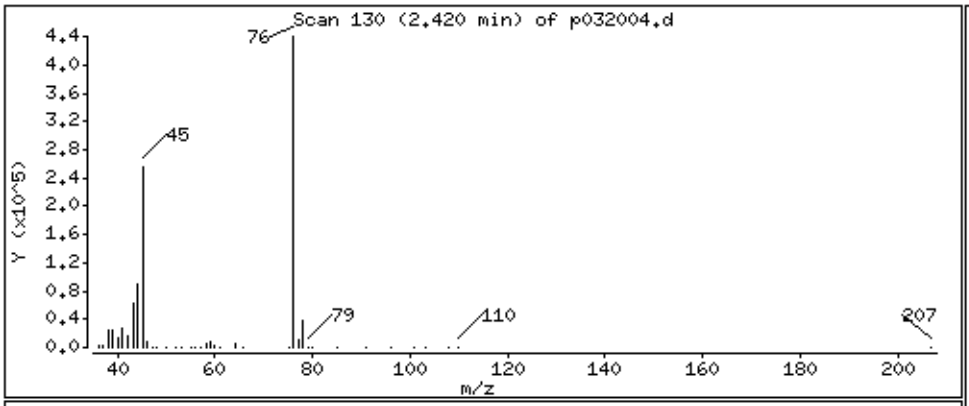
Operator: ra

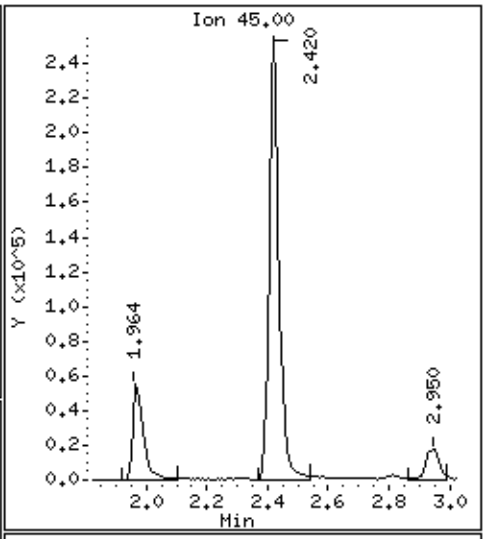
Column phase: RTx-624

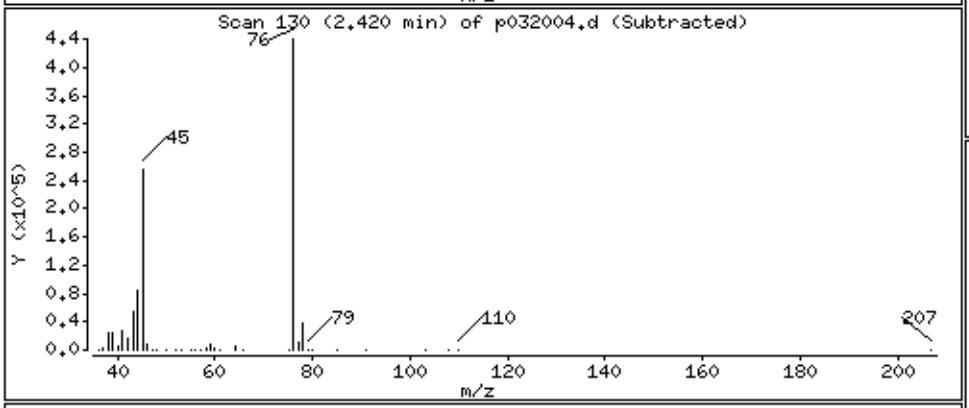
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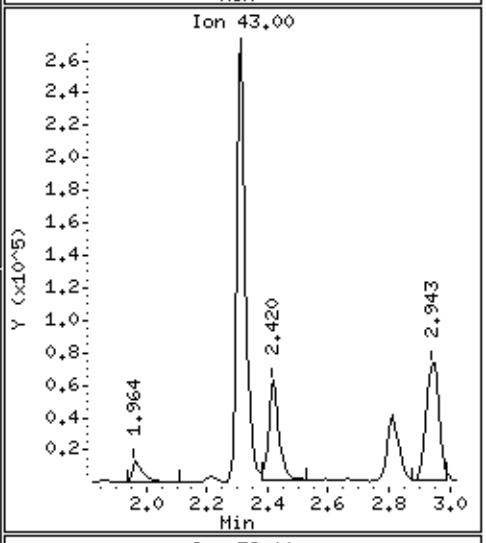
37 2-Propanol

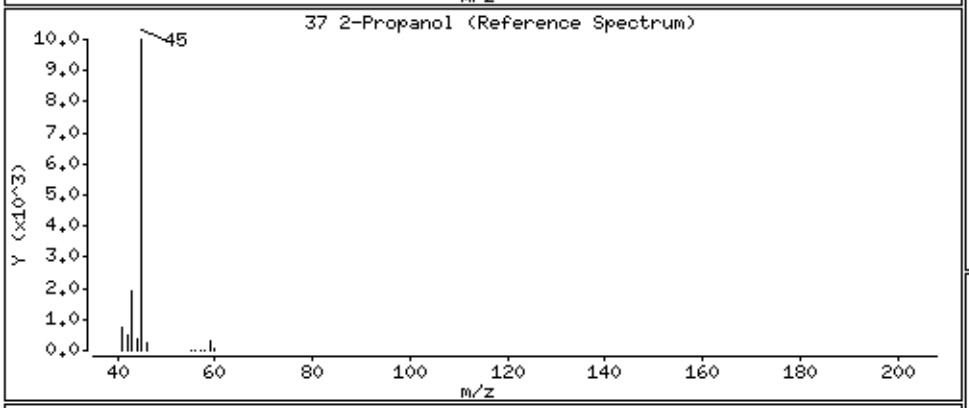
Concentration: 46.452 PPBV

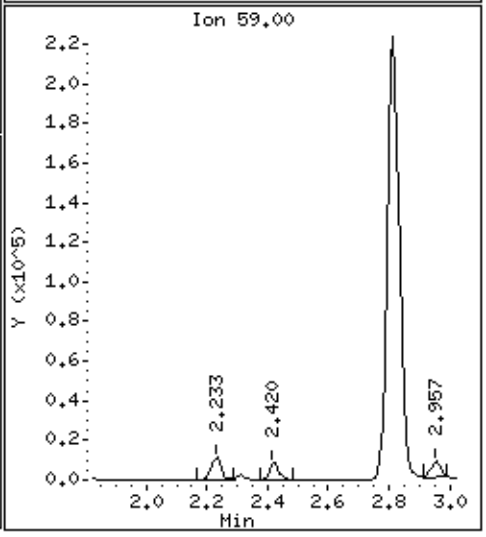


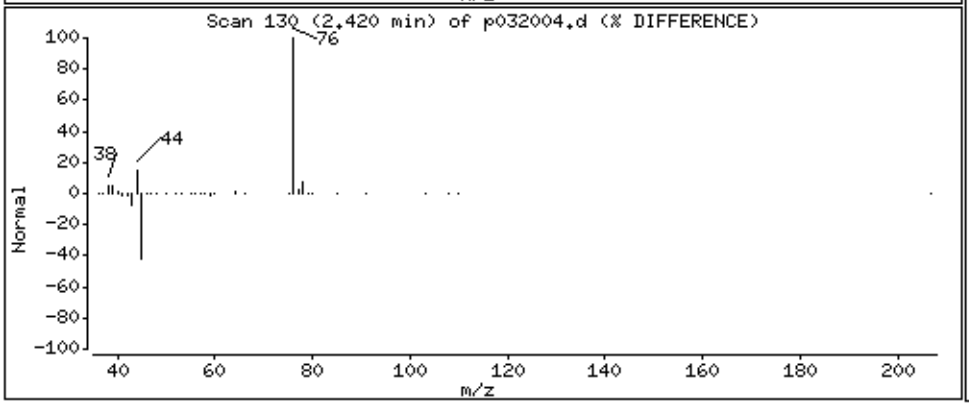



Data File: /chem/msdp.i/20mar10.b/p032004.d

Date : 19-MAR-2010 22:35

Client ID: LCS-1

Instrument: msdp.i

Sample Info: 50ml 1911-194

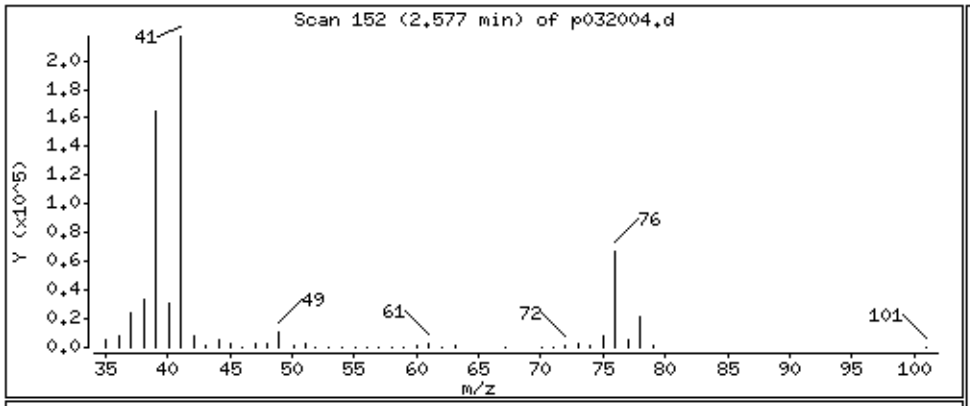
Operator: ra

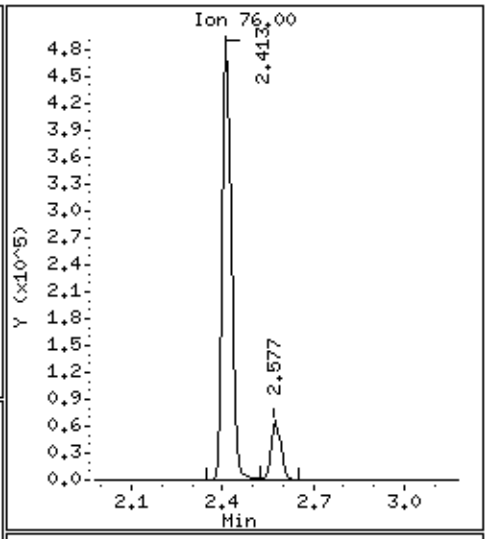
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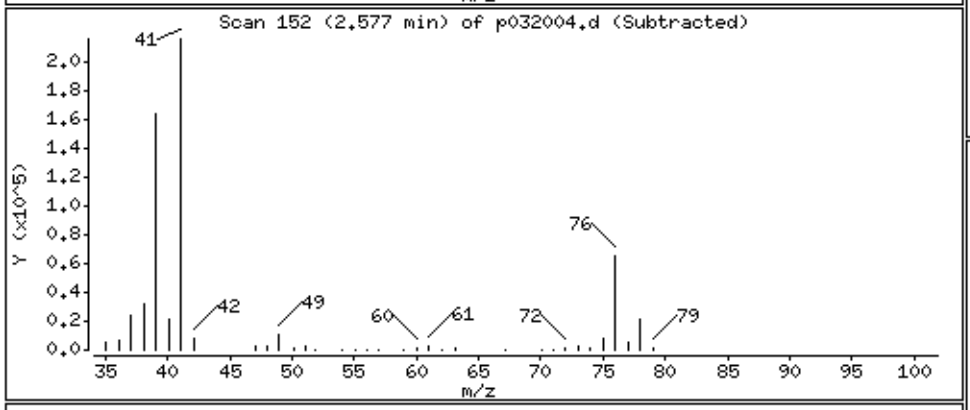
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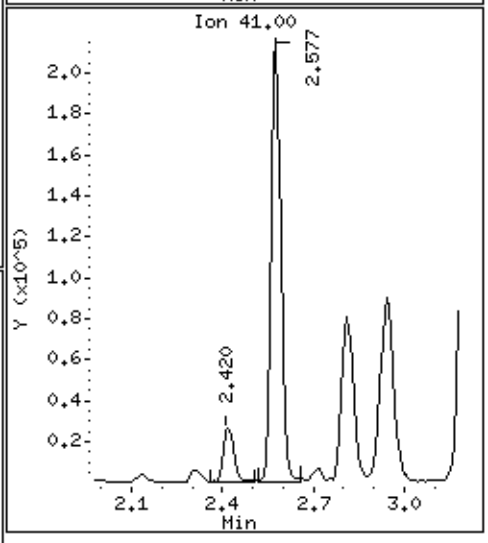
41 3-Chloropropene

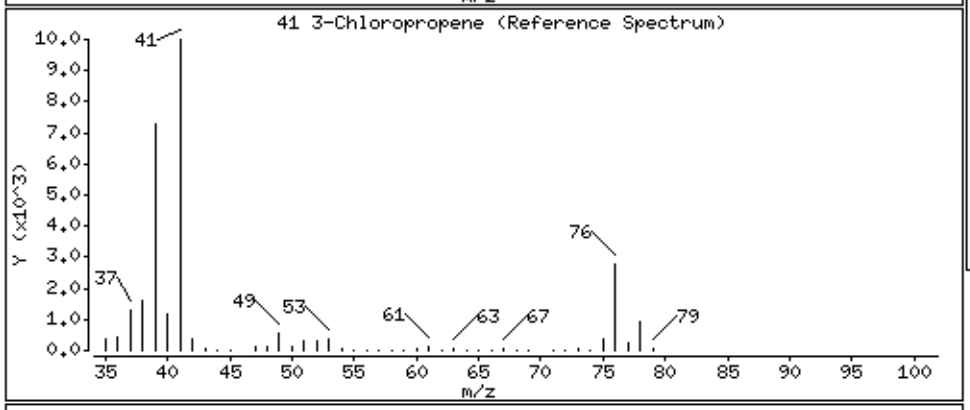
Concentration: 45.489 PPBV

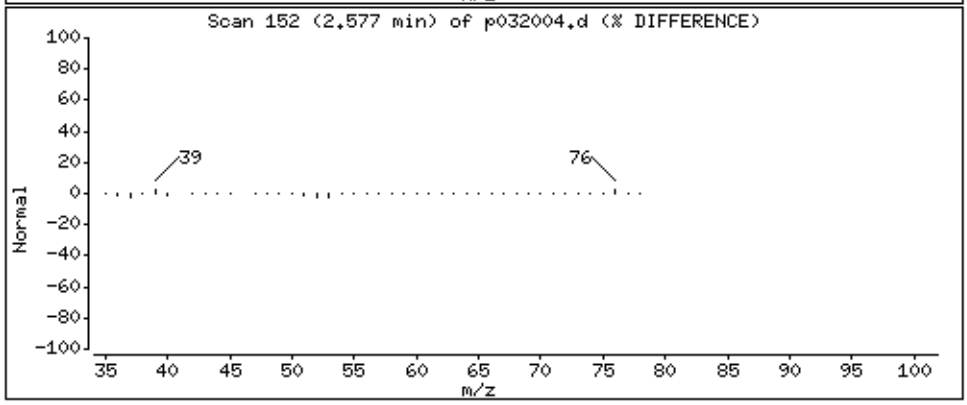


Data File: /chem/msdp.i/20mar10.b/p032004.d

Date : 19-MAR-2010 22:35

Client ID: LCS-1

Instrument: msdp.i

Sample Info: 50ml 1911-194

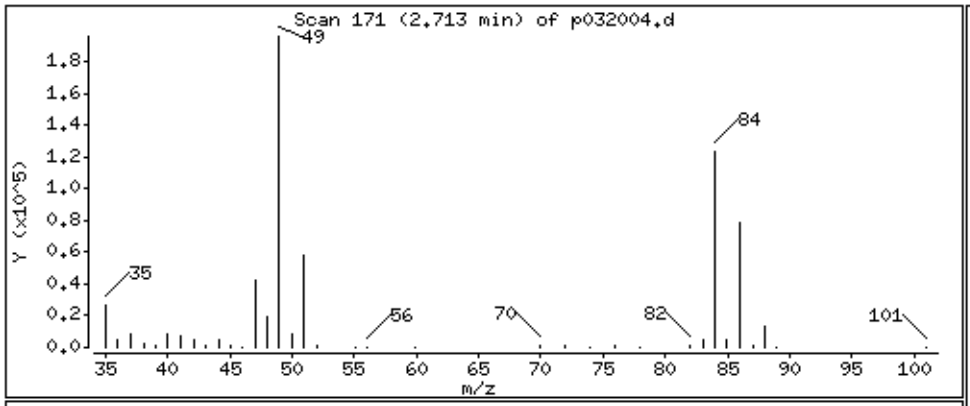
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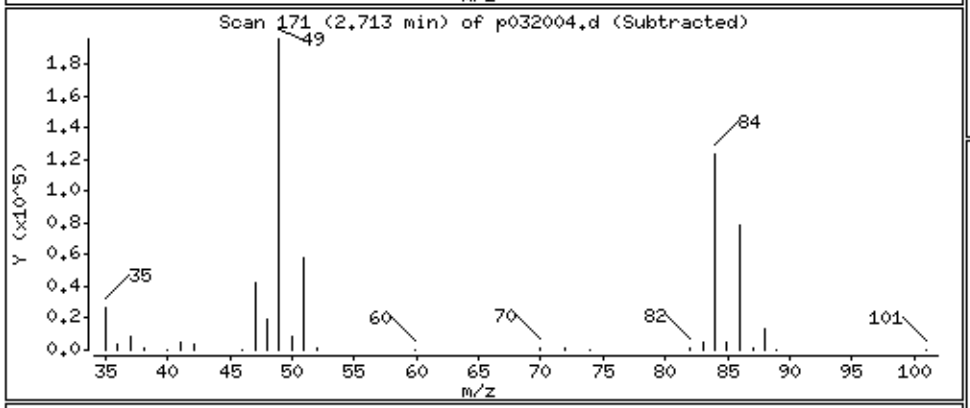
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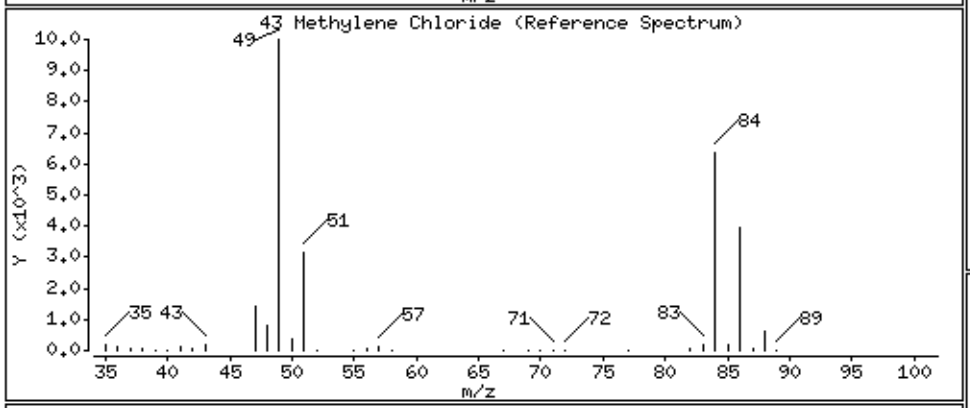
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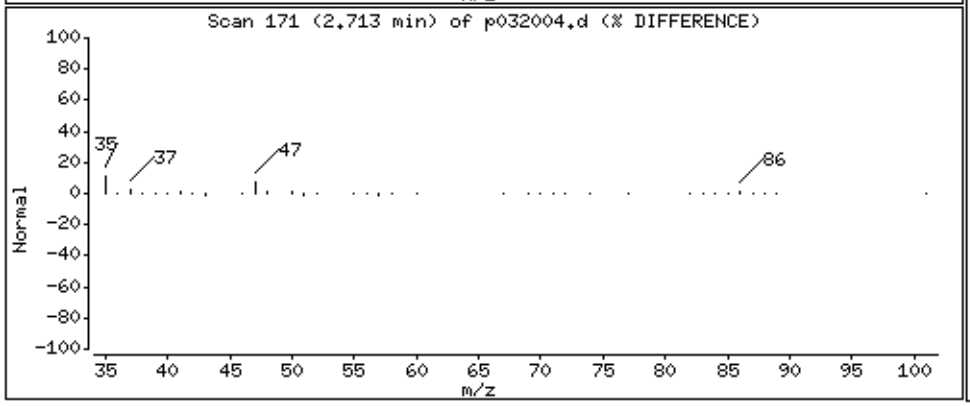
43 Methylene Chloride

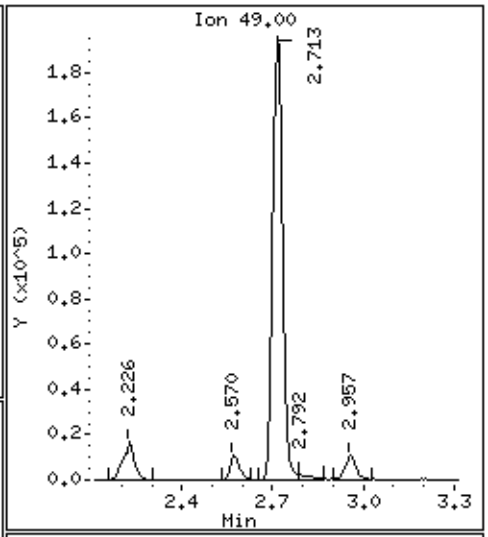
Concentration: 48.710 PPBV

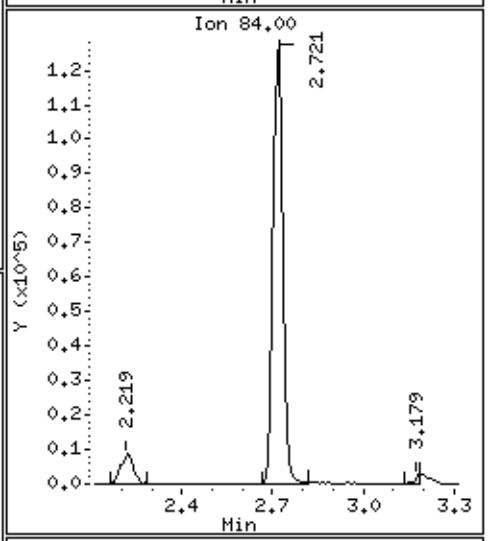


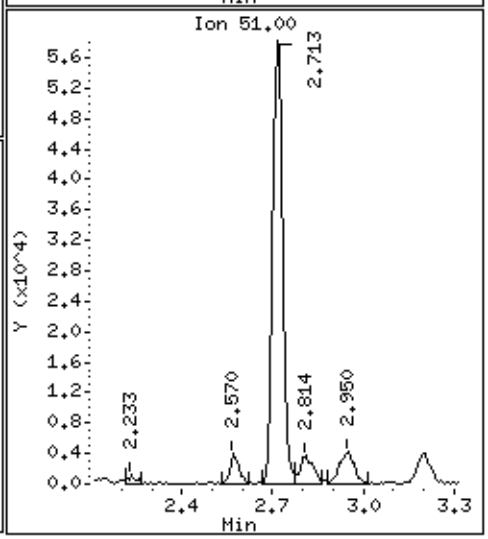



Data File: /chem/msdp.i/20mar10.b/p032004.d

Date : 19-MAR-2010 22:35

Client ID: LCS-1

Instrument: msdp.i

Sample Info: 50ml 1911-194

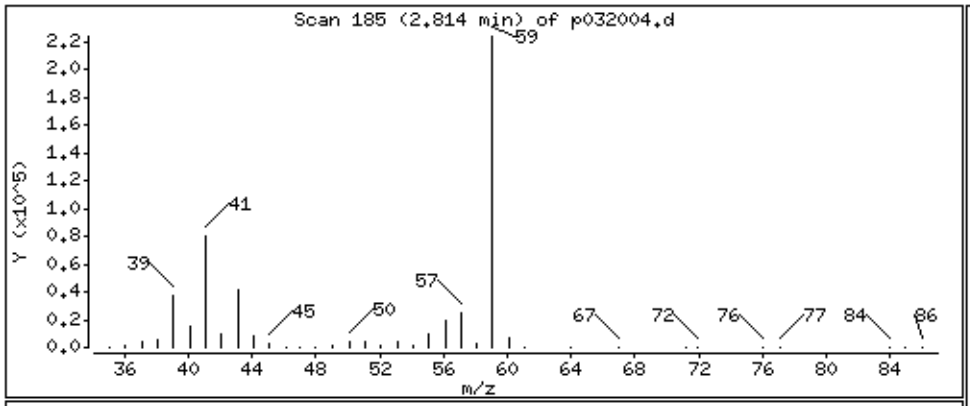
Operator: ra

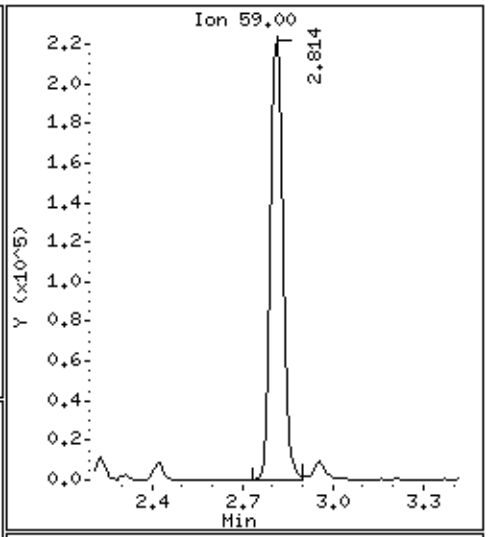
Column phase: RTx-624

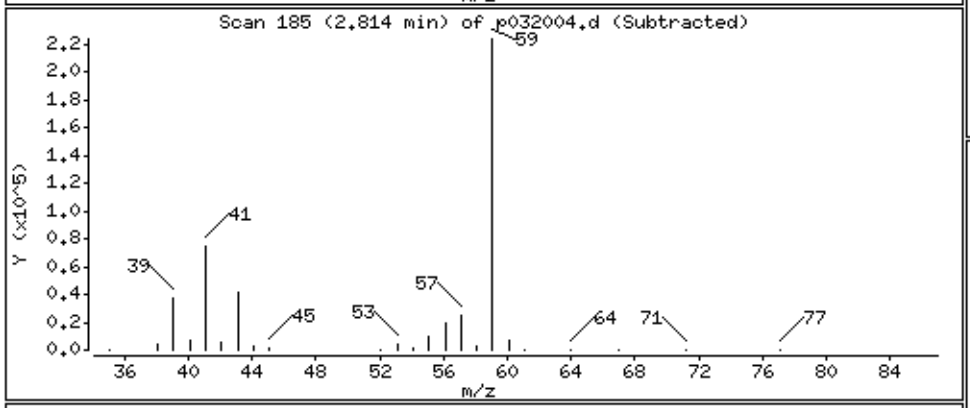
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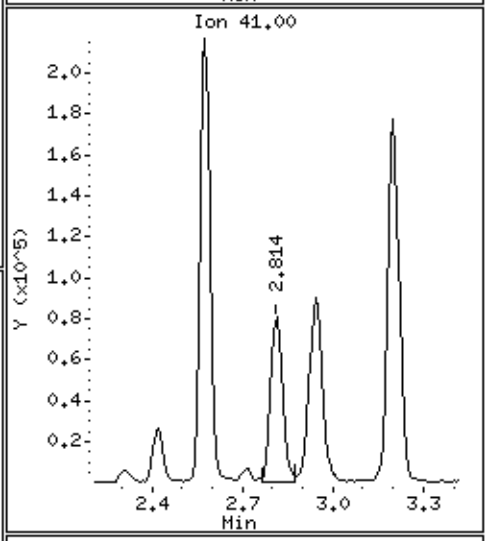
46 tert-Butyl-Alcohol

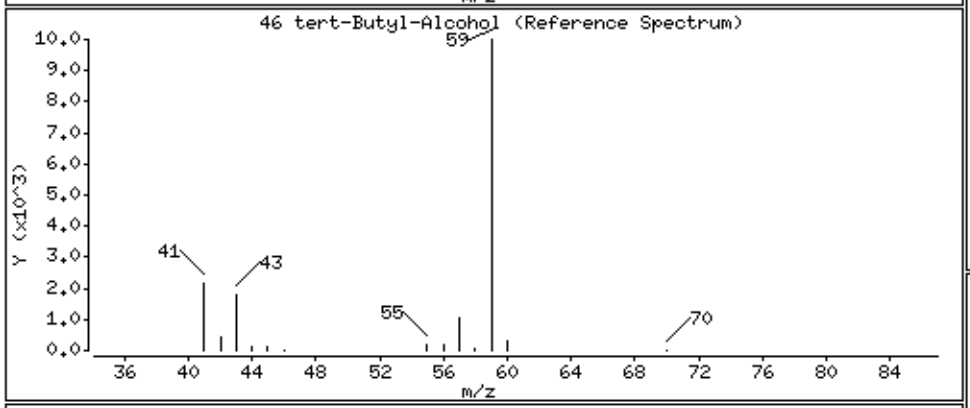
Concentration: 47.110 PPBV

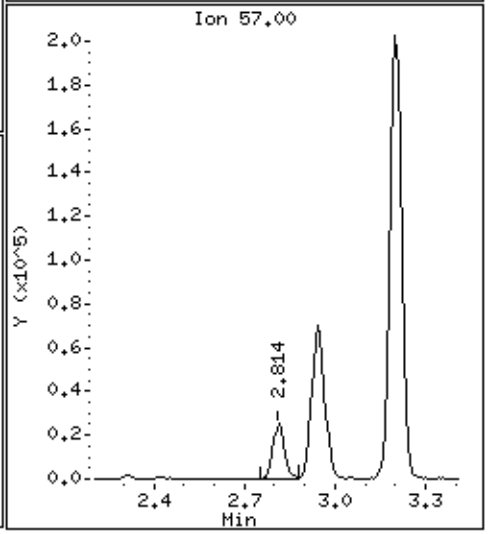


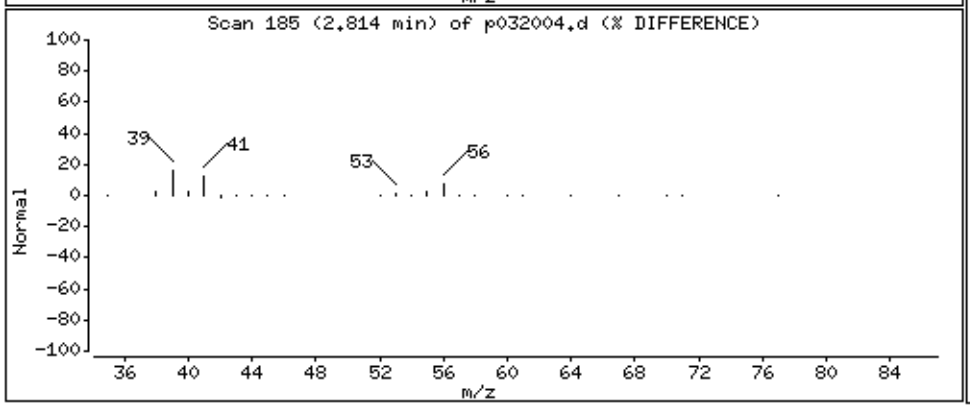



Data File: /chem/msdp.i/20mar10.b/p032004.d

Date : 19-MAR-2010 22:35

Client ID: LCS-1

Instrument: msdp.i

Sample Info: 50ml 1911-194

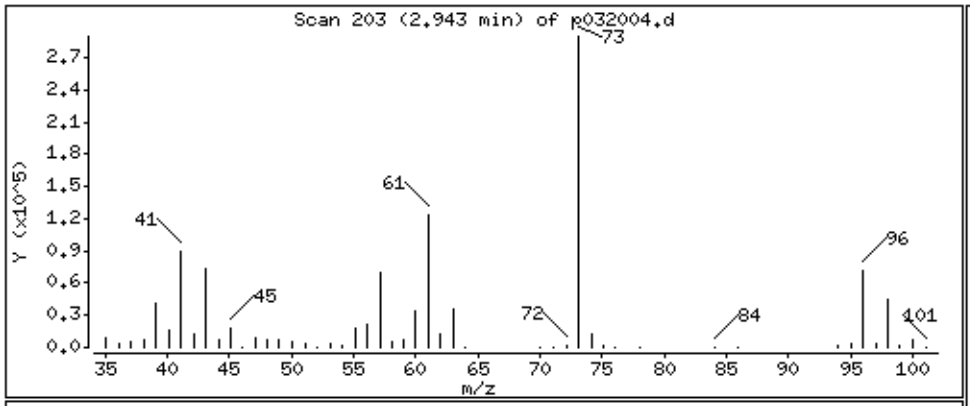
Operator: ra

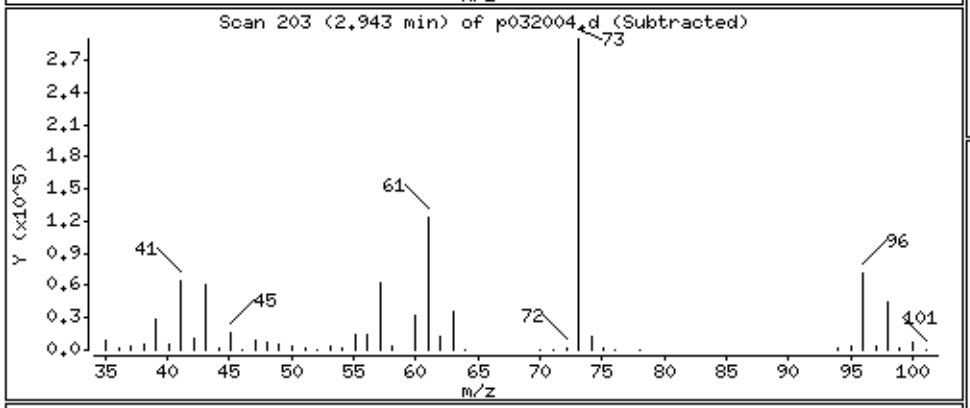
Column phase: RTx-624

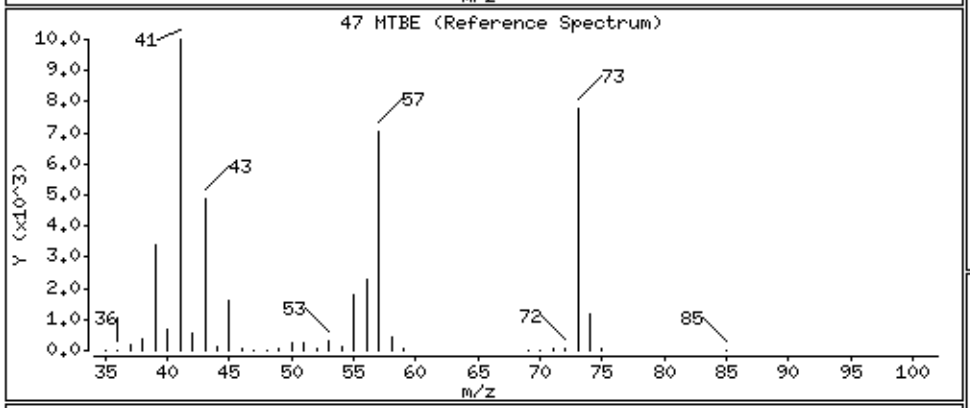
Column diameter: 0.53

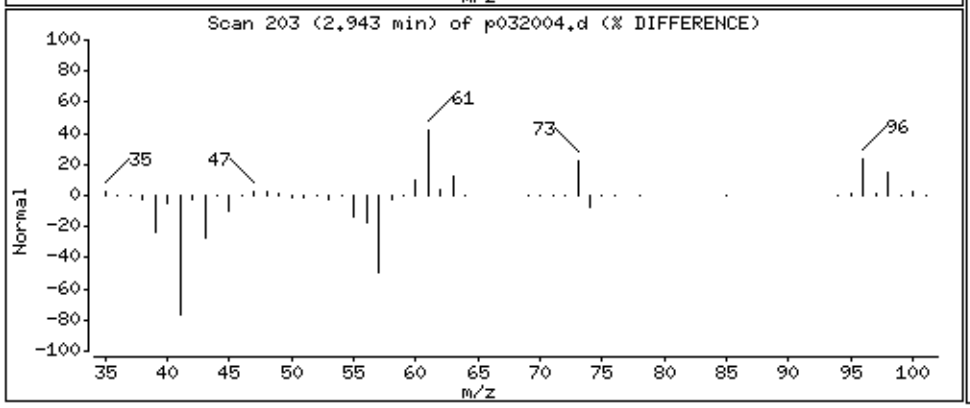
47 MTBE

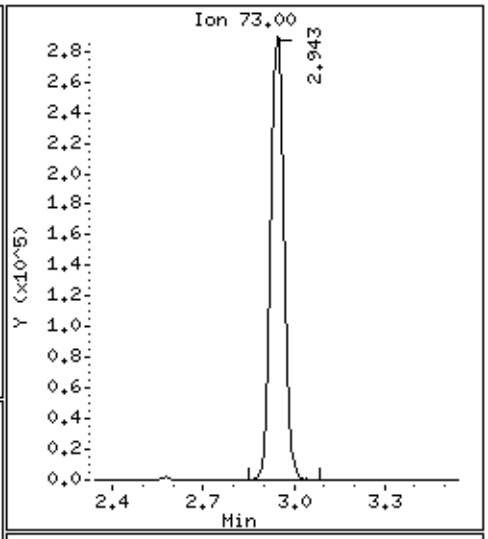
Concentration: 47.734 PPBV

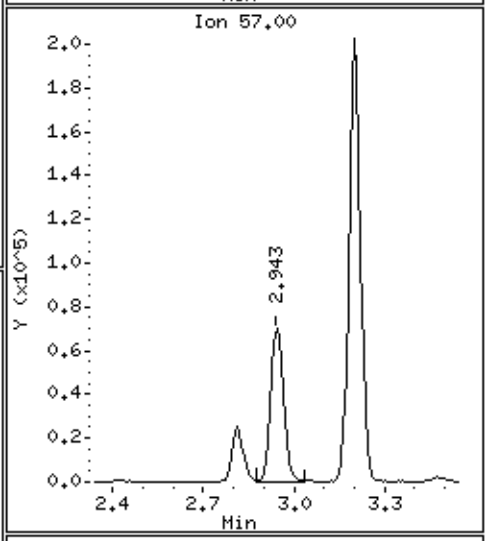


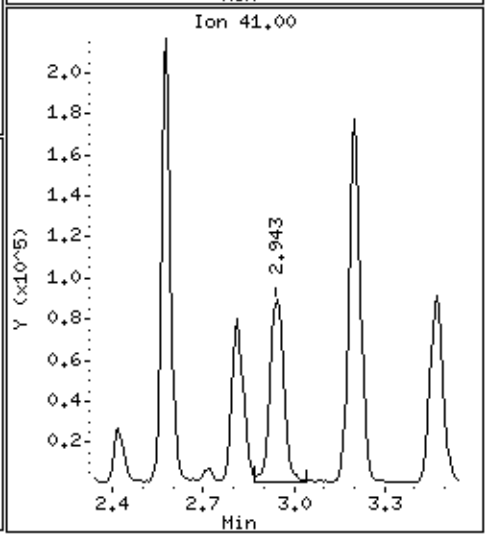



Data File: /chem/msdp.i/20mar10.b/p032004.d

Date : 19-MAR-2010 22:35

Client ID: LCS-1

Instrument: msdp.i

Sample Info: 50ml 1911-194

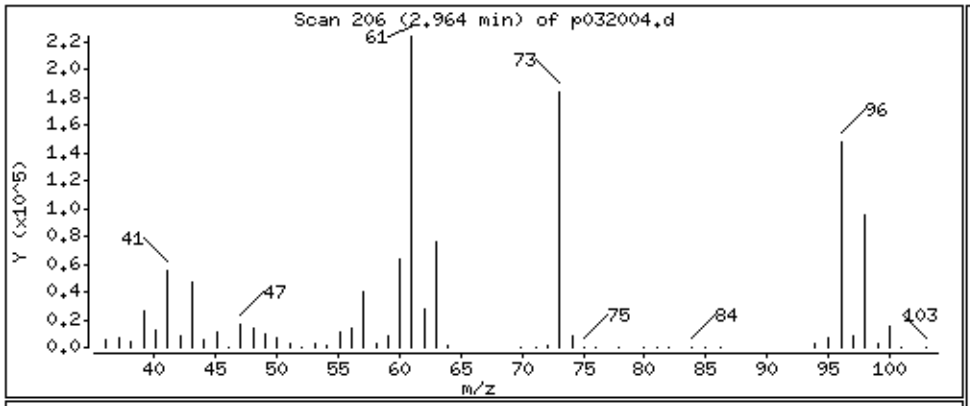
Operator: ra

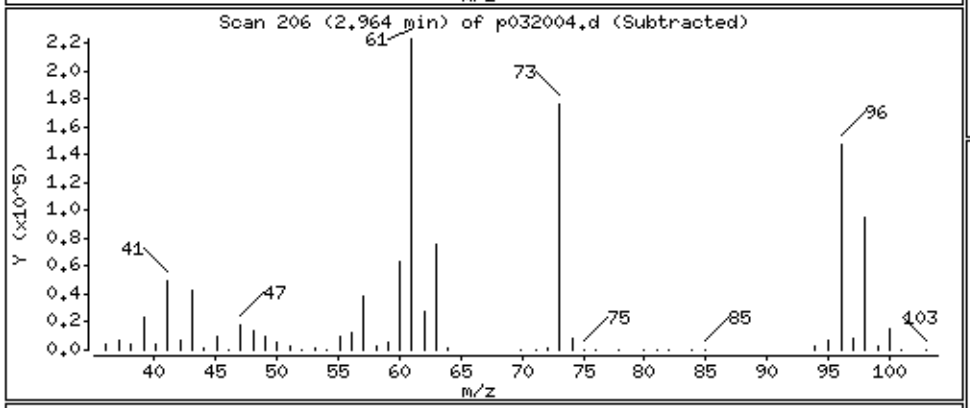
Column phase: RTx-624

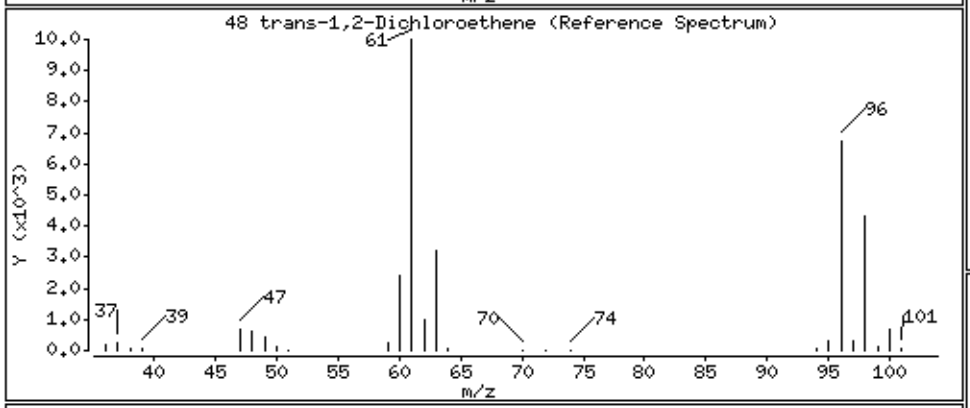
Column diameter: 0.53

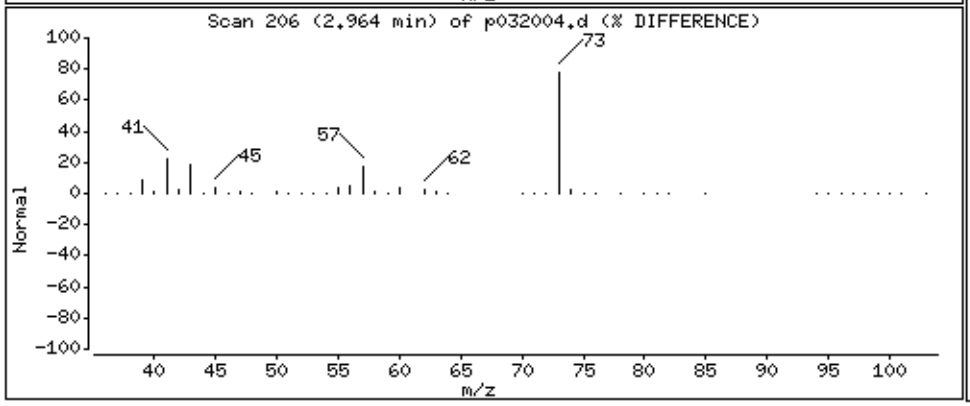
48 trans-1,2-Dichloroethene

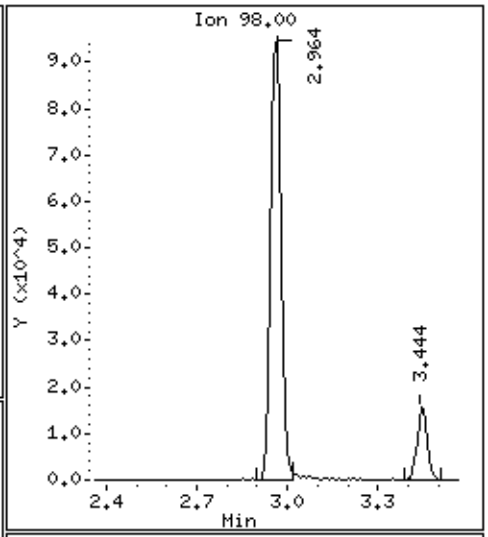
Concentration: 48.236 PPBV

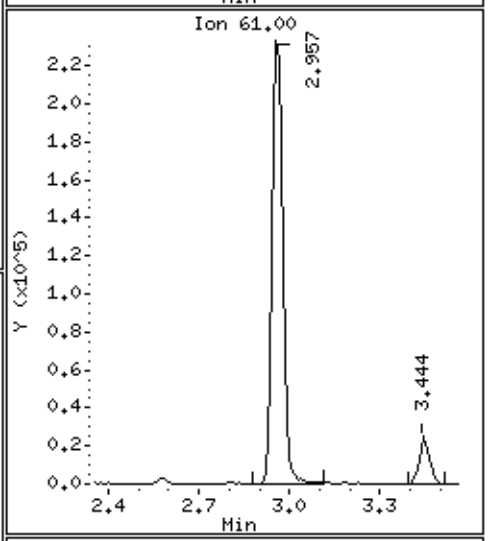


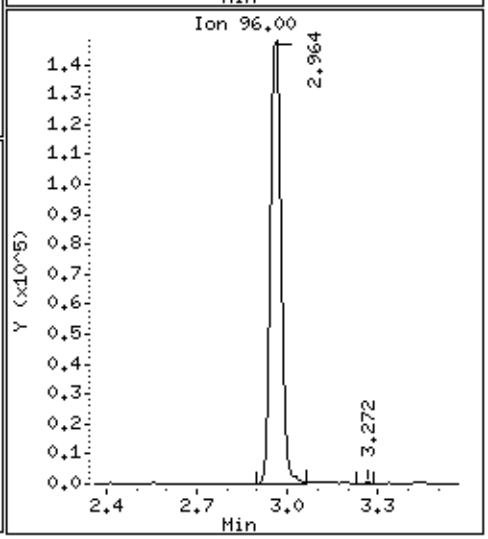



Data File: /chem/msdp.i/20mar10.b/p032004.d

Date : 19-MAR-2010 22:35

Client ID: LCS-1

Instrument: msdp.i

Sample Info: 50ml 1911-194

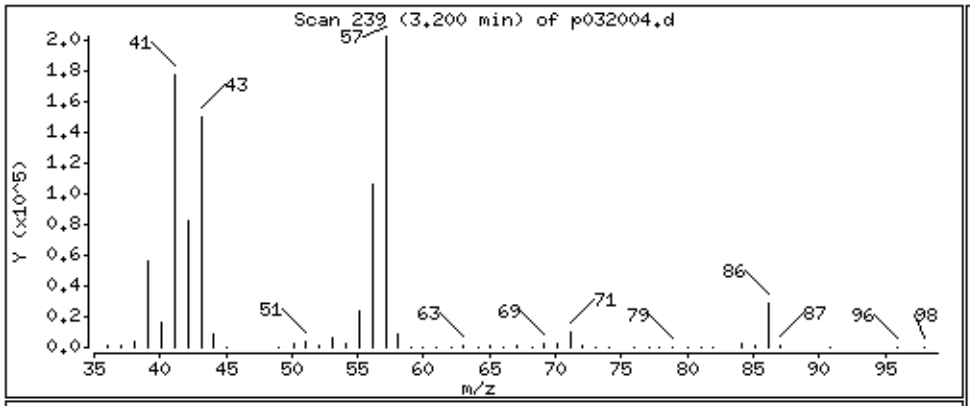
Operator: ra

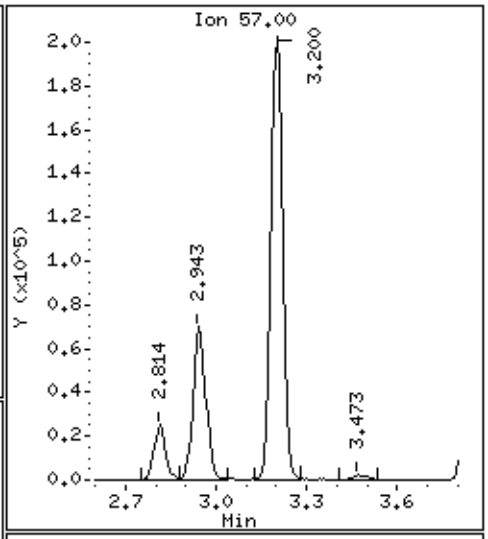
Column phase: RTx-624

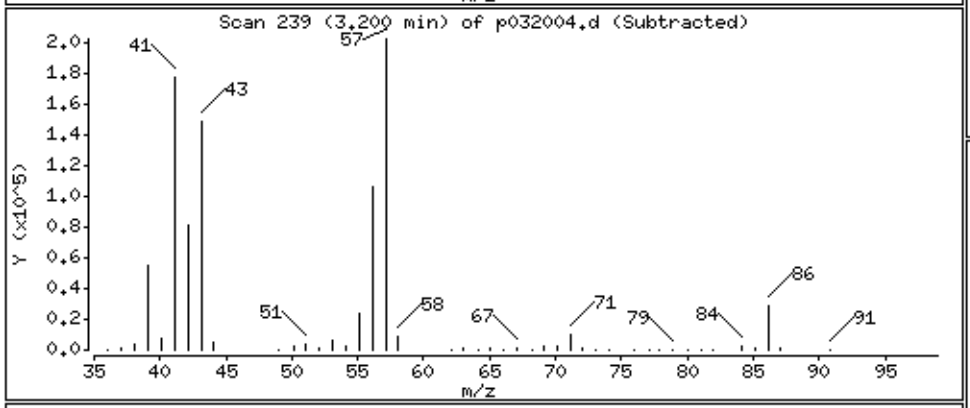
Column diameter: 0.53

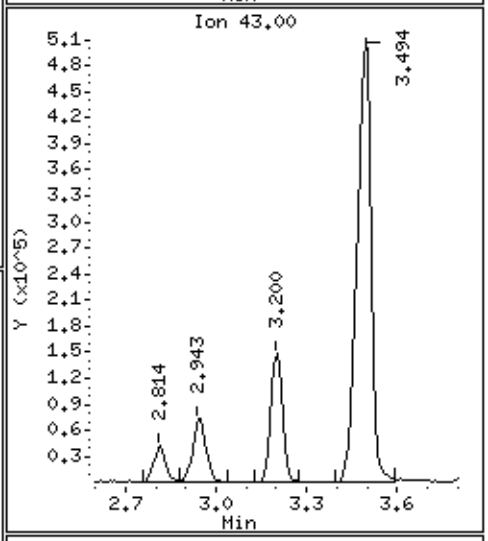
51 Hexane

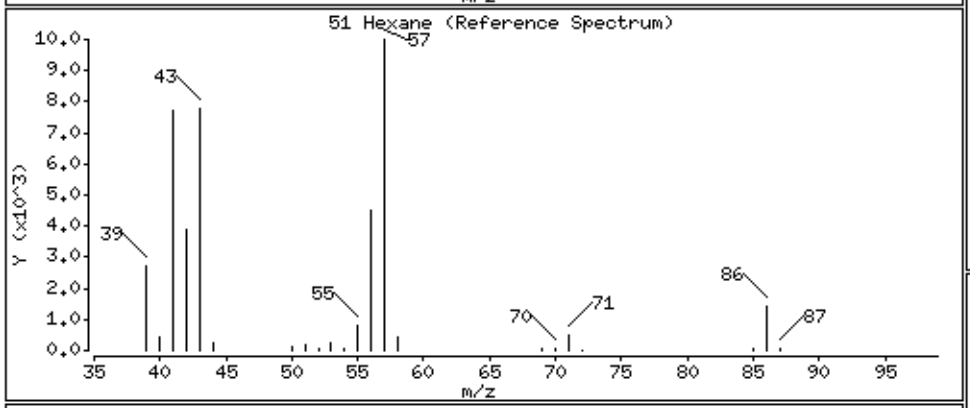
Concentration: 47.858 PPBV

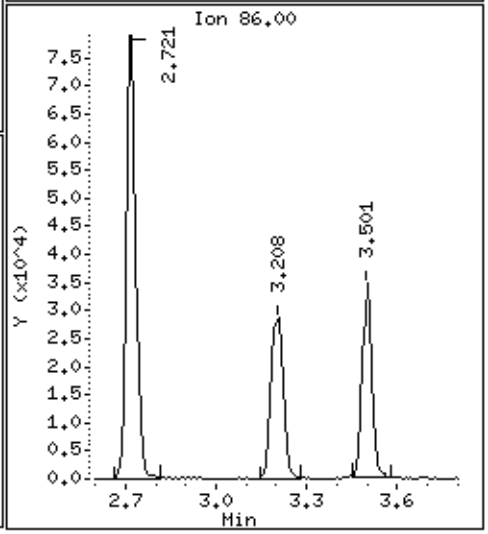


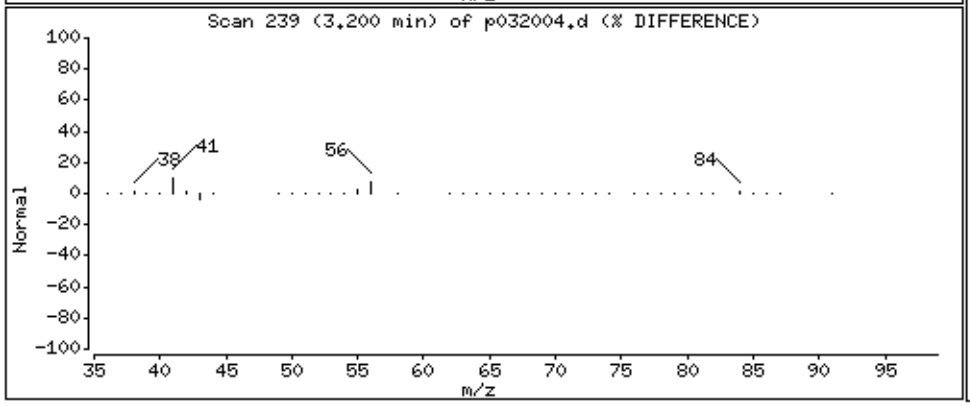



Data File: /chem/msdp.i/20mar10.b/p032004.d

Date : 19-MAR-2010 22:35

Client ID: LCS-1

Instrument: msdp.i

Sample Info: 50ml 1911-194

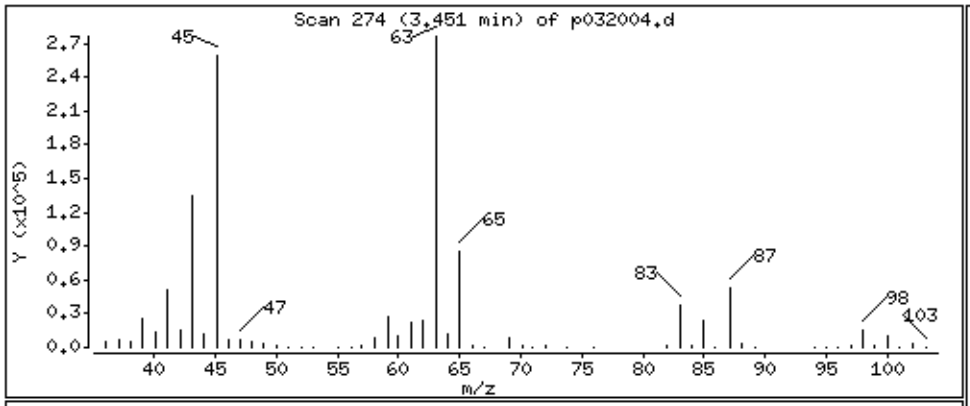
Operator: ra

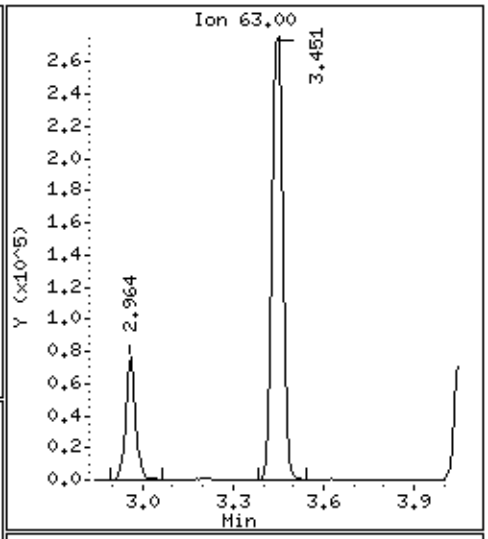
Column phase: RTx-624

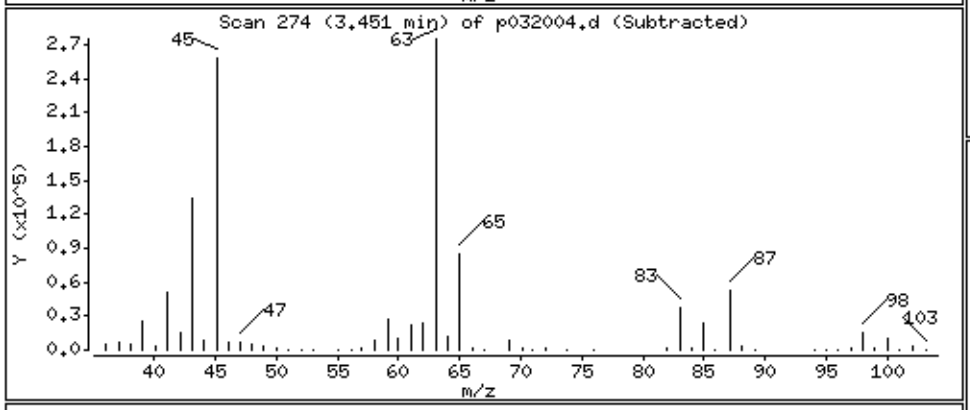
Column diameter: 0.53

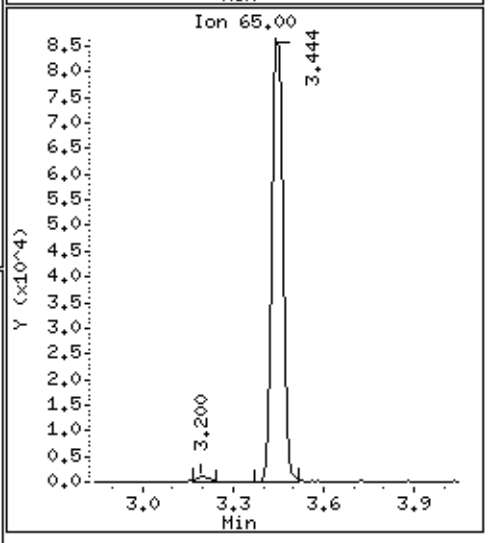
59 1,1-Dichloroethane

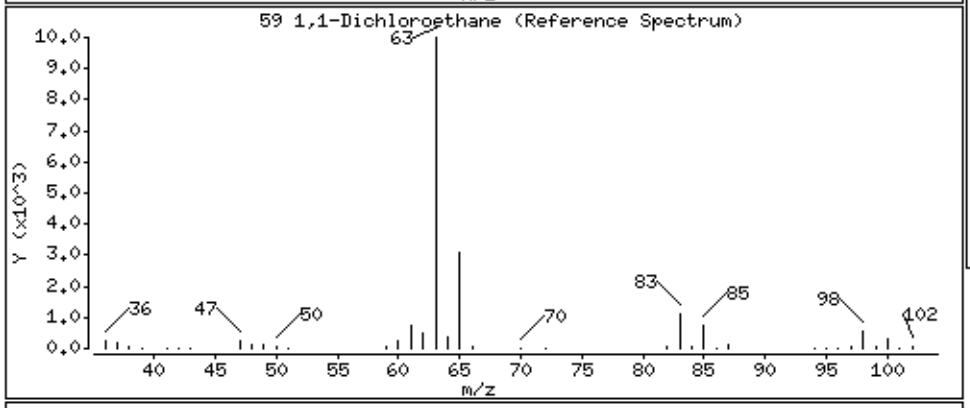
Concentration: 48.550 PPBV

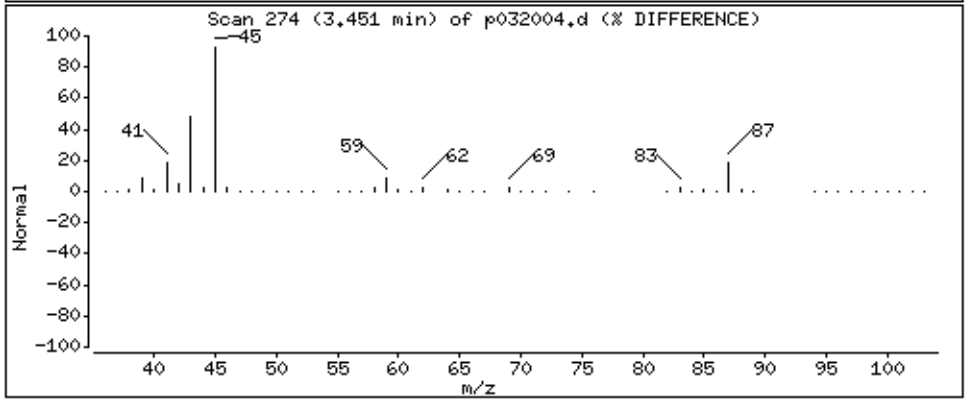


Data File: /chem/msdp.i/20mar10.b/p032004.d

Date : 19-MAR-2010 22:35

Client ID: LCS-1

Instrument: msdp.i

Sample Info: 50ml 1911-194

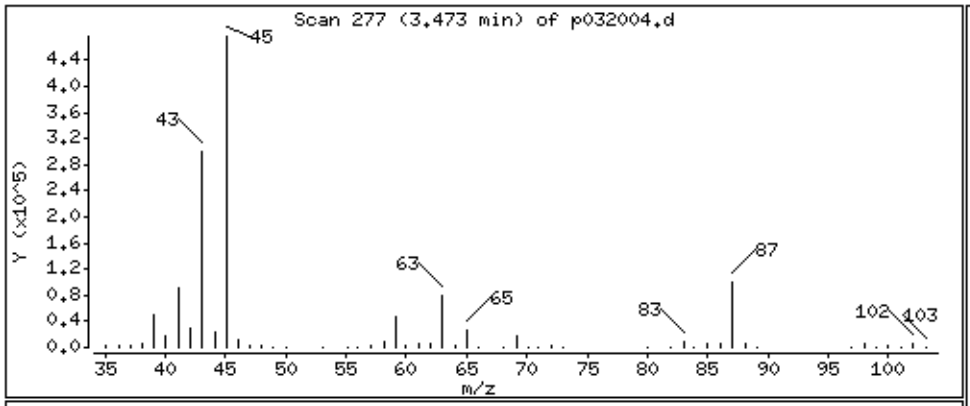
Operator: ra

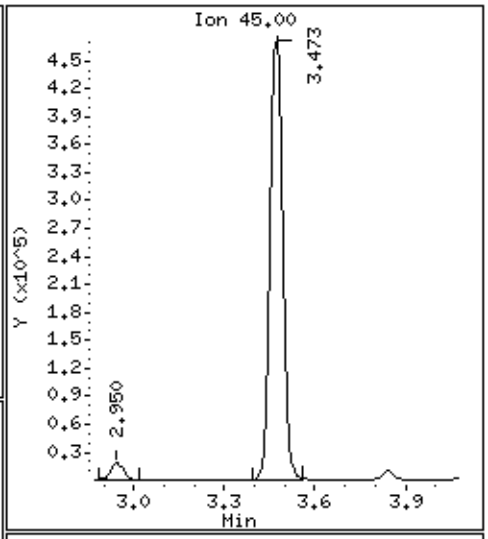
Column phase: RTx-624

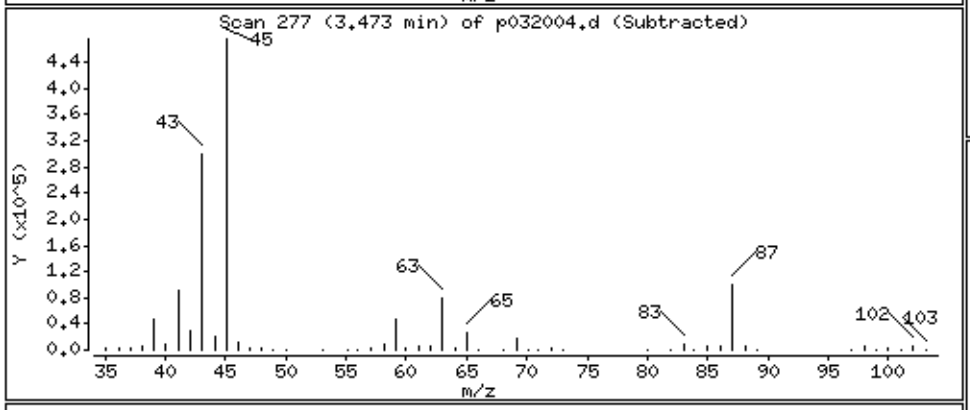
Column diameter: 0.53

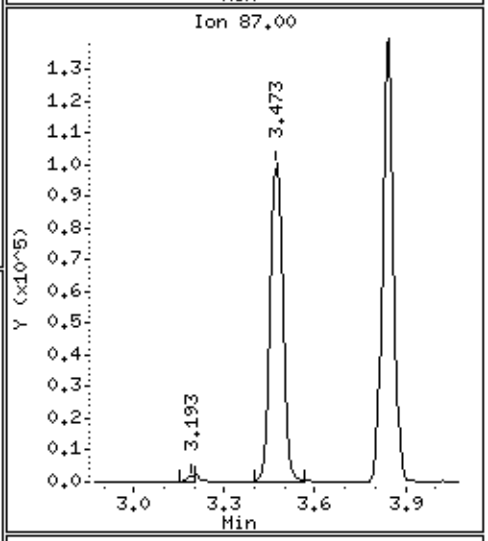
58 Isopropyl ether

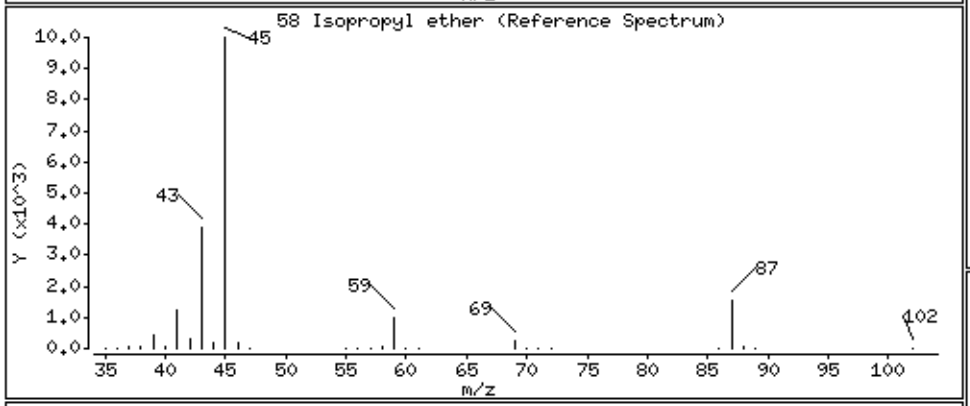
Concentration: 53.457 PPBV

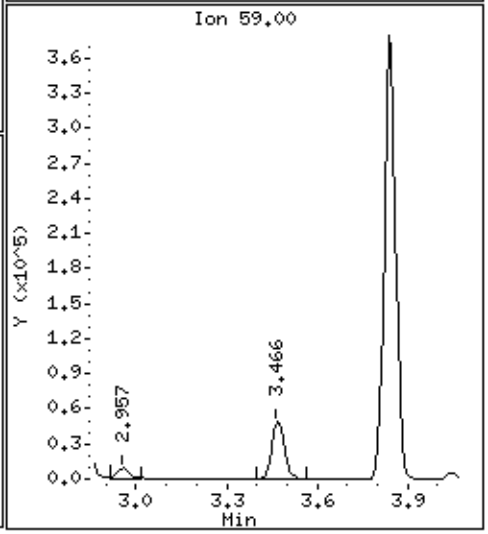


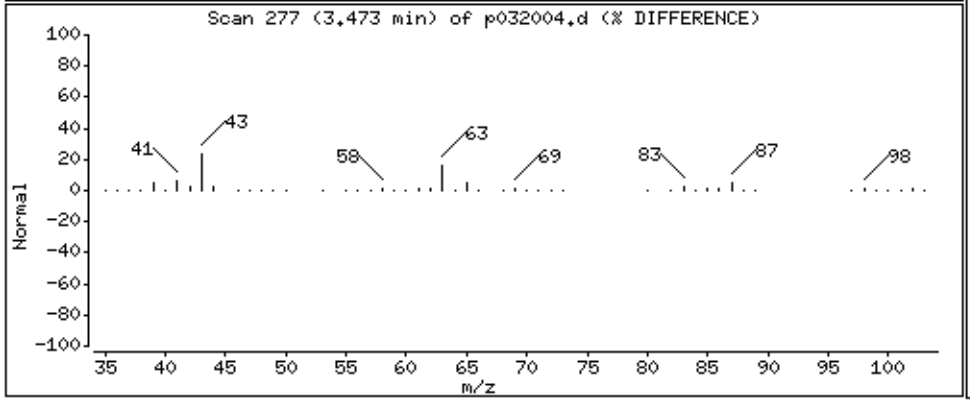



Data File: /chem/msdp.i/20mar10.b/p032004.d

Date : 19-MAR-2010 22:35

Client ID: LCS-1

Instrument: msdp.i

Sample Info: 50ml 1911-194

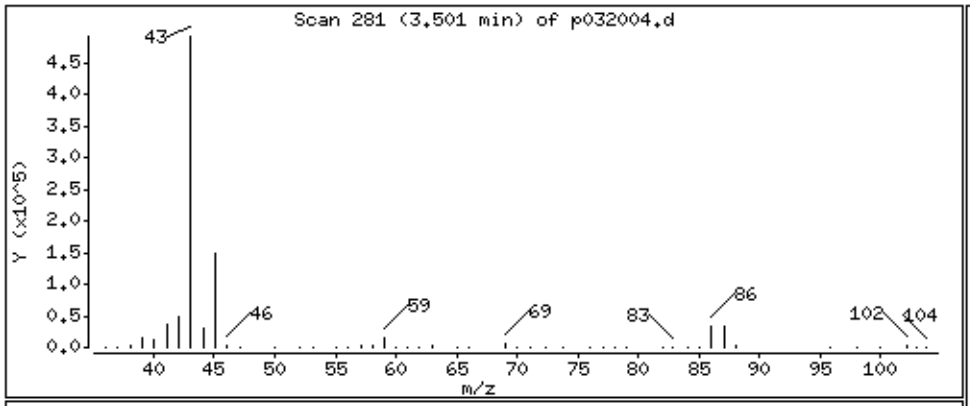
Operator: ra

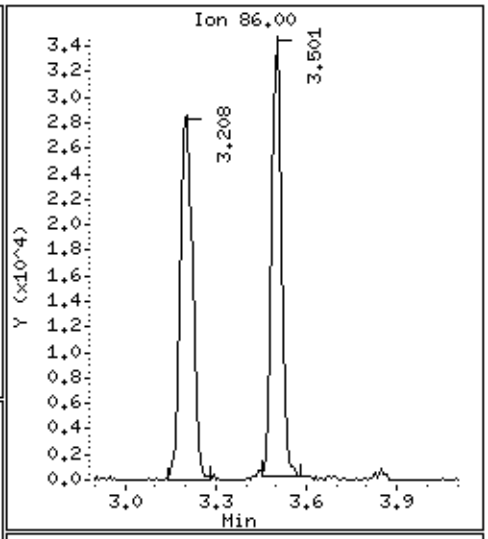
Column phase: RTx-624

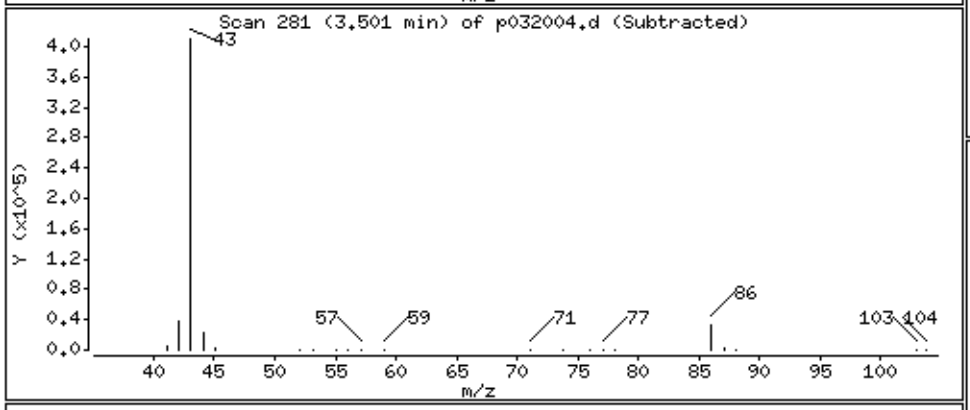
Column diameter: 0.53

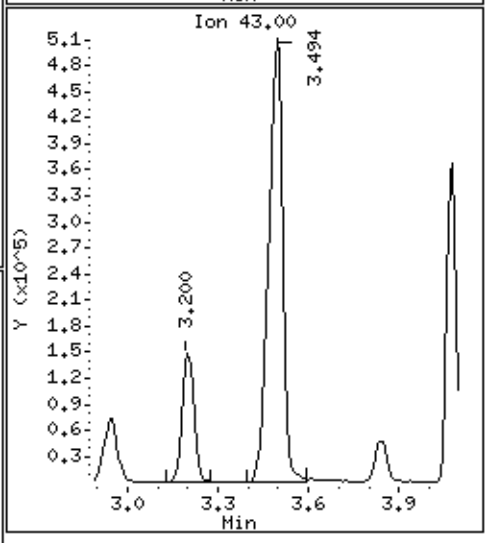
61 Vinyl Acetate

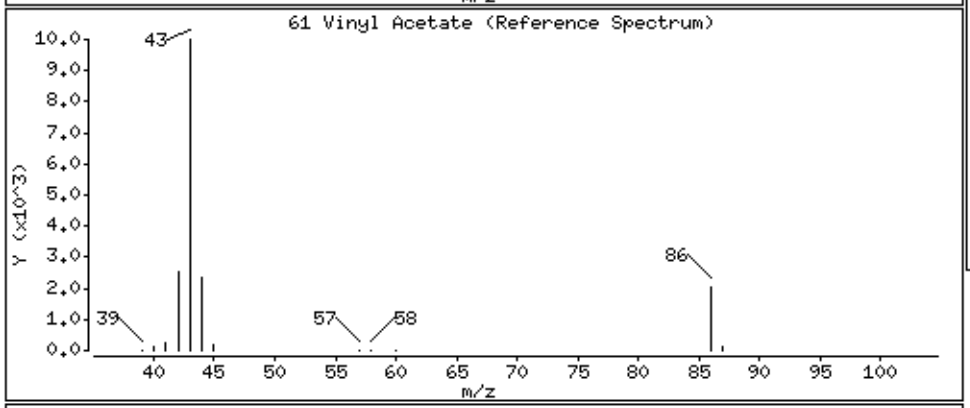
Concentration: 45.381 PPBV

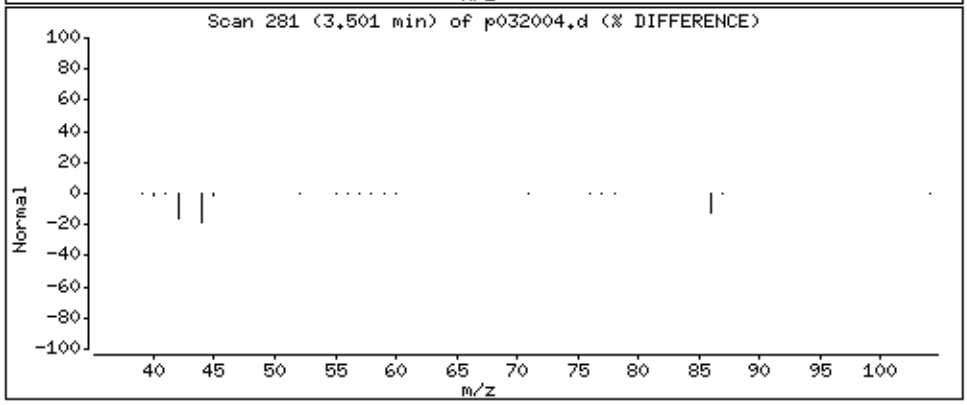


Data File: /chem/msdp.i/20mar10.b/p032004.d

Date : 19-MAR-2010 22:35

Client ID: LCS-1

Instrument: msdp.i

Sample Info: 50ml 1911-194

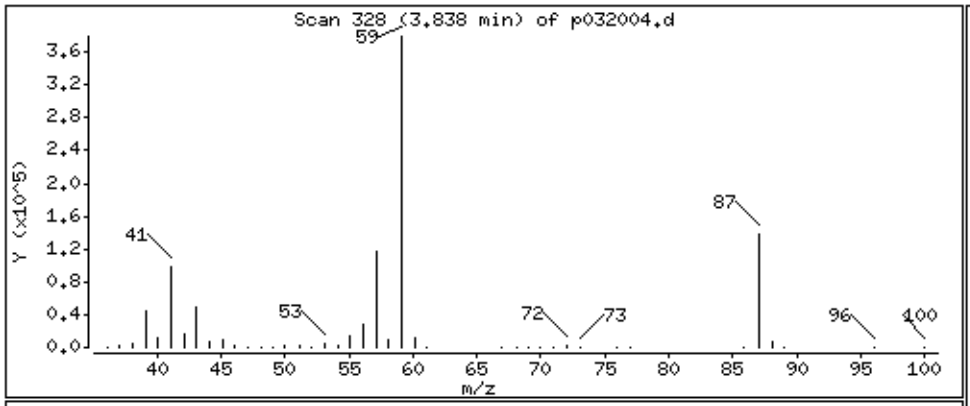
Operator: ra

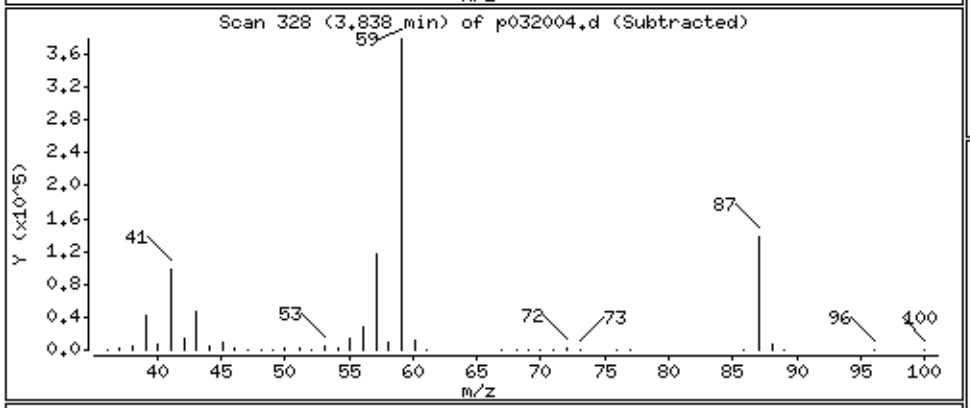
Column phase: RTx-624

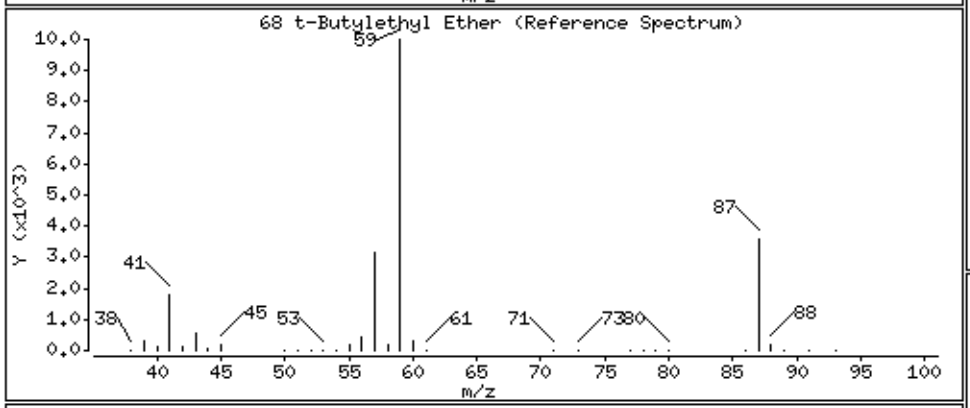
Column diameter: 0.53

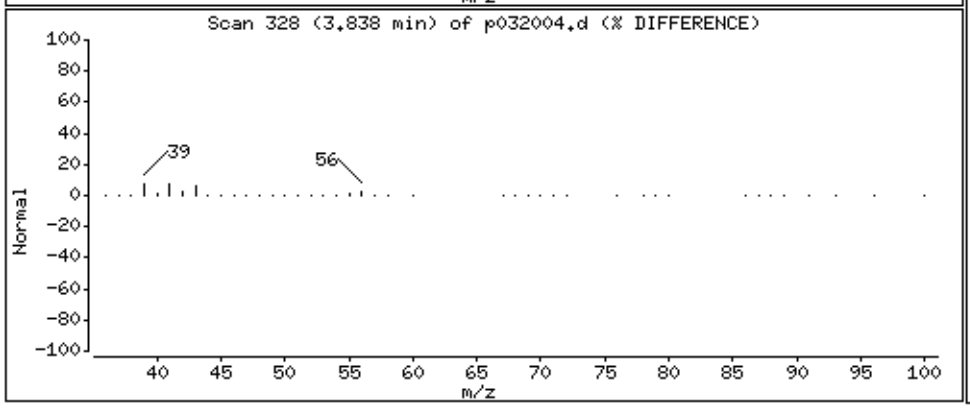
68 t-Butylethyl Ether

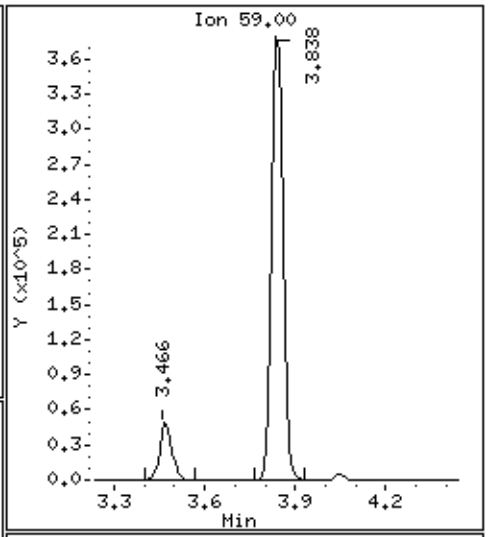
Concentration: 49.456 PPBV

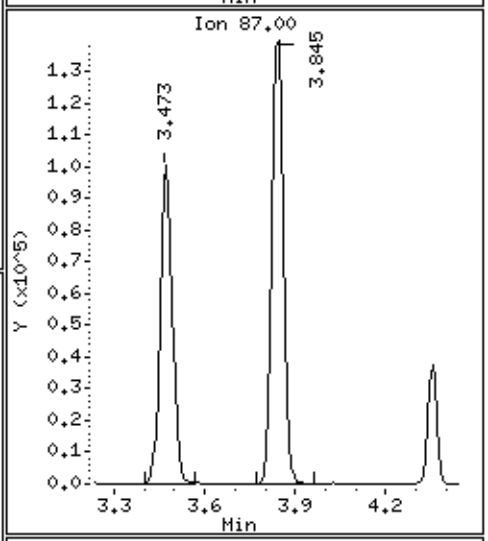


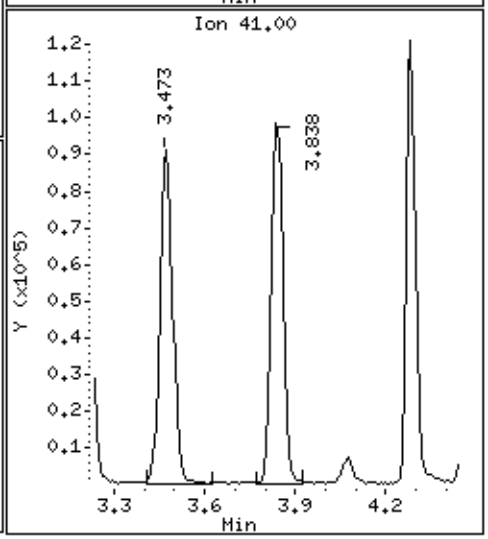



Data File: /chem/msdp.i/20mar10.b/p032004.d

Date : 19-MAR-2010 22:35

Client ID: LCS-1

Instrument: msdp.i

Sample Info: 50ml 1911-194

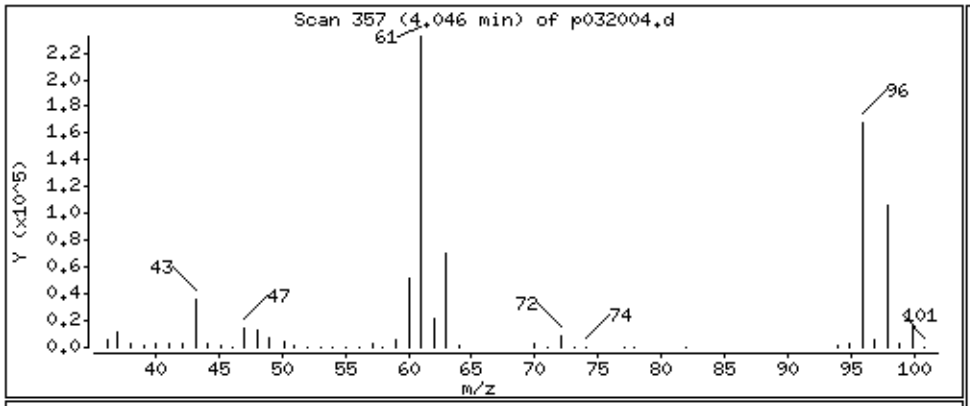
Operator: ra

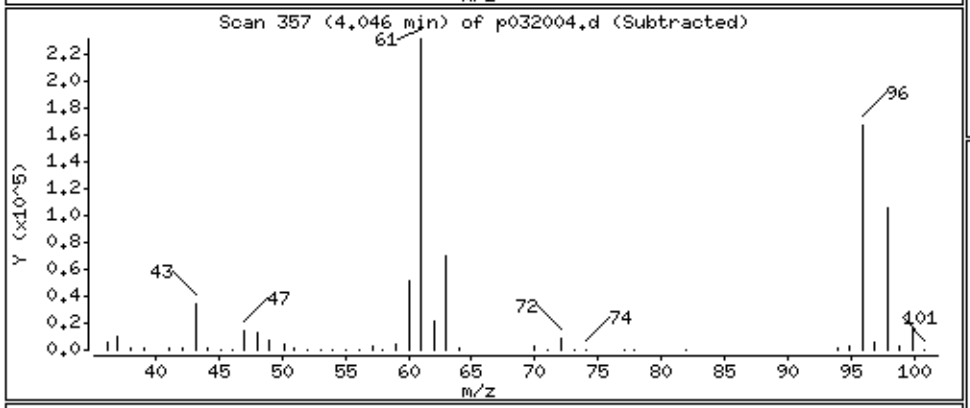
Column phase: RTx-624

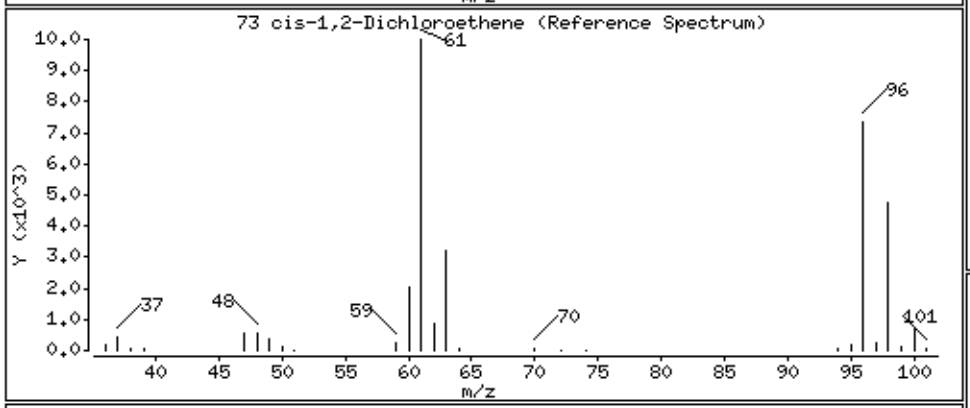
Column diameter: 0.53

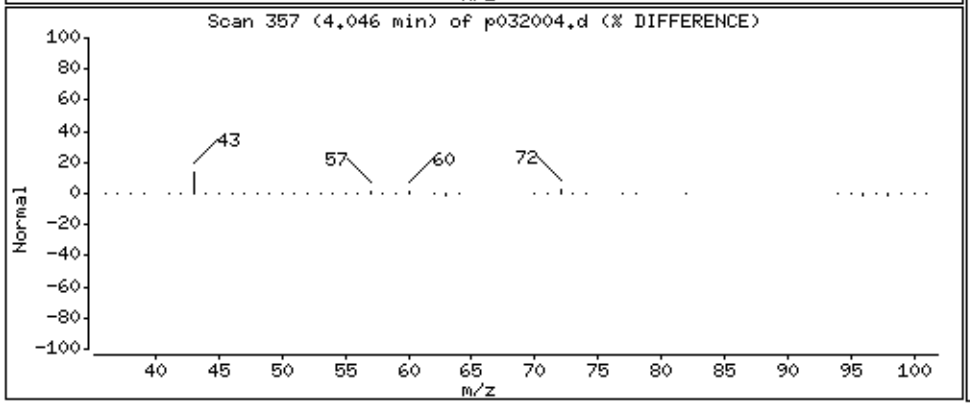
73 cis-1,2-Dichloroethene

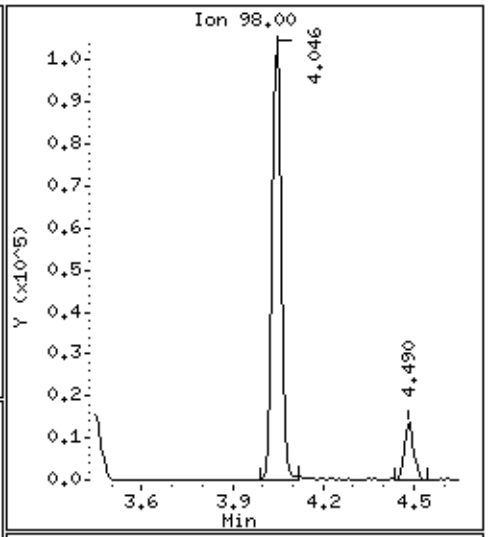
Concentration: 46.019 PPBV

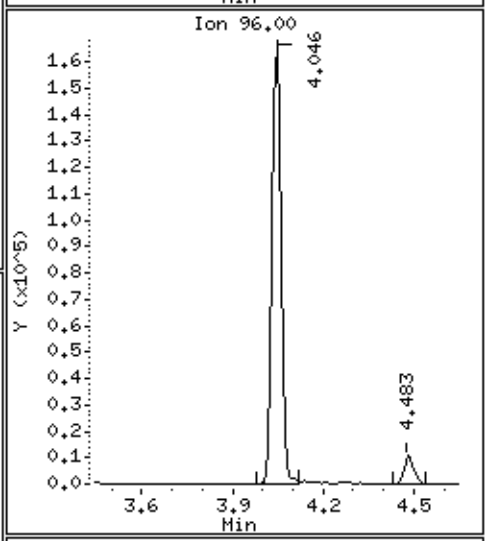


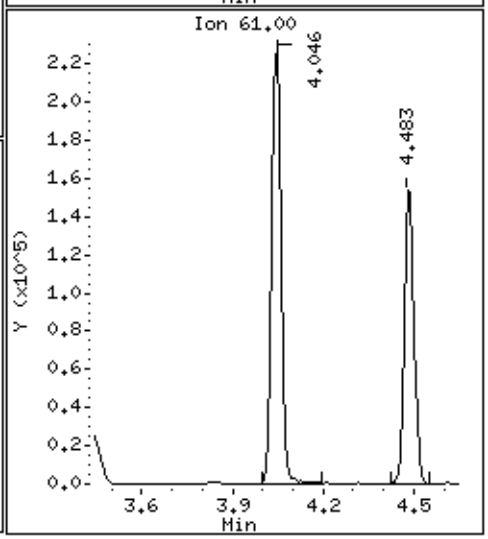



Data File: /chem/msdp.i/20mar10.b/p032004.d

Date : 19-MAR-2010 22:35

Client ID: LCS-1

Instrument: msdp.i

Sample Info: 50ml 1911-194

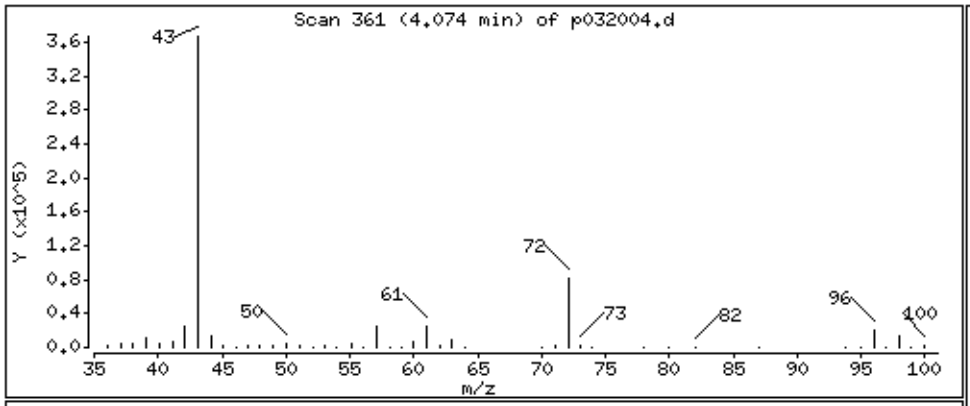
Operator: ra

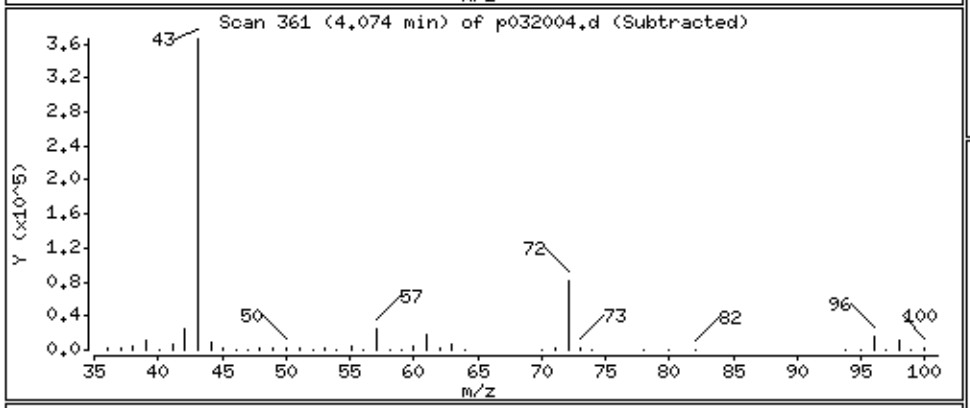
Column phase: RTx-624

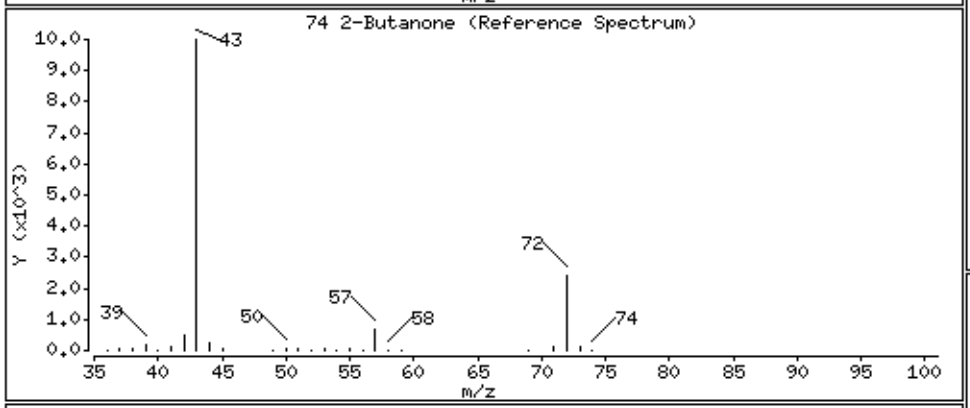
Column diameter: 0.53

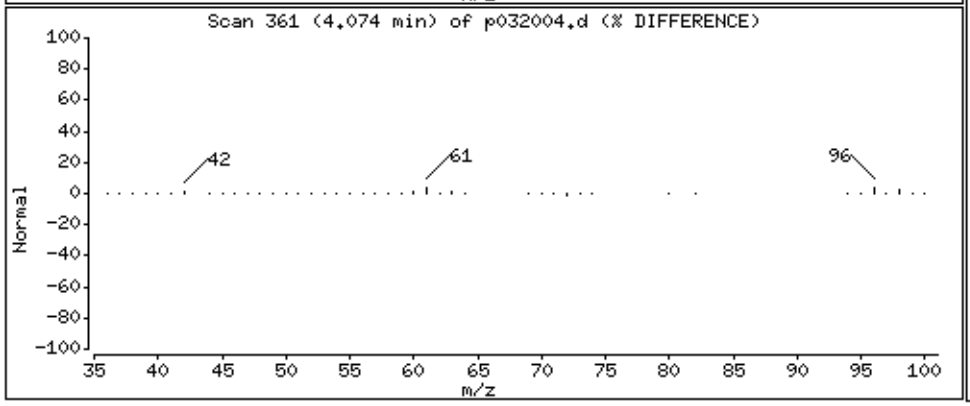
74 2-Butanone

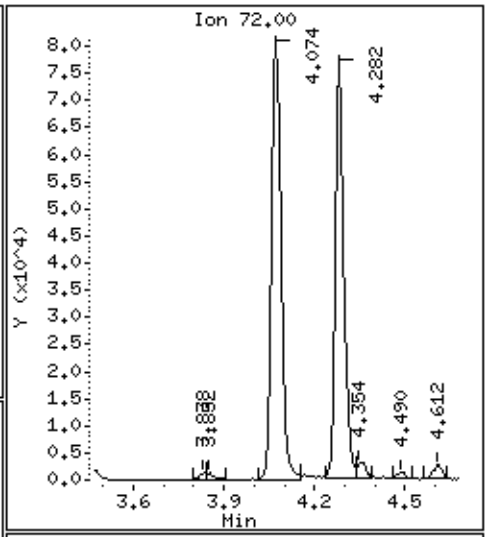
Concentration: 50.256 PPBV

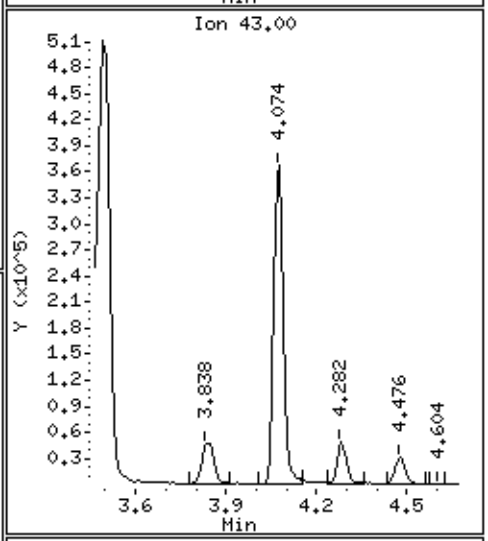


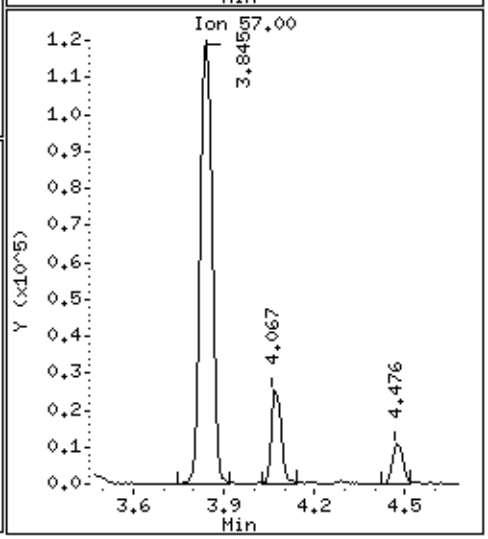



Data File: /chem/msdp.i/20mar10.b/p032004.d

Date : 19-MAR-2010 22:35

Client ID: LCS-1

Instrument: msdp.i

Sample Info: 50ml 1911-194

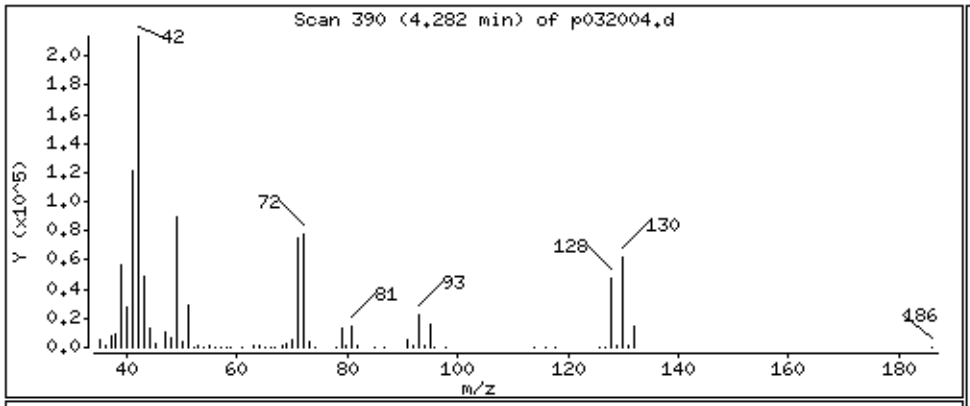
Operator: ra

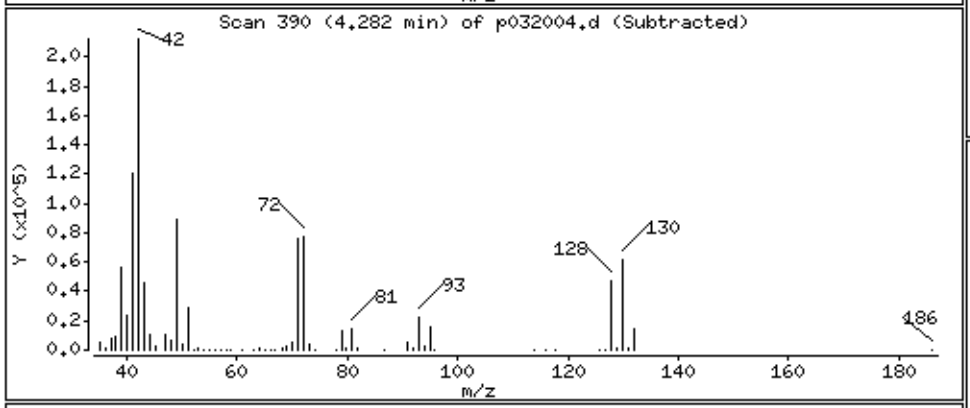
Column phase: RTx-624

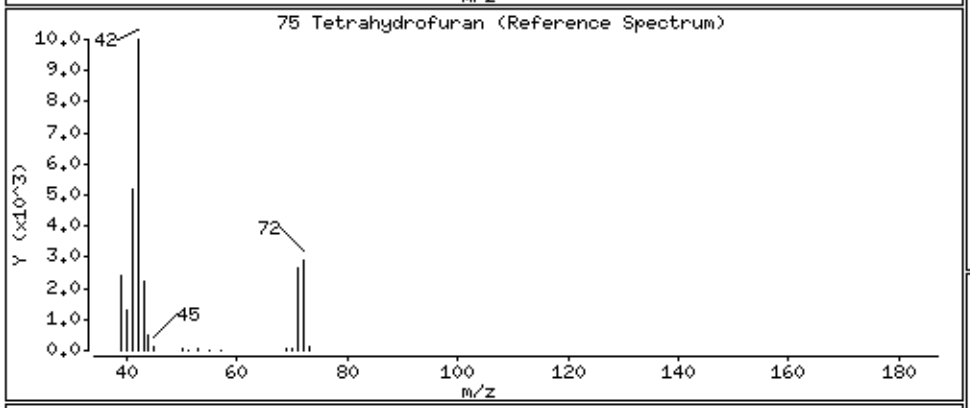
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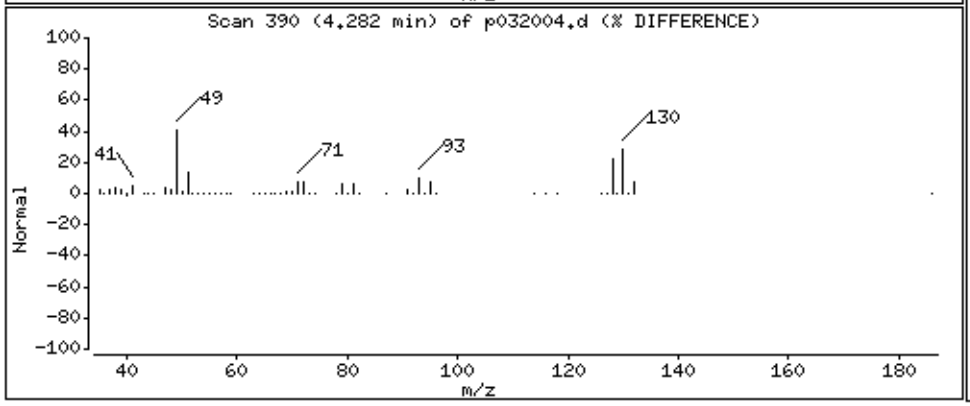
75 Tetrahydrofuran

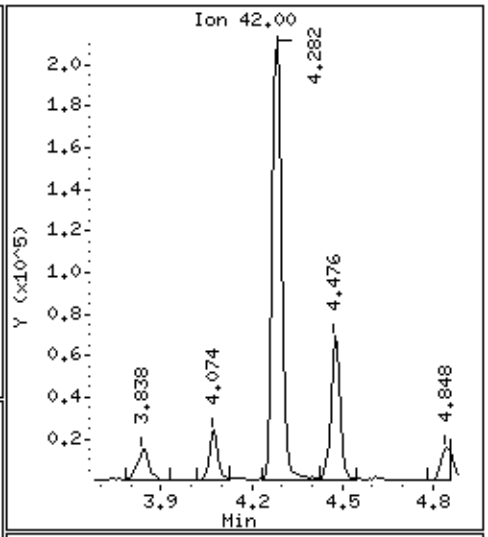
Concentration: 51.318 PPBV

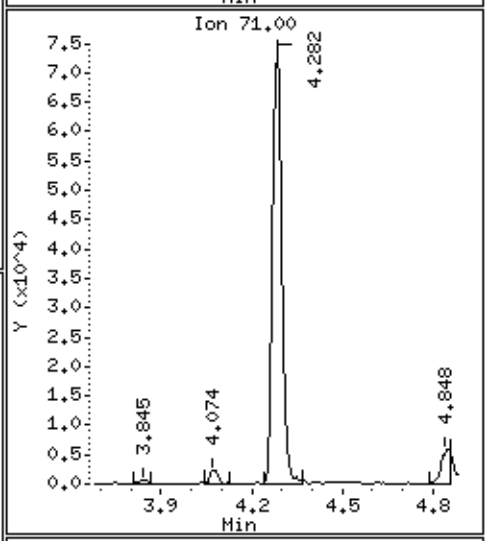


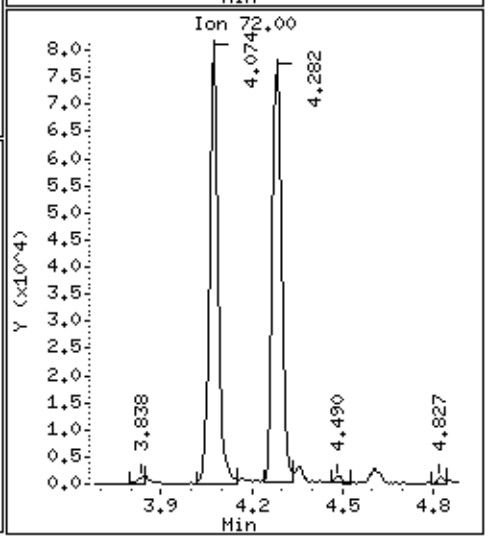



Data File: /chem/msdp.i/20mar10.b/p032004.d

Date : 19-MAR-2010 22:35

Client ID: LCS-1

Instrument: msdp.i

Sample Info: 50ml 1911-194

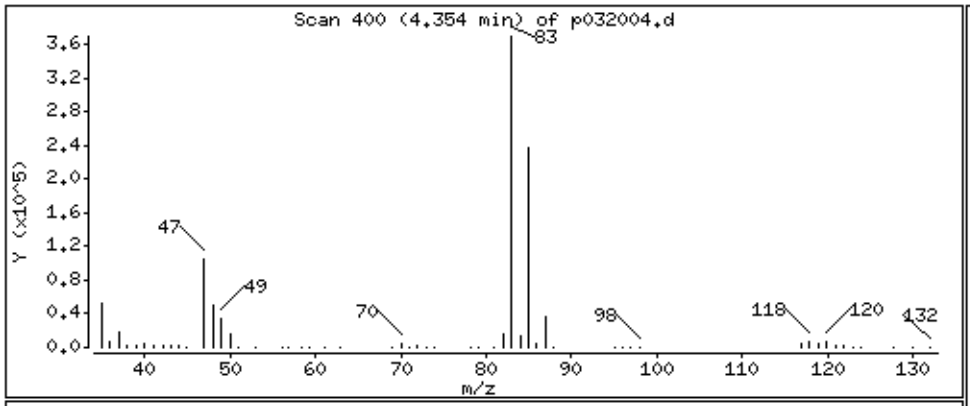
Operator: ra

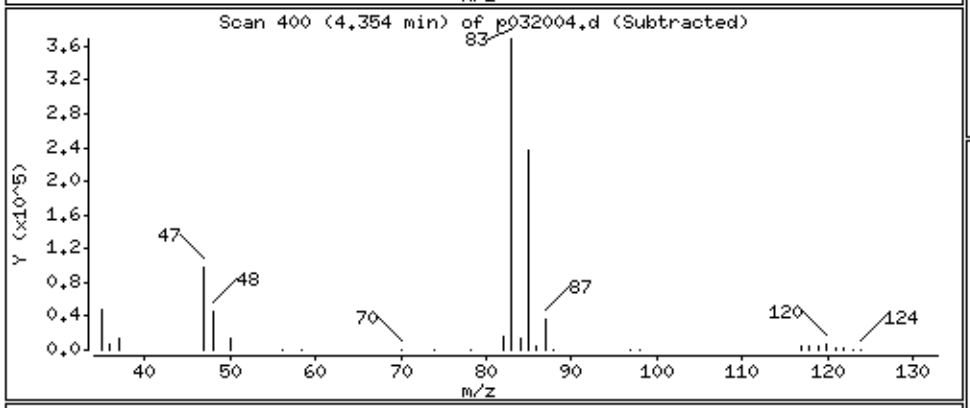
Column phase: RTx-624

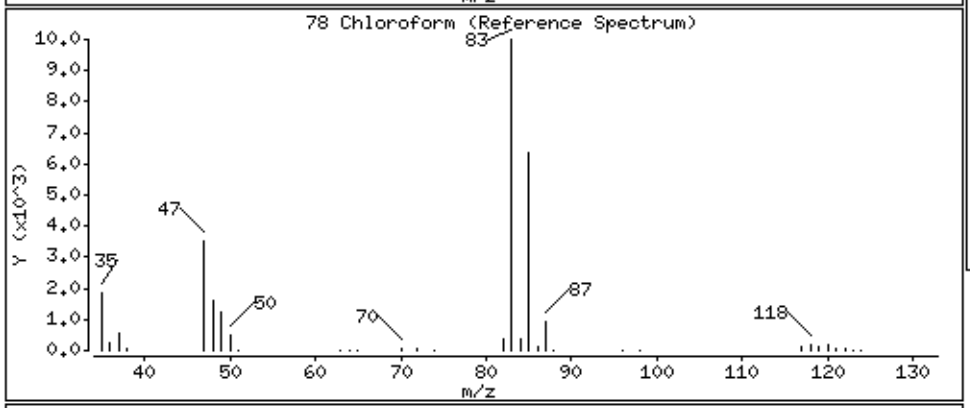
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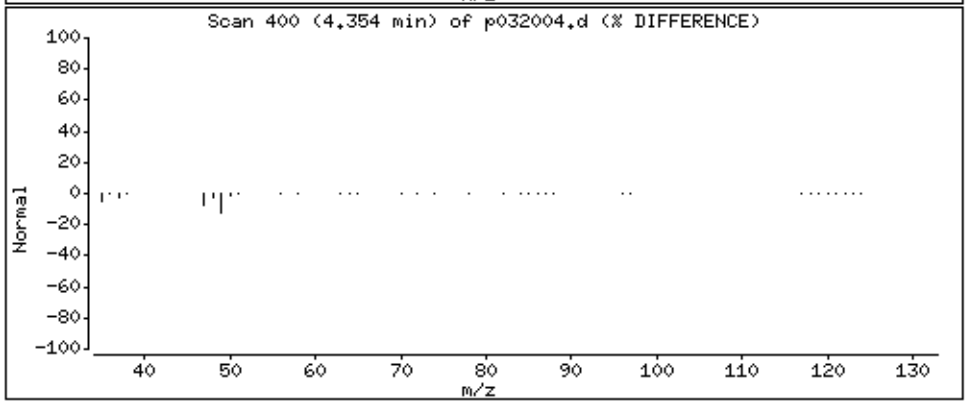
78 Chloroform

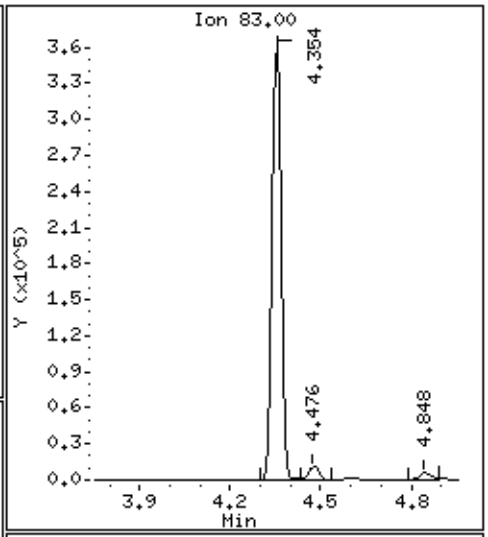
Concentration: 49.194 PPBV

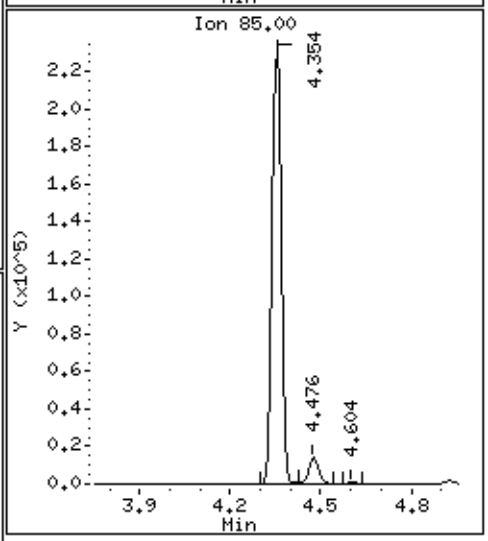


Data File: /chem/msdp.i/20mar10.b/p032004.d

Date : 19-MAR-2010 22:35

Client ID: LCS-1

Instrument: msdp.i

Sample Info: 50ml 1911-194

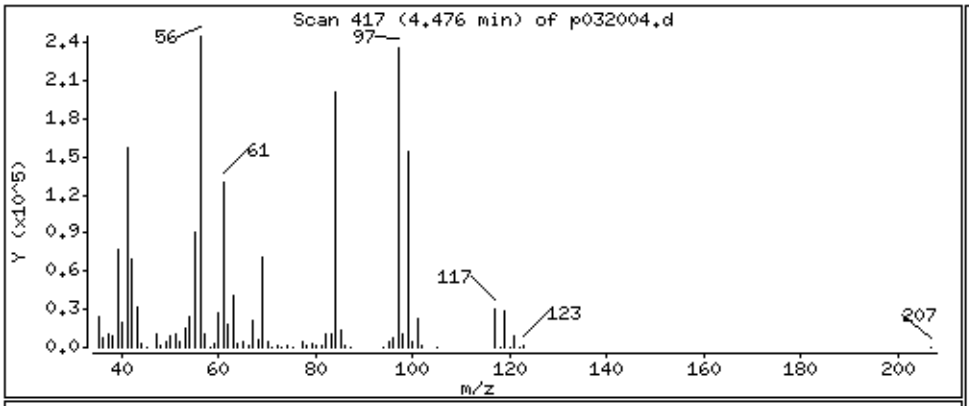
Operator: ra

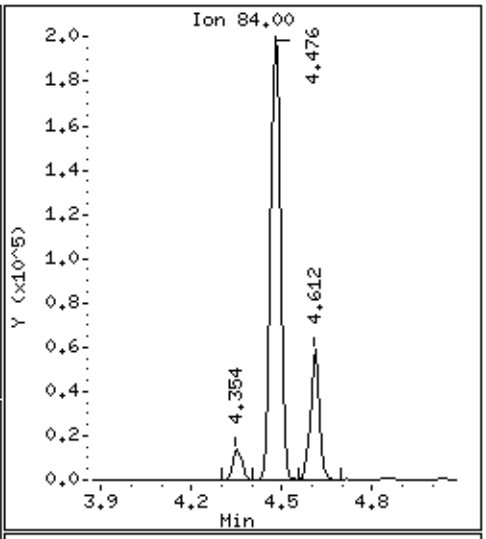
Column phase: RTx-624

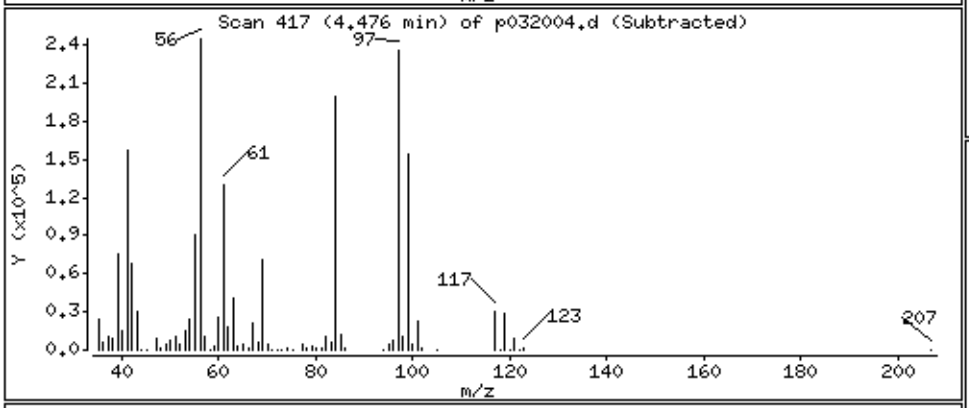
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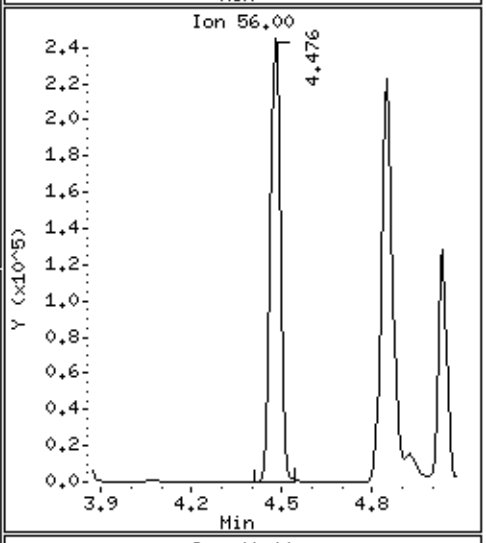
80 Cyclohexane

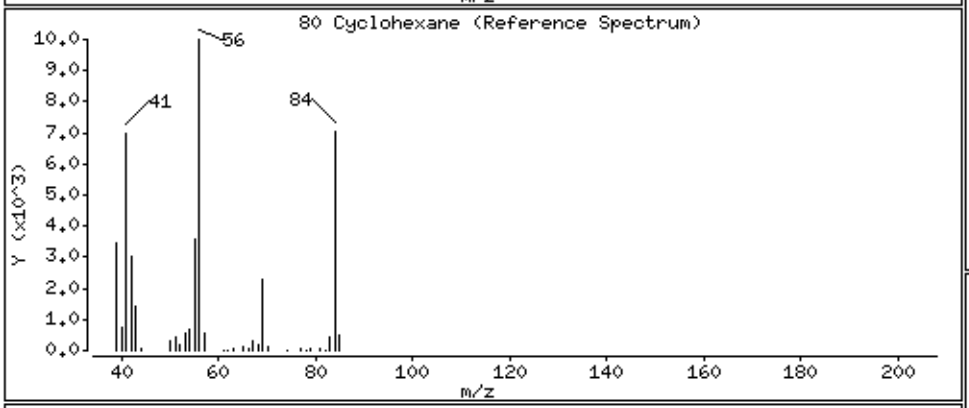
Concentration: 49.742 PPBV

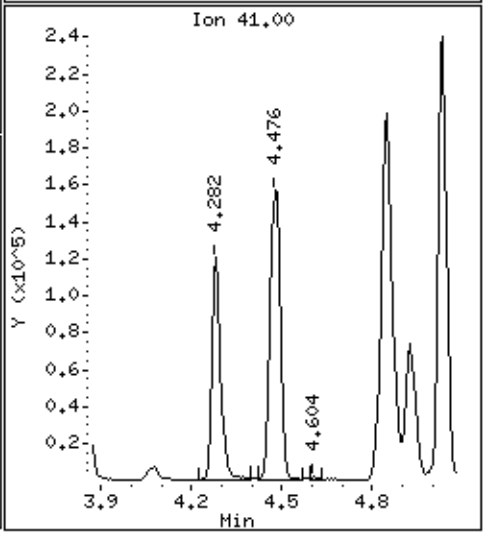


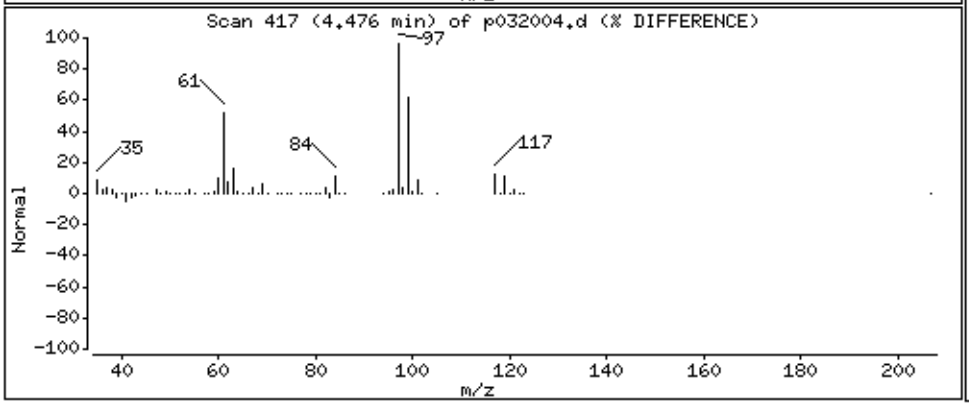



Data File: /chem/msdp.i/20mar10.b/p032004.d

Date : 19-MAR-2010 22:35

Client ID: LCS-1

Instrument: msdp.i

Sample Info: 50ml 1911-194

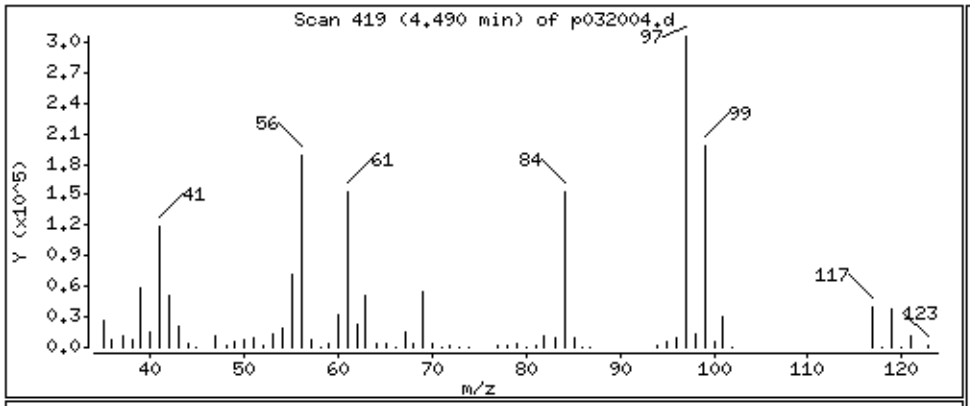
Operator: ra

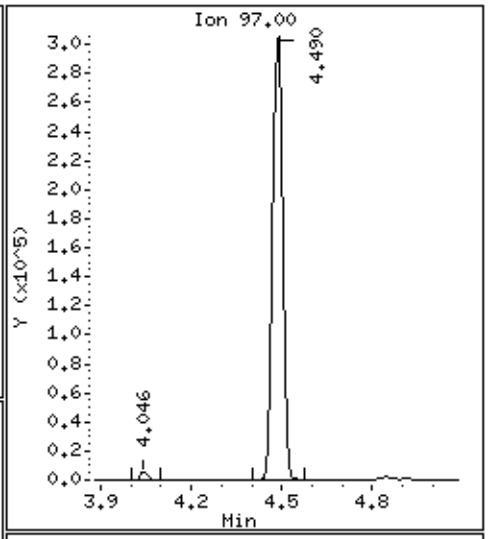
Column phase: RTx-624

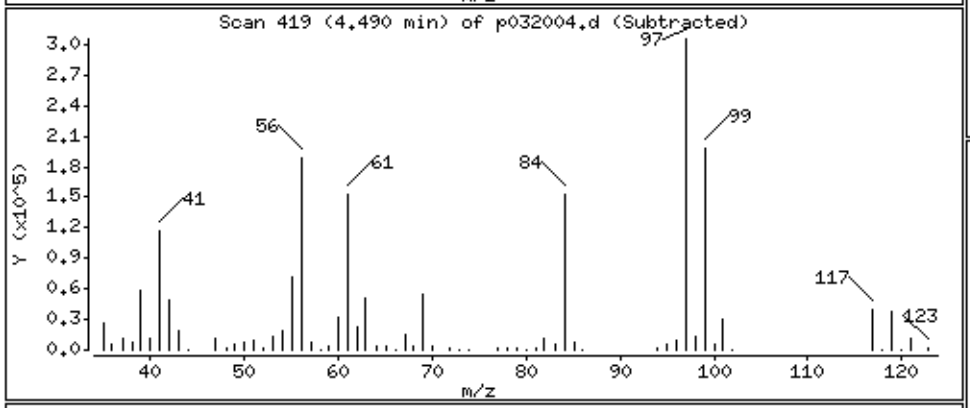
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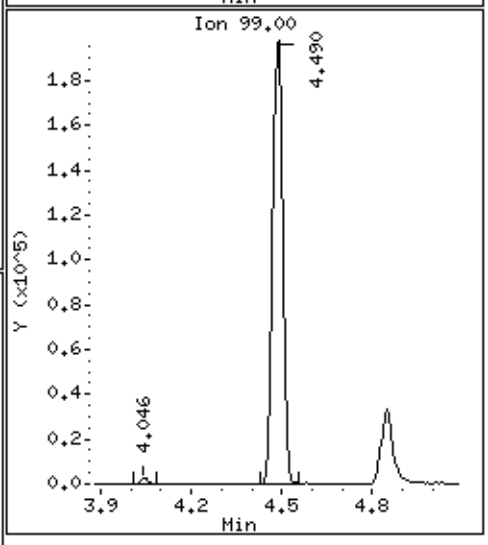
81 1,1,1-Trichloroethane

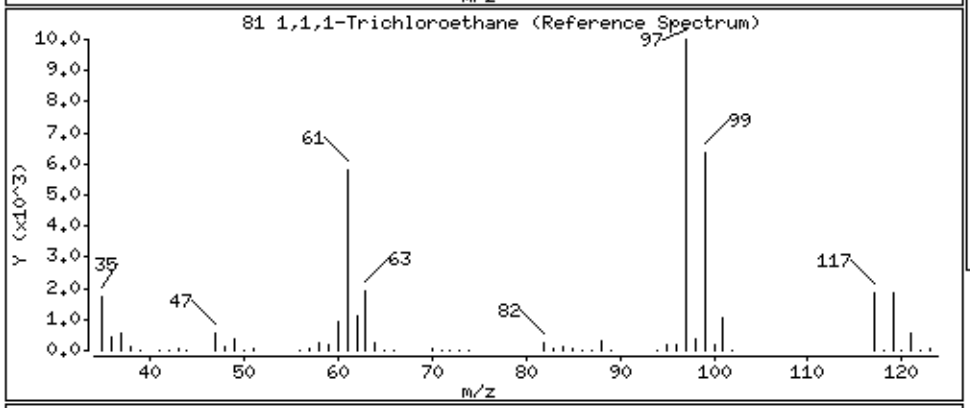
Concentration: 50.340 PPBV

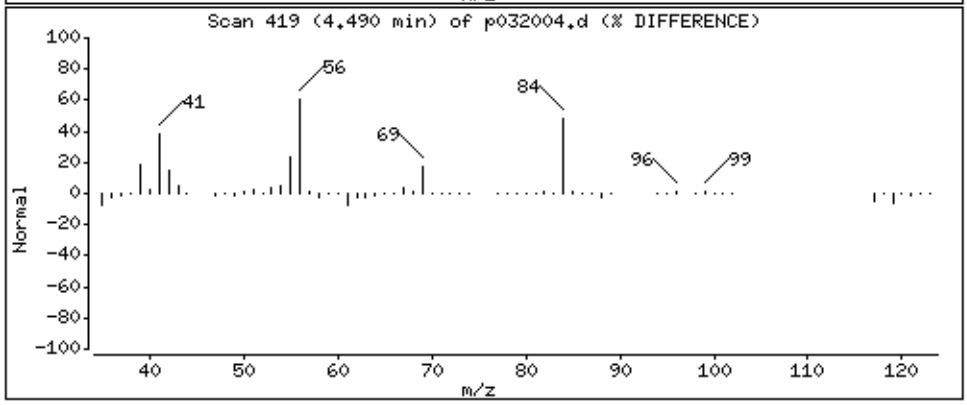


Data File: /chem/msdp.i/20mar10.b/p032004.d

Date : 19-MAR-2010 22:35

Client ID: LCS-1

Instrument: msdp.i

Sample Info: 50ml 1911-194

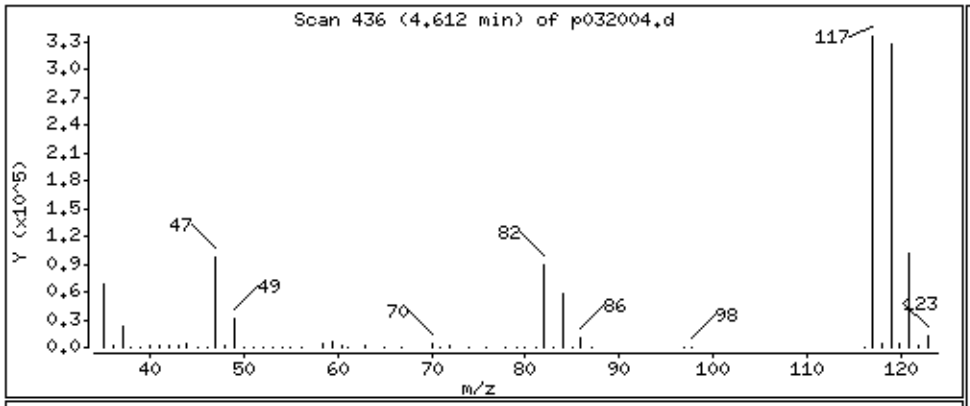
Operator: ra

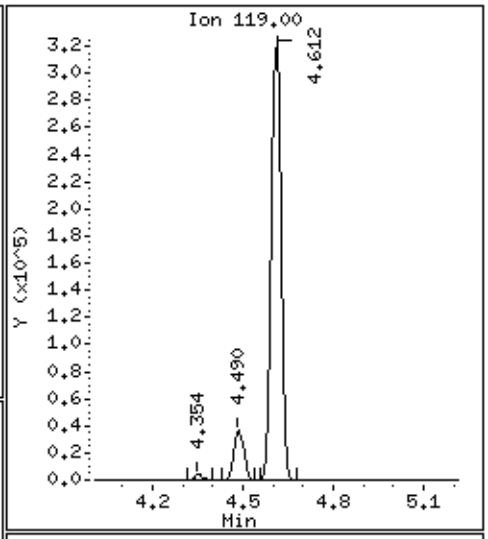
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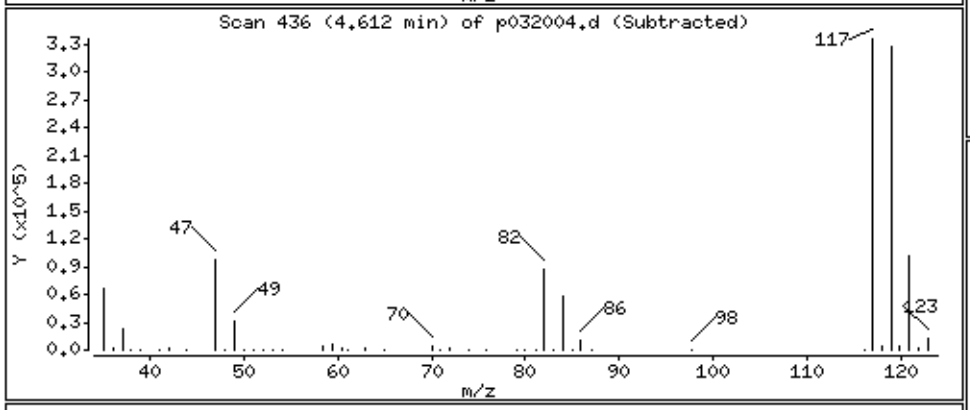
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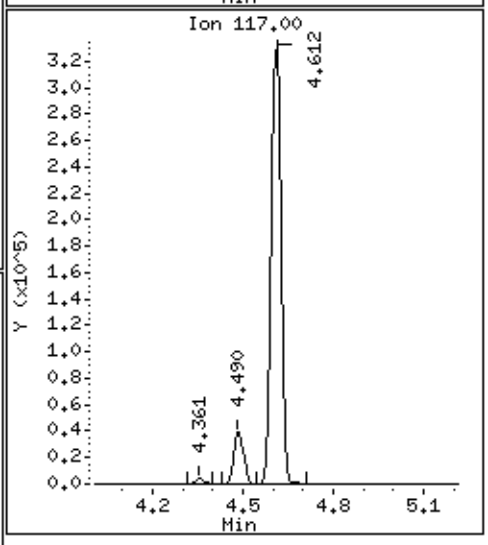
82 Carbon Tetrachloride

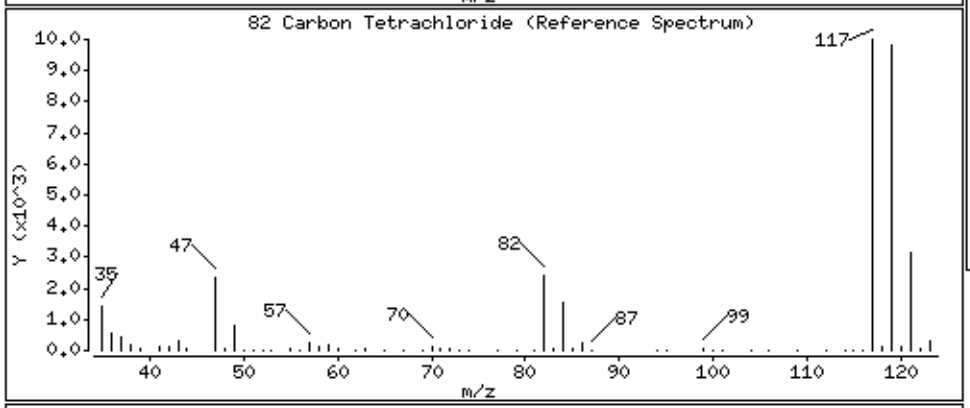
Concentration: 49.607 PPBV

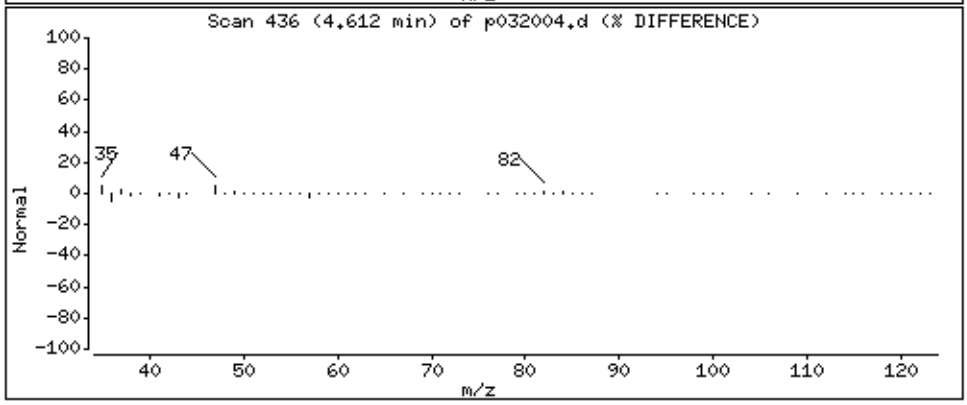


Data File: /chem/msdp.i/20mar10.b/p032004.d

Date : 19-MAR-2010 22:35

Client ID: LCS-1

Instrument: msdp.i

Sample Info: 50ml 1911-194

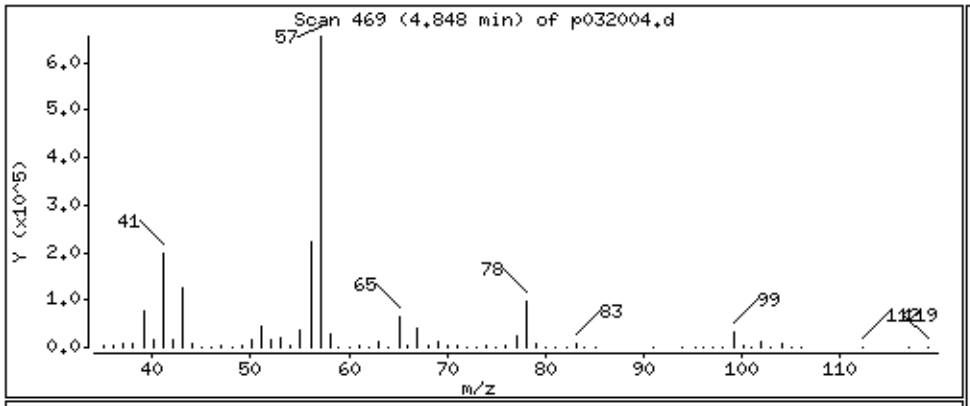
Operator: ra

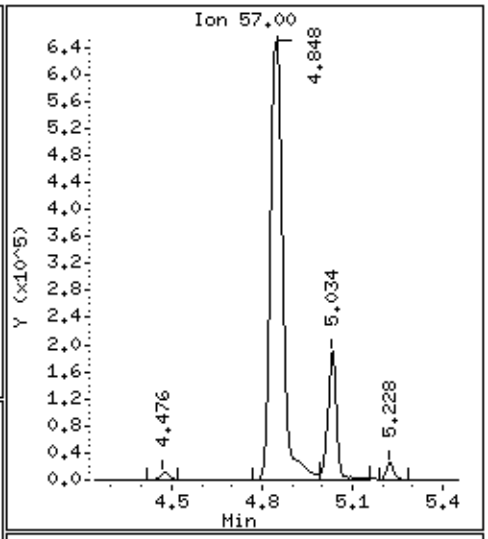
Column phase: RTx-624

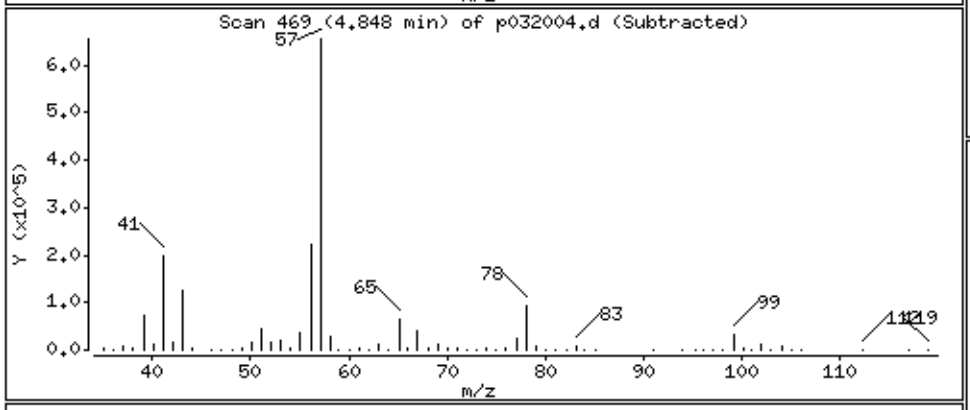
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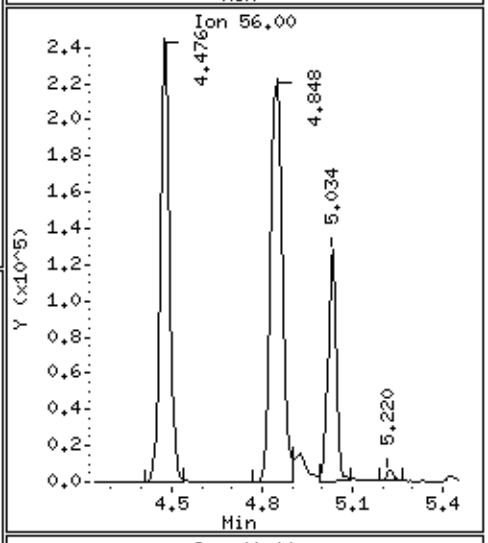
87 2,2,4-Trimethylpentane

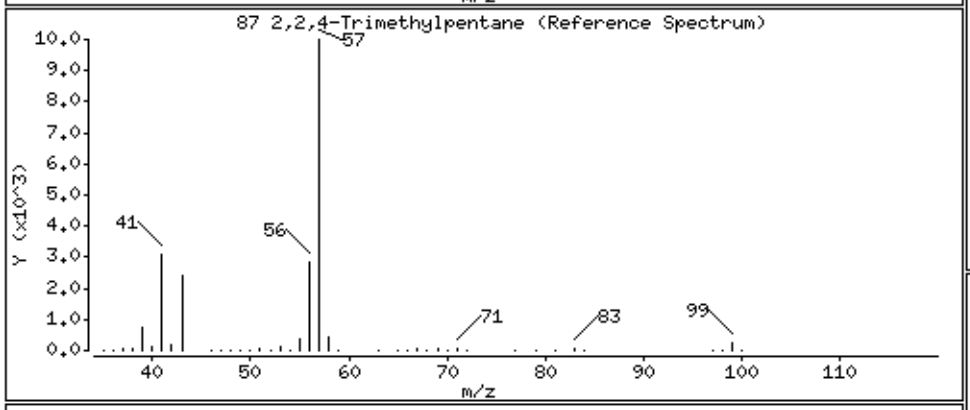
Concentration: 55.704 PPBV

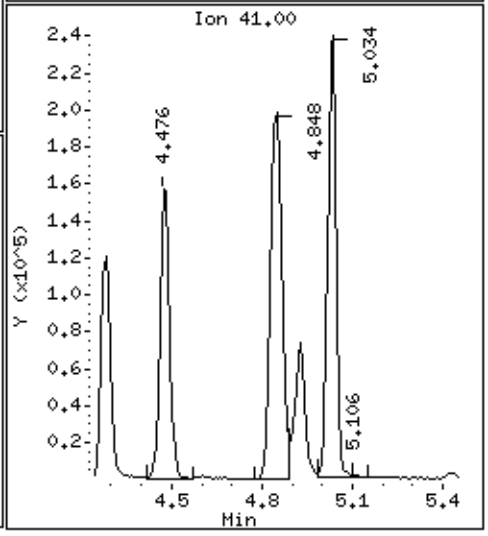


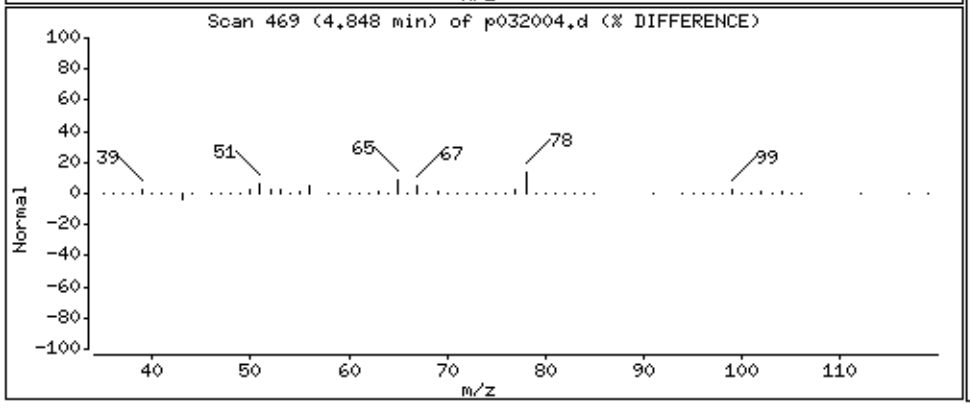



Data File: /chem/msdp.i/20mar10.b/p032004.d

Date : 19-MAR-2010 22:35

Client ID: LCS-1

Instrument: msdp.i

Sample Info: 50ml 1911-194

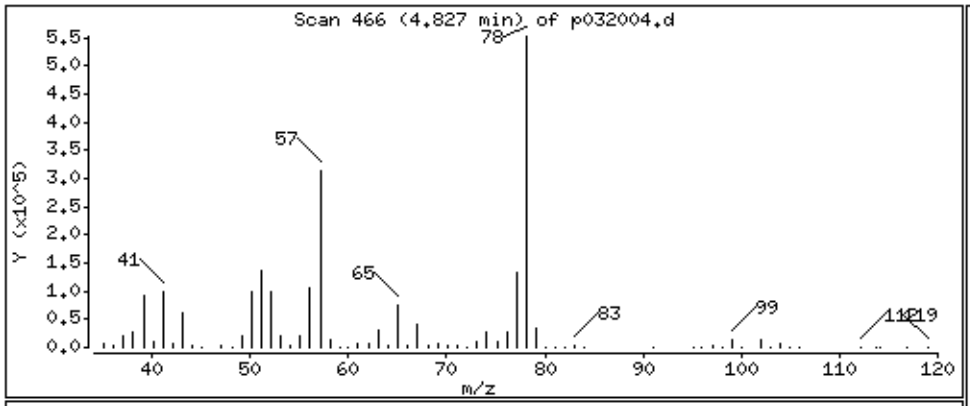
Operator: ra

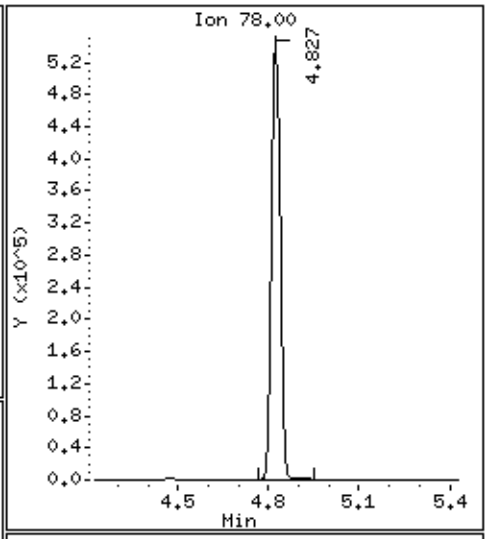
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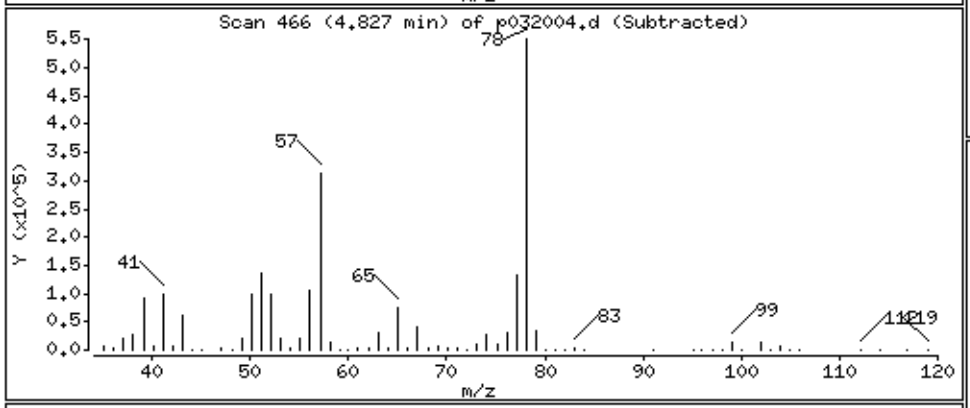
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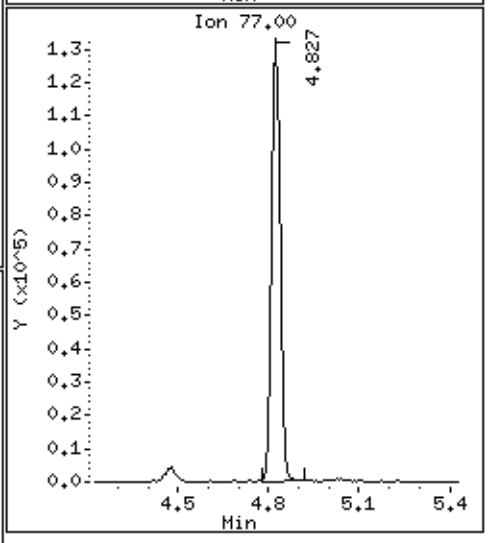
88 Benzene

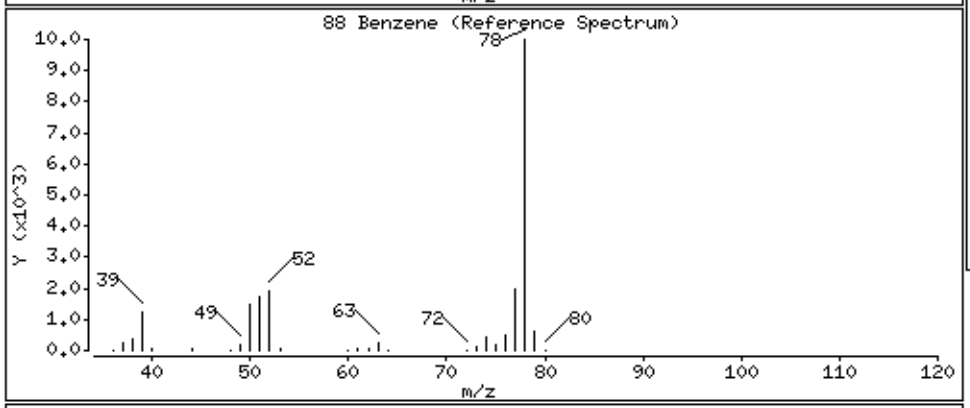
Concentration: 51.762 PPBV

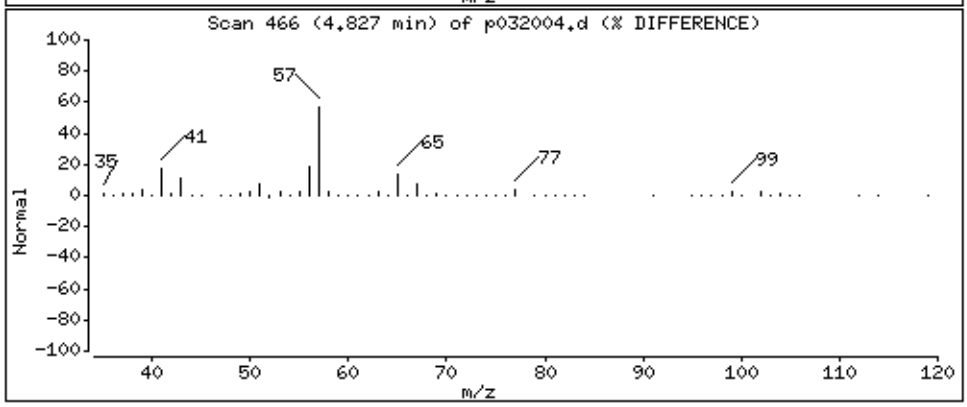


Data File: /chem/msdp.i/20mar10.b/p032004.d

Date : 19-MAR-2010 22:35

Client ID: LCS-1

Instrument: msdp.i

Sample Info: 50ml 1911-194

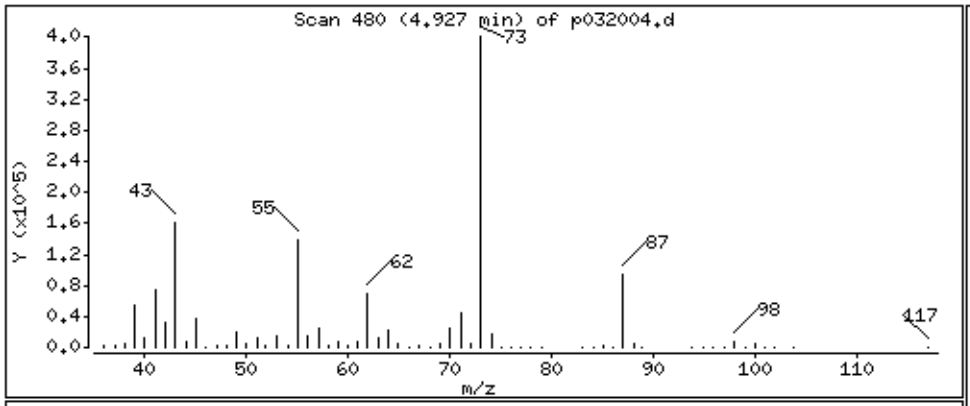
Operator: ra

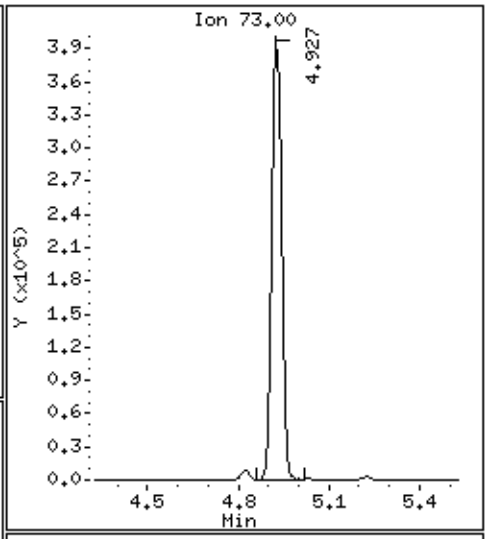
Column phase: RTx-624

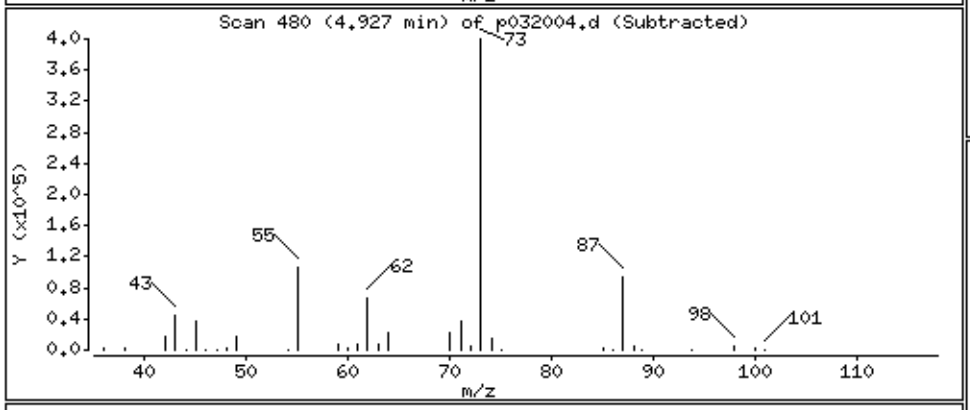
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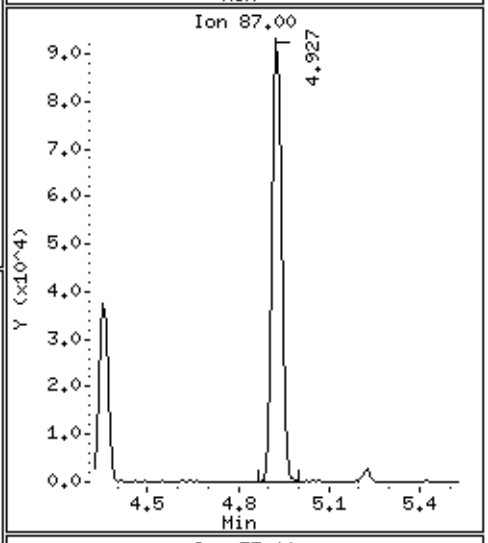
92 tert-amyl-Methyl Ether

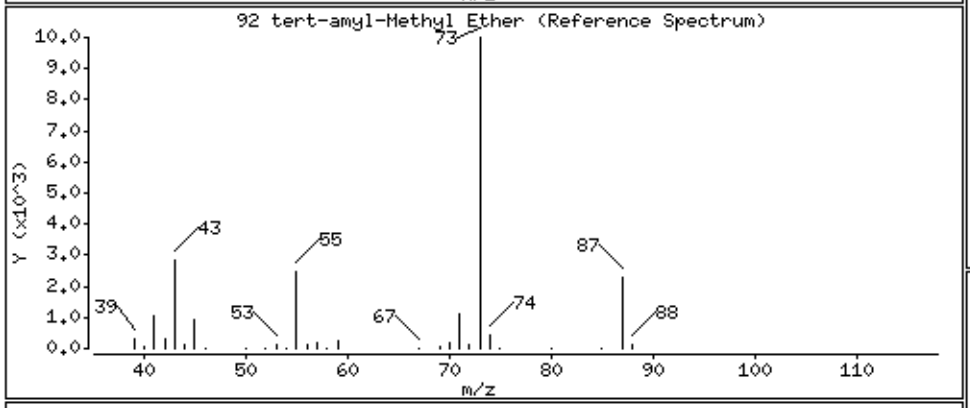
Concentration: 49.533 PPBV

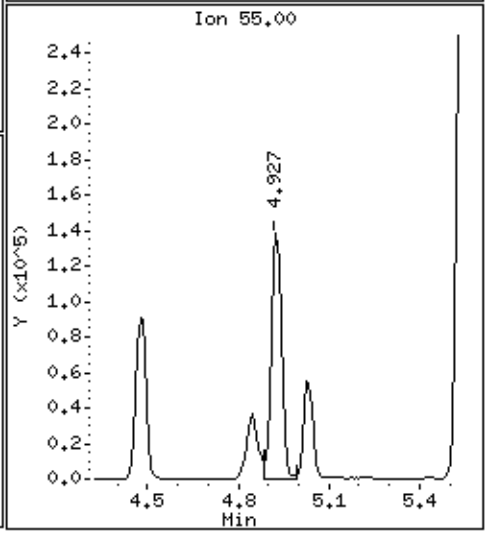


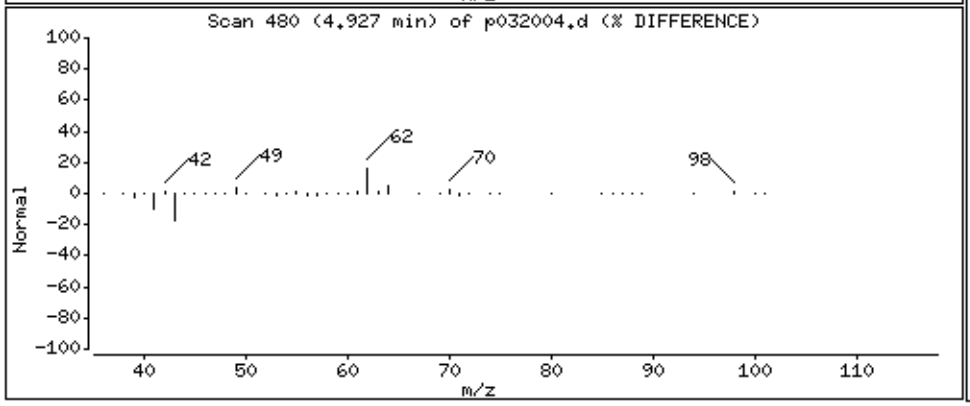



Data File: /chem/msdp.i/20mar10.b/p032004.d

Date : 19-MAR-2010 22:35

Client ID: LCS-1

Instrument: msdp.i

Sample Info: 50ml 1911-194

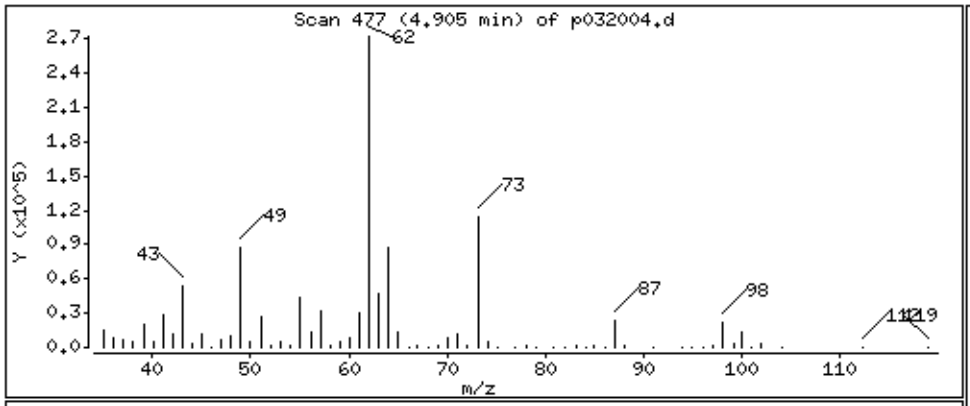
Operator: ra

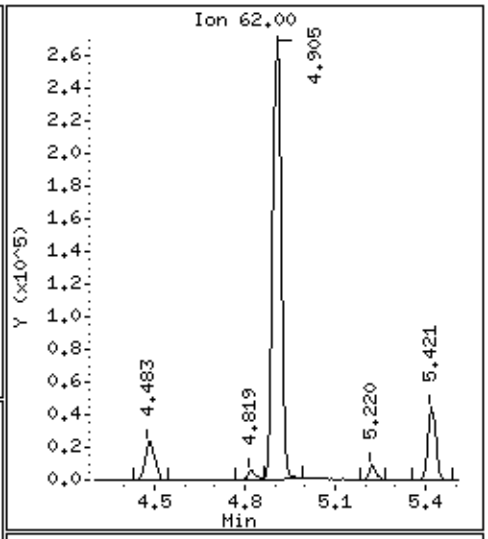
Column phase: RTx-624

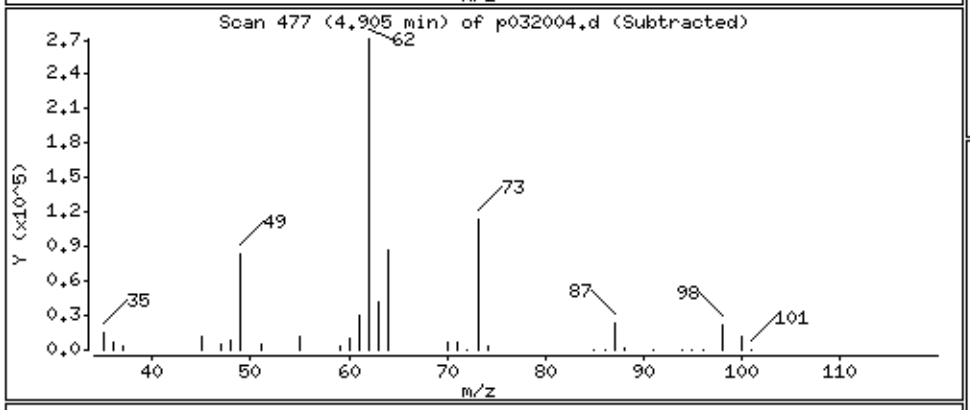
Column diameter: 0.53

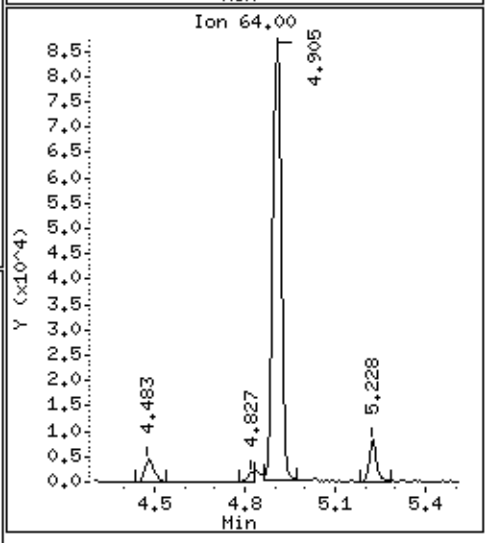
93 1,2-Dichloroethane

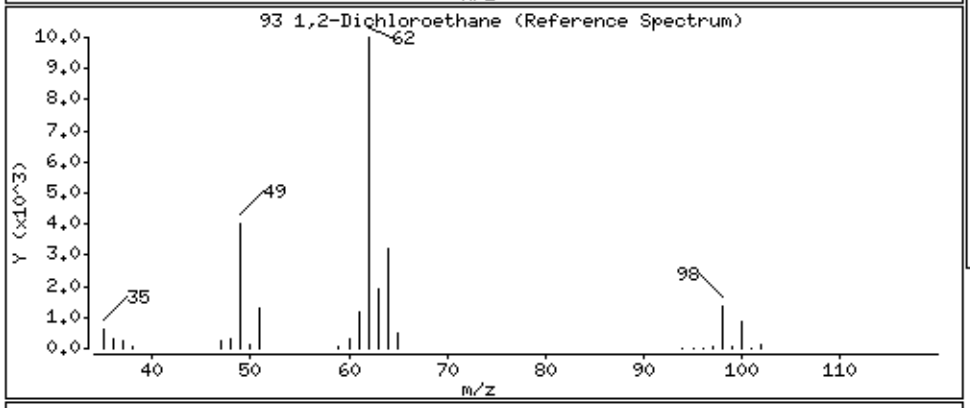
Concentration: 53.087 PPBV

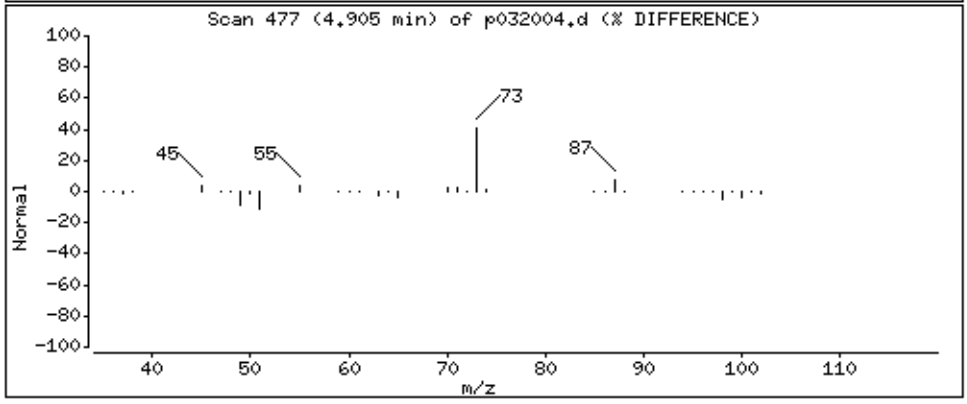


Data File: /chem/msdp.i/20mar10.b/p032004.d

Date : 19-MAR-2010 22:35

Client ID: LCS-1

Instrument: msdp.i

Sample Info: 50ml 1911-194

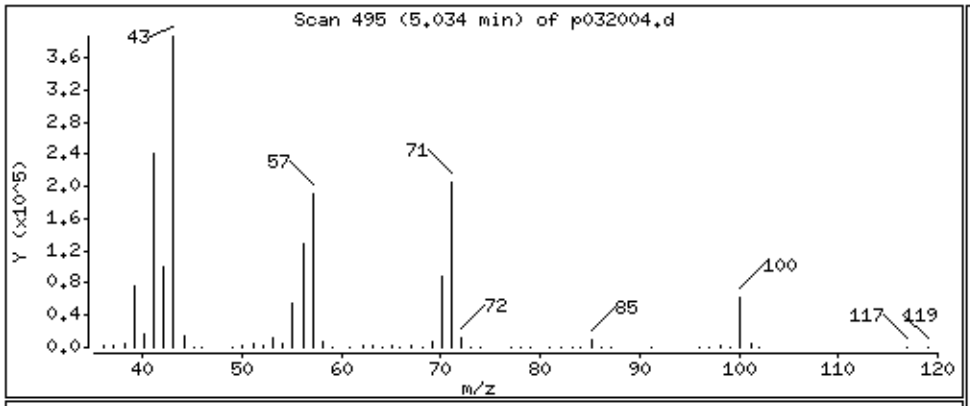
Operator: ra

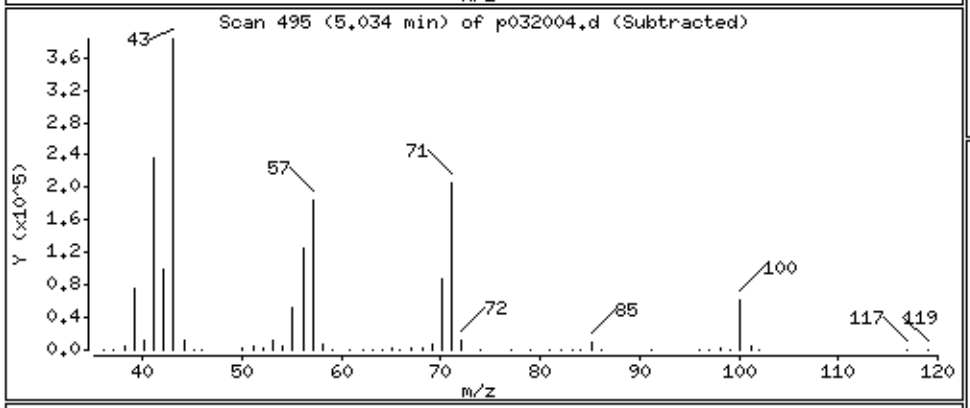
Column phase: RTx-624

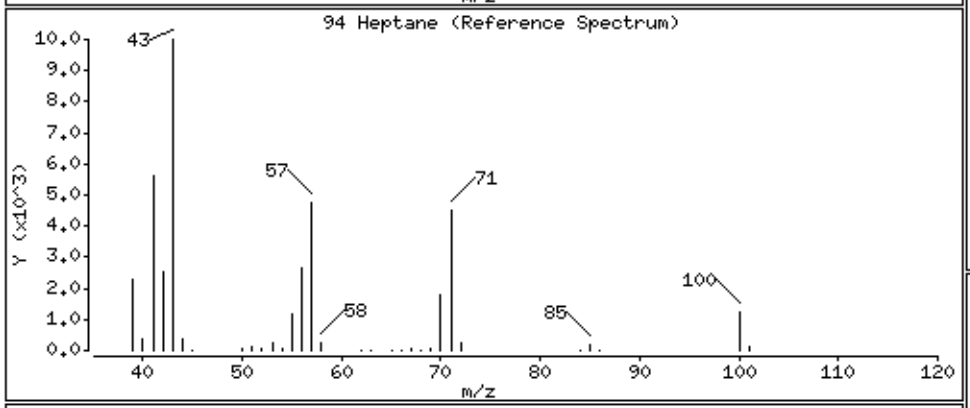
Column diameter: 0.53

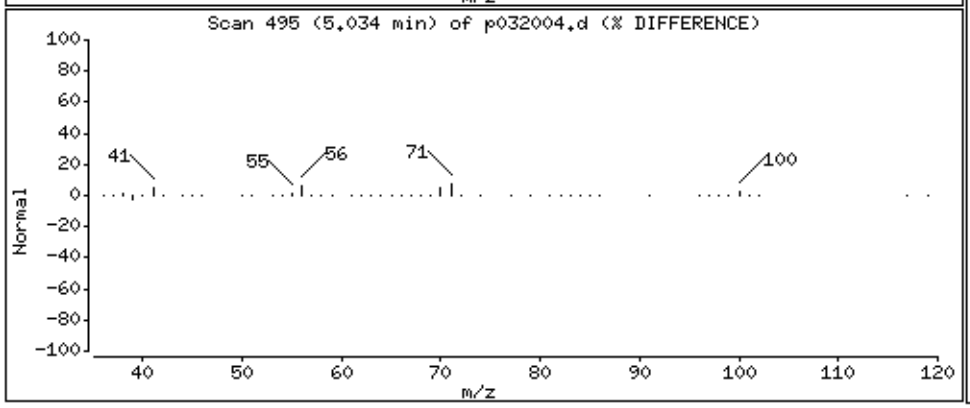
94 Heptane

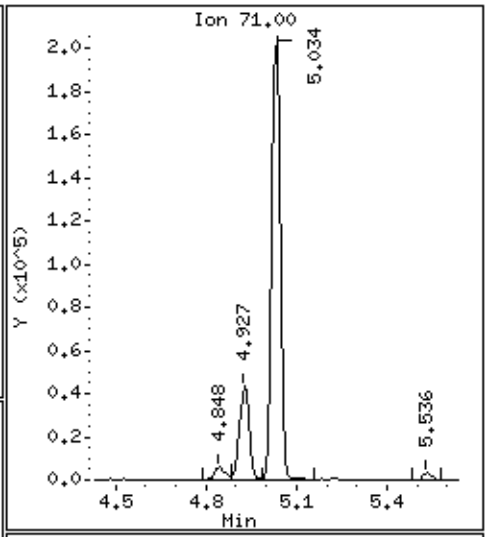
Concentration: 53.255 PPBV

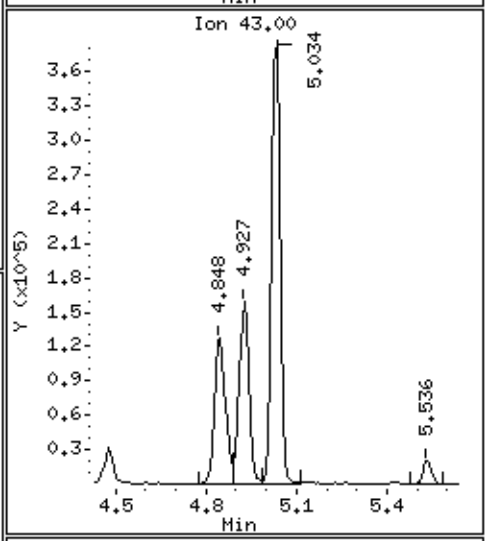


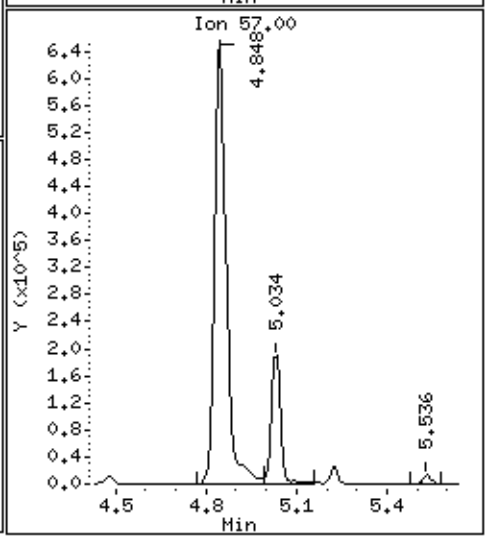



Data File: /chem/msdp.i/20mar10.b/p032004.d

Date : 19-MAR-2010 22:35

Client ID: LCS-1

Instrument: msdp.i

Sample Info: 50ml 1911-194

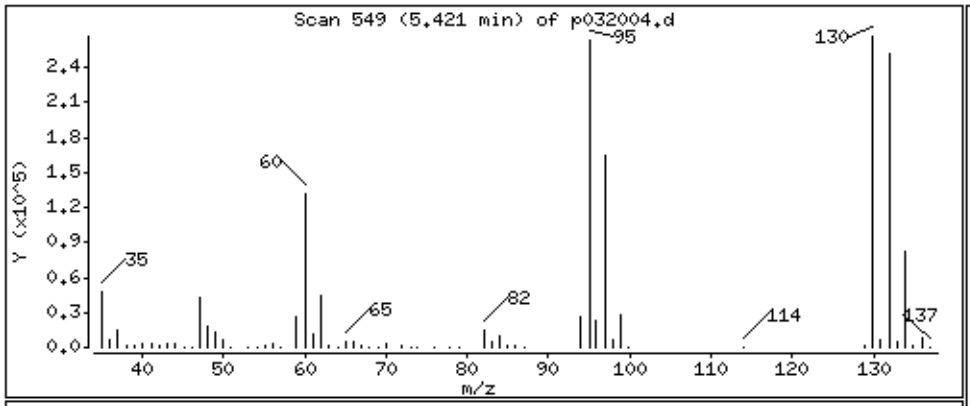
Operator: ra

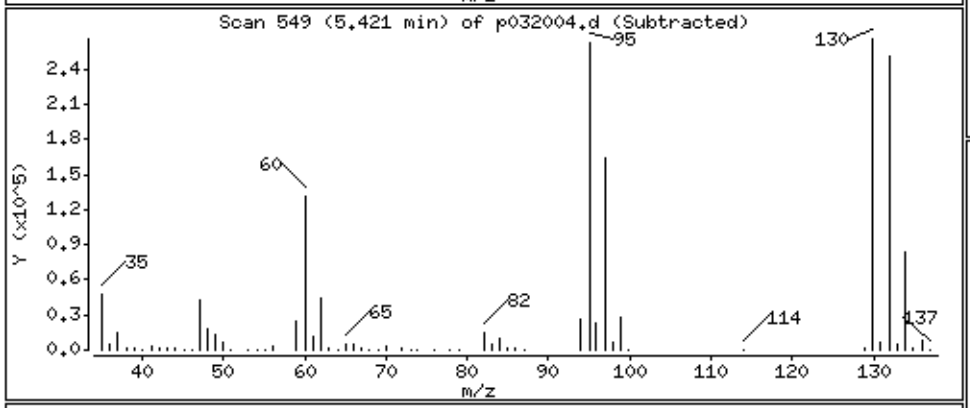
Column phase: RTx-624

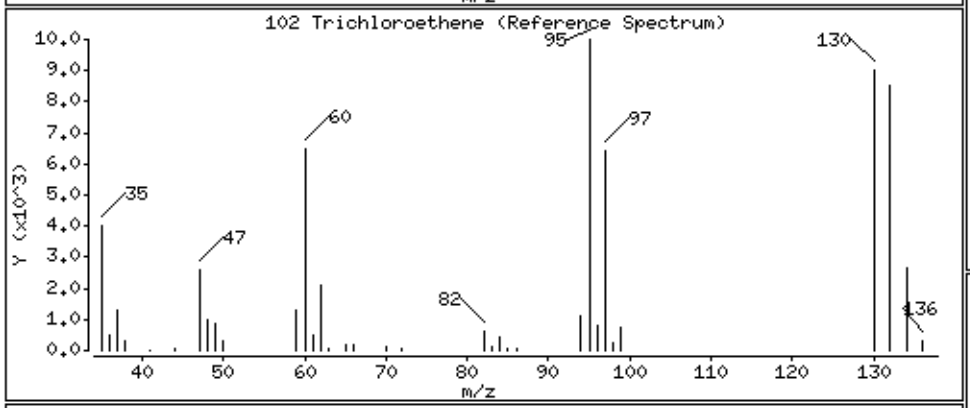
Column diameter: 0.53

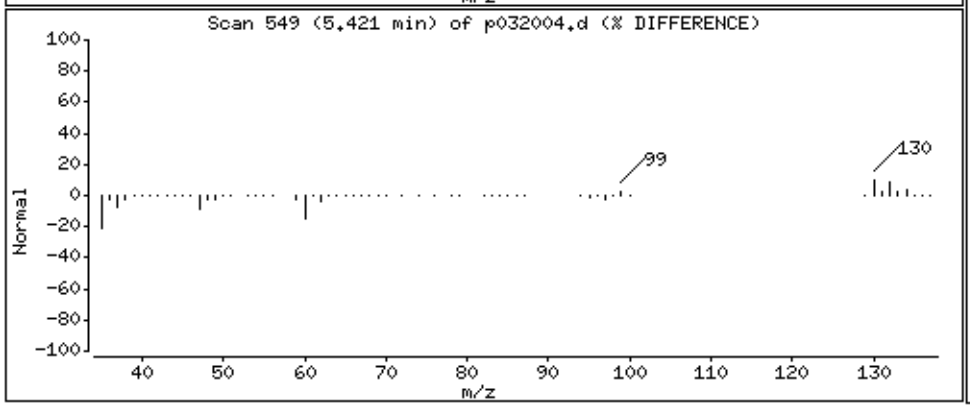
102 Trichloroethene

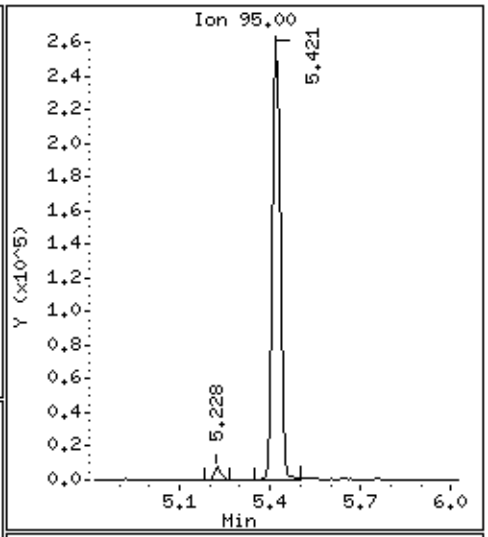
Concentration: 51.518 PPBV

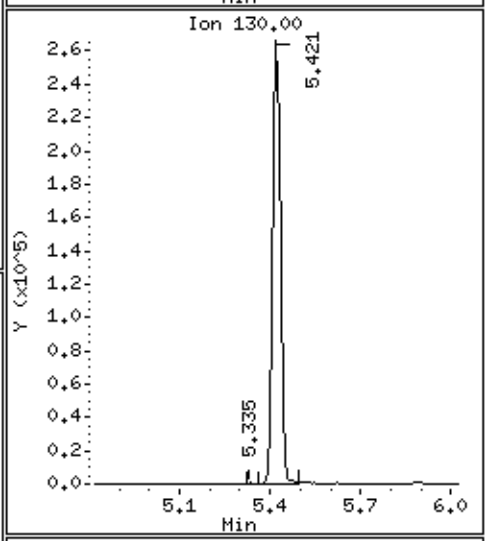


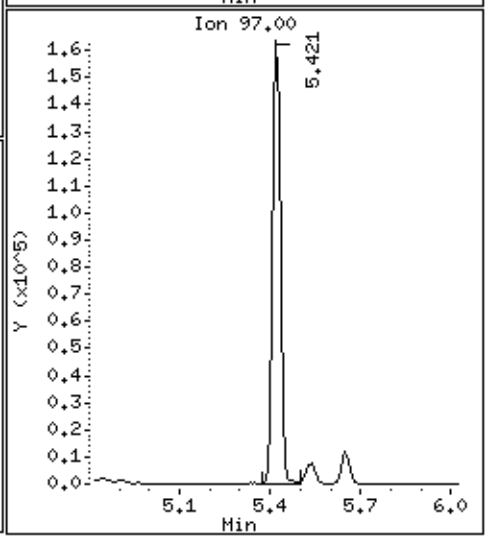



Data File: /chem/msdp.i/20mar10.b/p032004.d

Date : 19-MAR-2010 22:35

Client ID: LCS-1

Instrument: msdp.i

Sample Info: 50ml 1911-194

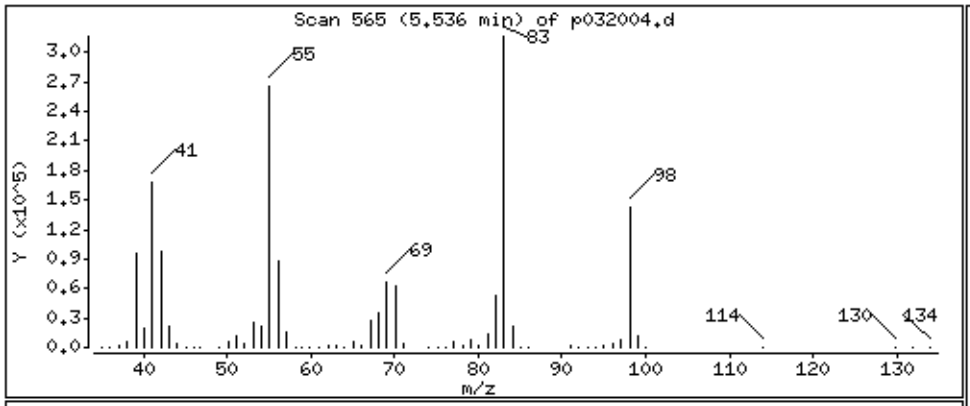
Operator: ra

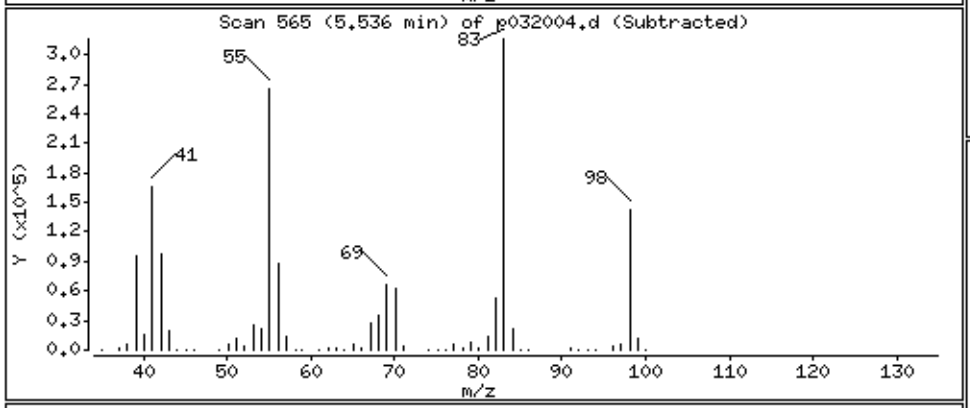
Column phase: RTx-624

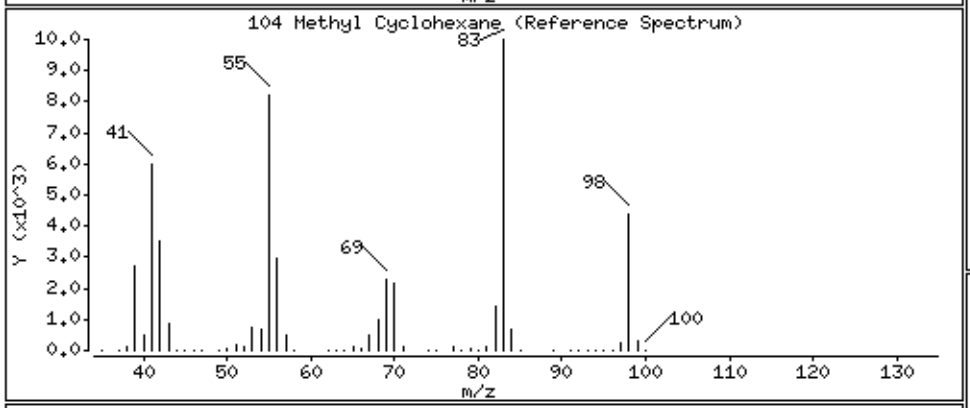
Column diameter: 0.53

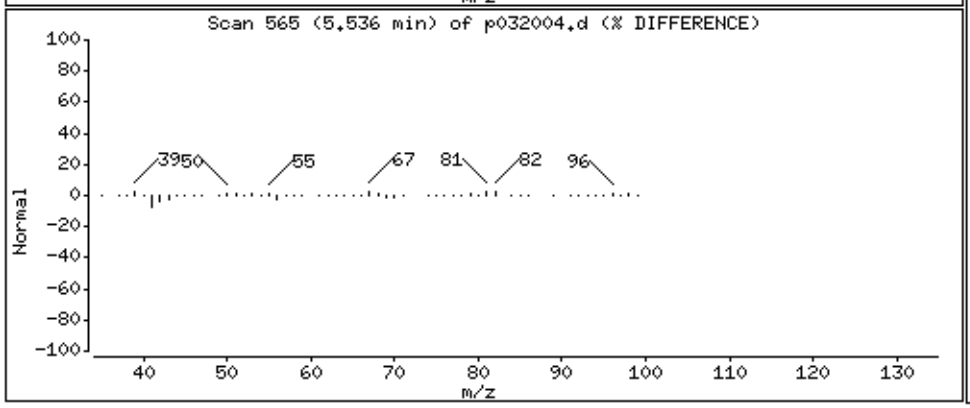
104 Methyl Cyclohexane

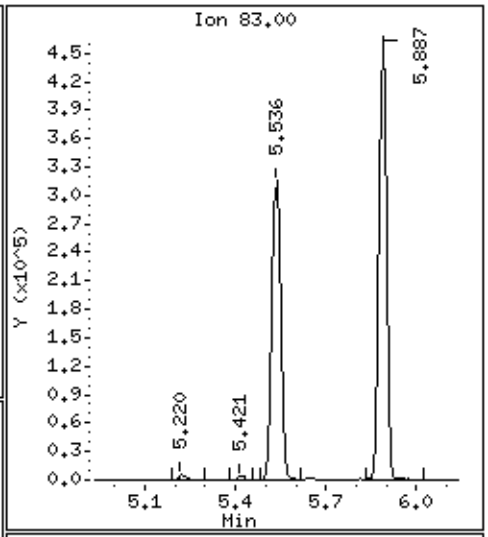
Concentration: 53.860 PPBV

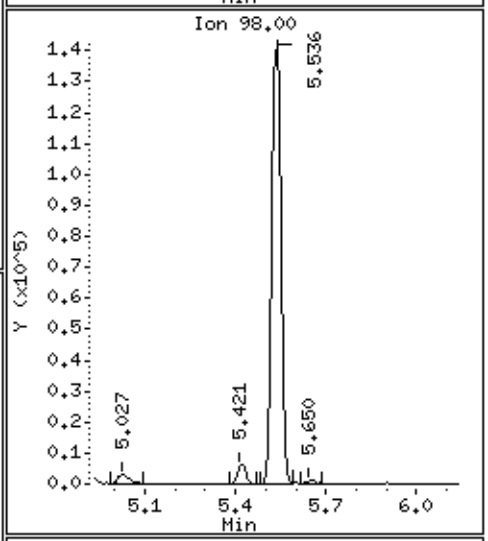


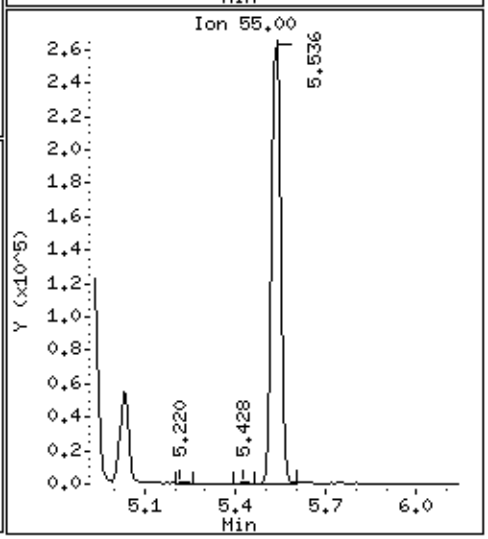



Data File: /chem/msdp.i/20mar10.b/p032004.d

Date : 19-MAR-2010 22:35

Client ID: LCS-1

Instrument: msdp.i

Sample Info: 50ml 1911-194

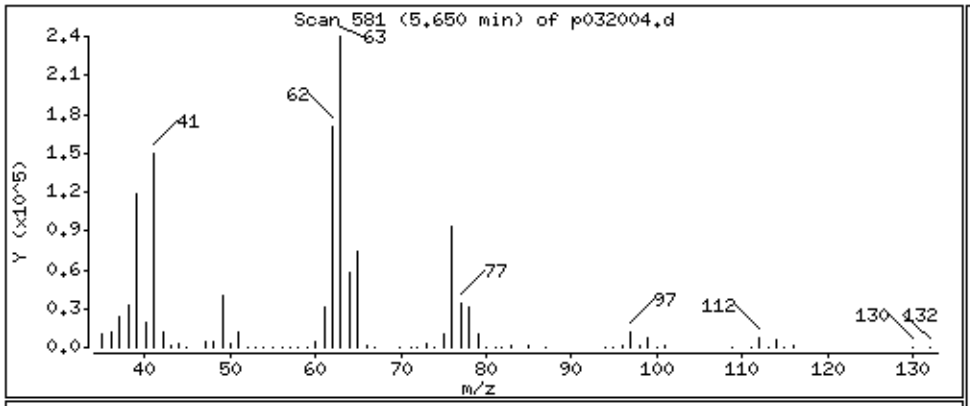
Operator: ra

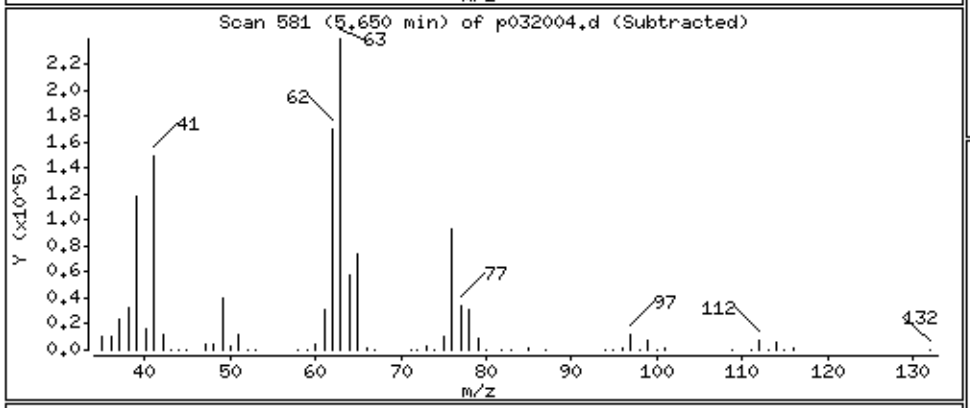
Column phase: RTx-624

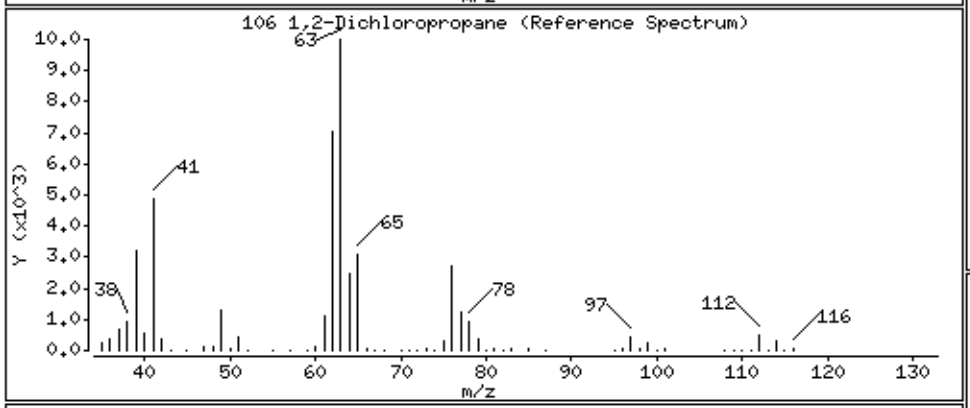
Column diameter: 0.53

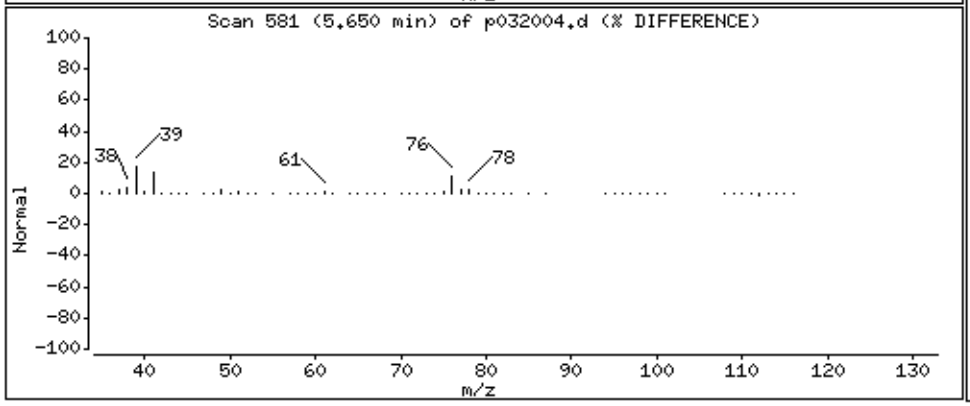
106 1,2-Dichloropropane

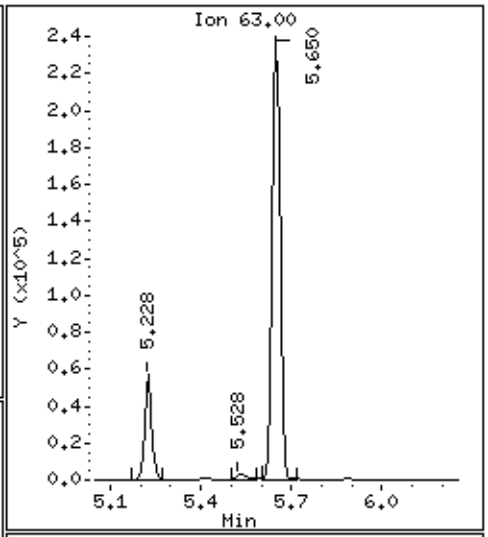
Concentration: 56.627 PPBV

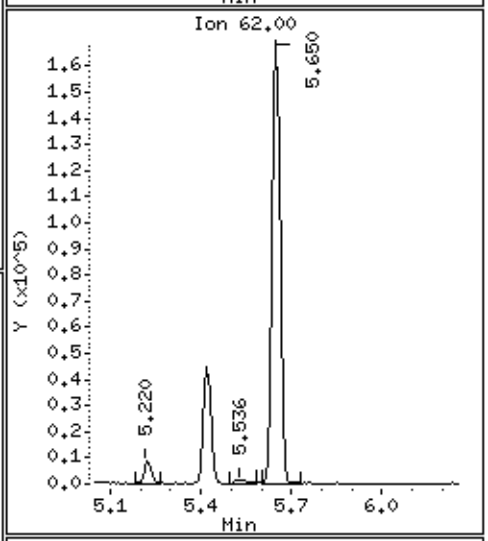


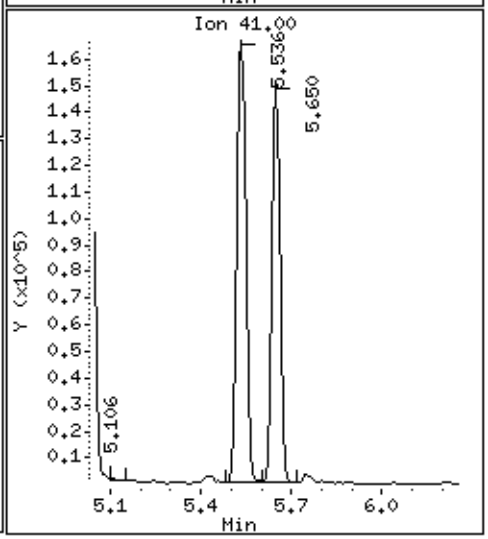



Data File: /chem/msdp.i/20mar10.b/p032004.d

Date : 19-MAR-2010 22:35

Client ID: LCS-1

Instrument: msdp.i

Sample Info: 50ml 1911-194

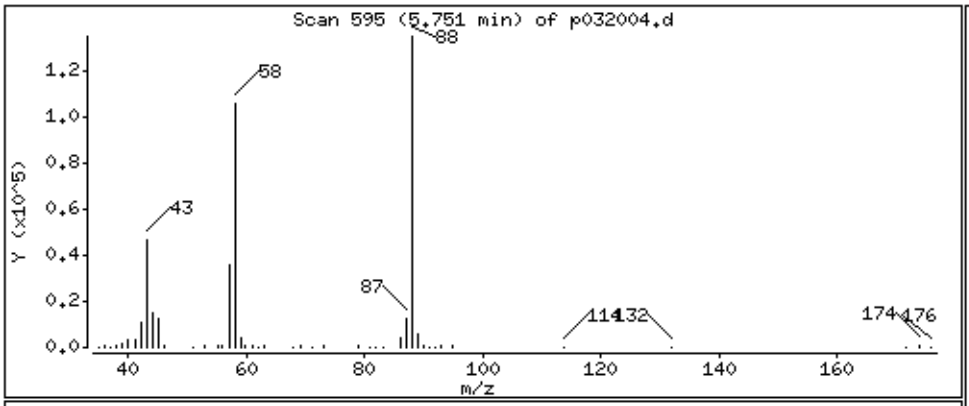
Operator: ra

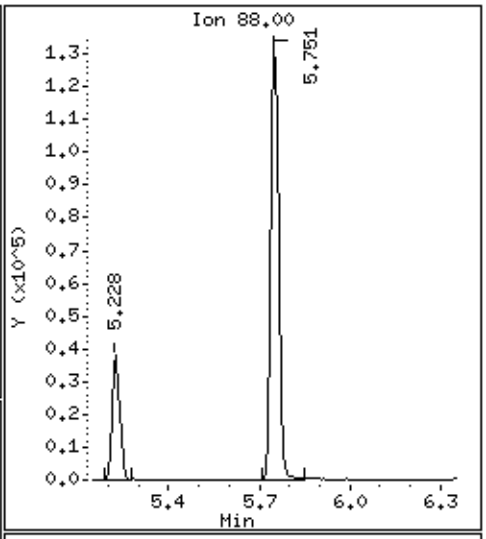
Column phase: RTx-624

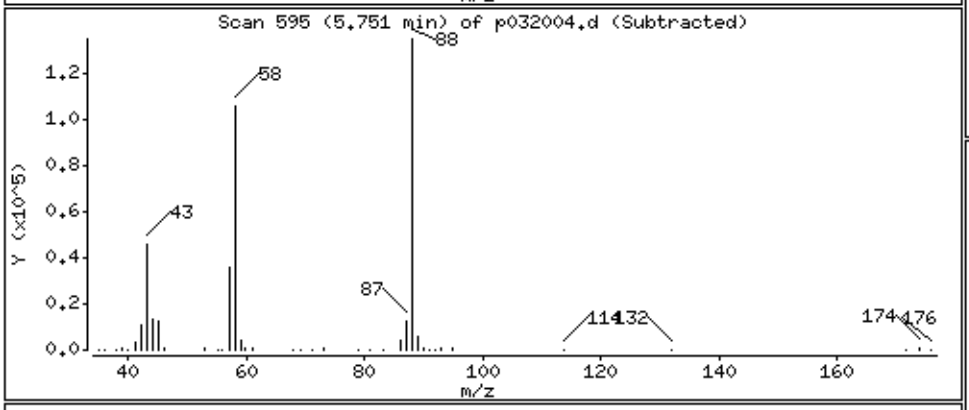
Column diameter: 0.53

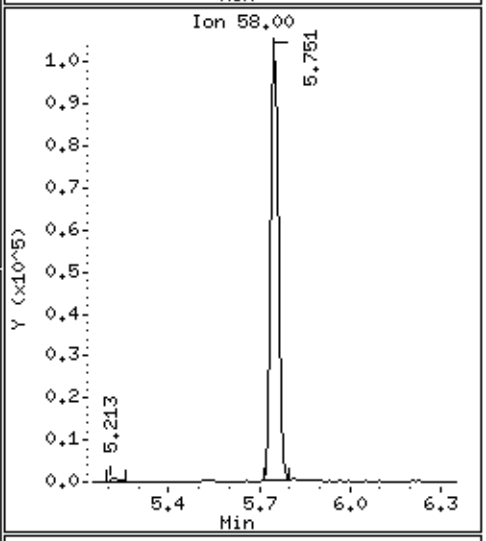
107 1,4-Dioxane

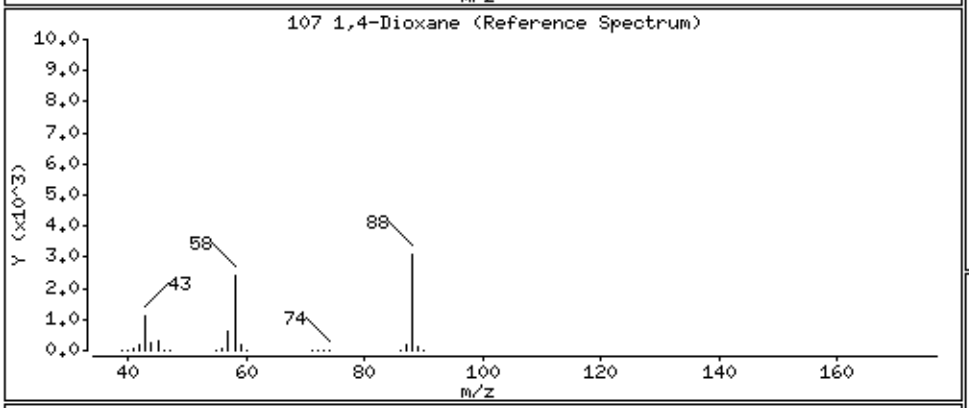
Concentration: 53.008 PPBV

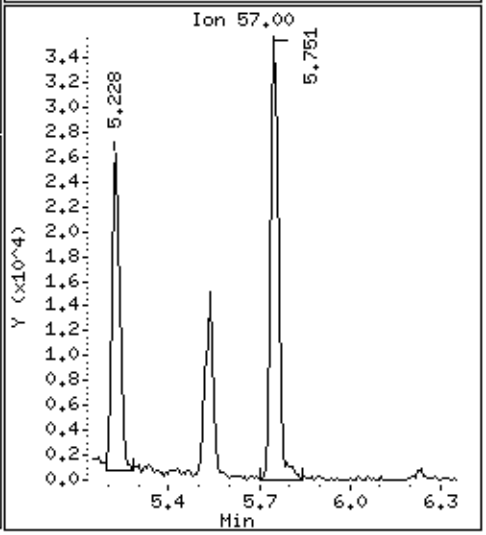


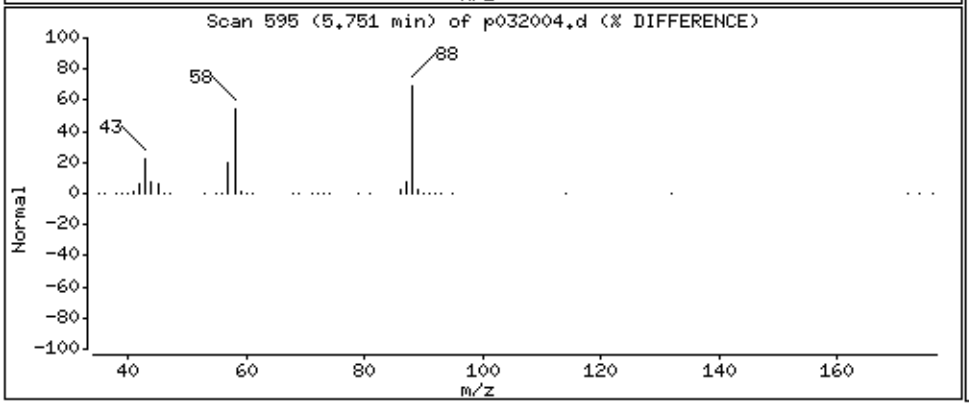



Data File: /chem/msdp.i/20mar10.b/p032004.d

Date : 19-MAR-2010 22:35

Client ID: LCS-1

Instrument: msdp.i

Sample Info: 50ml 1911-194

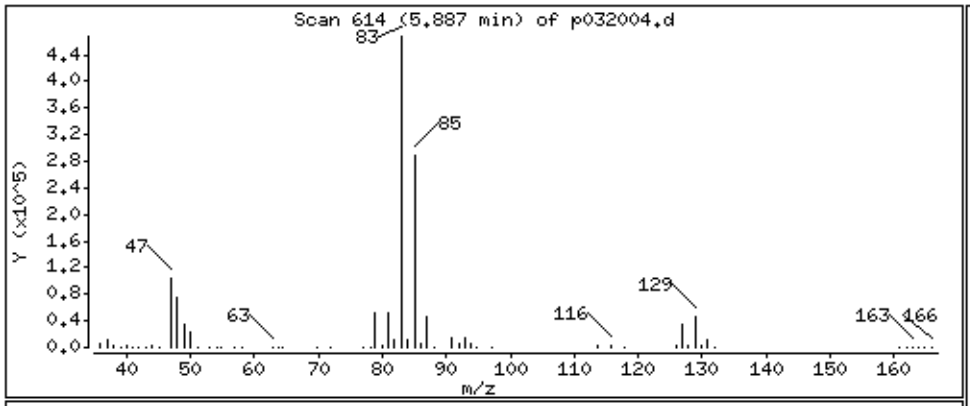
Operator: ra

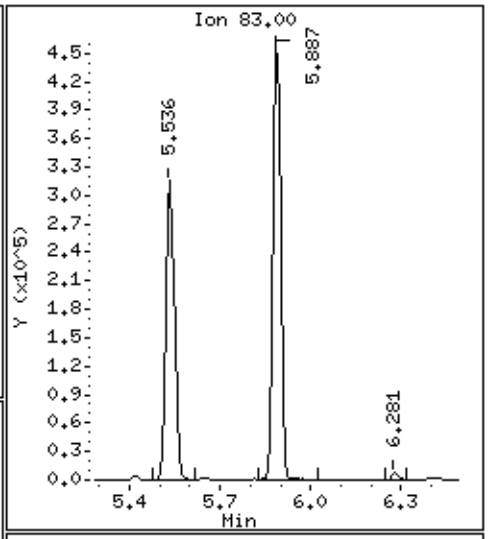
Column phase: RTx-624

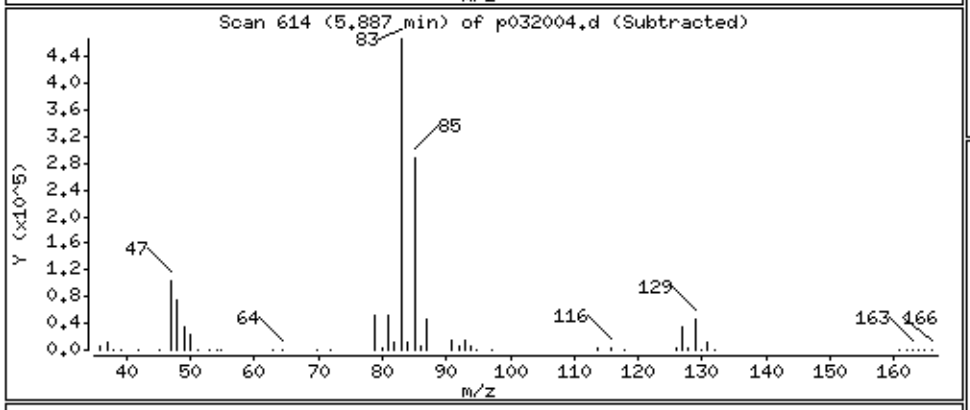
Column diameter: 0.53

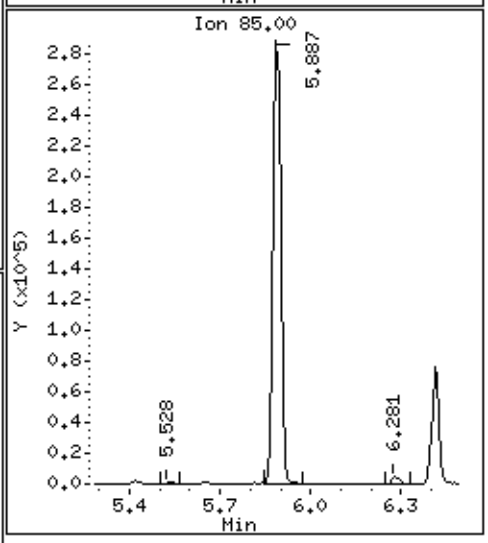
109 Bromodichloromethane

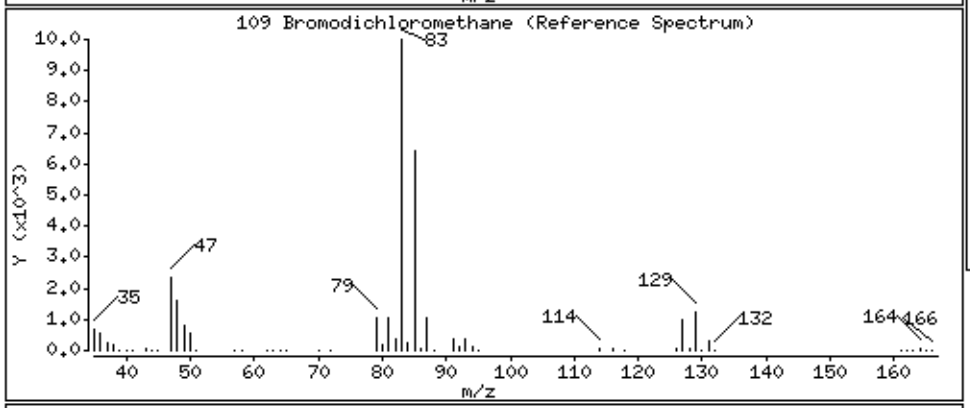
Concentration: 54.115 PPBV

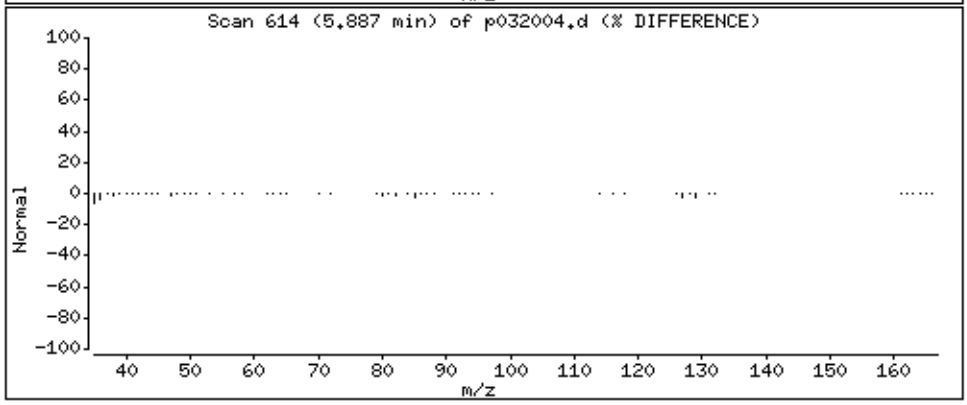


Data File: /chem/msdp.i/20mar10.b/p032004.d

Date : 19-MAR-2010 22:35

Client ID: LCS-1

Instrument: msdp.i

Sample Info: 50ml 1911-194

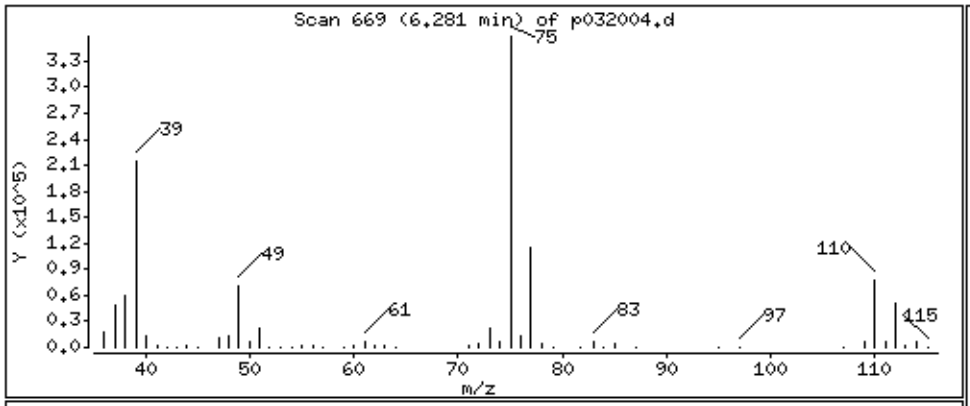
Operator: ra

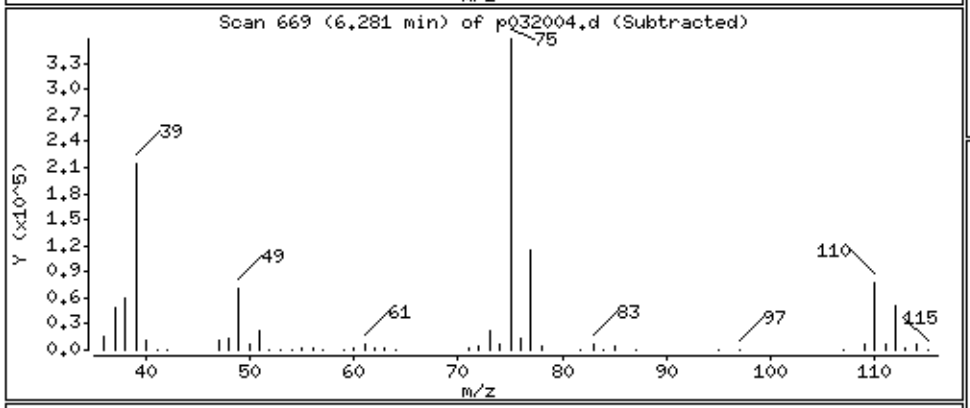
Column phase: RTx-624

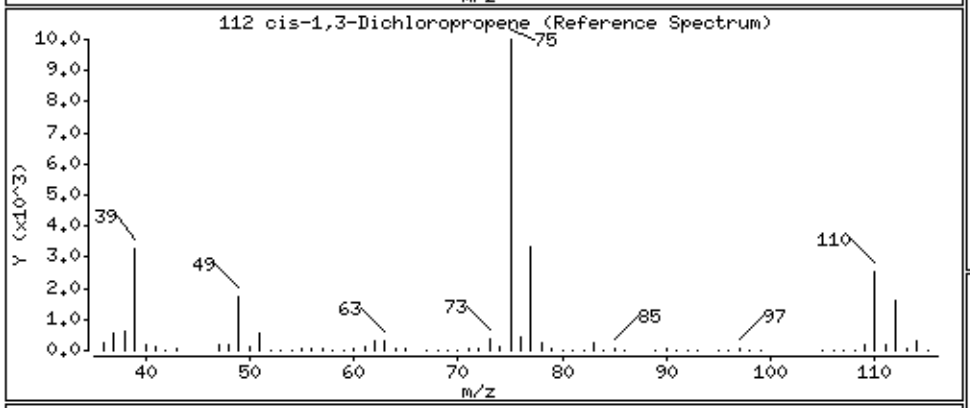
Column diameter: 0.53

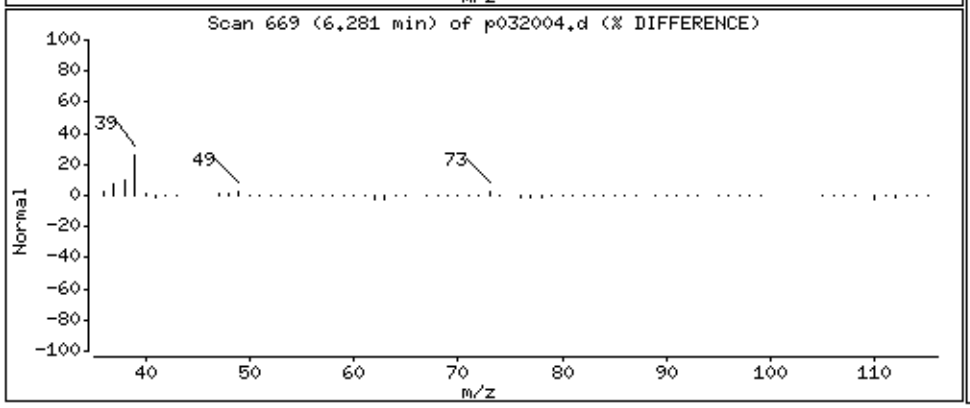
112 cis-1,3-Dichloropropene

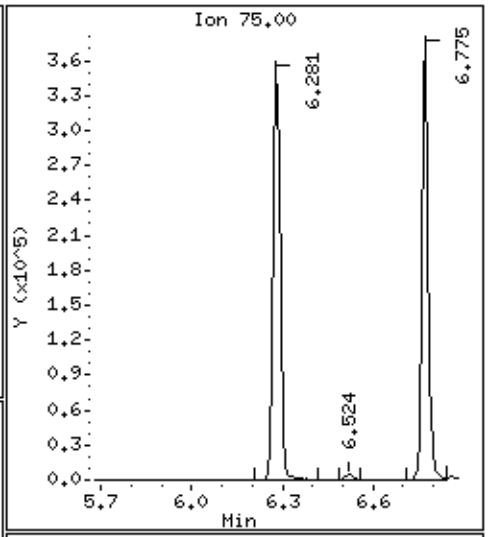
Concentration: 53.084 PPBV

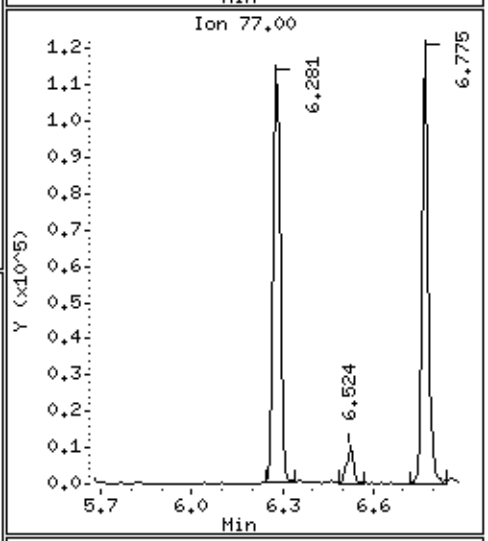


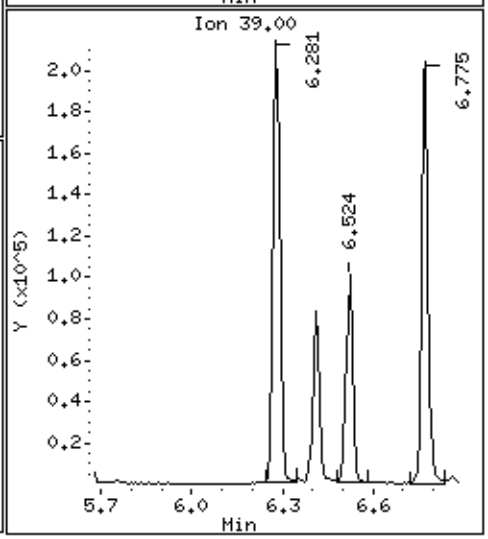



Data File: /chem/msdp.i/20mar10.b/p032004.d

Date : 19-MAR-2010 22:35

Client ID: LCS-1

Instrument: msdp.i

Sample Info: 50ml 1911-194

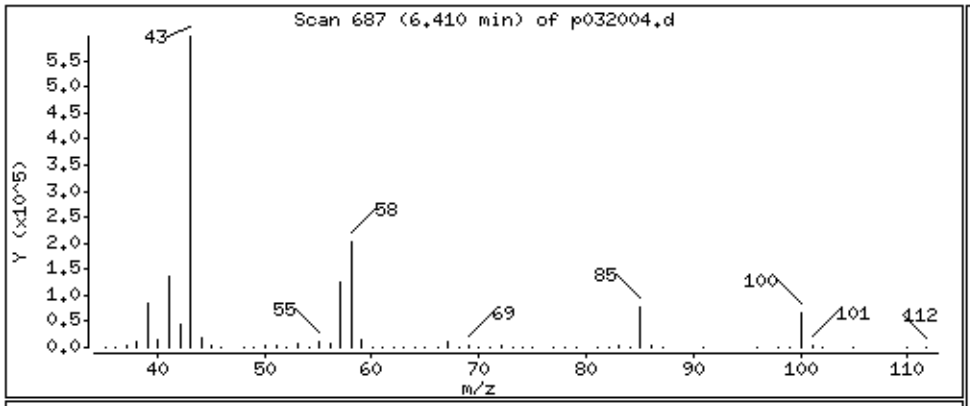
Operator: ra

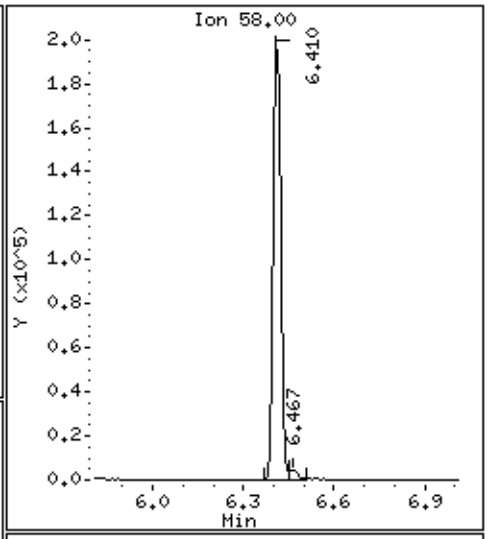
Column phase: RTx-624

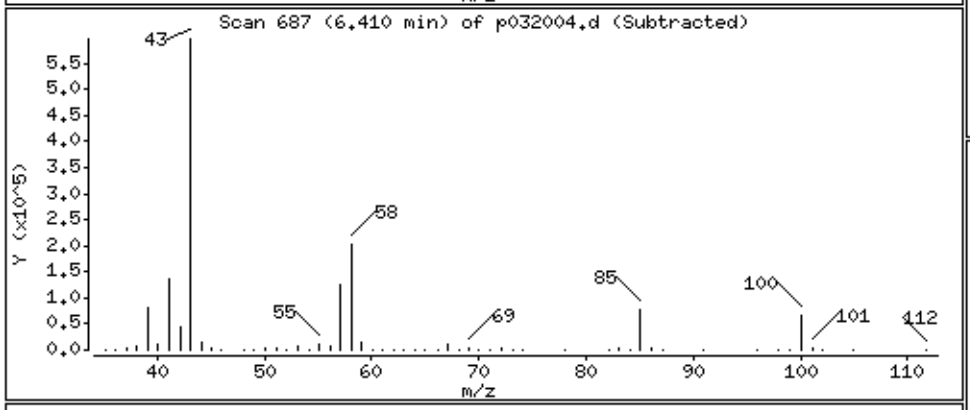
Column diameter: 0.53

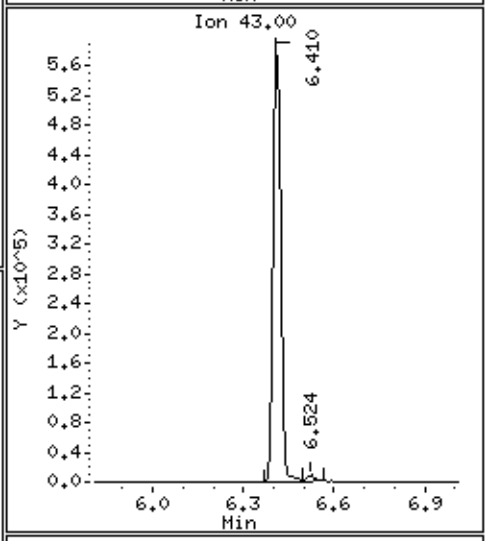
114 4-Methyl-2-pentanone

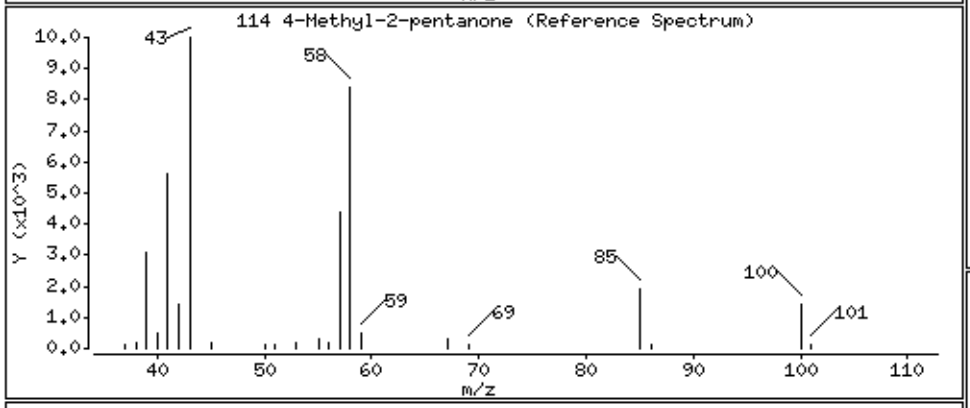
Concentration: 55.146 PPBV

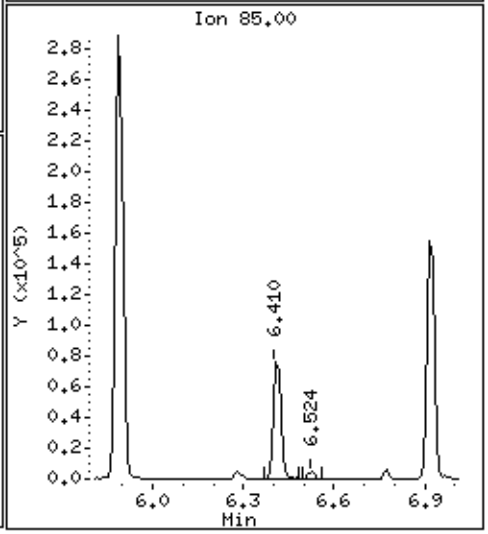


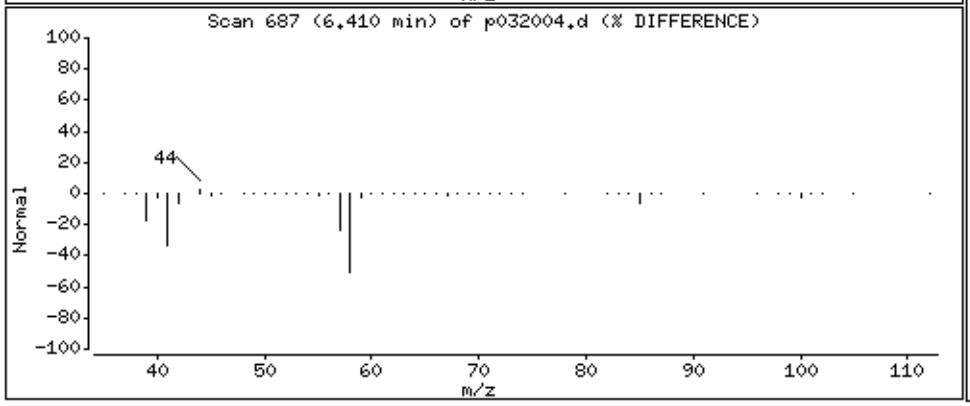



Data File: /chem/msdp.i/20mar10.b/p032004.d

Date : 19-MAR-2010 22:35

Client ID: LCS-1

Instrument: msdp.i

Sample Info: 50ml 1911-194

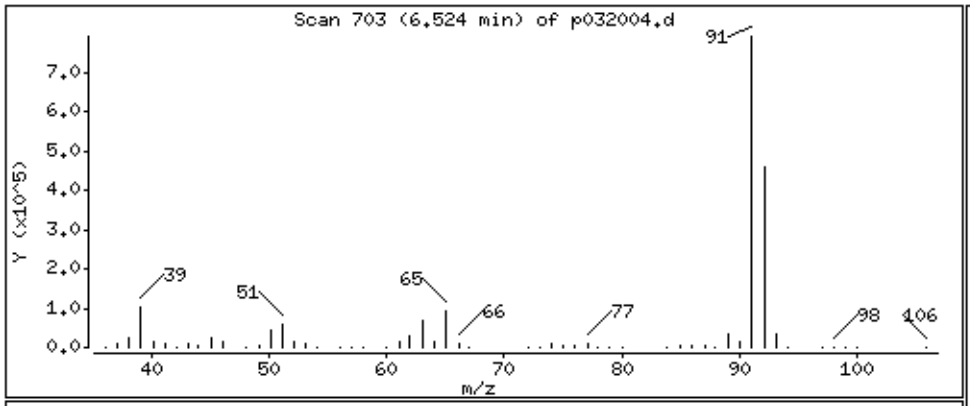
Operator: ra

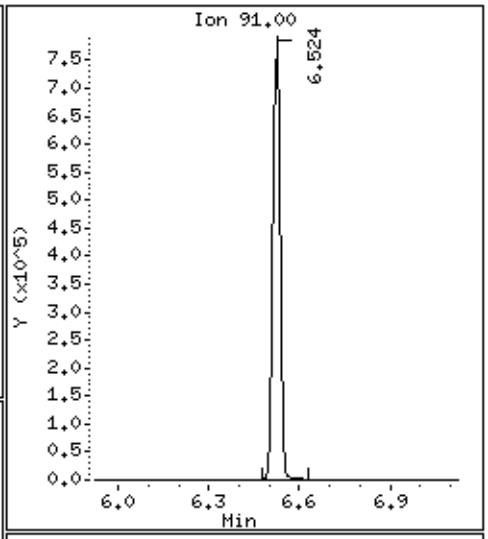
Column phase: RTx-624

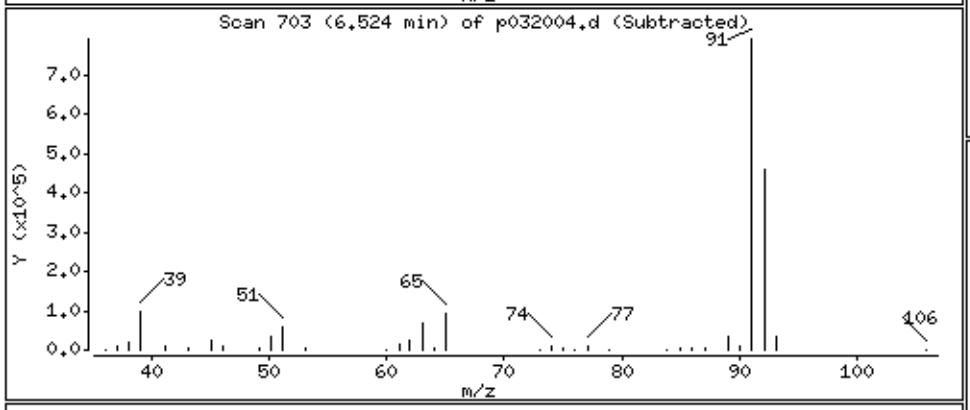
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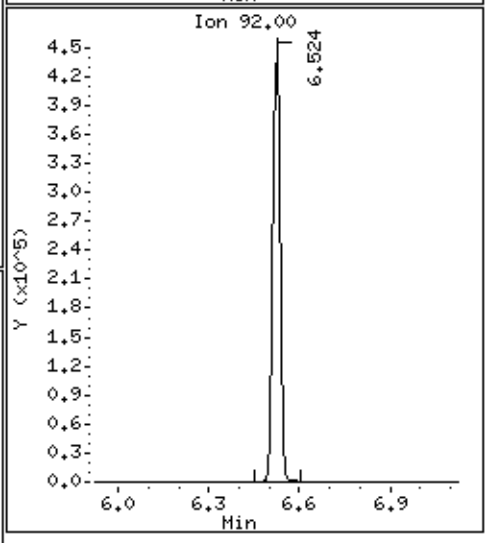
116 Toluene

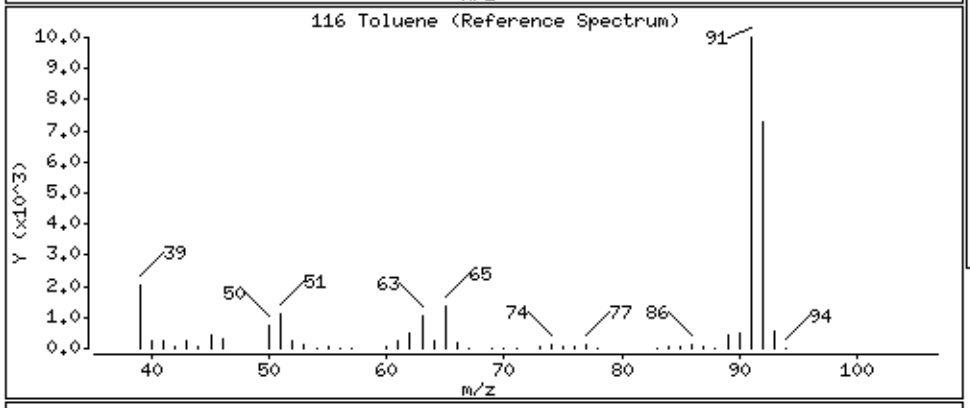
Concentration: 51.414 PPBV

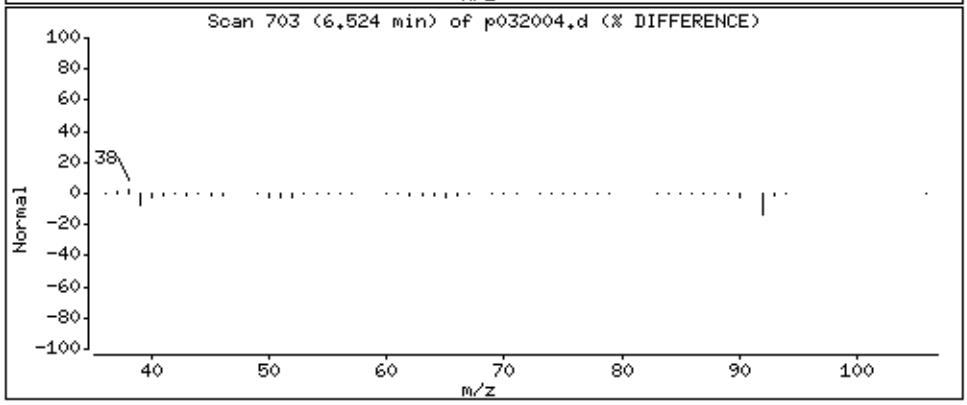


Data File: /chem/msdp.i/20mar10.b/p032004.d

Date : 19-MAR-2010 22:35

Client ID: LCS-1

Instrument: msdp.i

Sample Info: 50ml 1911-194

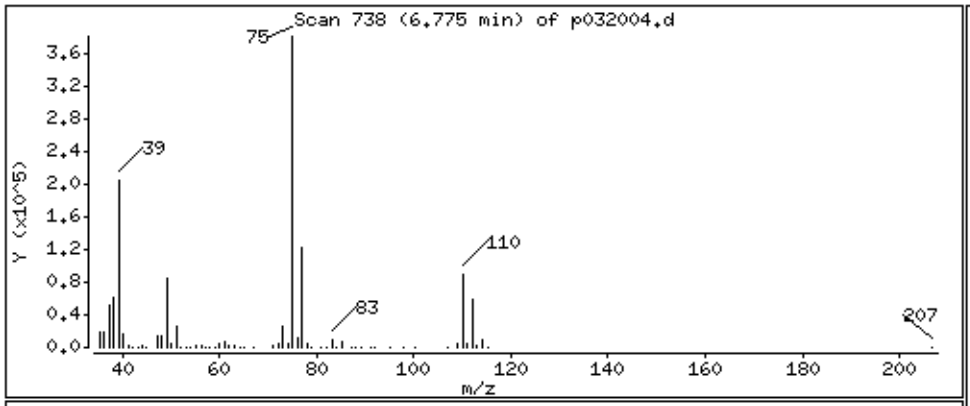
Operator: ra

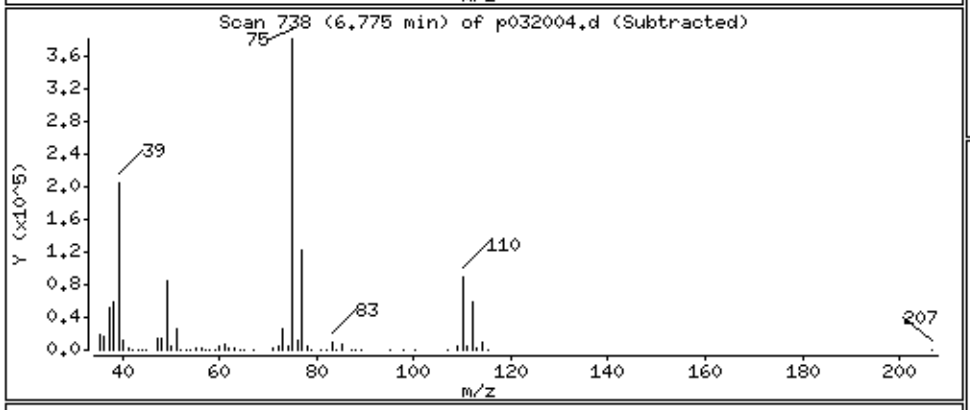
Column phase: RTx-624

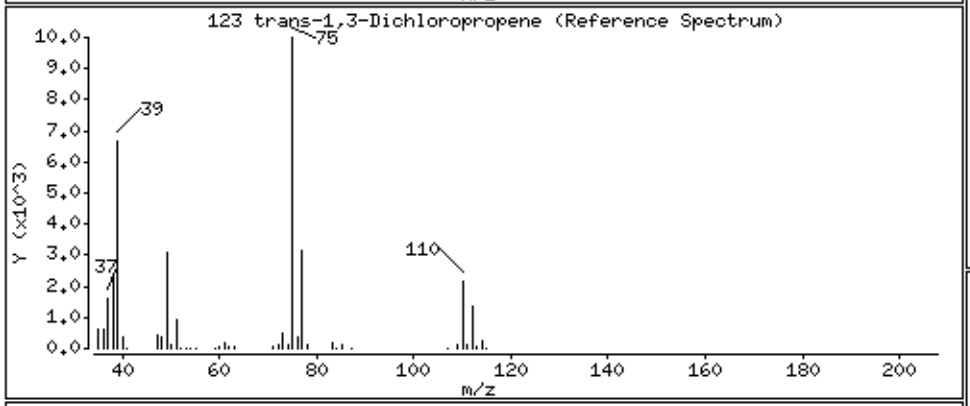
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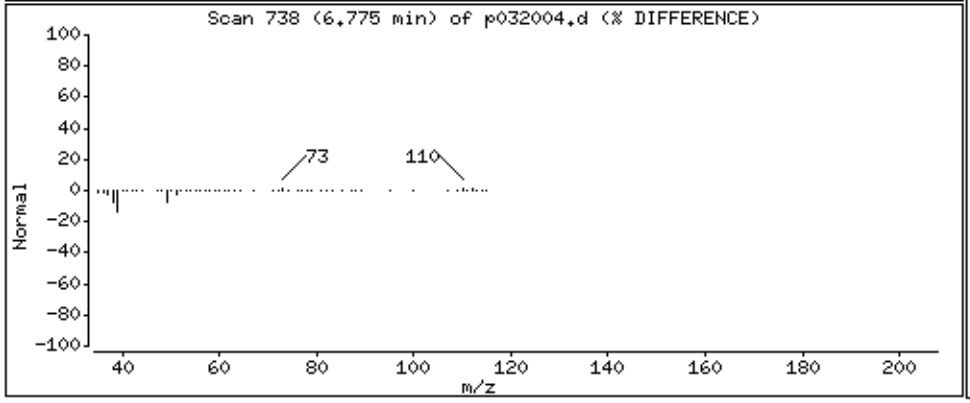
123 trans-1,3-Dichloropropene

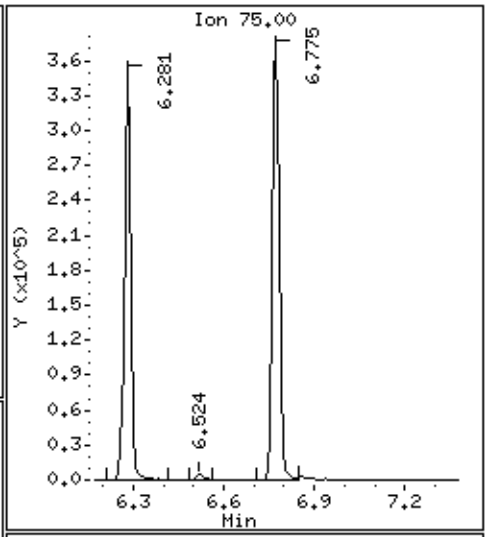
Concentration: 47.670 PPBV

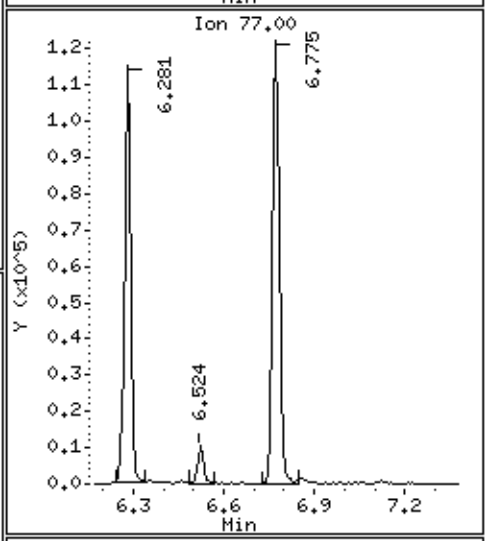


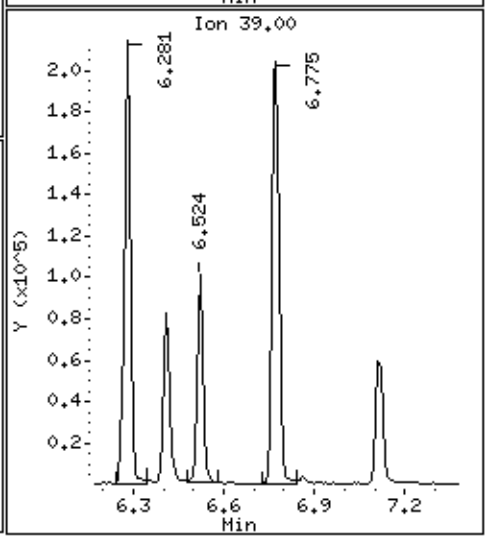



Data File: /chem/msdp.i/20mar10.b/p032004.d

Date : 19-MAR-2010 22:35

Client ID: LCS-1

Instrument: msdp.i

Sample Info: 50ml 1911-194

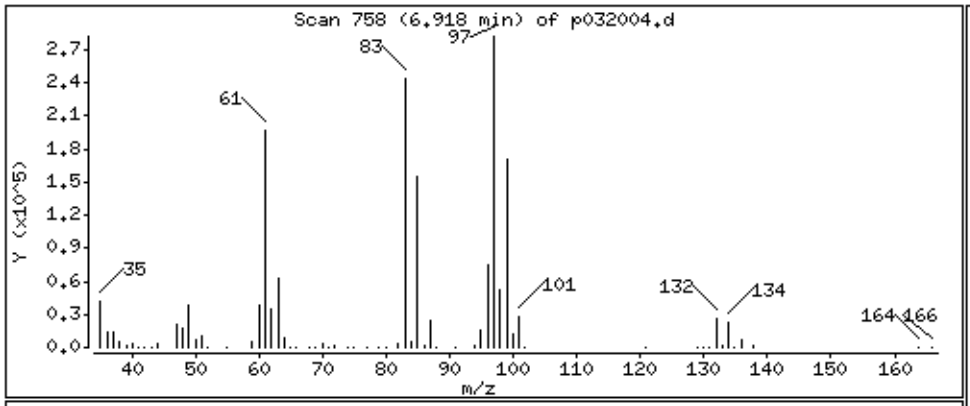
Operator: ra

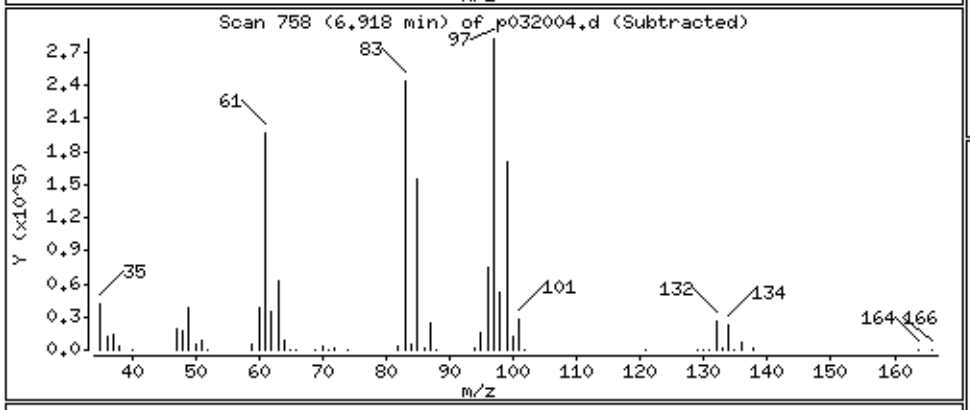
Column phase: RTx-624

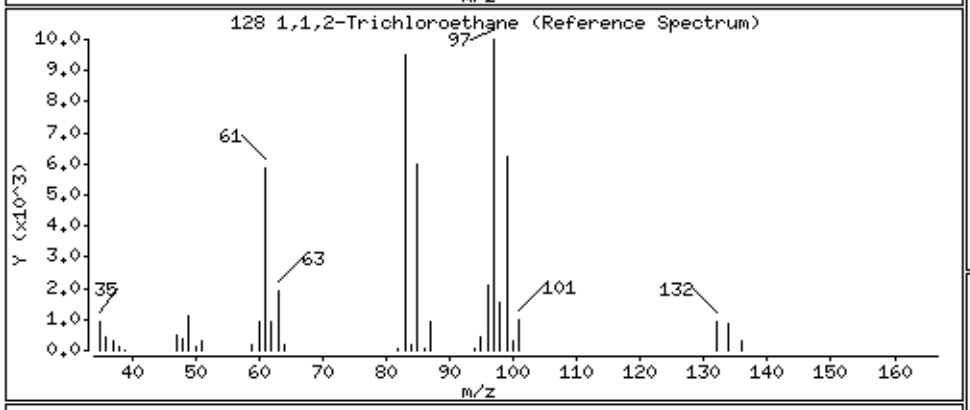
Column diameter: 0.53

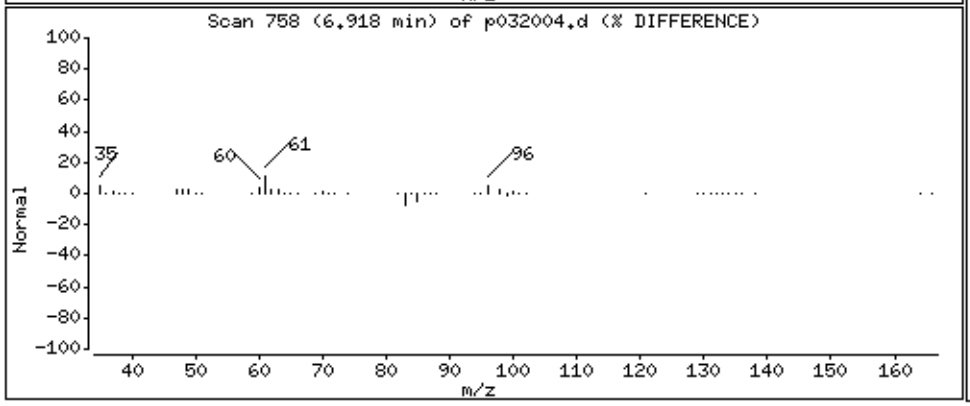
128 1,1,2-Trichloroethane

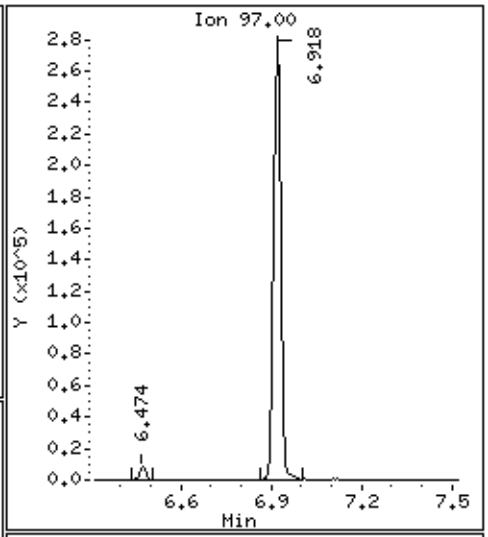
Concentration: 48.454 PPBV

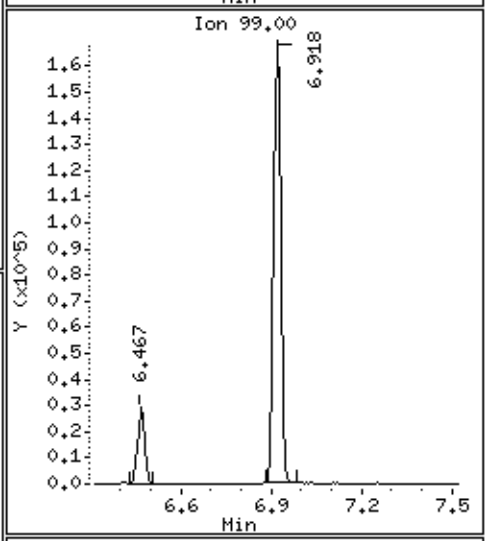


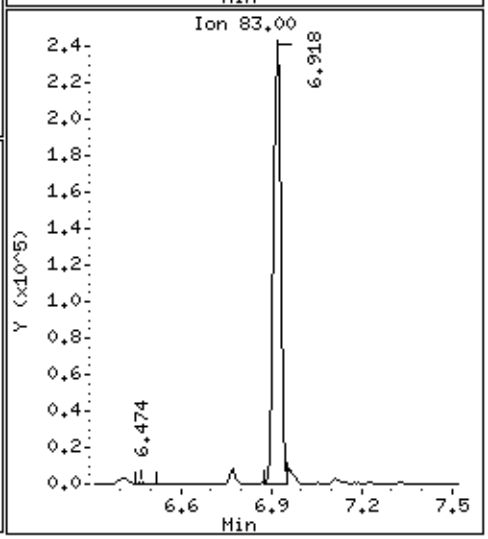



Data File: /chem/msdp.i/20mar10.b/p032004.d

Date : 19-MAR-2010 22:35

Client ID: LCS-1

Instrument: msdp.i

Sample Info: 50ml 1911-194

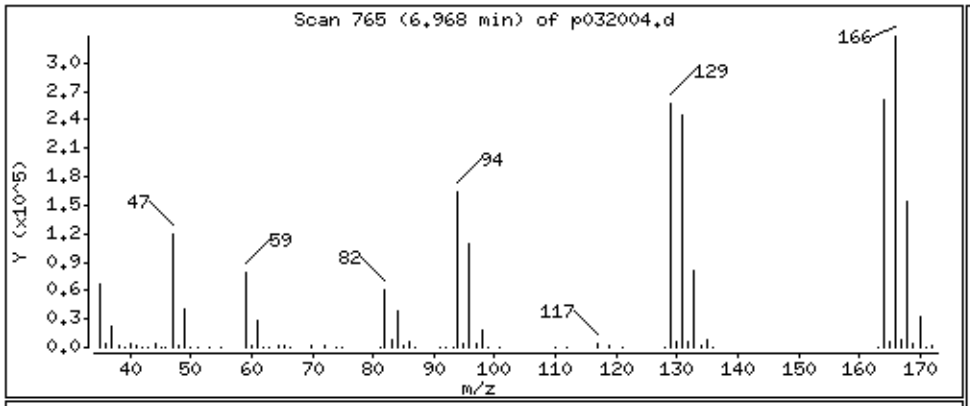
Operator: ra

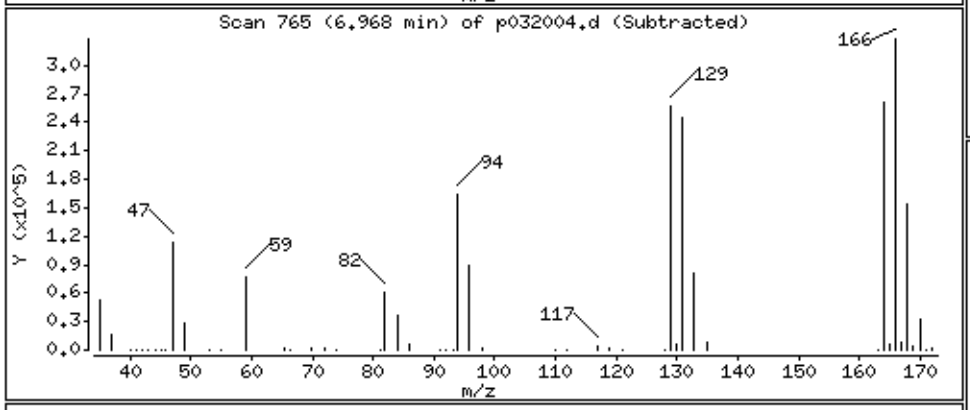
Column phase: RTx-624

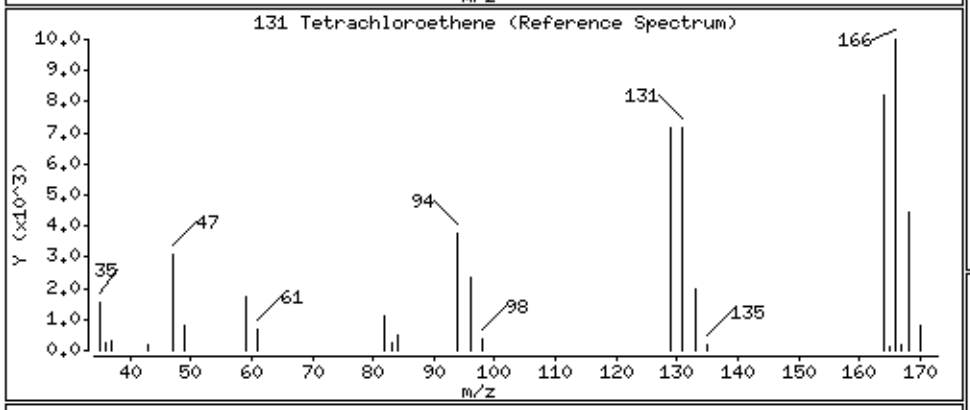
Column diameter: 0.53

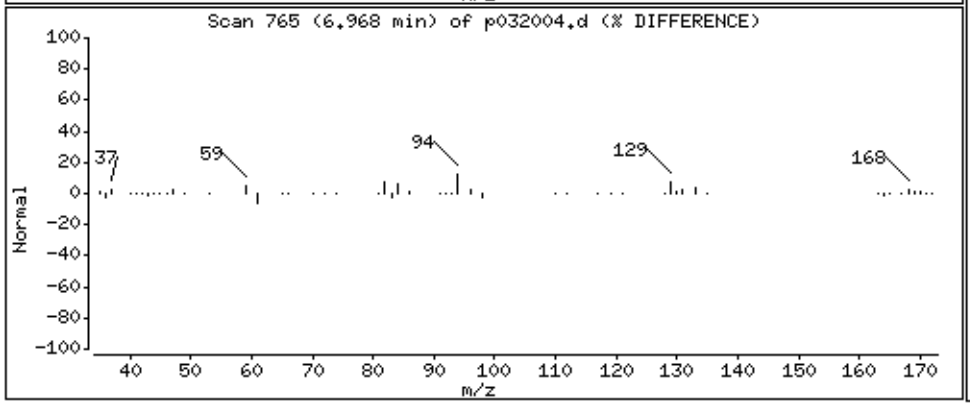
131 Tetrachloroethene

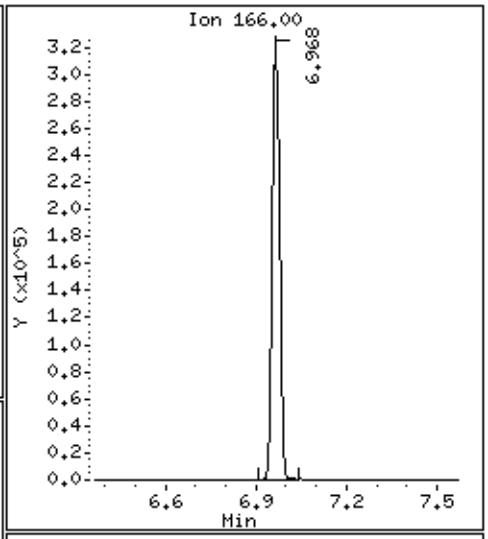
Concentration: 43.710 PPBV

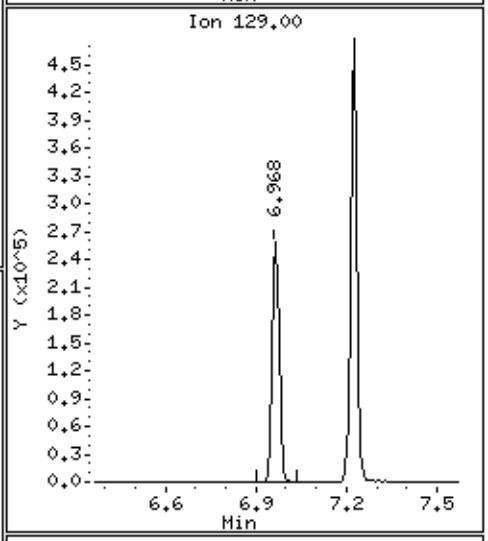


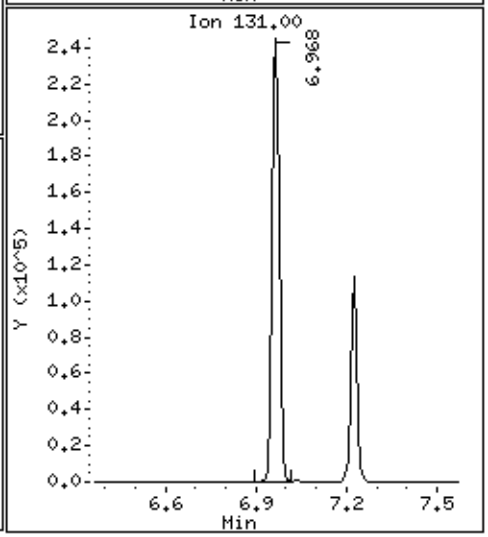



Data File: /chem/msdp.i/20mar10.b/p032004.d

Date : 19-MAR-2010 22:35

Client ID: LCS-1

Instrument: msdp.i

Sample Info: 50ml 1911-194

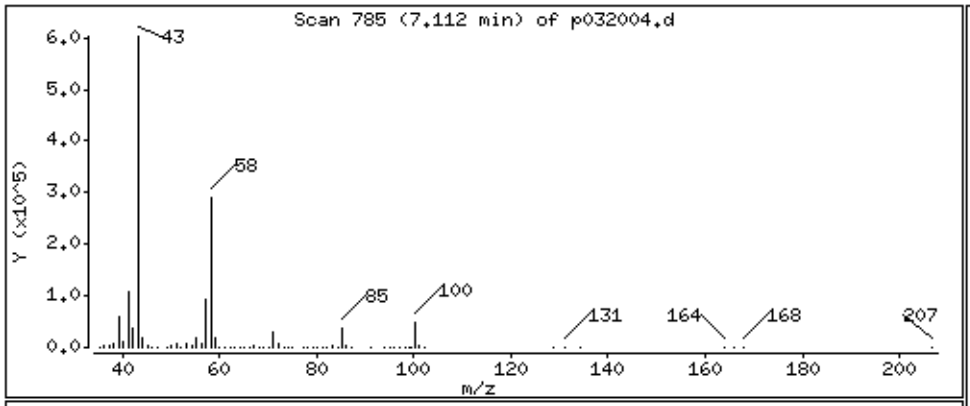
Operator: ra

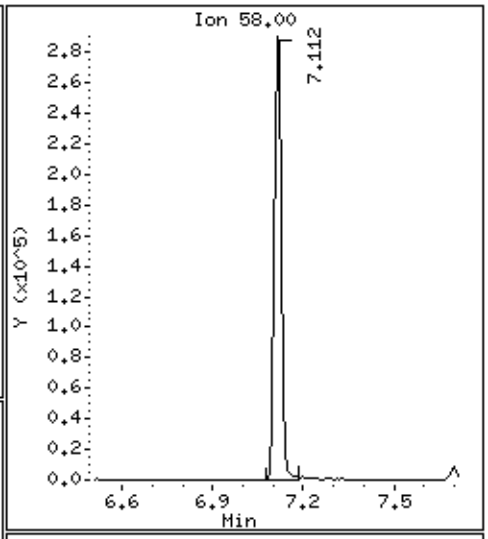
Column phase: RTx-624

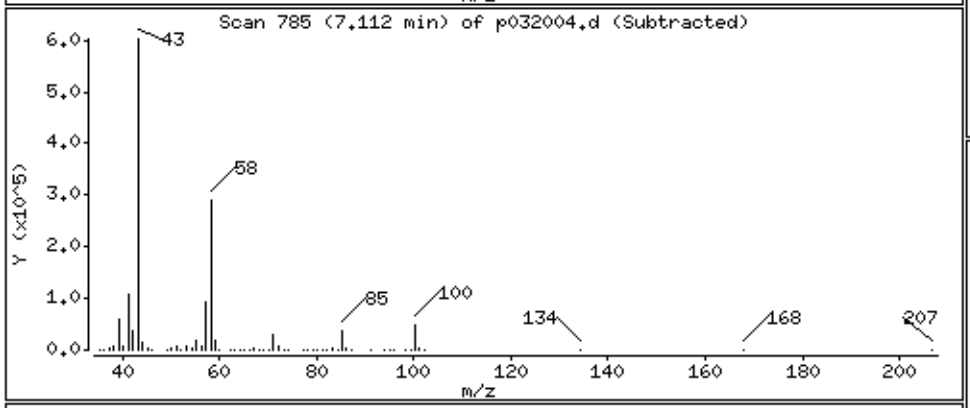
Column diameter: 0.53

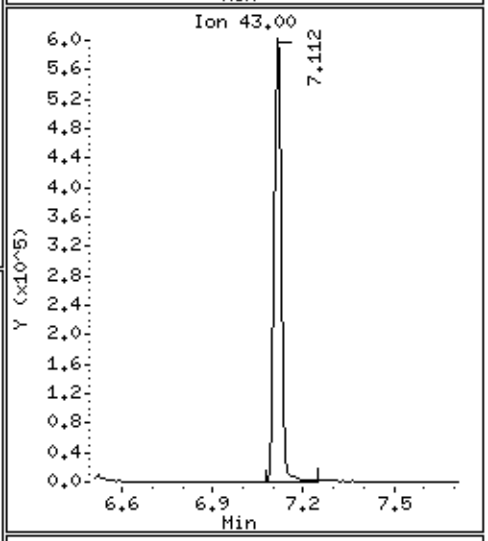
135 2-Hexanone

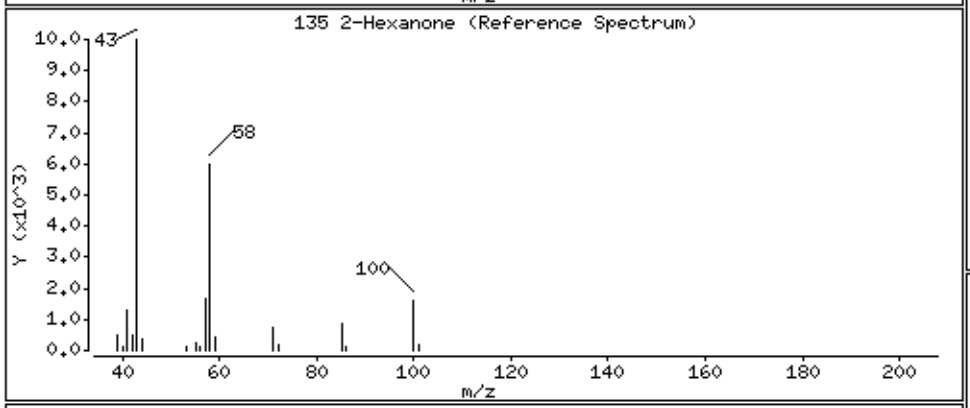
Concentration: 51.982 PPBV

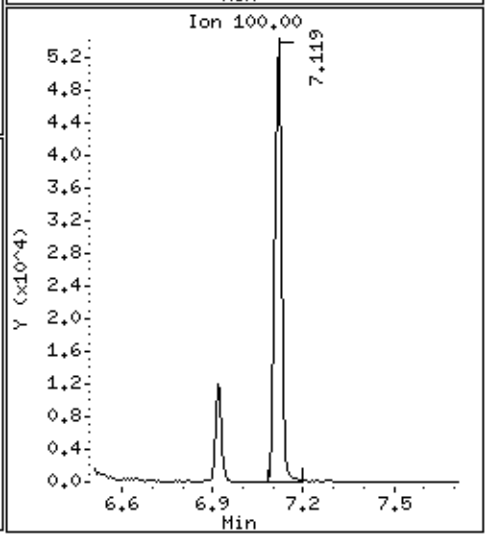


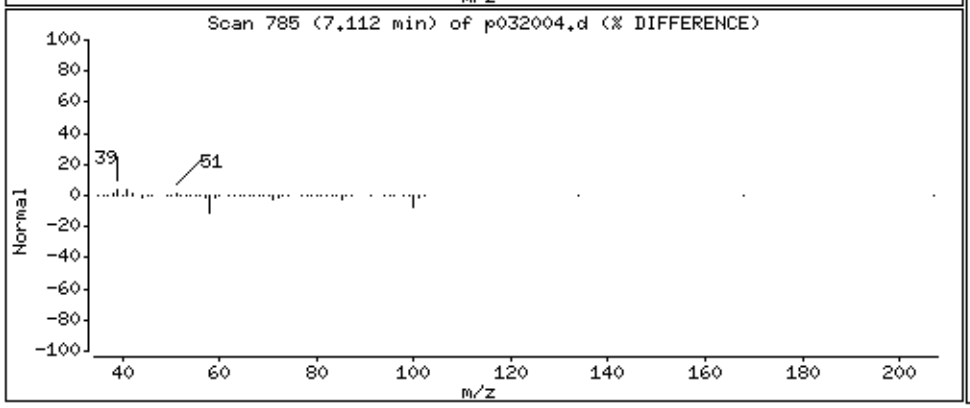



Data File: /chem/msdp.i/20mar10.b/p032004.d

Date : 19-MAR-2010 22:35

Client ID: LCS-1

Instrument: msdp.i

Sample Info: 50ml 1911-194

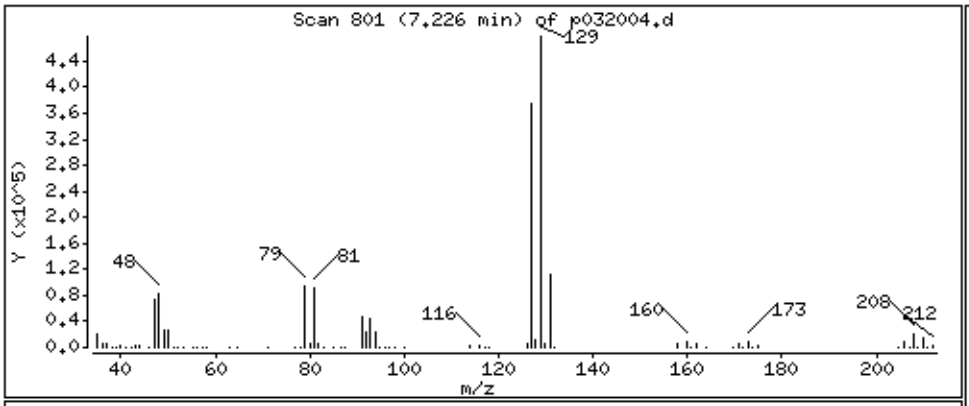
Operator: ra

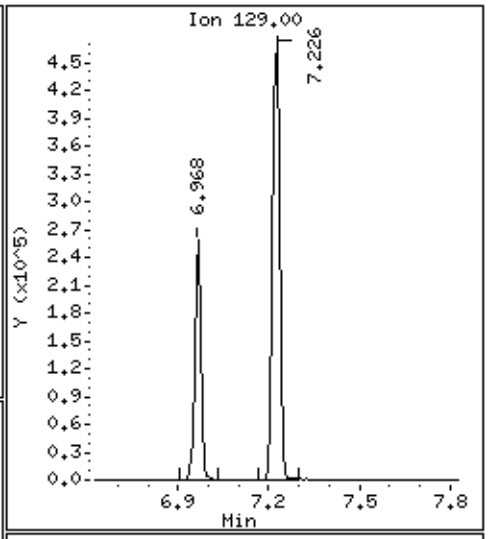
Column phase: RTx-624

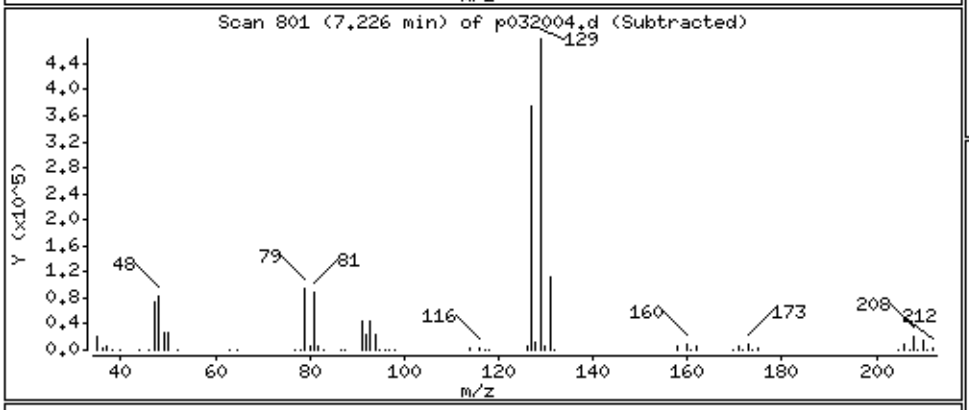
Column diameter: 0.53

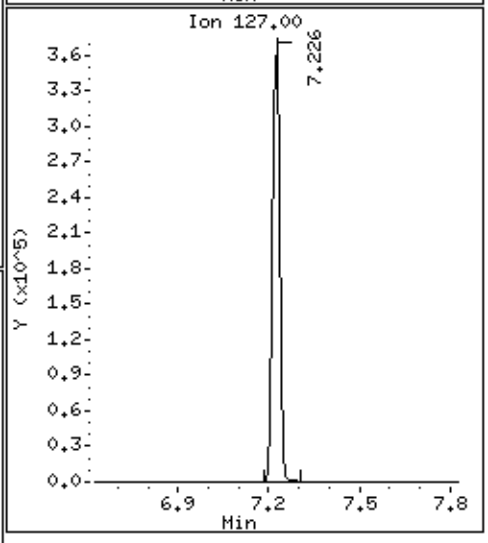
138 Dibromochloromethane

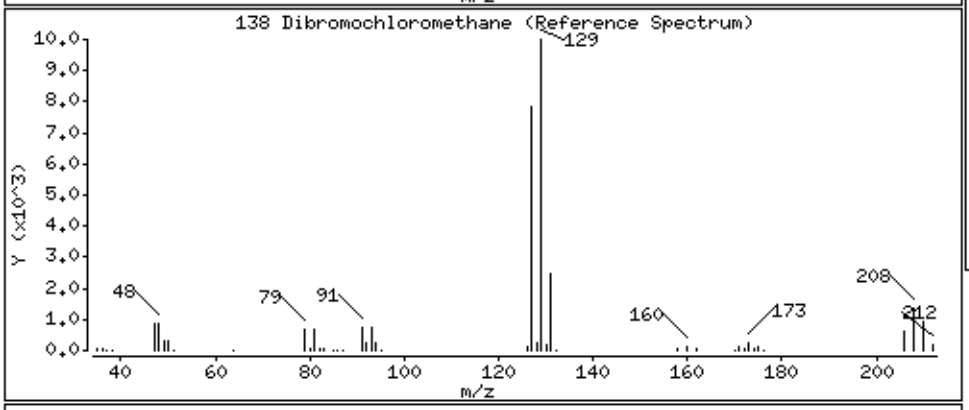
Concentration: 48.207 PPBV

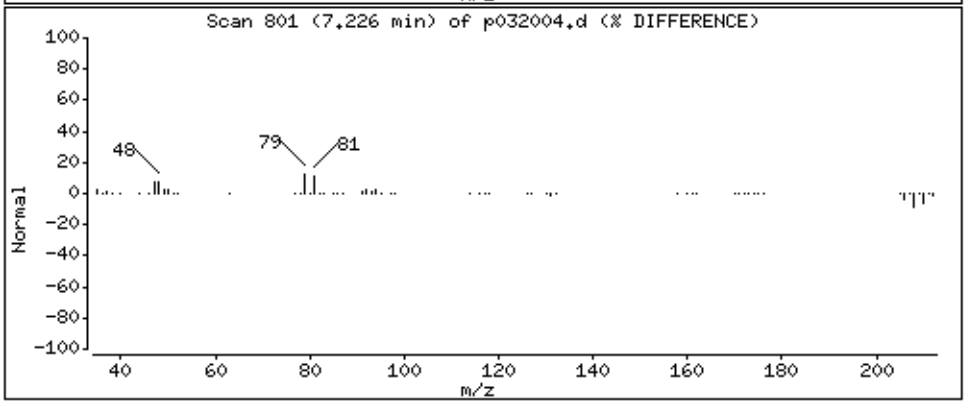


Data File: /chem/msdp.i/20mar10.b/p032004.d

Date : 19-MAR-2010 22:35

Client ID: LCS-1

Instrument: msdp.i

Sample Info: 50ml 1911-194

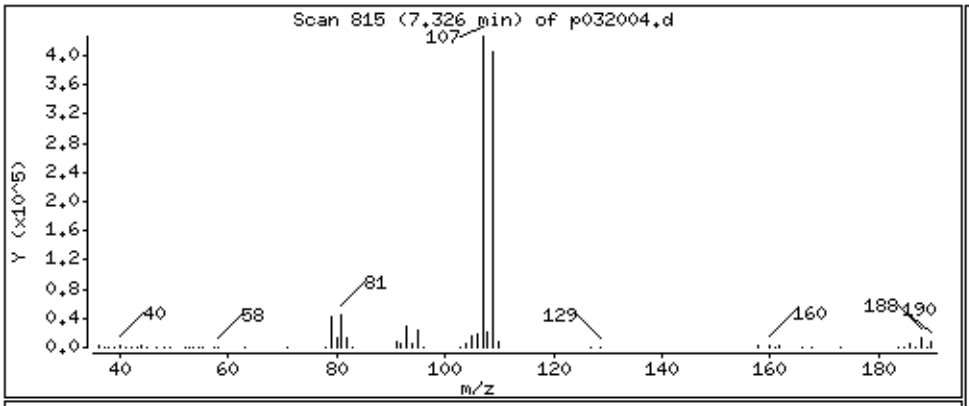
Operator: ra

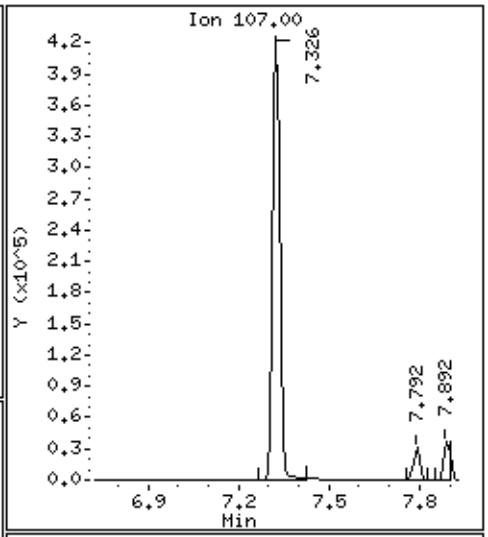
Column phase: RTx-624

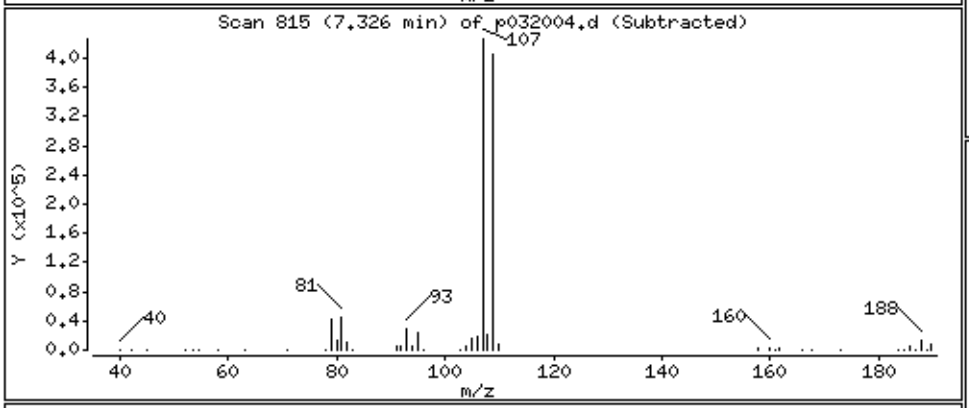
Column diameter: 0.53

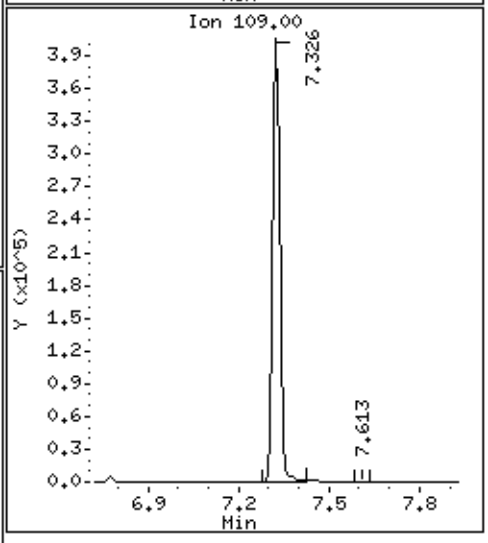
140 1,2-Dibromoethane

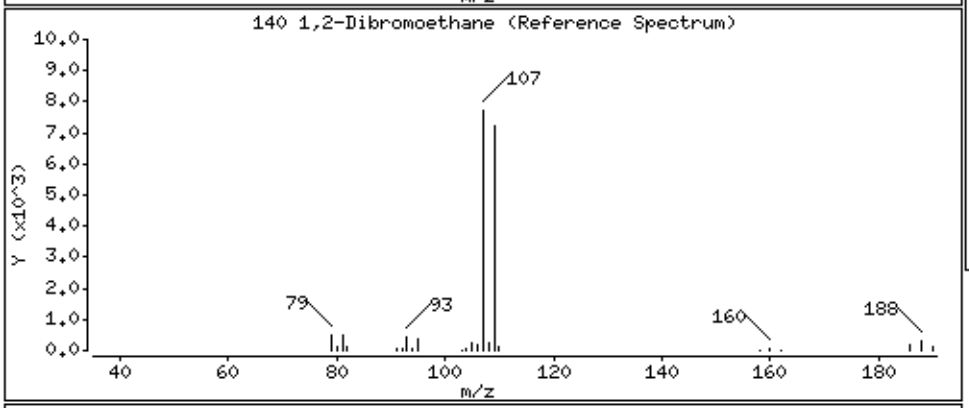
Concentration: 50.602 PPBV

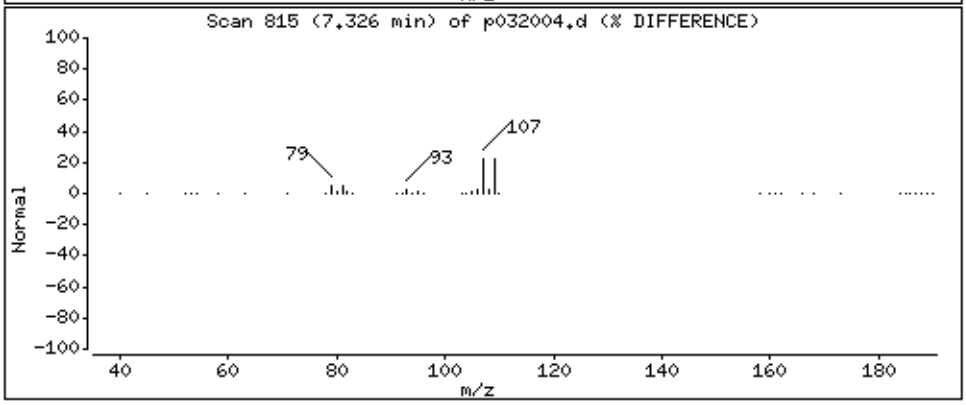


Data File: /chem/msdp.i/20mar10.b/p032004.d

Date : 19-MAR-2010 22:35

Client ID: LCS-1

Instrument: msdp.i

Sample Info: 50ml 1911-194

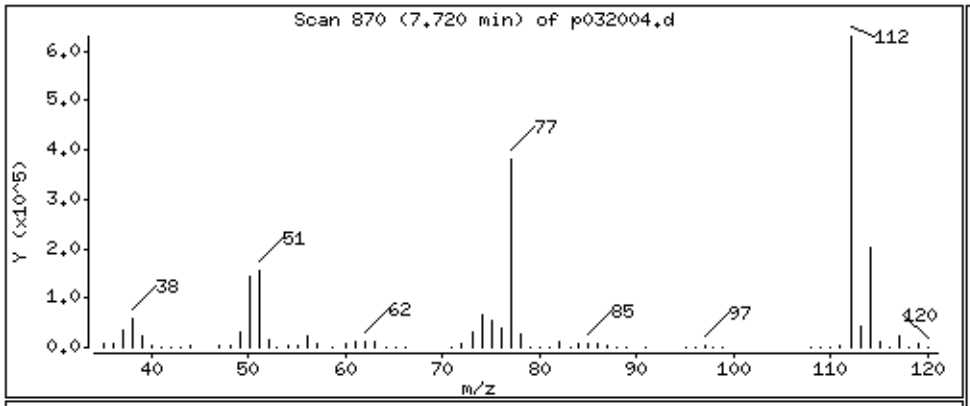
Operator: ra

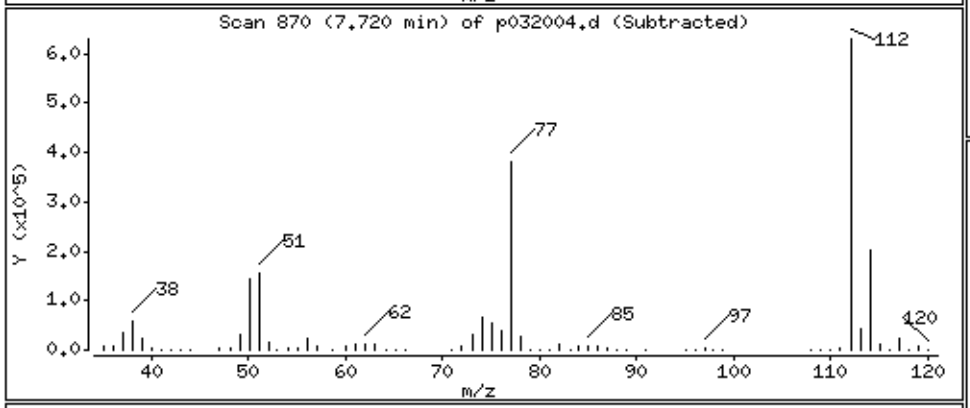
Column phase: RTx-624

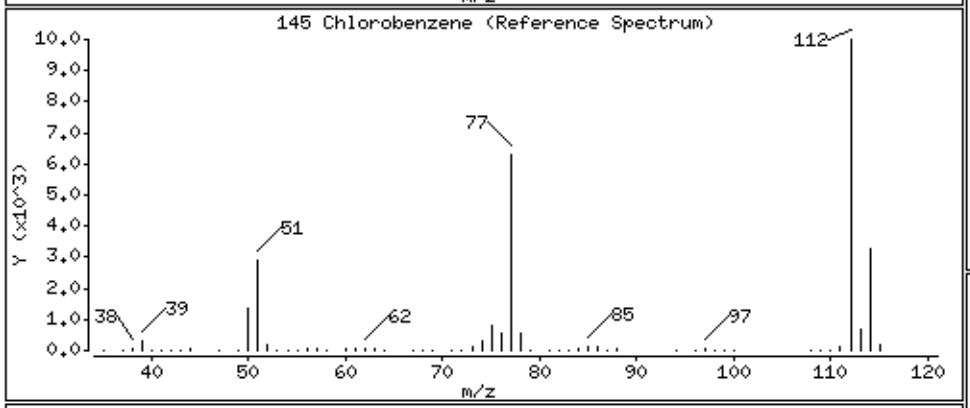
Column diameter: 0.53

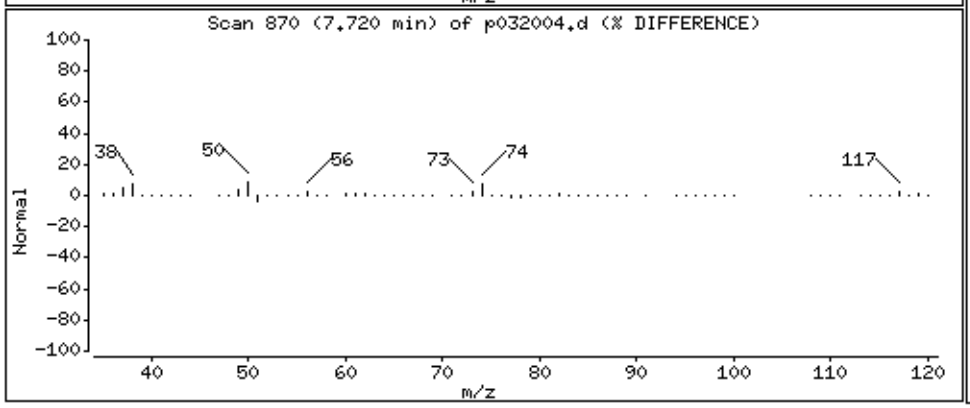
145 Chlorobenzene

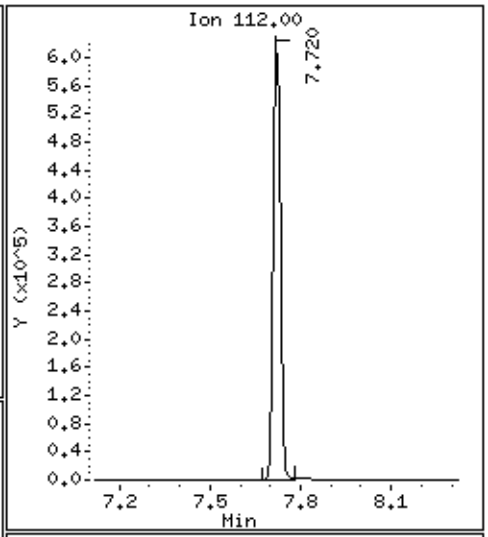
Concentration: 47.060 PPBV

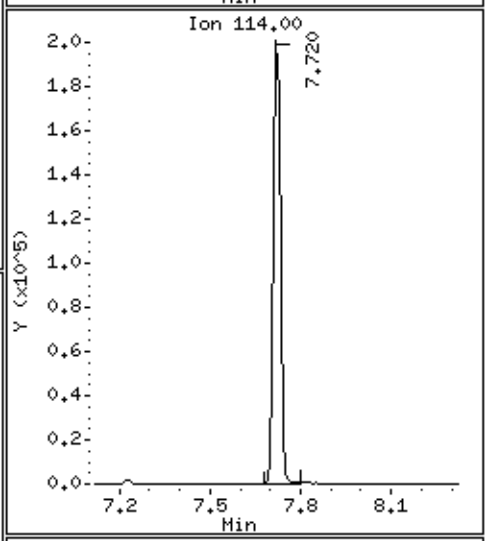


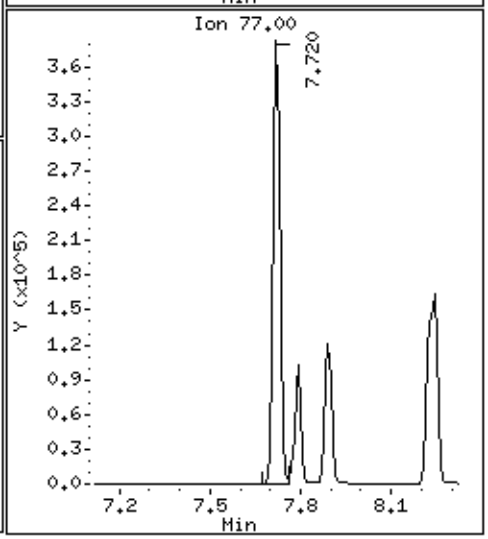



Data File: /chem/msdp.i/20mar10.b/p032004.d

Date : 19-MAR-2010 22:35

Client ID: LCS-1

Instrument: msdp.i

Sample Info: 50ml 1911-194

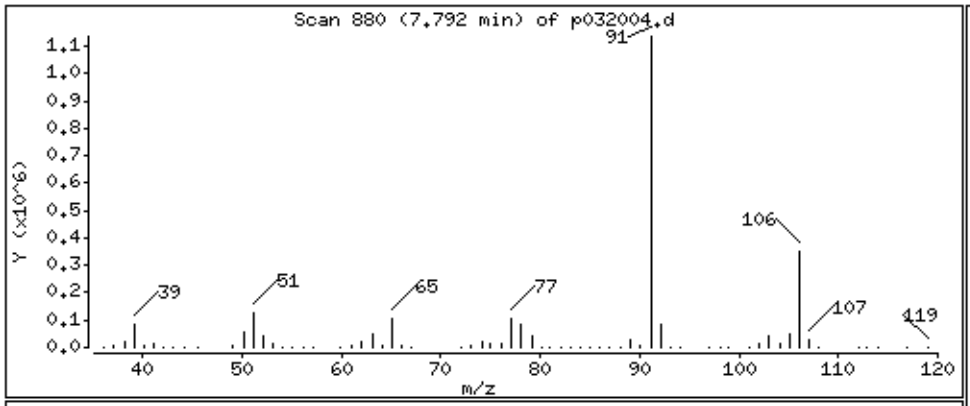
Operator: ra

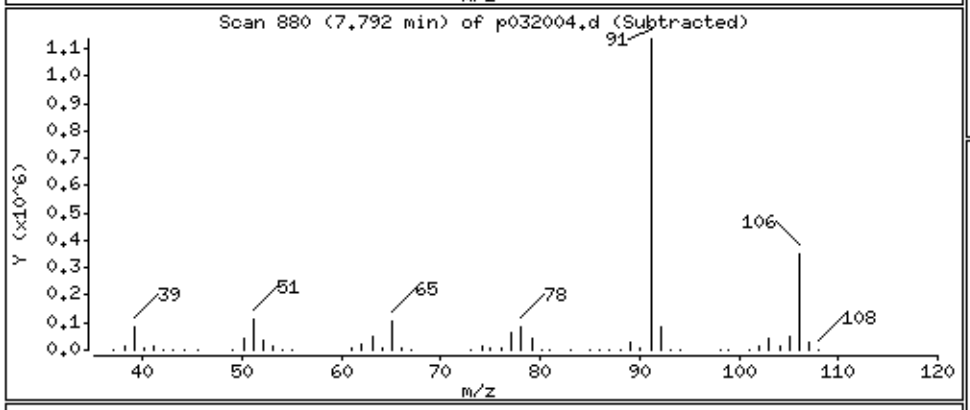
Column phase: RTx-624

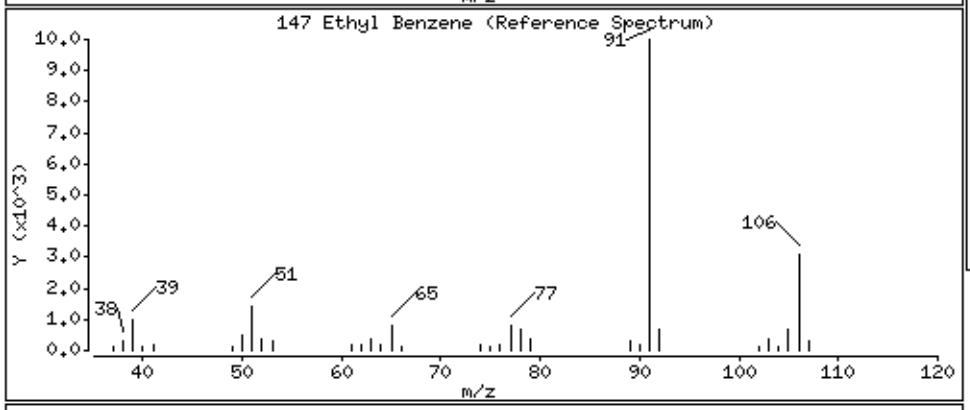
Column diameter: 0.53

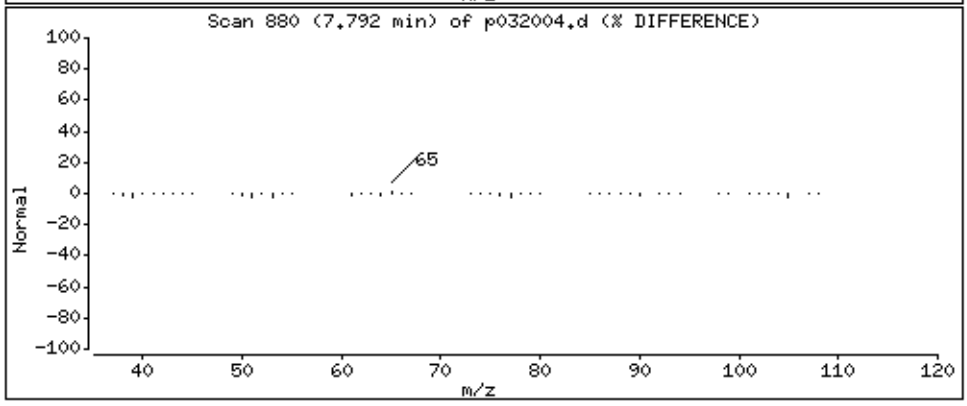
147 Ethyl Benzene

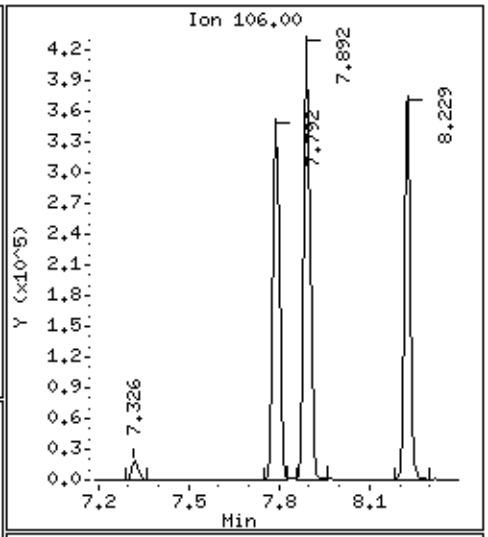
Concentration: 49.751 PPBV

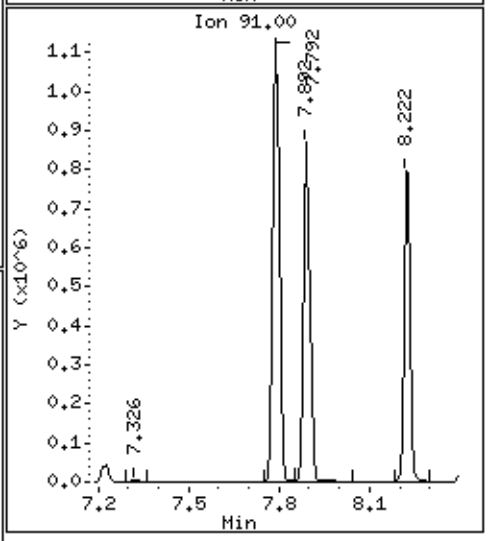


Data File: /chem/msdp.i/20mar10.b/p032004.d

Date : 19-MAR-2010 22:35

Client ID: LCS-1

Instrument: msdp.i

Sample Info: 50ml 1911-194

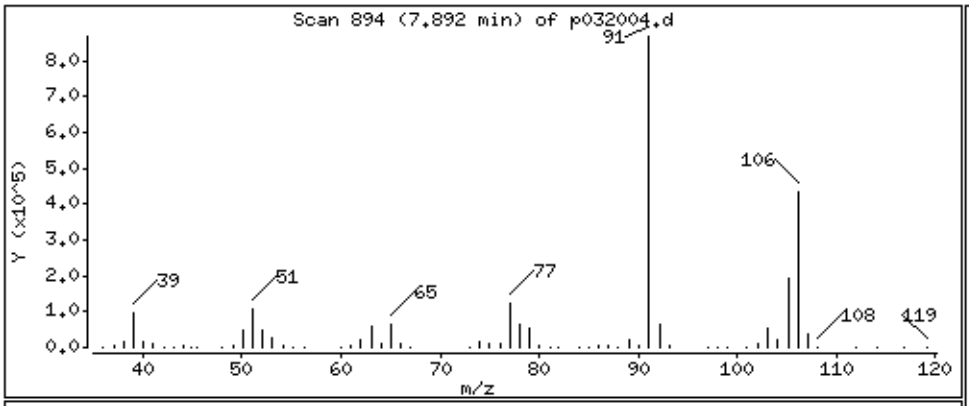
Operator: ra

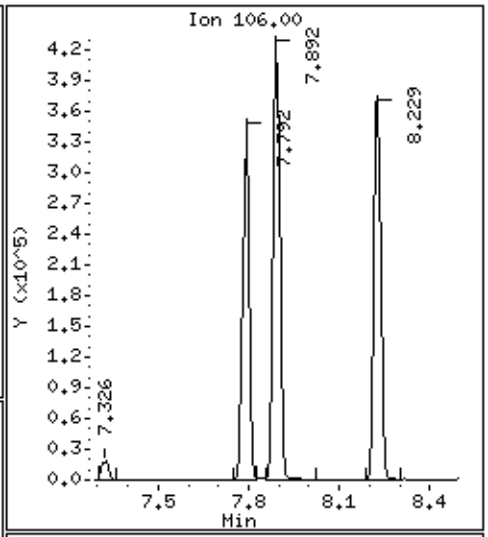
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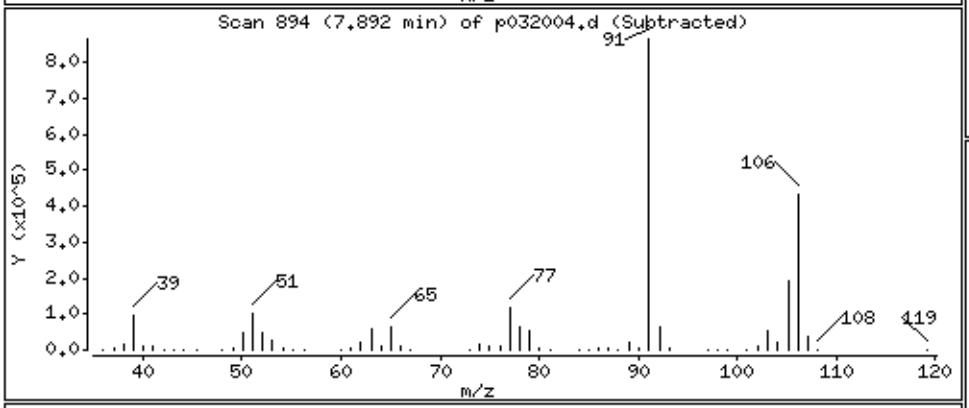
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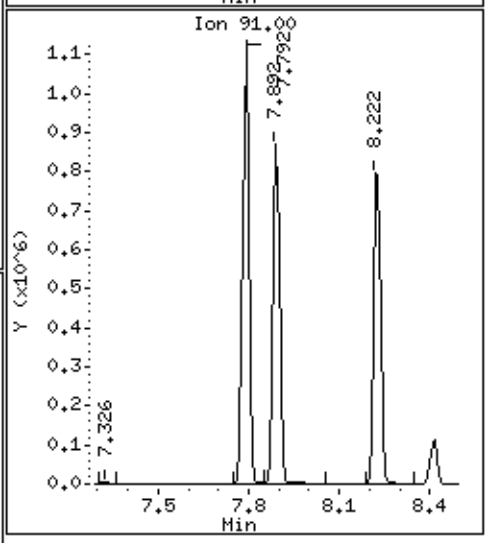
150 m,p-Xylene

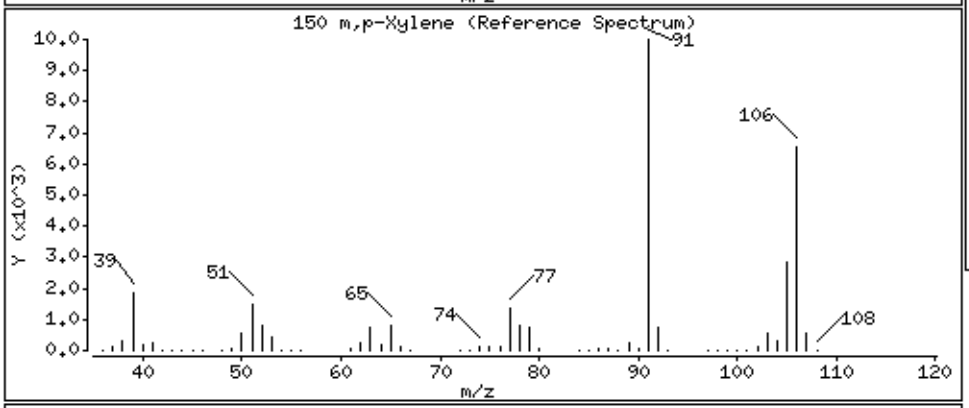
Concentration: 50.180 PPBV

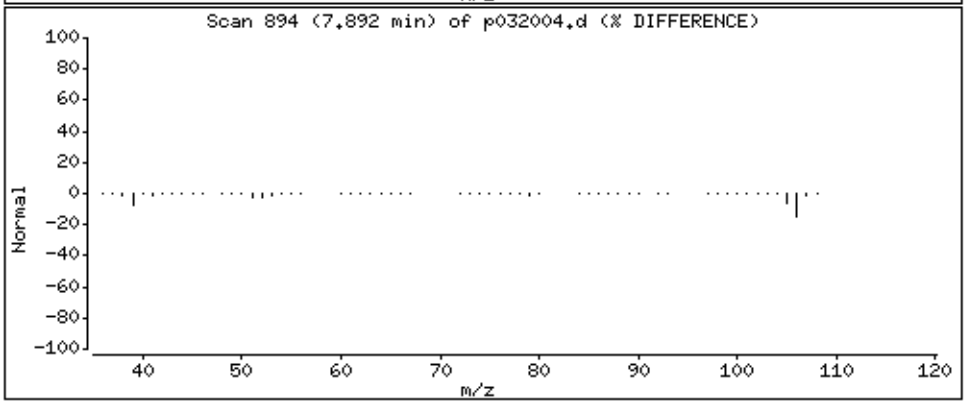


Data File: /chem/msdp.i/20mar10.b/p032004.d

Date : 19-MAR-2010 22:35

Client ID: LCS-1

Instrument: msdp.i

Sample Info: 50ml 1911-194

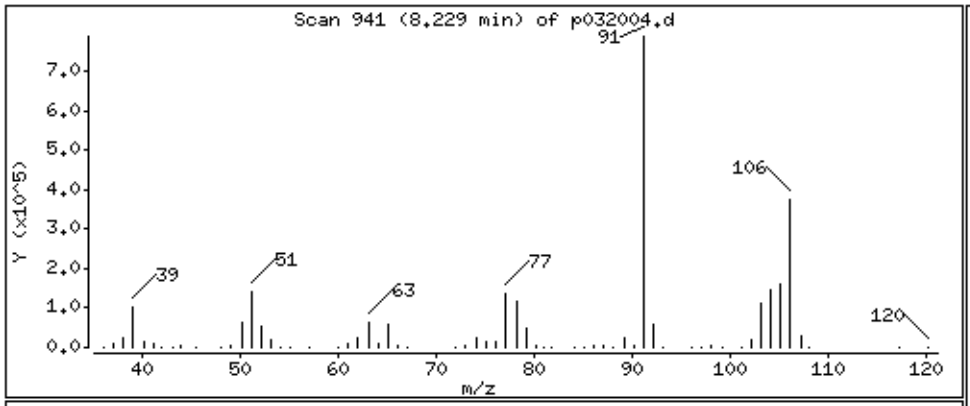
Operator: ra

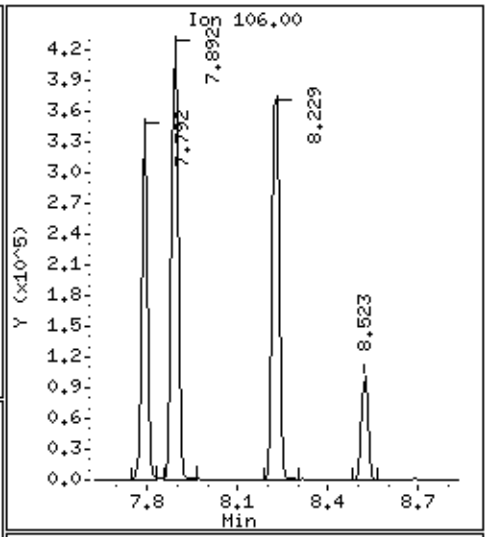
Column phase: RTx-624

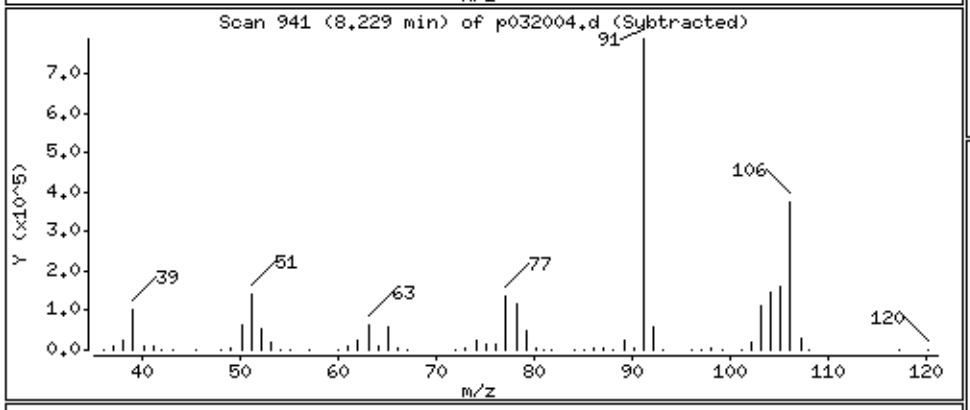
Column diameter: 0.53

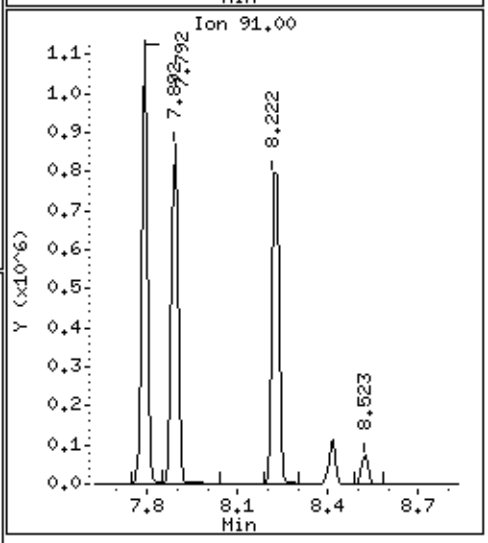
153 o-Xylene

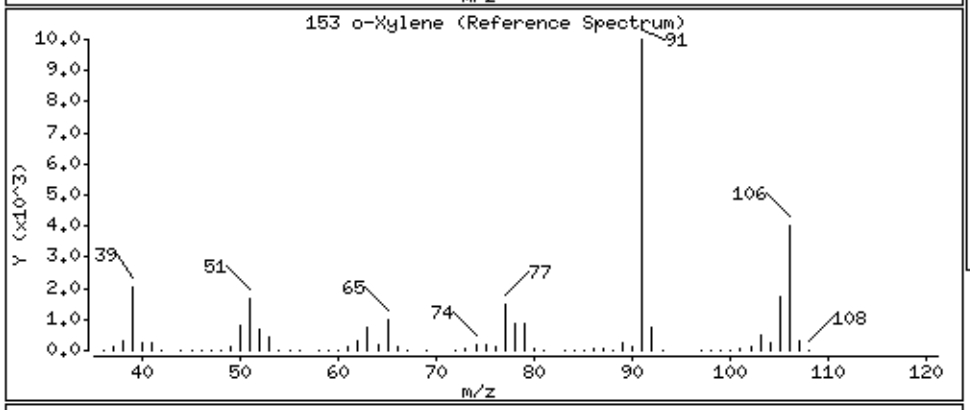
Concentration: 49.766 PPBV

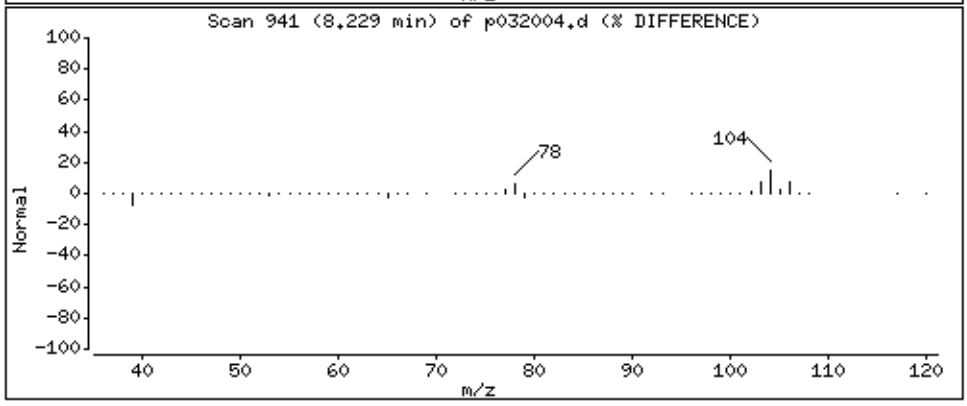


Data File: /chem/msdp.i/20mar10.b/p032004.d

Date : 19-MAR-2010 22:35

Client ID: LCS-1

Instrument: msdp.i

Sample Info: 50ml 1911-194

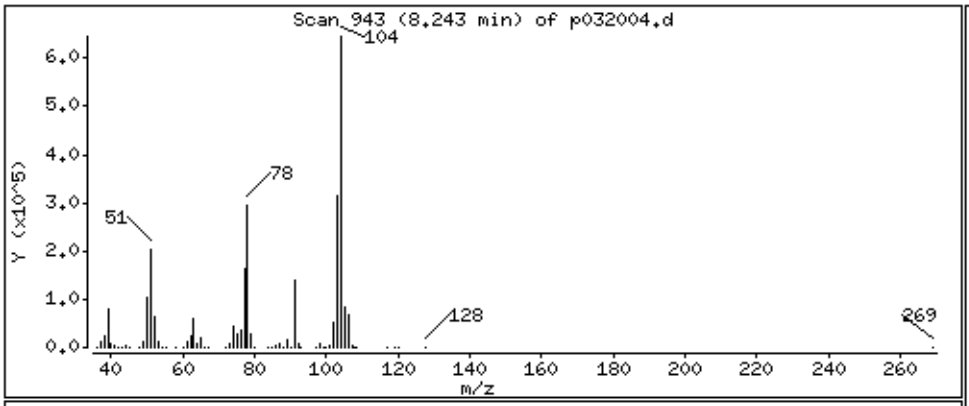
Operator: ra

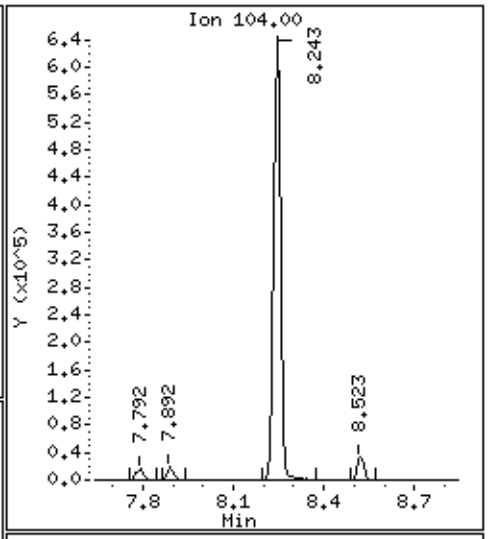
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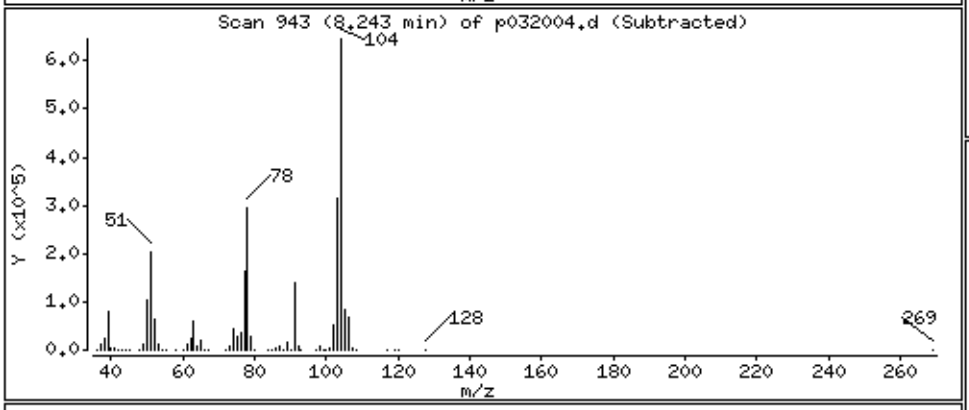
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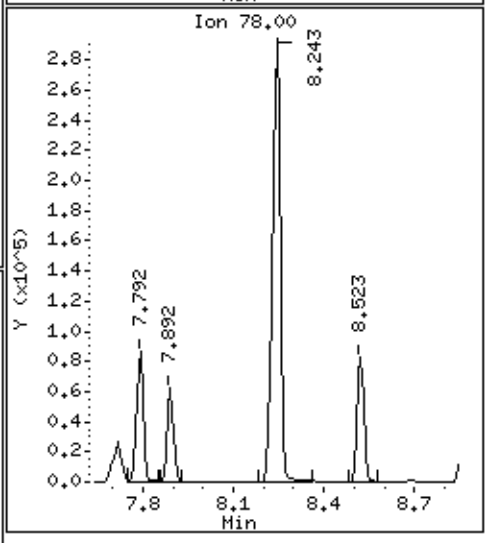
154 Styrene

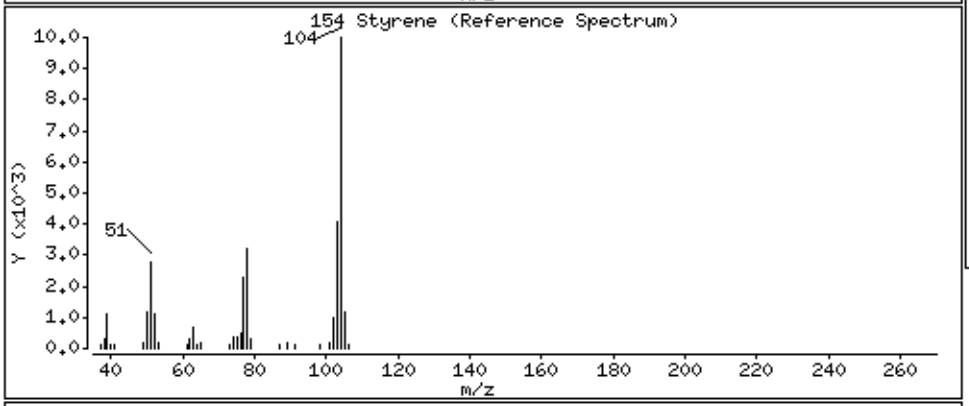
Concentration: 51.737 PPBV

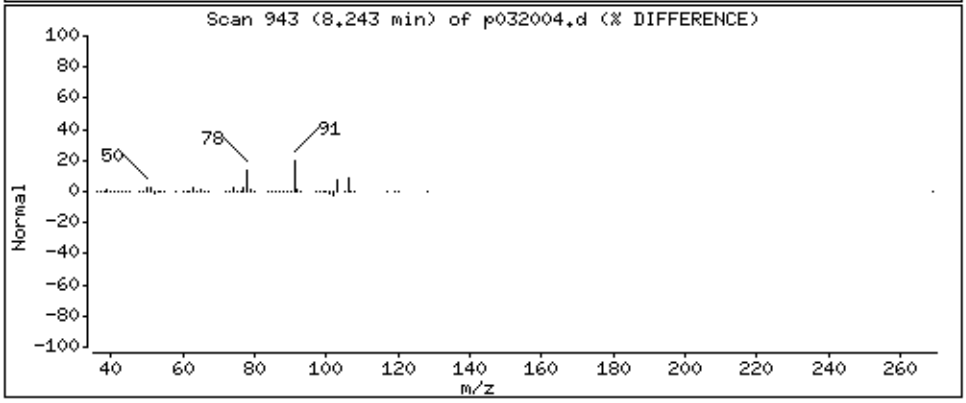


Data File: /chem/msdp.i/20mar10.b/p032004.d

Date : 19-MAR-2010 22:35

Client ID: LCS-1

Instrument: msdp.i

Sample Info: 50ml 1911-194

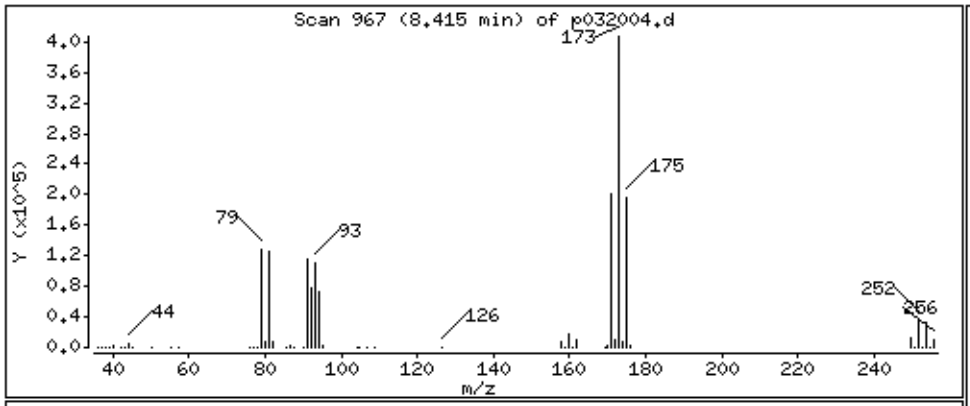
Operator: ra

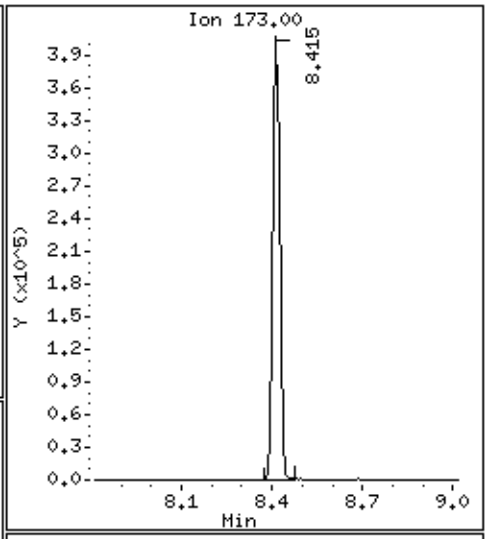
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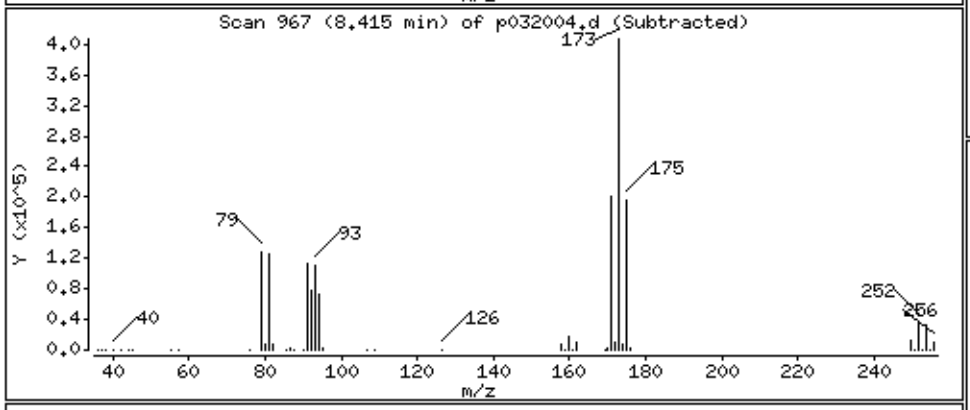
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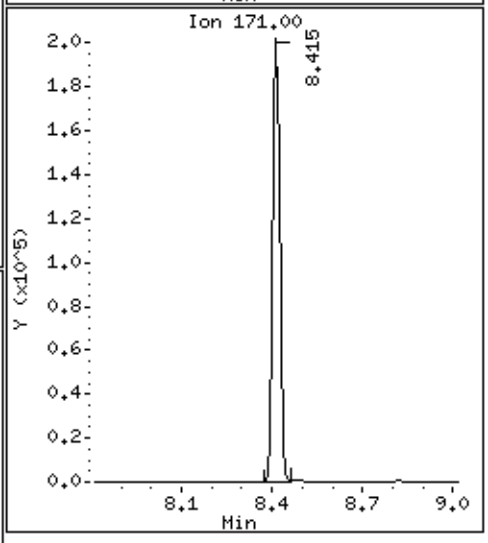
155 Bromoform

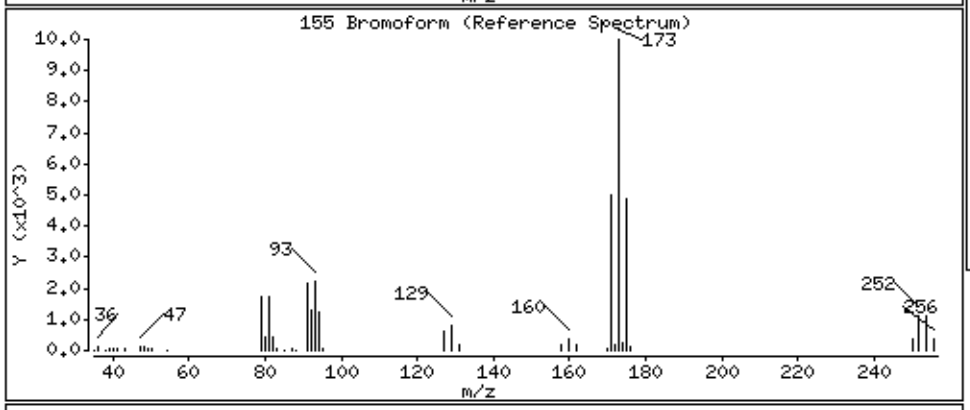
Concentration: 48.698 PPBV

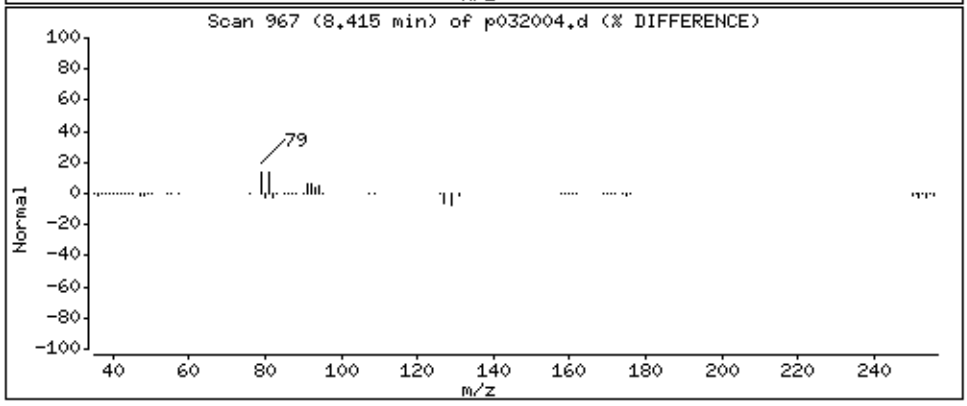


Data File: /chem/msdp.i/20mar10.b/p032004.d

Date : 19-MAR-2010 22:35

Client ID: LCS-1

Instrument: msdp.i

Sample Info: 50ml 1911-194

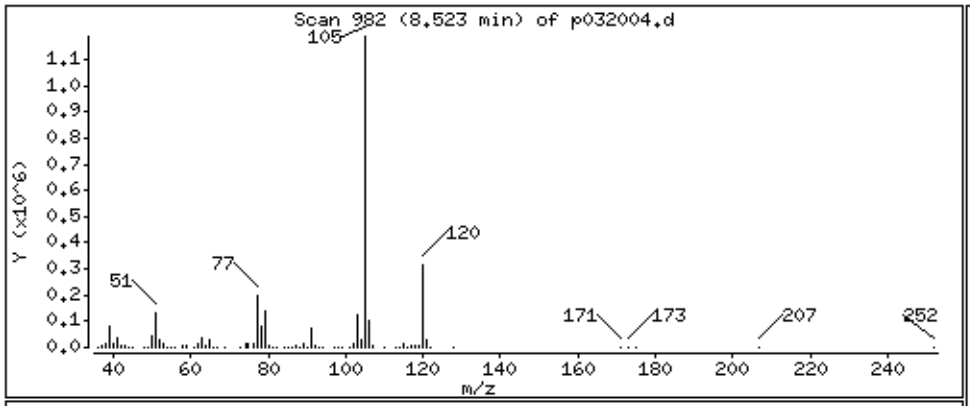
Operator: ra

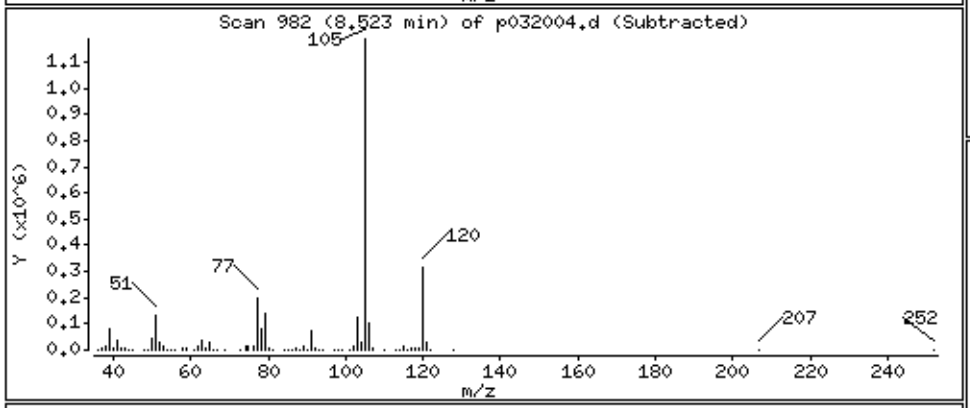
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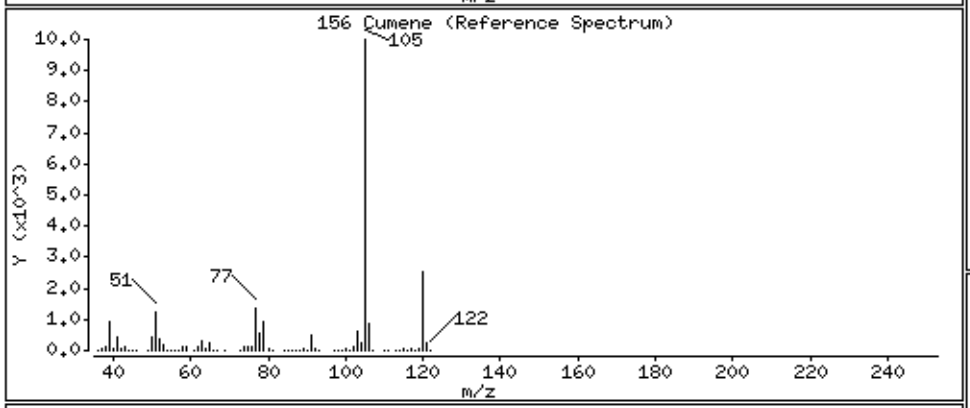
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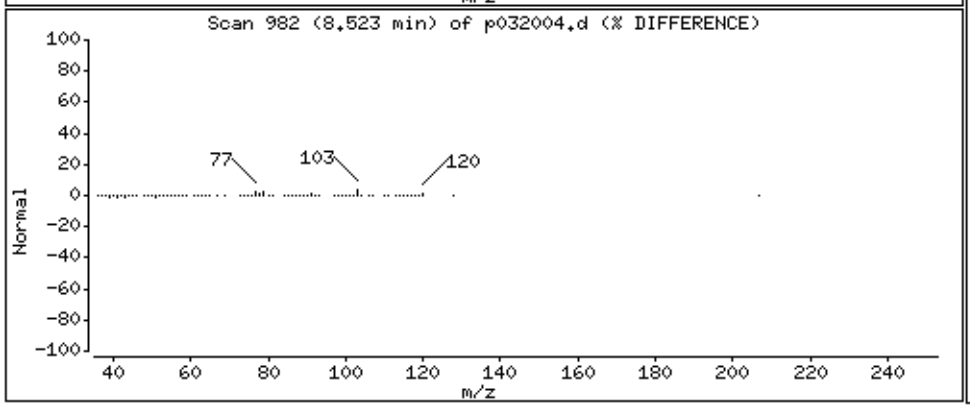
156 Cumene

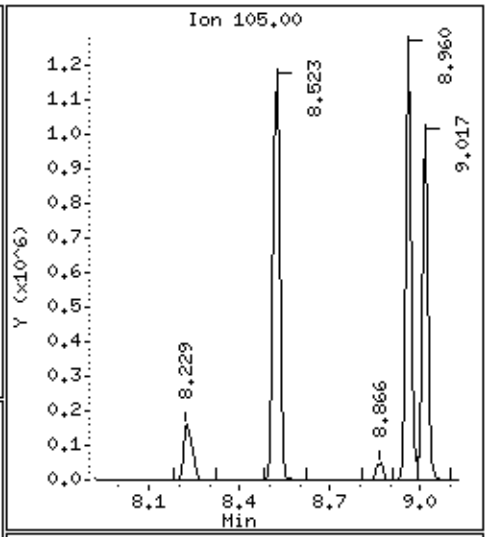
Concentration: 50.839 PPBV

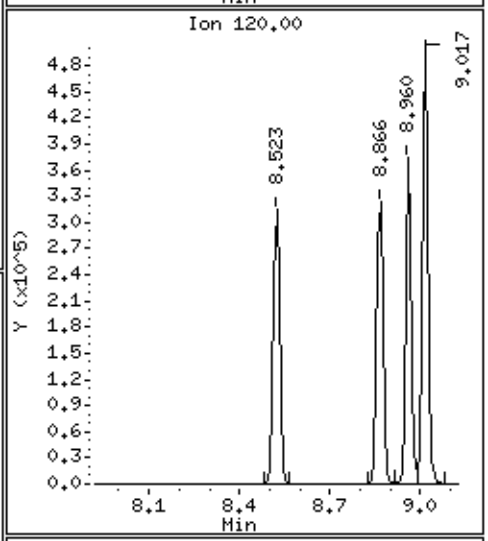


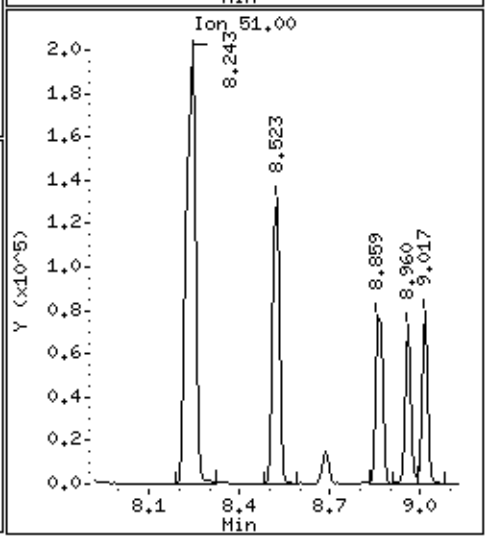



Data File: /chem/msdp.i/20mar10.b/p032004.d

Date : 19-MAR-2010 22:35

Client ID: LCS-1

Instrument: msdp.i

Sample Info: 50ml 1911-194

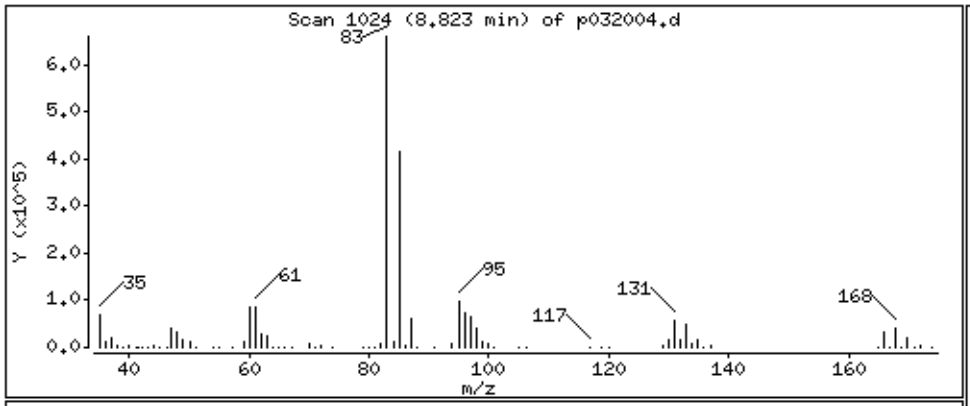
Operator: ra

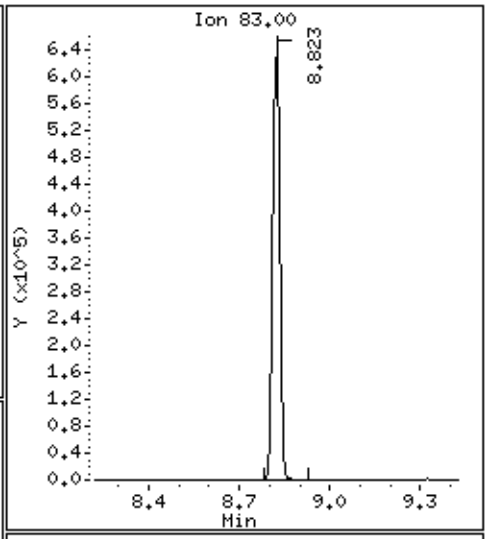
Column phase: RTx-624

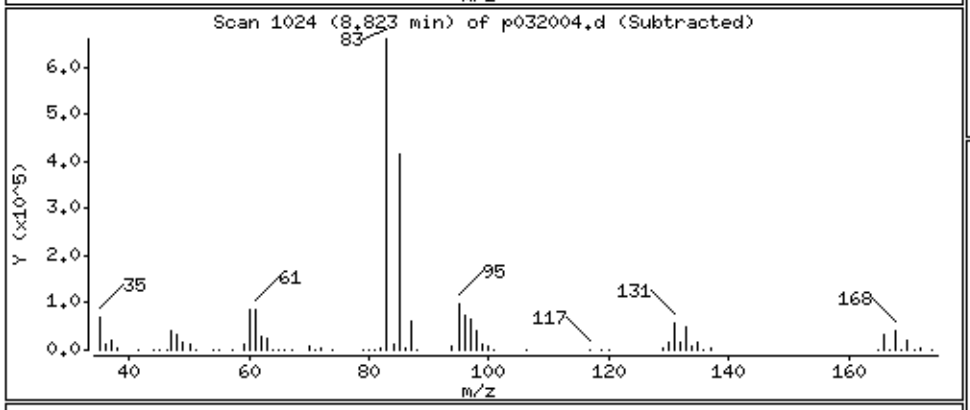
Column diameter: 0.53

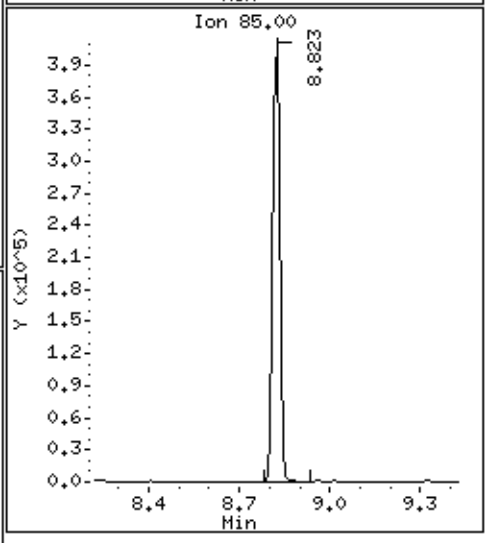
161 1,1,2,2-Tetrachloroethane

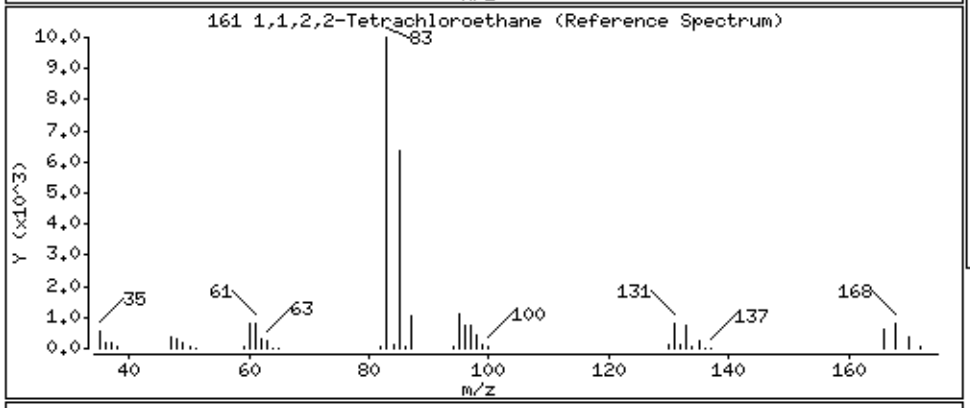
Concentration: 54.970 PPBV

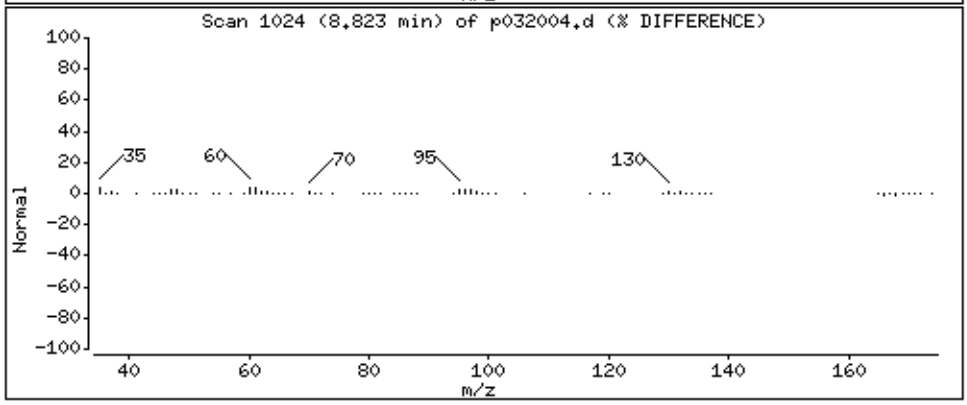


Data File: /chem/msdp.i/20mar10.b/p032004.d

Date : 19-MAR-2010 22:35

Client ID: LCS-1

Instrument: msdp.i

Sample Info: 50ml 1911-194

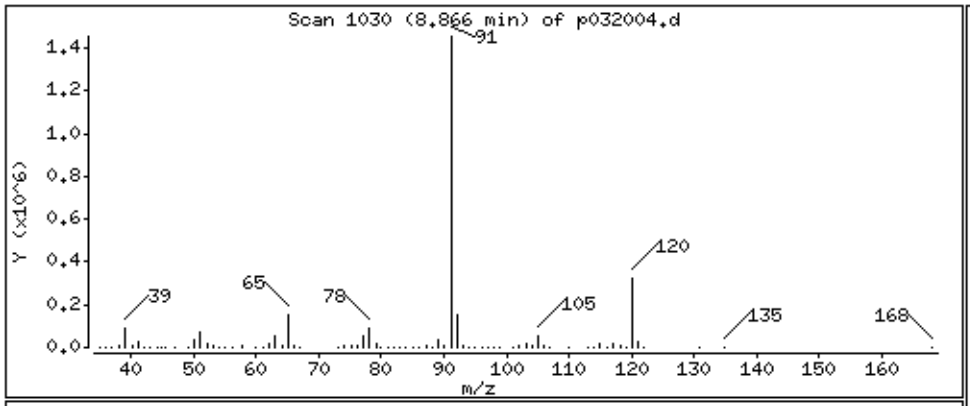
Operator: ra

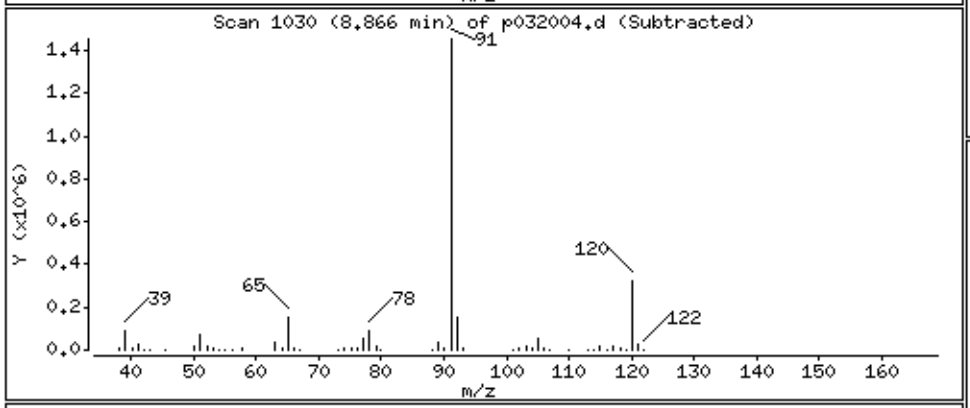
Column phase: RTx-624

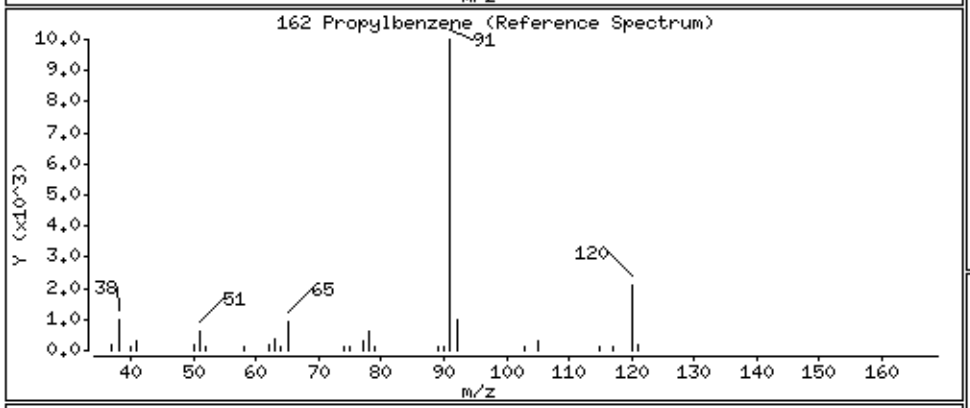
Column diameter: 0.53

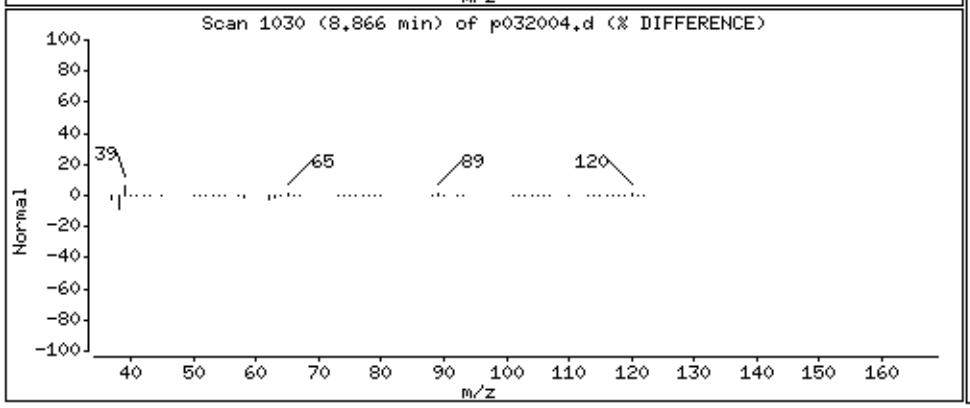
162 Propylbenzene

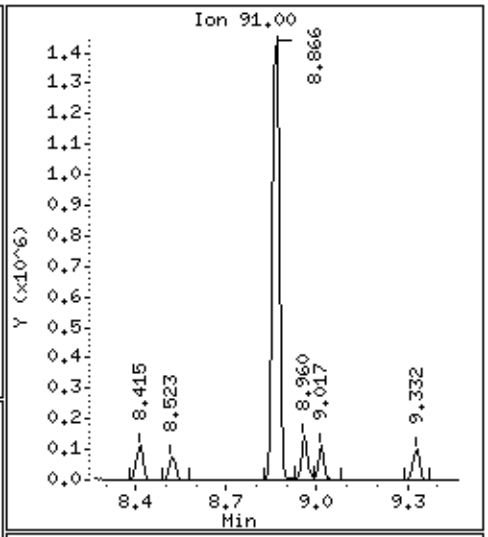
Concentration: 51.635 PPBV

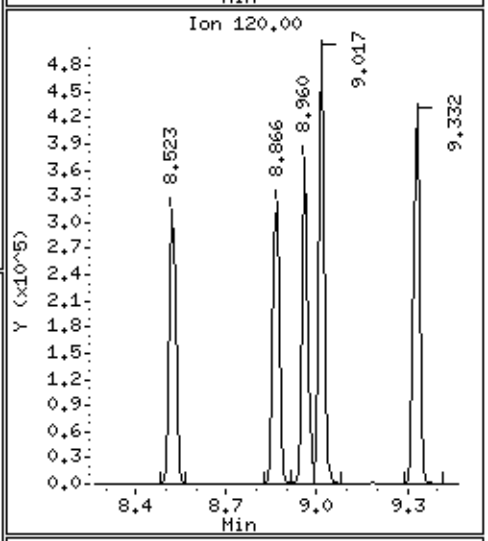


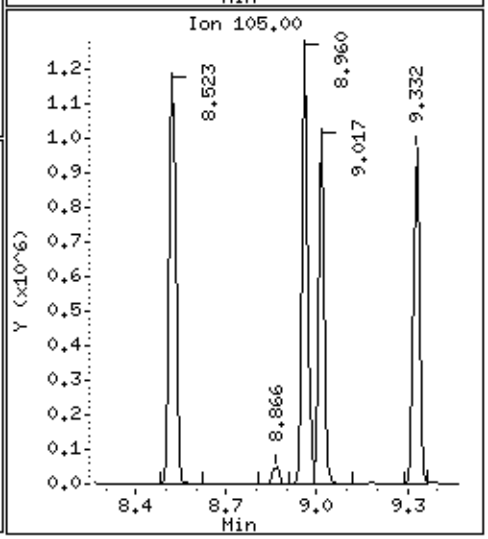



Data File: /chem/msdp.i/20mar10.b/p032004.d

Date : 19-MAR-2010 22:35

Client ID: LCS-1

Instrument: msdp.i

Sample Info: 50ml 1911-194

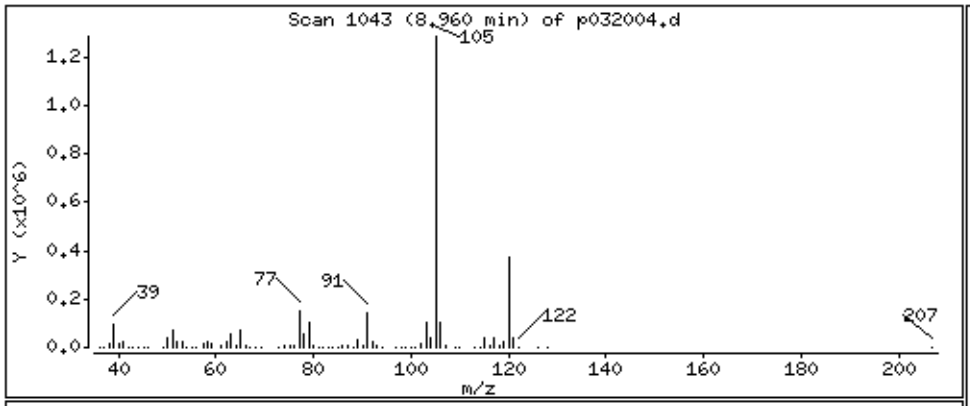
Operator: ra

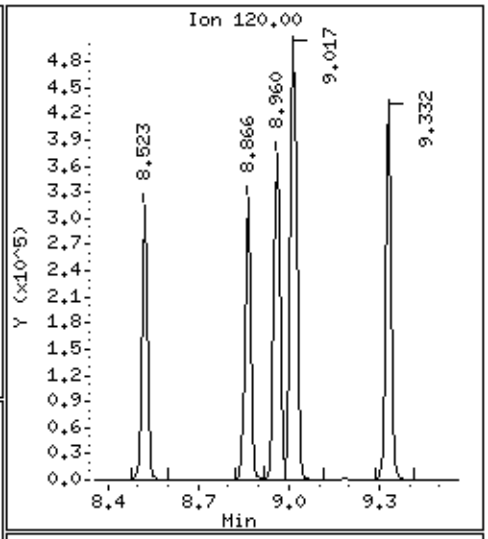
Column phase: RTx-624

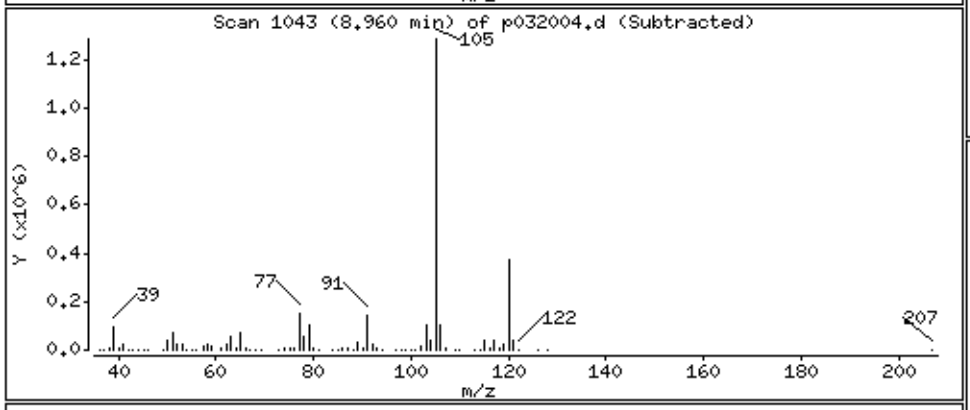
Column diameter: 0.53

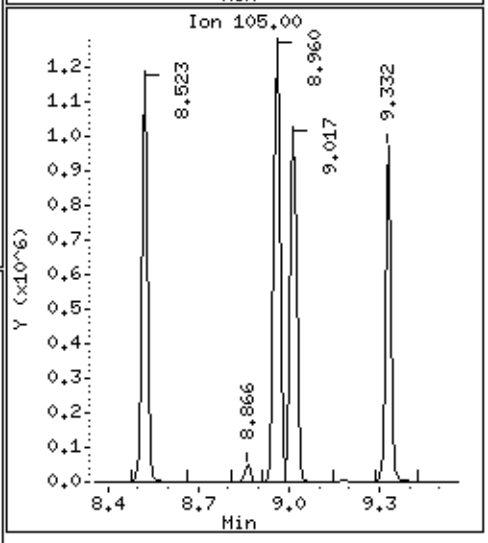
163 4-Ethyltoluene

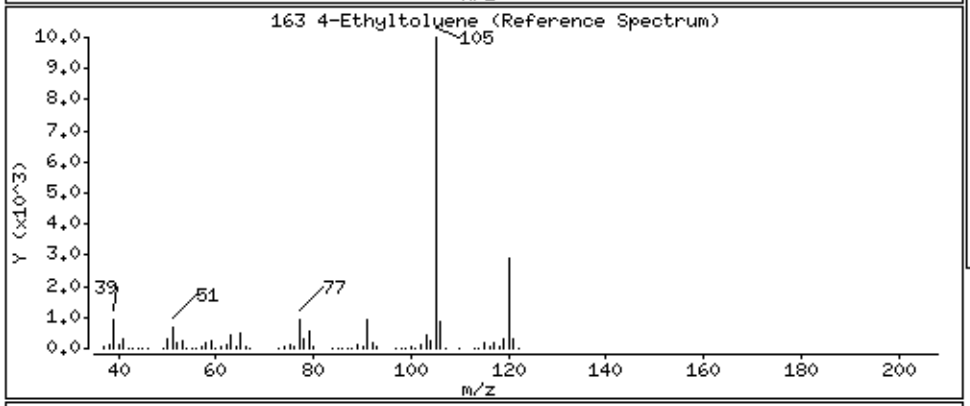
Concentration: 50.312 PPBV

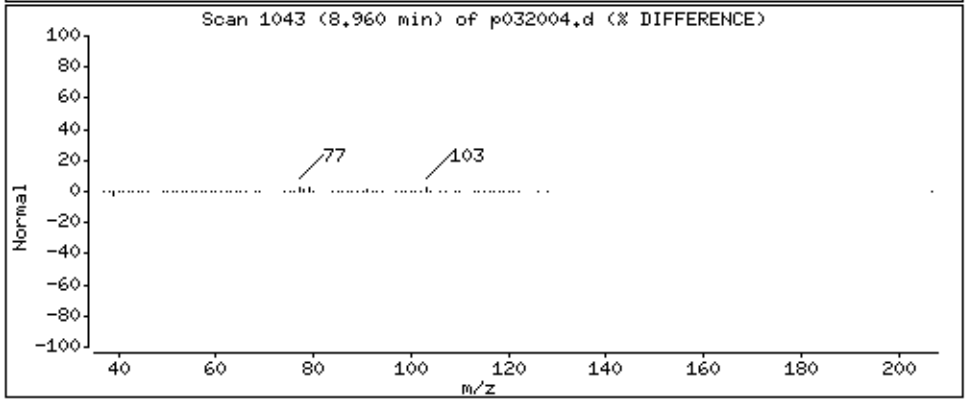


Data File: /chem/msdp.i/20mar10.b/p032004.d

Date : 19-MAR-2010 22:35

Client ID: LCS-1

Instrument: msdp.i

Sample Info: 50ml 1911-194

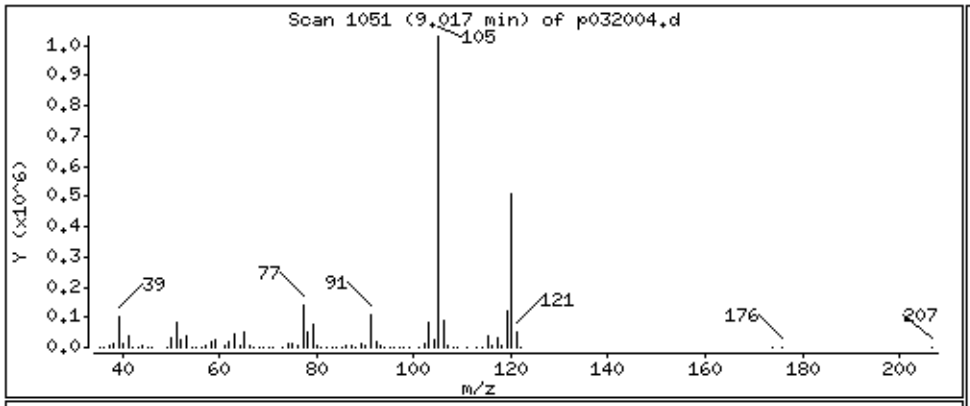
Operator: ra

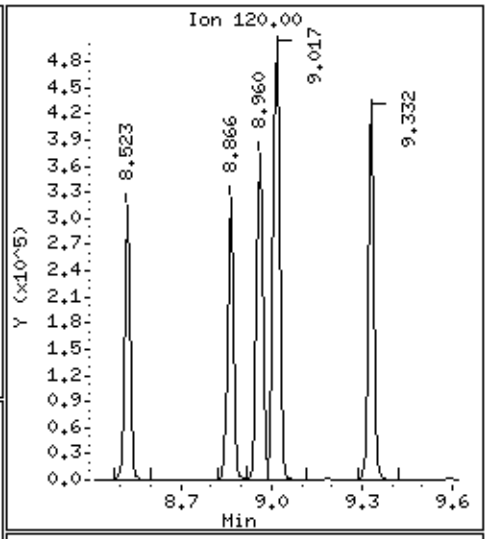
Column phase: RTx-624

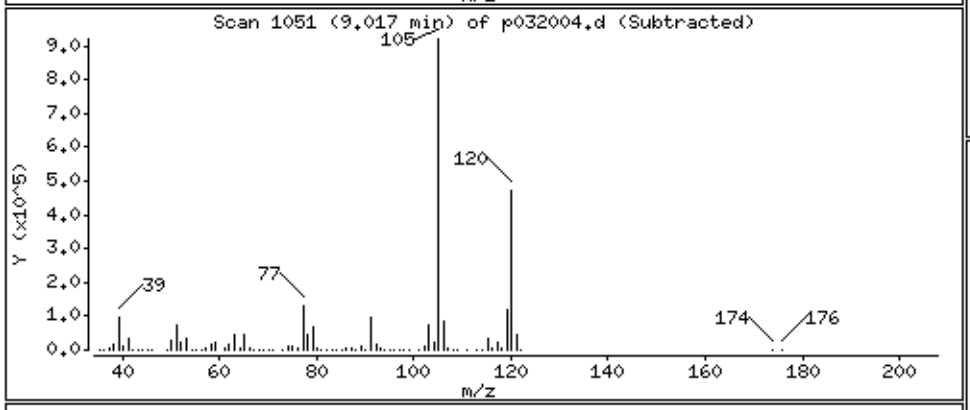
Column diameter: 0.53

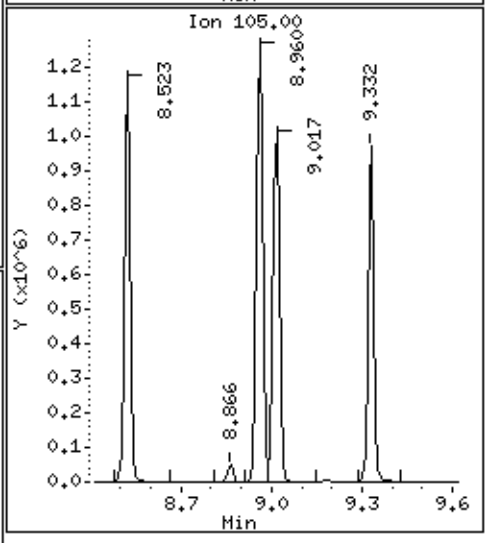
164 1,3,5-Trimethylbenzene

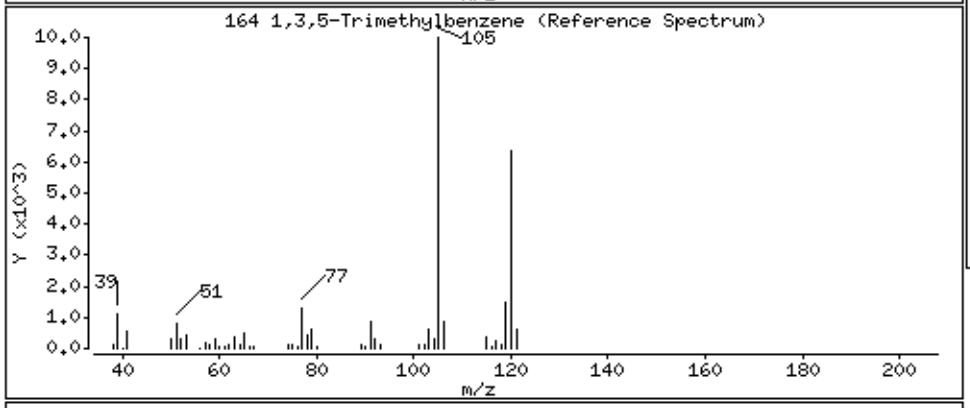
Concentration: 53.041 PPBV

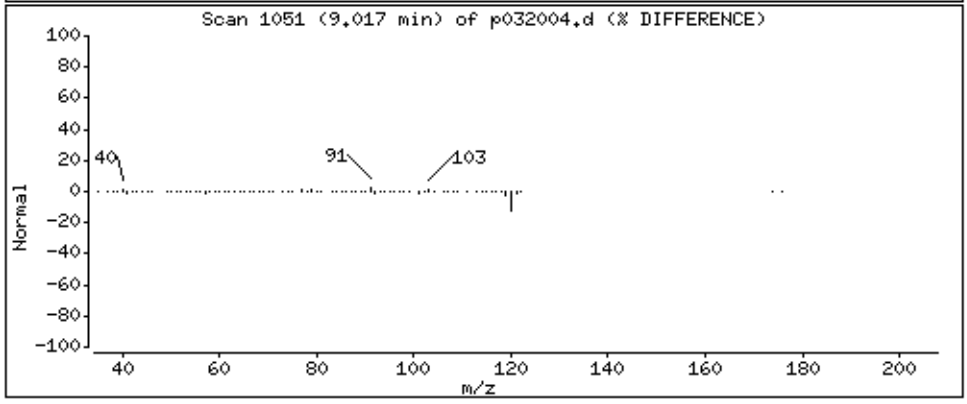


Data File: /chem/msdp.i/20mar10.b/p032004.d

Date : 19-MAR-2010 22:35

Client ID: LCS-1

Instrument: msdp.i

Sample Info: 50ml 1911-194

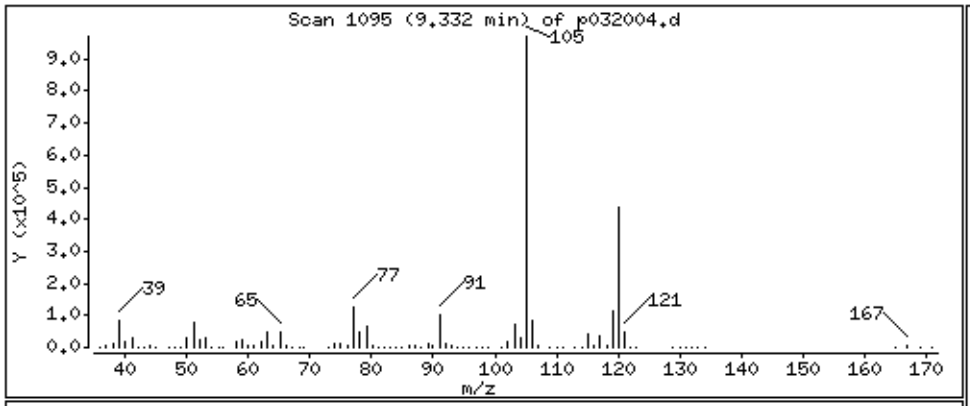
Operator: ra

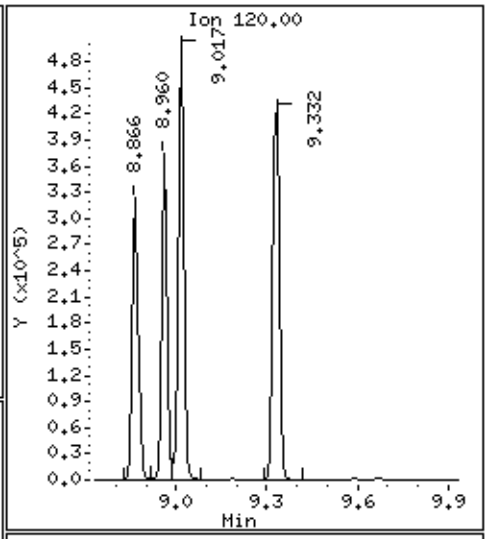
Column phase: RTx-624

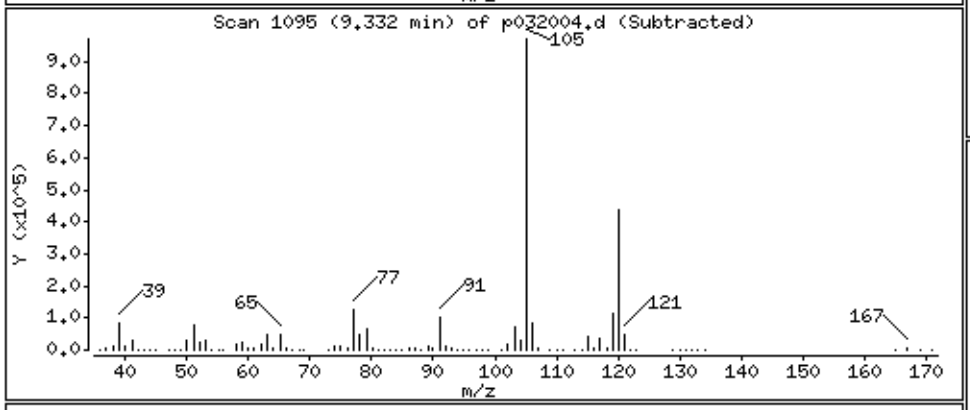
Column diameter: 0.53

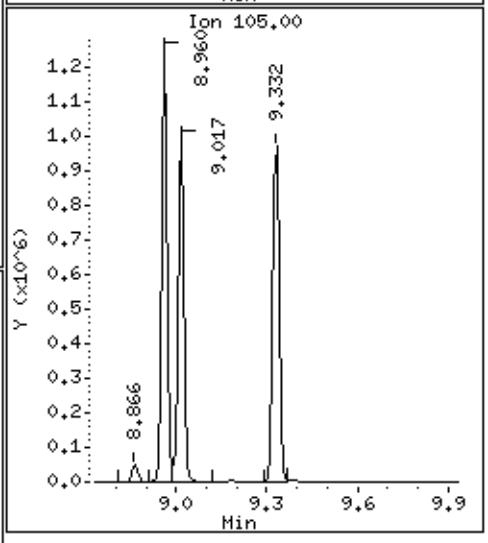
166 1,2,4-Trimethylbenzene

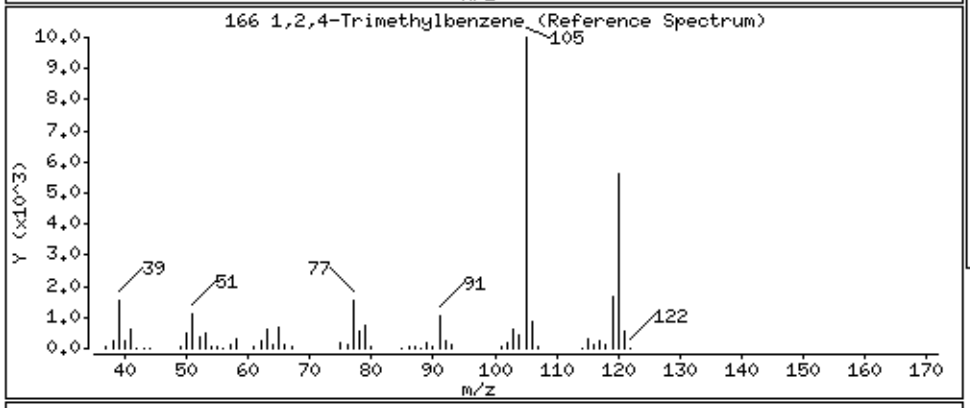
Concentration: 52.164 PPBV

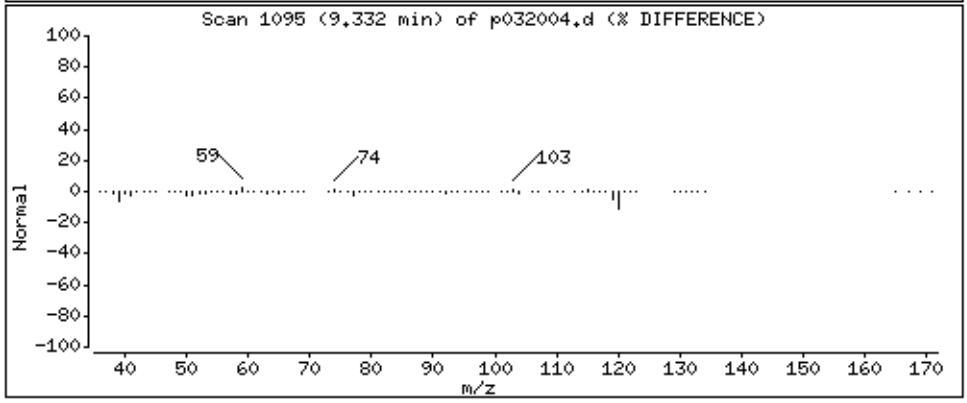


Data File: /chem/msdp.i/20mar10.b/p032004.d

Date : 19-MAR-2010 22:35

Client ID: LCS-1

Instrument: msdp.i

Sample Info: 50ml 1911-194

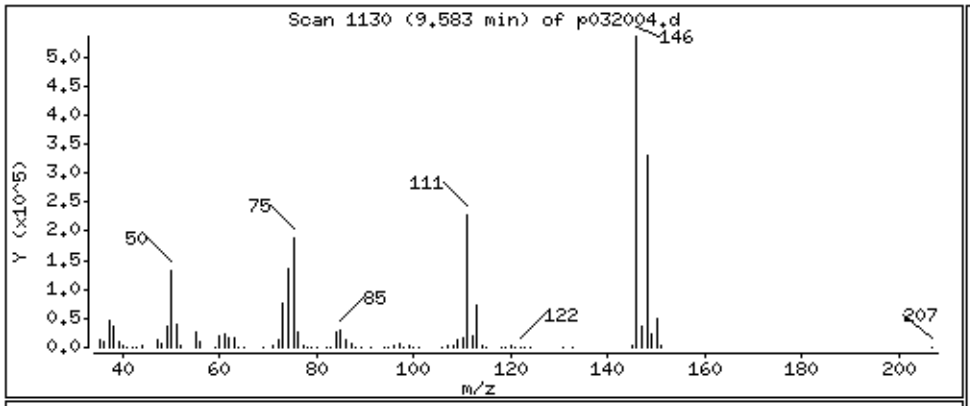
Operator: ra

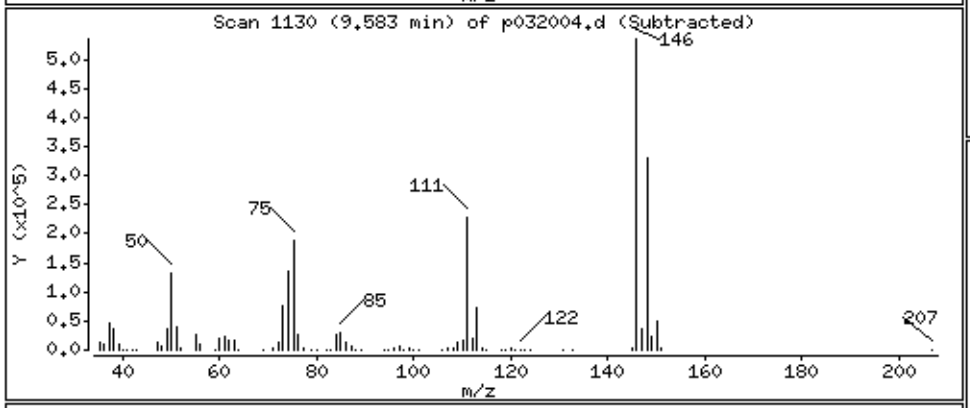
Column phase: RTx-624

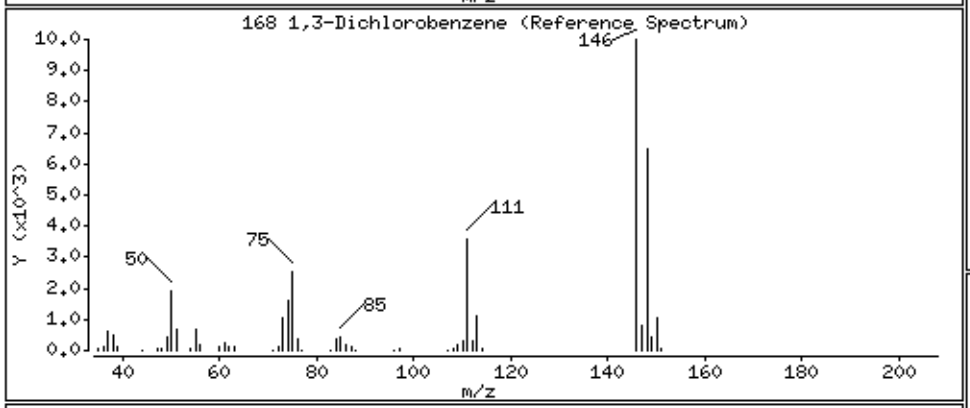
Column diameter: 0.53

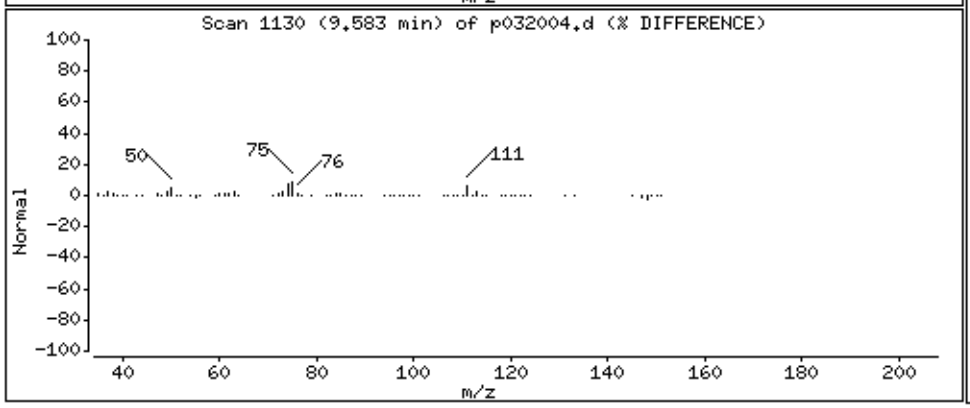
168 1,3-Dichlorobenzene

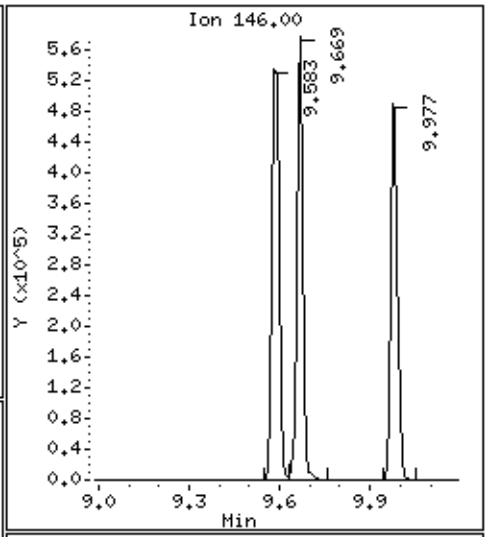
Concentration: 51.032 PPBV

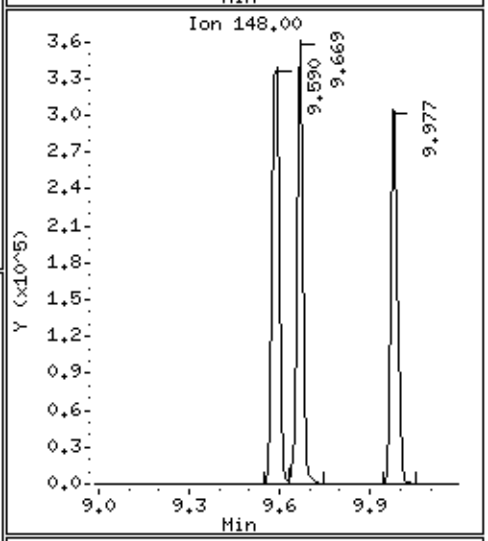


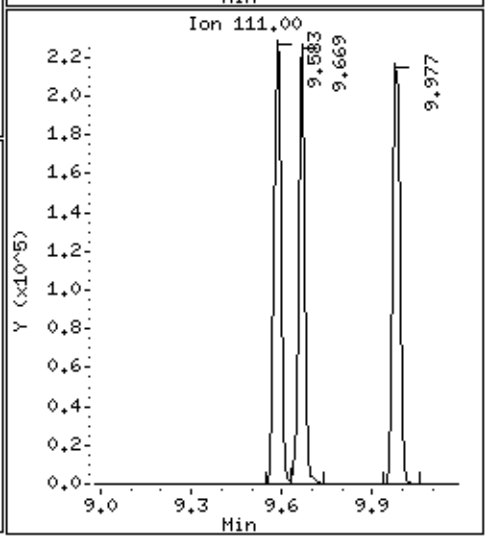



Data File: /chem/msdp.i/20mar10.b/p032004.d

Date : 19-MAR-2010 22:35

Client ID: LCS-1

Instrument: msdp.i

Sample Info: 50ml 1911-194

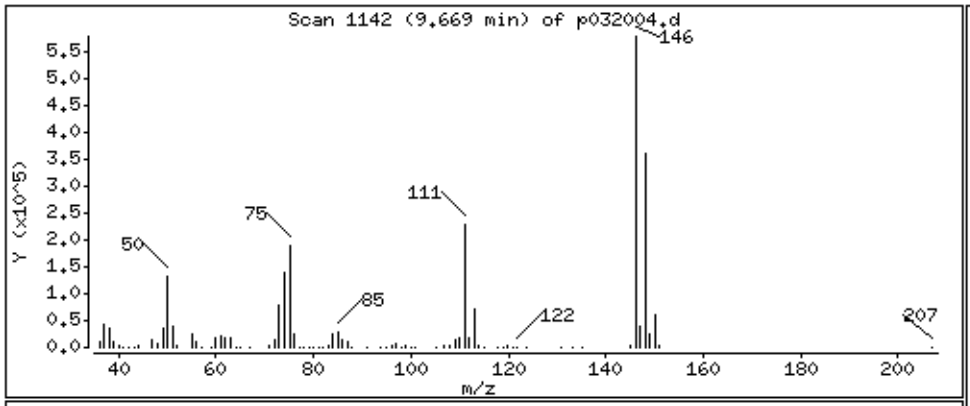
Operator: ra

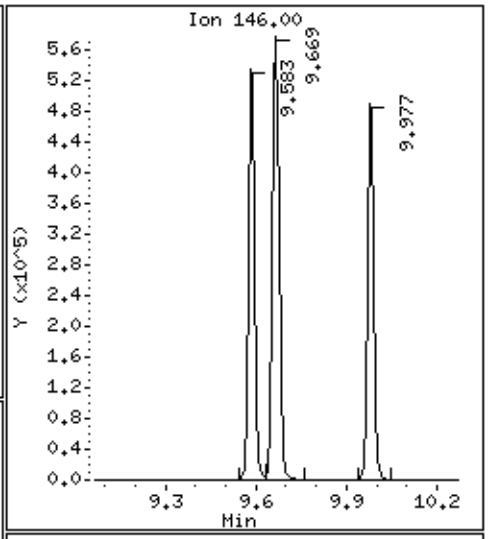
Column phase: RTx-624

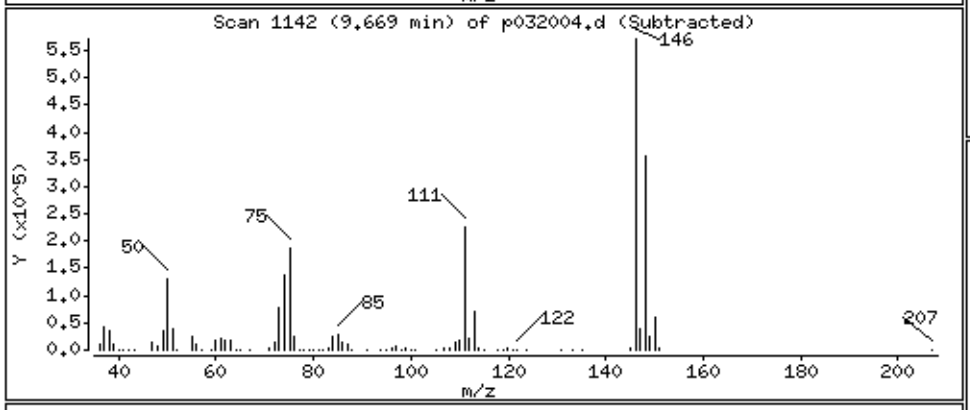
Column diameter: 0.53

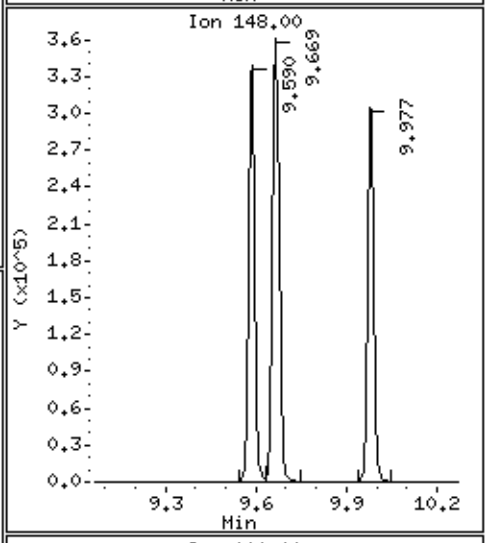
169 1,4-Dichlorobenzene

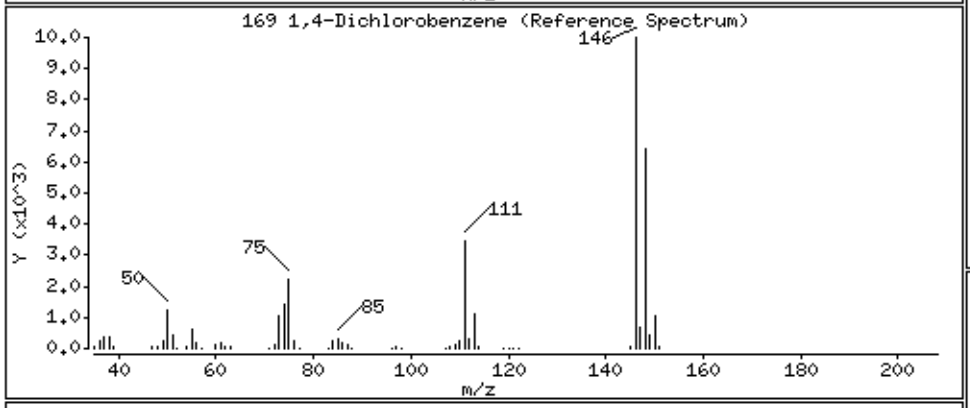
Concentration: 53.282 PPBV

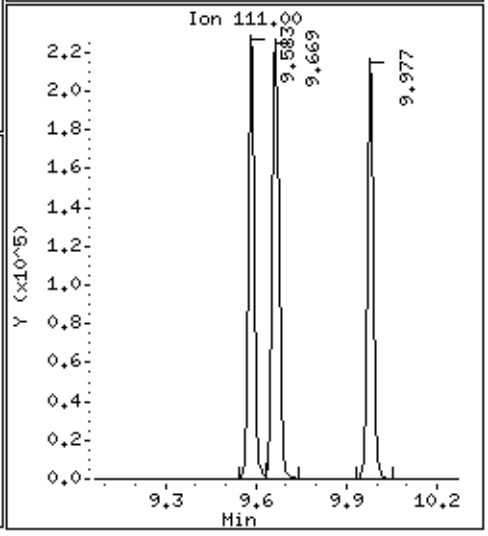


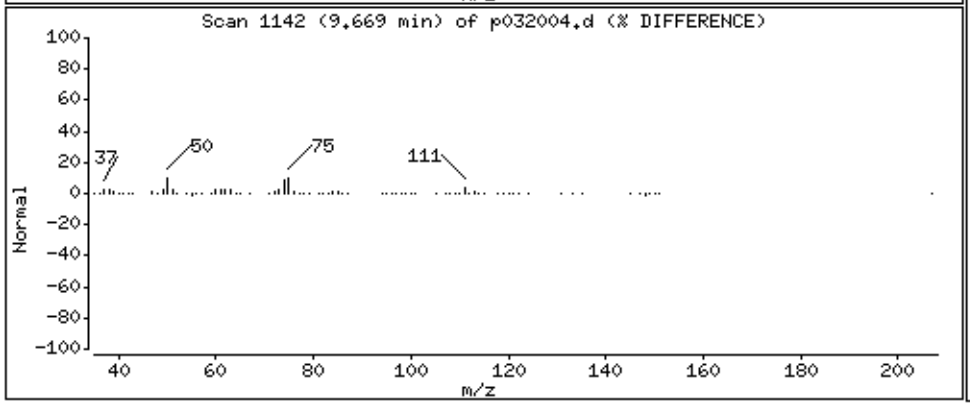



Data File: /chem/msdp.i/20mar10.b/p032004.d

Date : 19-MAR-2010 22:35

Client ID: LCS-1

Instrument: msdp.i

Sample Info: 50ml 1911-194

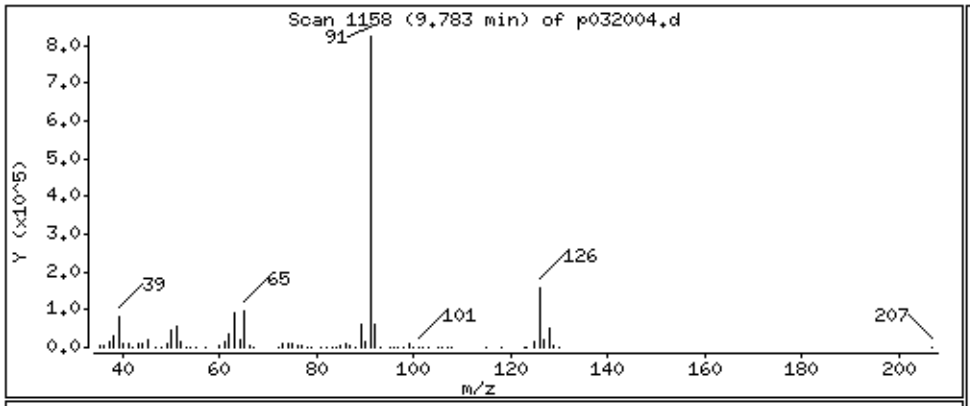
Operator: ra

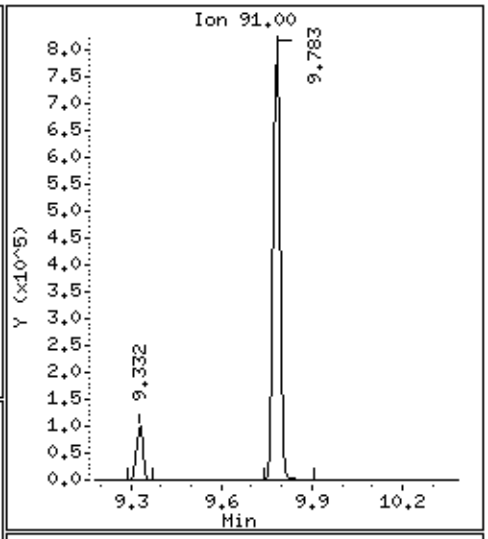
Column phase: RTx-624

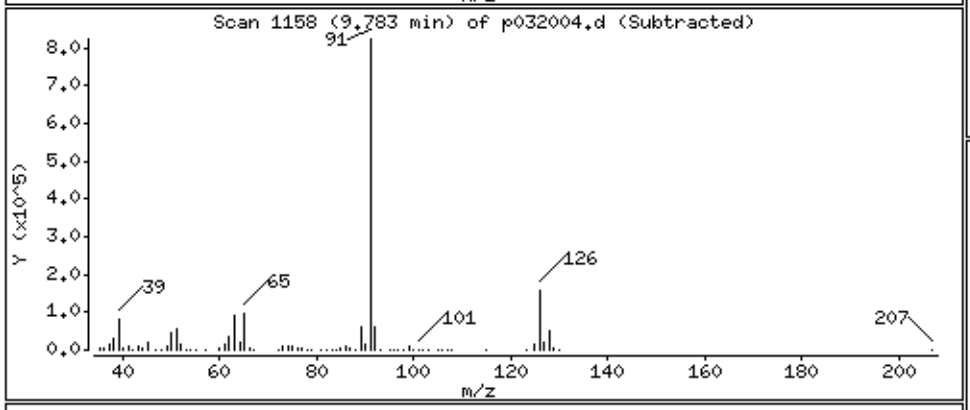
Column diameter: 0.53

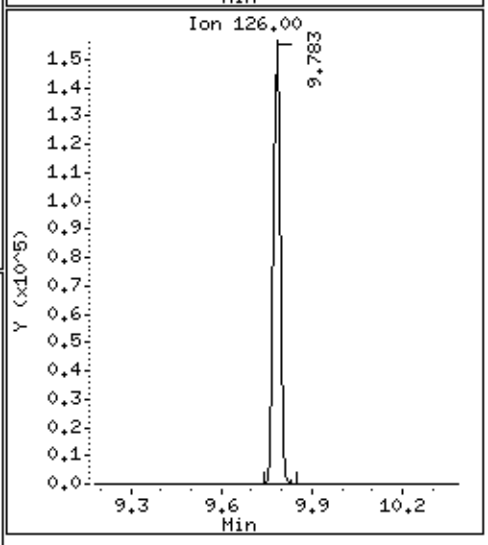
170 alpha-Chlorotoluene

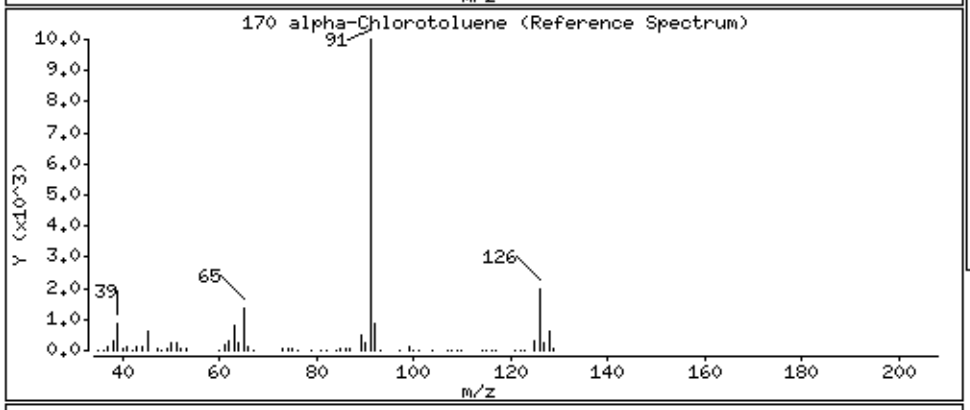
Concentration: 56.862 PPBV

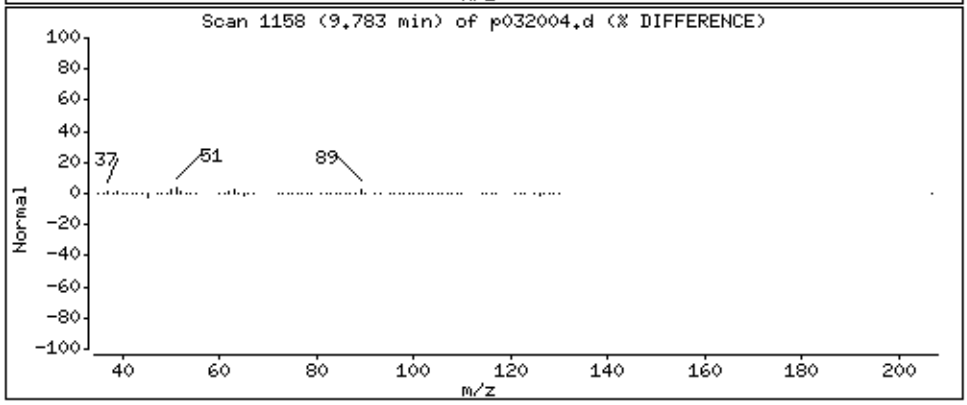


Data File: /chem/msdp.i/20mar10.b/p032004.d

Date : 19-MAR-2010 22:35

Client ID: LCS-1

Instrument: msdp.i

Sample Info: 50ml 1911-194

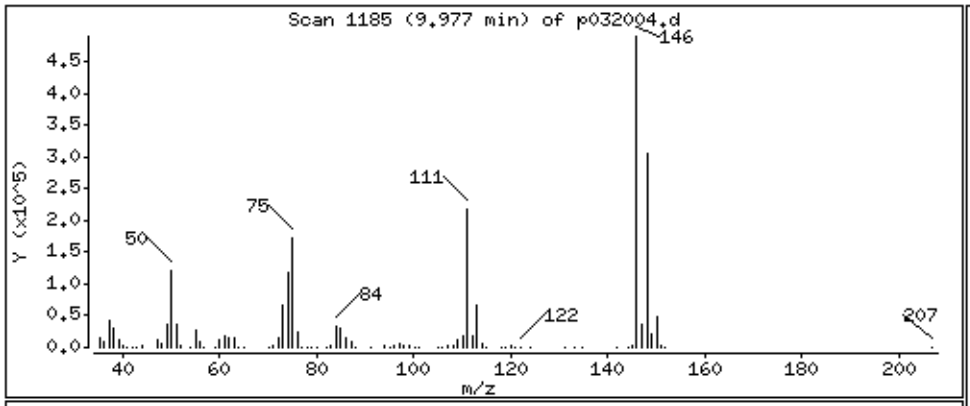
Operator: ra

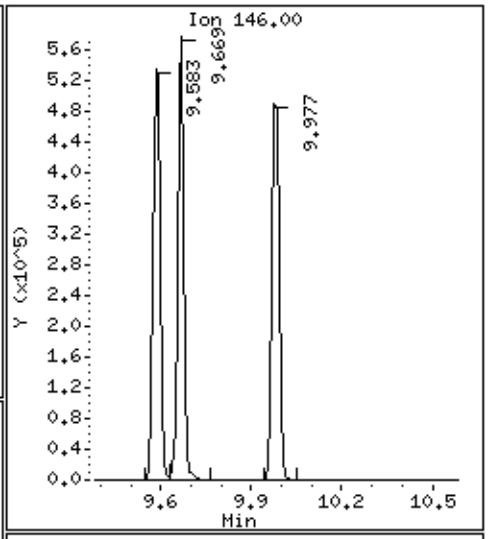
Column phase: RTx-624

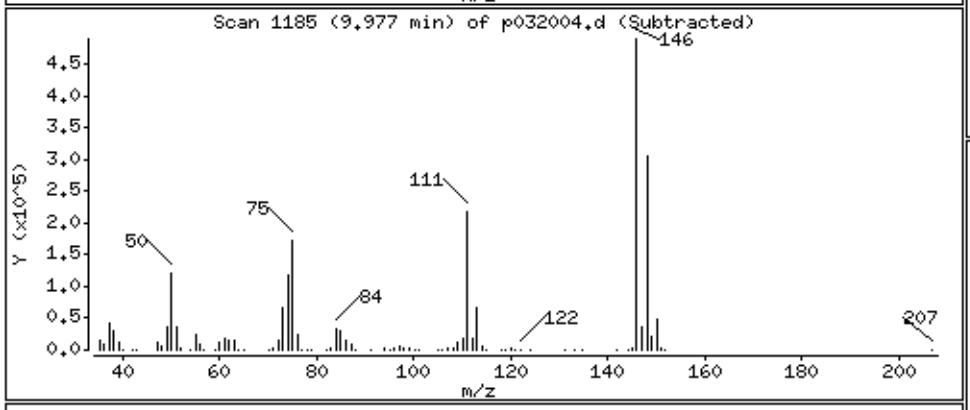
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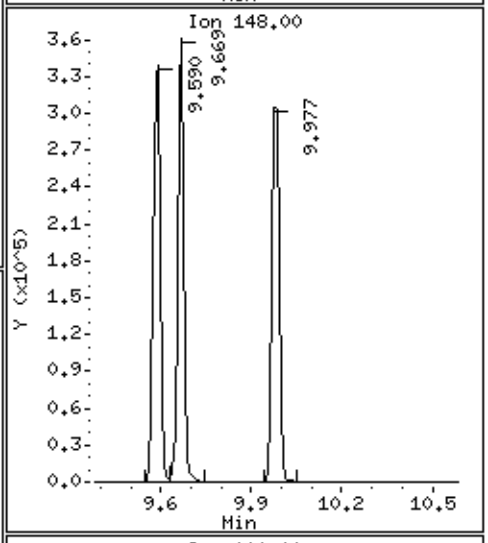
171 1,2-Dichlorobenzene

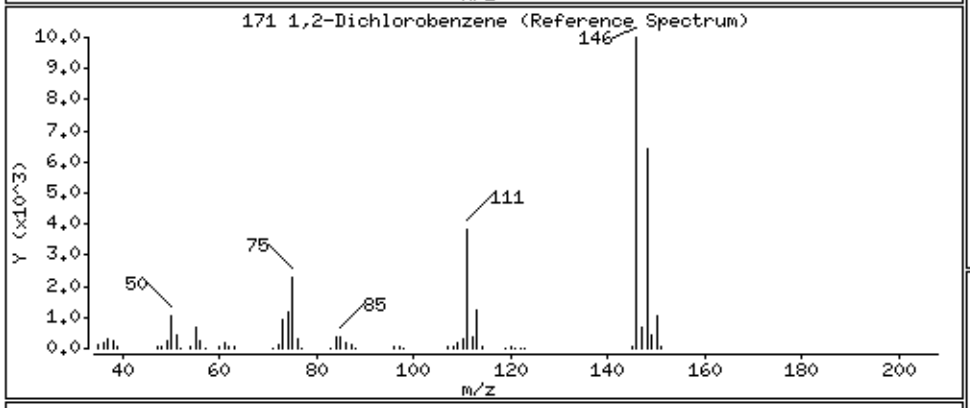
Concentration: 54.282 PPBV

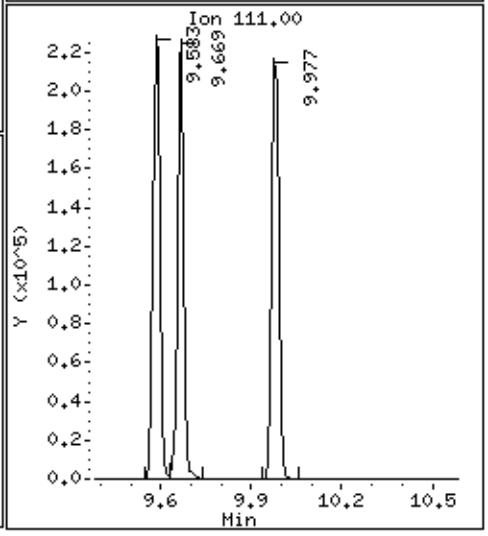


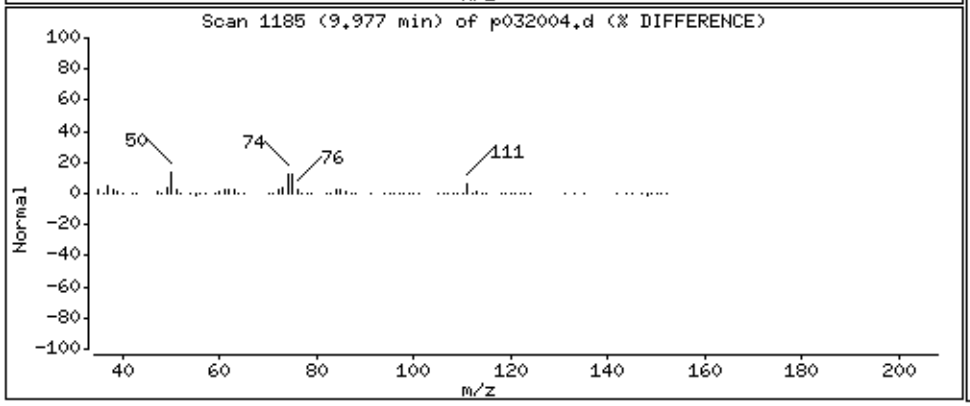



Data File: /chem/msdp.i/20mar10.b/p032004.d

Date : 19-MAR-2010 22:35

Client ID: LCS-1

Instrument: msdp.i

Sample Info: 50ml 1911-194

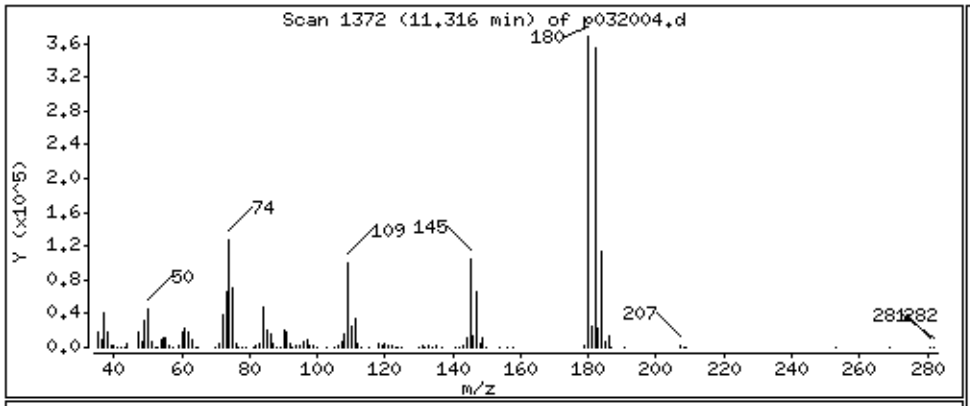
Operator: ra

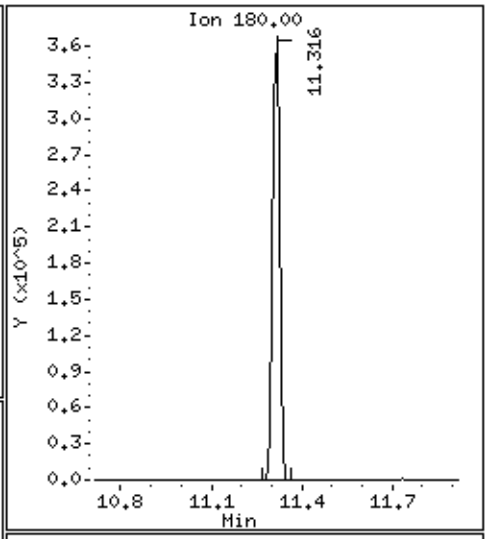
Column phase: RTx-624

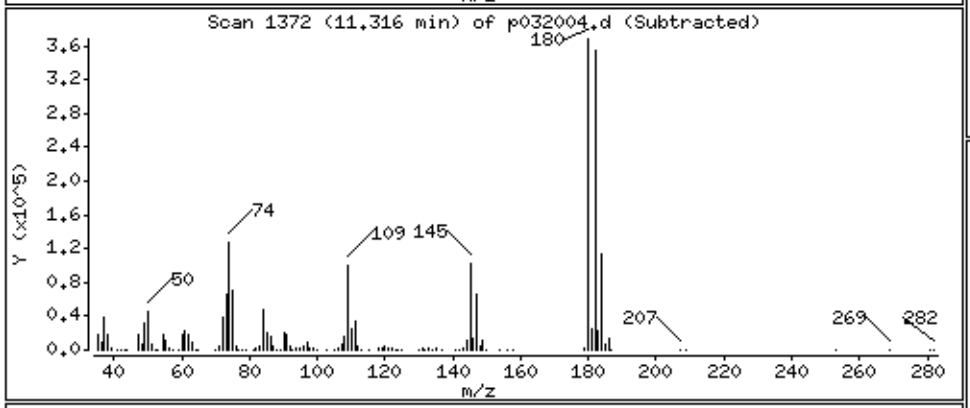
Column diameter: 0.53

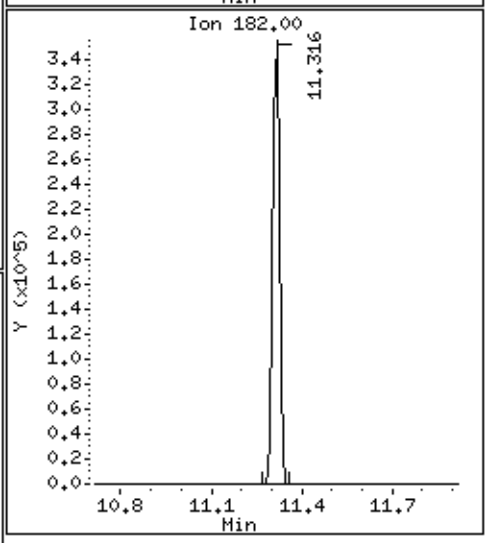
174 1,2,4-Trichlorobenzene

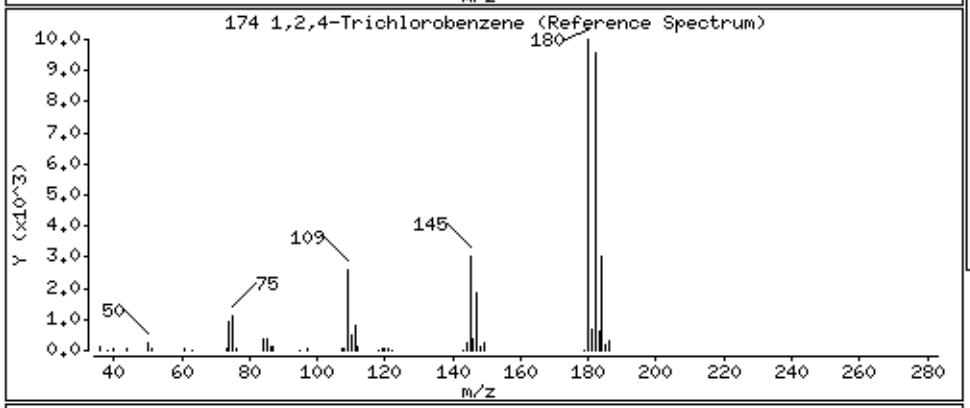
Concentration: 61.018 PPBV

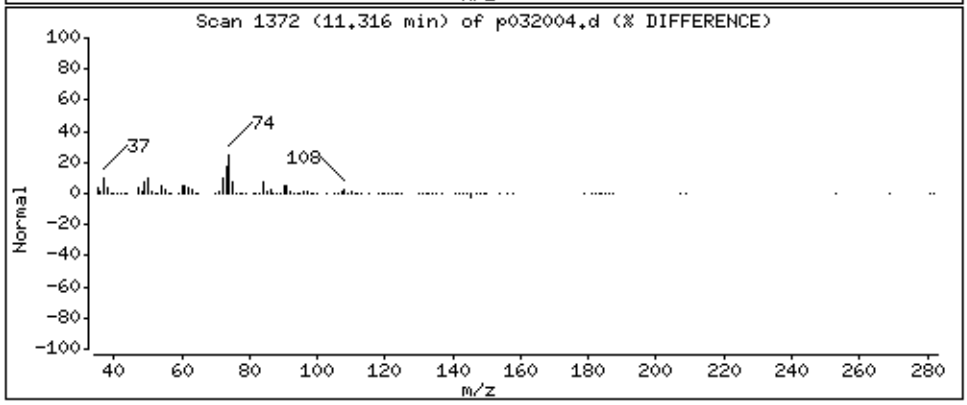


Data File: /chem/msdp.i/20mar10.b/p032004.d

Date : 19-MAR-2010 22:35

Client ID: LCS-1

Instrument: msdp.i

Sample Info: 50ml 1911-194

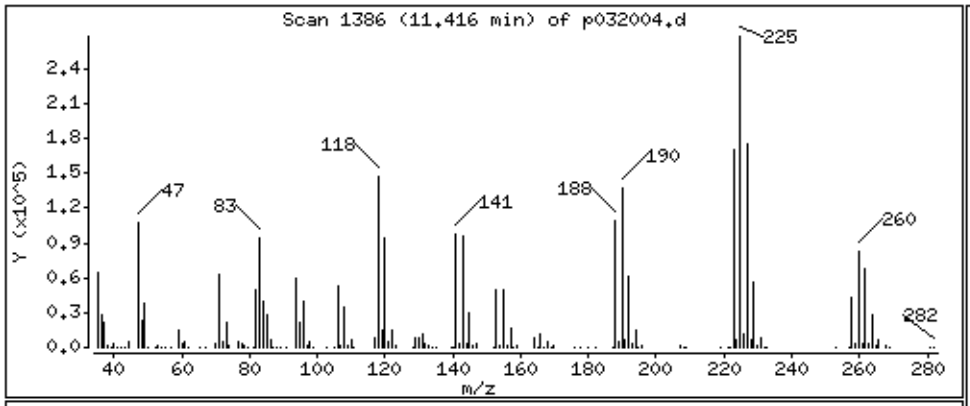
Operator: ra

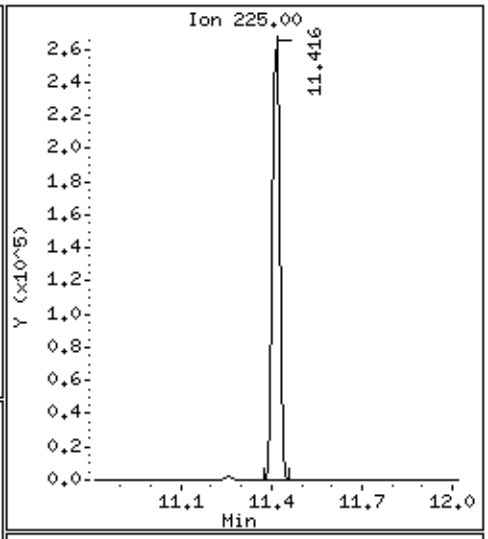
Column phase: RTx-624

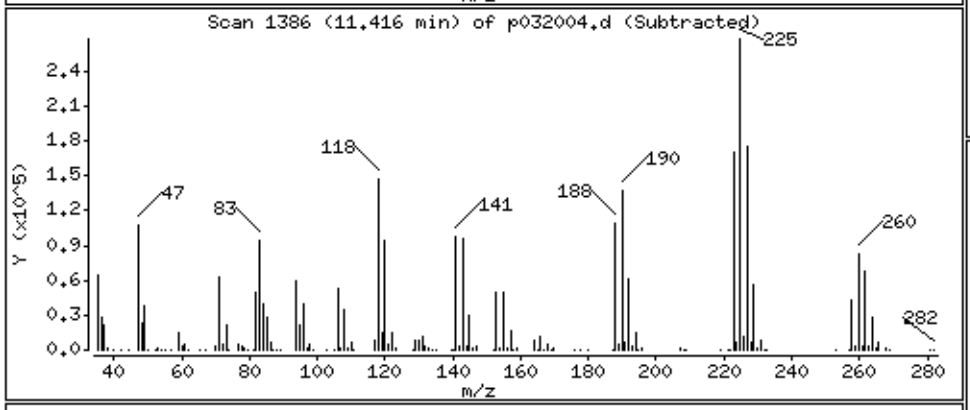
Column diameter: 0.53

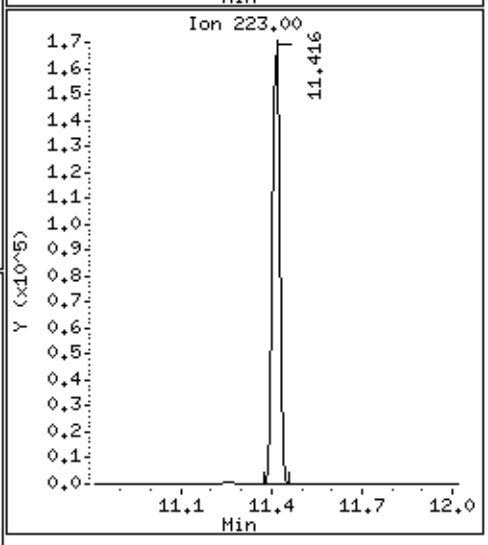
175 Hexachlorobutadiene

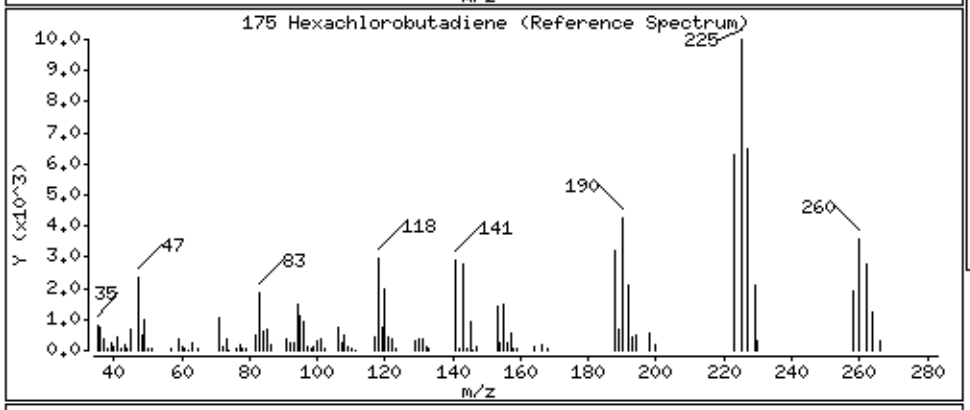
Concentration: 50.697 PPBV

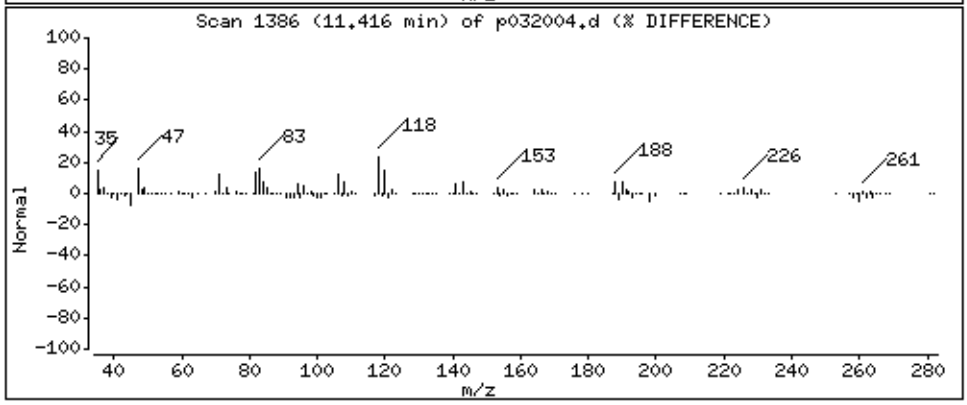


Data File: /chem/msdp.i/20mar10.b/p032004.d

Date : 19-MAR-2010 22:35

Client ID: LCS-1

Instrument: msdp.i

Sample Info: 50ml 1911-194

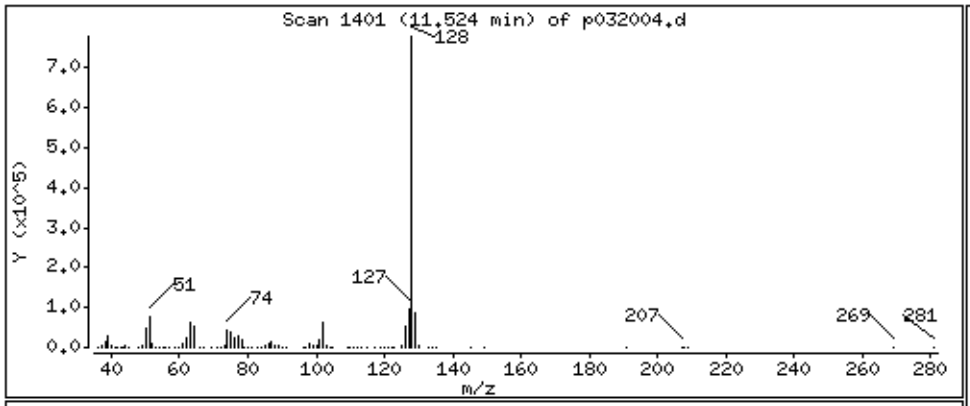
Operator: ra

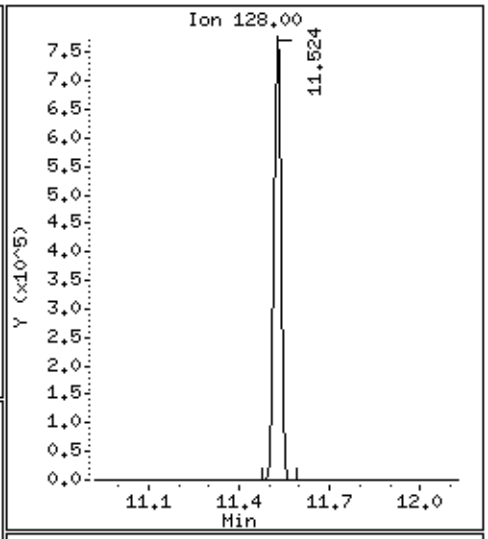
Column phase: RTx-624

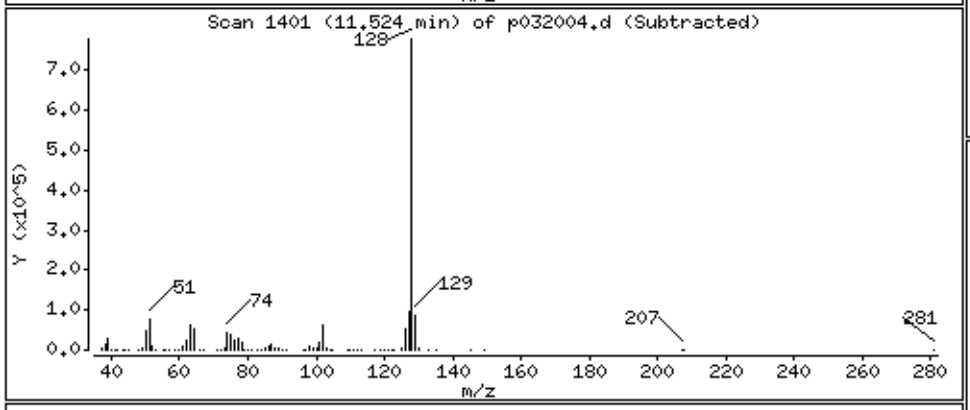
Column diameter: 0.53

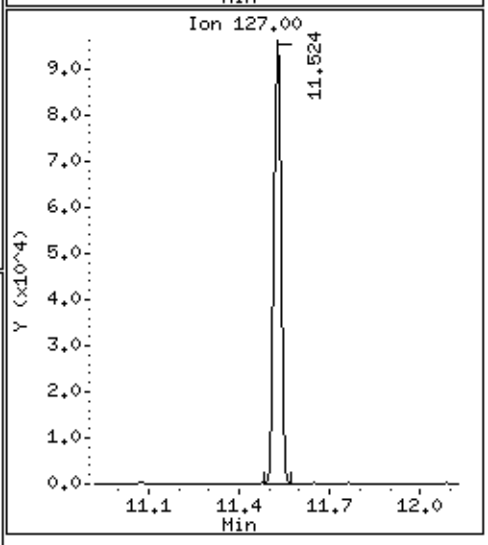
176 Naphthalene

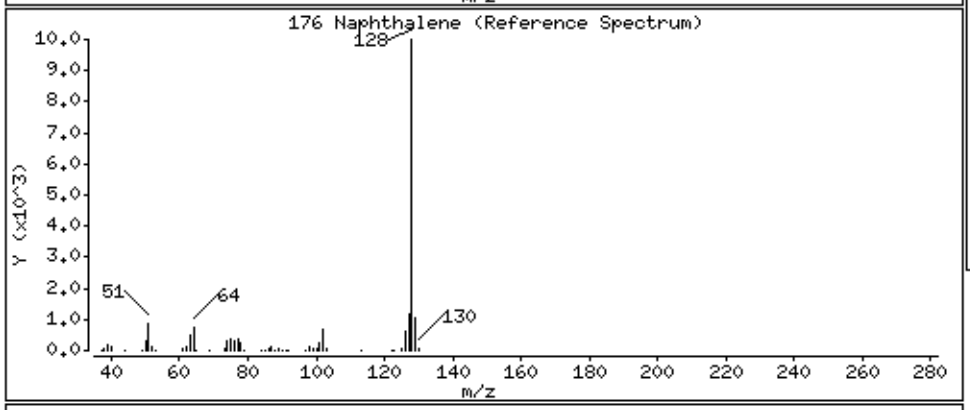
Concentration: 60.448 PPBV

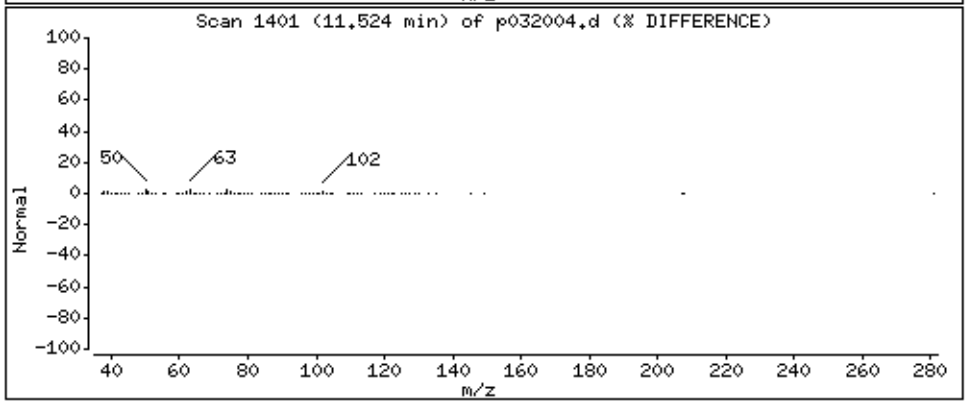


@ Air Toxics Ltd.

# MSD-P

RA 3/19/10 Logbook #: 1921

| m/z | ION ABUNDANCE CRITERIA | % REL. ABUNDANCE |
|---|---|---|
| 50 | 15.0 – 40.0% of mass 95 | 26.33 |
| 75 | 30.0 – 60.0% of mass 95 | 54.80 |
| 95 | Base peak, 100.00% relative abundance | 100.00 |
| 96 | 5.0 – 9.0% of mass 95 | 7.28 |
| 173 | Less than 2.0% of mass 174 | ( 0.68 )[1] |
| 174 | 50.0 – 100% of mass 95 | 76.47 |
| 175 | 5.0 – 9.0% of mass 174 | ( 6.92 )[1] |
| 176 | Greater than 95.0% but less than 101.0% of mass 174 | ( 95.70 )[1] |
| 177 | 5.0 – 9.0% of mass 176 | ( 6.06 )[2] |

[1] - value in parenthesis is % mass 174 [2] - value in parenthesis is % mass 176

BFB Injection Date: 3/19/10
BFB Injection Time: 2145
BFB File ID: P032002
Tekmar Purge Flow: 7 CR 03/22/10
Vacuum:

| | | |
|---|---|---|
| IS/S Std.#: | 1911-304 | Exp. Date: 6/16/10 |
| BCM | 147,132 | |
| 1,4-DFB | 499,171 | |
| CB-d5 | 450,394 | |

*Verified CCV IS vs ICAL mid-point (- 40%D)* initials

**Verify 176/174 m/z Ratio:** 77085/80549 x 100 = 95.70 %

**NOAH Cart #:** — **File #:** —

**Calculation Check:**

ppbv of compound $= \frac{Area_{Sample}}{Area_{IS}} \times \frac{Conc._{IS}}{RRF} = \frac{(555292)}{(499171)} \times \frac{(25.00)}{(1.03110)} = 26.972$

| | |
|---|---|
| File ID: | P032005 |
| Compound: | Toluene-d8 |
| Initials: | CR |

*Reported Result* 26.972

**Method:** P10Q031A

| | Data | File # | Sample / Client Name | Can # | Pressure | Amt Loaded | DF | Loaded by Init. | Date Analyzed | Time Analyzed | Reviewed by Init. | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | X | P032001 | BFB Tune check | 1911-304 | 36psig | 1mL | 1.00 | RA | 3/19/10 | 2120 | RA — | |
| 2 | ✓ | 02 | ↓ | ↓ | ↓ | ↓ | ↓ | RA | \| | 2145 | RA KS | |
| 3 | X | 03 | CCV-1 (200ppbv) | 1911-213 | 50psig | 50mL | 1.00 | RA | \| | 2215 | RA KS | NO chloromethane |
| 4 | ✓ | 04 | LCS-1 (200ppbv) | 1911-194 | ↓ | ↓ | ↓ | RA | \| | 2235 | RA KS | 1 out |
| 5 | ✓ | 05 | CCV-1 (200ppbv) | 1911-213 | ↓ | ↓ | ↓ | RA | \| | 2303 | RA KS | 1 out Chloromethane <40% |
| 6 | ✓ | 06 | LCSD (200ppbv) | 1911-194 | ↓ | ↓ | ↓ | RA | ↓ | 2327 | KS KS | |
| 7 | X | 07 | lab Blank | 21017 | Humid | 200 mL | 1.00 | KS | 3/20/10 | 0753 | ↓ KS | cmpds > RL |
| 8 | ✓ | 08 | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | 0818 | ↓ KS | |

Signature

03/22/10
Date

@ Air Toxics Ltd. **MSD-P** Logbook #: 1921

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9 | ✓ | P032009 | 1003335-01A | 7237 | 4.0"Hg 5psi | 200mL | 1.55 | KJ | 3/26/10 | 0909 | XP/LO | | |
| 10 | ✓ | 10 | -02A | 3341 | 5.0"Hg 5psi | 1 | 1.61 | KJ | | 0911 | XP/LO | | |
| 11 | ✓ | 11 | 1003379-01A | 35338 | 5.5"Hg 15psi | 200ml | 2.47 | XP | | 1000 | XP/LO | | |
| 12 | ✓ | 12 | 1003364-01A | 1580 | 5.2"Hg 15psi | 200ml | 1.62 | XP | | 1033 | XP/LO | | |
| 13 | ✓ | 13 | -02A | 5461 | 5.0"Hg 5psi | 200ml | 1.61 | XP | | 1133 | XP/LO | | |
| 14 | ✓ | 14 | -02AA | 1 | 1 | 1 | 1 | XP | | 1158 | XP/LO | | |
| 15 | ✓ | 15 | 1003360-01A | 39757 | 5.0"Hg 5psi | 200ml | 1.61 | XP | | 1259 | XP/LO | | |
| 16 | ✓ | 16 | -02A | 415 | 9.0"Hg 5psi | 200ml | 1.91 | XP | | 1329 | XP/LO | | |
| 17 | ✓ | 17 | -03A | 24219 | 4.0"Hg 5psi | 200ml | 1.58 | XP | | 1442 | XP/LO | | |
| 18 | ✓ | 18 | -04A | 5718 | 7.6"Hg 5psi | 200ml | 1.79 | XP | | 1510 | XP/LO | "E" EtOH | |
| 19 | ✓ | 19 | -04AA | 1 | 1 | 1 | 1 | XP | | 1536 | XP/LO | ↓ | |
| 20 | X | 20 | System Blank | 2107 | Hg/l | 200ml | 1.00 | XP | | 1620 | XP/LO | | |
| 21 | ✓ | 21 | 1 | 1 | 1 | 1 | 1 | XP | | 1649 | XP/LO | | |
| 22 | ✓ | 22 | 1003330-01A | 25755 | 10.5"Hg 5psi | 1 | 2.06 | XP | | 1724 | XP/LO | | |
| 23 | ✓ | 23 | 1003356-04A | 34138 | 1.0"Hg 5psi | 200ml | 2.09 | XP | | 1803 | XP/LO | | |
| 24 | ✓ | 24 | -05A | 36036 | 4.0"Hg 15psi | 200ml | 2.33 | XP | | 1830 | XP/LO | | |
| 25 | ✓ | 25 | -06A | 31632 | 5.5"Hg 15psi | 200ml | 2.47 | XP | | 1905 | XP/LO | | |
| 26 | ✓ | 26 | -07A | 34631 | 4.0"Hg 15psi | 200ml | 2.33 | XP | | 1934 | LO | | |
| 27 | | | | | | | | | | | | | |
| 28 | | | | | | | | | | | | | |
| 29 | | | | | | | | | | | | | |
| 30 | | | | | | | | | | | | | |
| 31 | | | | | | | | | | | | | |

TF 3/21/10

**Comments:** * IS area high. XP 3/20/10

Signature

03/22/10
Date

Air Toxics Ltd.

Data file : /var/chem/msdp.i/11mar10.b/p031102.d
Lab Smp Id: BFB Client Smp ID: BFB
Inj Date : 11-MAR-2010 08:37
Operator : cr Inst ID: msdp.i
Smp Info : 1.0mL #1911-157; BFB Tune Check
Misc Info : 36ng
Comment :
Method : /var/chem/msdp.i/11mar10.b/bfb30.m
Meth Date : 11-Mar-2010 08:20 Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 1 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: WATER
Processing Host: eeyore

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.00000 | Dilution Factor |
| Uf | 1.00000 | ng unit correction factor |
| Vf | 1.00000 | Volumetric correction factor |
| Vi | 1.00000 | Injection Volume |

Cpnd Variable Local Compound Variable

| | | | | | CONCENTRATIONS ON-COL | CONCENTRATIONS FINAL | | |
|---|---|---|---|---|---|---|---|---|
| RT | EXP RT | DLT RT | MASS | RESPONSE | ( ug/L) | ( ug/L) | TARGET RANGE | RATIO |
| 1 bfb | | | | | | CAS #: 460-00-4 | | |
| 8.687 | 8.419 | 0.268 | 95 | 92061 | | | 100.00- 100.00 | 100.00 |
| 8.687 | 8.419 | 0.268 | 50 | 19601 | | | 15.00- 40.00 | 21.29 |
| 8.687 | 8.419 | 0.268 | 75 | 46829 | | | 30.00- 60.00 | 50.87 |
| 8.687 | 8.419 | 0.268 | 96 | 5831 | | | 5.00- 9.00 | 6.33 |
| 8.687 | 8.419 | 0.268 | 173 | 422 | | | 0.00- 1.99 | 0.63 |
| 8.687 | 8.419 | 0.268 | 174 | 67458 | | | 50.01- 100.00 | 73.28 |
| 8.687 | 8.419 | 0.268 | 175 | 4967 | | | 5.00- 9.00 | 7.36 |
| 8.687 | 8.419 | 0.268 | 176 | 65624 | | | 95.01- 100.99 | 97.28 |
| 8.687 | 8.419 | 0.268 | 177 | 4513 | | | 5.00- 9.00 | 6.88 |

Data File: /var/chem/msdp.i/11mar10.b/p031102.d



Date : 11-MAR-2010 08:37

Client ID: BFB

Instrument: msdp.i

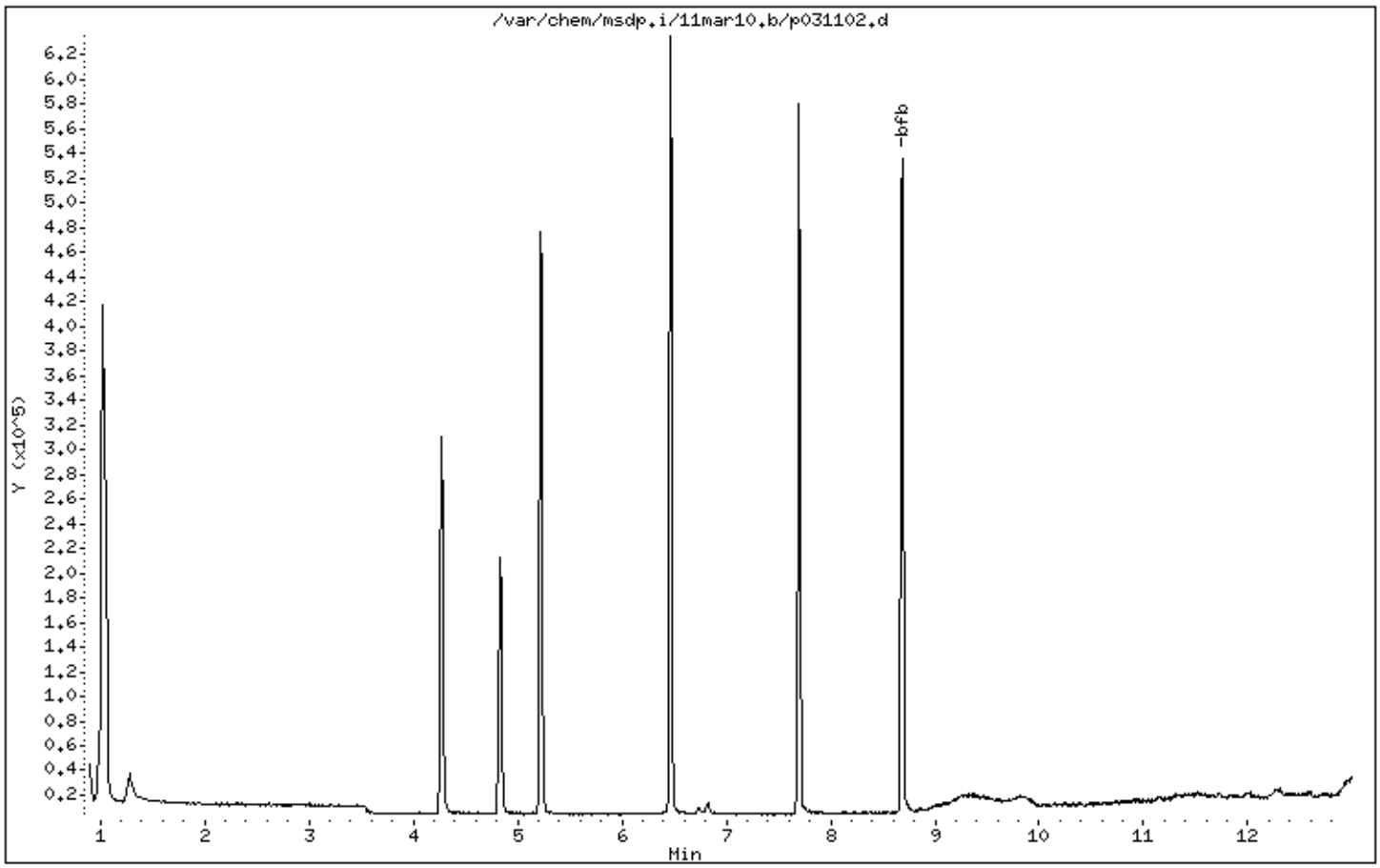
Sample Info: 1.0mL #1911-157; BFB Tune Check

Volume Injected (uL): 1.0

Operator: cr

Column phase:

Column diameter: 2.00



Data File: /var/chem/msdp.i/11mar10.b/p031102.d

Date : 11-MAR-2010 08:37

Client ID: BFB

Instrument: msdp.i

Sample Info: 1.0mL #1911-157; BFB Tune Check

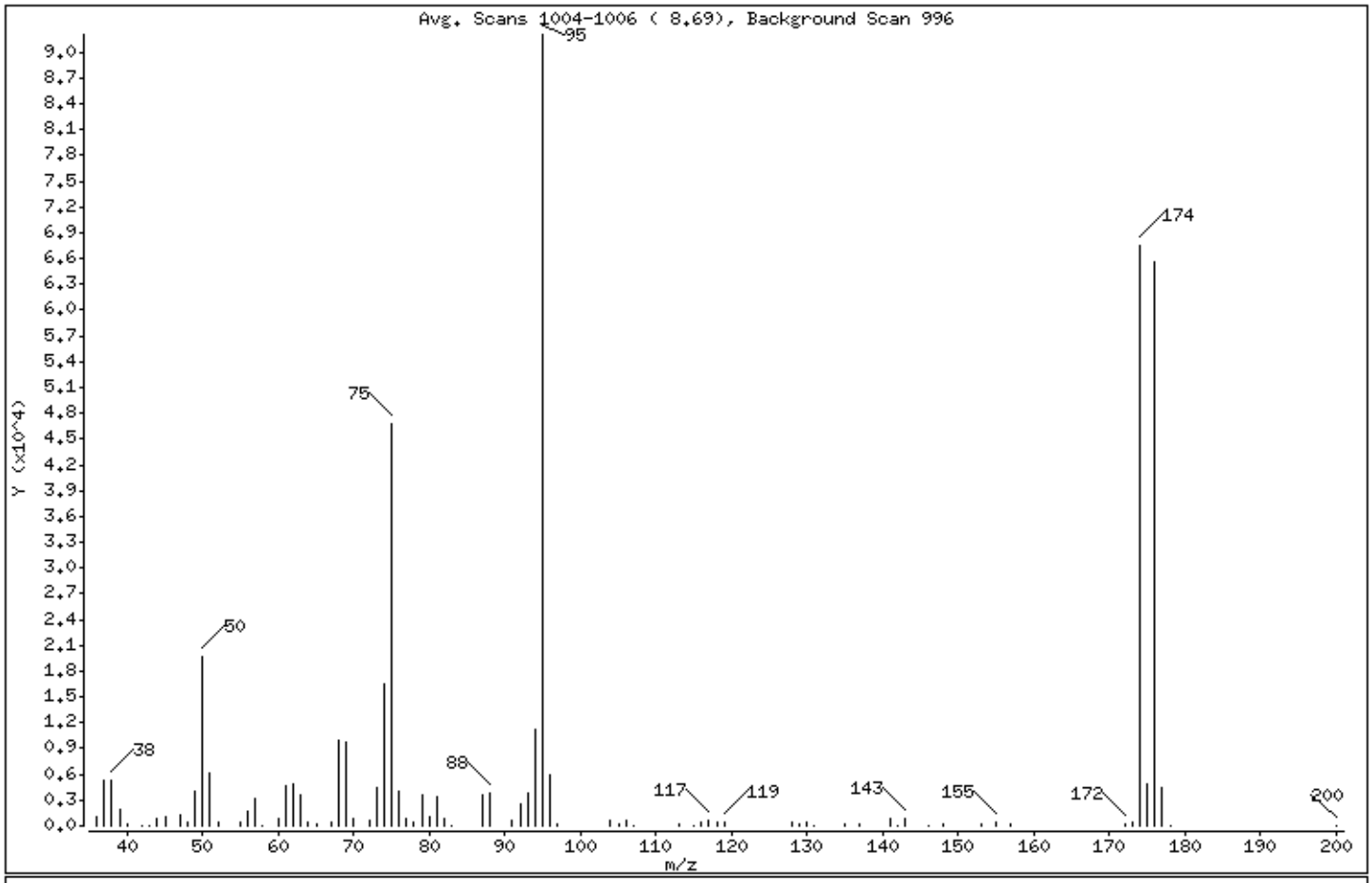
Volume Injected (uL): 1.0

Operator: cr

Column phase:

Column diameter: 2.00

1 bfb




| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 95 | Base Peak, 100% relative abundance | 100.00 |
| 50 | 15.00 - 40.00% of mass 95 | 21.29 |
| 75 | 30.00 - 60.00% of mass 95 | 50.87 |
| 96 | 5.00 - 9.00% of mass 95 | 6.33 |
| 173 | Less than 1.99% of mass 174 | 0.46 ( 0.63) |
| 174 | 50.01 - 100.00% of mass 95 | 73.28 |
| 175 | 5.00 - 9.00% of mass 174 | 5.40 ( 7.36) |
| 176 | 95.01 - 100.99% of mass 174 | 71.28 ( 97.28) |
| 177 | 5.00 - 9.00% of mass 176 | 4.90 ( 6.88) |

Date : 11-MAR-2010 08:37

Client ID: BFB Instrument: msdp.i

Sample Info: 1.0mL #1911-157; BFB Tune Check

Volume Injected (uL): 1.0 Operator: cr

Column phase: Column diameter: 2.00

Data File: p031102.d
Spectrum: Avg. Scans 1004-1006 ( 8.69), Background Scan 996
Location of Maximum: 95.00
Number of points: 82

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 36.00 | 1053 | 62.00 | 4820 | 88.00 | 3779 | 131.00 | 80 |
| 37.00 | 5213 | 63.00 | 3609 | 91.00 | 536 | 135.00 | 199 |
| 38.00 | 5250 | 64.00 | 422 | 92.00 | 2460 | 137.00 | 188 |
| 39.00 | 1882 | 65.00 | 129 | 93.00 | 3787 | 141.00 | 795 |
| 40.00 | 238 | 67.00 | 410 | 94.00 | 11120 | 142.00 | 74 |
| 42.00 | 62 | 68.00 | 9844 | 95.00 | 92056 | 143.00 | 936 |
| 43.00 | 36 | 69.00 | 9719 | 96.00 | 5831 | 146.00 | 74 |
| 44.00 | 815 | 70.00 | 781 | 97.00 | 234 | 148.00 | 140 |
| 45.00 | 1012 | 72.00 | 542 | 104.00 | 539 | 153.00 | 117 |
| 47.00 | 1260 | 73.00 | 4360 | 105.00 | 157 | 155.00 | 361 |
| 48.00 | 520 | 74.00 | 16584 | 106.00 | 531 | 157.00 | 180 |
| 49.00 | 4025 | 75.00 | 46824 | 107.00 | 55 | 172.00 | 132 |
| 50.00 | 19600 | 76.00 | 4060 | 113.00 | 119 | 173.00 | 422 |
| 51.00 | 6184 | 77.00 | 757 | 115.00 | 27 | 174.00 | 67456 |
| 52.00 | 382 | 78.00 | 395 | 116.00 | 404 | 175.00 | 4967 |
| 55.00 | 352 | 79.00 | 3550 | 117.00 | 548 | 176.00 | 65624 |
| 56.00 | 1747 | 80.00 | 990 | 118.00 | 445 | 177.00 | 4513 |
| 57.00 | 3087 | 81.00 | 3336 | 119.00 | 527 | 178.00 | 52 |
| 58.00 | 58 | 82.00 | 812 | 128.00 | 417 | 200.00 | 56 |
| 60.00 | 798 | 83.00 | 65 | 129.00 | 218 | | |
| 61.00 | 4574 | 87.00 | 3620 | 130.00 | 326 | | |

Air Toxics Ltd.

Data file : /var/chem/msdp.i/20mar10.b/p032002.d
Lab Smp Id: BFB Client Smp ID: BFB
Inj Date : 19-MAR-2010 21:45
Operator : ra Inst ID: msdp.i
Smp Info : 1.0mL #1911-304; BFB Tune Check
Misc Info : 36ng
Comment :
Method : /var/chem/msdp.i/20mar10.b/bfb30.m
Meth Date : 19-Mar-2010 21:32 Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 1 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: WATER
Processing Host: eeyore

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.00000 | Dilution Factor |
| Uf | 1.00000 | ng unit correction factor |
| Vf | 1.00000 | Volumetric correction factor |
| Vi | 1.00000 | Injection Volume |

Cpnd Variable Local Compound Variable

| | | | | | CONCENTRATIONS ON-COL | CONCENTRATIONS FINAL | | |
|---|---|---|---|---|---|---|---|---|
| RT | EXP RT | DLT RT | MASS | RESPONSE | ( ug/L) | ( ug/L) | TARGET RANGE | RATIO |
| 1 bfb | | | | | | CAS #: 460-00-4 | | |
| 8.687 | 8.419 | 0.268 | 95 | 105328 | | | 100.00- 100.00 | 100.00 |
| 8.687 | 8.419 | 0.268 | 50 | 27736 | | | 15.00- 40.00 | 26.33 |
| 8.687 | 8.419 | 0.268 | 75 | 57725 | | | 30.00- 60.00 | 54.80 |
| 8.687 | 8.419 | 0.268 | 96 | 7667 | | | 5.00- 9.00 | 7.28 |
| 8.687 | 8.419 | 0.268 | 173 | 548 | | | 0.00- 1.99 | 0.68 |
| 8.687 | 8.419 | 0.268 | 174 | 80549 | | | 50.01- 100.00 | 76.47 |
| 8.687 | 8.419 | 0.268 | 175 | 5574 | | | 5.00- 9.00 | 6.92 |
| 8.687 | 8.419 | 0.268 | 176 | 77085 | | | 95.01- 100.99 | 95.70 |
| 8.687 | 8.419 | 0.268 | 177 | 4669 | | | 5.00- 9.00 | 6.06 |

Data File: /var/chem/msdp.i/20mar10.b/p032002.d



Date : 19-MAR-2010 21:45

Client ID: BFB

Instrument: msdp.i

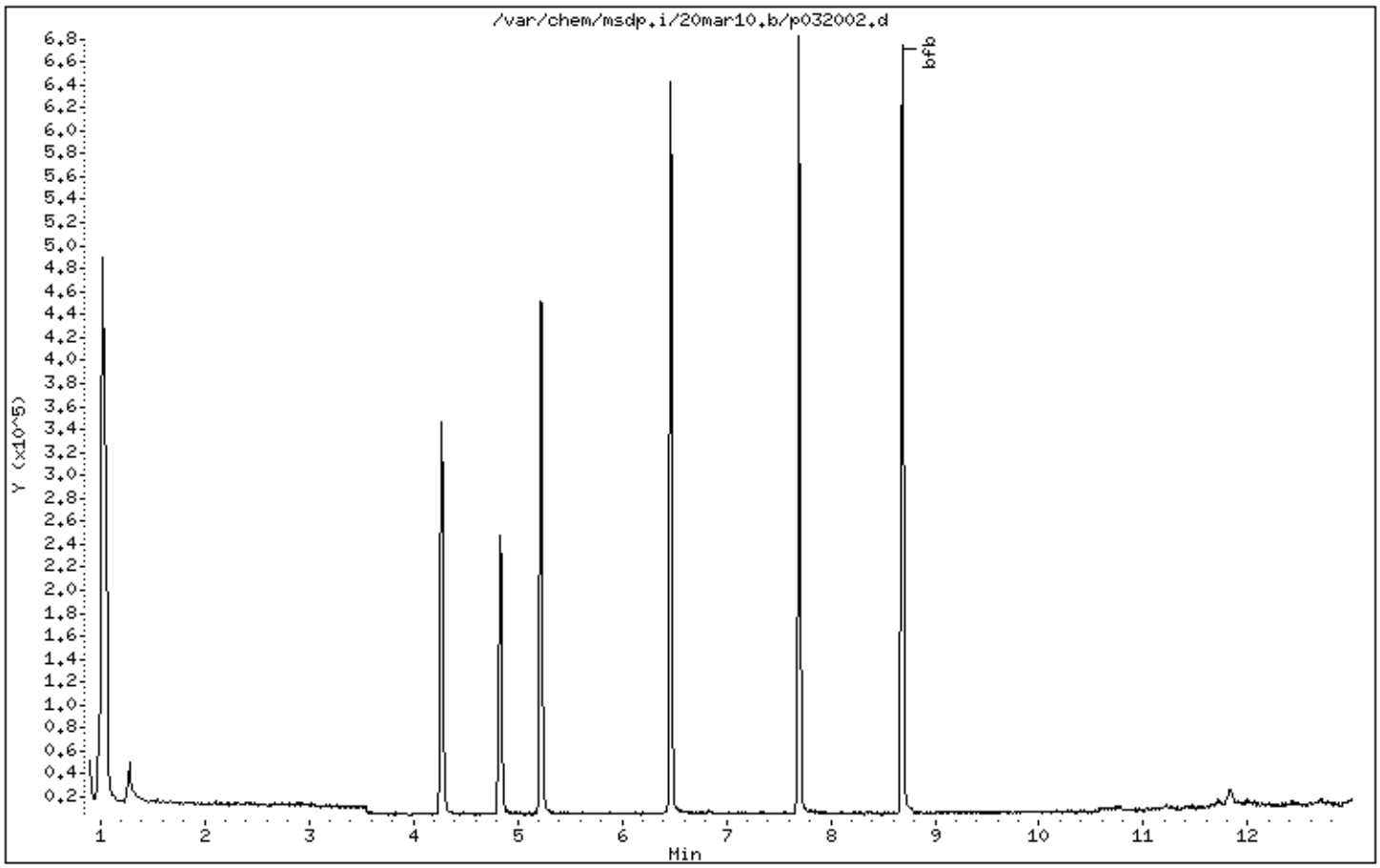
Sample Info: 1.0mL #1911-304; BFB Tune Check

Volume Injected (uL): 1.0

Operator: ra

Column phase:

Column diameter: 2.00



Data File: /var/chem/msdp.i/20mar10.b/p032002.d

Date : 19-MAR-2010 21:45

Client ID: BFB

Instrument: msdp.i

Sample Info: 1.0mL #1911-304; BFB Tune Check

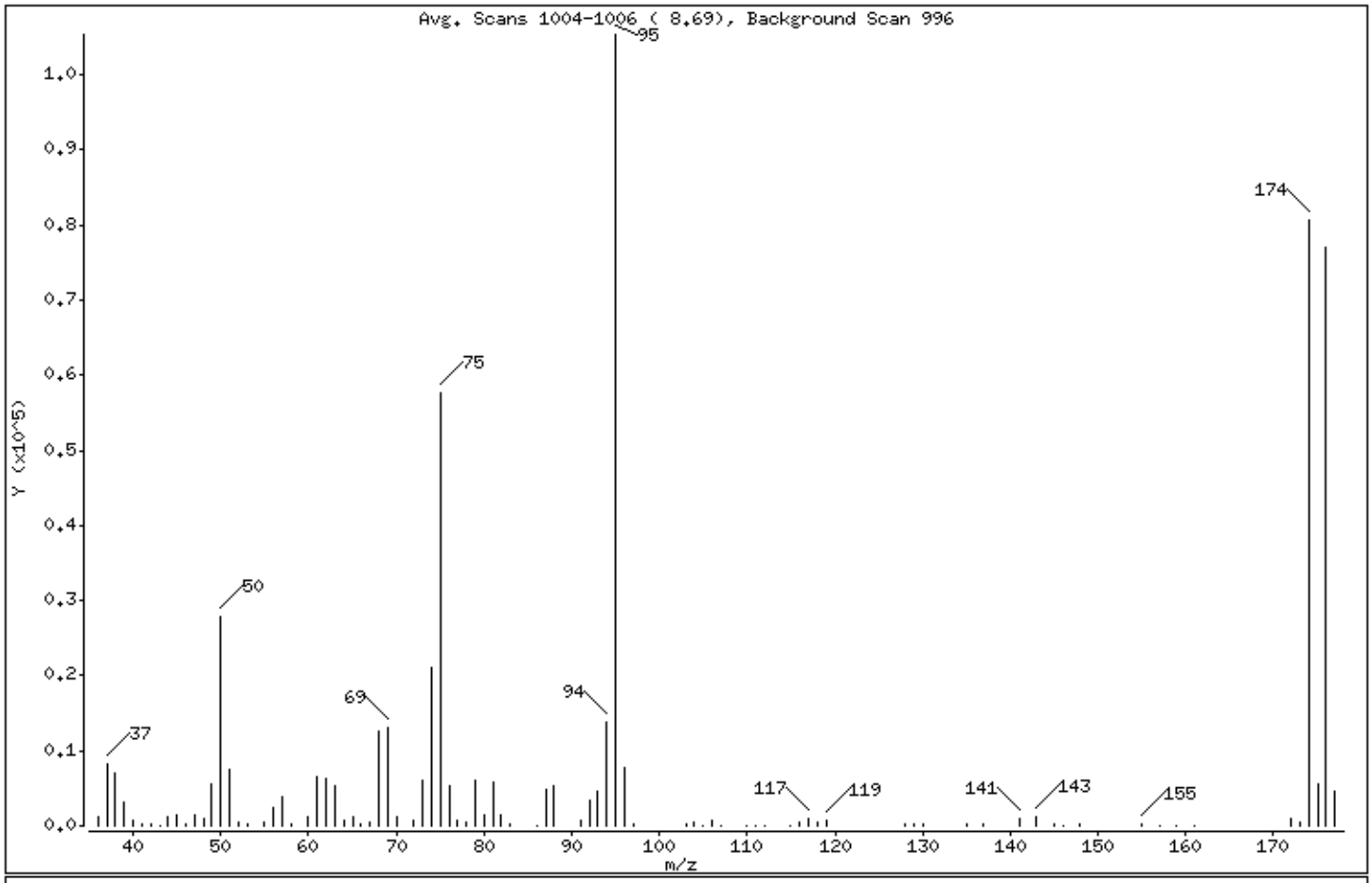
Volume Injected (uL): 1.0

Operator: ra

Column phase:

Column diameter: 2.00

1 bfb




| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 95 | Base Peak, 100% relative abundance | 100.00 |
| 50 | 15.00 - 40.00% of mass 95 | 26.33 |
| 75 | 30.00 - 60.00% of mass 95 | 54.80 |
| 96 | 5.00 - 9.00% of mass 95 | 7.28 |
| 173 | Less than 1.99% of mass 174 | 0.52 ( 0.68) |
| 174 | 50.01 - 100.00% of mass 95 | 76.47 |
| 175 | 5.00 - 9.00% of mass 174 | 5.29 ( 6.92) |
| 176 | 95.01 - 100.99% of mass 174 | 73.19 ( 95.70) |
| 177 | 5.00 - 9.00% of mass 176 | 4.43 ( 6.06) |

Data File: /var/chem/msdp.i/20mar10.b/p032002.d

Date : 19-MAR-2010 21:45

Client ID: BFB

Instrument: msdp.i

Sample Info: 1.0mL #1911-304; BFB Tune Check

Volume Injected (uL): 1.0

Operator: ra

Column phase:

Column diameter: 2.00

Data File: p032002.d
Spectrum: Avg. Scans 1004-1006 ( 8.69), Background Scan 996
Location of Maximum: 95.00
Number of points: 88

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 36.00 | 1241 | 61.00 | 6499 | 87.00 | 4919 | 129.00 | 166 |
| 37.00 | 8259 | 62.00 | 6218 | 88.00 | 5408 | 130.00 | 322 |
| 38.00 | 7093 | 63.00 | 5303 | 91.00 | 675 | 135.00 | 232 |
| 39.00 | 3266 | 64.00 | 710 | 92.00 | 3330 | 137.00 | 241 |
| 40.00 | 622 | 65.00 | 1106 | 93.00 | 4652 | 141.00 | 874 |
| 41.00 | 315 | 66.00 | 155 | 94.00 | 13871 | 143.00 | 1146 |
| 42.00 | 185 | 67.00 | 455 | 95.00 | 105328 | 145.00 | 268 |
| 43.00 | 18 | 68.00 | 12555 | 96.00 | 7667 | 146.00 | 53 |
| 44.00 | 1153 | 69.00 | 12976 | 97.00 | 282 | 148.00 | 193 |
| 45.00 | 1446 | 70.00 | 1207 | 103.00 | 124 | 155.00 | 259 |
| 46.00 | 209 | 72.00 | 739 | 104.00 | 592 | 157.00 | 85 |
| 47.00 | 1480 | 73.00 | 5999 | 105.00 | 111 | 159.00 | 80 |
| 48.00 | 913 | 74.00 | 21144 | 106.00 | 637 | 161.00 | 58 |
| 49.00 | 5493 | 75.00 | 57720 | 107.00 | 108 | 172.00 | 933 |
| 50.00 | 27736 | 76.00 | 5359 | 110.00 | 51 | 173.00 | 548 |
| 51.00 | 7491 | 77.00 | 773 | 111.00 | 54 | 174.00 | 80544 |
| 52.00 | 439 | 78.00 | 469 | 112.00 | 54 | 175.00 | 5574 |
| 53.00 | 176 | 79.00 | 6172 | 115.00 | 65 | 176.00 | 77080 |
| 55.00 | 470 | 80.00 | 1556 | 116.00 | 418 | 177.00 | 4669 |
| 56.00 | 2436 | 81.00 | 5793 | 117.00 | 863 | | |
| 57.00 | 3936 | 82.00 | 1503 | 118.00 | 462 | | |
| 58.00 | 235 | 83.00 | 263 | 119.00 | 659 | | |
| 60.00 | 1149 | 86.00 | 71 | 128.00 | 344 | | |

# Shipping/ Receiving Documents

# Air Toxics Ltd. Sample Receipt Confirmation Cover Page

Thank you for choosing Air Toxics Ltd. We have received your samples and have listed any Sample Receipt Descrepancies below.

In order to expedite analysis and reporting, please review the attached information for accuracy.

For corrections call: **Bryanna Langley at 916-985-1000**

ATL will proceed with the analysis as specified on the Chain of Custody and Sample Receipt Summary page.

**Please note** : The Sample Receipt Confirmation, including the total workorder charge, is subject to change upon secondary review. Our aim is to provide a confirmation to you in a timely manner. Sample Receipt Discrepancies, if any, may not include discrepancies regarding sample receipt pressure(s). Additionally, the Chain of Custody (COC) will be provided with the final report.

**180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630**

**(916) 985-1000 .FAX (916) 985-1020**
**Hours 6:30 A.M to 5:30 P.M. PST**

# Air Toxics LTD.

## CHAIN-OF-CUSTODY RECORD

**Sample Transportation Notice**
Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

Page ____ of ____

Project Manager: Brian Skelly
Collected by: (Print and Sign) Sachin Dv Sachin Dv
Company: GET Consultants Email:
Address: 1 Princess Dr City: Brookhaven State: NY Zip: 11719
Phone: (860) 682-3939 Fax:

**Project Info:**
P.O. #:
Project #: 093180-1-1114
Project Name: BayShore OW S2/KB

**Turn Around Time:**
☐ Normal
☐ Rush
specify

Lab Use Only
Pressurized by:
Date:
Pressurization Gas: N₂ He

| Lab I.D. | Field Sample I.D. (Location) | Can # | Date of Collection | Time of Collection | Analyses Requested | Canister Pressure/Vacuum Initial | Final | Receipt | Final (psig) |
|---|---|---|---|---|---|---|---|---|---|
| 01A | OW AMS 1 | 2271 | 3/11/10 | 0658-1445 | | -30 | -8 | | |
| 02A | OW AMS 4 | 1152 | 3/11/10 | 0656-1446 | | -30 | -8.5 | | |

| Relinquished by: (signature) | Date/Time | Received by: (signature) | Date/Time | Notes: |
|---|---|---|---|---|
| Sachin Dv | 3/11/10 1515 | Monica Breggen ATL | 3/16/10 900 | |
| Relinquished by: (signature) | Date/Time | Received by: (signature) | Date/Time | |
| Relinquished by: (signature) | Date/Time | Received by: (signature) | Date/Time | |

Lab Use Only
Shipper Name: Fed Ex
Air Bill #:
Temp (°C): NA
Condition: Good
Custody Seals Intact? Yes No None
Work Order #: 1003364

Form 1260 rev.11

Air Toxics LTD.
Laboratory Services Since 1989

# SAMPLE RECEIPT SUMMARY

## WORKORDER 1003364

**Client**

Ms. Theresa Landgraff
GEI Consultants, Inc.
110 Walt Whitman Road
Suite 204
Huntington Station, NY 11746

**Phone**

631-760-9300

**Fax**

**Sales Rep:** TL

**Date Promised:** 03/30/10
**Date Completed:** 3/30/10
**Date Received:** 3/16/10
**PO#:**
**Project#:** 093180-1-1114 BayShore OUI SL/KB

**Total $:** $ 596.00
**Logged By:** MG

| Fraction | Sample # | Analysis | Collected | Receipt Vac./Pres. | Amount$ |
|---|---|---|---|---|---|
| 01A | UW AMS 1 | Modified TO-15 | 3/11/2010 | 5.2 "Hg | $225.00 |
| 02A | DW AMS 4 | Modified TO-15 | 3/11/2010 | 5.0 "Hg | $225.00 |
| 02AA | DW AMS 4 Lab Duplicate | Modified TO-15 | 3/11/2010 | 5.0 "Hg | $0.00 |
| 03A | Lab Blank | Modified TO-15 | NA | NA | $0.00 |
| 04A | CCV | Modified TO-15 | NA | NA | $0.00 |
| 05A | LCS | Modified TO-15 | NA | NA | $0.00 |

| | | |
|---|---|---|
| Misc. Charges | 6 Liter Summa Canister (2) @ $45.00 each., Shipment 71188 | $90.00 |
| | Blue Body Flow Controller (2) @ $25.00 each., Shipment 71188 | $50.00 |
| | Sampling Cane-6 in (2) @ $3.00 each. | $6.00 |

**Note:** Samples received after 3 P.M. PST are considered to be received on the following work day.
Atlas Project Name/Profile#: BayShore OUI SL/KB/14046

**BILL TO:** Accounts Payable
GEI Consultants, Inc.
400 Unicorn Park Drive
Woburn, MA 01801

Analysis Code: TO-14A

**TERMS:**

Reporting Method: Zarch 03/19/10 Modified TO-15 + Naph

# Sample Discrepancy Report

**Identification**

**Initiated By:** MG **Project ID:**14046 **PM**: BL **Date:** 3/17/2010 **Discrepancy Type:** ☐ **1.** ☒ **2.** ☐ **3.**

**Workorder(s) affected:1003364** **Sample(s) affected:** ALL

## 1. Sample Receipt Discrepancies

**Narration Not Required:**

1.1. ☐ Sample container (cartridge/tube/VOA vial) was received broken, however sample was intact.

1.2. ☐ No brass cap on canister.

1.3. ☐ Date of Collection noted on first sample, but no arrow down to indicate all samples.

**Notify Lab for further determination:**

1.4. ☐ Tedlar bag received with minimal volume.

Initials: _____ Date: _____

**Narration Required in Lab Narrative and Sample Confirmation:**

1.5. ☐ COC was not filled out in ink.

1.6. ☐ COC improperly relinquished / received.

1.7. ☐ Sample tags / can numbers do not match the COC.

1.8. ☐ Sample date ☐ error / ☐ missing on COC but noted on sample tag (check one).

1.9. ☐ Custody Seal on the outside of the container was ☐ broken / ☐ improperly placed (check one).

1.10. ☐ ID-none on the sample Tag/Blank

1.11. ☐ Other (describe below

**Describe the Discrepancy:** _____

## 2. Sample Receipt/Screening Discrepancies requiring PM notification

*Document on Cover Page of Sample Receipt Confirmation and in Receiving Notes of Lab Narrative*

**If Section II. is filled out PM must be notified within 24 hrs of initiation**

2.1. ☐ COC was not received with samples.

2.2. ☒ Analysis method(s) is ☒ not specified / ☐ incorrectly specified (check one) on the COC.

2.3. ☐ Incorrect sampling media / container for analysis requested.

2.4. ☐ Number of samples on the COC does not match the number of samples that were received.

2.5. ☐ Samples were received expired.

2.6. ☐ Sampling date (time for sulfur) is not documented for ☐ *some* / ☐ *any* samples (check one).

2.7. ☐ Sample received with amount of $H_2O$ in the Tedlar Bag.

2.8. ☐ Sample cannot be analyzed. Container was ☐ received broken / ☐ leaking / ☐ flat / ☐ defective.

2.9. ☐ Tedlar bag / canister received emitting a strong odor; Sample ☐ can / ☐ cannot (check one) be analyzed.

2.10. ☐ Tedlar Bag for Sulfur analysis has metal fitting.

2.11. ☐ Environmental Supply Company valves

2.12. ☐ Sorbent samples-sampling volume was not provided

2.13. ☐ Flow controller used – canister samples received at ambient or under pressure.

2.14. ☐ Canister was at ambient pressure at time of pressurization and (check all that apply):

- ☐ Canister failed leak check on two manifolds,
- ☐ Canister valve was open,
- ☐ Brass nut was loose/not present.
- ☐ Sample can be analyzed
- ☐ Cannot be analyzed

2.15. ☐ Canister sample received with a vacuum difference >5.0"Hg between the receipt vac. And the final vac. reported on the COC, indicating loss of vacuum.

2.16. ☐ Canister sample received at >15"Hg (*not* identified as a Trip/Field Blank).

2.17. ☐ Canister Trip Blank received at low vacuum (< 25"Hg).

2.18. ☐ Sorbent Sample received outside method required temperature of 2°C to 6°C; ☐ ice / ☐ blue ice (check one) was present. A temp. Blank ☐ was / ☐ was not present (check one).

2.19. ☐ Other (describe below)

**Initials:** _____ **Date:** _____ **Notify Receiving:** ☐ **Notify PM:** ☐

**Describe the Discrepancy:** 2.2: No analysis noted on the COC.

***3.*** **Lab Discrepancies requiring Team Leader/PM notification**

*Document in Analytical Notes of Lab Narrative*

**If Section III. is filled out PM must be notified within 24 hrs of initiation**

3.1. ☐ Tedlar Bag found to be leaking at the time of analysis; sample ☐ can / ☐ cannot (check one) be analyzed.

3.2. ☐ Tedlar Bag found to be flat/low volume; sample cannot be analyzed.

3.3. ☐ Sulfur samples received with insufficient time to analyze prior to expiration.

3.4. ☐ Canister found to be leaking at the time of analysis.

3.5. ☐ VOST tube saturated; bag dilution necessary.

3.6. ☐ Sample loss due to instrument malfunction / broken glassware.

3.7. ☐ Low/high surrogate recoveries noted in QC/sample(s) for extractable samples.

3.8. ☐ Reporting Limit was raised.

3.9. ☐ Post weight > Pre weight in field/lab Blank for PM10/TSP samples.

3.10. ☐ Other (describe below).

**Initials:** _____ **Date:** _____ **Notify Receiving:** ☐ **Notify PM:** ☐ _____

**Team Lead Initials:** _____ **Date:** _____

**Describe the Discrepancy:** _____

**How Does this Affect Client:** _____

**Project Manager Use Only**

**Project Manager Notification**

**Action:**

☐ It is not necessary to notify the client. Narrate the discrepancy in Receiving Notes/Analytical Notes of Lab Narrative.

PM Initials:_____ Date: _____

☒ Client notification required. See attached client contact / email, or comments below:

Client Notification:

PM Initials:BL Person notified: Su Ou Date: 3/18/2010

☐ Waiting for Client Reply

Comments: **Set up for TO-15 + Naph only.**

☐ Notify Lab Name: _____ Date: **Notify Receiving:** ☒

☐ **Additional notifications attached.**

**Additional Comments:**

_____

# Other Records

# DILUTION FACTORS

$$\text{Dilution Factor} = \frac{\text{Final Pressure}}{\text{Initial Vacuum}} = \frac{14.7 \text{ psi} + \text{Final Pressure (psi)}}{14.7 \text{ psi} - [(\text{Initial Pressure ("Hg)}) (14.7 \text{ psi} / 30 \text{ "Hg})]}$$

$$\text{Dilution Factor} = \frac{\text{Final Pressure}}{\text{Initial Pressure}} = \frac{14.7 \text{ psi} + \text{Final Pressure (psi)}}{14.7 \text{ psi} + \text{Initial Pressure (psi)}}$$

| Initial Vacuum ("Hg) | **5 psi** Final Press. Dil. Factor | **10 psi** Final Press. Dil. Factor | **15 psi** Final Press. Dil. Factor |
|---|---|---|---|
| 0.0 | 1.34 | 1.68 | 2.02 |
| 0.5 | 1.36 | 1.71 | 2.05 |
| 1.0 | 1.39 | 1.74 | 2.09 |
| 1.5 | 1.41 | 1.77 | 2.13 |
| 2.0 | 1.44 | 1.80 | 2.16 |
| 2.5 | 1.46 | 1.83 | 2.20 |
| 3.0 | 1.49 | 1.87 | 2.24 |
| 3.5 | 1.52 | 1.90 | 2.29 |
| 4.0 | 1.55 | 1.94 | 2.33 |
| 4.5 | 1.58 | 1.98 | 2.38 |
| 5.0 | 1.61 | 2.02 | 2.42 |
| 5.5 | 1.64 | 2.06 | 2.47 |
| 6.0 | 1.68 | 2.10 | 2.53 |
| 6.5 | 1.71 | 2.15 | 2.58 |
| 7.0 | 1.75 | 2.19 | 2.64 |
| 7.5 | 1.79 | 2.24 | 2.69 |
| 8.0 | 1.83 | 2.29 | 2.76 |
| 8.5 | 1.87 | 2.34 | 2.82 |
| 9.0 | 1.91 | 2.40 | 2.89 |
| 9.5 | 1.96 | 2.46 | 2.96 |
| 10.0 | 2.01 | 2.52 | 3.03 |
| 10.5 | 2.06 | 2.59 | 3.11 |
| 11.0 | 2.12 | 2.65 | 3.19 |
| 11.5 | 2.17 | 2.72 | 3.28 |
| 12.0 | 2.23 | 2.80 | 3.37 |
| 12.5 | 2.30 | 2.88 | 3.46 |
| 13.0 | 2.36 | 2.97 | 3.57 |
| 13.5 | 2.44 | 3.06 | 3.67 |
| 14.0 | 2.51 | 3.15 | 3.79 |
| 14.5 | 2.59 | 3.25 | 3.91 |
| 15.0 | 2.68 | 3.36 | 4.04 |
| 15.5 | 2.77 | 3.48 | 4.18 |
| 16.0 | 2.87 | 3.60 | 4.33 |
| 16.5 | 2.98 | 3.73 | 4.49 |
| 17.0 | 3.09 | 3.88 | 4.66 |
| 17.5 | 3.22 | 4.03 | 4.85 |
| 18.0 | 3.35 | 4.20 | 5.05 |
| 18.5 | 3.50 | 4.38 | 5.27 |
| 19.0 | 3.65 | 4.58 | 5.51 |
| 19.5 | 3.83 | 4.80 | 5.77 |
| 20.0 | 4.02 | 5.04 | 6.06 |
| 20.5 | 4.23 | 5.31 | 6.38 |

| Initial Vacuum ("Hg) | **5 psi** Final Press. Dil. Factor | **10 psi** Final Press. Dil. Factor | **15 psi** Final Press. Dil. Factor |
|---|---|---|---|
| 21.0 | 4.47 | 5.60 | 6.73 |
| 21.5 | 4.73 | 5.93 | 7.13 |
| 22.0 | 5.03 | 6.30 | 7.58 |
| 22.5 | 5.36 | 6.72 | 8.08 |
| 23.0 | 5.74 | 7.20 | 8.66 |
| 23.5 | 6.19 | 7.76 | 9.32 |
| 24.0 | 6.70 | 8.40 | 10.10 |
| 24.5 | 7.31 | 9.17 | 11.02 |
| 25.0 | 8.04 | 10.08 | 12.12 |
| 25.5 | 8.93 | 11.20 | 13.47 |
| 26.0 | 10.05 | 12.60 | 15.15 |
| 26.5 | 11.49 | 14.40 | 17.32 |
| 27.0 | 13.40 | 16.80 | 20.20 |
| 27.5 | 16.08 | 20.16 | 24.24 |
| 28.0 | 20.10 | 25.20 | 30.31 |
| 28.5 | 26.80 | 33.61 | 40.41 |
| 29.0 | 40.20 | 50.41 | 60.61 |

| Initial Pressure (psi) | **5 psi** Final Press. Dil. Factor | **10 psi** Final Press. Dil. Factor | **15 psi** Final Press. Dil. Factor |
|---|---|---|---|
| 0.0 | 1.34 | 1.68 | 2.02 |
| 0.2 | 1.32 | 1.66 | 1.99 |
| 0.4 | 1.30 | 1.64 | 1.97 |
| 0.6 | 1.29 | 1.61 | 1.94 |
| 0.8 | 1.27 | 1.59 | 1.92 |
| 1.0 | 1.25 | 1.57 | 1.89 |
| 1.2 | 1.24 | 1.55 | 1.87 |
| 1.4 | 1.22 | 1.53 | 1.84 |
| 1.6 | 1.21 | 1.52 | 1.82 |
| 1.8 | 1.19 | 1.50 | 1.80 |
| 2.0 | 1.18 | 1.48 | 1.78 |
| 2.2 | 1.17 | 1.46 | 1.76 |
| 2.4 | 1.15 | 1.44 | 1.74 |
| 2.6 | 1.14 | 1.43 | 1.72 |
| 2.8 | 1.13 | 1.41 | 1.70 |
| 3.0 | 1.11 | 1.40 | 1.68 |
| 3.2 | 1.10 | 1.38 | 1.66 |
| 3.4 | 1.09 | 1.36 | 1.64 |
| 3.6 | 1.08 | 1.35 | 1.62 |
| 3.8 | 1.06 | 1.34 | 1.61 |
| 4.0 | 1.05 | 1.32 | 1.59 |

# DILUTION FACTORS

$$\text{Dilution Factor} = \frac{\text{Final Pressure}}{\text{Initial Pressure}} = \frac{\text{14.7 psi + Final Pressure (psi)}}{\text{14.7 psi + Initial Pressure (psi)}}$$

| Initial Pressure (psi) | **5 psi** Final Press. Dil. Factor | **10 psi** Final Press. Dil. Factor | **15 psi** Final Press. Dil. Factor |
|---|---|---|---|
| 0.0 | 1.34 | 1.68 | 2.02 |
| 0.2 | 1.32 | 1.66 | 1.99 |
| 0.4 | 1.30 | 1.64 | 1.97 |
| 0.6 | 1.29 | 1.61 | 1.94 |
| 0.8 | 1.27 | 1.59 | 1.92 |
| 1.0 | 1.25 | 1.57 | 1.89 |
| 1.2 | 1.24 | 1.55 | 1.87 |
| 1.4 | 1.22 | 1.53 | 1.84 |
| 1.6 | 1.21 | 1.52 | 1.82 |
| 1.8 | 1.19 | 1.50 | 1.80 |
| 2.0 | 1.18 | 1.48 | 1.78 |
| 2.2 | 1.17 | 1.46 | 1.76 |
| 2.4 | 1.15 | 1.44 | 1.74 |
| 2.6 | 1.14 | 1.43 | 1.72 |
| 2.8 | 1.13 | 1.41 | 1.70 |
| 3.0 | 1.11 | 1.40 | 1.68 |
| 3.2 | 1.10 | 1.38 | 1.66 |
| 3.4 | 1.09 | 1.36 | 1.64 |
| 3.6 | 1.08 | 1.35 | 1.62 |
| 3.8 | 1.06 | 1.34 | 1.61 |
| 4.0 | 1.05 | 1.32 | 1.59 |
| 4.2 | 1.04 | 1.31 | 1.57 |
| 4.4 | 1.03 | 1.29 | 1.55 |
| 4.6 | 1.02 | 1.28 | 1.54 |
| 4.8 | 1.01 | 1.27 | 1.52 |
| 5.0 | 1.00 | 1.25 | 1.51 |
| 5.2 | NA | 1.24 | 1.49 |
| 5.4 | NA | 1.23 | 1.48 |
| 5.6 | NA | 1.22 | 1.46 |
| 5.8 | NA | 1.20 | 1.45 |
| 6.0 | NA | 1.19 | 1.43 |
| 6.2 | NA | 1.18 | 1.42 |
| 6.4 | NA | 1.17 | 1.41 |
| 6.6 | NA | 1.16 | 1.39 |
| 6.8 | NA | 1.15 | 1.38 |
| 7.0 | NA | 1.14 | 1.37 |
| 7.2 | NA | 1.13 | 1.36 |
| 7.4 | NA | 1.12 | 1.34 |
| 7.6 | NA | 1.11 | 1.33 |
| 7.8 | NA | 1.10 | 1.32 |
| 8.0 | NA | 1.09 | 1.31 |
| 8.2 | NA | 1.08 | 1.30 |
| 8.4 | NA | 1.07 | 1.29 |
| 8.6 | NA | 1.06 | 1.27 |
| 8.8 | NA | 1.05 | 1.26 |
| 9.0 | NA | 1.04 | 1.25 |
| 9.2 | NA | 1.03 | 1.24 |
| 9.4 | NA | 1.02 | 1.23 |
| 9.6 | NA | 1.02 | 1.22 |
| 9.8 | NA | 1.01 | 1.21 |
| 10.0 | NA | 1.00 | 1.20 |
| 10.2 | NA | NA | 1.19 |
| 10.4 | NA | NA | 1.18 |
| 10.6 | NA | NA | 1.17 |
| 10.8 | NA | NA | 1.16 |
| 11.0 | NA | NA | 1.16 |
| 11.2 | NA | NA | 1.15 |
| 11.4 | NA | NA | 1.14 |
| 11.6 | NA | NA | 1.13 |
| 11.8 | NA | NA | 1.12 |
| 12.0 | NA | NA | 1.11 |
| 12.2 | NA | NA | 1.10 |
| 12.4 | NA | NA | 1.10 |
| 12.6 | NA | NA | 1.09 |
| 12.8 | NA | NA | 1.08 |
| 13.0 | NA | NA | 1.07 |
| 13.2 | NA | NA | 1.06 |
| 13.4 | NA | NA | 1.06 |
| 13.6 | NA | NA | 1.05 |
| 13.8 | NA | NA | 1.04 |
| 14.0 | NA | NA | 1.03 |
| 14.2 | NA | NA | 1.03 |
| 14.4 | NA | NA | 1.02 |
| 14.6 | NA | NA | 1.01 |
| 14.8 | NA | NA | 1.01 |

# Compound Listing

**Zarch 03/19/10 Modified TO-15 + Naph**

| CAS Number | Compound | Detection Limit ppbv | Type |
|---|---|---|---|
| 75-71-8 | Freon 12 | 0.50 | |
| 76-14-2 | Freon 114 | 0.50 | |
| 156-59-2 | cis-1,2-Dichloroethene | 0.50 | |
| 67-66-3 | Chloroform | 0.50 | |
| 71-55-6 | 1,1,1-Trichloroethane | 0.50 | |
| 56-23-5 | Carbon Tetrachloride | 0.50 | |
| 71-43-2 | Benzene | 0.50 | |
| 107-06-2 | 1,2-Dichloroethane | 0.50 | |
| 79-01-6 | Trichloroethene | 0.50 | |
| 78-87-5 | 1,2-Dichloropropane | 0.50 | |
| 10061-01-5 | cis-1,3-Dichloropropene | 0.50 | |
| 108-88-3 | Toluene | 0.50 | |
| 10061-02-6 | trans-1,3-Dichloropropene | 0.50 | |
| 79-00-5 | 1,1,2-Trichloroethane | 0.50 | |
| 127-18-4 | Tetrachloroethene | 0.50 | |
| 106-93-4 | 1,2-Dibromoethane (EDB) | 0.50 | |
| 108-90-7 | Chlorobenzene | 0.50 | |
| 100-41-4 | Ethyl Benzene | 0.50 | |
| 108-38-3 | m,p-Xylene | 0.50 | |
| 95-47-6 | o-Xylene | 0.50 | |
| 100-42-5 | Styrene | 0.50 | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 0.50 | |
| 108-67-8 | 1,3,5-Trimethylbenzene | 0.50 | |
| 95-63-6 | 1,2,4-Trimethylbenzene | 0.50 | |
| 541-73-1 | 1,3-Dichlorobenzene | 0.50 | |
| 106-46-7 | 1,4-Dichlorobenzene | 0.50 | |
| 100-44-7 | alpha-Chlorotoluene | 0.50 | |
| 95-50-1 | 1,2-Dichlorobenzene | 0.50 | |
| 106-99-0 | 1,3-Butadiene | 0.50 | |
| 110-54-3 | Hexane | 0.50 | |
| 110-82-7 | Cyclohexane | 0.50 | |
| 142-82-5 | Heptane | 0.50 | |
| 75-27-4 | Bromodichloromethane | 0.50 | |
| 124-48-1 | Dibromochloromethane | 0.50 | |
| 98-82-8 | Cumene | 0.50 | |
| 103-65-1 | Propylbenzene | 0.50 | |
| 74-87-3 | Chloromethane | 2.0 | |
| 120-82-1 | 1,2,4-Trichlorobenzene | 2.0 | |
| 87-68-3 | Hexachlorobutadiene | 2.0 | |
| 67-64-1 | Acetone | 2.0 | |
| 75-15-0 | Carbon Disulfide | 0.50 | |
| 67-63-0 | 2-Propanol | 2.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 0.50 | |
| 78-93-3 | 2-Butanone (Methyl Ethyl Ketone) | 0.50 | |
| 109-99-9 | Tetrahydrofuran | 0.50 | |
| 123-91-1 | 1,4-Dioxane | 2.0 | |

# Compound Listing

**Zarch 03/19/10 Modified TO-15 + Naph**

| CAS Number | Compound | Detection Limit ppbv | Type |
|---|---|---|---|
| 108-10-1 | 4-Methyl-2-pentanone | 0.50 | |
| 591-78-6 | 2-Hexanone | 2.0 | |
| 75-25-2 | Bromoform | 0.50 | |
| 622-96-8 | 4-Ethyltoluene | 0.50 | |
| 64-17-5 | Ethanol | 2.0 | |
| 1634-04-4 | Methyl tert-butyl ether | 0.50 | |
| 91-20-3 | Naphthalene | 2.0 | |
| 107-05-1 | 3-Chloropropene | 2.0 | |
| 540-84-1 | 2,2,4-Trimethylpentane | 0.50 | |
| 2037-26-5 | Toluene-d8 | | |
| 17060-07-0 | 1,2-Dichloroethane-d4 | | |
| 460-00-4 | 4-Bromofluorobenzene | | |
| 75-01-4 | Vinyl Chloride | 0.50 | |
| 74-83-9 | Bromomethane | 0.50 | |
| 75-00-3 | Chloroethane | 0.50 | |
| 75-69-4 | Freon 11 | 0.50 | |
| 75-35-4 | 1,1-Dichloroethene | 0.50 | |
| 76-13-1 | Freon 113 | 0.50 | |
| 75-09-2 | Methylene Chloride | 0.50 | |
| 75-34-3 | 1,1-Dichloroethane | 0.50 | |

@Air Toxics Ltd.

# DATA REVIEW CHECKLIST

**Work Order #:** 1003364

| $A_1$ | $A_2$ | R | T | M | Q | |
|---|---|---|---|---|---|---|
| ☑ | ☐ | ☑ | ☐ | ☑ | ☐ | Analysis/Reporting vs. Project Profile/SOP requirements checked (i.e. 100% Dups, J-Flag to MDL, etc) |
| | | ☑ | ☐ | ☑ | ☐ | The final report has the correct reporting list, special units, and header info. |
| | | ☐ | ☐ | ☐ | ☐ | Lab Narrative is correct (proper method & description/Receiving & Analytical notes correct) |
| | | ☑ | ☐ | ☑ | ☐ | Sample Discrepancy Report (SDR) is completed |
| N/A | ☐ | ☐ | ☐ | N/A | ☐ | Corrective Action issued - # _____ |
| ☐ | ☐ | ☑ | ☐ | ☑ | ☐ | Unusual circumstances have been documented in the notes section below |

**LUMEN** *validation report present and initialed* ***CIRCLE ( YES / NO )***

| | | | | | | |
|---|---|---|---|---|---|---|
| ☑ | ☐ | ☐ | ☐ | ☐ | ☐ | Lab Blank, CCV, LCS and DUP met QC criteria |
| ☑ | ☐ | ☐ | ☐ | ☐ | ☐ | Hold time is met for all samples |
| | | ☐ | ☐ | ☐ | ☐ | Appropriate data qualifier flags are applied |
| | | ☐ | ☐ | ☐ | ☐ | Manual integrations for samples and QC are properly documented |
| ☑ | ☐ | ☐ | ☐ | | ☐ | Samples analyzed within the project or method specific clock |
| | | ☐ | ☐ | | | Retention times have been verified |
| ☑ | ☐ | ☐ | ☐ | | ☐ | Appropriate ICAL(s) included |
| | | ☑ | ☐ | ☑ | ☐ | At least one result per sample is verified against the target quant sheets/raw data |
| ☑ | ☐ | ☑ | ☐ | | ☐ | Dilution factor correctly calculated (sample load volume, syringe and bag dilutions, can pressurization(s)) |
| ☑ | ☐ | ☑ | ☐ | | | Correct amount of sample analyzed (i.e. sample not over-diluted) |
| | | ☑ | ☐ | | | Spectra verified - documentation of spectral defense included (Section 5A of eCVP pkg) |
| | | N/A | ☐ | | | TICs resemble reference spectra |
| | | ☐ | ☐ | | | TICs between duplicate samples are consistent |
| N/A | ☐ | ☐ | ☐ | ☑ | ☐ | Checked samples for trends (i.e. Influent vs. Effluent, Field Dups, Field/Trip Blank, etc.) |
| ☑ | ☐ | ☐ | ☐ | | | Data for multiple analyses of sample(s) has been evaluated for comparability of results |
| | | ☐ | N/A | ☐ | | Special units for all samples in the final report are correctly calculated |
| | | ☑ | ☐ | ☑ | | Manually entered results checked (i.e. TPH/NMOC) |
| ☑ | ☐ | ☑ | | | | Chain of Custody verified for any special comments (i.e. different compounds/RLs, action levels) |
| | | ☑ | | | | Chain of Custody scanned correctly |
| | | | | ☐ | | Verify sample id's vs. chain of custody |
| ☑ | | ☑ | | | | Date MDL(s) performed per instrument(s) 12/3/09 |
| ☑ | ☐ | ☑ | | | | Samples pressurized w/ appropriate gas (N2 or He) ☐ Other (i.e. Tedlar bag, cartridge, sorbent) |
| ☑ | ☐ | ☑ | | | | Final pressure consistent with canister size (6L vs. 1L) |
| ☑ | ☐ | ☑ | | | | Verify receipt pressures |
| ☑ | ☐ | ☑ | | | | Verify canister ID #'s |
| | | N/A | | ☑ | | Final invoice amount correct (adjusted for TAT, Penalties, Re-issue Charges etc.) |
| | | ☑ | ☐ | ☑ | ☐ | Client LUMEN report reviewed for accuracy and completeness |
| | | | | ☑ | | Final PDF report reviewed for correctness |

***Notes:*** *(to include: noting samples with QA/QC problems, Blanks with positive hits, narratives, etc.)*

A/R: CCV 1 out: chloromethane; LCS chloromethane @ 142%; 02A dups

M/Q:

| $A_1/A_2$ (Analytical Review/Date) | R/T (Reporting Review/Date) | M (Management Review/Date) | Q (QA Review/Date) |
|---|---|---|---|
| $A_1$: [illegible] 03/22/10 | R: TJS 3-29-10 | JM 3/30/10 | |
| $A_2$: | T: | | |

**Note (1): Please check all the appropriate boxes. Indicate "NA" for any statement that does not apply.**
**Note (2): Management reviewer and reporting reviewer must be separate individuals.**

Rev. 11/17/09

# Not Applicable


Air
Toxics LTD.
Laboratory Services Since 1989
Electronic Comprehensive Validation Package (eCVP)

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# COMPREHENSIVE VALIDATION PACKAGE

Modified TO-15

INVENTORY SHEET

Work Order #: 1003514

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Comments:

Completed by:

Vera Belitsky — Vera Belitsky / Document Control — 4/8/10

(Signature) ( Print Name & Title) (Date)

Air Toxics LTD.
Laboratory Services Since 1989

# WORK ORDER #: 1003514

Work Order Summary

| | | | |
|---|---|---|---|
| **CLIENT:** | Ms. Theresa Landgraff<br>GEI Consultants, Inc.<br>110 Walt Whitman Road<br>Suite 204<br>Huntington Station, NY 11746 | **BILL TO:** | Accounts Payable<br>GEI Consultants, Inc.<br>400 Unicorn Park Drive<br>Woburn, MA 01801 |
| **PHONE:** | 631-760-9300 | **P.O. #** | |
| **FAX:** | | **PROJECT #** | 093180-1-1114 |
| **DATE RECEIVED:** | 03/23/2010 | **CONTACT:** | Bryanna Langley |
| **DATE COMPLETED:** | 04/03/2010 | | |

| FRACTION # | NAME | TEST | RECEIPT VAC./PRES. | FINAL PRESSURE |
|---|---|---|---|---|
| 01A | UW AMS 4 | Modified TO-15 | 5.0 "Hg | 5 psi |
| 02A | DW AMS 2 | Modified TO-15 | 7.5 "Hg | 5 psi |
| 03A(cancelled) | DUPLICATE | Modified TO-15 | 24.0 "Hg | 5 psi |
| 04A | Lab Blank | Modified TO-15 | NA | NA |
| 05A | CCV | Modified TO-15 | NA | NA |
| 06A | LCS | Modified TO-15 | NA | NA |

CERTIFIED BY: Linda D. Fruman DATE: 04/06/10

Laboratory Director

Certfication numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763,
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/09, Expiration date: 06/30/10
Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Air Toxics Ltd.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

**LABORATORY NARRATIVE**
**Modified TO-15**
**GEI Consultants, Inc.**
**Workorder# 1003514**

Three 6 Liter Summa Canister samples were received on March 23, 2010. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

| ***Requirement*** | ***TO-15*** | ***ATL Modifications*** |
|---|---|---|
| Daily CCV | </= 30% Difference | </= 30% Difference; Compounds exceeding this criterion and associated data are flagged and narrated. |
| Sample collection media | Summa canister | ATL recommends use of summa canisters to insure data defensibility, but will report results from Tedlar bags at client request |
| Method Detection Limit | Follow 40CFR Pt.136 App. B | The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases |

## Receiving Notes

Sample DUPLICATE was received with significant vacuum remaining in the canister. The client was notified and requested the sample be cancelled.

## Analytical Notes

There were no analytical discrepancies.

## Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction no performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified
b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

## Table 1

| Client Sample ID | Lab Sample ID | Date Collected | Date Received | Date Extracted | Sample Holding Time (Days) | Sample Extract Date Analyzed | Sample Extract Holding Time (Days) | Sample Condition |
|---|---|---|---|---|---|---|---|---|
| UW AMS 4 | 1003514-01A | 3/18/2010 | 3/23/2010 | NA | 9 | 3/27/2010 | NA | Good |
| DW AMS 2 | 1003514-02A | 3/18/2010 | 3/23/2010 | NA | 9 | 3/27/2010 | NA | Good |
| Lab Blank | 1003514-04A | NA | NA | NA | NA | 3/27/2010 | NA | Good |
| CCV | 1003514-05A | NA | NA | NA | NA | 3/27/2010 | NA | Good |
| LCS | 1003514-06A | NA | NA | NA | NA | 3/27/2010 | NA | Good |

# Sample Results and Raw Data

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# Summary of Detected Compounds
# MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: UW AMS 4**

**Lab ID#: 1003514-01A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (ug/m3) | Amount (ug/m3) |
|---|---|---|---|---|
| Ethanol | 3.2 | 5.9 | 6.1 | 11 |
| Acetone | 3.2 | 5.8 | 7.6 | 14 |
| 2-Butanone (Methyl Ethyl Ketone) | 0.80 | 0.89 | 2.4 | 2.6 |
| Toluene | 0.80 | 1.7 | 3.0 | 6.3 |
| m,p-Xylene | 0.80 | 1.1 | 3.5 | 4.8 |

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**Client Sample ID: UW AMS 4**

**Lab ID#: 1003514-01A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **x032719** | **Date of Collection:** | **3/18/10 2:34:00 PM** |
| **Dil. Factor:** | **1.61** | **Date of Analysis:** | **3/27/10 08:31 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (ug/m3) | Amount (ug/m3) |
|---|---|---|---|---|
| Freon 12 | 0.80 | Not Detected | 4.0 | Not Detected |
| Freon 114 | 0.80 | Not Detected | 5.6 | Not Detected |
| Chloromethane | 3.2 | Not Detected | 6.6 | Not Detected |
| Vinyl Chloride | 0.80 | Not Detected | 2.0 | Not Detected |
| 1,3-Butadiene | 0.80 | Not Detected | 1.8 | Not Detected |
| Bromomethane | 0.80 | Not Detected | 3.1 | Not Detected |
| Chloroethane | 0.80 | Not Detected | 2.1 | Not Detected |
| Freon 11 | 0.80 | Not Detected | 4.5 | Not Detected |
| Ethanol | 3.2 | 5.9 | 6.1 | 11 |
| Freon 113 | 0.80 | Not Detected | 6.2 | Not Detected |
| 1,1-Dichloroethene | 0.80 | Not Detected | 3.2 | Not Detected |
| Acetone | 3.2 | 5.8 | 7.6 | 14 |
| 2-Propanol | 3.2 | Not Detected | 7.9 | Not Detected |
| Carbon Disulfide | 0.80 | Not Detected | 2.5 | Not Detected |
| 3-Chloropropene | 3.2 | Not Detected | 10 | Not Detected |
| Methylene Chloride | 0.80 | Not Detected | 2.8 | Not Detected |
| Methyl tert-butyl ether | 0.80 | Not Detected | 2.9 | Not Detected |
| trans-1,2-Dichloroethene | 0.80 | Not Detected | 3.2 | Not Detected |
| Hexane | 0.80 | Not Detected | 2.8 | Not Detected |
| 1,1-Dichloroethane | 0.80 | Not Detected | 3.2 | Not Detected |
| 2-Butanone (Methyl Ethyl Ketone) | 0.80 | 0.89 | 2.4 | 2.6 |
| cis-1,2-Dichloroethene | 0.80 | Not Detected | 3.2 | Not Detected |
| Tetrahydrofuran | 0.80 | Not Detected | 2.4 | Not Detected |
| Chloroform | 0.80 | Not Detected | 3.9 | Not Detected |
| 1,1,1-Trichloroethane | 0.80 | Not Detected | 4.4 | Not Detected |
| Cyclohexane | 0.80 | Not Detected | 2.8 | Not Detected |
| Carbon Tetrachloride | 0.80 | Not Detected | 5.1 | Not Detected |
| 2,2,4-Trimethylpentane | 0.80 | Not Detected | 3.8 | Not Detected |
| Benzene | 0.80 | Not Detected | 2.6 | Not Detected |
| 1,2-Dichloroethane | 0.80 | Not Detected | 3.2 | Not Detected |
| Heptane | 0.80 | Not Detected | 3.3 | Not Detected |
| Trichloroethene | 0.80 | Not Detected | 4.3 | Not Detected |
| 1,2-Dichloropropane | 0.80 | Not Detected | 3.7 | Not Detected |
| 1,4-Dioxane | 3.2 | Not Detected | 12 | Not Detected |
| Bromodichloromethane | 0.80 | Not Detected | 5.4 | Not Detected |
| cis-1,3-Dichloropropene | 0.80 | Not Detected | 3.6 | Not Detected |
| 4-Methyl-2-pentanone | 0.80 | Not Detected | 3.3 | Not Detected |
| Toluene | 0.80 | 1.7 | 3.0 | 6.3 |
| trans-1,3-Dichloropropene | 0.80 | Not Detected | 3.6 | Not Detected |

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**Client Sample ID: UW AMS 4**

**Lab ID#: 1003514-01A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **x032719** | **Date of Collection:** | **3/18/10 2:34:00 PM** |
| **Dil. Factor:** | **1.61** | **Date of Analysis:** | **3/27/10 08:31 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (ug/m3) | Amount (ug/m3) |
|---|---|---|---|---|
| 1,1,2-Trichloroethane | 0.80 | Not Detected | 4.4 | Not Detected |
| Tetrachloroethene | 0.80 | Not Detected | 5.5 | Not Detected |
| 2-Hexanone | 3.2 | Not Detected | 13 | Not Detected |
| Dibromochloromethane | 0.80 | Not Detected | 6.8 | Not Detected |
| 1,2-Dibromoethane (EDB) | 0.80 | Not Detected | 6.2 | Not Detected |
| Chlorobenzene | 0.80 | Not Detected | 3.7 | Not Detected |
| Ethyl Benzene | 0.80 | Not Detected | 3.5 | Not Detected |
| m,p-Xylene | 0.80 | 1.1 | 3.5 | 4.8 |
| o-Xylene | 0.80 | Not Detected | 3.5 | Not Detected |
| Styrene | 0.80 | Not Detected | 3.4 | Not Detected |
| Bromoform | 0.80 | Not Detected | 8.3 | Not Detected |
| Cumene | 0.80 | Not Detected | 4.0 | Not Detected |
| 1,1,2,2-Tetrachloroethane | 0.80 | Not Detected | 5.5 | Not Detected |
| Propylbenzene | 0.80 | Not Detected | 4.0 | Not Detected |
| 4-Ethyltoluene | 0.80 | Not Detected | 4.0 | Not Detected |
| 1,3,5-Trimethylbenzene | 0.80 | Not Detected | 4.0 | Not Detected |
| 1,2,4-Trimethylbenzene | 0.80 | Not Detected | 4.0 | Not Detected |
| 1,3-Dichlorobenzene | 0.80 | Not Detected | 4.8 | Not Detected |
| 1,4-Dichlorobenzene | 0.80 | Not Detected | 4.8 | Not Detected |
| alpha-Chlorotoluene | 0.80 | Not Detected | 4.2 | Not Detected |
| 1,2-Dichlorobenzene | 0.80 | Not Detected | 4.8 | Not Detected |
| 1,2,4-Trichlorobenzene | 3.2 | Not Detected | 24 | Not Detected |
| Hexachlorobutadiene | 3.2 | Not Detected | 34 | Not Detected |
| Naphthalene | 3.2 | Not Detected | 17 | Not Detected |

**Container Type: 6 Liter Summa Canister**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| Toluene-d8 | 98 | 70-130 |
| 1,2-Dichloroethane-d4 | 95 | 70-130 |
| 4-Bromofluorobenzene | 85 | 70-130 |

Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msdx.i/27mar10.b/x032719.d
Lab Smp Id: 1003514-01A
Inj Date : 27-MAR-2010 20:31
Operator : xp Inst ID: msdx.i
Smp Info : 200mL #35253
Misc Info : 5.0"Hg-5psi
Comment :
Method : /chem/msdx.i/27mar10.b/x10q0323a.m
Meth Date : 27-Mar-2010 15:19 rallen Quant Type: ISTD
Cal Date : 23-MAR-2010 22:49 Cal File: x032312.d
Als bottle: 3
Dil Factor: 1.61000
Integrator: HP RTE Compound Sublist: TO15N.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| | | | | CONCENTRATIONS ON-COL | CONCENTRATIONS FINAL | | |
|---|---|---|---|---|---|---|---|
| RT | EXP RT (REL RT) | MASS | RESPONSE | ( PPBV) | ( PPbV) | TARGET RANGE | RATIO |
| * 82 Bromochloromethane | | | | | CAS #: 74-97-5 | | |
| 15.557 | 15.557 (1.000) | 130 | 218271 | 25.0000 | | 80.00- 120.00 | 100.00 |
| 15.557 | 15.557 (1.000) | 128 | 171177 | | | 27.50- 127.50 | 78.42 |
| 15.529 | 15.557 (1.000) | 49 | 270903 | | | 72.51- 172.51 | 124.11 |
| * 97 1,4-Difluorobenzene | | | | | CAS #: 540-36-3 | | |
| 16.994 | 16.995 (1.000) | 114 | 908917 | 25.0000 | | 80.00- 120.00 | 100.00 |
| 16.994 | 16.995 (1.000) | 88 | 154340 | | | 0.00- 66.97 | 16.98 |
| * 126 Chlorobenzene-d5 | | | | | CAS #: 3114-55-4 | | |
| 21.418 | 21.418 (1.000) | 117 | 741327 | 25.0000 | | 80.00- 120.00 | 100.00 |
| 21.418 | 21.418 (1.000) | 82 | 464204 | | | 11.03- 111.03 | 62.62 |
| $ 93 1,2-Dichloroethane-d4 | | | | | CAS #: 17060-07-0 | | |
| 16.414 | 16.414 (1.055) | 65 | 312311 | 23.6856 | 23.686 | 80.00- 120.00 | 100.00 |
| 16.414 | 16.414 (1.055) | 67 | 164813 | | | 3.54- 103.54 | 52.77 |
| $ 114 Toluene-d8 | | | | | CAS #: 2037-26-5 | | |
| 19.289 | 19.289 (1.135) | 98 | 937426 | 24.6382 | 24.638 | 80.00- 120.00 | 100.00 |
| 19.289 | 19.289 (1.135) | 70 | 110951 | | | 0.00- 62.10 | 11.84 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPbV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 114 Toluene-d8 (continued) | | | | | | | |
| 19.289 | 19.289 (1.135) | 100 | 628667 | | | 17.13- 117.13 | 67.06 |
| $ 138 Bromofluorobenzene | | | | | CAS #: 460-00-4 | | |
| 22.994 | 22.994 (1.074) | 174 | 386016 | 21.3628 | 21.363 | 80.00- 120.00 | 100.00 |
| 22.994 | 22.994 (1.074) | 95 | 519066 | | | 84.62- 184.62 | 134.47 |
| 22.994 | 22.994 (1.074) | 176 | 370501 | | | 46.19- 146.19 | 95.98 |
| 40 Ethanol | | | | | CAS #: 64-17-5 | | |
| 11.160 | 11.133 (0.717) | 45 | 11269 | 3.64833 | 5.874 | 80.00- 120.00 | 100.00 |
| 11.160 | 11.133 (0.717) | 43 | 3755 | | | 0.00- 73.32 | 33.32 |
| 11.160 | 11.133 (0.717) | 46 | 3965 | | | 0.00- 86.84 | 35.19 |
| 48 Acetone | | | | | CAS #: 67-64-1 | | |
| 11.935 | 11.935 (0.767) | 58 | 16064 | 3.61938 | 5.827 | 80.00- 120.00 | 100.00 |
| 11.935 | 11.935 (0.767) | 43 | 47554 | | | 241.90- 341.90 | 296.03 |
| 77 2-Butanone | | | | | CAS #: 78-93-3 | | |
| 15.170 | 15.170 (0.975) | 72 | 3524 | 0.55393 | 0.8918 | 80.00- 120.00 | 100.00 |
| 15.170 | 15.170 (0.975) | 43 | 12668 | | | 271.20- 371.20 | 359.48 |
| 14.893 | 15.170 (0.957) | 57 | 1171 | | | 0.00- 80.83 | 33.23 |
| 115 Toluene | | | | | CAS #: 108-88-3 | | |
| 19.400 | 19.400 (1.142) | 91 | 49917 | 1.04644 | 1.685 | 80.00- 120.00 | 100.00 |
| 19.400 | 19.400 (1.142) | 92 | 30266 | | | 10.02- 110.02 | 60.63 |
| 131 m,p-Xylene | | | | | CAS #: 108-38-3 | | |
| 21.667 | 21.667 (1.012) | 106 | 14783 | 0.68476 | 1.102 | 80.00- 120.00 | 100.00 |
| 21.667 | 21.667 (1.012) | 91 | 31265 | | | 158.71- 258.71 | 211.49 |

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdx.i
Lab File ID: x032719.d
Lab Smp Id: 1003514-01A
Analysis Type: VOA
Quant Type: ISTD
Operator: xp
Method File: /chem/msdx.i/27mar10.b/x10q0323a.m
Misc Info: 5.0"Hg-5psi

Calibration Date: 27-MAR-2010
Calibration Time: 08:47
Level: LOW
Sample Type: AIR

| | | AREA LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 82 Bromochloromethan | 248468 | 149081 | 347855 | 218271 | -12.15 |
| 97 1,4-Difluorobenze | 1126336 | 675802 | 1576870 | 908917 | -19.30 |
| 126 Chlorobenzene-d5 | 1023653 | 614192 | 1433114 | 741327 | -27.58 |

| | | RT LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 82 Bromochloromethan | 15.56 | 15.23 | 15.89 | 15.56 | 0.00 |
| 97 1,4-Difluorobenze | 16.99 | 16.66 | 17.32 | 16.99 | 0.00 |
| 126 Chlorobenzene-d5 | 21.42 | 21.09 | 21.75 | 21.42 | 0.00 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: 27mar10
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1003514-01A
Level: LOW Operator: xp
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: 2926spectra.spk Quant Type: ISTD
Sublist File: TO15N.sub
Method File: /chem/msdx.i/27mar10.b/x10q0323a.m
Misc Info: 5.0"Hg-5psi

| SURROGATE COMPOUND | CONC ADDED PPbV | CONC RECOVERED PPbV | % RECOVERED | LIMITS |
|---|---|---|---|---|
| $ 93 1,2-Dichloroethane | 25.000 | 23.686 | 94.74 | 70-130 |
| $ 114 Toluene-d8 | 25.000 | 24.638 | 98.55 | 70-130 |
| $ 138 Bromofluorobenzene | 25.000 | 21.363 | 85.45 | 70-130 |

Data File: /chem/msdx.i/27mar10.b/x032719.d

Page 1

Date : 27-MAR-2010 20:31

Client ID:

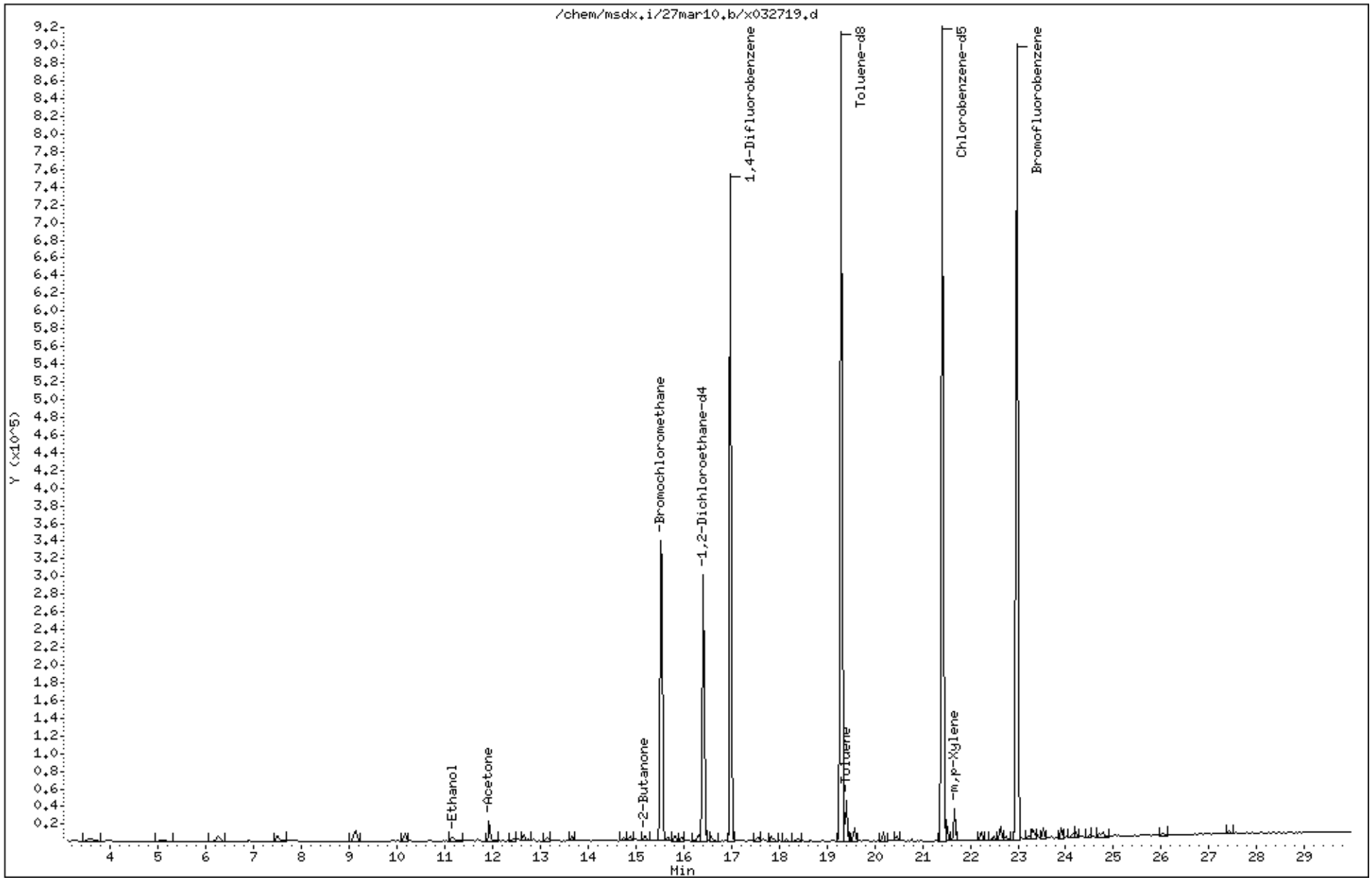
Instrument: msdx.i

Sample Info: 200mL #35253

Operator: xp

Column phase: RTx-624

Column diameter: 0.53



Data File: /chem/msdx.i/27mar10.b/x032719.d

Date : 27-MAR-2010 20:31

Client ID:

Instrument: msdx.i

Sample Info: 200mL #35253

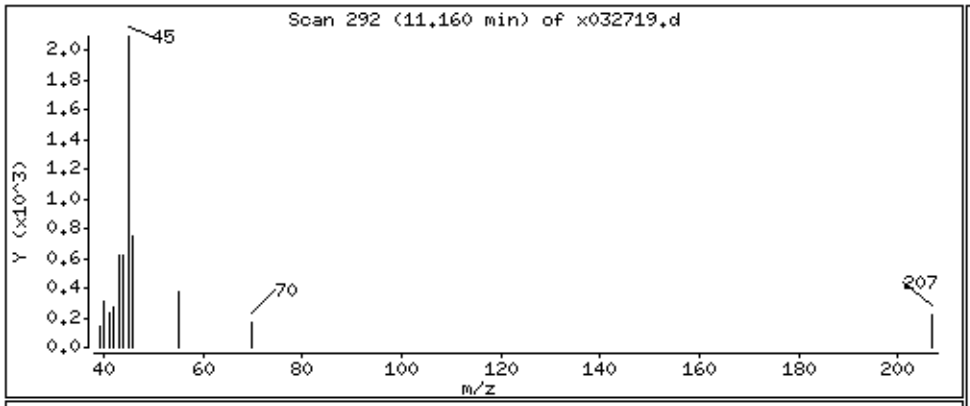
Operator: xp

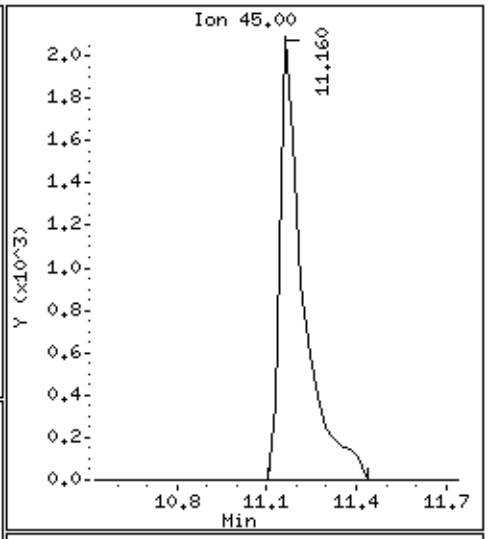
Column phase: RTx-624

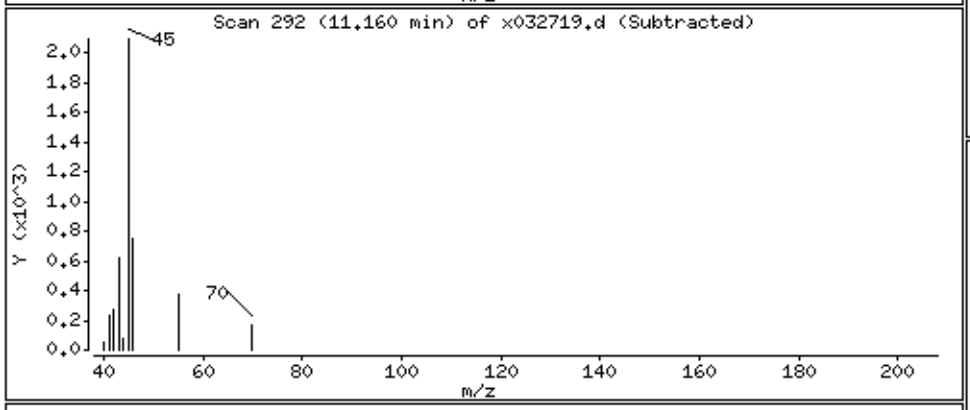
Column diameter: 0.53

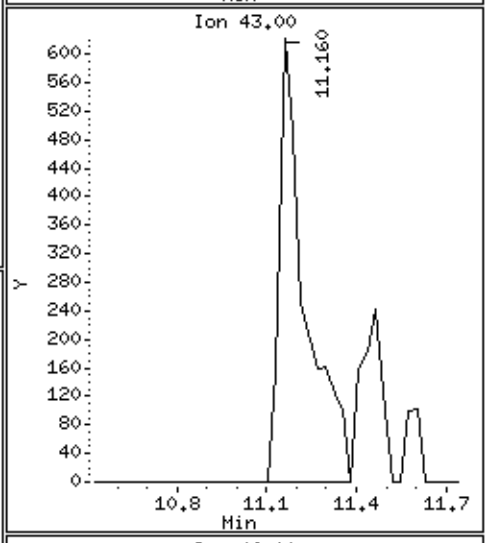
40 Ethanol

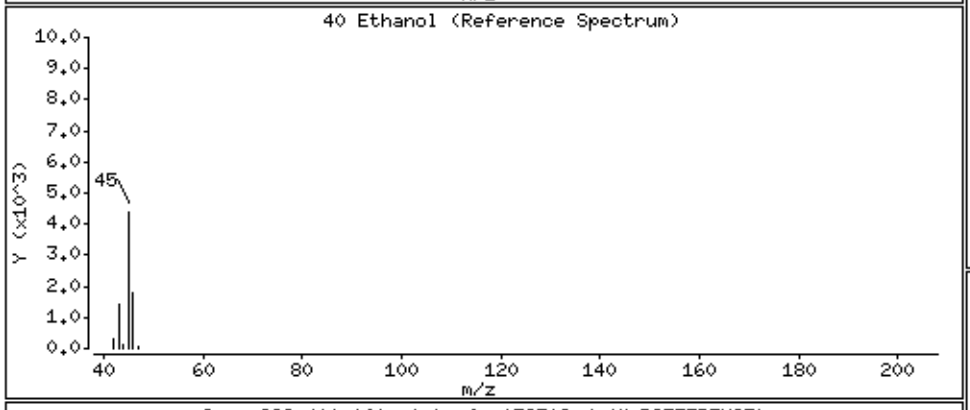
Concentration: 5.874 PPbV

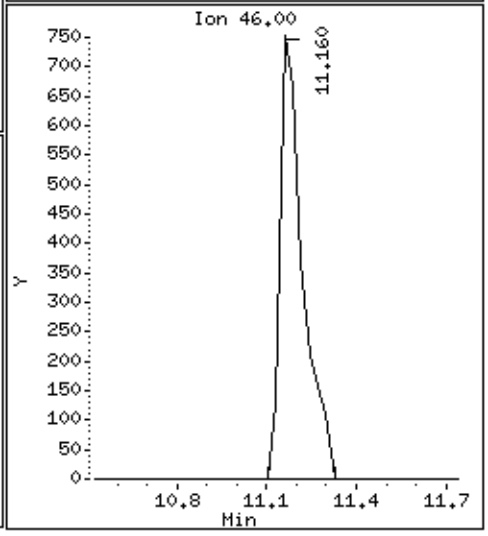


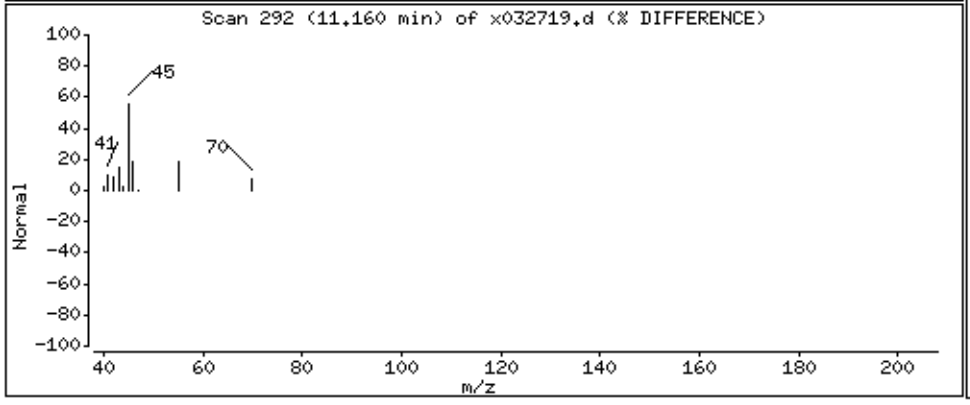



Data File: /chem/msdx.i/27mar10.b/x032719.d

Date : 27-MAR-2010 20:31

Client ID:

Instrument: msdx.i

Sample Info: 200mL #35253

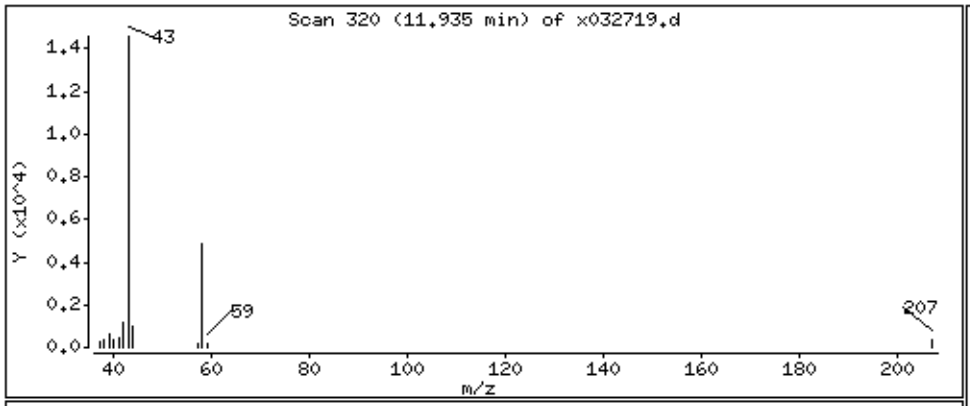
Operator: xp

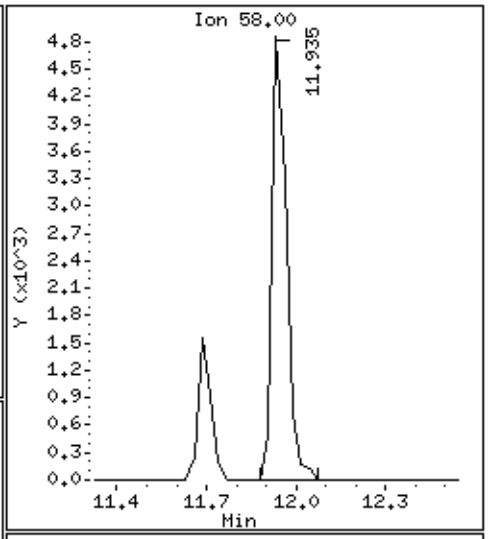
Column phase: RTx-624

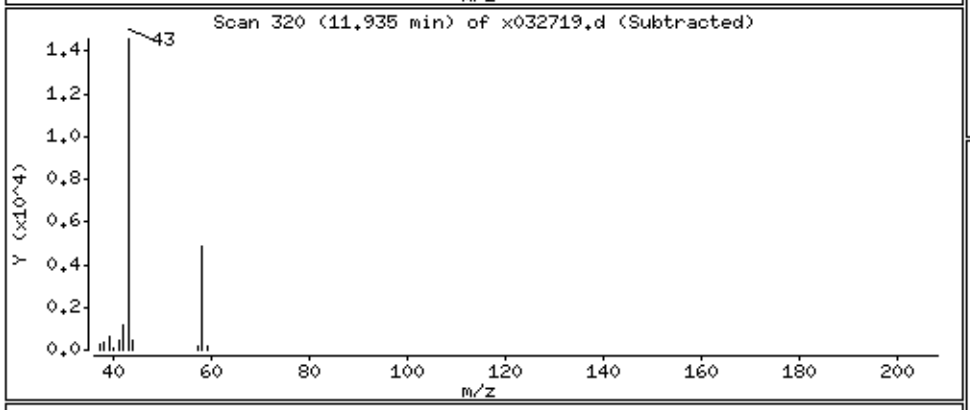
Column diameter: 0.53

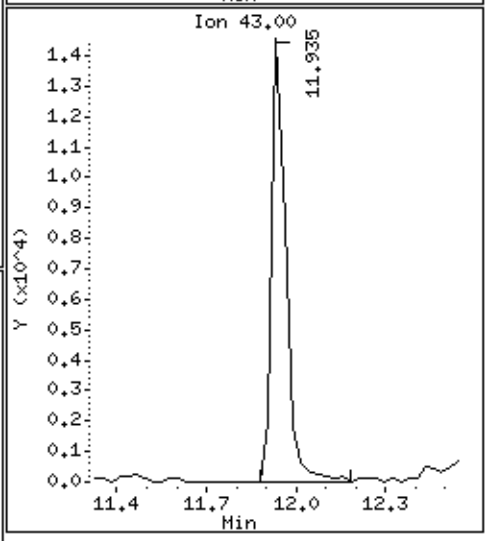
48 Acetone

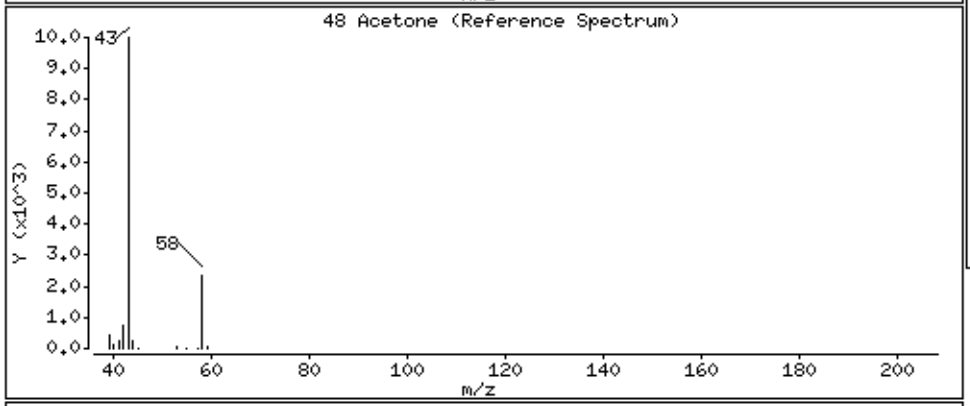
Concentration: 5.827 PPbV

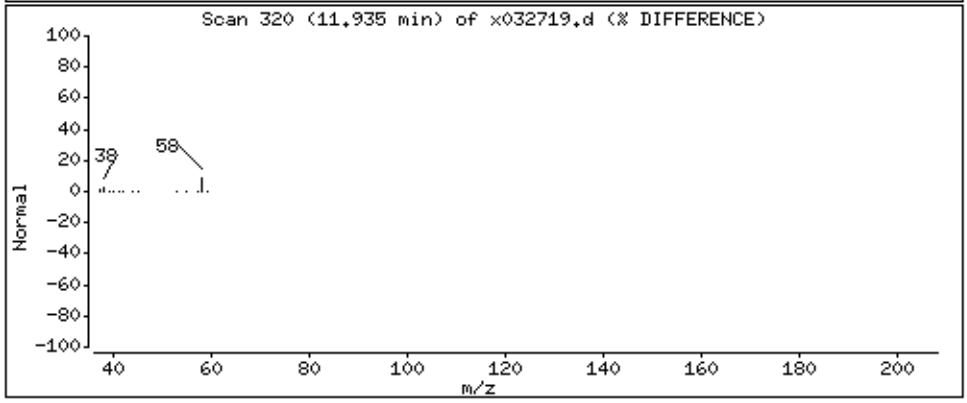


Data File: /chem/msdx.i/27mar10.b/x032719.d

Date : 27-MAR-2010 20:31

Client ID:

Instrument: msdx.i

Sample Info: 200mL #35253

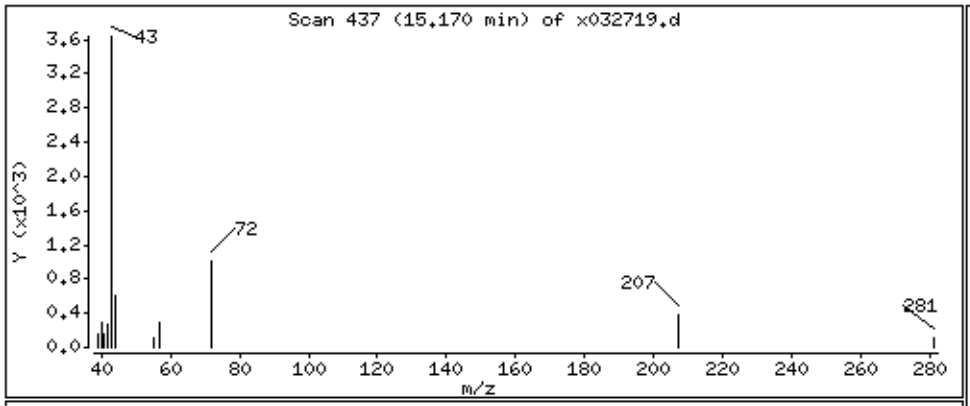
Operator: xp

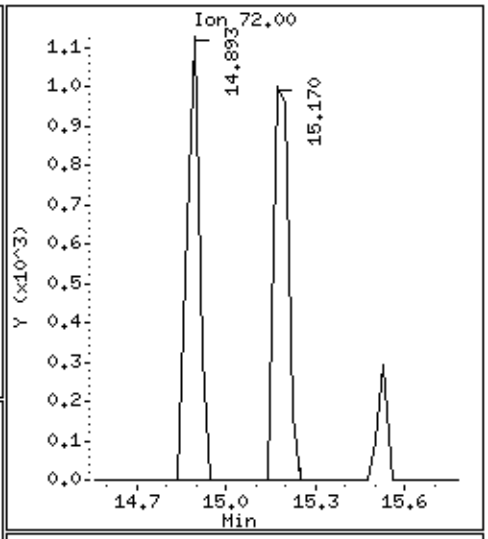
Column phase: RTx-624

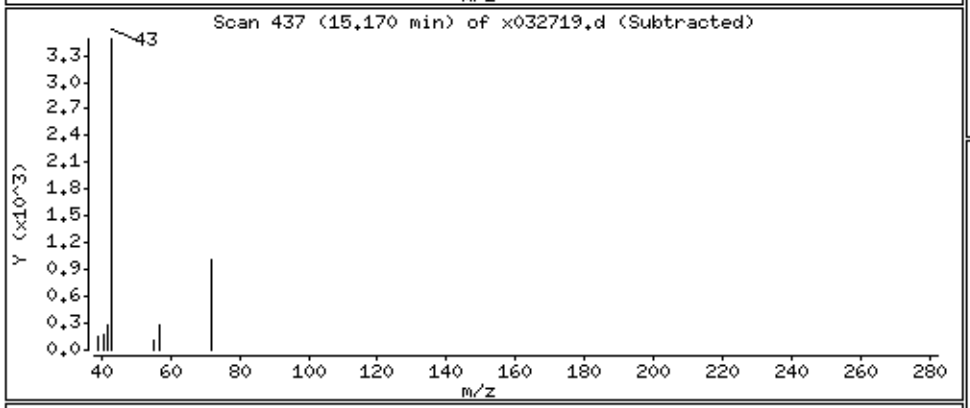
Column diameter: 0.53

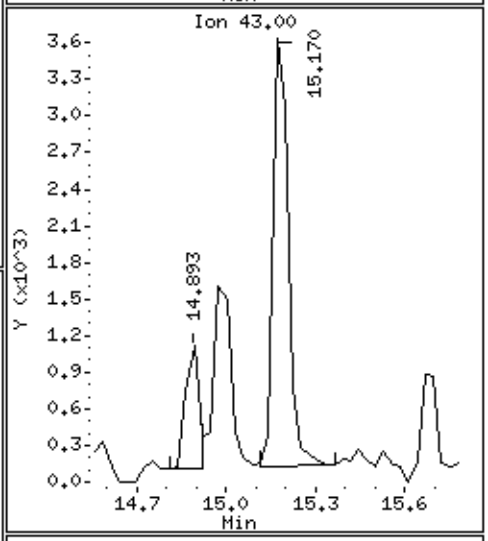
77 2-Butanone

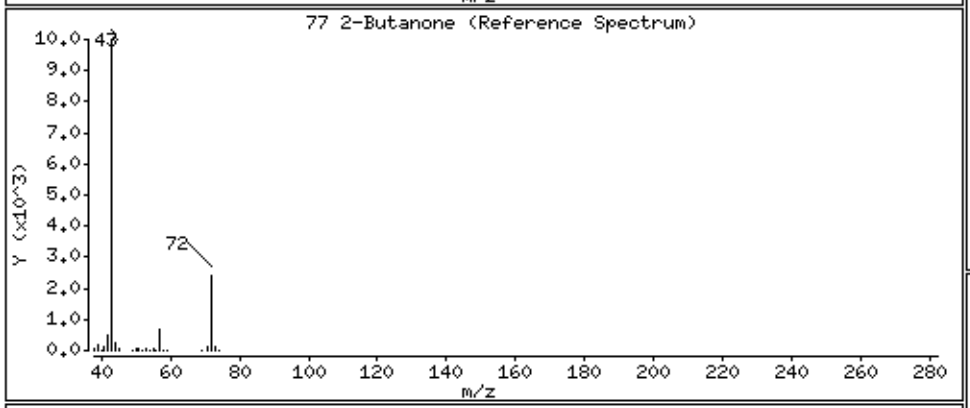
Concentration: 0.8918 PPbV

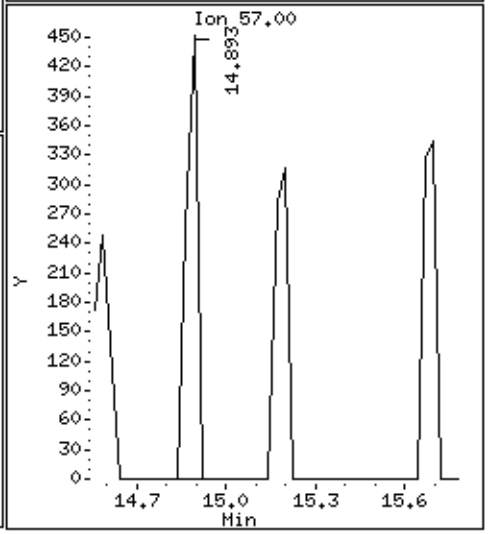


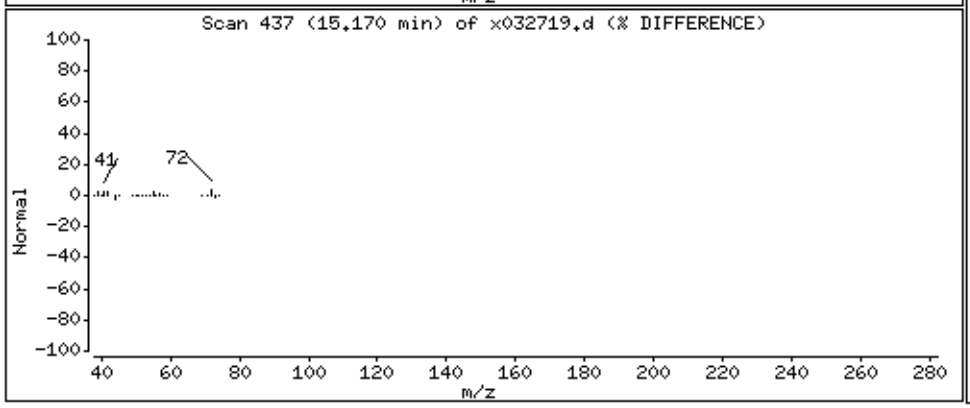



Data File: /chem/msdx.i/27mar10.b/x032719.d

Date : 27-MAR-2010 20:31

Client ID:

Instrument: msdx.i

Sample Info: 200mL #35253

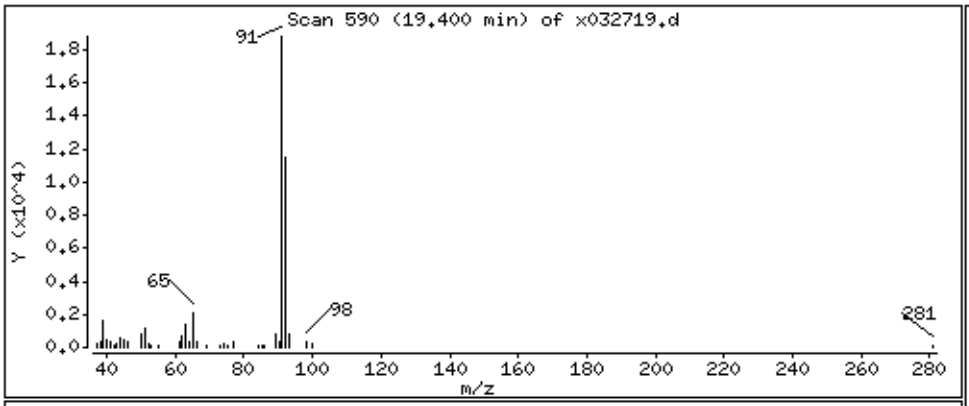
Operator: xp

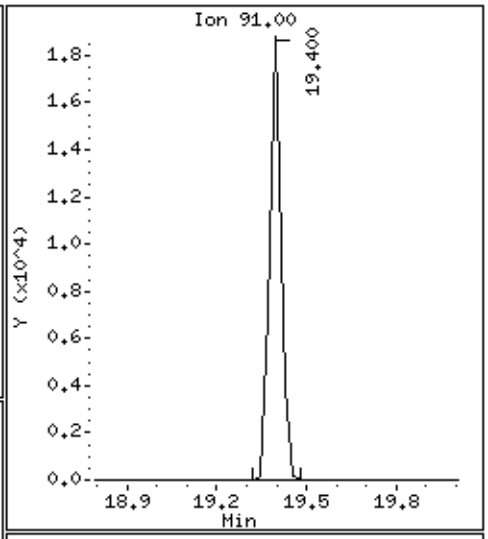
Column phase: RTx-624

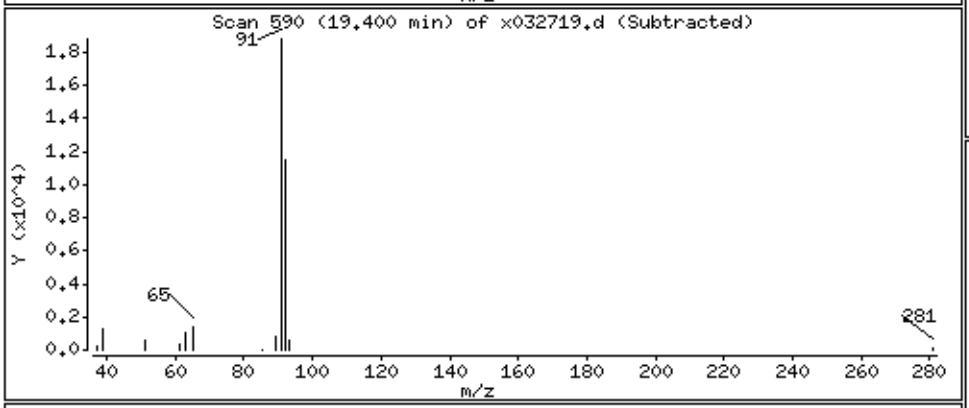
Column diameter: 0.53

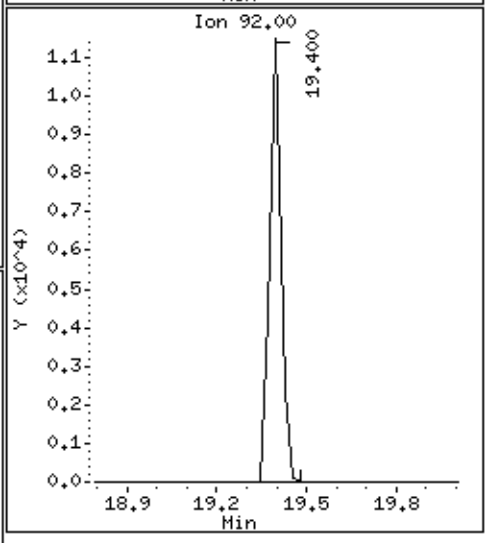
115 Toluene

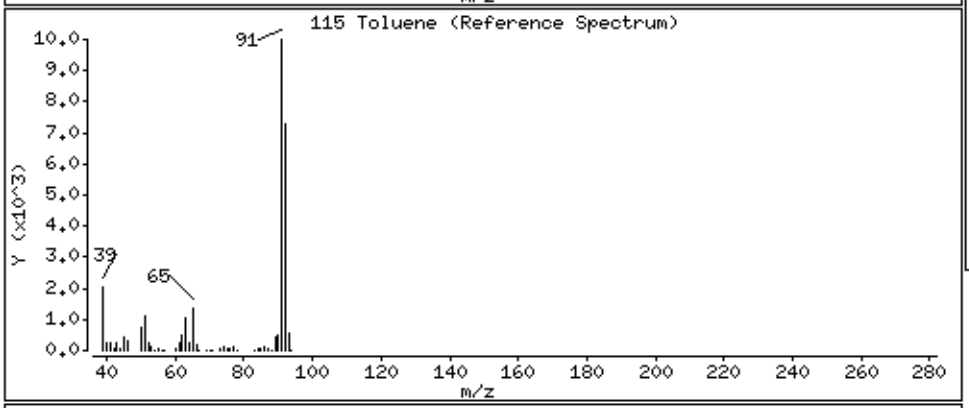
Concentration: 1.685 PPbV

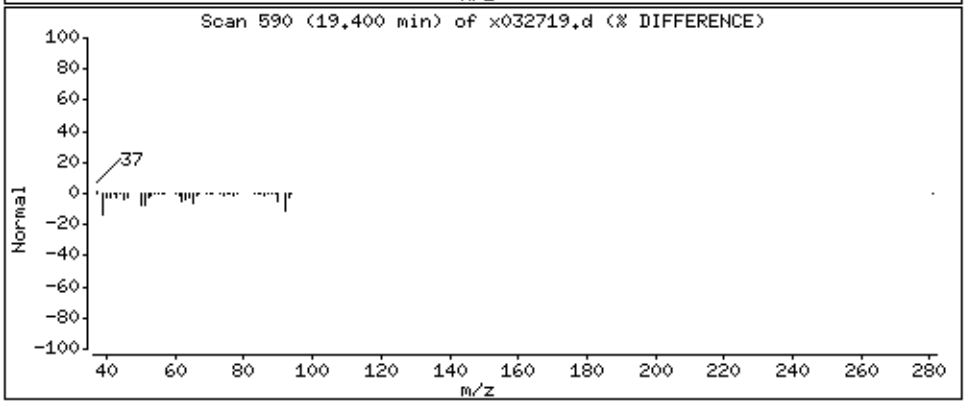


Data File: /chem/msdx.i/27mar10.b/x032719.d

Date : 27-MAR-2010 20:31

Client ID:

Instrument: msdx.i

Sample Info: 200mL #35253

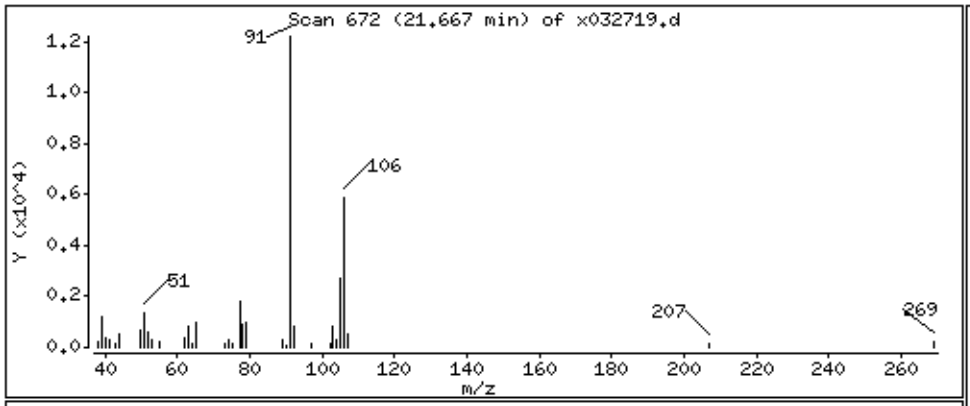
Operator: xp

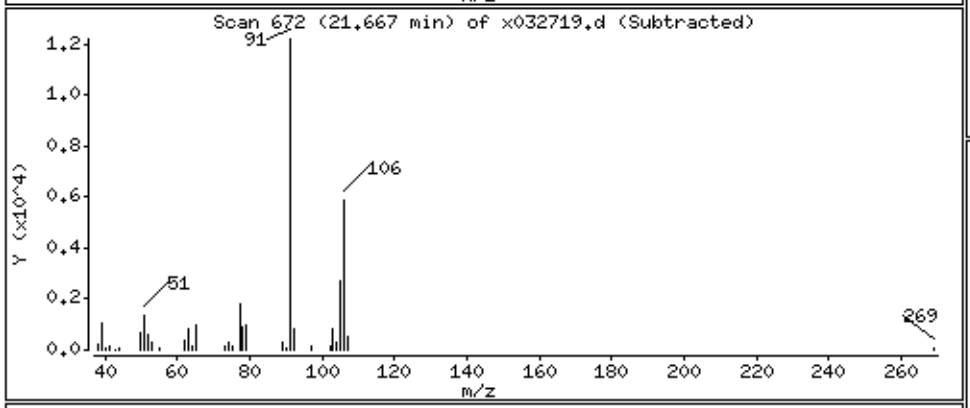
Column phase: RTx-624

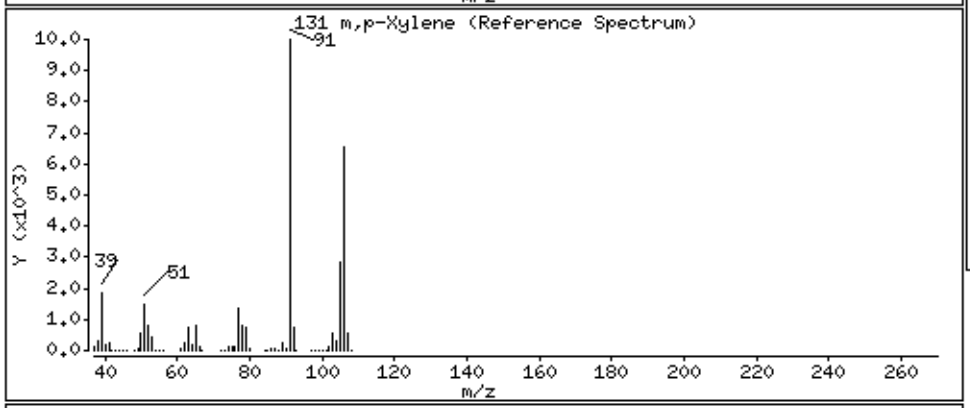
Column diameter: 0.53

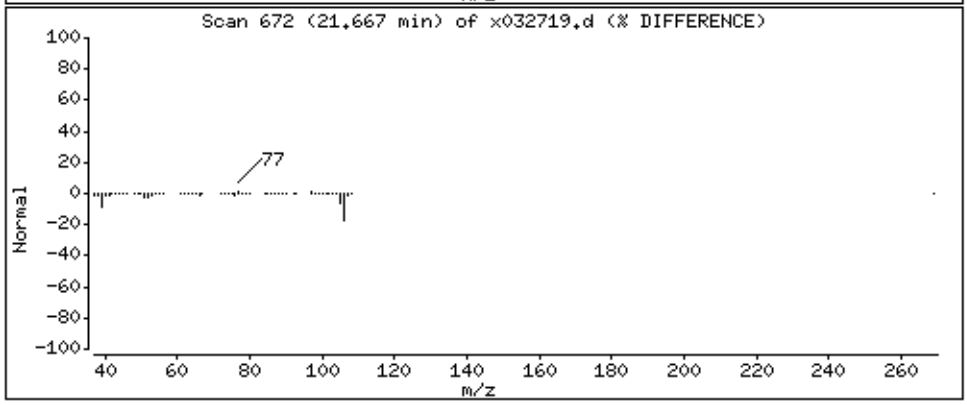
131 m,p-Xylene

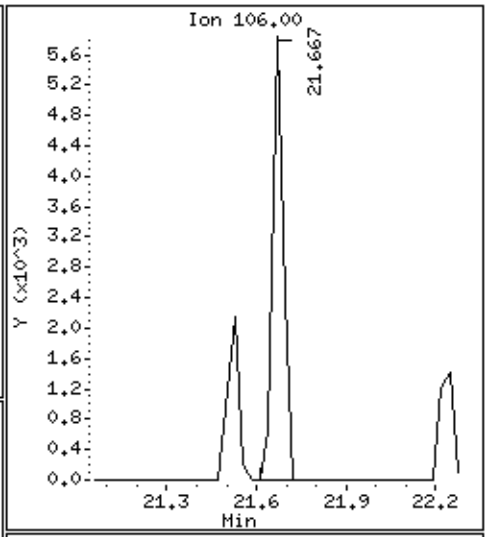
Concentration: 1.102 PPbV

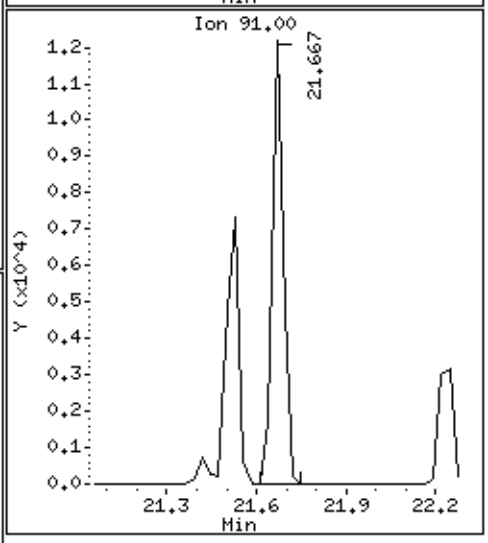


Air Toxics LTD.
Laboratory Services Since 1989

# Summary of Detected Compounds
# MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: DW AMS 2**

**Lab ID#: 1003514-02A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (ug/m3) | Amount (ug/m3) |
|---|---|---|---|---|
| Ethanol | 3.6 | 6.6 | 6.7 | 12 |
| Acetone | 3.6 | 7.8 | 8.5 | 18 |
| 2-Butanone (Methyl Ethyl Ketone) | 0.90 | 1.2 | 2.6 | 3.4 |
| Toluene | 0.90 | 1.8 | 3.4 | 6.7 |
| Ethyl Benzene | 0.90 | 0.99 | 3.9 | 4.3 |
| m,p-Xylene | 0.90 | 1.6 | 3.9 | 7.0 |

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**Client Sample ID: DW AMS 2**

**Lab ID#: 1003514-02A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **x032720** | **Date of Collection:** | **3/18/10 2:30:00 PM** |
| **Dil. Factor:** | **1.79** | **Date of Analysis:** | **3/27/10 09:13 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (ug/m3) | Amount (ug/m3) |
|---|---|---|---|---|
| Freon 12 | 0.90 | Not Detected | 4.4 | Not Detected |
| Freon 114 | 0.90 | Not Detected | 6.2 | Not Detected |
| Chloromethane | 3.6 | Not Detected | 7.4 | Not Detected |
| Vinyl Chloride | 0.90 | Not Detected | 2.3 | Not Detected |
| 1,3-Butadiene | 0.90 | Not Detected | 2.0 | Not Detected |
| Bromomethane | 0.90 | Not Detected | 3.5 | Not Detected |
| Chloroethane | 0.90 | Not Detected | 2.4 | Not Detected |
| Freon 11 | 0.90 | Not Detected | 5.0 | Not Detected |
| Ethanol | 3.6 | 6.6 | 6.7 | 12 |
| Freon 113 | 0.90 | Not Detected | 6.8 | Not Detected |
| 1,1-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |
| Acetone | 3.6 | 7.8 | 8.5 | 18 |
| 2-Propanol | 3.6 | Not Detected | 8.8 | Not Detected |
| Carbon Disulfide | 0.90 | Not Detected | 2.8 | Not Detected |
| 3-Chloropropene | 3.6 | Not Detected | 11 | Not Detected |
| Methylene Chloride | 0.90 | Not Detected | 3.1 | Not Detected |
| Methyl tert-butyl ether | 0.90 | Not Detected | 3.2 | Not Detected |
| trans-1,2-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |
| Hexane | 0.90 | Not Detected | 3.2 | Not Detected |
| 1,1-Dichloroethane | 0.90 | Not Detected | 3.6 | Not Detected |
| 2-Butanone (Methyl Ethyl Ketone) | 0.90 | 1.2 | 2.6 | 3.4 |
| cis-1,2-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |
| Tetrahydrofuran | 0.90 | Not Detected | 2.6 | Not Detected |
| Chloroform | 0.90 | Not Detected | 4.4 | Not Detected |
| 1,1,1-Trichloroethane | 0.90 | Not Detected | 4.9 | Not Detected |
| Cyclohexane | 0.90 | Not Detected | 3.1 | Not Detected |
| Carbon Tetrachloride | 0.90 | Not Detected | 5.6 | Not Detected |
| 2,2,4-Trimethylpentane | 0.90 | Not Detected | 4.2 | Not Detected |
| Benzene | 0.90 | Not Detected | 2.8 | Not Detected |
| 1,2-Dichloroethane | 0.90 | Not Detected | 3.6 | Not Detected |
| Heptane | 0.90 | Not Detected | 3.7 | Not Detected |
| Trichloroethene | 0.90 | Not Detected | 4.8 | Not Detected |
| 1,2-Dichloropropane | 0.90 | Not Detected | 4.1 | Not Detected |
| 1,4-Dioxane | 3.6 | Not Detected | 13 | Not Detected |
| Bromodichloromethane | 0.90 | Not Detected | 6.0 | Not Detected |
| cis-1,3-Dichloropropene | 0.90 | Not Detected | 4.1 | Not Detected |
| 4-Methyl-2-pentanone | 0.90 | Not Detected | 3.7 | Not Detected |
| Toluene | 0.90 | 1.8 | 3.4 | 6.7 |
| trans-1,3-Dichloropropene | 0.90 | Not Detected | 4.1 | Not Detected |

Air Toxics LTD.
Laboratory Services Since 1989

**Client Sample ID: DW AMS 2**

**Lab ID#: 1003514-02A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **x032720** | **Date of Collection:** | **3/18/10 2:30:00 PM** |
| **Dil. Factor:** | **1.79** | **Date of Analysis:** | **3/27/10 09:13 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (ug/m3) | Amount (ug/m3) |
|---|---|---|---|---|
| 1,1,2-Trichloroethane | 0.90 | Not Detected | 4.9 | Not Detected |
| Tetrachloroethene | 0.90 | Not Detected | 6.1 | Not Detected |
| 2-Hexanone | 3.6 | Not Detected | 15 | Not Detected |
| Dibromochloromethane | 0.90 | Not Detected | 7.6 | Not Detected |
| 1,2-Dibromoethane (EDB) | 0.90 | Not Detected | 6.9 | Not Detected |
| Chlorobenzene | 0.90 | Not Detected | 4.1 | Not Detected |
| Ethyl Benzene | 0.90 | 0.99 | 3.9 | 4.3 |
| m,p-Xylene | 0.90 | 1.6 | 3.9 | 7.0 |
| o-Xylene | 0.90 | Not Detected | 3.9 | Not Detected |
| Styrene | 0.90 | Not Detected | 3.8 | Not Detected |
| Bromoform | 0.90 | Not Detected | 9.2 | Not Detected |
| Cumene | 0.90 | Not Detected | 4.4 | Not Detected |
| 1,1,2,2-Tetrachloroethane | 0.90 | Not Detected | 6.1 | Not Detected |
| Propylbenzene | 0.90 | Not Detected | 4.4 | Not Detected |
| 4-Ethyltoluene | 0.90 | Not Detected | 4.4 | Not Detected |
| 1,3,5-Trimethylbenzene | 0.90 | Not Detected | 4.4 | Not Detected |
| 1,2,4-Trimethylbenzene | 0.90 | Not Detected | 4.4 | Not Detected |
| 1,3-Dichlorobenzene | 0.90 | Not Detected | 5.4 | Not Detected |
| 1,4-Dichlorobenzene | 0.90 | Not Detected | 5.4 | Not Detected |
| alpha-Chlorotoluene | 0.90 | Not Detected | 4.6 | Not Detected |
| 1,2-Dichlorobenzene | 0.90 | Not Detected | 5.4 | Not Detected |
| 1,2,4-Trichlorobenzene | 3.6 | Not Detected | 26 | Not Detected |
| Hexachlorobutadiene | 3.6 | Not Detected | 38 | Not Detected |
| Naphthalene | 3.6 | Not Detected | 19 | Not Detected |

**Container Type: 6 Liter Summa Canister**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| Toluene-d8 | 99 | 70-130 |
| 1,2-Dichloroethane-d4 | 95 | 70-130 |
| 4-Bromofluorobenzene | 86 | 70-130 |

Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msdx.i/27mar10.b/x032720.d
Lab Smp Id: 1003514-02A
Inj Date : 27-MAR-2010 21:13
Operator : xp Inst ID: msdx.i
Smp Info : 200mL #34357
Misc Info : 7.5"Hg-5psi
Comment :
Method : /chem/msdx.i/27mar10.b/x10q0323a.m
Meth Date : 27-Mar-2010 15:19 rallen Quant Type: ISTD
Cal Date : 23-MAR-2010 22:49 Cal File: x032312.d
Als bottle: 3
Dil Factor: 1.79000
Integrator: HP RTE Compound Sublist: TO15N.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| | | | | CONCENTRATIONS ON-COL | CONCENTRATIONS FINAL | | |
|---|---|---|---|---|---|---|---|
| RT | EXP RT (REL RT) | MASS | RESPONSE | ( PPBV) | ( PPbV) | TARGET RANGE | RATIO |
| * 82 Bromochloromethane | | | | | CAS #: 74-97-5 | | |
| 15.557 | 15.557 (1.000) | 130 | 217534 | 25.0000 | | 80.00- 120.00 | 100.00 |
| 15.557 | 15.557 (1.000) | 128 | 170123 | | | 27.50- 127.50 | 78.21 |
| 15.529 | 15.557 (1.000) | 49 | 267292 | | | 72.51- 172.51 | 122.87 |
| * 97 1,4-Difluorobenzene | | | | | CAS #: 540-36-3 | | |
| 16.994 | 16.995 (1.000) | 114 | 910213 | 25.0000 | | 80.00- 120.00 | 100.00 |
| 16.994 | 16.995 (1.000) | 88 | 155217 | | | 0.00- 66.97 | 17.05 |
| * 126 Chlorobenzene-d5 | | | | | CAS #: 3114-55-4 | | |
| 21.418 | 21.418 (1.000) | 117 | 742060 | 25.0000 | | 80.00- 120.00 | 100.00 |
| 21.418 | 21.418 (1.000) | 82 | 463559 | | | 11.03- 111.03 | 62.47 |
| $ 93 1,2-Dichloroethane-d4 | | | | | CAS #: 17060-07-0 | | |
| 16.414 | 16.414 (1.055) | 65 | 312496 | 23.7800 | 23.780 | 80.00- 120.00 | 100.00 |
| 16.414 | 16.414 (1.055) | 67 | 163972 | | | 3.54- 103.54 | 52.47 |
| $ 114 Toluene-d8 | | | | | CAS #: 2037-26-5 | | |
| 19.289 | 19.289 (1.135) | 98 | 940913 | 24.6946 | 24.695 | 80.00- 120.00 | 100.00 |
| 19.289 | 19.289 (1.135) | 70 | 111960 | | | 0.00- 62.10 | 11.90 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPbV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 114 Toluene-d8 (continued) | | | | | | | |
| 19.289 | 19.289 (1.135) | 100 | 631709 | | | 17.13- 117.13 | 67.14 |
| $ 138 Bromofluorobenzene | | | | | CAS #: 460-00-4 | | |
| 22.994 | 22.994 (1.074) | 174 | 387551 | 21.4265 | 21.426 | 80.00- 120.00 | 100.00 |
| 22.994 | 22.994 (1.074) | 95 | 526138 | | | 84.62- 184.62 | 135.76 |
| 22.994 | 22.994 (1.074) | 176 | 373580 | | | 46.19- 146.19 | 96.40 |
| 40 Ethanol | | | | | CAS #: 64-17-5 | | |
| 11.160 | 11.133 (0.717) | 45 | 11402 | 3.70389 | 6.630 | 80.00- 120.00 | 100.00 |
| 11.160 | 11.133 (0.717) | 43 | 3374 | | | 0.00- 73.32 | 29.59 |
| 11.160 | 11.133 (0.717) | 46 | 4305 | | | 0.00- 86.84 | 37.76 |
| 48 Acetone | | | | | CAS #: 67-64-1 | | |
| 11.935 | 11.935 (0.767) | 58 | 19304 | 4.36412 | 7.812 | 80.00- 120.00 | 100.00 |
| 11.935 | 11.935 (0.767) | 43 | 59322 | | | 241.90- 341.90 | 307.30 |
| 77 2-Butanone | | | | | CAS #: 78-93-3 | | |
| 15.197 | 15.170 (0.977) | 72 | 4099 | 0.64650 | 1.157 | 80.00- 120.00 | 100.00 |
| 15.170 | 15.170 (0.975) | 43 | 15745 | | | 271.20- 371.20 | 384.12 |
| 15.170 | 15.170 (0.975) | 57 | 1036 | | | 0.00- 80.83 | 25.27 |
| 115 Toluene | | | | | CAS #: 108-88-3 | | |
| 19.400 | 19.400 (1.142) | 91 | 47278 | 0.98970 | 1.772 | 80.00- 120.00 | 100.00 |
| 19.400 | 19.400 (1.142) | 92 | 28206 | | | 10.02- 110.02 | 59.66 |
| 128 Ethyl Benzene | | | | | CAS #: 100-41-4 | | |
| 21.529 | 21.529 (1.005) | 106 | 9250 | 0.55117 | 0.9866 | 80.00- 120.00 | 100.00 |
| 21.529 | 21.529 (1.005) | 91 | 31136 | | | 282.07- 382.07 | 336.61 |
| 131 m,p-Xylene | | | | | CAS #: 108-38-3 | | |
| 21.667 | 21.667 (1.012) | 106 | 19362 | 0.89598 | 1.604 | 80.00- 120.00 | 100.00 |
| 21.667 | 21.667 (1.012) | 91 | 40242 | | | 158.71- 258.71 | 207.84 |

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdx.i
Lab File ID: x032720.d
Lab Smp Id: 1003514-02A
Analysis Type: VOA
Quant Type: ISTD
Operator: xp
Method File: /chem/msdx.i/27mar10.b/x10q0323a.m
Misc Info: 7.5"Hg-5psi

Calibration Date: 27-MAR-2010
Calibration Time: 08:47
Level: LOW
Sample Type: AIR

| | | AREA LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 82 Bromochloromethan | 248468 | 149081 | 347855 | 217534 | -12.45 |
| 97 1,4-Difluorobenze | 1126336 | 675802 | 1576870 | 910213 | -19.19 |
| 126 Chlorobenzene-d5 | 1023653 | 614192 | 1433114 | 742060 | -27.51 |

| | | RT LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 82 Bromochloromethan | 15.56 | 15.23 | 15.89 | 15.56 | 0.00 |
| 97 1,4-Difluorobenze | 16.99 | 16.66 | 17.32 | 16.99 | 0.00 |
| 126 Chlorobenzene-d5 | 21.42 | 21.09 | 21.75 | 21.42 | 0.00 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: 27mar10
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1003514-02A
Level: LOW Operator: xp
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: 2926spectra.spk Quant Type: ISTD
Sublist File: TO15N.sub
Method File: /chem/msdx.i/27mar10.b/x10q0323a.m
Misc Info: 7.5"Hg-5psi

| SURROGATE COMPOUND | CONC ADDED PPbV | CONC RECOVERED PPbV | % RECOVERED | LIMITS |
|---|---|---|---|---|
| $ 93 1,2-Dichloroethane | 25.000 | 23.780 | 95.12 | 70-130 |
| $ 114 Toluene-d8 | 25.000 | 24.695 | 98.78 | 70-130 |
| $ 138 Bromofluorobenzene | 25.000 | 21.426 | 85.71 | 70-130 |

Data File: /chem/msdx.i/27mar10.b/x032720.d

Page 1

Date : 27-MAR-2010 21:13

Client ID:

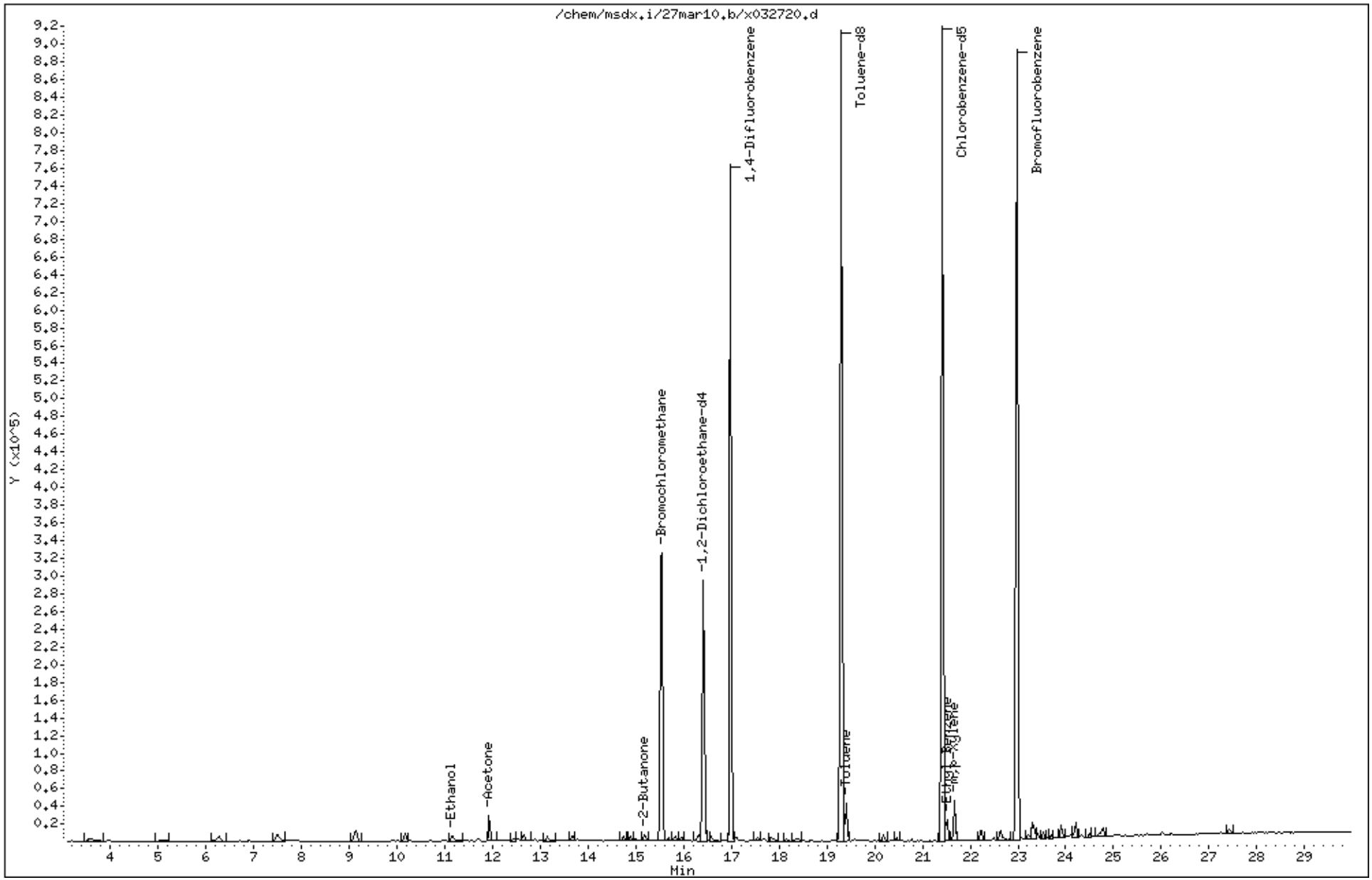
Instrument: msdx.i

Sample Info: 200mL #34357

Operator: xp

Column phase: RTx-624

Column diameter: 0.53



Data File: /chem/msdx.i/27mar10.b/x032720.d

Date : 27-MAR-2010 21:13

Client ID:

Instrument: msdx.i

Sample Info: 200mL #34357

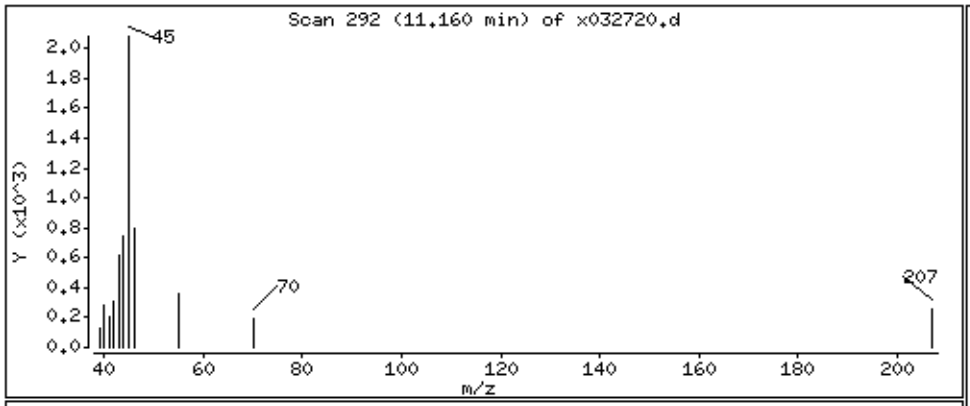
Operator: xp

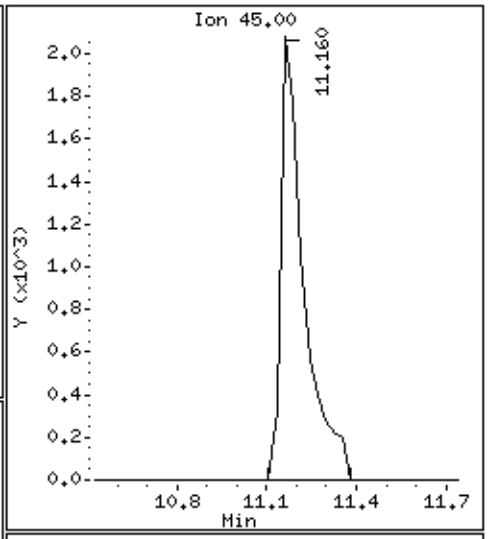
Column phase: RTx-624

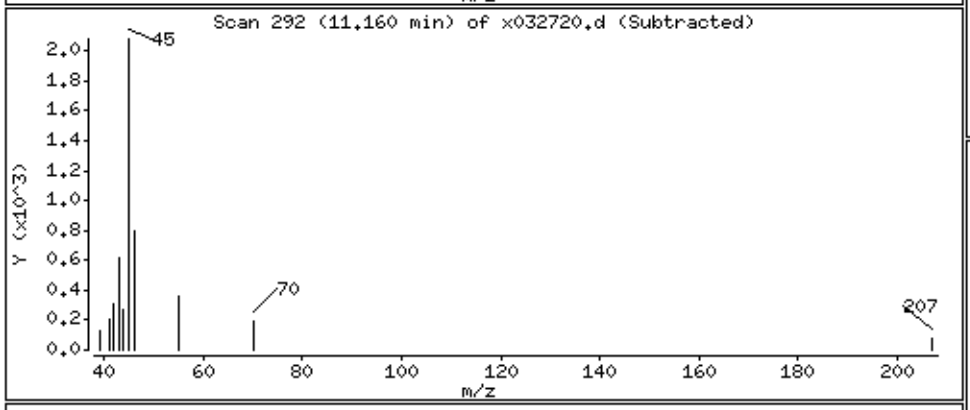
Column diameter: 0.53

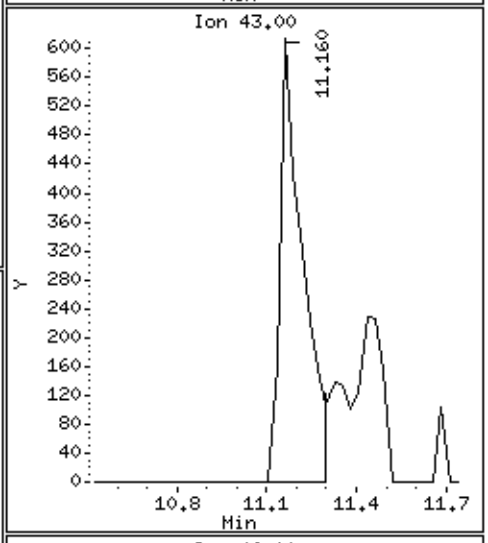
40 Ethanol

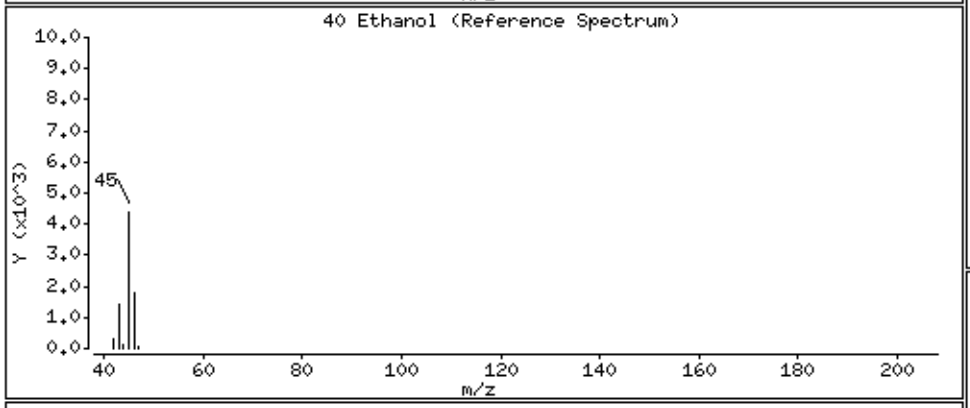
Concentration: 6.630 PPbV

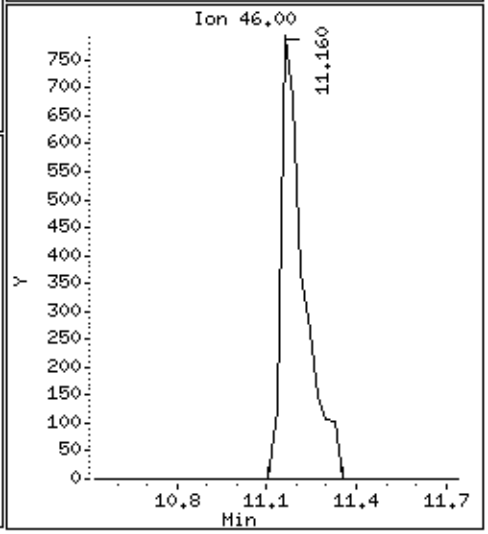


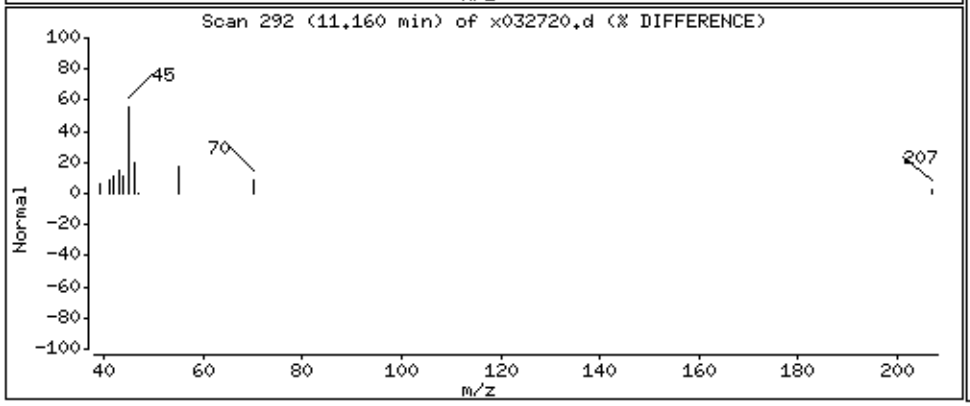



Data File: /chem/msdx.i/27mar10.b/x032720.d

Date : 27-MAR-2010 21:13

Client ID:

Instrument: msdx.i

Sample Info: 200mL #34357

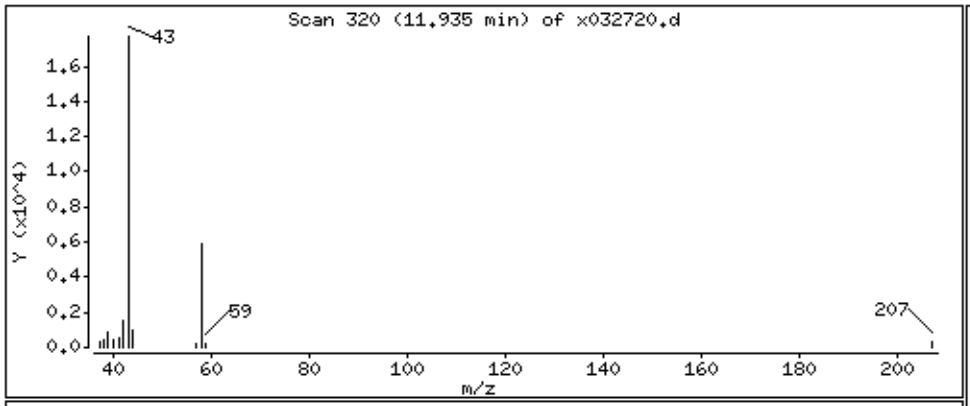
Operator: xp

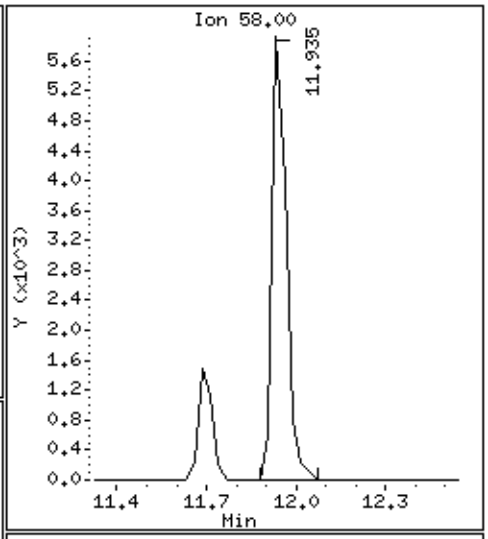
Column phase: RTx-624

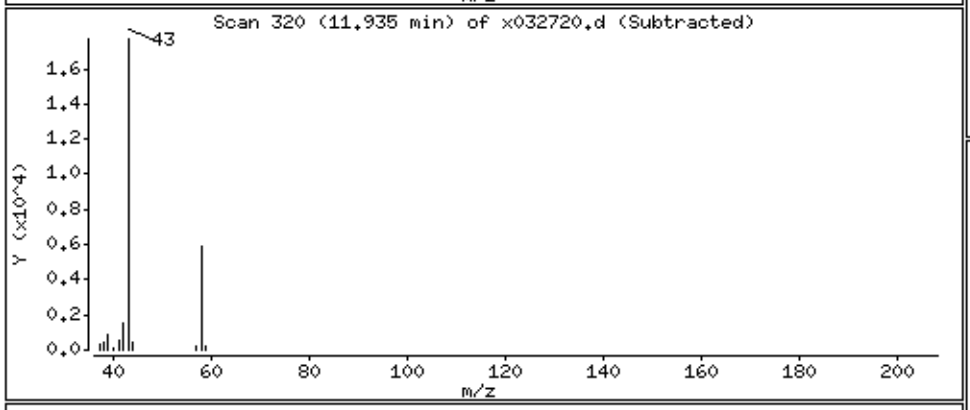
Column diameter: 0.53

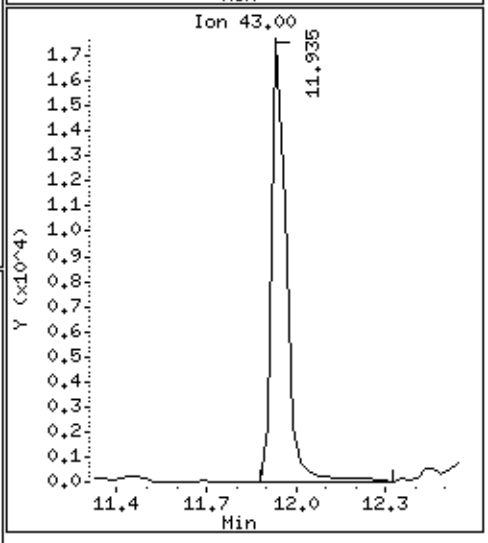
48 Acetone

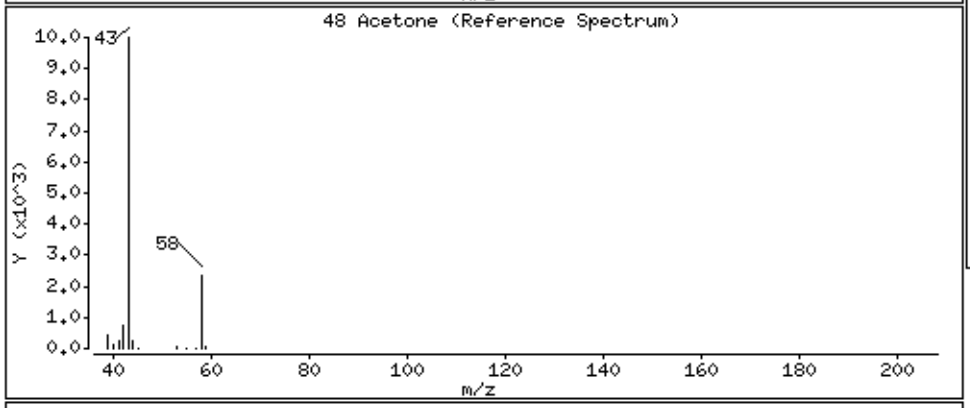
Concentration: 7.812 PPbV

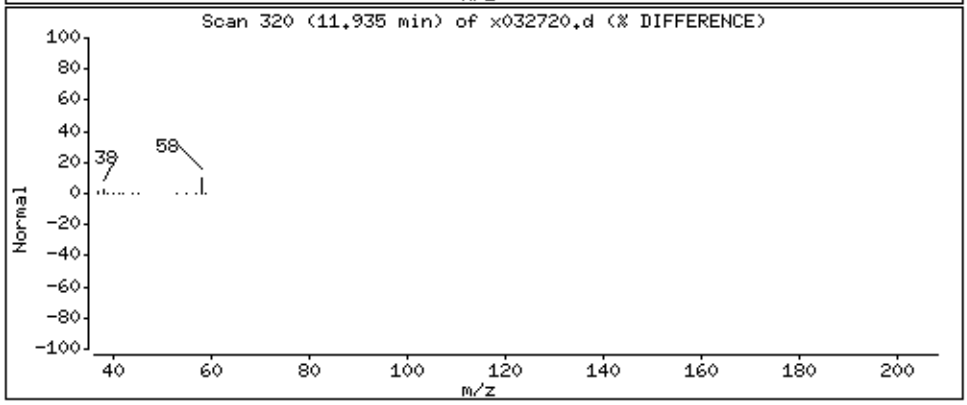


Data File: /chem/msdx.i/27mar10.b/x032720.d

Date : 27-MAR-2010 21:13

Client ID:

Instrument: msdx.i

Sample Info: 200mL #34357

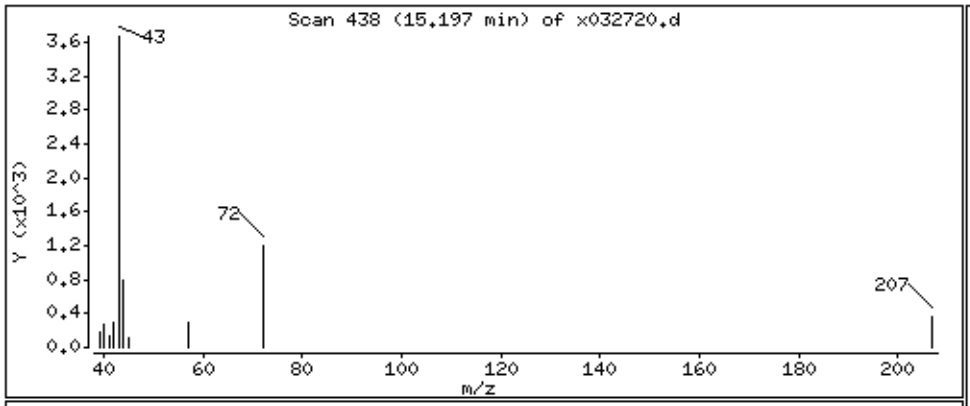
Operator: xp

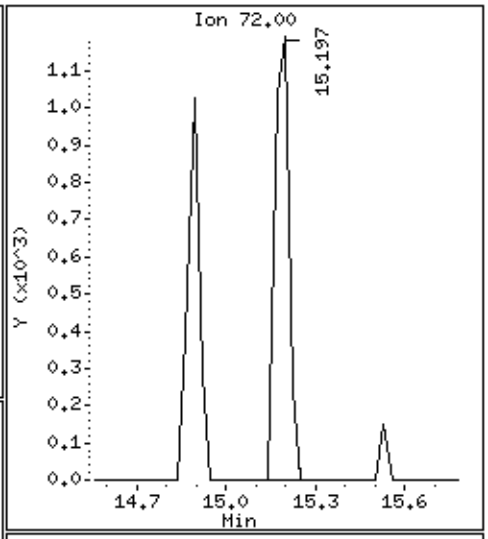
Column phase: RTx-624

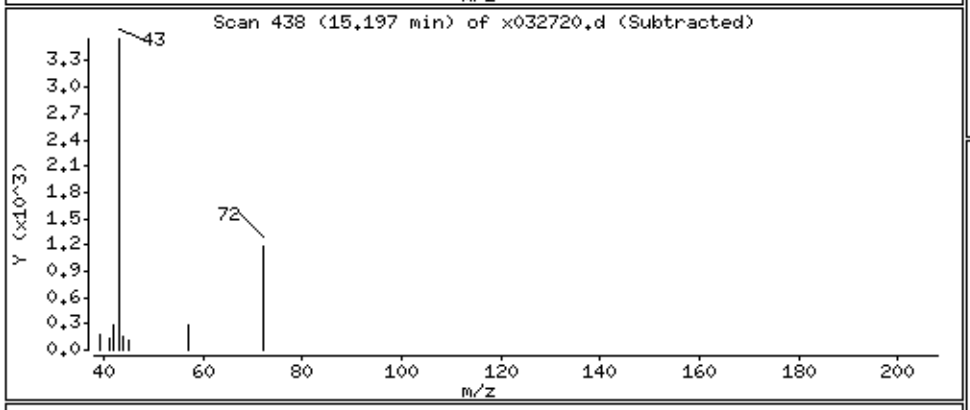
Column diameter: 0.53

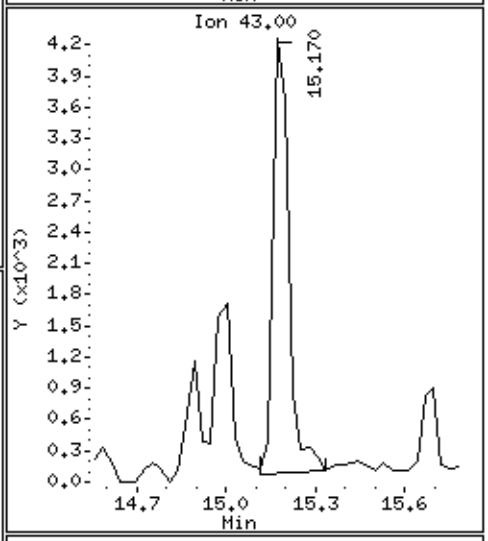
77 2-Butanone

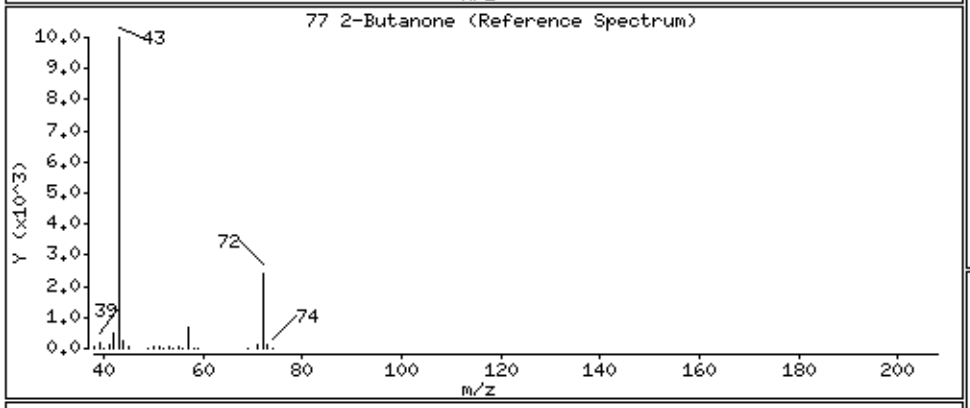
Concentration: 1.157 PPbV

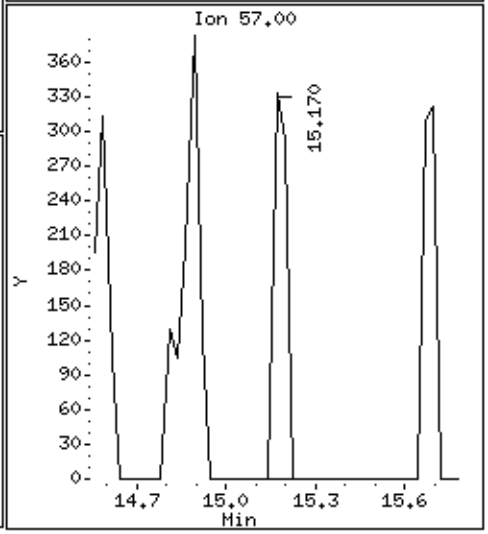


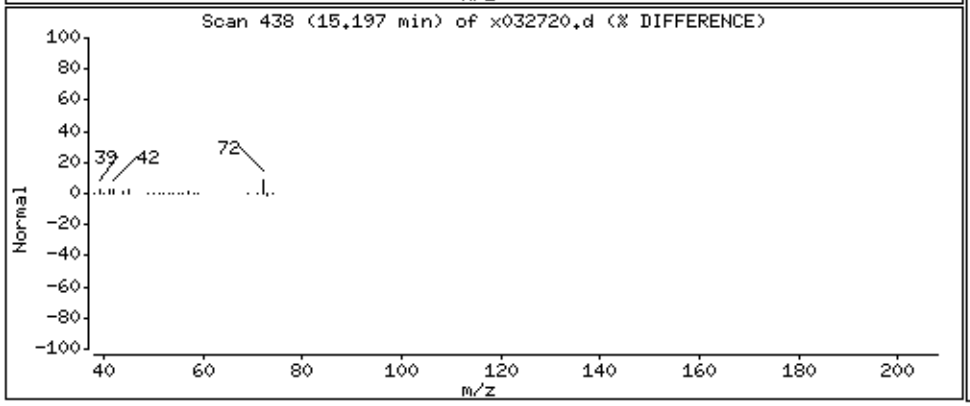



Data File: /chem/msdx.i/27mar10.b/x032720.d

Date : 27-MAR-2010 21:13

Client ID:

Instrument: msdx.i

Sample Info: 200mL #34357

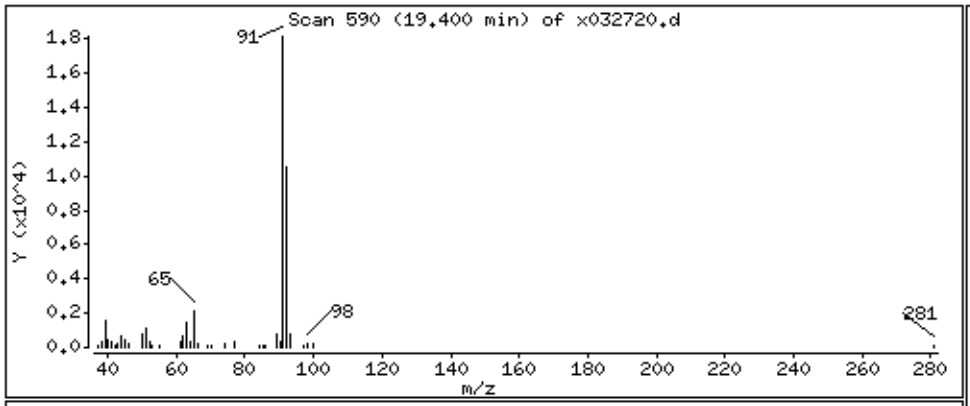
Operator: xp

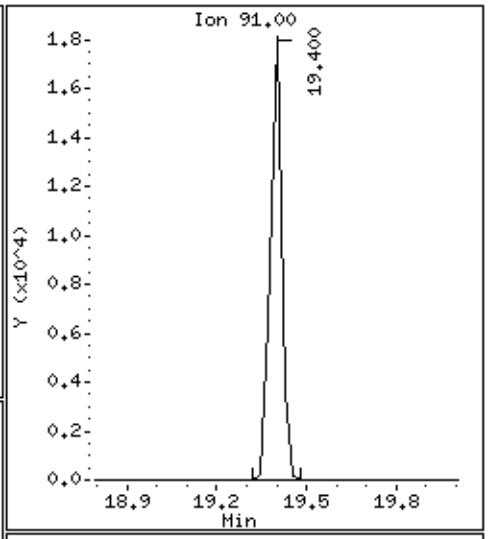
Column phase: RTx-624

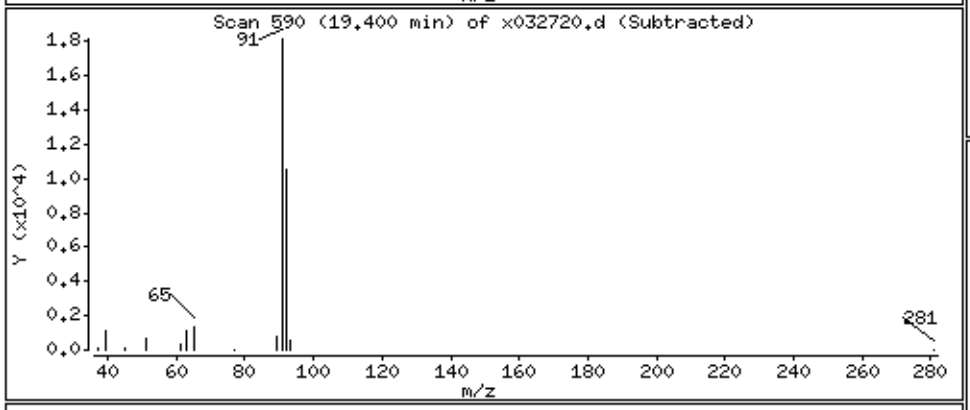
Column diameter: 0.53

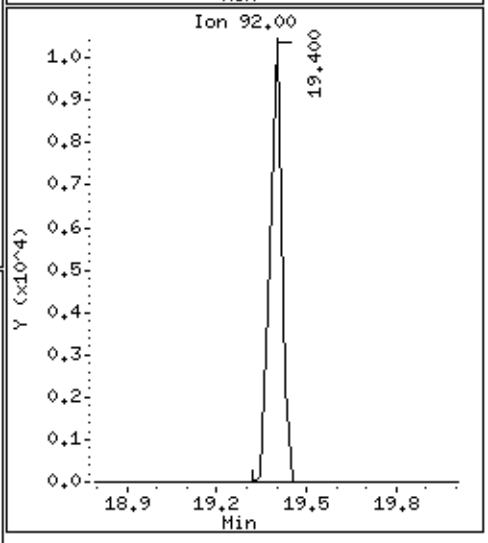
115 Toluene

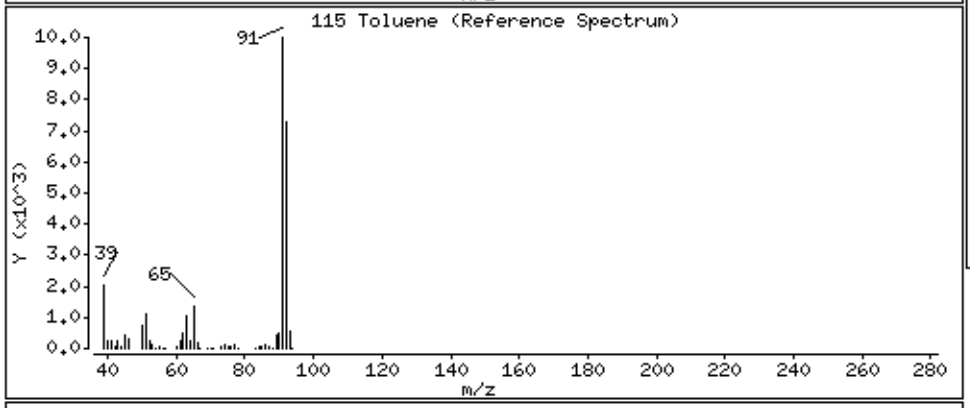
Concentration: 1.772 PPbV

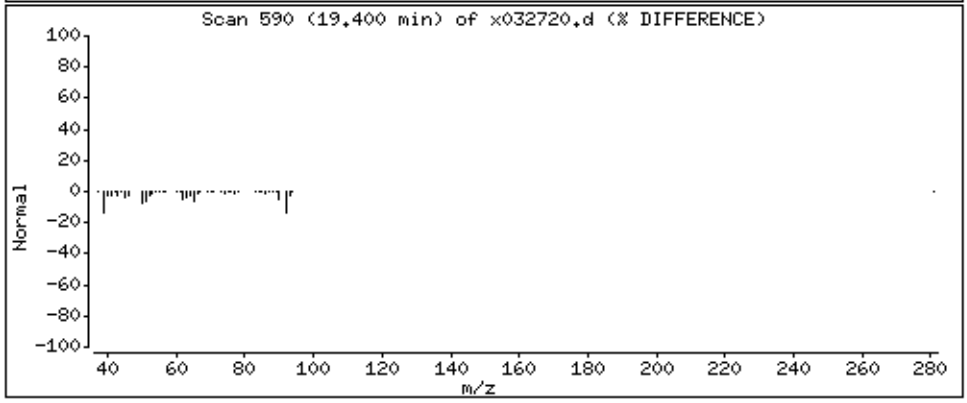


Data File: /chem/msdx.i/27mar10.b/x032720.d

Date : 27-MAR-2010 21:13

Client ID:

Instrument: msdx.i

Sample Info: 200mL #34357

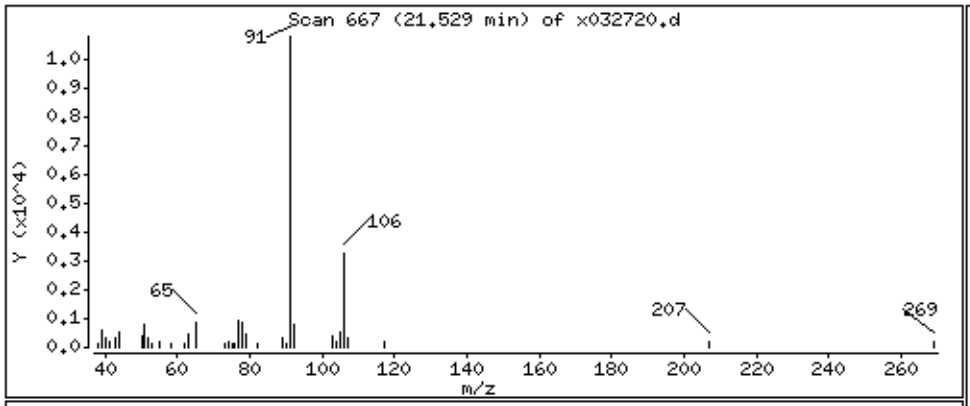
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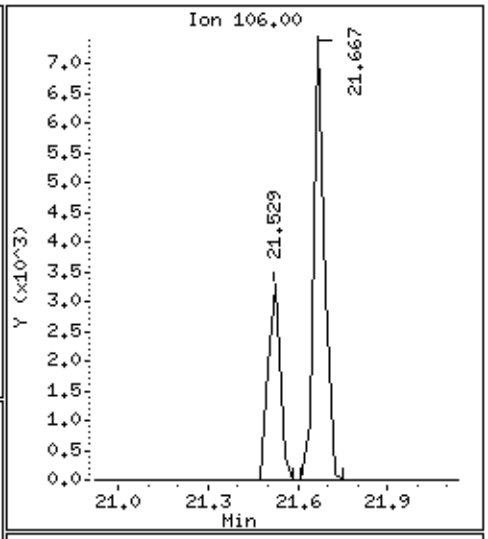
Column phase: RTx-624

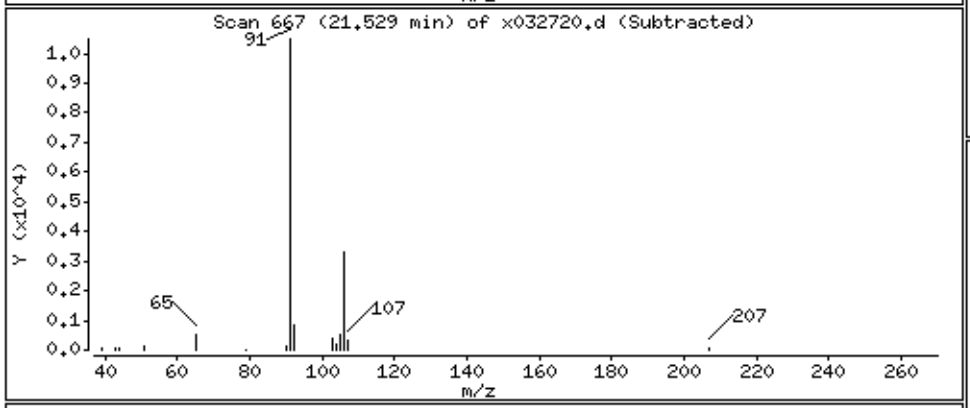
Column diameter: 0.53

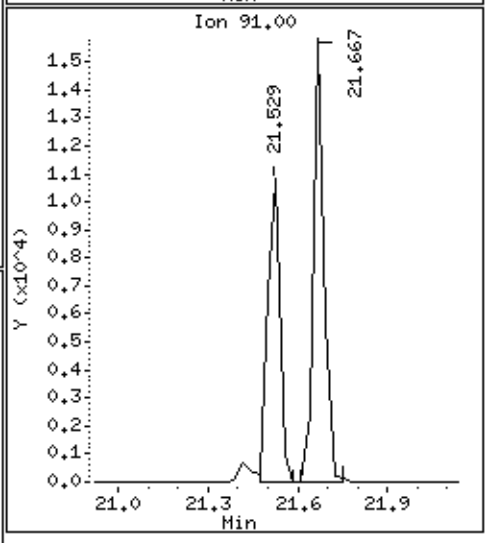
128 Ethyl Benzene

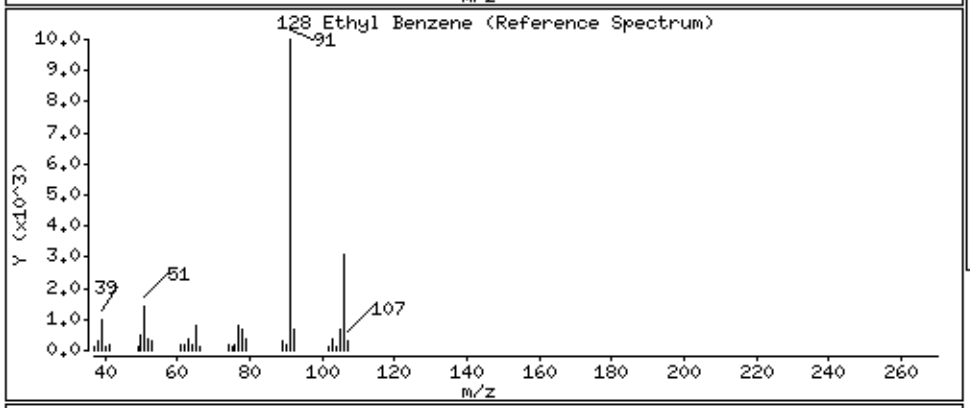
Concentration: 0.9866 PPbV

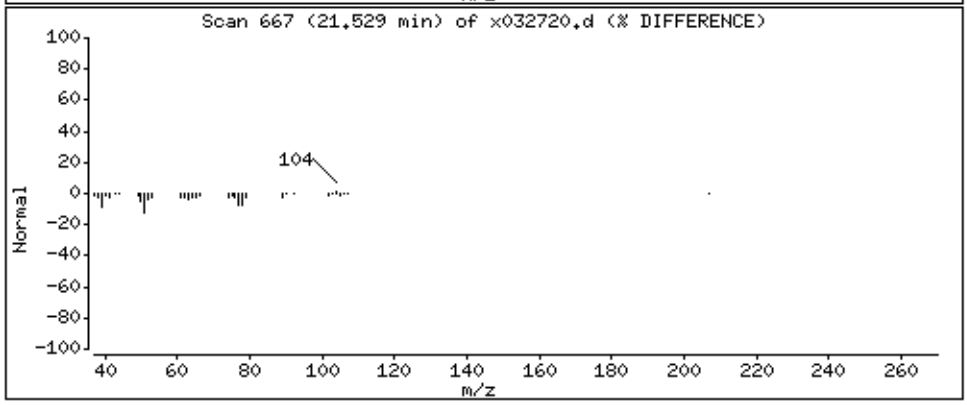


Data File: /chem/msdx.i/27mar10.b/x032720.d

Date : 27-MAR-2010 21:13

Client ID:

Instrument: msdx.i

Sample Info: 200mL #34357

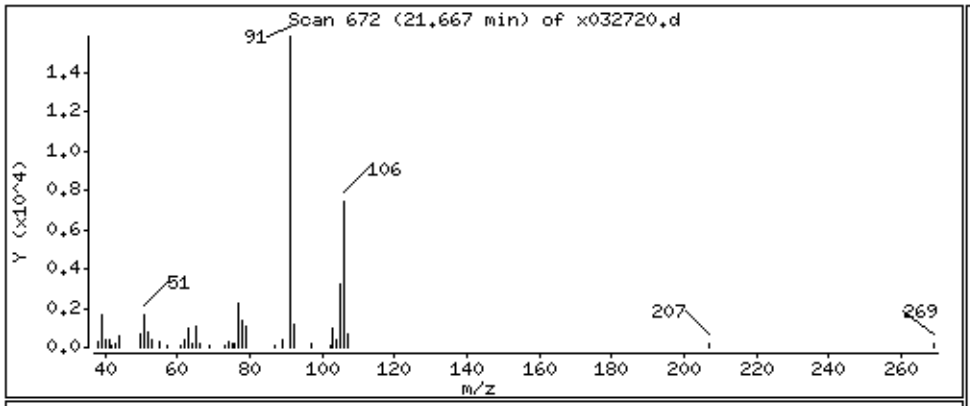
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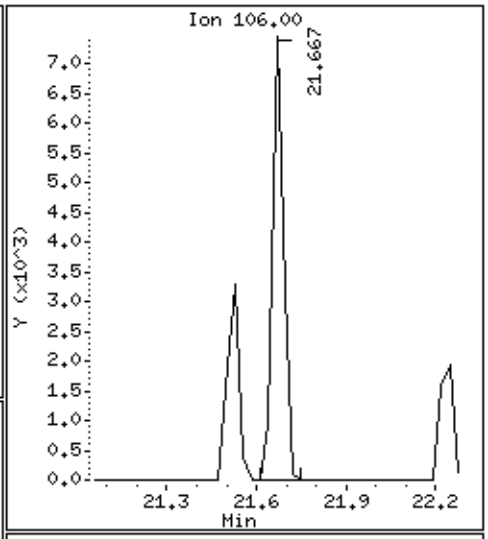
Column phase: RTx-624

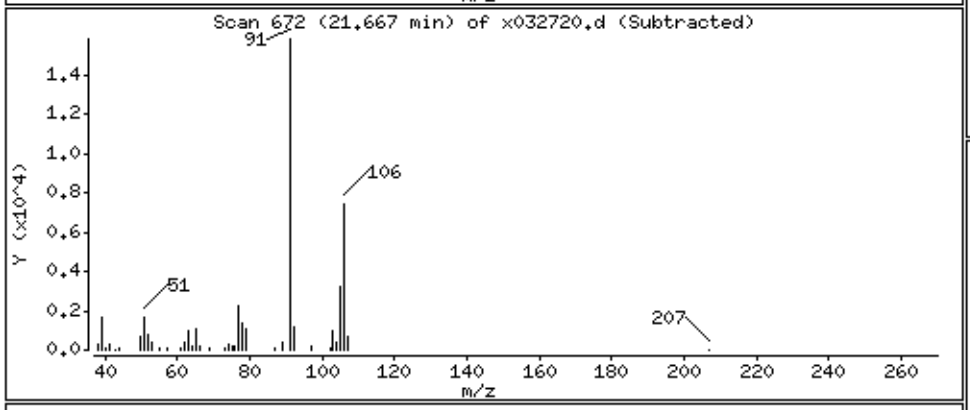
Column diameter: 0.53

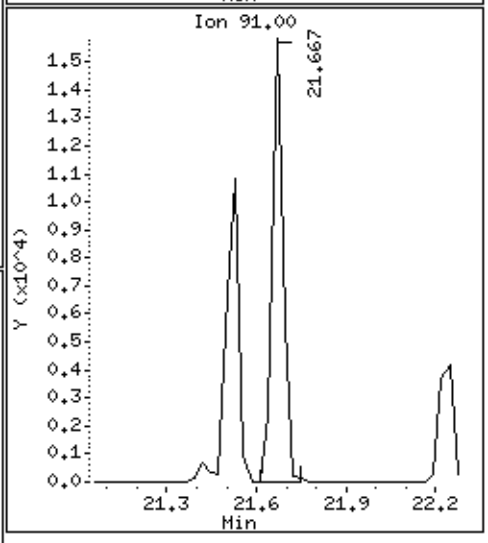
131 m,p-Xylene

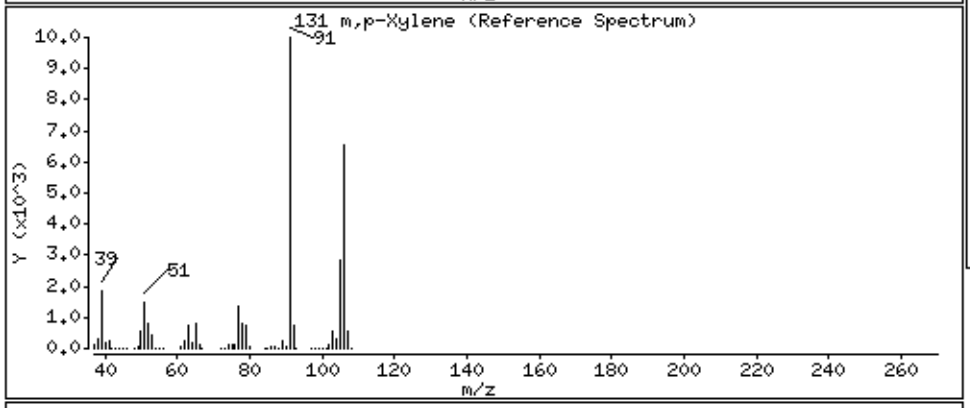
Concentration: 1.604 PPbV

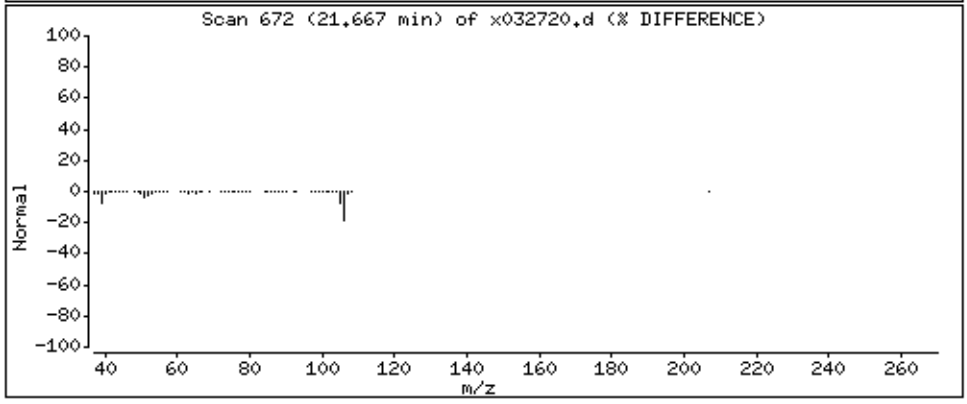


# QC Results and Raw Data

Air Toxics LTD.
Laboratory Services Since 1989

**Client Sample ID: Lab Blank**

**Lab ID#: 1003514-04A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **x032704** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 3/27/10 10:11 AM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (ug/m3) | Amount (ug/m3) |
|---|---|---|---|---|
| Freon 12 | 0.50 | Not Detected | 2.5 | Not Detected |
| Freon 114 | 0.50 | Not Detected | 3.5 | Not Detected |
| Chloromethane | 2.0 | Not Detected | 4.1 | Not Detected |
| Vinyl Chloride | 0.50 | Not Detected | 1.3 | Not Detected |
| 1,3-Butadiene | 0.50 | Not Detected | 1.1 | Not Detected |
| Bromomethane | 0.50 | Not Detected | 1.9 | Not Detected |
| Chloroethane | 0.50 | Not Detected | 1.3 | Not Detected |
| Freon 11 | 0.50 | Not Detected | 2.8 | Not Detected |
| Ethanol | 2.0 | Not Detected | 3.8 | Not Detected |
| Freon 113 | 0.50 | Not Detected | 3.8 | Not Detected |
| 1,1-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| Acetone | 2.0 | Not Detected | 4.8 | Not Detected |
| 2-Propanol | 2.0 | Not Detected | 4.9 | Not Detected |
| Carbon Disulfide | 0.50 | Not Detected | 1.6 | Not Detected |
| 3-Chloropropene | 2.0 | Not Detected | 6.3 | Not Detected |
| Methylene Chloride | 0.50 | Not Detected | 1.7 | Not Detected |
| Methyl tert-butyl ether | 0.50 | Not Detected | 1.8 | Not Detected |
| trans-1,2-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| Hexane | 0.50 | Not Detected | 1.8 | Not Detected |
| 1,1-Dichloroethane | 0.50 | Not Detected | 2.0 | Not Detected |
| 2-Butanone (Methyl Ethyl Ketone) | 0.50 | Not Detected | 1.5 | Not Detected |
| cis-1,2-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| Tetrahydrofuran | 0.50 | Not Detected | 1.5 | Not Detected |
| Chloroform | 0.50 | Not Detected | 2.4 | Not Detected |
| 1,1,1-Trichloroethane | 0.50 | Not Detected | 2.7 | Not Detected |
| Cyclohexane | 0.50 | Not Detected | 1.7 | Not Detected |
| Carbon Tetrachloride | 0.50 | Not Detected | 3.1 | Not Detected |
| 2,2,4-Trimethylpentane | 0.50 | Not Detected | 2.3 | Not Detected |
| Benzene | 0.50 | Not Detected | 1.6 | Not Detected |
| 1,2-Dichloroethane | 0.50 | Not Detected | 2.0 | Not Detected |
| Heptane | 0.50 | Not Detected | 2.0 | Not Detected |
| Trichloroethene | 0.50 | Not Detected | 2.7 | Not Detected |
| 1,2-Dichloropropane | 0.50 | Not Detected | 2.3 | Not Detected |
| 1,4-Dioxane | 2.0 | Not Detected | 7.2 | Not Detected |
| Bromodichloromethane | 0.50 | Not Detected | 3.4 | Not Detected |
| cis-1,3-Dichloropropene | 0.50 | Not Detected | 2.3 | Not Detected |
| 4-Methyl-2-pentanone | 0.50 | Not Detected | 2.0 | Not Detected |
| Toluene | 0.50 | Not Detected | 1.9 | Not Detected |
| trans-1,3-Dichloropropene | 0.50 | Not Detected | 2.3 | Not Detected |

Air Toxics LTD.
Laboratory Services Since 1989

**Client Sample ID: Lab Blank**

**Lab ID#: 1003514-04A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **x032704** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 3/27/10 10:11 AM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (ug/m3) | Amount (ug/m3) |
|---|---|---|---|---|
| 1,1,2-Trichloroethane | 0.50 | Not Detected | 2.7 | Not Detected |
| Tetrachloroethene | 0.50 | Not Detected | 3.4 | Not Detected |
| 2-Hexanone | 2.0 | Not Detected | 8.2 | Not Detected |
| Dibromochloromethane | 0.50 | Not Detected | 4.2 | Not Detected |
| 1,2-Dibromoethane (EDB) | 0.50 | Not Detected | 3.8 | Not Detected |
| Chlorobenzene | 0.50 | Not Detected | 2.3 | Not Detected |
| Ethyl Benzene | 0.50 | Not Detected | 2.2 | Not Detected |
| m,p-Xylene | 0.50 | Not Detected | 2.2 | Not Detected |
| o-Xylene | 0.50 | Not Detected | 2.2 | Not Detected |
| Styrene | 0.50 | Not Detected | 2.1 | Not Detected |
| Bromoform | 0.50 | Not Detected | 5.2 | Not Detected |
| Cumene | 0.50 | Not Detected | 2.4 | Not Detected |
| 1,1,2,2-Tetrachloroethane | 0.50 | Not Detected | 3.4 | Not Detected |
| Propylbenzene | 0.50 | Not Detected | 2.4 | Not Detected |
| 4-Ethyltoluene | 0.50 | Not Detected | 2.4 | Not Detected |
| 1,3,5-Trimethylbenzene | 0.50 | Not Detected | 2.4 | Not Detected |
| 1,2,4-Trimethylbenzene | 0.50 | Not Detected | 2.4 | Not Detected |
| 1,3-Dichlorobenzene | 0.50 | Not Detected | 3.0 | Not Detected |
| 1,4-Dichlorobenzene | 0.50 | Not Detected | 3.0 | Not Detected |
| alpha-Chlorotoluene | 0.50 | Not Detected | 2.6 | Not Detected |
| 1,2-Dichlorobenzene | 0.50 | Not Detected | 3.0 | Not Detected |
| 1,2,4-Trichlorobenzene | 2.0 | Not Detected | 15 | Not Detected |
| Hexachlorobutadiene | 2.0 | Not Detected | 21 | Not Detected |
| Naphthalene | 2.0 | Not Detected | 10 | Not Detected |

**Container Type: NA - Not Applicable**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| Toluene-d8 | 98 | 70-130 |
| 1,2-Dichloroethane-d4 | 97 | 70-130 |
| 4-Bromofluorobenzene | 88 | 70-130 |

Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msdx.i/27mar10.b/x032704.d
Lab Smp Id: Lab Blank Client Smp ID: Lab Blank
Inj Date : 27-MAR-2010 10:11
Operator : ra Inst ID: msdx.i
Smp Info : 200ml #33329
Misc Info : Humid
Comment :
Method : /chem/msdx.i/27mar10.b/x10q0323a.m
Meth Date : 27-Mar-2010 10:11 rallen Quant Type: ISTD
Cal Date : 23-MAR-2010 22:49 Cal File: x032312.d
Als bottle: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT09.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| | | | | CONCENTRATIONS ON-COL | FINAL | | |
|---|---|---|---|---|---|---|---|
| RT | EXP RT (REL RT) | MASS | RESPONSE | ( PPBV) | ( PPbV) | TARGET RANGE | RATIO |
| == | ====== ======== | ==== | ======== | ======= | ======= | ========== | ===== |
| * 82 Bromochloromethane | | | | | CAS #: 74-97-5 | | |
| 15.557 | 15.557 (1.000) | 130 | 229852 | 25.0000 | | 80.00- 120.00 | 100.00 |
| 15.557 | 15.557 (1.000) | 128 | 181122 | | | 27.50- 127.50 | 78.80 |
| 15.529 | 15.557 (1.000) | 49 | 285968 | | | 72.51- 172.51 | 124.41 |
| * 97 1,4-Difluorobenzene | | | | | CAS #: 540-36-3 | | |
| 16.994 | 16.995 (1.000) | 114 | 983918 | 25.0000 | | 80.00- 120.00 | 100.00 |
| 16.994 | 16.995 (1.000) | 88 | 167789 | | | 0.00- 66.97 | 17.05 |
| * 126 Chlorobenzene-d5 | | | | | CAS #: 3114-55-4 | | |
| 21.418 | 21.418 (1.000) | 117 | 842193 | 25.0000 | | 80.00- 120.00 | 100.00 |
| 21.418 | 21.418 (1.000) | 82 | 522374 | | | 11.03- 111.03 | 62.03 |
| $ 93 1,2-Dichloroethane-d4 | | | | | CAS #: 17060-07-0 | | |
| 16.414 | 16.414 (1.055) | 65 | 336871 | 24.2610 | 24.261 | 80.00- 120.00 | 100.00 |
| 16.414 | 16.414 (1.055) | 67 | 176557 | | | 3.54- 103.54 | 52.41 |
| $ 114 Toluene-d8 | | | | | CAS #: 2037-26-5 | | |
| 19.289 | 19.289 (1.135) | 98 | 1014166 | 24.6233 | 24.623 | 80.00- 120.00 | 100.00 |
| 19.289 | 19.289 (1.135) | 70 | 118502 | | | 0.00- 62.10 | 11.68 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | CONCENTRATIONS FINAL ( PPbV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 114 Toluene-d8 (continued) | | | | | | | |
| 19.289 | 19.289 (1.135) | 100 | 678063 | | | 17.13- 117.13 | 66.86 |
| $ 138 Bromofluorobenzene | | | | | CAS #: 460-00-4 | | |
| 22.994 | 22.994 (1.074) | 174 | 453953 | 22.1137 | 22.114 | 80.00- 120.00 | 100.00 |
| 22.994 | 22.994 (1.074) | 95 | 618554 | | | 84.62- 184.62 | 136.26 |
| 22.994 | 22.994 (1.074) | 176 | 438601 | | | 46.19- 146.19 | 96.62 |

Report Date: 27-Mar-2010 10:37

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdx.i
Lab File ID: x032704.d
Lab Smp Id: Lab Blank
Analysis Type: VOA
Quant Type: ISTD
Operator: ra
Method File: /chem/msdx.i/27mar10.b/x10q0323a.m
Misc Info: Humid

Calibration Date: 27-MAR-2010
Calibration Time: 08:47
Client Smp ID: Lab Blank
Level: LOW
Sample Type: AIR

| | | AREA LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 82 Bromochloromethan | 248468 | 149081 | 347855 | 229852 | -7.49 |
| 97 1,4-Difluorobenze | 1126336 | 675802 | 1576870 | 983918 | -12.64 |
| 126 Chlorobenzene-d5 | 1023653 | 614192 | 1433114 | 842193 | -17.73 |

| | | RT LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 82 Bromochloromethan | 15.56 | 15.23 | 15.89 | 15.56 | 0.00 |
| 97 1,4-Difluorobenze | 16.99 | 16.66 | 17.32 | 16.99 | 0.00 |
| 126 Chlorobenzene-d5 | 21.42 | 21.09 | 21.75 | 21.42 | 0.00 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Report Date: 27-Mar-2010 10:37

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: 27mar10
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: Lab Blank Client Smp ID: Lab Blank
Level: LOW Operator: ra
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: 2926spectra.spk Quant Type: ISTD
Sublist File: AT09.sub
Method File: /chem/msdx.i/27mar10.b/x10q0323a.m
Misc Info: Humid

| SURROGATE COMPOUND | CONC ADDED PPbV | CONC RECOVERED PPbV | % RECOVERED | LIMITS |
|---|---|---|---|---|
| $ 93 1,2-Dichloroethane | 25.000 | 24.261 | 97.04 | 70-130 |
| $ 114 Toluene-d8 | 25.000 | 24.623 | 98.49 | 70-130 |
| $ 138 Bromofluorobenzene | 25.000 | 22.114 | 88.45 | 70-130 |

Data File: /chem/msdx.i/27mar10.b/x032704.d

Date : 27-MAR-2010 10:11

Client ID: Lab Blank

Sample Info: 200ml #33329

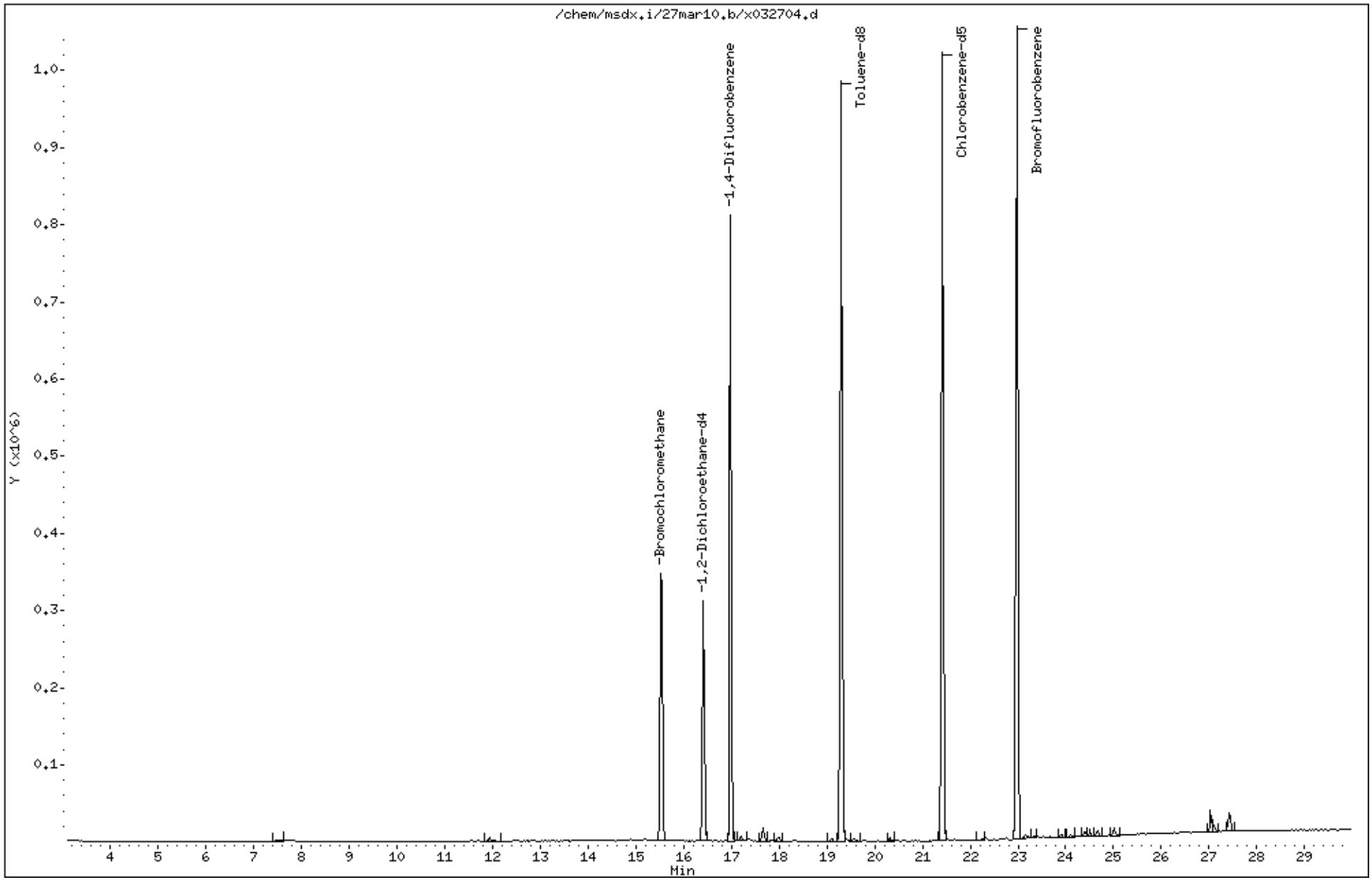
Instrument: msdx.i

Operator: ra

Column phase: RTx-624

Column diameter: 0.53





# LEVEL-IV VALIDATABLE

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

SURROGATE RECOVERY FORM

Lab Name: AIR TOXICS LIMITED. SDG No.: 1003514

| | CLIENT SAMPLE NO. | SURROGATE % RECOVERY | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 1,2-Dichloroethane-d4 | # | Toluene-d8 | # | 4-Bromofluorobenzene | # | | # | TOTAL OUT |
| 01 | UW AMS 4 | 95 | | 98 | | 85 | | | | 0 |
| 02 | DW AMS 2 | 95 | | 99 | | 86 | | | | 0 |
| 03 | Lab Blank | 97 | | 98 | | 88 | | | | 0 |
| 04 | CCV | 99 | | 102 | | 100 | | | | 0 |
| 05 | LCS | 102 | | 100 | | 102 | | | | 0 |
| 06 | | | | | | | | | | 0 |
| 07 | | | | | | | | | | 0 |
| 08 | | | | | | | | | | 0 |
| 09 | | | | | | | | | | 0 |
| 10 | | | | | | | | | | 0 |
| 11 | | | | | | | | | | 0 |
| 12 | | | | | | | | | | 0 |
| 13 | | | | | | | | | | 0 |
| 14 | | | | | | | | | | 0 |
| 15 | | | | | | | | | | 0 |
| 16 | | | | | | | | | | 0 |
| 17 | | | | | | | | | | 0 |
| 18 | | | | | | | | | | 0 |
| 19 | | | | | | | | | | 0 |
| 20 | | | | | | | | | | 0 |
| 21 | | | | | | | | | | 0 |
| 22 | | | | | | | | | | 0 |
| 23 | | | | | | | | | | 0 |
| 24 | | | | | | | | | | 0 |

Surrogate Recovery Limits

1,2-Dichloroethane-d4 70 - 130
Toluene-d8 70 - 130
4-Bromofluorobenzene 70 - 130

* Designates values outside of QC limits

# LEVEL-IV VALIDATABLE

Modified EPA Method TO-15 GC/MS Full Scan

INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: AIR TOXICS, LTD
SDG No: 1003514
Lab File ID: x032702.d
Date Analyzed: 03/27/2010
Instrument ID: msdx.i
Time Analyzed: 08:47 AM

| | | Chlorobenzene-d5 Area | # | RT | # | 1,4-Difluorobenzene Area | # | RT | # | Bromochloromethane Area | # | RT | # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 24-HOUR STD | 1023653 | | 21.42 | | 1126336 | | 16.99 | | 248468 | | 15.56 | |
| | UPPER LIMIT | 1433114 | | 21.75 | | 1576870 | | 17.32 | | 347855 | | 15.89 | |
| | LOWER LIMIT | 614192 | | 21.09 | | 675802 | | 16.66 | | 149081 | | 15.23 | |
| | CLIENT SAMPLE NO | | | | | | | | | | | | |
| 01 | UW AMS 4 | 741327 | | 21.42 | | 908917 | | 16.99 | | 218271 | | 15.56 | |
| 02 | DW AMS 2 | 742060 | | 21.42 | | 910213 | | 16.99 | | 217534 | | 15.56 | |
| 03 | Lab Blank | 842193 | | 21.42 | | 983918 | | 16.99 | | 229852 | | 15.56 | |
| 04 | CCV | 1023653 | | 21.42 | | 1126336 | | 16.99 | | 248468 | | 15.56 | |
| 05 | LCS | 1064172 | | 21.42 | | 1199845 | | 16.99 | | 247912 | | 15.56 | |
| 06 | | | | | | | | | | | | | |
| 07 | | | | | | | | | | | | | |
| 08 | | | | | | | | | | | | | |
| 09 | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | |
| 13 | | | | | | | | | | | | | |
| 14 | | | | | | | | | | | | | |
| 15 | | | | | | | | | | | | | |
| 16 | | | | | | | | | | | | | |
| 17 | | | | | | | | | | | | | |
| 18 | | | | | | | | | | | | | |
| 19 | | | | | | | | | | | | | |
| 20 | | | | | | | | | | | | | |
| 21 | | | | | | | | | | | | | |
| 22 | | | | | | | | | | | | | |

'Area Upper Limit=+40% of internal standard area'
'Area Lower Limit=-40% of internal standard area'

RT Upper Limit=+0.33 minutes of internal standard RT
RT Lower Limit=-0.33 minutes of internal standard RT

* Designates values outside of QC limits

# Air Toxics Ltd.

## INITIAL CALIBRATION DATA

Start Cal Date : 23-MAR-2010 19:05
End Cal Date : 23-MAR-2010 22:49
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msdx.i/23mar10.b/x10q0323a.m
Cal Date : 24-Mar-2010 10:42 abarton
Curve Type : Average

Calibration File Names:
Level 1: /chem/msdx.i/23mar10.b/x032306.d
Level 2: /chem/msdx.i/23mar10.b/x032307.d
Level 3: /chem/msdx.i/23mar10.b/x032308.d
Level 4: /chem/msdx.i/23mar10.b/x032309.d
Level 5: /chem/msdx.i/23mar10.b/x032310.d
Level 6: /chem/msdx.i/23mar10.b/x032311.d
Level 7: /chem/msdx.i/23mar10.b/x032312.d

| Compound | 0.30000 Level 1 | 0.50000 Level 2 | 2.000 Level 3 | 25.000 Level 4 | 50.000 Level 5 | 100.000 Level 6 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|
| | 200.000 Level 7 | | | | | | | |
| 1 Dimethyl Ether | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| 2 Isobutylene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| 3 Acetaldehyde | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| 4 Freon 13 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| 5 Freon 143a | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| 6 Freon 134a | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| 7 Propylene | +++++ | +++++ | 0.58073 | 0.44361 | 0.41759 | 0.38503 | | |
| | 0.35671 | | | | | | 0.43674 | 19.904 |

# Air Toxics Ltd.

## INITIAL CALIBRATION DATA

Start Cal Date : 23-MAR-2010 19:05
End Cal Date : 23-MAR-2010 22:49
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msdx.i/23mar10.b/x10q0323a.m
Cal Date : 24-Mar-2010 10:42 abarton
Curve Type : Average

| Compound | 0.30000 Level 1 | 0.50000 Level 2 | 2.000 Level 3 | 25.000 Level 4 | 50.000 Level 5 | 100.000 Level 6 | 200.000 Level 7 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 8 Freon 152a | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 9 Dichlorodifluoromethane/Fr12 | +++++ | 2.06121 | 2.17967 | 2.10707 | 2.01893 | 1.82354 | 1.68651 | 1.97949 | 9.444 |
| 10 2-Methyl-1-Butene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 11 Freon 22 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 12 Isobutane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 13 Freon 114 | +++++ | 1.35348 | 1.44548 | 1.29218 | 1.31794 | 1.21240 | 1.12807 | 1.29159 | 8.567 |
| 14 Freon142b | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 15 Chloromethane | +++++ | +++++ | 0.54749 | 0.50144 | 0.48005 | 0.44347 | 0.41942 | 0.47837 | 10.455 |
| 16 Propanal | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 17 Freon 14 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |

Air Toxics Ltd.

INITIAL CALIBRATION DATA

Start Cal Date : 23-MAR-2010 19:05
End Cal Date : 23-MAR-2010 22:49
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msdx.i/23mar10.b/x10q0323a.m
Cal Date : 24-Mar-2010 10:42 abarton
Curve Type : Average

| Compound | 0.30000 Level 1 | 0.50000 Level 2 | 2.000 Level 3 | 25.000 Level 4 | 50.000 Level 5 | 100.000 Level 6 | 200.000 Level 7 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 18 Vinyl Fluoride | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 19 Bromoethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 20 Butane | +++++ | +++++ | 0.14929 | 0.11836 | 0.11711 | 0.10966 | 0.10601 | 0.12009 | 14.250 |
| 21 Vinyl Chloride | +++++ | 0.55232 | 0.67642 | 0.65676 | 0.63022 | 0.57380 | 0.54658 | 0.60602 | 9.208 |
| 22 2,3-Dimethylbutane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 23 1,3-Butadiene | +++++ | 0.45544 | 0.44547 | 0.42656 | 0.42313 | 0.39898 | 0.38459 | 0.42236 | 6.371 |
| 24 Freon143a | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 25 Bromomethane | +++++ | 0.65149 | 0.71271 | 0.71323 | 0.67861 | 0.61248 | 0.57535 | 0.65731 | 8.446 |
| 26 Methanol | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 27 Chloroethane | +++++ | 0.51766 | 0.51113 | 0.45385 | 0.45476 | 0.40809 | 0.37250 | 0.45300 | 12.511 |

Air Toxics Ltd.

INITIAL CALIBRATION DATA

Start Cal Date : 23-MAR-2010 19:05
End Cal Date : 23-MAR-2010 22:49
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msdx.i/23mar10.b/x10q0323a.m
Cal Date : 24-Mar-2010 10:42 abarton
Curve Type : Average

| Compound | 0.30000 Level 1 | 0.50000 Level 2 | 2.000 Level 3 | 25.000 Level 4 | 50.000 Level 5 | 100.000 Level 6 | 200.000 Level 7 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 28 Isopentane | +++++ | +++++ | 0.97004 | 0.96817 | 0.88093 | 0.79512 | 0.74864 | 0.87258 | 11.470 |
| 29 2-Butanol | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 30 Vinyl Bromide | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 31 Trichlorofluoromethane/Fr11 | +++++ | 2.38741 | 2.59112 | 2.51095 | 2.41596 | 2.18496 | 2.05823 | 2.35811 | 8.519 |
| 32 3-Methyl-1-Hexene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 33 1-Pentene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 34 Dichlorofluoromethane/Fr21 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 35 Pentane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 36 Methacrylonitrile | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 37 Freon 141b | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |

Air Toxics Ltd.

INITIAL CALIBRATION DATA

Start Cal Date : 23-MAR-2010 19:05
End Cal Date : 23-MAR-2010 22:49
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msdx.i/23mar10.b/x10q0323a.m
Cal Date : 24-Mar-2010 10:42 abarton
Curve Type : Average

| Compound | 0.30000 Level 1 | 0.50000 Level 2 | 2.000 Level 3 | 25.000 Level 4 | 50.000 Level 5 | 100.000 Level 6 | 200.000 Level 7 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 38 Ethyl Ether | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 39 Propylene Oxide | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 40 Ethanol | +++++ | +++++ | 0.46977 | 0.34543 | 0.33931 | 0.31705 | 0.29735 | 0.35378 | 19.101 |
| 41 Freon123a | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 42 1,1-Dichloroethene | +++++ | 1.62826 | 1.76423 | 1.80634 | 1.64159 | 1.45057 | 1.30345 | 1.59907 | 11.942 |
| 43 Acrolein | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 44 Freon 113 | +++++ | 1.75636 | 1.88904 | 1.90540 | 1.77737 | 1.58106 | 1.45409 | 1.72722 | 10.268 |
| 45 Freon123 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 46 Carbon Disulfide | +++++ | 3.14404 | 3.28778 | 3.24939 | 3.17796 | 2.92676 | 2.78079 | 3.09445 | 6.420 |
| 47 Iodomethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |

Air Toxics Ltd.

INITIAL CALIBRATION DATA

Start Cal Date : 23-MAR-2010 19:05
End Cal Date : 23-MAR-2010 22:49
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msdx.i/23mar10.b/x10q0323a.m
Cal Date : 24-Mar-2010 10:42 abarton
Curve Type : Average

| Compound | 0.30000 Level 1 | 0.50000 Level 2 | 2.000 Level 3 | 25.000 Level 4 | 50.000 Level 5 | 100.000 Level 6 | 200.000 Level 7 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 48 Acetone | +++++ | +++++ | 0.60664 | 0.55948 | 0.48986 | 0.44887 | 0.43692 | 0.50835 | 14.340 |
| 49 2-Propanol | +++++ | +++++ | 1.77199 | 1.89932 | 1.75250 | 1.63235 | 1.62006 | 1.73524 | 6.597 |
| 50 Cyclopentene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 51 3-Chloropropene | +++++ | +++++ | 0.53125 | 0.63601 | 0.55509 | 0.50971 | 0.50286 | 0.54698 | 9.835 |
| 52 2-Methylpentane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 53 Methyl acetate | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 54 Cyclopentane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 55 Acetonitrile | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 56 2,3,4-Trimethylpentane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 57 Methylene Chloride | +++++ | 1.27795 | 1.24139 | 1.25272 | 1.18286 | 1.08572 | 1.07158 | 1.18537 | 7.463 |

Air Toxics Ltd.

INITIAL CALIBRATION DATA

Start Cal Date : 23-MAR-2010 19:05
End Cal Date : 23-MAR-2010 22:49
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msdx.i/23mar10.b/x10q0323a.m
Cal Date : 24-Mar-2010 10:42 abarton
Curve Type : Average

| Compound | 0.30000 Level 1 | 0.50000 Level 2 | 2.000 Level 3 | 25.000 Level 4 | 50.000 Level 5 | 100.000 Level 6 | 200.000 Level 7 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 58 tert-Butyl-Alcohol | +++++ | +++++ | 2.24796 | 2.41717 | 2.26920 | 2.09033 | 2.08279 | 2.22149 | 6.274 |
| 59 Pentanal | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 60 MTBE | +++++ | 3.61441 | 3.84750 | 4.06106 | 3.75271 | 3.41817 | 3.28018 | 3.66234 | 7.813 |
| 61 trans-1,2-Dichloroethene | +++++ | 1.46229 | 1.34896 | 1.43925 | 1.24905 | 1.13670 | 1.07337 | 1.28494 | 12.422 |
| 62 Acrylonitrile | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 63 1-Hexene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 64 2,4,4-Trimethyl-1-pentene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 65 Hexane | +++++ | 2.24486 | 2.26832 | 2.41228 | 2.07641 | 1.86596 | 1.73315 | 2.10016 | 12.357 |
| 66 2,4,4-Trimethyl-2-pentene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 67 1,1-Dichloroethane | +++++ | 2.44480 | 2.50141 | 2.71672 | 2.37109 | 2.14720 | 1.94398 | 2.35420 | 11.597 |

Air Toxics Ltd.

INITIAL CALIBRATION DATA

Start Cal Date : 23-MAR-2010 19:05
End Cal Date : 23-MAR-2010 22:49
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msdx.i/23mar10.b/x10q0323a.m
Cal Date : 24-Mar-2010 10:42 abarton
Curve Type : Average

| Compound | 0.30000 Level 1 | 0.50000 Level 2 | 2.000 Level 3 | 25.000 Level 4 | 50.000 Level 5 | 100.000 Level 6 | 200.000 Level 7 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 68 Isopropyl ether | +++++ | +++++ | 4.47825 | 4.73388 | 4.22473 | 3.83088 | 3.46868 | 4.14729 | 12.178 |
| 69 Vinyl Acetate | +++++ | +++++ | 0.29052 | 0.40320 | 0.35897 | 0.33875 | 0.31671 | 0.34163 | 12.534 |
| 70 Chloroprene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 71 1-Propanol | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 72 2,4-Dimethylpentane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 73 Butanal | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 74 t-Butylethyl Ether | +++++ | +++++ | 4.38323 | 4.74926 | 4.30593 | 4.03373 | 3.75575 | 4.24558 | 8.822 |
| 75 2,2-Dichloropropane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 76 cis-1,2-Dichloroethene | +++++ | 1.65053 | 1.53716 | 1.58503 | 1.40076 | 1.30092 | 1.19285 | 1.44454 | 12.253 |
| 77 2-Butanone | +++++ | 0.63703 | 0.74512 | 0.87290 | 0.77088 | 0.70837 | 0.63765 | 0.72866 | 12.267 |

Air Toxics Ltd.

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Integrator : HP RTE
Method file : /chem/msdx.i/23mar10.b/x10q0323a.m
Cal Date : 24-Mar-2010 10:42 abarton
Curve Type : Average

| Compound | 0.30000 Level 1 | 0.50000 Level 2 | 2.000 Level 3 | 25.000 Level 4 | 50.000 Level 5 | 100.000 Level 6 | 200.000 Level 7 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 78 Ethyl Acetate | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 79 Methyl Acrylate | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 80 1-Bromopropane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 81 Tetrahydrofuran | +++++ | 1.53644 | 1.58915 | 1.69420 | 1.53795 | 1.45237 | 1.35812 | 1.52804 | 7.525 |
| 83 Chloroform | +++++ | 2.79947 | 2.92504 | 3.14867 | 2.79258 | 2.61171 | 2.35459 | 2.77201 | 9.765 |
| 84 Cyclohexane | +++++ | 2.15464 | 2.38507 | 2.32882 | 2.22498 | 2.07207 | 1.82049 | 2.16435 | 9.385 |
| 85 1,1,1-Trichloroethane | +++++ | 2.87798 | 3.03152 | 3.06733 | 2.91013 | 2.69393 | 2.32593 | 2.81780 | 9.750 |
| 86 1-Bromo-2-Chloroethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 87 Carbon Tetrachloride | +++++ | 2.48635 | 2.65798 | 2.83609 | 2.72269 | 2.58958 | 2.25573 | 2.59140 | 7.819 |
| 88 1,1-Dichloropropene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |

# Air Toxics Ltd.

## INITIAL CALIBRATION DATA

Start Cal Date : 23-MAR-2010 19:05
End Cal Date : 23-MAR-2010 22:49
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msdx.i/23mar10.b/x10q0323a.m
Cal Date : 24-Mar-2010 10:42 abarton
Curve Type : Average

| Compound | 0.30000 Level 1 | 0.50000 Level 2 | 2.000 Level 3 | 25.000 Level 4 | 50.000 Level 5 | 100.000 Level 6 | 200.000 Level 7 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 89 2,3-Dimethylpentane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 90 Isobutanol | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 91 2,2,4-Trimethylpentane | +++++ | 7.44574 | 7.58654 | 8.00855 | 7.34037 | 6.86416 | 5.99304 | 7.20640 | 9.719 |
| 92 Benzene | +++++ | 1.12189 | 1.09642 | 1.13899 | 1.05969 | 0.99506 | 0.92139 | 1.05557 | 7.893 |
| 94 tert-amyl-Methyl Ether | +++++ | +++++ | 4.88182 | 5.45634 | 5.17927 | 4.74093 | 4.15196 | 4.88206 | 10.092 |
| 95 1,2-Dichloroethane | +++++ | 0.44654 | 0.43503 | 0.46811 | 0.43098 | 0.39662 | 0.37322 | 0.42508 | 8.112 |
| 96 Heptane | +++++ | 0.42833 | 0.41984 | 0.43201 | 0.40359 | 0.36855 | 0.33560 | 0.39799 | 9.631 |
| 98 1-Butanol | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 99 Thiophene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 100 Trichloroethene | +++++ | 0.43414 | 0.43616 | 0.46473 | 0.42960 | 0.40246 | 0.37432 | 0.42357 | 7.370 |

# Air Toxics Ltd.

## INITIAL CALIBRATION DATA

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Quant Method : ISTD
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Integrator : HP RTE
Method file : /chem/msdx.i/23mar10.b/x10q0323a.m
Cal Date : 24-Mar-2010 10:42 abarton
Curve Type : Average

| Compound | 0.30000 Level 1 | 0.50000 Level 2 | 2.000 Level 3 | 25.000 Level 4 | 50.000 Level 5 | 100.000 Level 6 | 200.000 Level 7 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 101 Ethyl acrylate | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 102 Methyl Cyclohexane | +++++ | 3.14909 | 3.22576 | 3.40501 | 3.28669 | 3.04053 | 2.70367 | 3.13513 | 7.804 |
| 103 2-Pentanone | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 104 1,2-Dichloropropane | +++++ | 0.36448 | 0.37773 | 0.40260 | 0.38064 | 0.35324 | 0.33623 | 0.36915 | 6.275 |
| 105 Methyl Methacrylate | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 106 1,4-Dioxane | +++++ | +++++ | 0.24733 | 0.26560 | 0.25898 | 0.24622 | 0.23948 | 0.25152 | 4.191 |
| 107 Dibromomethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 108 Bromodichloromethane | +++++ | 0.60594 | 0.65643 | 0.74805 | 0.71649 | 0.67588 | 0.63706 | 0.67331 | 7.744 |
| 109 Epichlorohydrin | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 110 cis-1,3-Dichloropropene | +++++ | 0.49090 | 0.52002 | 0.61565 | 0.59442 | 0.56977 | 0.55134 | 0.55702 | 8.333 |

Air Toxics Ltd.

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Start Cal Date : 23-MAR-2010 19:05
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Integrator : HP RTE
Method file : /chem/msdx.i/23mar10.b/x10q0323a.m
Cal Date : 24-Mar-2010 10:42 abarton
Curve Type : Average

| Compound | 0.30000 Level 1 | 0.50000 Level 2 | 2.000 Level 3 | 25.000 Level 4 | 50.000 Level 5 | 100.000 Level 6 | 200.000 Level 7 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 111 2-Chloroethyl vinyl ether | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 112 4-Methyl-2-pentanone | +++++ | 0.26046 | 0.28743 | 0.31729 | 0.31125 | 0.29947 | 0.28334 | 0.29321 | 7.068 |
| 113 Dodecane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 115 Toluene | +++++ | 1.34130 | 1.35927 | 1.38405 | 1.34937 | 1.26095 | 1.17738 | 1.31205 | 5.944 |
| 116 trans-1,3-Dichloropropene | +++++ | 0.50676 | 0.55470 | 0.73417 | 0.66659 | 0.64602 | 0.60450 | 0.61879 | 13.169 |
| 117 1,1,2-Trichloroethane | +++++ | 0.42492 | 0.43764 | 0.48907 | 0.43954 | 0.41618 | 0.38727 | 0.43244 | 7.770 |
| 118 Tetrachloroethene | +++++ | 0.62858 | 0.64943 | 0.70035 | 0.63090 | 0.58175 | 0.52587 | 0.61948 | 9.642 |
| 119 Octane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 120 2-Hexanone | +++++ | +++++ | 0.42483 | 0.48130 | 0.46660 | 0.43638 | 0.41010 | 0.44384 | 6.642 |
| 121 1,3-Dichloropropane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |

Air Toxics Ltd.

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Integrator : HP RTE
Method file : /chem/msdx.i/23mar10.b/x10q0323a.m
Cal Date : 24-Mar-2010 10:42 abarton
Curve Type : Average

| Compound | 0.30000 Level 1 | 0.50000 Level 2 | 2.000 Level 3 | 25.000 Level 4 | 50.000 Level 5 | 100.000 Level 6 | 200.000 Level 7 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 122 Undecane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 123 Butyl Acetate | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 124 Dibromochloromethane | +++++ | 0.57469 | 0.64125 | 0.79027 | 0.73215 | 0.67724 | 0.61296 | 0.67143 | 11.827 |
| 125 1,2-Dibromoethane | +++++ | 0.59821 | 0.64401 | 0.72326 | 0.66761 | 0.62383 | 0.57604 | 0.63883 | 8.224 |
| 208 Dimethylformamide | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 127 Chlorobenzene | +++++ | 1.10152 | 1.09086 | 1.16631 | 1.06652 | 1.00295 | 0.93987 | 1.06134 | 7.502 |
| 128 Ethyl Benzene | +++++ | 0.55429 | 0.57594 | 0.64004 | 0.58958 | 0.53871 | 0.49383 | 0.56540 | 8.746 |
| 129 Nonane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 130 1,1,1,2-Tetrachloroethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 131 m,p-Xylene | +++++ | 0.72316 | 0.72967 | 0.81238 | 0.75586 | 0.70149 | 0.64564 | 0.72803 | 7.625 |

Air Toxics Ltd.

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Integrator : HP RTE
Method file : /chem/msdx.i/23mar10.b/x10q0323a.m
Cal Date : 24-Mar-2010 10:42 abarton
Curve Type : Average

| Compound | 0.30000 Level 1 | 0.50000 Level 2 | 2.000 Level 3 | 25.000 Level 4 | 50.000 Level 5 | 100.000 Level 6 | 200.000 Level 7 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 132 o-Xylene | +++++ | 0.67477 | 0.68277 | 0.76292 | 0.71969 | 0.66403 | 0.60702 | 0.68520 | 7.696 |
| 133 Styrene | +++++ | 1.05113 | 1.07345 | 1.25734 | 1.18702 | 1.09146 | 0.99326 | 1.10894 | 8.688 |
| 134 2-Heptanone | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 135 Bromoform | +++++ | 0.56142 | 0.60119 | 0.78199 | 0.75011 | 0.69230 | 0.63421 | 0.67020 | 12.881 |
| 136 Cumene | +++++ | 2.04151 | 2.06584 | 2.32563 | 2.20574 | 2.00514 | 1.81083 | 2.07578 | 8.503 |
| 137 Cyclohexanone | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 139 1,1,2,2-Tetrachloroethane | +++++ | 1.02167 | 1.03186 | 1.10140 | 1.02310 | 0.93614 | 0.85163 | 0.99430 | 8.791 |
| 140 Propylbenzene | +++++ | 2.48715 | 2.51236 | 2.81834 | 2.66799 | 2.44436 | 2.18607 | 2.51938 | 8.500 |
| 141 Bromobenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 142 trans-1,4-dichloro-2-butene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |

Air Toxics Ltd.

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Integrator : HP RTE
Method file : /chem/msdx.i/23mar10.b/x10q0323a.m
Cal Date : 24-Mar-2010 10:42 abarton
Curve Type : Average

| Compound | 0.30000 Level 1 | 0.50000 Level 2 | 2.000 Level 3 | 25.000 Level 4 | 50.000 Level 5 | 100.000 Level 6 | 200.000 Level 7 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 143 1,2,3-Trichloropropane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 144 4-Ethyltoluene | +++++ | 2.36640 | 2.28441 | 2.63713 | 2.45292 | 2.26774 | 2.05569 | 2.34405 | 8.333 |
| 145 2-Chlorotoluene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 146 1,3,5-Trimethylbenzene | 2.27549 | 1.93172 | 1.94596 | 2.17570 | 1.99886 | 1.80755 | 1.61941 | 1.96496 | 11.143 |
| 147 4-Chlorotoluene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 148 Diisobutyl Ketone | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 149 Alphamethylstyrene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 150 tert-Butylbenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 151 1,2,4-Trimethylbenzene | 2.27064 | 1.85300 | 1.77506 | 2.01970 | 1.89448 | 1.75893 | 1.62988 | 1.88596 | 11.060 |
| 152 Pentachloroethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |

Air Toxics Ltd.

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Curve Type : Average

| Compound | 0.30000 Level 1 | 0.50000 Level 2 | 2.000 Level 3 | 25.000 Level 4 | 50.000 Level 5 | 100.000 Level 6 | 200.000 Level 7 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 153 sec-Butylbenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 154 bis(2-chloroethyl)ether | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 155 p-Cymene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 156 1,3-Dichlorobenzene | +++++ | 1.20964 | 1.17389 | 1.26173 | 1.17973 | 1.09879 | 1.01414 | 1.15632 | 7.572 |
| 157 1,2,3-Trimethylbenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 158 1,4-Dichlorobenzene | +++++ | 1.22048 | 1.16534 | 1.25885 | 1.16542 | 1.08121 | 0.97838 | 1.14495 | 8.849 |
| 159 alpha-Pinene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 160 alpha-Chlorotoluene | +++++ | 1.06429 | 1.20592 | 1.83121 | 1.79312 | 1.74955 | 1.66382 | 1.55132 | 21.287 |
| 161 Butylbenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 162 1,2-Dichlorobenzene | +++++ | 1.18844 | 1.12007 | 1.16183 | 1.07917 | 1.00440 | 0.92695 | 1.08014 | 9.184 |

Air Toxics Ltd.

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Curve Type : Average

| Compound | 0.30000 Level 1 | 0.50000 Level 2 | 2.000 Level 3 | 25.000 Level 4 | 50.000 Level 5 | 100.000 Level 6 | 200.000 Level 7 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 163 Hexachloroethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 164 Decane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 165 beta-Pinene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 166 1,2-Dibromo-3-Chloropropane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 167 D-Limonene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 168 1,2,4-Trichlorobenzene | +++++ | +++++ | 1.02687 | 0.83185 | 0.80699 | 0.80194 | 0.77093 | 0.84772 | 12.087 |
| 169 Hexachlorobutadiene | +++++ | +++++ | 0.87747 | 0.74185 | 0.70304 | 0.65291 | 0.60340 | 0.71573 | 14.581 |
| 170 Naphthalene | +++++ | +++++ | 2.09725 | 1.60573 | 1.61615 | 1.61545 | 1.57489 | 1.70190 | 13.023 |
| 207 2-methylnaphthalene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 171 Indan | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |

Air Toxics Ltd.

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Start Cal Date : 23-MAR-2010 19:05
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Method file : /chem/msdx.i/23mar10.b/x10q0323a.m
Cal Date : 24-Mar-2010 10:42 abarton
Curve Type : Average

| Compound | 0.30000 Level 1 | 0.50000 Level 2 | 2.000 Level 3 | 25.000 Level 4 | 50.000 Level 5 | 100.000 Level 6 | 200.000 Level 7 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 172 1,2,3-Trichlorobenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 173 Indene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 174 Aniline | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 175 Isooctyl Alcohol | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 176 Quinoline | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 177 1,3,5-Trichlorobenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 178 Isooctyl Acrylate | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| $ 93 1,2-Dichloroethane-d4 | 1.49386 | 1.54628 | 1.53867 | 1.57071 | 1.55397 | 1.49233 | 1.37587 | 1.51024 | 4.386 |
| $ 114 Toluene-d8 | 1.06471 | 1.03978 | 1.04847 | 0.99824 | 1.05561 | 1.05380 | 1.06498 | 1.04651 | 2.203 |
| $ 138 Bromofluorobenzene | 0.59212 | 0.58099 | 0.58198 | 0.62355 | 0.63689 | 0.62581 | 0.62422 | 0.60937 | 3.850 |

# Calibration History

Method : /chem/msdx.i/23mar10.b/x10q0323a.m
Start Cal Date: 23-MAR-2010 19:05
End Cal Date : 23-MAR-2010 22:49

Initial Calibration

| Injection Date | Sublist | Calibration File |
|---|---|---|
| Cal Level: 1 , Cal Amount: 0.30000 | | |
| 23-MAR-2010 19:05 | AFCEElow | /chem/msdx.i/23mar10.b/x032306.d |
| Cal Level: 2 , Cal Amount: 0.50000 | | |
| 23-MAR-2010 19:41 | AT09low | /chem/msdx.i/23mar10.b/x032307.d |
| Cal Level: 3 , Cal Amount: 2.00000 | | |
| 23-MAR-2010 20:26 | AT09 | /chem/msdx.i/23mar10.b/x032308.d |
| Cal Level: 4 , Cal Amount: 25.00000 | | |
| 23-MAR-2010 21:02 | AT09 | /chem/msdx.i/23mar10.b/x032309.d |
| Cal Level: 5 , Cal Amount: 50.00000 | | |
| 23-MAR-2010 21:37 | AT09 | /chem/msdx.i/23mar10.b/x032310.d |
| Cal Level: 6 , Cal Amount: 100.00000 | | |
| 23-MAR-2010 22:13 | AT09 | /chem/msdx.i/23mar10.b/x032311.d |
| Cal Level: 7 , Cal Amount: 200.00000 | | |
| 23-MAR-2010 22:49 | AT09 | /chem/msdx.i/23mar10.b/x032312.d |

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 5

| Ccal Level: 5 , Ccal Amount: 50.000 |
|---|
| 24-MAR-2010 09:20 \| AT09 \| /chem/msdx.i/24mar10.b/x032402.d |
| Ccal Level: 5 , Ccal Amount: 50.000 |
| 23-MAR-2010 21:37 \| AT09 \| /chem/msdx.i/23mar10.b/x032310a.d |
| Ccal Level: 5 , Ccal Amount: 50.000 |
| 23-MAR-2010 21:37 \| AT09 \| /chem/msdx.i/23mar10.b/x032310.d |

## Initial Calibration Narrative

A 7 point initial calibration was analyzed on MSD-X on 03/23/10.

The following compounds used 0.3ppbv as the lowest calibration concentration:

1. 1,3,5-Trimethylbenzene
2. 1,2,4-Trimethylbenzene

DLB 3/24/10
JB 3/25/10

Air Toxics Ltd.

INITIAL CALIBRATION DATA

ICAL: Ook

Start Cal Date : 23-MAR-2010 19:05
End Cal Date : 23-MAR-2010 22:49
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msdx.i/23mar10.b/x10q0323a.m
Cal Date : 24-Mar-2010 10:42 abarton
Curve Type : Average

LCS: X032314 # 1911-277, 50ppbv(50mL)
Ook

Calibration File Names:
Level 1: /chem/msdx.i/23mar10.b/x032306.d
Level 2: /chem/msdx.i/23mar10.b/x032307.d
Level 3: /chem/msdx.i/23mar10.b/x032308.d
Level 4: /chem/msdx.i/23mar10.b/x032309.d
Level 5: /chem/msdx.i/23mar10.b/x032310.d
Level 6: /chem/msdx.i/23mar10.b/x032311.d
Level 7: /chem/msdx.i/23mar10.b/x032312.d

ATCEE 4.0 ok

0.3ppbv: 1,3,5-& 1,2,4- Trimethylbenzene

| Compound | 0.30000 Level 1 | 0.50000 Level 2 | 2.000 Level 3 | 25.000 Level 4 | 50.000 Level 5 | 100.000 Level 6 | 200.000 Level 7 | RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 1 Dimethyl Ether | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 2 Isobutylene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 3 Acetaldehyde | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 4 Freon 13 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 5 Freon 143a | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 6 Freon 134a | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 7 Propylene | +++++ | +++++ | 0.58073 | 0.44361 | 0.41759 | 0.38503 | 0.35671 | 0.43674 | 19.904 |

@ Air Toxics Ltd.

# MSD-X

Logbook #: 1929

| m/z | ION ABUNDANCE CRITERIA | % REL. ABUNDANCE |
|---|---|---|
| 50 | 15.0 – 40.0% of mass 95 | 17.77 |
| 75 | 30.0 – 60.0% of mass 95 | 52.30 |
| 95 | Base peak, 100.00% relative abundance | 100.00 |
| 96 | 5.0 – 9.0% of mass 95 | 6.66 |
| 173 | Less than 2.0% of mass 174 | ( 0.76 )[1] |
| 174 | 50.0 – 100% of mass 95 | 75.94 |
| 175 | 5.0 – 9.0% of mass 174 | ( 7.01 )[1] |
| 176 | Greater than 95.0% but less than 101.0% of mass 174 | ( 96.53 )[1] |
| 177 | 5.0 – 9.0% of mass 176 | ( 6.57 )[2] |

[1] - value in parenthesis is % mass 174 [2] - value in parenthesis is % mass 176

BFB Injection Date: 3/23/10
BFB Injection Time: 1753
BFB File ID: X032304
Tekmar Purge Flow: 7 dcs 3/23/10
Vacuum:

| | | |
|---|---|---|
| IS/S Std.#: 1911-315 | Exp. Date: 6/19/10 | |
| BCM | 224943 | |
| 1,4-DFB | 1075811 | |
| CB-d5 | 1015916 | |

*Verified CCV IS vs ICAL mid-point (- 40%D)* DES 3/24/10 *initials*

**Verify 176/174 m/z Ratio:** 159933/165674 x100 = 96.53%

**NOAH Cart #:** N/A **File #:** N/A

**Calculation Check:**

ppbv of compound $= \frac{Area_{Sample}}{Area_{IS}} \times \frac{Conc._{IS}}{RRF} = \frac{(\quad)}{(\quad)} \times \frac{(\quad)}{(\quad)} =$ *Reported Result*

| | |
|---|---|
| File ID: | |
| Compound: | |
| Initials: | |

DES 3/24/10

**Method:** X1040323a

| | Dil? | File # | Sample / Client Name | Can # | Pressure | Amt Loaded | DF | Loaded by Init. | Date Analyzed | Time Analyzed | Reviewed by Init. | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | ✓ | X032304 | BFB Tune Check | 1476-1235 | 5 psig | 2uL | 1.00 | RS | 3/23/10 | 1753 | RS DES | |
| 2 | ✓ | 05 | System Blank | 33329 | Humid | 200mL | 1.00 | RS | | 1816 | RS DES | |
| 3 | ✓ | 06 | ICAL level 1 | 911-273 | 0.3ppbv | 0.3mL | 1.00 | RS | | 1905 | RS DES | |
| 4 | ✓ | 07 | 2 | | 0.5ppbv | 0.5mL | | | | 1941 | RS DES | |
| 5 | ✓ | 08 | 3 | | 2.0ppbv | 2mL | | | | 2026 | RS DES | |
| 6 | ✓ | 09 | 4 | | 25ppbv | 25mL | | | | 2102 | RS DES | |
| 7 | ✓ | 10 | 5 | | ~~100ppbv~~ 50 | 50mL | | | | 2137 | RS DES | |
| 8 | ✓ | 11 | 6 | | ~~100ppbv~~ 100ppbv 3/23/10 | 100mL | | | | 2213 | RS DES | |

0065 of 0323

Signature

3/24/10
Date

@ Air Toxics Ltd. **MSD-X** Logbook #: 1929

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9 | ✓ | X032312 | ICAL level 7 | 1911-273 | 200ppbv | 200mL | 1.00 | RA | 3/23/10 | 2249 | RA/DM |
| 10 | ✓ | 13 | System Blank | 33329 | Humid | 200mL | 1.00 | RA | ↓ | 2325 | DM |
| 11 | ✓ | 14 | LCS (200ppbv) | 1911-277 | 50ppbv | 50mL | ↓ | DM | 3/24/10 | 0048 | DM |
| 12 | | | | | | | | | | | | |
| 13 | | | | | | | | | | | | |
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3/24/10

**Comments:**

0066 of 0323

Signature

3/24/10
Date

Air Toxics Ltd.
Modified EPA Methods TO-14A/TO-15
Internal Standard and Associated Target Compounds and Surrogates

| Bromochloromethane |
|---|
| **Target Compounds:** |
| Freon 12 |
| Freon 114 |
| Chloromethane |
| Vinyl Chloride |
| 1,3-Butadiene |
| Bromomethane |
| Chloroethane |
| Freon 11 |
| Ethanol |
| Freon 113 |
| 1,1-Dichloroethene |
| Acetone |
| 2-Propanol |
| Carbon Disulfide |
| 3-Chloropropene |
| Methylene Chloride |
| Methyl tert-butyl ether |
| trans-1,2-Dichloroethene |
| Hexane |
| 1,1-Dichloroethane |
| 2-Butanone (Methyl Ethyl Ketone) |
| cis-1,2-Dichloroethene |
| Tetrahydrofuran |
| Chloroform |
| 1,1,1-Trichloroethane |
| Cyclohexane |
| Carbon Tetrachloride |
| 2,2,4-Trimethylpentane |
| **Surrogates:** |
| 1,2-Dichloroethane-d4 |

| 1,4-Difluorobenzene |
|---|
| **Target Compounds:** |
| Benzene |
| 1,2-Dichloroethane |
| Heptane |
| Trichloroethene |
| 1,2-Dichloropropane |
| 1,4-Dioxane |
| Bromodichloromethane |
| cis-1,3-Dichloropropene |
| 4-Methyl-2-pentanone |
| Toluene |
| **Surrogates:** |
| Toluene-d8 |

| Chlorobenzene-d5 |
|---|
| **Target Compounds:** |
| trans-1,3-Dichloropropene |
| 1,1,2-Trichloroethane |
| Tetrachloroethene |
| 2-Hexanone |
| Dibromochloromethane |
| 1,2-Dibromoethane (EDB) |
| Chlorobenzene |
| Ethyl Benzene |
| m,p-Xylene |
| o-Xylene |
| Styrene |
| Bromoform |
| Cumene |
| 1,1,2,2-Tetrachloroethane |
| Propylbenzene |
| 4-Ethyltoluene |
| 1,3,5-Trimethylbenzene |
| 1,2,4-Trimethylbenzene |
| 1,3-Dichlorobenzene |
| 1,4-Dichlorobenzene |
| alpha-Chlorotoluene |
| 1,2-Dichlorobenzene |
| 1,2,4-Trichlorobenzene |
| Hexachlorobutadiene |
| **Surrogates:** |
| Bromofluorobenzene |

Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msdx.i/23mar10.b/x032314.d
Lab Smp Id: lcs-1 Client Smp ID: lcs
Inj Date : 24-MAR-2010 00:48
Operator : dfm Inst ID: msdx.i
Smp Info : 50ml #1911-277
Misc Info : 50ppbv (200ppbv)
Comment :
Method : /chem/msdx.i/23mar10.b/x10q0323a.m
Meth Date : 24-Mar-2010 08:38 abarton Quant Type: ISTD
Cal Date : 23-MAR-2010 22:49 Cal File: x032312.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT09.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| | | | | CONCENTRATIONS ON-COL | FINAL | | |
|---|---|---|---|---|---|---|---|
| RT | EXP RT (REL RT) | MASS | RESPONSE | ( PPBV) | ( PPbV) | TARGET RANGE | RATIO |
| == | ====== ======== | ==== | ======== | ======= | ======= | ========== | ===== |
| * 82 Bromochloromethane | | | | | CAS #: 74-97-5 | | |
| 15.557 | 15.557 (1.000) | 130 | 222065 | 25.0000 | | 80.00- 120.00 | 100.00 |
| 15.557 | 15.557 (1.000) | 128 | 172730 | | | 27.72- 127.72 | 77.78 |
| 15.529 | 15.557 (1.000) | 49 | 284918 | | | 78.85- 178.85 | 128.30 |
| * 97 1,4-Difluorobenzene | | | | | CAS #: 540-36-3 | | |
| 16.995 | 16.994 (1.000) | 114 | 1059530 | 25.0000 | | 80.00- 120.00 | 100.00 |
| 16.995 | 16.994 (1.000) | 88 | 182269 | | | 0.00- 67.25 | 17.20 |
| * 126 Chlorobenzene-d5 | | | | | CAS #: 3114-55-4 | | |
| 21.418 | 21.418 (1.000) | 117 | 1031413 | 25.0000 | | 80.00- 120.00 | 100.00 |
| 21.418 | 21.418 (1.000) | 82 | 626733 | | | 11.03- 111.03 | 60.76 |
| $ 93 1,2-Dichloroethane-d4 | | | | | CAS #: 17060-07-0 | | |
| 16.414 | 16.414 (1.055) | 65 | 339330 | 25.2951 | 25.295 | 80.00- 120.00 | 100.00 |
| 16.414 | 16.414 (1.055) | 67 | 185728 | | | 3.54- 103.54 | 54.73 |
| $ 114 Toluene-d8 | | | | | CAS #: 2037-26-5 | | |
| 19.289 | 19.289 (1.135) | 98 | 1131751 | 25.5172 | 25.517 | 80.00- 120.00 | 100.00 |
| 19.289 | 19.289 (1.135) | 70 | 138224 | | | 0.00- 62.10 | 12.21 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | CONCENTRATIONS FINAL ( PPbV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 114 Toluene-d8 (continued) | | | | | | | |
| 19.289 | 19.289 (1.135) | 100 | 762051 | | | 17.13- 117.13 | 67.33 |
| $ 138 Bromofluorobenzene | | | | | CAS #: 460-00-4 | | |
| 22.994 | 22.994 (1.074) | 174 | 650820 | 25.8875 | 25.888 | 80.00- 120.00 | 100.00 |
| 22.994 | 22.994 (1.074) | 95 | 881610 | | | 84.67- 184.67 | 135.46 |
| 22.994 | 22.994 (1.074) | 176 | 631770 | | | 47.22- 147.22 | 97.07 |
| 7 Propylene | | | | | CAS #: 115-07-1 | | |
| 3.585 | 3.584 (0.230) | 41 | 201877 | 52.0390 | 52.039 | 80.00- 120.00 | 100.00 |
| 3.585 | 3.584 (0.230) | 42 | 132550 | | | 15.48- 115.48 | 65.66 |
| 3.585 | 3.584 (0.230) | 39 | 166351 | | | 27.90- 127.90 | 82.40 |
| 9 Dichlorodifluoromethane/Fr12 | | | | | CAS #: 75-71-8 | | |
| 3.944 | 3.944 (0.254) | 85 | 1001907 | 56.9815 | 56.982 | 80.00- 120.00 | 100.00 |
| 3.944 | 3.944 (0.254) | 87 | 321512 | | | 0.00- 80.46 | 32.09 |
| 13 Freon 114 | | | | | CAS #: 76-14-2 | | |
| 5.161 | 5.188 (0.332) | 135 | 662521 | 57.7477 | 57.748 | 80.00- 120.00 | 100.00 |
| 5.161 | 5.188 (0.332) | 137 | 211526 | | | 0.00- 81.94 | 31.93 |
| 15 Chloromethane | | | | | CAS #: 74-87-3 | | |
| 5.520 | 5.520 (0.355) | 50 | 241852 | 56.9171 | 56.917 | 80.00- 120.00 | 100.00 |
| 5.520 | 5.520 (0.355) | 52 | 79134 | | | 0.00- 82.17 | 32.72 |
| 20 Butane | | | | | CAS #: 106-97-8 | | |
| 6.267 | 6.266 (0.403) | 58 | 58612 | 54.9484 | 54.948 | 80.00- 120.00 | 100.00 |
| 6.267 | 6.266 (0.403) | 43 | 417784 | | | 660.00- 760.00 | 712.80 |
| 21 Vinyl Chloride | | | | | CAS #: 75-01-4 | | |
| 6.432 | 6.432 (0.413) | 62 | 313897 | 58.3125 | 58.312 | 80.00- 120.00 | 100.00 |
| 6.432 | 6.432 (0.413) | 64 | 100420 | | | 0.00- 81.56 | 31.99 |
| 23 1,3-Butadiene | | | | | CAS #: 106-99-0 | | |
| 6.681 | 6.681 (0.429) | 54 | 215430 | 57.4223 | 57.422 | 80.00- 120.00 | 100.00 |
| 6.681 | 6.681 (0.429) | 39 | 232621 | | | 69.34- 169.34 | 107.98 |
| 25 Bromomethane | | | | | CAS #: 74-83-9 | | |
| 8.396 | 8.395 (0.540) | 94 | 338410 | 57.9604 | 57.960 | 80.00- 120.00 | 100.00 |
| 8.396 | 8.395 (0.540) | 96 | 318655 | | | 43.73- 143.73 | 94.16 |
| 27 Chloroethane | | | | | CAS #: 75-00-3 | | |
| 8.976 | 8.976 (0.577) | 64 | 220328 | 54.7561 | 54.756 | 80.00- 120.00 | 100.00 |
| 8.976 | 8.976 (0.577) | 49 | 51638 | | | 0.00- 73.54 | 23.44 |
| 8.976 | 8.976 (0.577) | 66 | 72174 | | | 0.00- 82.74 | 32.76 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPbV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 28 Isopentane | | | | | CAS #: 78-78-4 | | |
| 9.142 | 9.142 (0.588) | 43 | 425173 | 54.8556 | 54.856 | 80.00- 120.00 | 100.00 |
| 9.142 | 9.142 (0.588) | 57 | 312724 | | | 24.52- 124.52 | 73.55 |
| 31 Trichlorofluoromethane/Fr11 | | | | | CAS #: 75-69-4 | | |
| 9.889 | 9.916 (0.636) | 101 | 1142533 | 54.5463 | 54.546 | 80.00- 120.00 | 100.00 |
| 9.889 | 9.916 (0.636) | 103 | 735832 | | | 14.19- 114.19 | 64.40 |
| 40 Ethanol | | | | | CAS #: 64-17-5 | | |
| 11.133 | 11.133 (0.716) | 45 | 150632 | 47.9337 | 47.934 | 80.00- 120.00 | 100.00 |
| 11.133 | 11.133 (0.716) | 43 | 32451 | | | 0.00- 73.32 | 21.54 |
| 11.133 | 11.133 (0.716) | 46 | 59506 | | | 0.00- 86.84 | 39.50 |
| 42 1,1-Dichloroethene | | | | | CAS #: 75-35-4 | | |
| 11.548 | 11.547 (0.742) | 61 | 681881 | 48.0065 | 48.006 | 80.00- 120.00 | 100.00 |
| 11.548 | 11.547 (0.742) | 96 | 422954 | | | 11.87- 111.87 | 62.03 |
| 11.548 | 11.547 (0.742) | 98 | 268301 | | | 0.00- 89.36 | 39.35 |
| 44 Freon 113 | | | | | CAS #: 76-13-1 | | |
| 11.575 | 11.575 (0.744) | 151 | 736548 | 48.0080 | 48.008 | 80.00- 120.00 | 100.00 |
| 11.575 | 11.575 (0.744) | 153 | 478031 | | | 14.41- 114.41 | 64.90 |
| 11.575 | 11.575 (0.744) | 101 | 887897 | | | 68.88- 168.88 | 120.55 |
| 46 Carbon Disulfide | | | | | CAS #: 75-15-0 | | |
| 11.907 | 11.907 (0.765) | 76 | 1486249 | 54.0714 | 54.071 | 80.00- 120.00 | 100.00 |
| 48 Acetone | | | | | CAS #: 67-64-1 | | |
| 11.935 | 11.935 (0.767) | 58 | 215920 | 47.8177 | 47.818 | 80.00- 120.00 | 100.00 |
| 11.935 | 11.935 (0.767) | 43 | 653942 | | | 241.90- 341.90 | 302.86 |
| 49 2-Propanol | | | | | CAS #: 67-63-0 | | |
| 12.405 | 12.432 (0.797) | 45 | 759629 | 49.2834 | 49.283 | 80.00- 120.00 | 100.00 |
| 12.405 | 12.432 (0.797) | 43 | 143775 | | | 0.00- 69.01 | 18.93 |
| 12.405 | 12.432 (0.797) | 59 | 32592 | | | 0.00- 54.28 | 4.29 |
| 51 3-Chloropropene | | | | | CAS #: 107-05-1 | | |
| 12.543 | 12.543 (0.806) | 76 | 246527 | 50.7401 | 50.740 | 80.00- 120.00 | 100.00 |
| 12.543 | 12.543 (0.806) | 41 | 597747 | | | 189.04- 289.04 | 242.47 |
| 57 Methylene Chloride | | | | | CAS #: 75-09-2 | | |
| 12.875 | 12.875 (0.828) | 49 | 503090 | 47.7805 | 47.780 | 80.00- 120.00 | 100.00 |
| 12.875 | 12.875 (0.828) | 84 | 432645 | | | 35.82- 135.82 | 86.00 |
| 12.875 | 12.875 (0.828) | 51 | 152619 | | | 0.00- 80.24 | 30.34 |
| 58 tert-Butyl-Alcohol | | | | | CAS #: 75-65-0 | | |
| 13.207 | 13.206 (0.849) | 59 | 1027390 | 52.0656 | 52.066 | 80.00- 120.00 | 100.00 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | CONCENTRATIONS FINAL ( PPbV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 58 tert-Butyl-Alcohol (continued) | | | | | | | |
| 13.262 | 13.206 (0.852) | 41 | 505197 | | | 7.50- 107.50 | 49.17 |
| 13.262 | 13.206 (0.852) | 57 | 451796 | | | 0.00- 96.91 | 43.98 |
| 60 MTBE | | | | | CAS #: 1634-04-4 | | |
| 13.262 | 13.262 (0.852) | 73 | 1699900 | 52.2547 | 52.255 | 80.00- 120.00 | 100.00 |
| 13.262 | 13.262 (0.852) | 57 | 451796 | | | 0.00- 76.58 | 26.58 |
| 13.262 | 13.262 (0.852) | 41 | 505197 | | | 0.00- 81.24 | 29.72 |
| 61 trans-1,2-Dichloroethene | | | | | CAS #: 156-60-5 | | |
| 13.317 | 13.317 (0.856) | 96 | 558534 | 48.9359 | 48.936 | 80.00- 120.00 | 100.00 |
| 13.317 | 13.317 (0.856) | 61 | 784728 | | | 90.95- 190.95 | 140.50 |
| 13.317 | 13.317 (0.856) | 98 | 351884 | | | 11.08- 111.08 | 63.00 |
| 65 Hexane | | | | | CAS #: 110-54-3 | | |
| 13.677 | 13.676 (0.879) | 57 | 917936 | 49.2061 | 49.206 | 80.00- 120.00 | 100.00 |
| 13.677 | 13.676 (0.879) | 43 | 554587 | | | 11.57- 111.57 | 60.42 |
| 13.704 | 13.676 (0.881) | 86 | 180049 | | | 0.00- 69.73 | 19.61 |
| 67 1,1-Dichloroethane | | | | | CAS #: 75-34-3 | | |
| 14.174 | 14.174 (0.911) | 63 | 1017071 | 48.6371 | 48.637 | 80.00- 120.00 | 100.00 |
| 14.174 | 14.174 (0.911) | 65 | 331216 | | | 0.00- 82.49 | 32.57 |
| 68 Isopropyl ether | | | | | CAS #: 108-20-3 | | |
| 14.147 | 14.147 (0.909) | 45 | 1932831 | 52.4674 | 52.467 | 80.00- 120.00 | 100.00 |
| 14.147 | 14.147 (0.909) | 87 | 625096 | | | 0.00- 82.62 | 32.34 |
| 14.147 | 14.147 (0.909) | 59 | 232853 | | | 0.00- 62.33 | 12.05 |
| 69 Vinyl Acetate | | | | | CAS #: 108-05-4 | | |
| 14.257 | 14.257 (0.916) | 86 | 160330 | 52.8346 | 52.835 | 80.00- 120.00 | 100.00 |
| 14.257 | 14.257 (0.916) | 43 | 1387452 | | | 838.14- 938.14 | 865.37 |
| 74 t-Butylethyl Ether | | | | | CAS #: 637-92-3 | | |
| 14.727 | 14.727 (0.947) | 59 | 2008841 | 53.2683 | 53.268 | 80.00- 120.00 | 100.00 |
| 14.727 | 14.727 (0.947) | 87 | 923988 | | | 0.00- 95.91 | 46.00 |
| 14.727 | 14.727 (0.947) | 41 | 331957 | | | 0.00- 67.22 | 16.52 |
| 76 cis-1,2-Dichloroethene | | | | | CAS #: 156-59-2 | | |
| 15.170 | 15.170 (0.975) | 96 | 613428 | 47.8072 | 47.807 | 80.00- 120.00 | 100.00 |
| 15.170 | 15.170 (0.975) | 61 | 789710 | | | 78.76- 178.76 | 128.74 |
| 15.170 | 15.170 (0.975) | 98 | 387260 | | | 13.59- 113.59 | 63.13 |
| 77 2-Butanone | | | | | CAS #: 78-93-3 | | |
| 15.170 | 15.170 (0.975) | 72 | 332921 | 51.4372 | 51.437 | 80.00- 120.00 | 100.00 |
| 15.170 | 15.170 (0.975) | 43 | 1127648 | | | 281.64- 381.64 | 338.71 |
| 15.170 | 15.170 (0.975) | 57 | 91540 | | | 0.00- 80.83 | 27.50 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPbV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 81 Tetrahydrofuran | | | | | CAS #: 109-99-9 | | |
| 15.501 | 15.501 (0.996) | 42 | 683484 | 50.3563 | 50.356 | 80.00- 120.00 | 100.00 |
| 15.501 | 15.501 (0.996) | 71 | 312230 | | | 0.00- 95.36 | 45.68 |
| 15.501 | 15.501 (0.996) | 72 | 332556 | | | 0.00- 97.64 | 48.66 |
| 83 Chloroform | | | | | CAS #: 67-66-3 | | |
| 15.640 | 15.640 (1.005) | 83 | 1210842 | 49.1759 | 49.176 | 80.00- 120.00 | 100.00 |
| 15.640 | 15.640 (1.005) | 85 | 778820 | | | 14.06- 114.06 | 64.32 |
| 84 Cyclohexane | | | | | CAS #: 110-82-7 | | |
| 15.833 | 15.833 (1.018) | 84 | 1006409 | 52.3489 | 52.349 | 80.00- 120.00 | 100.00 |
| 15.806 | 15.833 (1.016) | 56 | 1069811 | | | 55.87- 155.87 | 106.30 |
| 15.806 | 15.833 (1.016) | 41 | 550682 | | | 4.64- 104.64 | 54.72 |
| 85 1,1,1-Trichloroethane | | | | | CAS #: 71-55-6 | | |
| 15.861 | 15.861 (1.020) | 97 | 1313509 | 52.4786 | 52.478 | 80.00- 120.00 | 100.00 |
| 15.861 | 15.861 (1.020) | 99 | 841492 | | | 13.69- 113.69 | 64.06 |
| 87 Carbon Tetrachloride | | | | | CAS #: 56-23-5 | | |
| 16.054 | 16.054 (1.032) | 119 | 1245459 | 54.1071 | 54.107 | 80.00- 120.00 | 100.00 |
| 16.054 | 16.054 (1.032) | 117 | 1347132 | | | 57.86- 157.86 | 108.16 |
| 91 2,2,4-Trimethylpentane | | | | | CAS #: 540-84-1 | | |
| 16.331 | 16.331 (1.050) | 57 | 3314353 | 51.7774 | 51.777 | 80.00- 120.00 | 100.00 |
| 16.331 | 16.331 (1.050) | 56 | 1081658 | | | 0.00- 83.35 | 32.64 |
| 16.331 | 16.331 (1.050) | 41 | 813381 | | | 0.00- 74.44 | 24.54 |
| 92 Benzene | | | | | CAS #: 71-43-2 | | |
| 16.386 | 16.386 (0.964) | 78 | 2237315 | 50.0110 | 50.011 | 80.00- 120.00 | 100.00 |
| 16.386 | 16.386 (0.964) | 77 | 512780 | | | 0.00- 72.86 | 22.92 |
| 94 tert-amyl-Methyl Ether | | | | | CAS #: 994-05-8 | | |
| 16.442 | 16.441 (1.057) | 73 | 2393112 | 55.1848 | 55.185 | 80.00- 120.00 | 100.00 |
| 16.469 | 16.441 (1.059) | 87 | 558129 | | | 0.00- 73.39 | 23.32 |
| 16.442 | 16.441 (1.057) | 55 | 515033 | | | 0.00- 72.12 | 21.52 |
| 95 1,2-Dichloroethane | | | | | CAS #: 107-06-2 | | |
| 16.524 | 16.524 (0.972) | 62 | 895869 | 49.7274 | 49.727 | 80.00- 120.00 | 100.00 |
| 16.524 | 16.524 (0.972) | 64 | 293113 | | | 0.00- 82.38 | 32.72 |
| 96 Heptane | | | | | CAS #: 142-82-5 | | |
| 16.580 | 16.580 (0.976) | 71 | 864413 | 51.2484 | 51.248 | 80.00- 120.00 | 100.00 |
| 16.580 | 16.580 (0.976) | 43 | 1245164 | | | 92.16- 192.16 | 144.05 |
| 16.580 | 16.580 (0.976) | 57 | 692386 | | | 30.60- 130.60 | 80.10 |
| 100 Trichloroethene | | | | | CAS #: 79-01-6 | | |
| 17.382 | 17.382 (1.023) | 95 | 917704 | 51.1216 | 51.122 | 80.00- 120.00 | 100.00 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | CONCENTRATIONS FINAL ( PPbV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 100 Trichloroethene (continued) | | | | | | | |
| 17.382 | 17.382 (1.023) | 130 | 915994 | | | 50.02- 150.02 | 99.81 |
| 17.382 | 17.382 (1.023) | 97 | 589565 | | | 14.03- 114.03 | 64.24 |
| 102 Methyl Cyclohexane | | | | | CAS #: 108-87-2 | | |
| 17.575 | 17.575 (1.130) | 83 | 1486731 | 53.3872 | 53.387 | 80.00- 120.00 | 100.00 |
| 17.575 | 17.575 (1.130) | 98 | 704222 | | | 0.00- 97.07 | 47.37 |
| 17.575 | 17.575 (1.130) | 55 | 1084246 | | | 23.96- 123.96 | 72.93 |
| 104 1,2-Dichloropropane | | | | | CAS #: 78-87-5 | | |
| 17.824 | 17.824 (1.049) | 63 | 814625 | 52.0688 | 52.069 | 80.00- 120.00 | 100.00 |
| 17.824 | 17.824 (1.049) | 62 | 576114 | | | 20.86- 120.86 | 70.72 |
| 17.796 | 17.824 (1.047) | 41 | 432146 | | | 2.77- 102.77 | 53.05 |
| 106 1,4-Dioxane | | | | | CAS #: 123-91-1 | | |
| 17.935 | 17.934 (1.055) | 88 | 548954 | 51.4976 | 51.498 | 80.00- 120.00 | 100.00 |
| 17.935 | 17.934 (1.055) | 58 | 350604 | | | 13.78- 113.78 | 63.87 |
| 17.935 | 17.934 (1.055) | 57 | 110373 | | | 0.00- 70.49 | 20.11 |
| 108 Bromodichloromethane | | | | | CAS #: 75-27-4 | | |
| 18.239 | 18.239 (1.073) | 83 | 1528792 | 53.5750 | 53.575 | 80.00- 120.00 | 100.00 |
| 18.239 | 18.239 (1.073) | 85 | 970817 | | | 13.64- 113.64 | 63.50 |
| 110 cis-1,3-Dichloropropene | | | | | CAS #: 10061-01-5 | | |
| 18.958 | 18.958 (1.115) | 75 | 1295432 | 54.8749 | 54.875 | 80.00- 120.00 | 100.00 |
| 18.958 | 18.958 (1.115) | 77 | 407877 | | | 0.00- 81.55 | 31.49 |
| 18.958 | 18.958 (1.115) | 39 | 570716 | | | 0.00- 94.15 | 44.06 |
| 112 4-Methyl-2-pentanone | | | | | CAS #: 108-10-1 | | |
| 19.096 | 19.096 (1.124) | 58 | 654211 | 52.6465 | 52.646 | 80.00- 120.00 | 100.00 |
| 19.096 | 19.096 (1.124) | 43 | 1568497 | | | 188.63- 288.63 | 239.75 |
| 19.096 | 19.096 (1.124) | 85 | 325232 | | | 0.00- 99.25 | 49.71 |
| 115 Toluene | | | | | CAS #: 108-88-3 | | |
| 19.400 | 19.400 (1.142) | 91 | 2793274 | 50.2330 | 50.233 | 80.00- 120.00 | 100.00 |
| 19.400 | 19.400 (1.142) | 92 | 1686174 | | | 10.18- 110.18 | 60.37 |
| 116 trans-1,3-Dichloropropene | | | | | CAS #: 10061-02-6 | | |
| 19.787 | 19.787 (0.924) | 75 | 1387287 | 54.3412 | 54.341 | 80.00- 120.00 | 100.00 |
| 19.787 | 19.787 (0.924) | 77 | 435385 | | | 0.00- 81.25 | 31.38 |
| 19.787 | 19.787 (0.924) | 39 | 590540 | | | 0.00- 93.16 | 42.57 |
| 117 1,1,2-Trichloroethane | | | | | CAS #: 79-00-5 | | |
| 20.064 | 20.064 (0.937) | 97 | 904103 | 50.6760 | 50.676 | 80.00- 120.00 | 100.00 |
| 20.064 | 20.064 (0.937) | 99 | 560338 | | | 12.26- 112.26 | 61.98 |
| 20.064 | 20.064 (0.937) | 83 | 771425 | | | 35.71- 135.71 | 85.32 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPbV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 118 Tetrachloroethene | | | | | CAS #: 127-18-4 | | |
| 20.174 | 20.174 (0.942) | 166 | 1299033 | 50.8277 | 50.828 | 80.00- 120.00 | 100.00 |
| 20.174 | 20.174 (0.942) | 129 | 903464 | | | 19.74- 119.74 | 69.55 |
| 20.174 | 20.174 (0.942) | 131 | 873115 | | | 17.63- 117.63 | 67.21 |
| 120 2-Hexanone | | | | | CAS #: 591-78-6 | | |
| 20.312 | 20.312 (0.948) | 58 | 926294 | 50.5855 | 50.585 | 80.00- 120.00 | 100.00 |
| 20.312 | 20.312 (0.948) | 43 | 1623933 | | | 123.93- 223.93 | 175.32 |
| 20.312 | 20.312 (0.948) | 100 | 223898 | | | 0.00- 73.54 | 24.17 |
| 124 Dibromochloromethane | | | | | CAS #: 124-48-1 | | |
| 20.644 | 20.644 (0.964) | 129 | 1507254 | 54.4121 | 54.412 | 80.00- 120.00 | 100.00 |
| 20.644 | 20.644 (0.964) | 127 | 1171751 | | | 29.13- 129.13 | 77.74 |
| 125 1,2-Dibromoethane | | | | | CAS #: 106-93-4 | | |
| 20.865 | 20.865 (0.974) | 107 | 1429704 | 54.2464 | 54.246 | 80.00- 120.00 | 100.00 |
| 20.865 | 20.865 (0.974) | 109 | 1340790 | | | 43.72- 143.72 | 93.78 |
| 127 Chlorobenzene | | | | | CAS #: 108-90-7 | | |
| 21.474 | 21.474 (1.003) | 112 | 2233099 | 50.9990 | 50.999 | 80.00- 120.00 | 100.00 |
| 21.474 | 21.474 (1.003) | 114 | 715693 | | | 0.00- 81.93 | 32.05 |
| 21.474 | 21.474 (1.003) | 77 | 1821177 | | | 31.36- 131.36 | 81.55 |
| 128 Ethyl Benzene | | | | | CAS #: 100-41-4 | | |
| 21.529 | 21.529 (1.005) | 106 | 1244003 | 53.3303 | 53.330 | 80.00- 120.00 | 100.00 |
| 21.529 | 21.529 (1.005) | 91 | 4074236 | | | 282.07- 382.07 | 327.51 |
| 131 m,p-Xylene | | | | | CAS #: 108-38-3 | | |
| 21.667 | 21.667 (1.012) | 106 | 1586418 | 52.8170 | 52.817 | 80.00- 120.00 | 100.00 |
| 21.667 | 21.667 (1.012) | 91 | 3331938 | | | 158.71- 258.71 | 210.03 |
| 132 o-Xylene | | | | | CAS #: 95-47-6 | | |
| 22.248 | 22.248 (1.039) | 106 | 1493477 | 52.8310 | 52.831 | 80.00- 120.00 | 100.00 |
| 22.248 | 22.248 (1.039) | 91 | 3296385 | | | 172.10- 272.10 | 220.72 |
| 133 Styrene | | | | | CAS #: 100-42-5 | | |
| 22.276 | 22.275 (1.040) | 104 | 2409038 | 52.6552 | 52.655 | 80.00- 120.00 | 100.00 |
| 22.276 | 22.275 (1.040) | 78 | 1323825 | | | 4.85- 104.85 | 54.95 |
| 135 Bromoform | | | | | CAS #: 75-25-2 | | |
| 22.635 | 22.607 (1.057) | 173 | 1544693 | 55.8657 | 55.866 | 80.00- 120.00 | 100.00 |
| 22.607 | 22.607 (1.056) | 171 | 796324 | | | 1.60- 101.60 | 51.55 |
| 136 Cumene | | | | | CAS #: 98-82-8 | | |
| 22.690 | 22.690 (1.059) | 105 | 4470291 | 52.1989 | 52.199 | 80.00- 120.00 | 100.00 |
| 22.690 | 22.690 (1.059) | 120 | 1125669 | | | 0.00- 74.88 | 25.18 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPbV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 136 Cumene (continued) | | | | | | | |
| 22.663 | 22.690 (1.058) | 51 | 403397 | | | 0.00- 59.69 | 9.02 |
| 139 1,1,2,2-Tetrachloroethane | | | | | CAS #: 79-34-5 | | |
| 23.160 | 23.160 (1.081) | 83 | 2137078 | 52.0967 | 52.097 | 80.00- 120.00 | 100.00 |
| 23.160 | 23.160 (1.081) | 85 | 1370338 | | | 14.19- 114.19 | 64.12 |
| 140 Propylbenzene | | | | | CAS #: 103-65-1 | | |
| 23.216 | 23.216 (1.084) | 91 | 5405659 | 52.0071 | 52.007 | 80.00- 120.00 | 100.00 |
| 23.216 | 23.216 (1.084) | 120 | 1166157 | | | 0.00- 71.67 | 21.57 |
| 23.216 | 23.216 (1.084) | 105 | 200169 | | | 0.00- 53.88 | 3.70 |
| 144 4-Ethyltoluene | | | | | CAS #: 622-96-8 | | |
| 23.354 | 23.354 (1.090) | 105 | 4971575 | 51.4085 | 51.408 | 80.00- 120.00 | 100.00 |
| 23.354 | 23.354 (1.090) | 120 | 1440184 | | | 0.00- 78.92 | 28.97 |
| 146 1,3,5-Trimethylbenzene | | | | | CAS #: 108-67-8 | | |
| 23.409 | 23.409 (1.093) | 105 | 4152564 | 51.2237 | 51.224 | 80.00- 120.00 | 100.00 |
| 23.409 | 23.409 (1.093) | 120 | 1889285 | | | 0.00- 95.92 | 45.50 |
| 151 1,2,4-Trimethylbenzene | | | | | CAS #: 95-63-6 | | |
| 23.907 | 23.907 (1.116) | 105 | 3921313 | 50.3973 | 50.397 | 80.00- 120.00 | 100.00 |
| 23.907 | 23.907 (1.116) | 120 | 1682763 | | | 0.00- 93.46 | 42.91 |
| 156 1,3-Dichlorobenzene | | | | | CAS #: 541-73-1 | | |
| 24.405 | 24.377 (1.139) | 146 | 2462740 | 51.6236 | 51.624 | 80.00- 120.00 | 100.00 |
| 24.405 | 24.377 (1.139) | 148 | 1552495 | | | 13.99- 113.99 | 63.04 |
| 24.377 | 24.377 (1.138) | 111 | 1034894 | | | 0.00- 92.34 | 42.02 |
| 158 1,4-Dichlorobenzene | | | | | CAS #: 106-46-7 | | |
| 24.515 | 24.515 (1.145) | 146 | 2456580 | 52.0060 | 52.006 | 80.00- 120.00 | 100.00 |
| 24.515 | 24.515 (1.145) | 148 | 1567683 | | | 14.08- 114.08 | 63.82 |
| 24.515 | 24.515 (1.145) | 111 | 993522 | | | 0.00- 90.50 | 40.44 |
| 160 alpha-Chlorotoluene | | | | | CAS #: 100-44-7 | | |
| 24.681 | 24.681 (1.152) | 91 | 3429697 | 53.5873 | 53.587 | 80.00- 120.00 | 100.00 |
| 24.681 | 24.681 (1.152) | 126 | 643774 | | | 0.00- 68.80 | 18.77 |
| 162 1,2-Dichlorobenzene | | | | | CAS #: 95-50-1 | | |
| 25.013 | 25.013 (1.168) | 146 | 2284367 | 51.2617 | 51.262 | 80.00- 120.00 | 100.00 |
| 25.013 | 25.013 (1.168) | 148 | 1454159 | | | 13.65- 113.65 | 63.66 |
| 25.013 | 25.013 (1.168) | 111 | 996916 | | | 0.00- 93.88 | 43.64 |
| 168 1,2,4-Trichlorobenzene | | | | | CAS #: 120-82-1 | | |
| 27.031 | 27.031 (1.262) | 180 | 1635671 | 46.7684 | 46.768 | 80.00- 120.00 | 100.00 |
| 27.031 | 27.031 (1.262) | 182 | 1550176 | | | 44.85- 144.85 | 94.77 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPbV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 169 Hexachlorobutadiene | | | | | CAS #: 87-68-3 | | |
| 27.142 | 27.114 (1.267) | 225 | 1483872 | 50.2519 | 50.252 | 80.00- 120.00 | 100.00 |
| 27.114 | 27.114 (1.266) | 223 | 935119 | | | 13.33- 113.33 | 63.02 |
| 170 Naphthalene | | | | | CAS #: 91-20-3 | | |
| 27.418 | 27.418 (1.280) | 128 | 2971544 | 42.3211 | 42.321 | 80.00- 120.00 | 100.00 |
| 27.418 | 27.418 (1.280) | 127 | 370680 | | | 0.00- 62.65 | 12.47 |

Report Date: 24-Mar-2010 08:39

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdx.i
Lab File ID: x032314.d
Lab Smp Id: lcs-1
Analysis Type: VOA
Quant Type: ISTD
Operator: dfm
Method File: /chem/msdx.i/23mar10.b/x10q0323a.m
Misc Info: 50ppbv (200ppbv)

Calibration Date: 23-MAR-2010
Calibration Time: 21:37
Client Smp ID: lcs
Level: LOW
Sample Type: AIR

| | | AREA LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 82 Bromochloromethan | 224943 | 134966 | 314920 | 222065 | -1.28 |
| 97 1,4-Difluorobenze | 1075811 | 645487 | 1506135 | 1059530 | -1.51 |
| 126 Chlorobenzene-d5 | 1015916 | 609550 | 1422282 | 1031413 | 1.53 |

| | | RT LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 82 Bromochloromethan | 15.56 | 15.23 | 15.89 | 15.56 | 0.00 |
| 97 1,4-Difluorobenze | 16.99 | 16.66 | 17.32 | 16.99 | 0.00 |
| 126 Chlorobenzene-d5 | 21.42 | 21.09 | 21.75 | 21.42 | 0.00 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Report Date: 24-Mar-2010 08:39

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: 23mar10
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: lcs-1 Client Smp ID: lcs
Level: LOW Operator: dfm
Data Type: MS DATA SampleType: LCS
SpikeList File: 2926spectra.spk Quant Type: ISTD
Sublist File: AT09.sub
Method File: /chem/msdx.i/23mar10.b/x10q0323a.m
Misc Info: 50ppbv (200ppbv)

| SPIKE COMPOUND | CONC ADDED PPbV | CONC RECOVERED PPbV | % RECOVERED | LIMITS |
|---|---|---|---|---|
| 9 Dichlorodifluorome | 50.000 | 56.982 | 113.96 | 70-130 |
| 13 Freon 114 | 50.000 | 57.748 | 115.50 | 70-130 |
| 15 Chloromethane | 50.000 | 56.917 | 113.83 | 70-130 |
| 21 Vinyl Chloride | 50.000 | 58.312 | 116.63 | 70-130 |
| 23 1,3-Butadiene | 50.000 | 57.422 | 114.84 | 60-140 |
| 25 Bromomethane | 50.000 | 57.960 | 115.92 | 70-130 |
| 27 Chloroethane | 50.000 | 54.756 | 109.51 | 70-130 |
| 31 Trichlorofluoromet | 50.000 | 54.546 | 109.09 | 70-130 |
| 40 Ethanol | 50.000 | 47.934 | 95.87 | 60-140 |
| 44 Freon 113 | 50.000 | 48.008 | 96.02 | 70-130 |
| 42 1,1-Dichloroethene | 50.000 | 48.006 | 96.01 | 70-130 |
| 48 Acetone | 50.000 | 47.818 | 95.64 | 60-140 |
| 46 Carbon Disulfide | 50.000 | 54.071 | 108.14 | 60-140 |
| 49 2-Propanol | 50.000 | 49.283 | 98.57 | 60-140 |
| 57 Methylene Chloride | 50.000 | 47.780 | 95.56 | 70-130 |
| 60 MTBE | 50.000 | 52.255 | 104.51 | 60-140 |
| 61 trans-1,2-Dichloro | 50.000 | 48.936 | 97.87 | 60-140 |
| 65 Hexane | 50.000 | 49.206 | 98.41 | 60-140 |
| 69 Vinyl Acetate | 50.000 | 52.835 | 105.67 | 60-140 |
| 67 1,1-Dichloroethane | 50.000 | 48.637 | 97.27 | 70-130 |
| 76 cis-1,2-Dichloroet | 50.000 | 47.807 | 95.61 | 70-130 |
| 77 2-Butanone | 50.000 | 51.437 | 102.87 | 60-140 |
| 81 Tetrahydrofuran | 50.000 | 50.356 | 100.71 | 60-140 |
| 83 Chloroform | 50.000 | 49.176 | 98.35 | 70-130 |
| 84 Cyclohexane | 50.000 | 52.349 | 104.70 | 60-140 |
| 85 1,1,1-Trichloroeth | 50.000 | 52.478 | 104.96 | 70-130 |
| 87 Carbon Tetrachlori | 50.000 | 54.107 | 108.21 | 70-130 |
| 92 Benzene | 50.000 | 50.011 | 100.02 | 70-130 |
| 95 1,2-Dichloroethane | 50.000 | 49.727 | 99.45 | 70-130 |
| 96 Heptane | 50.000 | 51.248 | 102.50 | 60-140 |
| 100 Trichloroethene | 50.000 | 51.122 | 102.24 | 70-130 |
| 104 1,2-Dichloropropan | 50.000 | 52.069 | 104.14 | 70-130 |
| 106 1,4-Dioxane | 50.000 | 51.498 | 103.00 | 60-140 |

| SPIKE COMPOUND | CONC ADDED PPbV | CONC RECOVERED PPbV | % RECOVERED | LIMITS |
|---|---|---|---|---|
| 108 Bromodichlorometha | 50.000 | 53.575 | 107.15 | 60-140 |
| 110 cis-1,3-Dichloropr | 50.000 | 54.875 | 109.75 | 70-130 |
| 112 4-Methyl-2-pentano | 50.000 | 52.646 | 105.29 | 60-140 |
| 115 Toluene | 50.000 | 50.233 | 100.47 | 70-130 |
| 116 trans-1,3-Dichloro | 50.000 | 54.341 | 108.68 | 70-130 |
| 117 1,1,2-Trichloroeth | 50.000 | 50.676 | 101.35 | 70-130 |
| 118 Tetrachloroethene | 50.000 | 50.828 | 101.66 | 70-130 |
| 120 2-Hexanone | 50.000 | 50.585 | 101.17 | 60-140 |
| 124 Dibromochlorometha | 50.000 | 54.412 | 108.82 | 60-140 |
| 125 1,2-Dibromoethane | 50.000 | 54.246 | 108.49 | 70-130 |
| 127 Chlorobenzene | 50.000 | 50.999 | 102.00 | 70-130 |
| 128 Ethyl Benzene | 50.000 | 53.330 | 106.66 | 70-130 |
| 131 m,p-Xylene | 50.000 | 52.817 | 105.63 | 70-130 |
| 132 o-Xylene | 50.000 | 52.831 | 105.66 | 70-130 |
| 133 Styrene | 50.000 | 52.655 | 105.31 | 70-130 |
| 135 Bromoform | 50.000 | 55.866 | 111.73 | 60-140 |
| 139 1,1,2,2-Tetrachlor | 50.000 | 52.097 | 104.19 | 70-130 |
| 144 4-Ethyltoluene | 50.000 | 51.408 | 102.82 | 60-140 |
| 146 1,3,5-Trimethylben | 50.000 | 51.224 | 102.45 | 70-130 |
| 151 1,2,4-Trimethylben | 50.000 | 50.397 | 100.79 | 70-130 |
| 156 1,3-Dichlorobenzen | 50.000 | 51.624 | 103.25 | 70-130 |
| 158 1,4-Dichlorobenzen | 50.000 | 52.006 | 104.01 | 70-130 |
| 160 alpha-Chlorotoluen | 50.000 | 53.587 | 107.17 | 70-130 |
| 162 1,2-Dichlorobenzen | 50.000 | 51.262 | 102.52 | 70-130 |
| 168 1,2,4-Trichloroben | 50.000 | 46.768 | 93.54 | 70-130 |
| 169 Hexachlorobutadien | 50.000 | 50.252 | 100.50 | 70-130 |
| 140 Propylbenzene | 50.000 | 52.007 | 104.01 | 60-140 |
| 136 Cumene | 50.000 | 52.199 | 104.40 | 60-140 |
| 51 3-Chloropropene | 50.000 | 50.740 | 101.48 | 60-140 |
| 91 2,2,4-Trimethylpen | 50.000 | 51.777 | 103.55 | 60-140 |
| 28 Isopentane | 50.000 | 54.856 | 109.71 | 70-130 |
| 20 Butane | 50.000 | 54.948 | 109.90 | 70-130 |
| 102 Methyl Cyclohexane | 50.000 | 53.387 | 106.77 | 70-130 |
| 7 Propylene | 50.000 | 52.039 | 104.08 | 60-140 |
| 170 Naphthalene | 50.000 | 42.321 | 84.64 | 60-140 |
| 58 tert-Butyl-Alcohol | 50.000 | 52.066 | 104.13 | 60-140 |
| 68 Isopropyl ether | 50.000 | 52.467 | 104.93 | 60-140 |
| 74 t-Butylethyl Ether | 50.000 | 53.268 | 106.54 | 60-140 |
| 94 tert-amyl-Methyl E | 50.000 | 55.185 | 110.37 | 60-140 |

| SURROGATE COMPOUND | CONC ADDED PPbV | CONC RECOVERED PPbV | % RECOVERED | LIMITS |
|---|---|---|---|---|
| $ 93 1,2-Dichloroethane | 25.000 | 25.295 | 101.18 | 70-130 |

| SURROGATE COMPOUND | CONC ADDED PPbV | CONC RECOVERED PPbV | % RECOVERED | LIMITS |
|---|---|---|---|---|
| $ 114 Toluene-d8 | 25.000 | 25.517 | 102.07 | 70-130 |
| $ 138 Bromofluorobenzene | 25.000 | 25.888 | 103.55 | 70-130 |

Data File: /chem/msdx.i/23mar10.b/x032314.d

Date : 24-MAR-2010 00:48

Client ID: lcs

Sample Info: 50ml #1911-277

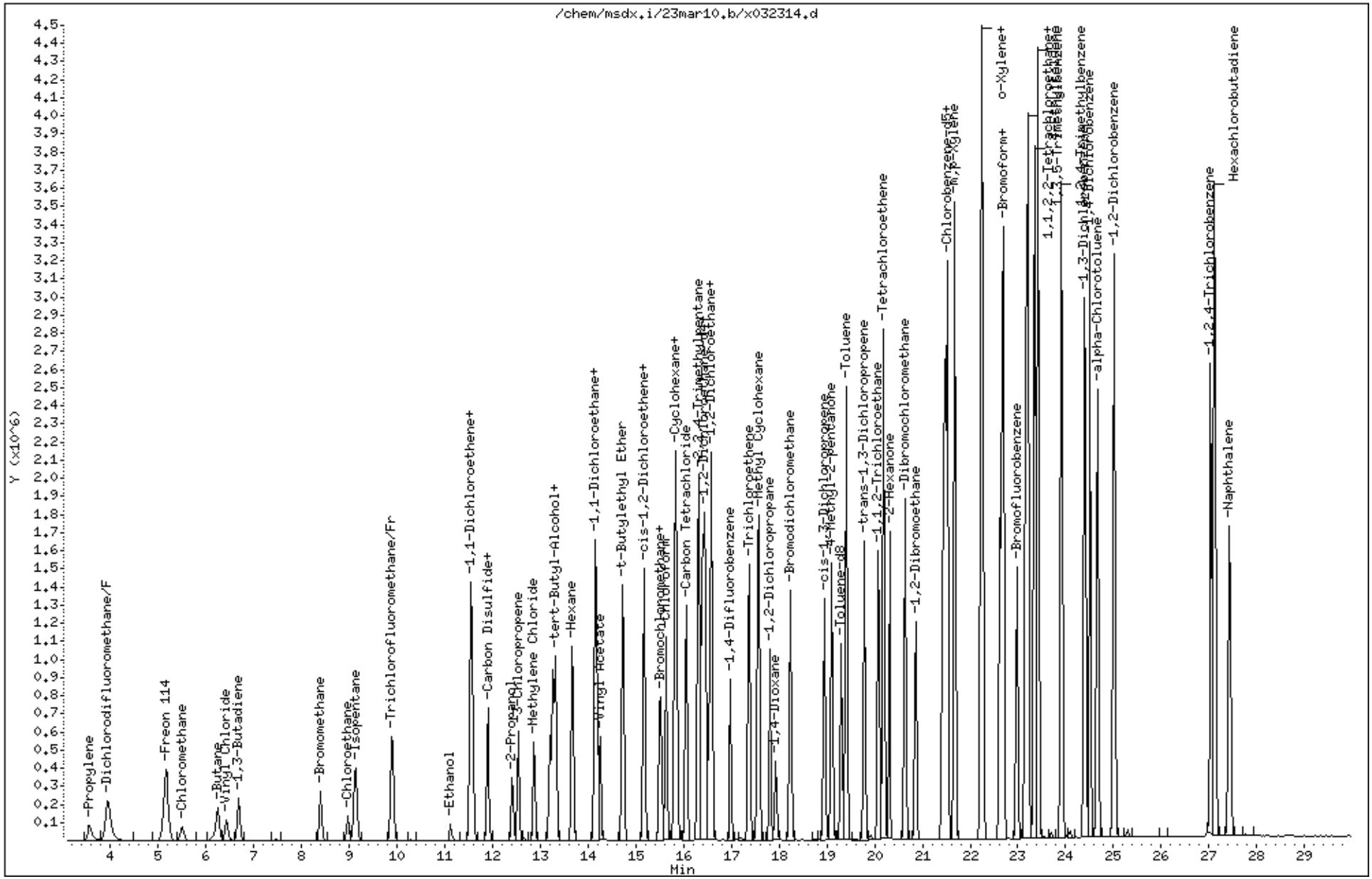
Column phase: RTx-624

Instrument: msdx.i

Operator: dfm

Column diameter: 0.53





Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msdx.i/23mar10.b/x032306.d
Lab Smp Id: ICAL Client Smp ID: Level 1
Inj Date : 23-MAR-2010 19:05
Operator : ra Inst ID: msdx.i
Smp Info : 0.3ml #1911-273
Misc Info : 0.3ppbv (200ppbv)
Comment :
Method : /chem/msdx.i/23mar10.b/x10q0323a.m
Meth Date : 23-Mar-2010 23:02 abarton Quant Type: ISTD
Cal Date : 23-MAR-2010 19:05 Cal File: x032306.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AFCEElow.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| | | | | AMOUNTS | | | |
|---|---|---|---|---|---|---|---|
| | | | | CAL-AMT | ON-COL | | |
| RT | EXP RT (REL RT) | MASS | RESPONSE | ( PPBV) | ( PPBV) | TARGET RANGE | RATIO |
| == | ====== ======== | ==== | ======== | ======= | ======= | ========== | ===== |
| * 82 Bromochloromethane | | | | | | CAS #: 74-97-5 | |
| 15.557 | 15.557 (1.000) | 130 | 213448 | 25.0000 | | 50.00- 150.00 | 100.00 |
| 15.557 | 15.557 (1.000) | 128 | 165833 | | | 27.69- 127.69 | 77.69 |
| 15.529 | 15.529 (1.000) | 49 | 282336 | | | 82.27- 182.27 | 132.27 |
| * 97 1,4-Difluorobenzene | | | | | | CAS #: 540-36-3 | |
| 16.994 | 16.994 (1.000) | 114 | 954605 | 25.0000 | | 50.00- 150.00 | 100.00 |
| 16.994 | 16.994 (1.000) | 88 | 164693 | | | 0.00- 67.25 | 17.25 |
| * 126 Chlorobenzene-d5 | | | | | | CAS #: 3114-55-4 | |
| 21.418 | 21.418 (1.000) | 117 | 892810 | 25.0000 | | 50.00- 150.00 | 100.00 |
| 21.418 | 21.418 (1.000) | 82 | 545114 | | | 11.06- 111.06 | 61.06 |
| $ 93 1,2-Dichloroethane-d4 | | | | | | CAS #: 17060-07-0 | |
| 16.414 | 16.414 (1.055) | 65 | 318861 | 25.0000 | 25.000 | 50.00- 150.00 | 100.00 |
| 16.414 | 16.414 (1.055) | 67 | 167668 | | | 2.58- 102.58 | 52.58 |
| $ 114 Toluene-d8 | | | | | | CAS #: 2037-26-5 | |
| 19.289 | 19.289 (1.135) | 98 | 1016379 | 25.0000 | 25.000 | 50.00- 150.00 | 100.00 |
| 19.289 | 19.289 (1.135) | 70 | 123777 | | | 0.00- 62.18 | 12.18 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 114 Toluene-d8 (continued) | | | | | | | |
| 19.289 | 19.289 (1.135) | 100 | 681532 | | | 17.05- 117.05 | 67.05 |
| $ 138 Bromofluorobenzene | | | | | CAS #: 460-00-4 | | |
| 22.994 | 22.994 (1.074) | 174 | 528655 | 25.0000 | 25.000 | 50.00- 150.00 | 100.00 |
| 22.994 | 22.994 (1.074) | 95 | 710392 | | | 84.38- 184.38 | 134.38 |
| 22.994 | 22.994 (1.074) | 176 | 506897 | | | 45.88- 145.88 | 95.88 |
| 146 1,3,5-Trimethylbenzene | | | | | CAS #: 108-67-8 | | |
| 23.409 | 23.409 (1.093) | 105 | 24379 | 0.30000 | 0.3000 | 50.00- 150.00 | 100.00 |
| 23.409 | 23.409 (1.093) | 120 | 11254 | | | 0.00- 96.16 | 46.16 |
| 151 1,2,4-Trimethylbenzene | | | | | CAS #: 95-63-6 | | |
| 23.907 | 23.907 (1.116) | 105 | 24327 | 0.30000 | 0.3000 | 50.00- 150.00 | 100.00 |
| 23.907 | 23.907 (1.116) | 120 | 10302 | | | 0.00- 92.35 | 42.35 |

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdx.i
Lab File ID: x032306.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: ra
Method File: /chem/msdx.i/23mar10.b/x10q0323a.m
Misc Info: 0.3ppbv (200ppbv)

Calibration Date: 23-MAR-2010
Calibration Time: 21:37
Client Smp ID: Level 1
Level: LOW
Sample Type: AIR

| | | AREA LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 82 Bromochloromethan | 224943 | 134966 | 314920 | 213448 | -5.11 |
| 97 1,4-Difluorobenze | 1075811 | 645487 | 1506135 | 954605 | -11.27 |
| 126 Chlorobenzene-d5 | 1015916 | 609550 | 1422282 | 892810 | -12.12 |

| | | RT LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 82 Bromochloromethan | 15.56 | 15.23 | 15.89 | 15.56 | 0.00 |
| 97 1,4-Difluorobenze | 16.99 | 16.66 | 17.32 | 16.99 | 0.00 |
| 126 Chlorobenzene-d5 | 21.42 | 21.09 | 21.75 | 21.42 | 0.00 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msdx.i/23mar10.b/x032306.d

Date : 23-MAR-2010 19:05

Client ID: Level 1

Sample Info: 0.3ml #1911-273

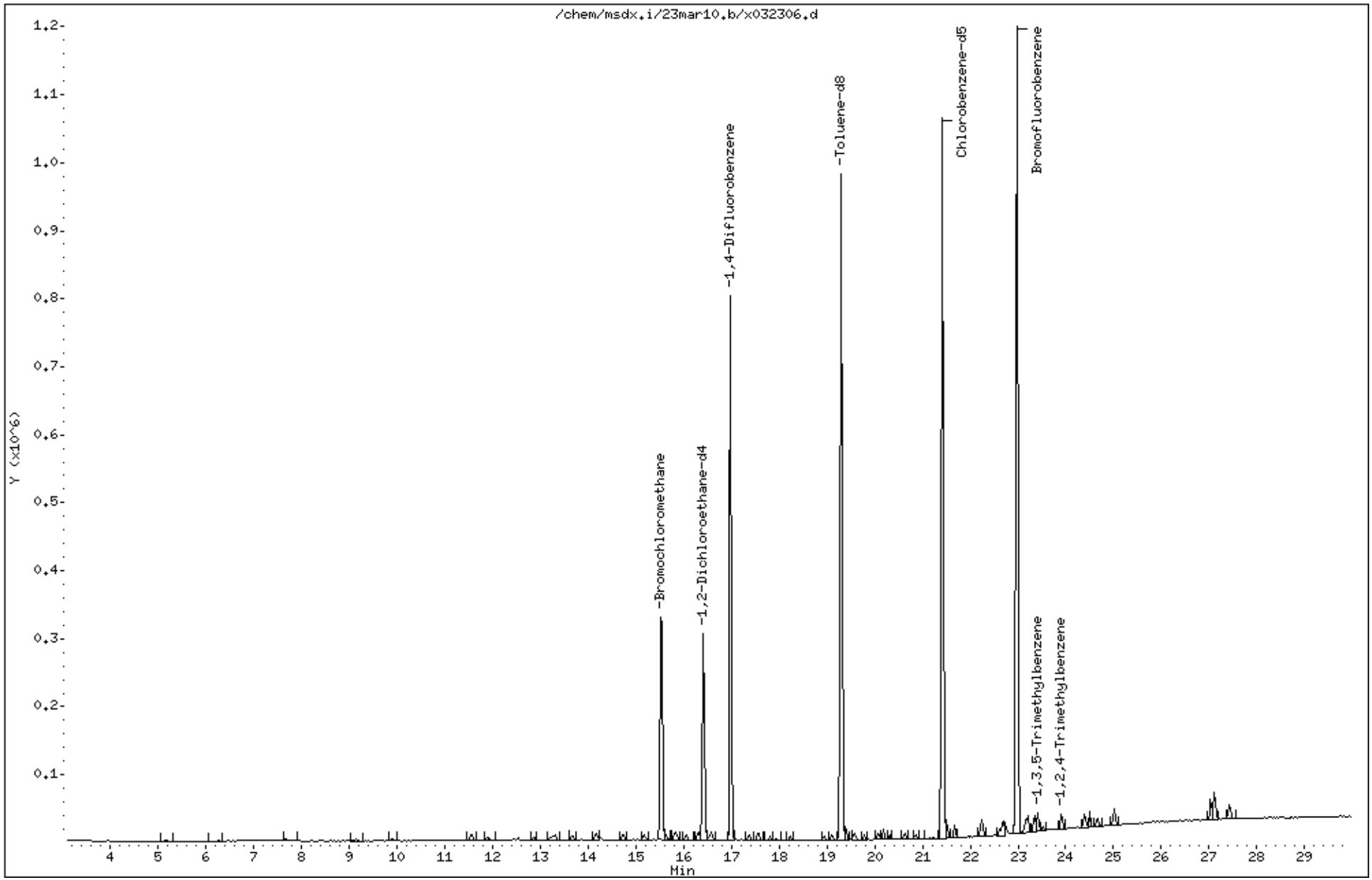
Column phase: RTx-624

Instrument: msdx.i

Operator: ra

Column diameter: 0.53





Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msdx.i/23mar10.b/x032307.d
Lab Smp Id: ICAL Client Smp ID: Level 2
Inj Date : 23-MAR-2010 19:41
Operator : ra Inst ID: msdx.i
Smp Info : 0.5ml #1911-273
Misc Info : 0.5ppbv (200ppbv)
Comment :
Method : /chem/msdx.i/23mar10.b/x10q0323a.m
Meth Date : 23-Mar-2010 23:02 abarton Quant Type: ISTD
Cal Date : 23-MAR-2010 19:41 Cal File: x032307.d
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT09low.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| | | | | AMOUNTS | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | CAL-AMT | ON-COL | | | |
| RT | EXP RT (REL RT) | MASS | RESPONSE | ( PPBV) | ( PPBV) | TARGET RANGE | | RATIO |
| == | ====== ======== | ==== | ======== | ======= | ======= | ========== | | ===== |
| * 82 Bromochloromethane | | | | | | CAS #: 74-97-5 | | |
| 15.557 | 15.557 (1.000) | 130 | 217809 | 25.0000 | | 50.00- 150.00 | | 100.00 |
| 15.557 | 15.557 (1.000) | 128 | 168258 | | | 27.47- 127.47 | | 77.25 |
| 15.529 | 15.529 (1.000) | 49 | 284237 | | | 81.39- 181.39 | | 130.50 |
| * 97 1,4-Difluorobenzene | | | | | | CAS #: 540-36-3 | | |
| 16.994 | 16.994 (1.000) | 114 | 1015694 | 25.0000 | | 50.00- 150.00 | | 100.00 |
| 16.994 | 16.994 (1.000) | 88 | 172690 | | | 0.00- 67.13 | | 17.00 |
| * 126 Chlorobenzene-d5 | | | | | | CAS #: 3114-55-4 | | |
| 21.418 | 21.418 (1.000) | 117 | 926765 | 25.0000 | | 50.00- 150.00 | | 100.00 |
| 21.418 | 21.418 (1.000) | 82 | 570165 | | | 11.29- 111.29 | | 61.52 |
| $ 93 1,2-Dichloroethane-d4 | | | | | | CAS #: 17060-07-0 | | |
| 16.414 | 16.414 (1.055) | 65 | 336793 | 25.0000 | 25.431 | 50.00- 150.00 | | 100.00 |
| 16.414 | 16.414 (1.055) | 67 | 177098 | | | 2.58- 102.58 | | 52.58 |
| $ 114 Toluene-d8 | | | | | | CAS #: 2037-26-5 | | |
| 19.289 | 19.289 (1.135) | 98 | 1056097 | 25.0000 | 24.704 | 50.00- 150.00 | | 100.00 |
| 19.289 | 19.289 (1.135) | 70 | 128975 | | | 0.00- 62.20 | | 12.21 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 114 Toluene-d8 (continued) | | | | | | | |
| 19.289 | 19.289 (1.135) | 100 | 709152 | | | 17.10- 117.10 | 67.15 |
| $ 138 Bromofluorobenzene | | | | | CAS #: 460-00-4 | | |
| 22.994 | 22.994 (1.074) | 174 | 538439 | 25.0000 | 24.763 | 50.00- 150.00 | 100.00 |
| 22.994 | 22.994 (1.074) | 95 | 729117 | | | 84.90- 184.90 | 135.41 |
| 22.994 | 22.994 (1.074) | 176 | 521316 | | | 46.35- 146.35 | 96.82 |
| 9 Dichlorodifluoromethane/Fr12 | | | | | CAS #: 75-71-8 | | |
| 3.971 | 3.971 (0.255) | 85 | 8979 | 0.50000 | 0.5000 | 50.00- 150.00 | 100.00 |
| 3.999 | 3.999 (0.257) | 87 | 2347 | | | 0.00- 76.14 | 26.14 |
| 13 Freon 114 | | | | | CAS #: 76-14-2 | | |
| 5.188 | 5.188 (0.333) | 135 | 5896 | 0.50000 | 0.5000 | 50.00- 150.00 | 100.00 |
| 5.216 | 5.216 (0.335) | 137 | 1795 | | | 0.00- 80.44 | 30.44 |
| 21 Vinyl Chloride | | | | | CAS #: 75-01-4 | | |
| 6.460 | 6.460 (0.415) | 62 | 2406 | 0.50000 | 0.5000 | 50.00- 150.00 | 100.00 |
| 0.000 | 1.000 (0.000) | 64 | 0 | | | 0.00- 50.00 | 0.00 |
| 23 1,3-Butadiene | | | | | CAS #: 106-99-0 | | |
| 6.709 | 6.709 (0.431) | 54 | 1984 | 0.50000 | 0.5000 | 50.00- 150.00 | 100.00 |
| 6.681 | 6.681 (0.429) | 39 | 3158 | | | 109.17- 209.17 | 159.17 |
| 25 Bromomethane | | | | | CAS #: 74-83-9 | | |
| 8.395 | 8.395 (0.540) | 94 | 2838 | 0.50000 | 0.5000 | 50.00- 150.00 | 100.00 |
| 8.395 | 8.395 (0.540) | 96 | 2617 | | | 42.21- 142.21 | 92.21 |
| 27 Chloroethane | | | | | CAS #: 75-00-3 | | |
| 8.976 | 8.976 (0.577) | 64 | 2255 | 0.50000 | 0.5000 | 50.00- 150.00 | 100.00 |
| 0.000 | 1.000 (0.000) | 49 | 0 | | | 0.00- 50.00 | 0.00 |
| 0.000 | 1.000 (0.000) | 66 | 0 | | | 0.00- 50.00 | 0.00 |
| 31 Trichlorofluoromethane/Fr11 | | | | | CAS #: 75-69-4 | | |
| 9.916 | 9.916 (0.637) | 101 | 10400 | 0.50000 | 0.5000 | 50.00- 150.00 | 100.00 |
| 9.916 | 9.916 (0.637) | 103 | 6856 | | | 15.92- 115.92 | 65.92 |
| 44 Freon 113 | | | | | CAS #: 76-13-1 | | |
| 11.575 | 11.575 (0.744) | 151 | 7651 | 0.50000 | 0.5000 | 50.00- 150.00 | 100.00 |
| 11.575 | 11.575 (0.744) | 153 | 5049 | | | 15.99- 115.99 | 65.99 |
| 11.575 | 11.575 (0.744) | 101 | 9474 | | | 73.83- 173.83 | 123.83 |
| 42 1,1-Dichloroethene | | | | | CAS #: 75-35-4 | | |
| 11.547 | 11.547 (0.742) | 61 | 7093 | 0.50000 | 0.5000 | 50.00- 150.00 | 100.00 |
| 11.547 | 11.547 (0.742) | 96 | 5177 | | | 22.99- 122.99 | 72.99 |
| 11.547 | 11.547 (0.742) | 98 | 2845 | | | 0.00- 90.11 | 40.11 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 46 Carbon Disulfide | | | | | | CAS #: 75-15-0 | |
| 11.907 | 11.907 (0.765) | 76 | 13696 | 0.50000 | 0.5000 | 50.00- 150.00 | 100.00 |
| 57 Methylene Chloride | | | | | | CAS #: 75-09-2 | |
| 12.875 | 12.875 (0.828) | 49 | 5567 | 0.50000 | 0.5000 | 50.00- 150.00 | 100.00 |
| 12.902 | 12.902 (0.829) | 84 | 4565 | | | 32.00- 132.00 | 82.00 |
| 12.902 | 12.902 (0.829) | 51 | 1607 | | | 0.00- 78.87 | 28.87 |
| 60 MTBE | | | | | | CAS #: 1634-04-4 | |
| 13.289 | 13.289 (0.854) | 73 | 15745 | 0.50000 | 0.5000 | 50.00- 150.00 | 100.00 |
| 13.289 | 13.289 (0.854) | 57 | 5381 | | | 0.00- 84.18 | 34.18 |
| 13.289 | 13.289 (0.854) | 41 | 5209 | | | 0.00- 83.08 | 33.08 |
| 61 trans-1,2-Dichloroethene | | | | | | CAS #: 156-60-5 | |
| 13.345 | 13.345 (0.858) | 96 | 6370 | 0.50000 | 0.5000 | 50.00- 150.00 | 100.00 |
| 13.317 | 13.317 (0.856) | 61 | 7865 | | | 73.47- 173.47 | 123.47 |
| 13.345 | 13.345 (0.858) | 98 | 3470 | | | 4.47- 104.47 | 54.47 |
| 65 Hexane | | | | | | CAS #: 110-54-3 | |
| 13.704 | 13.704 (0.881) | 57 | 9779 | 0.50000 | 0.5000 | 50.00- 150.00 | 100.00 |
| 13.704 | 13.704 (0.881) | 43 | 6350 | | | 14.94- 114.94 | 64.94 |
| 13.704 | 13.704 (0.881) | 86 | 1919 | | | 0.00- 69.62 | 19.62 |
| 67 1,1-Dichloroethane | | | | | | CAS #: 75-34-3 | |
| 14.174 | 14.174 (0.911) | 63 | 10650 | 0.50000 | 0.5000 | 50.00- 150.00 | 100.00 |
| 14.174 | 14.174 (0.911) | 65 | 3434 | | | 0.00- 82.24 | 32.24 |
| 77 2-Butanone | | | | | | CAS #: 78-93-3 | |
| 15.197 | 15.197 (0.977) | 72 | 2775 | 0.50000 | 0.5000 | 50.00- 150.00 | 100.00 |
| 15.197 | 15.197 (0.977) | 43 | 10250 | | | 319.37- 419.37 | 369.37 |
| 15.197 | 15.197 (0.977) | 57 | 1166 | | | 0.00- 92.02 | 42.02 |
| 76 cis-1,2-Dichloroethene | | | | | | CAS #: 156-59-2 | |
| 15.169 | 15.169 (0.975) | 96 | 7190 | 0.50000 | 0.5000 | 50.00- 150.00 | 100.00 |
| 15.169 | 15.169 (0.975) | 61 | 8220 | | | 64.33- 164.33 | 114.33 |
| 15.169 | 15.169 (0.975) | 98 | 4001 | | | 5.65- 105.65 | 55.65 |
| 81 Tetrahydrofuran | | | | | | CAS #: 109-99-9 | |
| 15.529 | 15.529 (0.998) | 42 | 6693 | 0.50000 | 0.5000 | 50.00- 150.00 | 100.00 |
| 15.529 | 15.529 (0.998) | 71 | 3009 | | | 0.00- 94.96 | 44.96 |
| 15.529 | 15.529 (0.998) | 72 | 2999 | | | 0.00- 94.81 | 44.81 |
| 83 Chloroform | | | | | | CAS #: 67-66-3 | |
| 15.640 | 15.640 (1.005) | 83 | 12195 | 0.50000 | 0.5000 | 50.00- 150.00 | 100.00 |
| 15.640 | 15.640 (1.005) | 85 | 7477 | | | 11.31- 111.31 | 61.31 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 85 1,1,1-Trichloroethane | | | | | CAS #: 71-55-6 | | |
| 15.861 | 15.861 (1.020) | 97 | 12537 | 0.50000 | 0.5000 | 50.00- 150.00 | 100.00 |
| 15.861 | 15.861 (1.020) | 99 | 7749 | | | 11.81- 111.81 | 61.81 |
| 84 Cyclohexane | | | | | CAS #: 110-82-7 | | |
| 15.833 | 15.833 (1.018) | 84 | 9386 | 0.50000 | 0.5000 | 50.00- 150.00 | 100.00 |
| 15.833 | 15.833 (1.018) | 56 | 11184 | | | 69.16- 169.16 | 119.16 |
| 15.805 | 15.805 (1.016) | 41 | 5711 | | | 10.85- 110.85 | 60.85 |
| 87 Carbon Tetrachloride | | | | | CAS #: 56-23-5 | | |
| 16.054 | 16.054 (1.032) | 119 | 10831 | 0.50000 | 0.5000 | 50.00- 150.00 | 100.00 |
| 16.054 | 16.054 (1.032) | 117 | 11520 | | | 56.36- 156.36 | 106.36 |
| 92 Benzene | | | | | CAS #: 71-43-2 | | |
| 16.386 | 16.386 (0.964) | 78 | 22790 | 0.50000 | 0.5000 | 50.00- 150.00 | 100.00 |
| 16.386 | 16.386 (0.964) | 77 | 5193 | | | 0.00- 72.79 | 22.79 |
| 91 2,2,4-Trimethylpentane | | | | | CAS #: 540-84-1 | | |
| 16.331 | 16.331 (1.050) | 57 | 32435 | 0.50000 | 0.5000 | 50.00- 150.00 | 100.00 |
| 16.331 | 16.331 (1.050) | 56 | 11285 | | | 0.00- 84.79 | 34.79 |
| 16.331 | 16.331 (1.050) | 41 | 7864 | | | 0.00- 74.25 | 24.25 |
| 95 1,2-Dichloroethane | | | | | CAS #: 107-06-2 | | |
| 16.524 | 16.524 (0.972) | 62 | 9071 | 0.50000 | 0.5000 | 50.00- 150.00 | 100.00 |
| 16.552 | 16.552 (0.974) | 64 | 2953 | | | 0.00- 82.55 | 32.55 |
| 96 Heptane | | | | | CAS #: 142-82-5 | | |
| 16.580 | 16.580 (0.976) | 71 | 8701 | 0.50000 | 0.5000 | 50.00- 150.00 | 100.00 |
| 16.580 | 16.580 (0.976) | 43 | 12236 | | | 90.63- 190.63 | 140.63 |
| 16.580 | 16.580 (0.976) | 57 | 7346 | | | 34.43- 134.43 | 84.43 |
| 100 Trichloroethene | | | | | CAS #: 79-01-6 | | |
| 17.381 | 17.381 (1.023) | 95 | 8819 | 0.50000 | 0.5000 | 50.00- 150.00 | 100.00 |
| 17.381 | 17.381 (1.023) | 130 | 8932 | | | 51.28- 151.28 | 101.28 |
| 17.381 | 17.381 (1.023) | 97 | 5439 | | | 11.67- 111.67 | 61.67 |
| 102 Methyl Cyclohexane | | | | | CAS #: 108-87-2 | | |
| 17.575 | 17.575 (1.130) | 83 | 13718 | 0.50000 | 0.5000 | 50.00- 150.00 | 100.00 |
| 17.575 | 17.575 (1.130) | 98 | 6465 | | | 0.00- 97.13 | 47.13 |
| 17.575 | 17.575 (1.130) | 55 | 10836 | | | 28.99- 128.99 | 78.99 |
| 104 1,2-Dichloropropane | | | | | CAS #: 78-87-5 | | |
| 17.824 | 17.824 (1.049) | 63 | 7404 | 0.50000 | 0.5000 | 50.00- 150.00 | 100.00 |
| 17.824 | 17.824 (1.049) | 62 | 4872 | | | 15.80- 115.80 | 65.80 |
| 17.796 | 17.796 (1.047) | 41 | 4823 | | | 15.14- 115.14 | 65.14 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 108 Bromodichloromethane | | | | | CAS #: 75-27-4 | | |
| 18.239 | 18.239 (1.073) | 83 | 12309 | 0.50000 | 0.5000 | 50.00- 150.00 | 100.00 |
| 18.239 | 18.239 (1.073) | 85 | 8089 | | | 15.72- 115.72 | 65.72 |
| 110 cis-1,3-Dichloropropene | | | | | CAS #: 10061-01-5 | | |
| 18.957 | 18.957 (1.115) | 75 | 9972 | 0.50000 | 0.5000 | 50.00- 150.00 | 100.00 |
| 18.957 | 18.957 (1.115) | 77 | 3382 | | | 0.00- 83.91 | 33.91 |
| 18.957 | 18.957 (1.115) | 39 | 4850 | | | 0.00- 98.64 | 48.64 |
| 112 4-Methyl-2-pentanone | | | | | CAS #: 108-10-1 | | |
| 19.096 | 19.096 (1.124) | 58 | 5291 | 0.50000 | 0.5000 | 50.00- 150.00 | 100.00 |
| 19.096 | 19.096 (1.124) | 43 | 12354 | | | 183.49- 283.49 | 233.49 |
| 19.096 | 19.096 (1.124) | 85 | 2666 | | | 0.39- 100.39 | 50.39 |
| 115 Toluene | | | | | CAS #: 108-88-3 | | |
| 19.400 | 19.400 (1.142) | 91 | 27247 | 0.50000 | 0.5000 | 50.00- 150.00 | 100.00 |
| 19.400 | 19.400 (1.142) | 92 | 15976 | | | 8.63- 108.63 | 58.63 |
| 116 trans-1,3-Dichloropropene | | | | | CAS #: 10061-02-6 | | |
| 19.787 | 19.787 (0.924) | 75 | 9393 | 0.50000 | 0.5000 | 50.00- 150.00 | 100.00 |
| 19.787 | 19.787 (0.924) | 77 | 3372 | | | 0.00- 85.90 | 35.90 |
| 19.787 | 19.787 (0.924) | 39 | 4699 | | | 0.03- 100.03 | 50.03 |
| 117 1,1,2-Trichloroethane | | | | | CAS #: 79-00-5 | | |
| 20.063 | 20.063 (0.937) | 97 | 7876 | 0.50000 | 0.5000 | 50.00- 150.00 | 100.00 |
| 20.063 | 20.063 (0.937) | 99 | 4885 | | | 12.02- 112.02 | 62.02 |
| 20.063 | 20.063 (0.937) | 83 | 6972 | | | 38.52- 138.52 | 88.52 |
| 118 Tetrachloroethene | | | | | CAS #: 127-18-4 | | |
| 20.174 | 20.174 (0.942) | 166 | 11651 | 0.50000 | 0.5000 | 50.00- 150.00 | 100.00 |
| 20.174 | 20.174 (0.942) | 129 | 8102 | | | 19.54- 119.54 | 69.54 |
| 20.174 | 20.174 (0.942) | 131 | 8059 | | | 19.17- 119.17 | 69.17 |
| 124 Dibromochloromethane | | | | | CAS #: 124-48-1 | | |
| 20.644 | 20.644 (0.964) | 129 | 10652 | 0.50000 | 0.5000 | 50.00- 150.00 | 100.00 |
| 20.644 | 20.644 (0.964) | 127 | 9056 | | | 35.02- 135.02 | 85.02 |
| 125 1,2-Dibromoethane | | | | | CAS #: 106-93-4 | | |
| 20.865 | 20.865 (0.974) | 107 | 11088 | 0.50000 | 0.5000 | 50.00- 150.00 | 100.00 |
| 20.865 | 20.865 (0.974) | 109 | 10859 | | | 47.93- 147.93 | 97.93 |
| 127 Chlorobenzene | | | | | CAS #: 108-90-7 | | |
| 21.474 | 21.474 (1.003) | 112 | 20417 | 0.50000 | 0.5000 | 50.00- 150.00 | 100.00 |
| 21.474 | 21.474 (1.003) | 114 | 6475 | | | 0.00- 81.71 | 31.71 |
| 21.446 | 21.446 (1.001) | 77 | 26512 | | | 79.85- 179.85 | 129.85 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 128 Ethyl Benzene | | | | | CAS #: 100-41-4 | | |
| 21.529 | 21.529 (1.005) | 106 | 10274 | 0.50000 | 0.5000 | 50.00- 150.00 | 100.00 |
| 21.529 | 21.529 (1.005) | 91 | 35027 | | | 290.93- 390.93 | 340.93 |
| 131 m,p-Xylene | | | | | CAS #: 108-38-3 | | |
| 21.667 | 21.667 (1.012) | 106 | 13404 | 0.50000 | 0.5000 | 50.00- 150.00 | 100.00 |
| 21.667 | 21.667 (1.012) | 91 | 27792 | | | 157.34- 257.34 | 207.34 |
| 132 o-Xylene | | | | | CAS #: 95-47-6 | | |
| 22.248 | 22.248 (1.039) | 106 | 12507 | 0.50000 | 0.5000 | 50.00- 150.00 | 100.00 |
| 22.248 | 22.248 (1.039) | 91 | 28358 | | | 176.74- 276.74 | 226.74 |
| 133 Styrene | | | | | CAS #: 100-42-5 | | |
| 22.275 | 22.275 (1.040) | 104 | 19483 | 0.50000 | 0.5000 | 50.00- 150.00 | 100.00 |
| 22.275 | 22.275 (1.040) | 78 | 10927 | | | 6.08- 106.08 | 56.08 |
| 135 Bromoform | | | | | CAS #: 75-25-2 | | |
| 22.607 | 22.607 (1.056) | 173 | 10406 | 0.50000 | 0.5000 | 50.00- 150.00 | 100.00 |
| 22.607 | 22.607 (1.056) | 171 | 5468 | | | 2.55- 102.55 | 52.55 |
| 136 Cumene | | | | | CAS #: 98-82-8 | | |
| 22.690 | 22.690 (1.059) | 105 | 37840 | 0.50000 | 0.5000 | 50.00- 150.00 | 100.00 |
| 22.690 | 22.690 (1.059) | 120 | 8932 | | | 0.00- 73.60 | 23.60 |
| 22.663 | 22.663 (1.058) | 51 | 4205 | | | 0.00- 61.11 | 11.11 |
| 139 1,1,2,2-Tetrachloroethane | | | | | CAS #: 79-34-5 | | |
| 23.160 | 23.160 (1.081) | 83 | 18937 | 0.50000 | 0.5000 | 50.00- 150.00 | 100.00 |
| 23.160 | 23.160 (1.081) | 85 | 12366 | | | 15.30- 115.30 | 65.30 |
| 140 Propylbenzene | | | | | CAS #: 103-65-1 | | |
| 23.215 | 23.215 (1.084) | 91 | 46100 | 0.50000 | 0.5000 | 50.00- 150.00 | 100.00 |
| 23.215 | 23.215 (1.084) | 120 | 10041 | | | 0.00- 71.78 | 21.78 |
| 23.215 | 23.215 (1.084) | 105 | 1969 | | | 0.00- 54.27 | 4.27 |
| 144 4-Ethyltoluene | | | | | CAS #: 622-96-8 | | |
| 23.354 | 23.354 (1.090) | 105 | 43862 | 0.50000 | 0.5000 | 50.00- 150.00 | 100.00 |
| 23.354 | 23.354 (1.090) | 120 | 12384 | | | 0.00- 78.23 | 28.23 |
| 146 1,3,5-Trimethylbenzene | | | | | CAS #: 108-67-8 | | |
| 23.409 | 23.409 (1.093) | 105 | 35805 | 0.50000 | 0.4591 | 50.00- 150.00 | 100.00(a) |
| 23.409 | 23.409 (1.093) | 120 | 16570 | | | 0.00- 96.22 | 46.28 |
| 151 1,2,4-Trimethylbenzene | | | | | CAS #: 95-63-6 | | |
| 23.907 | 23.907 (1.116) | 105 | 34346 | 0.50000 | 0.4494 | 50.00- 150.00 | 100.00(a) |
| 23.907 | 23.907 (1.116) | 120 | 15209 | | | 0.00- 93.31 | 44.28 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 156 1,3-Dichlorobenzene | | | | | CAS #: 541-73-1 | | |
| 24.404 | 24.404 (1.139) | 146 | 22421 | 0.50000 | 0.5000 | 50.00- 150.00 | 100.00 |
| 24.404 | 24.404 (1.139) | 148 | 14360 | | | 14.05- 114.05 | 64.05 |
| 24.377 | 24.377 (1.138) | 111 | 9547 | | | 0.00- 92.58 | 42.58 |
| 158 1,4-Dichlorobenzene | | | | | CAS #: 106-46-7 | | |
| 24.515 | 24.515 (1.145) | 146 | 22622 | 0.50000 | 0.5000 | 50.00- 150.00 | 100.00 |
| 24.515 | 24.515 (1.145) | 148 | 15051 | | | 16.53- 116.53 | 66.53 |
| 24.515 | 24.515 (1.145) | 111 | 9224 | | | 0.00- 90.77 | 40.77 |
| 160 alpha-Chlorotoluene | | | | | CAS #: 100-44-7 | | |
| 24.681 | 24.681 (1.152) | 91 | 19727 | 0.50000 | 0.5000 | 50.00- 150.00 | 100.00 |
| 24.681 | 24.681 (1.152) | 126 | 3561 | | | 0.00- 68.05 | 18.05 |
| 162 1,2-Dichlorobenzene | | | | | CAS #: 95-50-1 | | |
| 25.013 | 25.013 (1.168) | 146 | 22028 | 0.50000 | 0.5000 | 50.00- 150.00 | 100.00 |
| 25.013 | 25.013 (1.168) | 148 | 14609 | | | 16.32- 116.32 | 66.32 |
| 25.013 | 25.013 (1.168) | 111 | 9580 | | | 0.00- 93.49 | 43.49 |

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdx.i
Lab File ID: x032307.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: ra
Method File: /chem/msdx.i/23mar10.b/x10q0323a.m
Misc Info: 0.5ppbv (200ppbv)

Calibration Date: 23-MAR-2010
Calibration Time: 21:37
Client Smp ID: Level 2
Level: LOW
Sample Type: AIR

| | | AREA LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 82 Bromochloromethan | 224943 | 134966 | 314920 | 217809 | -3.17 |
| 97 1,4-Difluorobenze | 1075811 | 645487 | 1506135 | 1015694 | -5.59 |
| 126 Chlorobenzene-d5 | 1015916 | 609550 | 1422282 | 926765 | -8.78 |

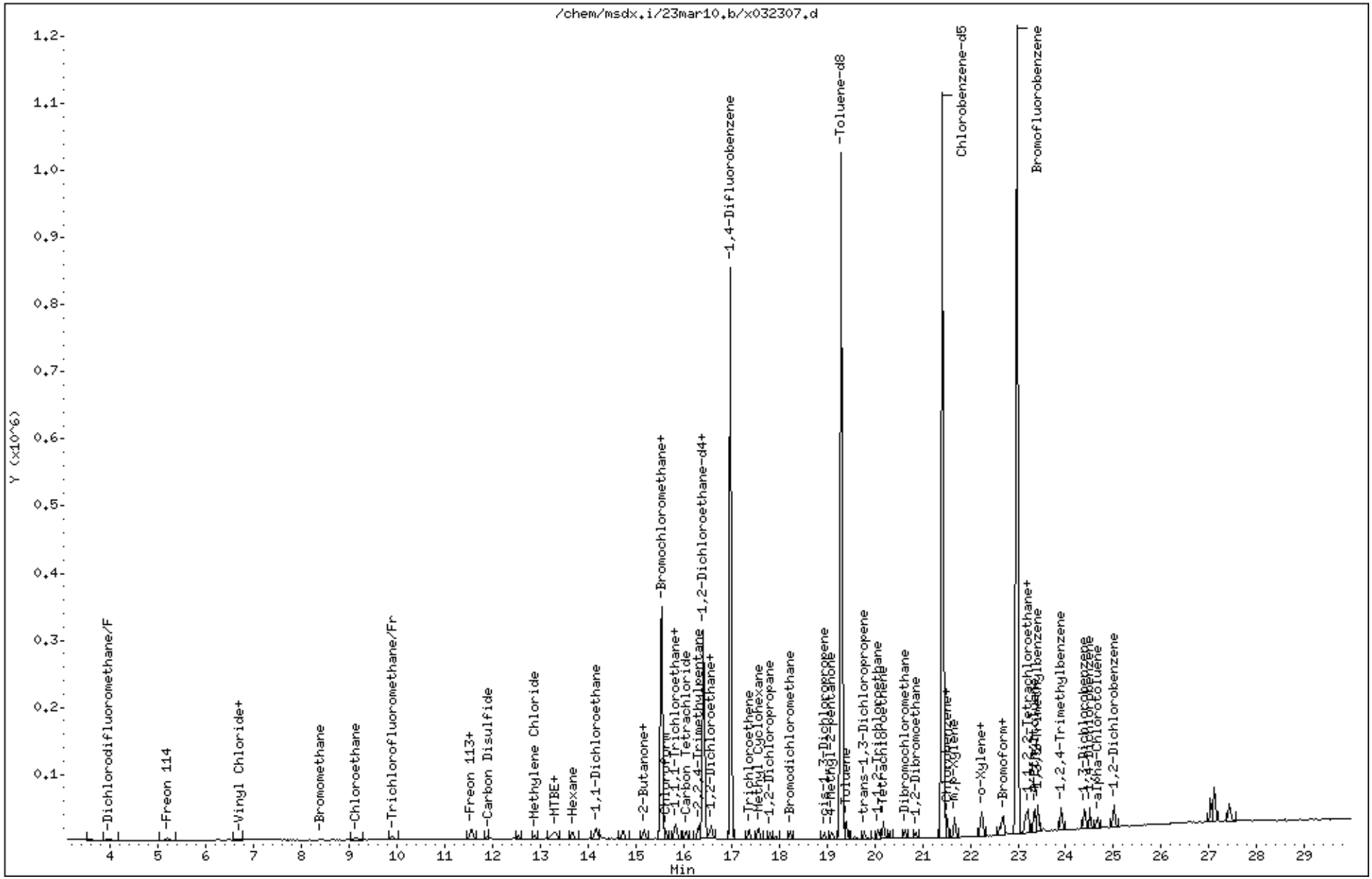
| | | RT LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 82 Bromochloromethan | 15.56 | 15.23 | 15.89 | 15.56 | 0.00 |
| 97 1,4-Difluorobenze | 16.99 | 16.66 | 17.32 | 16.99 | 0.00 |
| 126 Chlorobenzene-d5 | 21.42 | 21.09 | 21.75 | 21.42 | 0.00 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msdx.i/23mar10.b/x032307.d
Date : 23-MAR-2010 19:41
Client ID: Level 2
Sample Info: 0.5ml #1911-273

Instrument: msdx.i
Operator: ra
Column diameter: 0.53

Column phase: RTx-624



Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msdx.i/23mar10.b/x032308.d
Lab Smp Id: ICAL Client Smp ID: Level 3
Inj Date : 23-MAR-2010 20:26
Operator : ra Inst ID: msdx.i
Smp Info : 2.0ml #1911-273
Misc Info : 2.0ppbv (200ppbv)
Comment :
Method : /chem/msdx.i/23mar10.b/x10q0323a.m
Meth Date : 23-Mar-2010 23:02 abarton Quant Type: ISTD
Cal Date : 23-MAR-2010 20:26 Cal File: x032308.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT09.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| | | | | AMOUNTS | | | |
|---|---|---|---|---|---|---|---|
| | | | | CAL-AMT | ON-COL | | |
| RT | EXP RT (REL RT) | MASS | RESPONSE | ( PPBV) | ( PPBV) | TARGET RANGE | RATIO |
| == | ====== ======== | ==== | ======== | ======= | ======= | ========== | ===== |
| * 82 Bromochloromethane | | | | | CAS #: 74-97-5 | | |
| 15.557 | 15.557 (1.000) | 130 | 209412 | 25.0000 | | 50.00- 150.00 | 100.00 |
| 15.557 | 15.557 (1.000) | 128 | 165505 | | | 27.99- 127.99 | 79.03 |
| 15.529 | 15.529 (1.000) | 49 | 276900 | | | 81.67- 181.67 | 132.23 |
| * 97 1,4-Difluorobenzene | | | | | CAS #: 540-36-3 | | |
| 16.994 | 16.994 (1.000) | 114 | 982984 | 25.0000 | | 50.00- 150.00 | 100.00 |
| 16.994 | 16.994 (1.000) | 88 | 167761 | | | 0.00- 67.11 | 17.07 |
| * 126 Chlorobenzene-d5 | | | | | CAS #: 3114-55-4 | | |
| 21.418 | 21.418 (1.000) | 117 | 910532 | 25.0000 | | 50.00- 150.00 | 100.00 |
| 21.418 | 21.418 (1.000) | 82 | 554782 | | | 11.17- 111.17 | 60.93 |
| $ 93 1,2-Dichloroethane-d4 | | | | | CAS #: 17060-07-0 | | |
| 16.414 | 16.414 (1.055) | 65 | 322217 | 25.0000 | 25.203 | 50.00- 150.00 | 100.00 |
| 16.414 | 16.414 (1.055) | 67 | 169466 | | | 2.59- 102.59 | 52.59 |
| $ 114 Toluene-d8 | | | | | CAS #: 2037-26-5 | | |
| 19.289 | 19.289 (1.135) | 98 | 1030628 | 25.0000 | 24.940 | 50.00- 150.00 | 100.00 |
| 19.289 | 19.289 (1.135) | 70 | 126012 | | | 0.00- 62.21 | 12.23 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 114 Toluene-d8 (continued) | | | | | | | |
| 19.289 | 19.289 (1.135) | 100 | 688164 | | | 16.99- 116.99 | 66.77 |
| $ 138 Bromofluorobenzene | | | | | CAS #: 460-00-4 | | |
| 22.994 | 22.994 (1.074) | 174 | 529907 | 25.0000 | 24.869 | 50.00- 150.00 | 100.00 |
| 22.994 | 22.994 (1.074) | 95 | 724354 | | | 85.49- 185.49 | 136.69 |
| 22.994 | 22.994 (1.074) | 176 | 514445 | | | 46.60- 146.60 | 97.08 |
| 7 Propylene | | | | | CAS #: 115-07-1 | | |
| 3.584 | 3.584 (0.230) | 41 | 9729 | 2.00000 | 2.000 | 50.00- 150.00 | 100.00 |
| 3.584 | 3.584 (0.230) | 42 | 6670 | | | 18.56- 118.56 | 68.56 |
| 3.584 | 3.584 (0.230) | 39 | 6449 | | | 16.29- 116.29 | 66.29 |
| 9 Dichlorodifluoromethane/Fr12 | | | | | CAS #: 75-71-8 | | |
| 3.972 | 3.972 (0.255) | 85 | 36516 | 2.00000 | 2.056 | 50.00- 150.00 | 100.00 |
| 3.972 | 3.972 (0.255) | 87 | 10758 | | | 0.00- 77.80 | 29.46 |
| 13 Freon 114 | | | | | CAS #: 76-14-2 | | |
| 5.188 | 5.188 (0.333) | 135 | 24216 | 2.00000 | 2.066 | 50.00- 150.00 | 100.00 |
| 5.188 | 5.188 (0.333) | 137 | 7526 | | | 0.00- 80.76 | 31.08 |
| 15 Chloromethane | | | | | CAS #: 74-87-3 | | |
| 5.520 | 5.520 (0.355) | 50 | 9172 | 2.00000 | 2.000 | 50.00- 150.00 | 100.00 |
| 5.520 | 5.520 (0.355) | 52 | 2870 | | | 0.00- 81.29 | 31.29 |
| 20 Butane | | | | | CAS #: 106-97-8 | | |
| 6.266 | 6.266 (0.403) | 58 | 2501 | 2.00000 | 2.000 | 50.00- 150.00 | 100.00 |
| 6.266 | 6.266 (0.403) | 43 | 17344 | | | 643.48- 743.48 | 693.48 |
| 21 Vinyl Chloride | | | | | CAS #: 75-01-4 | | |
| 6.432 | 6.432 (0.413) | 62 | 11332 | 2.00000 | 2.202 | 50.00- 150.00 | 100.00 |
| 6.432 | 6.432 (0.413) | 64 | 3435 | | | 0.00- 80.31 | 30.31 |
| 23 1,3-Butadiene | | | | | CAS #: 106-99-0 | | |
| 6.681 | 6.681 (0.429) | 54 | 7463 | 2.00000 | 1.978 | 50.00- 150.00 | 100.00 |
| 6.681 | 6.681 (0.429) | 39 | 8752 | | | 88.22- 188.22 | 117.27 |
| 25 Bromomethane | | | | | CAS #: 74-83-9 | | |
| 8.395 | 8.395 (0.540) | 94 | 11940 | 2.00000 | 2.090 | 50.00- 150.00 | 100.00 |
| 8.395 | 8.395 (0.540) | 96 | 11452 | | | 44.06- 144.06 | 95.91 |
| 27 Chloroethane | | | | | CAS #: 75-00-3 | | |
| 8.976 | 8.976 (0.577) | 64 | 8563 | 2.00000 | 1.987 | 50.00- 150.00 | 100.00 |
| 8.976 | 8.976 (0.577) | 49 | 1955 | | | 0.00- 72.83 | 22.83 |
| 8.976 | 8.976 (0.577) | 66 | 2742 | | | 0.00- 82.02 | 32.02 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 28 Isopentane | | | | | CAS #: 78-78-4 | | |
| 9.142 | 9.142 (0.588) | 43 | 16251 | 2.00000 | 2.000 | 50.00- 150.00 | 100.00 |
| 9.142 | 9.142 (0.588) | 57 | 12309 | | | 25.74- 125.74 | 75.74 |
| 31 Trichlorofluoromethane/Fr11 | | | | | CAS #: 75-69-4 | | |
| 9.916 | 9.916 (0.637) | 101 | 43409 | 2.00000 | 2.082 | 50.00- 150.00 | 100.00 |
| 9.916 | 9.916 (0.637) | 103 | 27824 | | | 15.01- 115.01 | 64.10 |
| 40 Ethanol | | | | | CAS #: 64-17-5 | | |
| 11.160 | 11.160 (0.717) | 45 | 7870 | 2.00000 | 2.000 | 50.00- 150.00 | 100.00 |
| 11.160 | 11.160 (0.717) | 43 | 2242 | | | 0.00- 78.49 | 28.49 |
| 11.160 | 11.160 (0.717) | 46 | 2050 | | | 0.00- 76.05 | 26.05 |
| 42 1,1-Dichloroethene | | | | | CAS #: 75-35-4 | | |
| 11.548 | 11.548 (0.742) | 61 | 29556 | 2.00000 | 2.080 | 50.00- 150.00 | 100.00 |
| 11.548 | 11.548 (0.742) | 96 | 18615 | | | 17.98- 117.98 | 62.98 |
| 11.548 | 11.548 (0.742) | 98 | 11528 | | | 0.00- 89.56 | 39.00 |
| 44 Freon 113 | | | | | CAS #: 76-13-1 | | |
| 11.575 | 11.575 (0.744) | 151 | 31647 | 2.00000 | 2.073 | 50.00- 150.00 | 100.00 |
| 11.575 | 11.575 (0.744) | 153 | 20765 | | | 15.80- 115.80 | 65.61 |
| 11.575 | 11.575 (0.744) | 101 | 38301 | | | 72.43- 172.43 | 121.03 |
| 46 Carbon Disulfide | | | | | CAS #: 75-15-0 | | |
| 11.907 | 11.907 (0.765) | 76 | 55080 | 2.00000 | 2.045 | 50.00- 150.00 | 100.00 |
| 48 Acetone | | | | | CAS #: 67-64-1 | | |
| 11.935 | 11.935 (0.767) | 58 | 10163 | 2.00000 | 2.000 | 50.00- 150.00 | 100.00 |
| 11.935 | 11.935 (0.767) | 43 | 26419 | | | 209.95- 309.95 | 259.95 |
| 49 2-Propanol | | | | | CAS #: 67-63-0 | | |
| 12.432 | 12.432 (0.799) | 45 | 29686 | 2.00000 | 2.000 | 50.00- 150.00 | 100.00 |
| 12.432 | 12.432 (0.799) | 43 | 5708 | | | 0.00- 69.23 | 19.23 |
| 12.432 | 12.432 (0.799) | 59 | 1294 | | | 0.00- 54.36 | 4.36 |
| 51 3-Chloropropene | | | | | CAS #: 107-05-1 | | |
| 12.543 | 12.543 (0.806) | 76 | 8900 | 2.00000 | 2.000 | 50.00- 150.00 | 100.00 |
| 12.543 | 12.543 (0.806) | 41 | 20678 | | | 182.34- 282.34 | 232.34 |
| 57 Methylene Chloride | | | | | CAS #: 75-09-2 | | |
| 12.875 | 12.875 (0.828) | 49 | 20797 | 2.00000 | 1.971 | 50.00- 150.00 | 100.00 |
| 12.875 | 12.875 (0.828) | 84 | 18630 | | | 35.79- 135.79 | 89.58 |
| 12.875 | 12.875 (0.828) | 51 | 6445 | | | 0.00- 79.93 | 30.99 |
| 58 tert-Butyl-Alcohol | | | | | CAS #: 75-65-0 | | |
| 13.206 | 13.206 (0.849) | 59 | 37660 | 2.00000 | 2.000 | 50.00- 150.00 | 100.00 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 58 tert-Butyl-Alcohol (continued) | | | | | | | |
| 13.262 | 13.262 (0.852) | 41 | 21655 | | | 7.50- 107.50 | 57.50 |
| 13.262 | 13.262 (0.852) | 57 | 17666 | | | 0.00- 96.91 | 46.91 |
| 60 MTBE | | | | | CAS #: 1634-04-4 | | |
| 13.289 | 13.289 (0.854) | 73 | 64457 | 2.00000 | 2.062 | 50.00- 150.00 | 100.00 |
| 13.262 | 13.262 (0.852) | 57 | 17666 | | | 0.00- 80.79 | 27.41 |
| 13.262 | 13.262 (0.852) | 41 | 21139 | | | 0.00- 82.94 | 32.80 |
| 61 trans-1,2-Dichloroethene | | | | | CAS #: 156-60-5 | | |
| 13.317 | 13.317 (0.856) | 96 | 22599 | 2.00000 | 1.919 | 50.00- 150.00 | 100.00 |
| 13.317 | 13.317 (0.856) | 61 | 30971 | | | 80.26- 180.26 | 137.05 |
| 13.317 | 13.317 (0.856) | 98 | 13658 | | | 7.46- 107.46 | 60.44 |
| 65 Hexane | | | | | CAS #: 110-54-3 | | |
| 13.677 | 13.677 (0.879) | 57 | 38001 | 2.00000 | 2.010 | 50.00- 150.00 | 100.00 |
| 13.677 | 13.677 (0.879) | 43 | 23934 | | | 13.96- 113.96 | 62.98 |
| 13.704 | 13.704 (0.881) | 86 | 7450 | | | 0.00- 69.61 | 19.60 |
| 67 1,1-Dichloroethane | | | | | CAS #: 75-34-3 | | |
| 14.174 | 14.174 (0.911) | 63 | 41906 | 2.00000 | 2.023 | 50.00- 150.00 | 100.00 |
| 14.174 | 14.174 (0.911) | 65 | 13877 | | | 0.00- 82.68 | 33.11 |
| 68 Isopropyl ether | | | | | CAS #: 108-20-3 | | |
| 14.147 | 14.147 (0.909) | 45 | 75024 | 2.00000 | 2.000 | 50.00- 150.00 | 100.00 |
| 14.147 | 14.147 (0.909) | 87 | 24718 | | | 0.00- 82.95 | 32.95 |
| 14.147 | 14.147 (0.909) | 59 | 9655 | | | 0.00- 62.87 | 12.87 |
| 69 Vinyl Acetate | | | | | CAS #: 108-05-4 | | |
| 14.257 | 14.257 (0.916) | 86 | 4867 | 2.00000 | 2.000 | 50.00- 150.00 | 100.00 |
| 14.257 | 14.257 (0.916) | 43 | 45046 | | | 875.54- 975.54 | 925.54 |
| 74 t-Butylethyl Ether | | | | | CAS #: 637-92-3 | | |
| 14.727 | 14.727 (0.947) | 59 | 73432 | 2.00000 | 2.000 | 50.00- 150.00 | 100.00 |
| 14.755 | 14.755 (0.948) | 87 | 33526 | | | 0.00- 95.66 | 45.66 |
| 14.727 | 14.727 (0.947) | 41 | 13752 | | | 0.00- 68.73 | 18.73 |
| 76 cis-1,2-Dichloroethene | | | | | CAS #: 156-59-2 | | |
| 15.170 | 15.170 (0.975) | 96 | 25752 | 2.00000 | 1.929 | 50.00- 150.00 | 100.00 |
| 15.170 | 15.170 (0.975) | 61 | 31776 | | | 68.86- 168.86 | 123.39 |
| 15.170 | 15.170 (0.975) | 98 | 15363 | | | 7.65- 107.65 | 59.66 |
| 77 2-Butanone | | | | | CAS #: 78-93-3 | | |
| 15.170 | 15.170 (0.975) | 72 | 12483 | 2.00000 | 2.156 | 50.00- 150.00 | 100.00 |
| 15.170 | 15.170 (0.975) | 43 | 42404 | | | 304.53- 404.53 | 339.69 |
| 15.170 | 15.170 (0.975) | 57 | 3682 | | | 0.00- 85.76 | 29.50 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 81 Tetrahydrofuran | | | | | CAS #: 109-99-9 | | |
| 15.529 | 15.529 (0.998) | 42 | 26623 | 2.00000 | 2.034 | 50.00- 150.00 | 100.00 |
| 15.529 | 15.529 (0.998) | 71 | 12042 | | | 0.00- 95.09 | 45.23 |
| 15.529 | 15.529 (0.998) | 72 | 12505 | | | 0.00- 95.89 | 46.97 |
| 83 Chloroform | | | | | CAS #: 67-66-3 | | |
| 15.640 | 15.640 (1.005) | 83 | 49003 | 2.00000 | 2.044 | 50.00- 150.00 | 100.00 |
| 15.640 | 15.640 (1.005) | 85 | 30845 | | | 12.13- 112.13 | 62.95 |
| 84 Cyclohexane | | | | | CAS #: 110-82-7 | | |
| 15.833 | 15.833 (1.018) | 84 | 39957 | 2.00000 | 2.102 | 50.00- 150.00 | 100.00 |
| 15.806 | 15.806 (1.016) | 56 | 43465 | | | 63.97- 163.97 | 108.78 |
| 15.806 | 15.806 (1.016) | 41 | 22474 | | | 8.55- 108.55 | 56.25 |
| 85 1,1,1-Trichloroethane | | | | | CAS #: 71-55-6 | | |
| 15.861 | 15.861 (1.020) | 97 | 50787 | 2.00000 | 2.052 | 50.00- 150.00 | 100.00 |
| 15.861 | 15.861 (1.020) | 99 | 31935 | | | 12.34- 112.34 | 62.88 |
| 87 Carbon Tetrachloride | | | | | CAS #: 56-23-5 | | |
| 16.054 | 16.054 (1.032) | 119 | 44529 | 2.00000 | 2.067 | 50.00- 150.00 | 100.00 |
| 16.054 | 16.054 (1.032) | 117 | 48504 | | | 57.64- 157.64 | 108.93 |
| 91 2,2,4-Trimethylpentane | | | | | CAS #: 540-84-1 | | |
| 16.331 | 16.331 (1.050) | 57 | 127097 | 2.00000 | 2.019 | 50.00- 150.00 | 100.00 |
| 16.331 | 16.331 (1.050) | 56 | 42837 | | | 0.00- 84.25 | 33.70 |
| 16.331 | 16.331 (1.050) | 41 | 30927 | | | 0.00- 74.29 | 24.33 |
| 92 Benzene | | | | | CAS #: 71-43-2 | | |
| 16.386 | 16.386 (0.964) | 78 | 86221 | 2.00000 | 1.977 | 50.00- 150.00 | 100.00 |
| 16.386 | 16.386 (0.964) | 77 | 19909 | | | 0.00- 72.94 | 23.09 |
| 94 tert-amyl-Methyl Ether | | | | | CAS #: 994-05-8 | | |
| 16.469 | 16.469 (1.059) | 73 | 81785 | 2.00000 | 2.000 | 50.00- 150.00 | 100.00 |
| 16.469 | 16.469 (1.059) | 87 | 19184 | | | 0.00- 73.46 | 23.46 |
| 16.441 | 16.441 (1.057) | 55 | 19720 | | | 0.00- 74.11 | 24.11 |
| 95 1,2-Dichloroethane | | | | | CAS #: 107-06-2 | | |
| 16.524 | 16.524 (0.972) | 62 | 34210 | 2.00000 | 1.974 | 50.00- 150.00 | 100.00 |
| 16.524 | 16.524 (0.972) | 64 | 11024 | | | 0.00- 82.39 | 32.22 |
| 96 Heptane | | | | | CAS #: 142-82-5 | | |
| 16.580 | 16.580 (0.976) | 71 | 33016 | 2.00000 | 1.980 | 50.00- 150.00 | 100.00 |
| 16.580 | 16.580 (0.976) | 43 | 45678 | | | 89.49- 189.49 | 138.35 |
| 16.580 | 16.580 (0.976) | 57 | 25990 | | | 31.57- 131.57 | 78.72 |
| 100 Trichloroethene | | | | | CAS #: 79-01-6 | | |
| 17.382 | 17.382 (1.023) | 95 | 34299 | 2.00000 | 2.005 | 50.00- 150.00 | 100.00 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 100 Trichloroethene (continued) | | | | | | | |
| 17.382 | 17.382 (1.023) | 130 | 34105 | | | 50.36- 150.36 | 99.43 |
| 17.382 | 17.382 (1.023) | 97 | 22059 | | | 12.99- 112.99 | 64.31 |
| 102 Methyl Cyclohexane | | | | | CAS #: 108-87-2 | | |
| 17.575 | 17.575 (1.130) | 83 | 54041 | 2.00000 | 2.024 | 50.00- 150.00 | 100.00 |
| 17.575 | 17.575 (1.130) | 98 | 25269 | | | 0.00- 96.94 | 46.76 |
| 17.575 | 17.575 (1.130) | 55 | 39130 | | | 25.70- 125.70 | 72.41 |
| 104 1,2-Dichloropropane | | | | | CAS #: 78-87-5 | | |
| 17.824 | 17.824 (1.049) | 63 | 29704 | 2.00000 | 2.036 | 50.00- 150.00 | 100.00 |
| 17.824 | 17.824 (1.049) | 62 | 21129 | | | 18.47- 118.47 | 71.13 |
| 17.796 | 17.796 (1.047) | 41 | 15861 | | | 9.27- 109.27 | 53.40 |
| 106 1,4-Dioxane | | | | | CAS #: 123-91-1 | | |
| 17.935 | 17.935 (1.055) | 88 | 19450 | 2.00000 | 2.000 | 50.00- 150.00 | 100.00 |
| 17.935 | 17.935 (1.055) | 58 | 14438 | | | 24.23- 124.23 | 74.23 |
| 17.935 | 17.935 (1.055) | 57 | 4202 | | | 0.00- 71.60 | 21.60 |
| 108 Bromodichloromethane | | | | | CAS #: 75-27-4 | | |
| 18.239 | 18.239 (1.073) | 83 | 51621 | 2.00000 | 2.080 | 50.00- 150.00 | 100.00 |
| 18.239 | 18.239 (1.073) | 85 | 32327 | | | 14.17- 114.17 | 62.62 |
| 110 cis-1,3-Dichloropropene | | | | | CAS #: 10061-01-5 | | |
| 18.958 | 18.958 (1.115) | 75 | 40894 | 2.00000 | 2.058 | 50.00- 150.00 | 100.00 |
| 18.958 | 18.958 (1.115) | 77 | 13016 | | | 0.00- 82.87 | 31.83 |
| 18.958 | 18.958 (1.115) | 39 | 18646 | | | 0.00- 97.12 | 45.60 |
| 112 4-Methyl-2-pentanone | | | | | CAS #: 108-10-1 | | |
| 19.096 | 19.096 (1.124) | 58 | 22603 | 2.00000 | 2.098 | 50.00- 150.00 | 100.00 |
| 19.096 | 19.096 (1.124) | 43 | 53420 | | | 184.92- 284.92 | 236.34 |
| 19.096 | 19.096 (1.124) | 85 | 10690 | | | 0.00- 98.84 | 47.29 |
| 115 Toluene | | | | | CAS #: 108-88-3 | | |
| 19.400 | 19.400 (1.142) | 91 | 106891 | 2.00000 | 2.013 | 50.00- 150.00 | 100.00 |
| 19.400 | 19.400 (1.142) | 92 | 63569 | | | 9.05- 109.05 | 59.47 |
| 116 trans-1,3-Dichloropropene | | | | | CAS #: 10061-02-6 | | |
| 19.787 | 19.787 (0.924) | 75 | 40406 | 2.00000 | 2.090 | 50.00- 150.00 | 100.00 |
| 19.787 | 19.787 (0.924) | 77 | 13494 | | | 0.00- 84.65 | 33.40 |
| 19.787 | 19.787 (0.924) | 39 | 18623 | | | 0.00- 98.06 | 46.09 |
| 117 1,1,2-Trichloroethane | | | | | CAS #: 79-00-5 | | |
| 20.064 | 20.064 (0.937) | 97 | 31879 | 2.00000 | 2.030 | 50.00- 150.00 | 100.00 |
| 20.064 | 20.064 (0.937) | 99 | 20641 | | | 13.39- 113.39 | 64.75 |
| 20.064 | 20.064 (0.937) | 83 | 27847 | | | 37.94- 137.94 | 87.35 |

| | | | | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| RT | EXP RT (REL RT) | MASS | RESPONSE | | | | |
| 118 Tetrachloroethene | | | | | CAS #: 127-18-4 | | |
| 20.174 | 20.174 (0.942) | 166 | 47306 | 2.00000 | 2.033 | 50.00- 150.00 | 100.00 |
| 20.174 | 20.174 (0.942) | 129 | 32990 | | | 19.64- 119.64 | 69.74 |
| 20.174 | 20.174 (0.942) | 131 | 31950 | | | 18.35- 118.35 | 67.54 |
| 120 2-Hexanone | | | | | CAS #: 591-78-6 | | |
| 20.312 | 20.312 (0.948) | 58 | 30946 | 2.00000 | 2.000 | 50.00- 150.00 | 100.00 |
| 20.312 | 20.312 (0.948) | 43 | 52484 | | | 119.60- 219.60 | 169.60 |
| 20.312 | 20.312 (0.948) | 100 | 6589 | | | 0.00- 71.29 | 21.29 |
| 124 Dibromochloromethane | | | | | CAS #: 124-48-1 | | |
| 20.644 | 20.644 (0.964) | 129 | 46710 | 2.00000 | 2.109 | 50.00- 150.00 | 100.00 |
| 20.644 | 20.644 (0.964) | 127 | 36207 | | | 31.27- 131.27 | 77.51 |
| 125 1,2-Dibromoethane | | | | | CAS #: 106-93-4 | | |
| 20.865 | 20.865 (0.974) | 107 | 46911 | 2.00000 | 2.074 | 50.00- 150.00 | 100.00 |
| 20.865 | 20.865 (0.974) | 109 | 43659 | | | 45.50- 145.50 | 93.07 |
| 127 Chlorobenzene | | | | | CAS #: 108-90-7 | | |
| 21.474 | 21.474 (1.003) | 112 | 79461 | 2.00000 | 1.990 | 50.00- 150.00 | 100.00 |
| 21.474 | 21.474 (1.003) | 114 | 26175 | | | 0.00- 82.33 | 32.94 |
| 21.474 | 21.474 (1.003) | 77 | 72723 | | | 60.69- 160.69 | 91.52 |
| 128 Ethyl Benzene | | | | | CAS #: 100-41-4 | | |
| 21.529 | 21.529 (1.005) | 106 | 41953 | 2.00000 | 2.038 | 50.00- 150.00 | 100.00 |
| 21.529 | 21.529 (1.005) | 91 | 138549 | | | 285.59- 385.59 | 330.25 |
| 131 m,p-Xylene | | | | | CAS #: 108-38-3 | | |
| 21.667 | 21.667 (1.012) | 106 | 53151 | 2.00000 | 2.009 | 50.00- 150.00 | 100.00 |
| 21.667 | 21.667 (1.012) | 91 | 109636 | | | 156.81- 256.81 | 206.27 |
| 132 o-Xylene | | | | | CAS #: 95-47-6 | | |
| 22.248 | 22.248 (1.039) | 106 | 49735 | 2.00000 | 2.012 | 50.00- 150.00 | 100.00 |
| 22.248 | 22.248 (1.039) | 91 | 108793 | | | 172.74- 272.74 | 218.75 |
| 133 Styrene | | | | | CAS #: 100-42-5 | | |
| 22.276 | 22.276 (1.040) | 104 | 78193 | 2.00000 | 2.021 | 50.00- 150.00 | 100.00 |
| 22.276 | 22.276 (1.040) | 78 | 43120 | | | 5.62- 105.62 | 55.15 |
| 135 Bromoform | | | | | CAS #: 75-25-2 | | |
| 22.635 | 22.635 (1.057) | 173 | 43792 | 2.00000 | 2.068 | 50.00- 150.00 | 100.00 |
| 22.635 | 22.635 (1.057) | 171 | 22373 | | | 1.82- 101.82 | 51.09 |
| 136 Cumene | | | | | CAS #: 98-82-8 | | |
| 22.690 | 22.690 (1.059) | 105 | 150481 | 2.00000 | 2.012 | 50.00- 150.00 | 100.00 |
| 22.690 | 22.690 (1.059) | 120 | 37921 | | | 0.00- 74.40 | 25.20 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 136 Cumene (continued) | | | | | | | |
| 22.663 | 22.663 (1.058) | 51 | 15226 | | | 0.00- 60.62 | 10.12 |
| 139 1,1,2,2-Tetrachloroethane | | | | | CAS #: 79-34-5 | | |
| 23.160 | 23.160 (1.081) | 83 | 75163 | 2.00000 | 2.010 | 50.00- 150.00 | 100.00 |
| 23.160 | 23.160 (1.081) | 85 | 48657 | | | 15.02- 115.02 | 64.74 |
| 140 Propylbenzene | | | | | CAS #: 103-65-1 | | |
| 23.216 | 23.216 (1.084) | 91 | 183007 | 2.00000 | 2.010 | 50.00- 150.00 | 100.00 |
| 23.216 | 23.216 (1.084) | 120 | 40317 | | | 0.00- 71.91 | 22.03 |
| 23.216 | 23.216 (1.084) | 105 | 7245 | | | 0.00- 54.12 | 3.96 |
| 144 4-Ethyltoluene | | | | | CAS #: 622-96-8 | | |
| 23.354 | 23.354 (1.090) | 105 | 166402 | 2.00000 | 1.965 | 50.00- 150.00 | 100.00 |
| 23.354 | 23.354 (1.090) | 120 | 48311 | | | 0.00- 78.63 | 29.03 |
| 146 1,3,5-Trimethylbenzene | | | | | CAS #: 108-67-8 | | |
| 23.409 | 23.409 (1.093) | 105 | 141749 | 2.00000 | 1.898 | 50.00- 150.00 | 100.00 |
| 23.409 | 23.409 (1.093) | 120 | 66187 | | | 0.00- 96.38 | 46.69 |
| 151 1,2,4-Trimethylbenzene | | | | | CAS #: 95-63-6 | | |
| 23.907 | 23.907 (1.116) | 105 | 129300 | 2.00000 | 1.806 | 50.00- 150.00 | 100.00 |
| 23.907 | 23.907 (1.116) | 120 | 57708 | | | 0.00- 93.75 | 44.63 |
| 156 1,3-Dichlorobenzene | | | | | CAS #: 541-73-1 | | |
| 24.404 | 24.404 (1.139) | 146 | 85509 | 2.00000 | 1.970 | 50.00- 150.00 | 100.00 |
| 24.404 | 24.404 (1.139) | 148 | 55813 | | | 14.66- 114.66 | 65.27 |
| 24.377 | 24.377 (1.138) | 111 | 35897 | | | 0.00- 92.28 | 41.98 |
| 158 1,4-Dichlorobenzene | | | | | CAS #: 106-46-7 | | |
| 24.515 | 24.515 (1.145) | 146 | 84886 | 2.00000 | 1.954 | 50.00- 150.00 | 100.00 |
| 24.515 | 24.515 (1.145) | 148 | 53603 | | | 14.84- 114.84 | 63.15 |
| 24.515 | 24.515 (1.145) | 111 | 33936 | | | 0.00- 90.38 | 39.98 |
| 160 alpha-Chlorotoluene | | | | | CAS #: 100-44-7 | | |
| 24.681 | 24.681 (1.152) | 91 | 87842 | 2.00000 | 2.125 | 50.00- 150.00 | 100.00 |
| 24.681 | 24.681 (1.152) | 126 | 17124 | | | 0.00- 68.77 | 19.49 |
| 162 1,2-Dichlorobenzene | | | | | CAS #: 95-50-1 | | |
| 25.013 | 25.013 (1.168) | 146 | 81589 | 2.00000 | 1.941 | 50.00- 150.00 | 100.00 |
| 25.013 | 25.013 (1.168) | 148 | 52132 | | | 15.11- 115.11 | 63.90 |
| 25.013 | 25.013 (1.168) | 111 | 35514 | | | 0.00- 93.51 | 43.53 |
| 168 1,2,4-Trichlorobenzene | | | | | CAS #: 120-82-1 | | |
| 27.031 | 27.031 (1.262) | 180 | 74800 | 2.00000 | 2.000 | 50.00- 150.00 | 100.00 |
| 27.031 | 27.031 (1.262) | 182 | 70938 | | | 44.84- 144.84 | 94.84 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 169 Hexachlorobutadiene | | | | | CAS #: 87-68-3 | | |
| 27.114 | 27.114 (1.266) | 225 | 63917 | 2.00000 | 2.000 | 50.00- 150.00 | 100.00 |
| 27.114 | 27.114 (1.266) | 223 | 41387 | | | 14.75- 114.75 | 64.75 |
| 170 Naphthalene | | | | | CAS #: 91-20-3 | | |
| 27.418 | 27.418 (1.280) | 128 | 152769 | 2.00000 | 2.000 | 50.00- 150.00 | 100.00 |
| 27.418 | 27.418 (1.280) | 127 | 19909 | | | 0.00- 63.03 | 13.03 |

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdx.i
Lab File ID: x032308.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: ra
Method File: /chem/msdx.i/23mar10.b/x10q0323a.m
Misc Info: 2.0ppbv (200ppbv)

Calibration Date: 23-MAR-2010
Calibration Time: 21:37
Client Smp ID: Level 3
Level: LOW
Sample Type: AIR

| | | AREA LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 82 Bromochloromethan | 224943 | 134966 | 314920 | 209412 | -6.90 |
| 97 1,4-Difluorobenze | 1075811 | 645487 | 1506135 | 982984 | -8.63 |
| 126 Chlorobenzene-d5 | 1015916 | 609550 | 1422282 | 910532 | -10.37 |

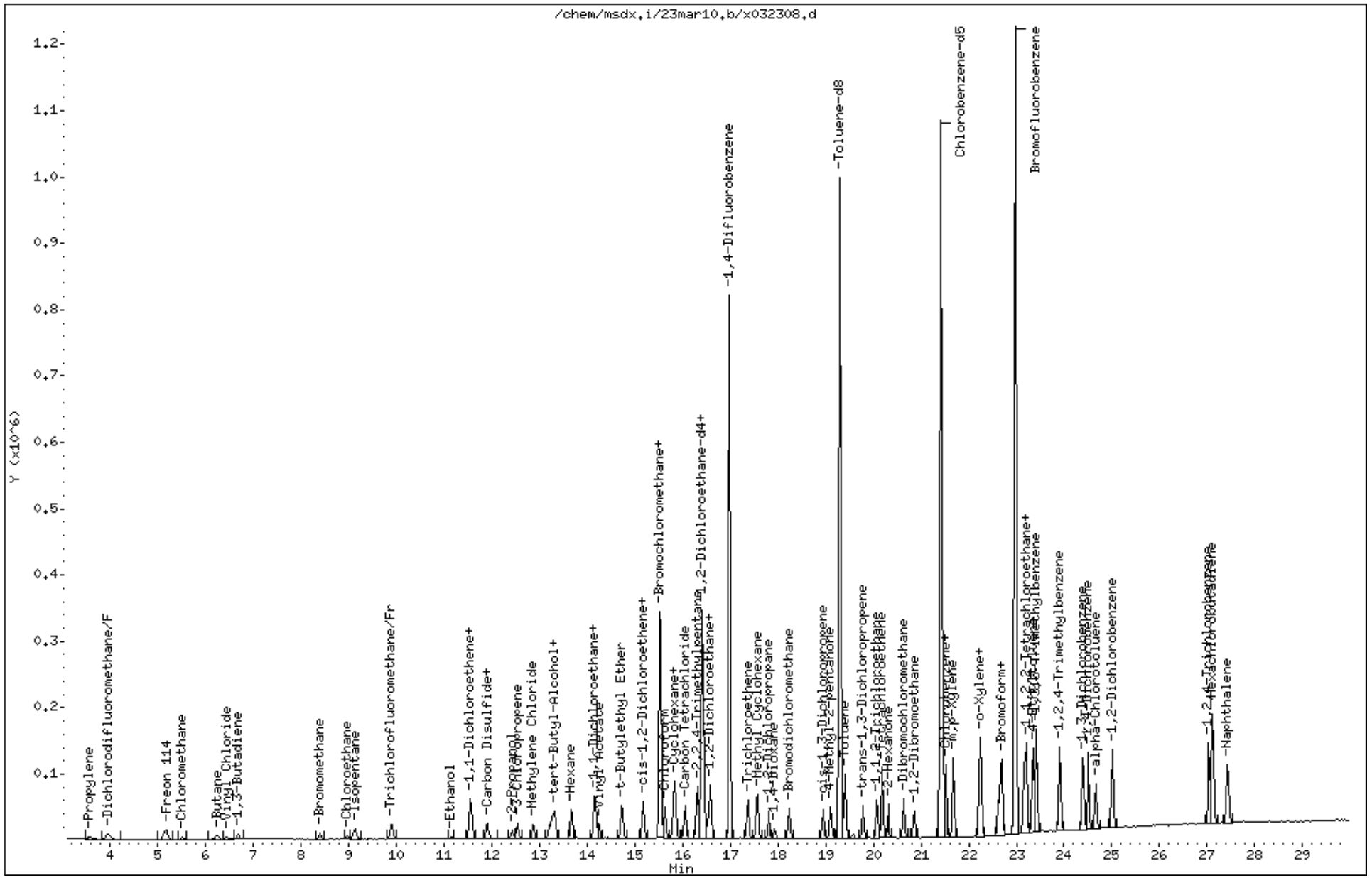
| | | RT LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 82 Bromochloromethan | 15.56 | 15.23 | 15.89 | 15.56 | 0.00 |
| 97 1,4-Difluorobenze | 16.99 | 16.66 | 17.32 | 16.99 | 0.00 |
| 126 Chlorobenzene-d5 | 21.42 | 21.09 | 21.75 | 21.42 | 0.00 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msdx.i/23mar10.b/x032308.d
Date : 23-MAR-2010 20:26
Client ID: Level 3
Sample Info: 2.0ml #1911-273

Instrument: msdx.i
Operator: ra
Column diameter: 0.53

Column phase: RTx-624



Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msdx.i/23mar10.b/x032309.d
Lab Smp Id: ICAL Client Smp ID: Level 4
Inj Date : 23-MAR-2010 21:02
Operator : ra Inst ID: msdx.i
Smp Info : 25ml #1911-273
Misc Info : 25ppbv (200ppbv)
Comment :
Method : /chem/msdx.i/23mar10.b/x10q0323a.m
Meth Date : 23-Mar-2010 23:03 abarton Quant Type: ISTD
Cal Date : 23-MAR-2010 21:02 Cal File: x032309.d
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT09.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| | | | | AMOUNTS | | | |
|---|---|---|---|---|---|---|---|
| | | | | CAL-AMT | ON-COL | | |
| RT | EXP RT (REL RT) | MASS | RESPONSE | ( PPBV) | ( PPBV) | TARGET RANGE | RATIO |
| == | ====== ======== | ==== | ======== | ======= | ======= | ========== | ===== |
| * 82 Bromochloromethane | | | | | CAS #: 74-97-5 | | |
| 15.557 | 15.557 (1.000) | 130 | 249755 | 25.0000 | | 50.00- 150.00 | 100.00 |
| 15.557 | 15.557 (1.000) | 128 | 192311 | | | 27.74- 127.74 | 77.00 |
| 15.529 | 15.529 (1.000) | 49 | 320127 | | | 80.79- 180.79 | 128.18 |
| * 97 1,4-Difluorobenzene | | | | | CAS #: 540-36-3 | | |
| 16.994 | 16.994 (1.000) | 114 | 1210079 | 25.0000 | | 50.00- 150.00 | 100.00 |
| 16.994 | 16.994 (1.000) | 88 | 204519 | | | 0.00- 67.06 | 16.90 |
| * 126 Chlorobenzene-d5 | | | | | CAS #: 3114-55-4 | | |
| 21.418 | 21.418 (1.000) | 117 | 1058516 | 25.0000 | | 50.00- 150.00 | 100.00 |
| 21.418 | 21.418 (1.000) | 82 | 643642 | | | 11.08- 111.08 | 60.81 |
| $ 93 1,2-Dichloroethane-d4 | | | | | CAS #: 17060-07-0 | | |
| 16.414 | 16.414 (1.055) | 65 | 392293 | 25.0000 | 25.542 | 50.00- 150.00 | 100.00 |
| 16.414 | 16.414 (1.055) | 67 | 210722 | | | 2.87- 102.87 | 53.72 |
| $ 114 Toluene-d8 | | | | | CAS #: 2037-26-5 | | |
| 19.289 | 19.289 (1.135) | 98 | 1207946 | 25.0000 | 24.047 | 50.00- 150.00 | 100.00 |
| 19.289 | 19.289 (1.135) | 70 | 146056 | | | 0.00- 62.18 | 12.09 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 114 Toluene-d8 (continued) | | | | | | | |
| 19.289 | 19.289 (1.135) | 100 | 809285 | | | 16.99- 116.99 | 67.00 |
| $ 138 Bromofluorobenzene | | | | | CAS #: 460-00-4 | | |
| 22.994 | 22.994 (1.074) | 174 | 660033 | 25.0000 | 26.214 | 50.00- 150.00 | 100.00 |
| 22.994 | 22.994 (1.074) | 95 | 893071 | | | 85.45- 185.45 | 135.31 |
| 22.994 | 22.994 (1.074) | 176 | 635330 | | | 46.51- 146.51 | 96.26 |
| 7 Propylene | | | | | CAS #: 115-07-1 | | |
| 3.612 | 3.612 (0.232) | 41 | 110795 | 25.0000 | 21.654 | 50.00- 150.00 | 100.00 |
| 3.612 | 3.612 (0.232) | 42 | 71327 | | | 16.47- 116.47 | 64.38 |
| 3.612 | 3.612 (0.232) | 39 | 90549 | | | 24.01- 124.01 | 81.73 |
| 9 Dichlorodifluoromethane/Fr12 | | | | | CAS #: 75-71-8 | | |
| 3.972 | 3.972 (0.255) | 85 | 526252 | 25.0000 | 24.895 | 50.00- 150.00 | 100.00 |
| 3.972 | 3.972 (0.255) | 87 | 168709 | | | 0.00- 79.22 | 32.06 |
| 13 Freon 114 | | | | | CAS #: 76-14-2 | | |
| 5.188 | 5.188 (0.333) | 135 | 322729 | 25.0000 | 23.689 | 50.00- 150.00 | 100.00 |
| 5.188 | 5.188 (0.333) | 137 | 102662 | | | 0.00- 81.11 | 31.81 |
| 15 Chloromethane | | | | | CAS #: 74-87-3 | | |
| 5.520 | 5.520 (0.355) | 50 | 125236 | 25.0000 | 23.902 | 50.00- 150.00 | 100.00 |
| 5.520 | 5.520 (0.355) | 52 | 40716 | | | 0.00- 81.90 | 32.51 |
| 20 Butane | | | | | CAS #: 106-97-8 | | |
| 6.266 | 6.266 (0.403) | 58 | 29560 | 25.0000 | 22.111 | 50.00- 150.00 | 100.00 |
| 6.266 | 6.266 (0.403) | 43 | 207006 | | | 646.89- 746.89 | 700.29 |
| 21 Vinyl Chloride | | | | | CAS #: 75-01-4 | | |
| 6.432 | 6.432 (0.413) | 62 | 164030 | 25.0000 | 26.124 | 50.00- 150.00 | 100.00 |
| 6.432 | 6.432 (0.413) | 64 | 52860 | | | 0.00- 81.27 | 32.23 |
| 23 1,3-Butadiene | | | | | CAS #: 106-99-0 | | |
| 6.709 | 6.709 (0.431) | 54 | 106535 | 25.0000 | 24.100 | 50.00- 150.00 | 100.00 |
| 6.709 | 6.709 (0.431) | 39 | 113658 | | | 77.71- 177.71 | 106.69 |
| 25 Bromomethane | | | | | CAS #: 74-83-9 | | |
| 8.395 | 8.395 (0.540) | 94 | 178133 | 25.0000 | 25.749 | 50.00- 150.00 | 100.00 |
| 8.395 | 8.395 (0.540) | 96 | 166434 | | | 43.85- 143.85 | 93.43 |
| 27 Chloroethane | | | | | CAS #: 75-00-3 | | |
| 8.976 | 8.976 (0.577) | 64 | 113351 | 25.0000 | 22.958 | 50.00- 150.00 | 100.00 |
| 8.976 | 8.976 (0.577) | 49 | 27240 | | | 0.00- 73.43 | 24.03 |
| 8.976 | 8.976 (0.577) | 66 | 36932 | | | 0.00- 82.30 | 32.58 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 28 Isopentane | | | | | CAS #: 78-78-4 | | |
| 9.142 | 9.142 (0.588) | 43 | 241805 | 25.0000 | 24.976 | 50.00- 150.00 | 100.00 |
| 9.142 | 9.142 (0.588) | 57 | 177754 | | | 24.63- 124.63 | 73.51 |
| 31 Trichlorofluoromethane/Fr11 | | | | | CAS #: 75-69-4 | | |
| 9.916 | 9.916 (0.637) | 101 | 627123 | 25.0000 | 25.145 | 50.00- 150.00 | 100.00 |
| 9.916 | 9.916 (0.637) | 103 | 403891 | | | 14.81- 114.81 | 64.40 |
| 40 Ethanol | | | | | CAS #: 64-17-5 | | |
| 11.160 | 11.160 (0.717) | 45 | 86274 | 25.0000 | 21.187 | 50.00- 150.00 | 100.00 |
| 11.160 | 11.160 (0.717) | 43 | 18812 | | | 0.00- 75.15 | 21.80 |
| 11.160 | 11.160 (0.717) | 46 | 35102 | | | 0.00- 83.37 | 40.69 |
| 42 1,1-Dichloroethene | | | | | CAS #: 75-35-4 | | |
| 11.547 | 11.547 (0.742) | 61 | 451143 | 25.0000 | 26.059 | 50.00- 150.00 | 100.00 |
| 11.547 | 11.547 (0.742) | 96 | 282084 | | | 16.17- 116.17 | 62.53 |
| 11.547 | 11.547 (0.742) | 98 | 177371 | | | 0.00- 89.48 | 39.32 |
| 44 Freon 113 | | | | | CAS #: 76-13-1 | | |
| 11.575 | 11.575 (0.744) | 151 | 475882 | 25.0000 | 25.745 | 50.00- 150.00 | 100.00 |
| 11.575 | 11.575 (0.744) | 153 | 305247 | | | 15.25- 115.25 | 64.14 |
| 11.575 | 11.575 (0.744) | 101 | 573501 | | | 71.79- 171.79 | 120.51 |
| 46 Carbon Disulfide | | | | | CAS #: 75-15-0 | | |
| 11.907 | 11.907 (0.765) | 76 | 811552 | 25.0000 | 25.173 | 50.00- 150.00 | 100.00 |
| 48 Acetone | | | | | CAS #: 67-64-1 | | |
| 11.935 | 11.935 (0.767) | 58 | 139732 | 25.0000 | 23.989 | 50.00- 150.00 | 100.00 |
| 11.935 | 11.935 (0.767) | 43 | 421805 | | | 230.91- 330.91 | 301.87 |
| 49 2-Propanol | | | | | CAS #: 67-63-0 | | |
| 12.432 | 12.432 (0.799) | 45 | 474364 | 25.0000 | 25.867 | 50.00- 150.00 | 100.00 |
| 12.432 | 12.432 (0.799) | 43 | 90762 | | | 0.00- 69.18 | 19.13 |
| 12.432 | 12.432 (0.799) | 59 | 20115 | | | 0.00- 54.30 | 4.24 |
| 51 3-Chloropropene | | | | | CAS #: 107-05-1 | | |
| 12.543 | 12.543 (0.806) | 76 | 158846 | 25.0000 | 27.244 | 50.00- 150.00 | 100.00 |
| 12.543 | 12.543 (0.806) | 41 | 382340 | | | 186.52- 286.52 | 240.70 |
| 57 Methylene Chloride | | | | | CAS #: 75-09-2 | | |
| 12.875 | 12.875 (0.828) | 49 | 312872 | 25.0000 | 24.908 | 50.00- 150.00 | 100.00 |
| 12.902 | 12.902 (0.829) | 84 | 270171 | | | 35.98- 135.98 | 86.35 |
| 12.875 | 12.875 (0.828) | 51 | 95064 | | | 0.00- 80.08 | 30.38 |
| 58 tert-Butyl-Alcohol | | | | | CAS #: 75-65-0 | | |
| 13.206 | 13.206 (0.849) | 59 | 603701 | 25.0000 | 25.907 | 50.00- 150.00 | 100.00 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 58 tert-Butyl-Alcohol (continued) | | | | | | | |
| 13.262 | 13.262 (0.852) | 41 | 305965 | | | 7.50- 107.50 | 50.68 |
| 13.262 | 13.262 (0.852) | 57 | 269295 | | | 0.00- 96.91 | 44.61 |
| 60 MTBE | | | | | CAS #: 1634-04-4 | | |
| 13.262 | 13.262 (0.852) | 73 | 1014271 | 25.0000 | 26.432 | 50.00- 150.00 | 100.00 |
| 13.262 | 13.262 (0.852) | 57 | 269295 | | | 0.00- 79.38 | 26.55 |
| 13.262 | 13.262 (0.852) | 41 | 305965 | | | 0.00- 82.02 | 30.17 |
| 61 trans-1,2-Dichloroethene | | | | | CAS #: 156-60-5 | | |
| 13.317 | 13.317 (0.856) | 96 | 359461 | 25.0000 | 25.396 | 50.00- 150.00 | 100.00 |
| 13.317 | 13.317 (0.856) | 61 | 503465 | | | 83.53- 183.53 | 140.06 |
| 13.317 | 13.317 (0.856) | 98 | 229403 | | | 9.58- 109.58 | 63.82 |
| 65 Hexane | | | | | CAS #: 110-54-3 | | |
| 13.704 | 13.704 (0.881) | 57 | 602479 | 25.0000 | 26.124 | 50.00- 150.00 | 100.00 |
| 13.677 | 13.677 (0.879) | 43 | 363594 | | | 12.76- 112.76 | 60.35 |
| 13.704 | 13.704 (0.881) | 86 | 118950 | | | 0.00- 69.66 | 19.74 |
| 67 1,1-Dichloroethane | | | | | CAS #: 75-34-3 | | |
| 14.174 | 14.174 (0.911) | 63 | 678514 | 25.0000 | 26.590 | 50.00- 150.00 | 100.00 |
| 14.174 | 14.174 (0.911) | 65 | 221318 | | | 0.00- 82.66 | 32.62 |
| 68 Isopropyl ether | | | | | CAS #: 108-20-3 | | |
| 14.147 | 14.147 (0.909) | 45 | 1182311 | 25.0000 | 25.694 | 50.00- 150.00 | 100.00 |
| 14.147 | 14.147 (0.909) | 87 | 383014 | | | 0.00- 82.67 | 32.40 |
| 14.147 | 14.147 (0.909) | 59 | 143097 | | | 0.00- 62.49 | 12.10 |
| 69 Vinyl Acetate | | | | | CAS #: 108-05-4 | | |
| 14.257 | 14.257 (0.916) | 86 | 100701 | 25.0000 | 29.061 | 50.00- 150.00 | 100.00 |
| 14.257 | 14.257 (0.916) | 43 | 889482 | | | 854.41- 954.41 | 883.29 |
| 74 t-Butylethyl Ether | | | | | CAS #: 637-92-3 | | |
| 14.727 | 14.727 (0.947) | 59 | 1186151 | 25.0000 | 26.002 | 50.00- 150.00 | 100.00 |
| 14.755 | 14.755 (0.948) | 87 | 544251 | | | 0.00- 95.77 | 45.88 |
| 14.727 | 14.727 (0.947) | 41 | 201309 | | | 0.00- 67.85 | 16.97 |
| 76 cis-1,2-Dichloroethene | | | | | CAS #: 156-59-2 | | |
| 15.170 | 15.170 (0.975) | 96 | 395870 | 25.0000 | 24.908 | 50.00- 150.00 | 100.00 |
| 15.170 | 15.170 (0.975) | 61 | 512048 | | | 72.36- 172.36 | 129.35 |
| 15.170 | 15.170 (0.975) | 98 | 252883 | | | 9.73- 109.73 | 63.88 |
| 77 2-Butanone | | | | | CAS #: 78-93-3 | | |
| 15.170 | 15.170 (0.975) | 72 | 218010 | 25.0000 | 29.031 | 50.00- 150.00 | 100.00 |
| 15.170 | 15.170 (0.975) | 43 | 720533 | | | 296.52- 396.52 | 330.50 |
| 15.170 | 15.170 (0.975) | 57 | 60153 | | | 0.00- 83.04 | 27.59 |

| | | | | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| RT | EXP RT (REL RT) | MASS | RESPONSE | | | | |
| 81 Tetrahydrofuran | | | | | CAS #: 109-99-9 | | |
| 15.501 | 15.501 (0.996) | 42 | 423136 | 25.0000 | 26.363 | 50.00- 150.00 | 100.00 |
| 15.501 | 15.501 (0.996) | 71 | 189165 | | | 0.00- 94.96 | 44.71 |
| 15.501 | 15.501 (0.996) | 72 | 205681 | | | 0.00- 96.80 | 48.61 |
| 83 Chloroform | | | | | CAS #: 67-66-3 | | |
| 15.640 | 15.640 (1.005) | 83 | 786395 | 25.0000 | 26.614 | 50.00- 150.00 | 100.00 |
| 15.640 | 15.640 (1.005) | 85 | 503957 | | | 12.78- 112.78 | 64.08 |
| 84 Cyclohexane | | | | | CAS #: 110-82-7 | | |
| 15.833 | 15.833 (1.018) | 84 | 581635 | 25.0000 | 25.429 | 50.00- 150.00 | 100.00 |
| 15.833 | 15.833 (1.018) | 56 | 621409 | | | 61.59- 161.59 | 106.84 |
| 15.806 | 15.806 (1.016) | 41 | 321740 | | | 7.47- 107.47 | 55.32 |
| 85 1,1,1-Trichloroethane | | | | | CAS #: 71-55-6 | | |
| 15.861 | 15.861 (1.020) | 97 | 766080 | 25.0000 | 25.627 | 50.00- 150.00 | 100.00 |
| 15.861 | 15.861 (1.020) | 99 | 488647 | | | 12.82- 112.82 | 63.79 |
| 87 Carbon Tetrachloride | | | | | CAS #: 56-23-5 | | |
| 16.054 | 16.054 (1.032) | 119 | 708328 | 25.0000 | 26.654 | 50.00- 150.00 | 100.00 |
| 16.054 | 16.054 (1.032) | 117 | 766031 | | | 57.81- 157.81 | 108.15 |
| 91 2,2,4-Trimethylpentane | | | | | CAS #: 540-84-1 | | |
| 16.331 | 16.331 (1.050) | 57 | 2000175 | 25.0000 | 26.068 | 50.00- 150.00 | 100.00 |
| 16.331 | 16.331 (1.050) | 56 | 658429 | | | 0.00- 83.81 | 32.92 |
| 16.331 | 16.331 (1.050) | 41 | 493212 | | | 0.00- 74.41 | 24.66 |
| 92 Benzene | | | | | CAS #: 71-43-2 | | |
| 16.386 | 16.386 (0.964) | 78 | 1378272 | 25.0000 | 25.444 | 50.00- 150.00 | 100.00 |
| 16.386 | 16.386 (0.964) | 77 | 315944 | | | 0.00- 72.93 | 22.92 |
| 94 tert-amyl-Methyl Ether | | | | | CAS #: 994-05-8 | | |
| 16.469 | 16.469 (1.059) | 73 | 1362747 | 25.0000 | 26.389 | 50.00- 150.00 | 100.00 |
| 16.469 | 16.469 (1.059) | 87 | 318939 | | | 0.00- 73.43 | 23.40 |
| 16.441 | 16.441 (1.057) | 55 | 297355 | | | 0.00- 72.97 | 21.82 |
| 95 1,2-Dichloroethane | | | | | CAS #: 107-06-2 | | |
| 16.524 | 16.524 (0.972) | 62 | 566452 | 25.0000 | 26.012 | 50.00- 150.00 | 100.00 |
| 16.524 | 16.524 (0.972) | 64 | 183468 | | | 0.00- 82.39 | 32.39 |
| 96 Heptane | | | | | CAS #: 142-82-5 | | |
| 16.580 | 16.580 (0.976) | 71 | 522765 | 25.0000 | 25.309 | 50.00- 150.00 | 100.00 |
| 16.580 | 16.580 (0.976) | 43 | 757855 | | | 91.32- 191.32 | 144.97 |
| 16.580 | 16.580 (0.976) | 57 | 419756 | | | 31.15- 131.15 | 80.30 |
| 100 Trichloroethene | | | | | CAS #: 79-01-6 | | |
| 17.382 | 17.382 (1.023) | 95 | 562366 | 25.0000 | 26.108 | 50.00- 150.00 | 100.00 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 100 Trichloroethene (continued) | | | | | | | |
| 17.382 | 17.382 (1.023) | 130 | 559106 | | | 50.05- 150.05 | 99.42 |
| 17.382 | 17.382 (1.023) | 97 | 360673 | | | 13.37- 113.37 | 64.13 |
| 102 Methyl Cyclohexane | | | | | CAS #: 108-87-2 | | |
| 17.575 | 17.575 (1.130) | 83 | 850419 | 25.0000 | 26.112 | 50.00- 150.00 | 100.00 |
| 17.575 | 17.575 (1.130) | 98 | 400721 | | | 0.00- 97.00 | 47.12 |
| 17.575 | 17.575 (1.130) | 55 | 621127 | | | 24.81- 124.81 | 73.04 |
| 104 1,2-Dichloropropane | | | | | CAS #: 78-87-5 | | |
| 17.824 | 17.824 (1.049) | 63 | 487175 | 25.0000 | 26.376 | 50.00- 150.00 | 100.00 |
| 17.824 | 17.824 (1.049) | 62 | 347356 | | | 19.41- 119.41 | 71.30 |
| 17.796 | 17.796 (1.047) | 41 | 260429 | | | 7.33- 107.33 | 53.46 |
| 106 1,4-Dioxane | | | | | CAS #: 123-91-1 | | |
| 17.935 | 17.935 (1.055) | 88 | 321396 | 25.0000 | 25.890 | 50.00- 150.00 | 100.00 |
| 17.935 | 17.935 (1.055) | 58 | 206905 | | | 19.30- 119.30 | 64.38 |
| 17.935 | 17.935 (1.055) | 57 | 65586 | | | 0.00- 71.01 | 20.41 |
| 108 Bromodichloromethane | | | | | CAS #: 75-27-4 | | |
| 18.239 | 18.239 (1.073) | 83 | 905195 | 25.0000 | 27.906 | 50.00- 150.00 | 100.00 |
| 18.239 | 18.239 (1.073) | 85 | 571001 | | | 13.81- 113.81 | 63.08 |
| 110 cis-1,3-Dichloropropene | | | | | CAS #: 10061-01-5 | | |
| 18.958 | 18.958 (1.115) | 75 | 744980 | 25.0000 | 28.387 | 50.00- 150.00 | 100.00 |
| 18.958 | 18.958 (1.115) | 77 | 234957 | | | 0.00- 82.43 | 31.54 |
| 18.958 | 18.958 (1.115) | 39 | 333961 | | | 0.00- 96.35 | 44.83 |
| 112 4-Methyl-2-pentanone | | | | | CAS #: 108-10-1 | | |
| 19.096 | 19.096 (1.124) | 58 | 383941 | 25.0000 | 27.505 | 50.00- 150.00 | 100.00 |
| 19.096 | 19.096 (1.124) | 43 | 924935 | | | 186.91- 286.91 | 240.91 |
| 19.096 | 19.096 (1.124) | 85 | 189606 | | | 0.00- 99.02 | 49.38 |
| 115 Toluene | | | | | CAS #: 108-88-3 | | |
| 19.400 | 19.400 (1.142) | 91 | 1674806 | 25.0000 | 25.413 | 50.00- 150.00 | 100.00 |
| 19.400 | 19.400 (1.142) | 92 | 1011422 | | | 9.50- 109.50 | 60.39 |
| 116 trans-1,3-Dichloropropene | | | | | CAS #: 10061-02-6 | | |
| 19.787 | 19.787 (0.924) | 75 | 777132 | 25.0000 | 30.665 | 50.00- 150.00 | 100.00 |
| 19.787 | 19.787 (0.924) | 77 | 244931 | | | 0.00- 83.60 | 31.52 |
| 19.787 | 19.787 (0.924) | 39 | 336121 | | | 0.00- 96.46 | 43.25 |
| 117 1,1,2-Trichloroethane | | | | | CAS #: 79-00-5 | | |
| 20.064 | 20.064 (0.937) | 97 | 517690 | 25.0000 | 27.138 | 50.00- 150.00 | 100.00 |
| 20.064 | 20.064 (0.937) | 99 | 322620 | | | 13.03- 113.03 | 62.32 |
| 20.064 | 20.064 (0.937) | 83 | 444198 | | | 37.23- 137.23 | 85.80 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 118 Tetrachloroethene | | | | | CAS #: 127-18-4 | | |
| 20.174 | 20.174 (0.942) | 166 | 741335 | 25.0000 | 26.550 | 50.00- 150.00 | 100.00 |
| 20.174 | 20.174 (0.942) | 129 | 522118 | | | 19.90- 119.90 | 70.43 |
| 20.174 | 20.174 (0.942) | 131 | 501532 | | | 18.12- 118.12 | 67.65 |
| 120 2-Hexanone | | | | | CAS #: 591-78-6 | | |
| 20.312 | 20.312 (0.948) | 58 | 509468 | 25.0000 | 26.558 | 50.00- 150.00 | 100.00 |
| 20.312 | 20.312 (0.948) | 43 | 904470 | | | 123.57- 223.57 | 177.53 |
| 20.312 | 20.312 (0.948) | 100 | 125086 | | | 0.00- 72.92 | 24.55 |
| 124 Dibromochloromethane | | | | | CAS #: 124-48-1 | | |
| 20.644 | 20.644 (0.964) | 129 | 836509 | 25.0000 | 29.543 | 50.00- 150.00 | 100.00 |
| 20.644 | 20.644 (0.964) | 127 | 650261 | | | 30.09- 130.09 | 77.74 |
| 125 1,2-Dibromoethane | | | | | CAS #: 106-93-4 | | |
| 20.865 | 20.865 (0.974) | 107 | 765577 | 25.0000 | 27.598 | 50.00- 150.00 | 100.00 |
| 20.865 | 20.865 (0.974) | 109 | 719115 | | | 44.98- 144.98 | 93.93 |
| 127 Chlorobenzene | | | | | CAS #: 108-90-7 | | |
| 21.474 | 21.474 (1.003) | 112 | 1234558 | 25.0000 | 26.044 | 50.00- 150.00 | 100.00 |
| 21.474 | 21.474 (1.003) | 114 | 393886 | | | 0.00- 82.19 | 31.91 |
| 21.474 | 21.474 (1.003) | 77 | 999997 | | | 50.79- 150.79 | 81.00 |
| 128 Ethyl Benzene | | | | | CAS #: 100-41-4 | | |
| 21.529 | 21.529 (1.005) | 106 | 677492 | 25.0000 | 27.116 | 50.00- 150.00 | 100.00 |
| 21.529 | 21.529 (1.005) | 91 | 2222387 | | | 283.07- 383.07 | 328.03 |
| 131 m,p-Xylene | | | | | CAS #: 108-38-3 | | |
| 21.667 | 21.667 (1.012) | 106 | 859921 | 25.0000 | 26.898 | 50.00- 150.00 | 100.00 |
| 21.667 | 21.667 (1.012) | 91 | 1801520 | | | 157.70- 257.70 | 209.50 |
| 132 o-Xylene | | | | | CAS #: 95-47-6 | | |
| 22.248 | 22.248 (1.039) | 106 | 807559 | 25.0000 | 26.984 | 50.00- 150.00 | 100.00 |
| 22.248 | 22.248 (1.039) | 91 | 1794440 | | | 172.56- 272.56 | 222.21 |
| 133 Styrene | | | | | CAS #: 100-42-5 | | |
| 22.275 | 22.275 (1.040) | 104 | 1330917 | 25.0000 | 27.884 | 50.00- 150.00 | 100.00 |
| 22.248 | 22.248 (1.039) | 78 | 725440 | | | 5.25- 105.25 | 54.51 |
| 135 Bromoform | | | | | CAS #: 75-25-2 | | |
| 22.607 | 22.607 (1.056) | 173 | 827744 | 25.0000 | 30.160 | 50.00- 150.00 | 100.00 |
| 22.607 | 22.607 (1.056) | 171 | 427227 | | | 1.75- 101.75 | 51.61 |
| 136 Cumene | | | | | CAS #: 98-82-8 | | |
| 22.690 | 22.690 (1.059) | 105 | 2461718 | 25.0000 | 27.114 | 50.00- 150.00 | 100.00 |
| 22.690 | 22.690 (1.059) | 120 | 625670 | | | 0.00- 74.74 | 25.42 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 136 Cumene (continued) | | | | | | | |
| 22.663 | 22.663 (1.058) | 51 | 229268 | | | 0.00- 60.18 | 9.31 |
| 139 1,1,2,2-Tetrachloroethane | | | | | CAS #: 79-34-5 | | |
| 23.160 | 23.160 (1.081) | 83 | 1165852 | 25.0000 | 26.183 | 50.00- 150.00 | 100.00 |
| 23.160 | 23.160 (1.081) | 85 | 743708 | | | 14.61- 114.61 | 63.79 |
| 140 Propylbenzene | | | | | CAS #: 103-65-1 | | |
| 23.216 | 23.216 (1.084) | 91 | 2983258 | 25.0000 | 27.038 | 50.00- 150.00 | 100.00 |
| 23.216 | 23.216 (1.084) | 120 | 647056 | | | 0.00- 71.83 | 21.69 |
| 23.216 | 23.216 (1.084) | 105 | 110565 | | | 0.00- 53.98 | 3.71 |
| 144 4-Ethyltoluene | | | | | CAS #: 622-96-8 | | |
| 23.354 | 23.354 (1.090) | 105 | 2791447 | 25.0000 | 27.139 | 50.00- 150.00 | 100.00 |
| 23.354 | 23.354 (1.090) | 120 | 807596 | | | 0.00- 78.73 | 28.93 |
| 146 1,3,5-Trimethylbenzene | | | | | CAS #: 108-67-8 | | |
| 23.409 | 23.409 (1.093) | 105 | 2303016 | 25.0000 | 26.122 | 50.00- 150.00 | 100.00 |
| 23.409 | 23.409 (1.093) | 120 | 1053559 | | | 0.00- 96.22 | 45.75 |
| 151 1,2,4-Trimethylbenzene | | | | | CAS #: 95-63-6 | | |
| 23.907 | 23.907 (1.116) | 105 | 2137888 | 25.0000 | 25.506 | 50.00- 150.00 | 100.00 |
| 23.907 | 23.907 (1.116) | 120 | 929763 | | | 0.00- 93.69 | 43.49 |
| 156 1,3-Dichlorobenzene | | | | | CAS #: 541-73-1 | | |
| 24.377 | 24.377 (1.138) | 146 | 1335558 | 25.0000 | 25.960 | 50.00- 150.00 | 100.00 |
| 24.377 | 24.377 (1.138) | 148 | 850559 | | | 14.33- 114.33 | 63.69 |
| 24.377 | 24.377 (1.138) | 111 | 565261 | | | 0.00- 92.29 | 42.32 |
| 158 1,4-Dichlorobenzene | | | | | CAS #: 106-46-7 | | |
| 24.515 | 24.515 (1.145) | 146 | 1332513 | 25.0000 | 25.905 | 50.00- 150.00 | 100.00 |
| 24.515 | 24.515 (1.145) | 148 | 848160 | | | 14.44- 114.44 | 63.65 |
| 24.515 | 24.515 (1.145) | 111 | 541635 | | | 0.00- 90.47 | 40.65 |
| 160 alpha-Chlorotoluene | | | | | CAS #: 100-44-7 | | |
| 24.681 | 24.681 (1.152) | 91 | 1938362 | 25.0000 | 33.486 | 50.00- 150.00 | 100.00 |
| 24.681 | 24.681 (1.152) | 126 | 370049 | | | 0.00- 68.88 | 19.09 |
| 162 1,2-Dichlorobenzene | | | | | CAS #: 95-50-1 | | |
| 25.013 | 25.013 (1.168) | 146 | 1229811 | 25.0000 | 25.109 | 50.00- 150.00 | 100.00 |
| 25.013 | 25.013 (1.168) | 148 | 781574 | | | 14.59- 114.59 | 63.55 |
| 25.013 | 25.013 (1.168) | 111 | 537690 | | | 0.00- 93.58 | 43.72 |
| 168 1,2,4-Trichlorobenzene | | | | | CAS #: 120-82-1 | | |
| 27.031 | 27.031 (1.262) | 180 | 880529 | 25.0000 | 22.377 | 50.00- 150.00 | 100.00 |
| 27.031 | 27.031 (1.262) | 182 | 837131 | | | 44.95- 144.95 | 95.07 |

| | | | | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| RT | EXP RT (REL RT) | MASS | RESPONSE | | | | |
| 169 Hexachlorobutadiene | | | | | CAS #: 87-68-3 | | |
| 27.114 | 27.114 (1.266) | 225 | 785259 | 25.0000 | 22.906 | 50.00- 150.00 | 100.00 |
| 27.114 | 27.114 (1.266) | 223 | 493784 | | | 13.82- 113.82 | 62.88 |
| 170 Naphthalene | | | | | CAS #: 91-20-3 | | |
| 27.418 | 27.418 (1.280) | 128 | 1699688 | 25.0000 | 21.682 | 50.00- 150.00 | 100.00 |
| 27.418 | 27.418 (1.280) | 127 | 213770 | | | 0.00- 62.80 | 12.58 |

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdx.i
Lab File ID: x032309.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: ra
Method File: /chem/msdx.i/23mar10.b/x10q0323a.m
Misc Info: 25ppbv (200ppbv)

Calibration Date: 23-MAR-2010
Calibration Time: 21:37
Client Smp ID: Level 4
Level: LOW
Sample Type: AIR

| | | AREA LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 82 Bromochloromethan | 224943 | 134966 | 314920 | 249755 | 11.03 |
| 97 1,4-Difluorobenze | 1075811 | 645487 | 1506135 | 1210079 | 12.48 |
| 126 Chlorobenzene-d5 | 1015916 | 609550 | 1422282 | 1058516 | 4.19 |

| | | RT LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 82 Bromochloromethan | 15.56 | 15.23 | 15.89 | 15.56 | 0.00 |
| 97 1,4-Difluorobenze | 16.99 | 16.66 | 17.32 | 16.99 | 0.00 |
| 126 Chlorobenzene-d5 | 21.42 | 21.09 | 21.75 | 21.42 | 0.00 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msdx.i/23mar10.b/x032309.d

Date : 23-MAR-2010 21:02

Client ID: Level 4

Sample Info: 25ml #1911-273

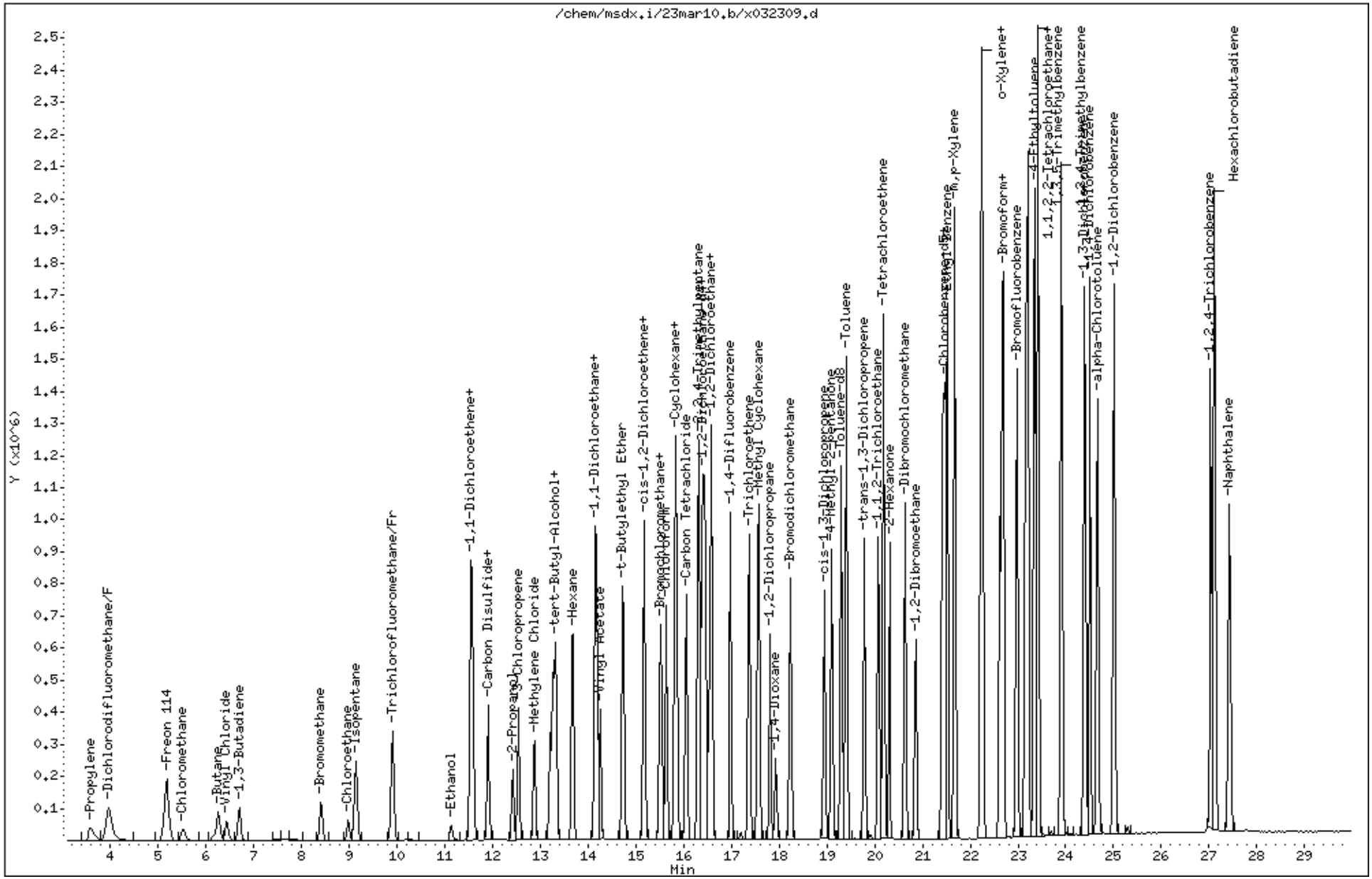
Column phase: RTx-624

Instrument: msdx.i

Operator: ra

Column diameter: 0.53





Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msdx.i/23mar10.b/x032310.d
Lab Smp Id: ICAL Client Smp ID: Level 5
Inj Date : 23-MAR-2010 21:37
Operator : ra Inst ID: msdx.i
Smp Info : 50ml #1911-273
Misc Info : 50ppbv (200ppbv)
Comment :
Method : /chem/msdx.i/23mar10.b/x10q0323a.m
Meth Date : 23-Mar-2010 23:03 abarton Quant Type: ISTD
Cal Date : 23-MAR-2010 21:37 Cal File: x032310.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT09.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| | | | | AMOUNTS | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | CAL-AMT | ON-COL | | | |
| RT | EXP RT (REL RT) | MASS | RESPONSE | ( PPBV) | ( PPBV) | TARGET RANGE | | RATIO |
| == | ====== ======== | ==== | ======== | ======= | ======= | ========== | | ===== |
| * 82 Bromochloromethane | | | | | CAS #: 74-97-5 | | | |
| 15.557 | 15.557 (1.000) | 130 | 224943 | 25.0000 | | 80.00- 120.00 | | 100.00 |
| 15.557 | 15.557 (1.000) | 128 | 174818 | | | 27.72- 127.72 | | 77.72 |
| 15.529 | 15.529 (1.000) | 49 | 289833 | | | 78.85- 178.85 | | 128.85 |
| * 97 1,4-Difluorobenzene | | | | | CAS #: 540-36-3 | | | |
| 16.994 | 16.994 (1.000) | 114 | 1075811 | 25.0000 | | 80.00- 120.00 | | 100.00 |
| 16.994 | 16.994 (1.000) | 88 | 185590 | | | 0.00- 67.25 | | 17.25 |
| * 126 Chlorobenzene-d5 | | | | | CAS #: 3114-55-4 | | | |
| 21.418 | 21.418 (1.000) | 117 | 1015916 | 25.0000 | | 80.00- 120.00 | | 100.00 |
| 21.418 | 21.418 (1.000) | 82 | 618724 | | | 11.04- 111.04 | | 60.90 |
| $ 93 1,2-Dichloroethane-d4 | | | | | CAS #: 17060-07-0 | | | |
| 16.414 | 16.414 (1.055) | 65 | 349554 | 25.0000 | 25.215 | 80.00- 120.00 | | 100.00 |
| 16.414 | 16.414 (1.055) | 67 | 188140 | | | 3.06- 103.06 | | 53.82 |
| $ 114 Toluene-d8 | | | | | CAS #: 2037-26-5 | | | |
| 19.289 | 19.289 (1.135) | 98 | 1135638 | 25.0000 | 25.342 | 80.00- 120.00 | | 100.00 |
| 19.289 | 19.289 (1.135) | 70 | 135467 | | | 0.00- 62.13 | | 11.93 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 114 Toluene-d8 (continued) | | | | | | | |
| 19.289 | 19.289 (1.135) | 100 | 766790 | | | 17.10- 117.10 | 67.52 |
| $ 138 Bromofluorobenzene | | | | | CAS #: 460-00-4 | | |
| 22.994 | 22.994 (1.074) | 174 | 647023 | 25.0000 | 26.400 | 80.00- 120.00 | 100.00 |
| 22.994 | 22.994 (1.074) | 95 | 871343 | | | 84.67- 184.67 | 134.67 |
| 22.994 | 22.994 (1.074) | 176 | 629048 | | | 47.22- 147.22 | 97.22 |
| 7 Propylene | | | | | CAS #: 115-07-1 | | |
| 3.584 | 3.584 (0.230) | 41 | 187869 | 50.0000 | 43.441 | 80.00- 120.00 | 100.00 |
| 3.584 | 3.584 (0.230) | 42 | 122127 | | | 15.98- 115.98 | 65.01 |
| 3.584 | 3.584 (0.230) | 39 | 154339 | | | 26.72- 126.72 | 82.15 |
| 9 Dichlorodifluoromethane/Fr12 | | | | | CAS #: 75-71-8 | | |
| 3.944 | 3.944 (0.254) | 85 | 908288 | 50.0000 | 48.260 | 80.00- 120.00 | 100.00 |
| 3.944 | 3.944 (0.254) | 87 | 294299 | | | 0.00- 80.01 | 32.40 |
| 13 Freon 114 | | | | | CAS #: 76-14-2 | | |
| 5.188 | 5.188 (0.333) | 135 | 592923 | 50.0000 | 48.731 | 80.00- 120.00 | 100.00 |
| 5.188 | 5.188 (0.333) | 137 | 189382 | | | 0.00- 81.94 | 31.94 |
| 15 Chloromethane | | | | | CAS #: 74-87-3 | | |
| 5.520 | 5.520 (0.355) | 50 | 215970 | 50.0000 | 47.096 | 80.00- 120.00 | 100.00 |
| 5.520 | 5.520 (0.355) | 52 | 70081 | | | 0.00- 82.08 | 32.45 |
| 20 Butane | | | | | CAS #: 106-97-8 | | |
| 6.266 | 6.266 (0.403) | 58 | 52686 | 50.0000 | 45.656 | 80.00- 120.00 | 100.00 |
| 6.266 | 6.266 (0.403) | 43 | 383641 | | | 657.31- 757.31 | 728.16 |
| 21 Vinyl Chloride | | | | | CAS #: 75-01-4 | | |
| 6.432 | 6.432 (0.413) | 62 | 283526 | 50.0000 | 50.102 | 80.00- 120.00 | 100.00 |
| 6.432 | 6.432 (0.413) | 64 | 90306 | | | 0.00- 81.46 | 31.85 |
| 23 1,3-Butadiene | | | | | CAS #: 106-99-0 | | |
| 6.681 | 6.681 (0.429) | 54 | 190361 | 50.0000 | 48.341 | 80.00- 120.00 | 100.00 |
| 6.681 | 6.681 (0.429) | 39 | 204171 | | | 72.60- 172.60 | 107.25 |
| 25 Bromomethane | | | | | CAS #: 74-83-9 | | |
| 8.395 | 8.395 (0.540) | 94 | 305297 | 50.0000 | 49.245 | 80.00- 120.00 | 100.00 |
| 8.395 | 8.395 (0.540) | 96 | 286157 | | | 43.73- 143.73 | 93.73 |
| 27 Chloroethane | | | | | CAS #: 75-00-3 | | |
| 8.976 | 8.976 (0.577) | 64 | 204591 | 50.0000 | 46.946 | 80.00- 120.00 | 100.00 |
| 8.976 | 8.976 (0.577) | 49 | 48261 | | | 0.00- 73.48 | 23.59 |
| 8.976 | 8.976 (0.577) | 66 | 67176 | | | 0.00- 82.48 | 32.83 |

| | | | | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| RT | EXP RT (REL RT) | MASS | RESPONSE | | | | |
| 28 Isopentane | | | | | CAS #: 78-78-4 | | |
| 9.142 | 9.142 (0.588) | 43 | 396319 | 50.0000 | 46.872 | 80.00- 120.00 | 100.00 |
| 9.142 | 9.142 (0.588) | 57 | 296541 | | | 24.69- 124.69 | 74.82 |
| 31 Trichlorofluoromethane/Fr11 | | | | | CAS #: 75-69-4 | | |
| 9.916 | 9.916 (0.637) | 101 | 1086907 | 50.0000 | 48.780 | 80.00- 120.00 | 100.00 |
| 9.916 | 9.916 (0.637) | 103 | 697636 | | | 14.19- 114.19 | 64.19 |
| 40 Ethanol | | | | | CAS #: 64-17-5 | | |
| 11.133 | 11.133 (0.716) | 45 | 152651 | 50.0000 | 44.085 | 80.00- 120.00 | 100.00 |
| 11.133 | 11.133 (0.716) | 43 | 32457 | | | 0.00- 73.85 | 21.26 |
| 11.133 | 11.133 (0.716) | 46 | 62188 | | | 0.00- 85.82 | 40.74 |
| 42 1,1-Dichloroethene | | | | | CAS #: 75-35-4 | | |
| 11.547 | 11.547 (0.742) | 61 | 738527 | 50.0000 | 47.997 | 80.00- 120.00 | 100.00 |
| 11.547 | 11.547 (0.742) | 96 | 456933 | | | 11.87- 111.87 | 61.87 |
| 11.547 | 11.547 (0.742) | 98 | 290675 | | | 0.00- 89.36 | 39.36 |
| 44 Freon 113 | | | | | CAS #: 76-13-1 | | |
| 11.575 | 11.575 (0.744) | 151 | 799614 | 50.0000 | 48.508 | 80.00- 120.00 | 100.00 |
| 11.575 | 11.575 (0.744) | 153 | 515068 | | | 14.41- 114.41 | 64.41 |
| 11.575 | 11.575 (0.744) | 101 | 950542 | | | 68.88- 168.88 | 118.88 |
| 46 Carbon Disulfide | | | | | CAS #: 75-15-0 | | |
| 11.907 | 11.907 (0.765) | 76 | 1429718 | 50.0000 | 49.427 | 80.00- 120.00 | 100.00 |
| 48 Acetone | | | | | CAS #: 67-64-1 | | |
| 11.935 | 11.935 (0.767) | 58 | 220379 | 50.0000 | 44.372 | 80.00- 120.00 | 100.00 |
| 11.935 | 11.935 (0.767) | 43 | 666641 | | | 238.11- 338.11 | 302.50 |
| 49 2-Propanol | | | | | CAS #: 67-63-0 | | |
| 12.432 | 12.432 (0.799) | 45 | 788425 | 50.0000 | 48.467 | 80.00- 120.00 | 100.00 |
| 12.432 | 12.432 (0.799) | 43 | 149203 | | | 0.00- 69.10 | 18.92 |
| 12.432 | 12.432 (0.799) | 59 | 33637 | | | 0.00- 54.29 | 4.27 |
| 51 3-Chloropropene | | | | | CAS #: 107-05-1 | | |
| 12.543 | 12.543 (0.806) | 76 | 249725 | 50.0000 | 48.343 | 80.00- 120.00 | 100.00 |
| 12.543 | 12.543 (0.806) | 41 | 603137 | | | 188.19- 288.19 | 241.52 |
| 57 Methylene Chloride | | | | | CAS #: 75-09-2 | | |
| 12.875 | 12.875 (0.828) | 49 | 532154 | 50.0000 | 47.745 | 80.00- 120.00 | 100.00 |
| 12.902 | 12.902 (0.829) | 84 | 456674 | | | 35.82- 135.82 | 85.82 |
| 12.875 | 12.875 (0.828) | 51 | 162829 | | | 0.00- 80.21 | 30.60 |
| 58 tert-Butyl-Alcohol | | | | | CAS #: 75-65-0 | | |
| 13.206 | 13.206 (0.849) | 59 | 1020883 | 50.0000 | 49.086 | 80.00- 120.00 | 100.00 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 58 tert-Butyl-Alcohol (continued) | | | | | | | |
| 13.262 | 13.262 (0.852) | 41 | 512241 | | | 7.50- 107.50 | 50.18 |
| 13.262 | 13.262 (0.852) | 57 | 448825 | | | 0.00- 96.91 | 43.96 |
| 60 MTBE | | | | | CAS #: 1634-04-4 | | |
| 13.262 | 13.262 (0.852) | 73 | 1688291 | 50.0000 | 49.133 | 80.00- 120.00 | 100.00 |
| 13.262 | 13.262 (0.852) | 57 | 448825 | | | 0.00- 76.58 | 26.58 |
| 13.262 | 13.262 (0.852) | 41 | 512241 | | | 0.00- 81.60 | 30.34 |
| 61 trans-1,2-Dichloroethene | | | | | CAS #: 156-60-5 | | |
| 13.317 | 13.317 (0.856) | 96 | 561931 | 50.0000 | 45.424 | 80.00- 120.00 | 100.00 |
| 13.317 | 13.317 (0.856) | 61 | 792069 | | | 90.95- 190.95 | 140.95 |
| 13.317 | 13.317 (0.856) | 98 | 354848 | | | 10.47- 110.47 | 63.15 |
| 65 Hexane | | | | | CAS #: 110-54-3 | | |
| 13.676 | 13.676 (0.879) | 57 | 934150 | 50.0000 | 46.133 | 80.00- 120.00 | 100.00 |
| 13.676 | 13.676 (0.879) | 43 | 557195 | | | 11.98- 111.98 | 59.65 |
| 13.704 | 13.704 (0.881) | 86 | 184628 | | | 0.00- 69.68 | 19.76 |
| 67 1,1-Dichloroethane | | | | | CAS #: 75-34-3 | | |
| 14.174 | 14.174 (0.911) | 63 | 1066720 | 50.0000 | 47.261 | 80.00- 120.00 | 100.00 |
| 14.174 | 14.174 (0.911) | 65 | 346614 | | | 0.00- 82.49 | 32.49 |
| 68 Isopropyl ether | | | | | CAS #: 108-20-3 | | |
| 14.147 | 14.147 (0.909) | 45 | 1900649 | 50.0000 | 47.162 | 80.00- 120.00 | 100.00 |
| 14.147 | 14.147 (0.909) | 87 | 617692 | | | 0.00- 82.61 | 32.50 |
| 14.147 | 14.147 (0.909) | 59 | 232459 | | | 0.00- 62.40 | 12.23 |
| 69 Vinyl Acetate | | | | | CAS #: 108-05-4 | | |
| 14.257 | 14.257 (0.916) | 86 | 161497 | 50.0000 | 51.151 | 80.00- 120.00 | 100.00 |
| 14.257 | 14.257 (0.916) | 43 | 1404637 | | | 842.86- 942.86 | 869.76 |
| 74 t-Butylethyl Ether | | | | | CAS #: 637-92-3 | | |
| 14.727 | 14.727 (0.947) | 59 | 1937176 | 50.0000 | 48.063 | 80.00- 120.00 | 100.00 |
| 14.727 | 14.727 (0.947) | 87 | 891755 | | | 0.00- 95.86 | 46.03 |
| 14.727 | 14.727 (0.947) | 41 | 324485 | | | 0.00- 67.48 | 16.75 |
| 76 cis-1,2-Dichloroethene | | | | | CAS #: 156-59-2 | | |
| 15.170 | 15.170 (0.975) | 96 | 630182 | 50.0000 | 45.380 | 80.00- 120.00 | 100.00 |
| 15.170 | 15.170 (0.975) | 61 | 811406 | | | 78.76- 178.76 | 128.76 |
| 15.170 | 15.170 (0.975) | 98 | 400737 | | | 13.59- 113.59 | 63.59 |
| 77 2-Butanone | | | | | CAS #: 78-93-3 | | |
| 15.170 | 15.170 (0.975) | 72 | 346810 | 50.0000 | 50.952 | 80.00- 120.00 | 100.00 |
| 15.170 | 15.170 (0.975) | 43 | 1150165 | | | 281.64- 381.64 | 331.64 |
| 15.170 | 15.170 (0.975) | 57 | 95687 | | | 0.00- 81.67 | 27.59 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 81 Tetrahydrofuran | | | | | CAS #: 109-99-9 | | |
| 15.501 | 15.501 (0.996) | 42 | 691902 | 50.0000 | 48.380 | 80.00- 120.00 | 100.00 |
| 15.501 | 15.501 (0.996) | 71 | 313842 | | | 0.00- 95.36 | 45.36 |
| 15.501 | 15.501 (0.996) | 72 | 336455 | | | 0.00- 97.25 | 48.63 |
| 83 Chloroform | | | | | CAS #: 67-66-3 | | |
| 15.640 | 15.640 (1.005) | 83 | 1256342 | 50.0000 | 47.876 | 80.00- 120.00 | 100.00 |
| 15.640 | 15.640 (1.005) | 85 | 804825 | | | 14.06- 114.06 | 64.06 |
| 84 Cyclohexane | | | | | CAS #: 110-82-7 | | |
| 15.833 | 15.833 (1.018) | 84 | 1000989 | 50.0000 | 48.936 | 80.00- 120.00 | 100.00 |
| 15.806 | 15.806 (1.016) | 56 | 1059729 | | | 55.87- 155.87 | 105.87 |
| 15.806 | 15.806 (1.016) | 41 | 546894 | | | 4.64- 104.64 | 54.64 |
| 85 1,1,1-Trichloroethane | | | | | CAS #: 71-55-6 | | |
| 15.861 | 15.861 (1.020) | 97 | 1309226 | 50.0000 | 48.963 | 80.00- 120.00 | 100.00 |
| 15.861 | 15.861 (1.020) | 99 | 833898 | | | 13.69- 113.69 | 63.69 |
| 87 Carbon Tetrachloride | | | | | CAS #: 56-23-5 | | |
| 16.054 | 16.054 (1.032) | 119 | 1224899 | 50.0000 | 50.876 | 80.00- 120.00 | 100.00 |
| 16.054 | 16.054 (1.032) | 117 | 1321175 | | | 57.86- 157.86 | 107.86 |
| 91 2,2,4-Trimethylpentane | | | | | CAS #: 540-84-1 | | |
| 16.331 | 16.331 (1.050) | 57 | 3302329 | 50.0000 | 48.322 | 80.00- 120.00 | 100.00 |
| 16.331 | 16.331 (1.050) | 56 | 1081392 | | | 0.00- 83.54 | 32.75 |
| 16.331 | 16.331 (1.050) | 41 | 813777 | | | 0.00- 74.47 | 24.64 |
| 92 Benzene | | | | | CAS #: 71-43-2 | | |
| 16.386 | 16.386 (0.964) | 78 | 2280046 | 50.0000 | 47.982 | 80.00- 120.00 | 100.00 |
| 16.386 | 16.386 (0.964) | 77 | 518523 | | | 0.00- 72.89 | 22.74 |
| 94 tert-amyl-Methyl Ether | | | | | CAS #: 994-05-8 | | |
| 16.441 | 16.441 (1.057) | 73 | 2330081 | 50.0000 | 50.066 | 80.00- 120.00 | 100.00 |
| 16.469 | 16.469 (1.059) | 87 | 544093 | | | 0.00- 73.40 | 23.35 |
| 16.441 | 16.441 (1.057) | 55 | 499450 | | | 0.00- 72.46 | 21.43 |
| 95 1,2-Dichloroethane | | | | | CAS #: 107-06-2 | | |
| 16.524 | 16.524 (0.972) | 62 | 927316 | 50.0000 | 48.407 | 80.00- 120.00 | 100.00 |
| 16.524 | 16.524 (0.972) | 64 | 300196 | | | 0.00- 82.39 | 32.37 |
| 96 Heptane | | | | | CAS #: 142-82-5 | | |
| 16.580 | 16.580 (0.976) | 71 | 868363 | 50.0000 | 47.938 | 80.00- 120.00 | 100.00 |
| 16.580 | 16.580 (0.976) | 43 | 1253347 | | | 92.07- 192.07 | 144.33 |
| 16.580 | 16.580 (0.976) | 57 | 695140 | | | 30.87- 130.87 | 80.05 |
| 100 Trichloroethene | | | | | CAS #: 79-01-6 | | |
| 17.382 | 17.382 (1.023) | 95 | 924345 | 50.0000 | 48.690 | 80.00- 120.00 | 100.00 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 100 Trichloroethene (continued) | | | | | | | |
| 17.382 | 17.382 (1.023) | 130 | 924532 | | | 50.02- 150.02 | 100.02 |
| 17.382 | 17.382 (1.023) | 97 | 591902 | | | 14.03- 114.03 | 64.03 |
| 102 Methyl Cyclohexane | | | | | CAS #: 108-87-2 | | |
| 17.575 | 17.575 (1.130) | 83 | 1478635 | 50.0000 | 50.307 | 80.00- 120.00 | 100.00 |
| 17.575 | 17.575 (1.130) | 98 | 699810 | | | 0.00- 97.08 | 47.33 |
| 17.575 | 17.575 (1.130) | 55 | 1076757 | | | 24.31- 124.31 | 72.82 |
| 104 1,2-Dichloropropane | | | | | CAS #: 78-87-5 | | |
| 17.824 | 17.824 (1.049) | 63 | 818993 | 50.0000 | 49.905 | 80.00- 120.00 | 100.00 |
| 17.796 | 17.796 (1.047) | 62 | 580331 | | | 20.86- 120.86 | 70.86 |
| 17.796 | 17.796 (1.047) | 41 | 432196 | | | 2.77- 102.77 | 52.77 |
| 106 1,4-Dioxane | | | | | CAS #: 123-91-1 | | |
| 17.934 | 17.934 (1.055) | 88 | 557219 | 50.0000 | 50.325 | 80.00- 120.00 | 100.00 |
| 17.934 | 17.934 (1.055) | 58 | 355382 | | | 13.78- 113.78 | 63.78 |
| 17.934 | 17.934 (1.055) | 57 | 111697 | | | 0.00- 70.69 | 20.05 |
| 108 Bromodichloromethane | | | | | CAS #: 75-27-4 | | |
| 18.239 | 18.239 (1.073) | 83 | 1541620 | 50.0000 | 52.550 | 80.00- 120.00 | 100.00 |
| 18.239 | 18.239 (1.073) | 85 | 981057 | | | 13.64- 113.64 | 63.64 |
| 110 cis-1,3-Dichloropropene | | | | | CAS #: 10061-01-5 | | |
| 18.958 | 18.958 (1.115) | 75 | 1278969 | 50.0000 | 53.528 | 80.00- 120.00 | 100.00 |
| 18.958 | 18.958 (1.115) | 77 | 403452 | | | 0.00- 81.55 | 31.55 |
| 18.958 | 18.958 (1.115) | 39 | 564604 | | | 0.00- 94.15 | 44.15 |
| 112 4-Methyl-2-pentanone | | | | | CAS #: 108-10-1 | | |
| 19.096 | 19.096 (1.124) | 58 | 669698 | 50.0000 | 52.915 | 80.00- 120.00 | 100.00 |
| 19.096 | 19.096 (1.124) | 43 | 1624932 | | | 188.34- 288.34 | 242.64 |
| 19.096 | 19.096 (1.124) | 85 | 333372 | | | 0.00- 99.21 | 49.78 |
| 115 Toluene | | | | | CAS #: 108-88-3 | | |
| 19.400 | 19.400 (1.142) | 91 | 2903341 | 50.0000 | 49.664 | 80.00- 120.00 | 100.00 |
| 19.400 | 19.400 (1.142) | 92 | 1747128 | | | 10.18- 110.18 | 60.18 |
| 116 trans-1,3-Dichloropropene | | | | | CAS #: 10061-02-6 | | |
| 19.787 | 19.787 (0.924) | 75 | 1354405 | 50.0000 | 54.145 | 80.00- 120.00 | 100.00 |
| 19.787 | 19.787 (0.924) | 77 | 423277 | | | 0.00- 81.25 | 31.25 |
| 19.787 | 19.787 (0.924) | 39 | 584498 | | | 0.00- 93.16 | 43.16 |
| 117 1,1,2-Trichloroethane | | | | | CAS #: 79-00-5 | | |
| 20.064 | 20.064 (0.937) | 97 | 893064 | 50.0000 | 49.078 | 80.00- 120.00 | 100.00 |
| 20.064 | 20.064 (0.937) | 99 | 556056 | | | 12.26- 112.26 | 62.26 |
| 20.064 | 20.064 (0.937) | 83 | 765421 | | | 35.71- 135.71 | 85.71 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 118 Tetrachloroethene | | | | | CAS #: 127-18-4 | | |
| 20.174 | 20.174 (0.942) | 166 | 1281873 | 50.0000 | 48.358 | 80.00- 120.00 | 100.00 |
| 20.174 | 20.174 (0.942) | 129 | 893936 | | | 19.74- 119.74 | 69.74 |
| 20.174 | 20.174 (0.942) | 131 | 866886 | | | 17.63- 117.63 | 67.63 |
| 120 2-Hexanone | | | | | CAS #: 591-78-6 | | |
| 20.312 | 20.312 (0.948) | 58 | 948048 | 50.0000 | 50.986 | 80.00- 120.00 | 100.00 |
| 20.312 | 20.312 (0.948) | 43 | 1648987 | | | 123.93- 223.93 | 173.93 |
| 20.312 | 20.312 (0.948) | 100 | 226660 | | | 0.00- 73.25 | 23.91 |
| 124 Dibromochloromethane | | | | | CAS #: 124-48-1 | | |
| 20.644 | 20.644 (0.964) | 129 | 1487612 | 50.0000 | 53.474 | 80.00- 120.00 | 100.00 |
| 20.644 | 20.644 (0.964) | 127 | 1150811 | | | 29.41- 129.41 | 77.36 |
| 125 1,2-Dibromoethane | | | | | CAS #: 106-93-4 | | |
| 20.865 | 20.865 (0.974) | 107 | 1356478 | 50.0000 | 50.710 | 80.00- 120.00 | 100.00 |
| 20.865 | 20.865 (0.974) | 109 | 1271241 | | | 43.72- 143.72 | 93.72 |
| 127 Chlorobenzene | | | | | CAS #: 108-90-7 | | |
| 21.474 | 21.474 (1.003) | 112 | 2166985 | 50.0000 | 48.202 | 80.00- 120.00 | 100.00 |
| 21.474 | 21.474 (1.003) | 114 | 692013 | | | 0.00- 81.93 | 31.93 |
| 21.474 | 21.474 (1.003) | 77 | 1762972 | | | 31.36- 131.36 | 81.36 |
| 128 Ethyl Benzene | | | | | CAS #: 100-41-4 | | |
| 21.529 | 21.529 (1.005) | 106 | 1197924 | 50.0000 | 49.967 | 80.00- 120.00 | 100.00 |
| 21.529 | 21.529 (1.005) | 91 | 3951917 | | | 282.28- 382.28 | 329.90 |
| 131 m,p-Xylene | | | | | CAS #: 108-38-3 | | |
| 21.667 | 21.667 (1.012) | 106 | 1535782 | 50.0000 | 50.039 | 80.00- 120.00 | 100.00 |
| 21.667 | 21.667 (1.012) | 91 | 3234799 | | | 158.44- 258.44 | 210.63 |
| 132 o-Xylene | | | | | CAS #: 95-47-6 | | |
| 22.248 | 22.248 (1.039) | 106 | 1462290 | 50.0000 | 50.680 | 80.00- 120.00 | 100.00 |
| 22.220 | 22.220 (1.037) | 91 | 3247724 | | | 172.10- 272.10 | 222.10 |
| 133 Styrene | | | | | CAS #: 100-42-5 | | |
| 22.275 | 22.275 (1.040) | 104 | 2411825 | 50.0000 | 51.960 | 80.00- 120.00 | 100.00 |
| 22.248 | 22.248 (1.039) | 78 | 1322870 | | | 4.85- 104.85 | 54.85 |
| 135 Bromoform | | | | | CAS #: 75-25-2 | | |
| 22.607 | 22.607 (1.056) | 173 | 1524090 | 50.0000 | 55.673 | 80.00- 120.00 | 100.00 |
| 22.607 | 22.607 (1.056) | 171 | 786498 | | | 1.60- 101.60 | 51.60 |
| 136 Cumene | | | | | CAS #: 98-82-8 | | |
| 22.690 | 22.690 (1.059) | 105 | 4481699 | 50.0000 | 51.066 | 80.00- 120.00 | 100.00 |
| 22.690 | 22.690 (1.059) | 120 | 1128702 | | | 0.00- 74.85 | 25.18 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 136 Cumene (continued) | | | | | | | |
| 22.663 | 22.663 (1.058) | 51 | 406500 | | | 0.00- 59.90 | 9.07 |
| 139 1,1,2,2-Tetrachloroethane | | | | | CAS #: 79-34-5 | | |
| 23.160 | 23.160 (1.081) | 83 | 2078775 | 50.0000 | 48.975 | 80.00- 120.00 | 100.00 |
| 23.160 | 23.160 (1.081) | 85 | 1334288 | | | 14.19- 114.19 | 64.19 |
| 140 Propylbenzene | | | | | CAS #: 103-65-1 | | |
| 23.216 | 23.216 (1.084) | 91 | 5420898 | 50.0000 | 50.887 | 80.00- 120.00 | 100.00 |
| 23.216 | 23.216 (1.084) | 120 | 1164317 | | | 0.00- 71.74 | 21.48 |
| 23.216 | 23.216 (1.084) | 105 | 202283 | | | 0.00- 53.92 | 3.73 |
| 144 4-Ethyltoluene | | | | | CAS #: 622-96-8 | | |
| 23.354 | 23.354 (1.090) | 105 | 4983930 | 50.0000 | 50.364 | 80.00- 120.00 | 100.00 |
| 23.354 | 23.354 (1.090) | 120 | 1441447 | | | 0.00- 78.92 | 28.92 |
| 146 1,3,5-Trimethylbenzene | | | | | CAS #: 108-67-8 | | |
| 23.409 | 23.409 (1.093) | 105 | 4061351 | 50.0000 | 48.386 | 80.00- 120.00 | 100.00 |
| 23.409 | 23.409 (1.093) | 120 | 1845682 | | | 0.00- 96.07 | 45.45 |
| 151 1,2,4-Trimethylbenzene | | | | | CAS #: 95-63-6 | | |
| 23.907 | 23.907 (1.116) | 105 | 3849256 | 50.0000 | 48.265 | 80.00- 120.00 | 100.00 |
| 23.907 | 23.907 (1.116) | 120 | 1659950 | | | 0.00- 93.57 | 43.12 |
| 156 1,3-Dichlorobenzene | | | | | CAS #: 541-73-1 | | |
| 24.377 | 24.377 (1.138) | 146 | 2397007 | 50.0000 | 48.901 | 80.00- 120.00 | 100.00 |
| 24.377 | 24.377 (1.138) | 148 | 1515856 | | | 14.06- 114.06 | 63.24 |
| 24.377 | 24.377 (1.138) | 111 | 1013514 | | | 0.00- 92.29 | 42.28 |
| 158 1,4-Dichlorobenzene | | | | | CAS #: 106-46-7 | | |
| 24.515 | 24.515 (1.145) | 146 | 2367935 | 50.0000 | 48.457 | 80.00- 120.00 | 100.00 |
| 24.515 | 24.515 (1.145) | 148 | 1505771 | | | 14.23- 114.23 | 63.59 |
| 24.515 | 24.515 (1.145) | 111 | 958143 | | | 0.00- 90.47 | 40.46 |
| 160 alpha-Chlorotoluene | | | | | CAS #: 100-44-7 | | |
| 24.681 | 24.681 (1.152) | 91 | 3643328 | 50.0000 | 60.840 | 80.00- 120.00 | 100.00 |
| 24.681 | 24.681 (1.152) | 126 | 683338 | | | 0.00- 68.85 | 18.76 |
| 162 1,2-Dichlorobenzene | | | | | CAS #: 95-50-1 | | |
| 25.013 | 25.013 (1.168) | 146 | 2192687 | 50.0000 | 47.441 | 80.00- 120.00 | 100.00 |
| 25.013 | 25.013 (1.168) | 148 | 1395586 | | | 13.65- 113.65 | 63.65 |
| 25.013 | 25.013 (1.168) | 111 | 962148 | | | 0.00- 93.88 | 43.88 |
| 168 1,2,4-Trichlorobenzene | | | | | CAS #: 120-82-1 | | |
| 27.031 | 27.031 (1.262) | 180 | 1639669 | 50.0000 | 45.409 | 80.00- 120.00 | 100.00 |
| 27.031 | 27.031 (1.262) | 182 | 1555204 | | | 44.85- 144.85 | 94.85 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 169 Hexachlorobutadiene | | | | | CAS #: 87-68-3 | | |
| 27.114 | 27.114 (1.266) | 225 | 1428465 | 50.0000 | 45.409 | 80.00- 120.00 | 100.00 |
| 27.114 | 27.114 (1.266) | 223 | 902514 | | | 13.60- 113.60 | 63.18 |
| 170 Naphthalene | | | | | CAS #: 91-20-3 | | |
| 27.418 | 27.418 (1.280) | 128 | 3283746 | 50.0000 | 45.576 | 80.00- 120.00 | 100.00 |
| 27.418 | 27.418 (1.280) | 127 | 409618 | | | 0.00- 62.69 | 12.47 |

Report Date: 23-Mar-2010 23:03

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdx.i
Lab File ID: x032310.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: ra
Method File: /chem/msdx.i/23mar10.b/x10q0323a.m
Misc Info: 50ppbv (200ppbv)

Calibration Date: 23-MAR-2010
Calibration Time: 21:37
Client Smp ID: Level 5
Level: LOW
Sample Type: AIR

| | | AREA LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 82 Bromochloromethan | 224943 | 134966 | 314920 | 224943 | 0.00 |
| 97 1,4-Difluorobenze | 1075811 | 645487 | 1506135 | 1075811 | 0.00 |
| 126 Chlorobenzene-d5 | 1015916 | 609550 | 1422282 | 1015916 | 0.00 |

| | | RT LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 82 Bromochloromethan | 15.56 | 15.23 | 15.89 | 15.56 | 0.00 |
| 97 1,4-Difluorobenze | 16.99 | 16.66 | 17.32 | 16.99 | 0.00 |
| 126 Chlorobenzene-d5 | 21.42 | 21.09 | 21.75 | 21.42 | 0.00 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msdx.i/23mar10.b/x032310.d

Date : 23-MAR-2010 21:37

Client ID: Level 5

Sample Info: 50ml #1911-273

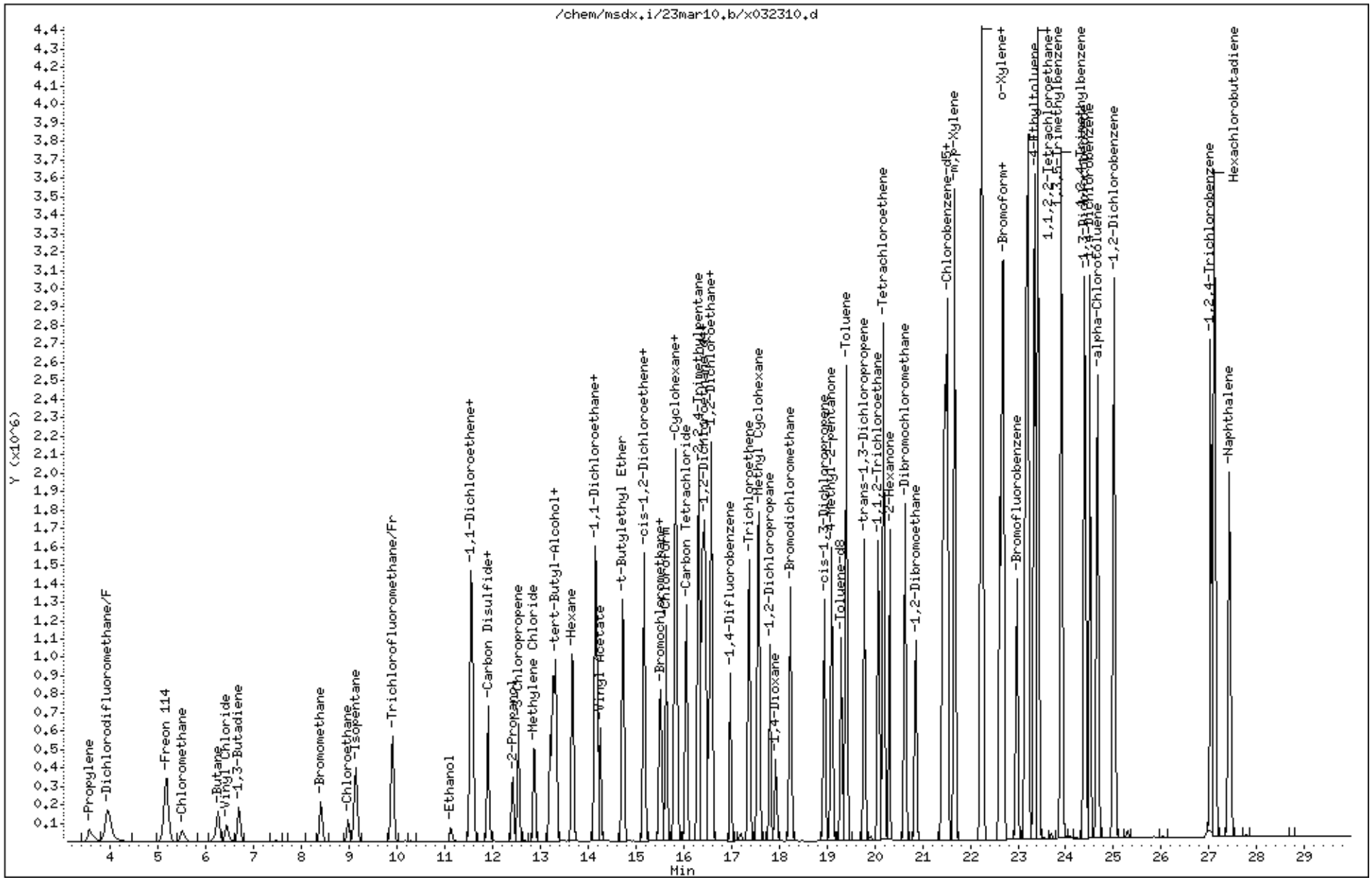
Column phase: RTx-624

Instrument: msdx.i

Operator: ra

Column diameter: 0.53





Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msdx.i/23mar10.b/x032311.d
Lab Smp Id: ICAL Client Smp ID: Level 6
Inj Date : 23-MAR-2010 22:13
Operator : ra Inst ID: msdx.i
Smp Info : 100ml #1911-273
Misc Info : 100ppbv (200ppbv)
Comment :
Method : /chem/msdx.i/23mar10.b/x10q0323a.m
Meth Date : 23-Mar-2010 23:03 abarton Quant Type: ISTD
Cal Date : 23-MAR-2010 22:13 Cal File: x032311.d
Als bottle: 1 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT09.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| | | | | AMOUNTS | | | |
|---|---|---|---|---|---|---|---|
| | | | | CAL-AMT | ON-COL | | |
| RT | EXP RT (REL RT) | MASS | RESPONSE | ( PPBV) | ( PPBV) | TARGET RANGE | RATIO |
| == | ====== ======== | ==== | ======== | ======= | ======= | ========== | ===== |
| * 82 Bromochloromethane | | | | | CAS #: 74-97-5 | | |
| 15.557 | 15.557 (1.000) | 130 | 241593 | 25.0000 | | 50.00- 150.00 | 100.00 |
| 15.557 | 15.557 (1.000) | 128 | 186742 | | | 27.66- 127.66 | 77.30 |
| 15.529 | 15.529 (1.000) | 49 | 312018 | | | 80.20- 180.20 | 129.15 |
| * 97 1,4-Difluorobenzene | | | | | CAS #: 540-36-3 | | |
| 16.995 | 16.995 (1.000) | 114 | 1133972 | 25.0000 | | 50.00- 150.00 | 100.00 |
| 16.995 | 16.995 (1.000) | 88 | 192808 | | | 0.00- 67.08 | 17.00 |
| * 126 Chlorobenzene-d5 | | | | | CAS #: 3114-55-4 | | |
| 21.418 | 21.418 (1.000) | 117 | 1072482 | 25.0000 | | 50.00- 150.00 | 100.00 |
| 21.418 | 21.418 (1.000) | 82 | 653858 | | | 11.03- 111.03 | 60.97 |
| $ 93 1,2-Dichloroethane-d4 | | | | | CAS #: 17060-07-0 | | |
| 16.414 | 16.414 (1.055) | 65 | 360537 | 25.0000 | 24.342 | 50.00- 150.00 | 100.00 |
| 16.414 | 16.414 (1.055) | 67 | 201631 | | | 3.54- 103.54 | 55.93 |
| $ 114 Toluene-d8 | | | | | CAS #: 2037-26-5 | | |
| 19.289 | 19.289 (1.135) | 98 | 1194977 | 25.0000 | 25.248 | 50.00- 150.00 | 100.00 |
| 19.289 | 19.289 (1.135) | 70 | 142835 | | | 0.00- 62.10 | 11.95 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 114 Toluene-d8 (continued) | | | | | | | |
| 19.289 | 19.289 (1.135) | 100 | 804162 | | | 17.13- 117.13 | 67.30 |
| $ 138 Bromofluorobenzene | | | | | CAS #: 460-00-4 | | |
| 22.994 | 22.994 (1.074) | 174 | 671174 | 25.0000 | 25.780 | 50.00- 150.00 | 100.00 |
| 22.994 | 22.994 (1.074) | 95 | 907614 | | | 85.28- 185.28 | 135.23 |
| 22.994 | 22.994 (1.074) | 176 | 648849 | | | 46.66- 146.66 | 96.67 |
| 7 Propylene | | | | | CAS #: 115-07-1 | | |
| 3.585 | 3.585 (0.230) | 41 | 372079 | 100.000 | 84.298 | 50.00- 150.00 | 100.00 |
| 3.585 | 3.585 (0.230) | 42 | 238097 | | | 15.48- 115.48 | 63.99 |
| 3.585 | 3.585 (0.230) | 39 | 303073 | | | 27.90- 127.90 | 81.45 |
| 9 Dichlorodifluoromethane/Fr12 | | | | | CAS #: 75-71-8 | | |
| 3.972 | 3.972 (0.255) | 85 | 1762218 | 100.000 | 89.473 | 50.00- 150.00 | 100.00 |
| 3.944 | 3.944 (0.254) | 87 | 567752 | | | 0.00- 80.46 | 32.22 |
| 13 Freon 114 | | | | | CAS #: 76-14-2 | | |
| 5.188 | 5.188 (0.334) | 135 | 1171626 | 100.000 | 91.550 | 50.00- 150.00 | 100.00 |
| 5.188 | 5.188 (0.334) | 137 | 373314 | | | 0.00- 81.43 | 31.86 |
| 15 Chloromethane | | | | | CAS #: 74-87-3 | | |
| 5.520 | 5.520 (0.355) | 50 | 428559 | 100.000 | 89.933 | 50.00- 150.00 | 100.00 |
| 5.520 | 5.520 (0.355) | 52 | 138896 | | | 0.00- 82.17 | 32.41 |
| 20 Butane | | | | | CAS #: 106-97-8 | | |
| 6.267 | 6.267 (0.403) | 58 | 105975 | 100.000 | 88.721 | 50.00- 150.00 | 100.00 |
| 6.267 | 6.267 (0.403) | 43 | 760978 | | | 660.00- 760.00 | 718.07 |
| 21 Vinyl Chloride | | | | | CAS #: 75-01-4 | | |
| 6.460 | 6.460 (0.415) | 62 | 554509 | 100.000 | 92.863 | 50.00- 150.00 | 100.00 |
| 6.460 | 6.460 (0.415) | 64 | 176565 | | | 0.00- 81.56 | 31.84 |
| 23 1,3-Butadiene | | | | | CAS #: 106-99-0 | | |
| 6.681 | 6.681 (0.429) | 54 | 385559 | 100.000 | 92.803 | 50.00- 150.00 | 100.00 |
| 6.681 | 6.681 (0.429) | 39 | 409842 | | | 69.34- 169.34 | 106.30 |
| 25 Bromomethane | | | | | CAS #: 74-83-9 | | |
| 8.396 | 8.396 (0.540) | 94 | 591887 | 100.000 | 90.913 | 50.00- 150.00 | 100.00 |
| 8.396 | 8.396 (0.540) | 96 | 554669 | | | 43.80- 143.80 | 93.71 |
| 27 Chloroethane | | | | | CAS #: 75-00-3 | | |
| 8.976 | 8.976 (0.577) | 64 | 394370 | 100.000 | 86.995 | 50.00- 150.00 | 100.00 |
| 8.976 | 8.976 (0.577) | 49 | 93555 | | | 0.00- 73.54 | 23.72 |
| 8.976 | 8.976 (0.577) | 66 | 129813 | | | 0.00- 82.59 | 32.92 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 28 Isopentane | | | | | CAS #: 78-78-4 | | |
| 9.142 | 9.142 (0.588) | 43 | 768381 | 100.000 | 87.998 | 50.00- 150.00 | 100.00 |
| 9.142 | 9.142 (0.588) | 57 | 568565 | | | 24.52- 124.52 | 74.00 |
| 31 Trichlorofluoromethane/Fr11 | | | | | CAS #: 75-69-4 | | |
| 9.916 | 9.916 (0.637) | 101 | 2111487 | 100.000 | 90.359 | 50.00- 150.00 | 100.00 |
| 9.916 | 9.916 (0.637) | 103 | 1363976 | | | 14.64- 114.64 | 64.60 |
| 40 Ethanol | | | | | CAS #: 64-17-5 | | |
| 11.161 | 11.161 (0.717) | 45 | 306384 | 100.000 | 86.180 | 50.00- 150.00 | 100.00 |
| 11.161 | 11.161 (0.717) | 43 | 66607 | | | 0.00- 73.32 | 21.74 |
| 11.161 | 11.161 (0.717) | 46 | 122248 | | | 0.00- 86.84 | 39.90 |
| 42 1,1-Dichloroethene | | | | | CAS #: 75-35-4 | | |
| 11.548 | 11.548 (0.742) | 61 | 1401795 | 100.000 | 87.479 | 50.00- 150.00 | 100.00 |
| 11.548 | 11.548 (0.742) | 96 | 862150 | | | 14.37- 114.37 | 61.50 |
| 11.548 | 11.548 (0.742) | 98 | 552266 | | | 0.00- 89.44 | 39.40 |
| 44 Freon 113 | | | | | CAS #: 76-13-1 | | |
| 11.575 | 11.575 (0.744) | 151 | 1527895 | 100.000 | 88.732 | 50.00- 150.00 | 100.00 |
| 11.575 | 11.575 (0.744) | 153 | 975234 | | | 14.80- 114.80 | 63.83 |
| 11.575 | 11.575 (0.744) | 101 | 1805680 | | | 70.48- 170.48 | 118.18 |
| 46 Carbon Disulfide | | | | | CAS #: 75-15-0 | | |
| 11.907 | 11.907 (0.765) | 76 | 2828340 | 100.000 | 92.702 | 50.00- 150.00 | 100.00 |
| 48 Acetone | | | | | CAS #: 67-64-1 | | |
| 11.935 | 11.935 (0.767) | 58 | 433774 | 100.000 | 85.302 | 50.00- 150.00 | 100.00 |
| 11.935 | 11.935 (0.767) | 43 | 1315643 | | | 241.90- 341.90 | 303.30 |
| 49 2-Propanol | | | | | CAS #: 67-63-0 | | |
| 12.432 | 12.432 (0.799) | 45 | 1577461 | 100.000 | 92.535 | 50.00- 150.00 | 100.00 |
| 12.432 | 12.432 (0.799) | 43 | 296106 | | | 0.00- 69.01 | 18.77 |
| 12.432 | 12.432 (0.799) | 59 | 66864 | | | 0.00- 54.28 | 4.24 |
| 51 3-Chloropropene | | | | | CAS #: 107-05-1 | | |
| 12.543 | 12.543 (0.806) | 76 | 492567 | 100.000 | 91.343 | 50.00- 150.00 | 100.00 |
| 12.543 | 12.543 (0.806) | 41 | 1190145 | | | 189.04- 289.04 | 241.62 |
| 57 Methylene Chloride | | | | | CAS #: 75-09-2 | | |
| 12.875 | 12.875 (0.828) | 49 | 1049211 | 100.000 | 89.868 | 50.00- 150.00 | 100.00 |
| 12.902 | 12.902 (0.829) | 84 | 908284 | | | 36.06- 136.06 | 86.57 |
| 12.875 | 12.875 (0.828) | 51 | 318546 | | | 0.00- 80.24 | 30.36 |
| 58 tert-Butyl-Alcohol | | | | | CAS #: 75-65-0 | | |
| 13.207 | 13.207 (0.849) | 59 | 2020034 | 100.000 | 92.650 | 50.00- 150.00 | 100.00 |

| | | | | AMOUNTS | | | |
|---|---|---|---|---|---|---|---|
| | | | | CAL-AMT | ON-COL | | |
| RT | EXP RT (REL RT) | MASS | RESPONSE | ( PPBV) | ( PPBV) | TARGET RANGE | RATIO |
| 58 tert-Butyl-Alcohol (continued) | | | | | | | |
| 13.262 | 13.262 (0.852) | 41 | 985197 | | | 7.50- 107.50 | 48.77 |
| 13.262 | 13.262 (0.852) | 57 | 883837 | | | 0.00- 96.91 | 43.75 |
| 60 MTBE | | | | | CAS #: 1634-04-4 | | |
| 13.262 | 13.262 (0.852) | 73 | 3303219 | 100.000 | 91.425 | 50.00- 150.00 | 100.00 |
| 13.262 | 13.262 (0.852) | 57 | 883837 | | | 0.00- 78.30 | 26.76 |
| 13.262 | 13.262 (0.852) | 41 | 985197 | | | 0.00- 81.24 | 29.83 |
| 61 trans-1,2-Dichloroethene | | | | | CAS #: 156-60-5 | | |
| 13.317 | 13.317 (0.856) | 96 | 1098476 | 100.000 | 85.643 | 50.00- 150.00 | 100.00 |
| 13.317 | 13.317 (0.856) | 61 | 1552395 | | | 86.57- 186.57 | 141.32 |
| 13.317 | 13.317 (0.856) | 98 | 697539 | | | 11.08- 111.08 | 63.50 |
| 65 Hexane | | | | | CAS #: 110-54-3 | | |
| 13.677 | 13.677 (0.879) | 57 | 1803210 | 100.000 | 85.848 | 50.00- 150.00 | 100.00 |
| 13.677 | 13.677 (0.879) | 43 | 1080775 | | | 11.57- 111.57 | 59.94 |
| 13.704 | 13.704 (0.881) | 86 | 358780 | | | 0.00- 69.73 | 19.90 |
| 67 1,1-Dichloroethane | | | | | CAS #: 75-34-3 | | |
| 14.174 | 14.174 (0.911) | 63 | 2074995 | 100.000 | 88.136 | 50.00- 150.00 | 100.00 |
| 14.174 | 14.174 (0.911) | 65 | 677537 | | | 0.00- 82.62 | 32.65 |
| 68 Isopropyl ether | | | | | CAS #: 108-20-3 | | |
| 14.147 | 14.147 (0.909) | 45 | 3702053 | 100.000 | 88.741 | 50.00- 150.00 | 100.00 |
| 14.147 | 14.147 (0.909) | 87 | 1207909 | | | 0.00- 82.62 | 32.63 |
| 14.147 | 14.147 (0.909) | 59 | 448120 | | | 0.00- 62.33 | 12.10 |
| 69 Vinyl Acetate | | | | | CAS #: 108-05-4 | | |
| 14.257 | 14.257 (0.916) | 86 | 327363 | 100.000 | 97.382 | 50.00- 150.00 | 100.00 |
| 14.257 | 14.257 (0.916) | 43 | 2861021 | | | 838.14- 938.14 | 873.96 |
| 74 t-Butylethyl Ether | | | | | CAS #: 637-92-3 | | |
| 14.727 | 14.727 (0.947) | 59 | 3898087 | 100.000 | 92.347 | 50.00- 150.00 | 100.00 |
| 14.727 | 14.727 (0.947) | 87 | 1795845 | | | 0.00- 95.91 | 46.07 |
| 14.727 | 14.727 (0.947) | 41 | 640670 | | | 0.00- 67.22 | 16.44 |
| 76 cis-1,2-Dichloroethene | | | | | CAS #: 156-59-2 | | |
| 15.170 | 15.170 (0.975) | 96 | 1257169 | 100.000 | 87.025 | 50.00- 150.00 | 100.00 |
| 15.170 | 15.170 (0.975) | 61 | 1623434 | | | 74.99- 174.99 | 129.13 |
| 15.170 | 15.170 (0.975) | 98 | 798308 | | | 11.26- 111.26 | 63.50 |
| 77 2-Butanone | | | | | CAS #: 78-93-3 | | |
| 15.170 | 15.170 (0.975) | 72 | 684550 | 100.000 | 94.847 | 50.00- 150.00 | 100.00 |
| 15.170 | 15.170 (0.975) | 43 | 2311157 | | | 291.77- 391.77 | 337.62 |
| 15.170 | 15.170 (0.975) | 57 | 187840 | | | 0.00- 80.83 | 27.44 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 81 Tetrahydrofuran | | | | | CAS #: 109-99-9 | | |
| 15.501 | 15.501 (0.996) | 42 | 1403533 | 100.000 | 92.980 | 50.00- 150.00 | 100.00 |
| 15.501 | 15.501 (0.996) | 71 | 639717 | | | 0.00- 95.17 | 45.58 |
| 15.501 | 15.501 (0.996) | 72 | 690139 | | | 0.00- 97.64 | 49.17 |
| 83 Chloroform | | | | | CAS #: 67-66-3 | | |
| 15.640 | 15.640 (1.005) | 83 | 2523888 | 100.000 | 91.463 | 50.00- 150.00 | 100.00 |
| 15.640 | 15.640 (1.005) | 85 | 1618158 | | | 13.30- 113.30 | 64.11 |
| 84 Cyclohexane | | | | | CAS #: 110-82-7 | | |
| 15.833 | 15.833 (1.018) | 84 | 2002390 | 100.000 | 92.788 | 50.00- 150.00 | 100.00 |
| 15.806 | 15.806 (1.016) | 56 | 2121841 | | | 59.32- 159.32 | 105.97 |
| 15.806 | 15.806 (1.016) | 41 | 1085055 | | | 6.25- 106.25 | 54.19 |
| 85 1,1,1-Trichloroethane | | | | | CAS #: 71-55-6 | | |
| 15.861 | 15.861 (1.020) | 97 | 2603341 | 100.000 | 92.379 | 50.00- 150.00 | 100.00 |
| 15.861 | 15.861 (1.020) | 99 | 1661840 | | | 13.20- 113.20 | 63.83 |
| 87 Carbon Tetrachloride | | | | | CAS #: 56-23-5 | | |
| 16.054 | 16.054 (1.032) | 119 | 2502497 | 100.000 | 97.406 | 50.00- 150.00 | 100.00 |
| 16.054 | 16.054 (1.032) | 117 | 2695159 | | | 57.80- 157.80 | 107.70 |
| 91 2,2,4-Trimethylpentane | | | | | CAS #: 540-84-1 | | |
| 16.331 | 16.331 (1.050) | 57 | 6633336 | 100.000 | 92.148 | 50.00- 150.00 | 100.00 |
| 16.331 | 16.331 (1.050) | 56 | 2161450 | | | 0.00- 83.35 | 32.58 |
| 16.331 | 16.331 (1.050) | 41 | 1613954 | | | 0.00- 74.44 | 24.33 |
| 92 Benzene | | | | | CAS #: 71-43-2 | | |
| 16.386 | 16.386 (0.964) | 78 | 4513485 | 100.000 | 91.930 | 50.00- 150.00 | 100.00 |
| 16.386 | 16.386 (0.964) | 77 | 1028137 | | | 0.00- 72.86 | 22.78 |
| 94 tert-amyl-Methyl Ether | | | | | CAS #: 994-05-8 | | |
| 16.442 | 16.442 (1.057) | 73 | 4581501 | 100.000 | 93.609 | 50.00- 150.00 | 100.00 |
| 16.469 | 16.469 (1.059) | 87 | 1070342 | | | 0.00- 73.39 | 23.36 |
| 16.442 | 16.442 (1.057) | 55 | 967633 | | | 0.00- 72.12 | 21.12 |
| 95 1,2-Dichloroethane | | | | | CAS #: 107-06-2 | | |
| 16.524 | 16.524 (0.972) | 62 | 1799036 | 100.000 | 91.082 | 50.00- 150.00 | 100.00 |
| 16.524 | 16.524 (0.972) | 64 | 581839 | | | 0.00- 82.38 | 32.34 |
| 96 Heptane | | | | | CAS #: 142-82-5 | | |
| 16.580 | 16.580 (0.976) | 71 | 1671693 | 100.000 | 89.788 | 50.00- 150.00 | 100.00 |
| 16.580 | 16.580 (0.976) | 43 | 2382040 | | | 92.16- 192.16 | 142.49 |
| 16.580 | 16.580 (0.976) | 57 | 1329164 | | | 30.60- 130.60 | 79.51 |
| 100 Trichloroethene | | | | | CAS #: 79-01-6 | | |
| 17.382 | 17.382 (1.023) | 95 | 1825528 | 100.000 | 92.858 | 50.00- 150.00 | 100.00 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 100 Trichloroethene (continued) | | | | | | | |
| 17.382 | 17.382 (1.023) | 130 | 1817889 | | | 49.95- 149.95 | 99.58 |
| 17.382 | 17.382 (1.023) | 97 | 1168757 | | | 13.64- 113.64 | 64.02 |
| 102 Methyl Cyclohexane | | | | | CAS #: 108-87-2 | | |
| 17.575 | 17.575 (1.130) | 83 | 2938285 | 100.000 | 94.385 | 50.00- 150.00 | 100.00 |
| 17.575 | 17.575 (1.130) | 98 | 1381323 | | | 0.00- 97.07 | 47.01 |
| 17.548 | 17.548 (1.128) | 55 | 2130845 | | | 23.96- 123.96 | 72.52 |
| 104 1,2-Dichloropropane | | | | | CAS #: 78-87-5 | | |
| 17.796 | 17.796 (1.047) | 63 | 1602272 | 100.000 | 94.013 | 50.00- 150.00 | 100.00 |
| 17.796 | 17.796 (1.047) | 62 | 1144706 | | | 20.11- 120.11 | 71.44 |
| 17.796 | 17.796 (1.047) | 41 | 841370 | | | 5.46- 105.46 | 52.51 |
| 106 1,4-Dioxane | | | | | CAS #: 123-91-1 | | |
| 17.935 | 17.935 (1.055) | 88 | 1116820 | 100.000 | 96.734 | 50.00- 150.00 | 100.00 |
| 17.935 | 17.935 (1.055) | 58 | 712678 | | | 16.55- 116.55 | 63.81 |
| 17.935 | 17.935 (1.055) | 57 | 222229 | | | 0.00- 70.49 | 19.90 |
| 108 Bromodichloromethane | | | | | CAS #: 75-27-4 | | |
| 18.239 | 18.239 (1.073) | 83 | 3065694 | 100.000 | 99.312 | 50.00- 150.00 | 100.00 |
| 18.239 | 18.239 (1.073) | 85 | 1942602 | | | 13.68- 113.68 | 63.37 |
| 110 cis-1,3-Dichloropropene | | | | | CAS #: 10061-01-5 | | |
| 18.958 | 18.958 (1.115) | 75 | 2584403 | 100.000 | 102.08 | 50.00- 150.00 | 100.00 |
| 18.958 | 18.958 (1.115) | 77 | 815247 | | | 0.00- 82.07 | 31.54 |
| 18.958 | 18.958 (1.115) | 39 | 1136450 | | | 0.00- 95.44 | 43.97 |
| 112 4-Methyl-2-pentanone | | | | | CAS #: 108-10-1 | | |
| 19.096 | 19.096 (1.124) | 58 | 1358377 | 100.000 | 101.45 | 50.00- 150.00 | 100.00 |
| 19.096 | 19.096 (1.124) | 43 | 3256754 | | | 188.63- 288.63 | 239.75 |
| 19.096 | 19.096 (1.124) | 85 | 671047 | | | 0.00- 99.25 | 49.40 |
| 115 Toluene | | | | | CAS #: 108-88-3 | | |
| 19.400 | 19.400 (1.142) | 91 | 5719512 | 100.000 | 94.172 | 50.00- 150.00 | 100.00 |
| 19.400 | 19.400 (1.142) | 92 | 3473343 | | | 9.88- 109.88 | 60.73 |
| 116 trans-1,3-Dichloropropene | | | | | CAS #: 10061-02-6 | | |
| 19.787 | 19.787 (0.924) | 75 | 2771395 | 100.000 | 103.92 | 50.00- 150.00 | 100.00 |
| 19.787 | 19.787 (0.924) | 77 | 875409 | | | 0.00- 82.73 | 31.59 |
| 19.787 | 19.787 (0.924) | 39 | 1161129 | | | 0.00- 94.88 | 41.90 |
| 117 1,1,2-Trichloroethane | | | | | CAS #: 79-00-5 | | |
| 20.064 | 20.064 (0.937) | 97 | 1785394 | 100.000 | 94.272 | 50.00- 150.00 | 100.00 |
| 20.064 | 20.064 (0.937) | 99 | 1113882 | | | 12.75- 112.75 | 62.39 |
| 20.064 | 20.064 (0.937) | 83 | 1523347 | | | 36.54- 136.54 | 85.32 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 118 Tetrachloroethene | | | | | CAS #: 127-18-4 | | |
| 20.174 | 20.174 (0.942) | 166 | 2495671 | 100.000 | 91.155 | 50.00- 150.00 | 100.00 |
| 20.174 | 20.174 (0.942) | 129 | 1711669 | | | 19.61- 119.61 | 68.59 |
| 20.174 | 20.174 (0.942) | 131 | 1654591 | | | 17.66- 117.66 | 66.30 |
| 120 2-Hexanone | | | | | CAS #: 591-78-6 | | |
| 20.312 | 20.312 (0.948) | 58 | 1872057 | 100.000 | 96.485 | 50.00- 150.00 | 100.00 |
| 20.312 | 20.312 (0.948) | 43 | 3250657 | | | 123.68- 223.68 | 173.64 |
| 20.312 | 20.312 (0.948) | 100 | 456825 | | | 0.00- 73.54 | 24.40 |
| 124 Dibromochloromethane | | | | | CAS #: 124-48-1 | | |
| 20.644 | 20.644 (0.964) | 129 | 2905320 | 100.000 | 99.140 | 50.00- 150.00 | 100.00 |
| 20.644 | 20.644 (0.964) | 127 | 2266351 | | | 29.13- 129.13 | 78.01 |
| 125 1,2-Dibromoethane | | | | | CAS #: 106-93-4 | | |
| 20.865 | 20.865 (0.974) | 107 | 2676191 | 100.000 | 95.770 | 50.00- 150.00 | 100.00 |
| 20.865 | 20.865 (0.974) | 109 | 2527778 | | | 44.62- 144.62 | 94.45 |
| 127 Chlorobenzene | | | | | CAS #: 108-90-7 | | |
| 21.474 | 21.474 (1.003) | 112 | 4302596 | 100.000 | 92.384 | 50.00- 150.00 | 100.00 |
| 21.474 | 21.474 (1.003) | 114 | 1376118 | | | 0.00- 82.10 | 31.98 |
| 21.474 | 21.474 (1.003) | 77 | 3485947 | | | 42.95- 142.95 | 81.02 |
| 128 Ethyl Benzene | | | | | CAS #: 100-41-4 | | |
| 21.529 | 21.529 (1.005) | 106 | 2311036 | 100.000 | 92.927 | 50.00- 150.00 | 100.00 |
| 21.529 | 21.529 (1.005) | 91 | 7654768 | | | 282.07- 382.07 | 331.23 |
| 131 m,p-Xylene | | | | | CAS #: 108-38-3 | | |
| 21.667 | 21.667 (1.012) | 106 | 3009335 | 100.000 | 94.221 | 50.00- 150.00 | 100.00 |
| 21.667 | 21.667 (1.012) | 91 | 6313114 | | | 158.71- 258.71 | 209.78 |
| 132 o-Xylene | | | | | CAS #: 95-47-6 | | |
| 22.248 | 22.248 (1.039) | 106 | 2848637 | 100.000 | 94.748 | 50.00- 150.00 | 100.00 |
| 22.220 | 22.220 (1.037) | 91 | 6353301 | | | 172.56- 272.56 | 223.03 |
| 133 Styrene | | | | | CAS #: 100-42-5 | | |
| 22.276 | 22.276 (1.040) | 104 | 4682267 | 100.000 | 96.412 | 50.00- 150.00 | 100.00 |
| 22.248 | 22.248 (1.039) | 78 | 2551565 | | | 5.02- 105.02 | 54.49 |
| 135 Bromoform | | | | | CAS #: 75-25-2 | | |
| 22.607 | 22.607 (1.056) | 173 | 2969928 | 100.000 | 102.20 | 50.00- 150.00 | 100.00 |
| 22.607 | 22.607 (1.056) | 171 | 1528707 | | | 1.67- 101.67 | 51.47 |
| 136 Cumene | | | | | CAS #: 98-82-8 | | |
| 22.690 | 22.690 (1.059) | 105 | 8601898 | 100.000 | 94.192 | 50.00- 150.00 | 100.00 |
| 22.690 | 22.690 (1.059) | 120 | 2150002 | | | 0.00- 74.88 | 24.99 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 136 Cumene (continued) | | | | | | | |
| 22.663 | 22.663 (1.058) | 51 | 761021 | | | 0.00- 59.69 | 8.85 |
| 139 1,1,2,2-Tetrachloroethane | | | | | CAS #: 79-34-5 | | |
| 23.160 | 23.160 (1.081) | 83 | 4015954 | 100.000 | 91.524 | 50.00- 150.00 | 100.00 |
| 23.160 | 23.160 (1.081) | 85 | 2571647 | | | 14.41- 114.41 | 64.04 |
| 140 Propylbenzene | | | | | CAS #: 103-65-1 | | |
| 23.216 | 23.216 (1.084) | 91 | 10486107 | 100.000 | 94.521 | 50.00- 150.00 | 100.00 |
| 23.216 | 23.216 (1.084) | 120 | 2239527 | | | 0.00- 71.67 | 21.36 |
| 23.216 | 23.216 (1.084) | 105 | 390633 | | | 0.00- 53.88 | 3.73 |
| 144 4-Ethyltoluene | | | | | CAS #: 622-96-8 | | |
| 23.354 | 23.354 (1.090) | 105 | 9728424 | 100.000 | 94.421 | 50.00- 150.00 | 100.00 |
| 23.354 | 23.354 (1.090) | 120 | 2787834 | | | 0.00- 78.76 | 28.66 |
| 146 1,3,5-Trimethylbenzene | | | | | CAS #: 108-67-8 | | |
| 23.409 | 23.409 (1.093) | 105 | 7754259 | 100.000 | 89.370 | 50.00- 150.00 | 100.00 |
| 23.409 | 23.409 (1.093) | 120 | 3502869 | | | 0.00- 95.92 | 45.17 |
| 151 1,2,4-Trimethylbenzene | | | | | CAS #: 95-63-6 | | |
| 23.907 | 23.907 (1.116) | 105 | 7545691 | 100.000 | 91.201 | 50.00- 150.00 | 100.00 |
| 23.907 | 23.907 (1.116) | 120 | 3238027 | | | 0.00- 93.46 | 42.91 |
| 156 1,3-Dichlorobenzene | | | | | CAS #: 541-73-1 | | |
| 24.377 | 24.377 (1.138) | 146 | 4713736 | 100.000 | 92.744 | 50.00- 150.00 | 100.00 |
| 24.377 | 24.377 (1.138) | 148 | 3002637 | | | 13.99- 113.99 | 63.70 |
| 24.377 | 24.377 (1.138) | 111 | 2004081 | | | 0.00- 92.34 | 42.52 |
| 158 1,4-Dichlorobenzene | | | | | CAS #: 106-46-7 | | |
| 24.515 | 24.515 (1.145) | 146 | 4638331 | 100.000 | 91.764 | 50.00- 150.00 | 100.00 |
| 24.515 | 24.515 (1.145) | 148 | 2945179 | | | 14.08- 114.08 | 63.50 |
| 24.515 | 24.515 (1.145) | 111 | 1885539 | | | 0.00- 90.50 | 40.65 |
| 160 alpha-Chlorotoluene | | | | | CAS #: 100-44-7 | | |
| 24.681 | 24.681 (1.152) | 91 | 7505445 | 100.000 | 114.44 | 50.00- 150.00 | 100.00 |
| 24.681 | 24.681 (1.152) | 126 | 1394946 | | | 0.00- 68.80 | 18.59 |
| 162 1,2-Dichlorobenzene | | | | | CAS #: 95-50-1 | | |
| 25.013 | 25.013 (1.168) | 146 | 4308784 | 100.000 | 90.422 | 50.00- 150.00 | 100.00 |
| 25.013 | 25.013 (1.168) | 148 | 2748401 | | | 14.24- 114.24 | 63.79 |
| 25.013 | 25.013 (1.168) | 111 | 1893463 | | | 0.00- 93.71 | 43.94 |
| 168 1,2,4-Trichlorobenzene | | | | | CAS #: 120-82-1 | | |
| 27.031 | 27.031 (1.262) | 180 | 3440258 | 100.000 | 92.505 | 50.00- 150.00 | 100.00 |
| 27.031 | 27.031 (1.262) | 182 | 3268964 | | | 44.94- 144.94 | 95.02 |

| | | | | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| RT | EXP RT (REL RT) | MASS | RESPONSE | | | | |
| 169 Hexachlorobutadiene | | | | | CAS #: 87-68-3 | | |
| 27.114 | 27.114 (1.266) | 225 | 2800941 | 100.000 | 87.778 | 50.00- 150.00 | 100.00 |
| 27.114 | 27.114 (1.266) | 223 | 1750694 | | | 13.33- 113.33 | 62.50 |
| 170 Naphthalene | | | | | CAS #: 91-20-3 | | |
| 27.418 | 27.418 (1.280) | 128 | 6930185 | 100.000 | 93.182 | 50.00- 150.00 | 100.00 |
| 27.418 | 27.418 (1.280) | 127 | 868315 | | | 0.00- 62.65 | 12.53 |

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdx.i
Lab File ID: x032311.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: ra
Method File: /chem/msdx.i/23mar10.b/x10q0323a.m
Misc Info: 100ppbv (200ppbv)

Calibration Date: 23-MAR-2010
Calibration Time: 21:37
Client Smp ID: Level 6
Level: LOW
Sample Type: AIR

| | | AREA LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 82 Bromochloromethan | 224943 | 134966 | 314920 | 241593 | 7.40 |
| 97 1,4-Difluorobenze | 1075811 | 645487 | 1506135 | 1133972 | 5.41 |
| 126 Chlorobenzene-d5 | 1015916 | 609550 | 1422282 | 1072482 | 5.57 |

| | | RT LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 82 Bromochloromethan | 15.56 | 15.23 | 15.89 | 15.56 | 0.00 |
| 97 1,4-Difluorobenze | 16.99 | 16.66 | 17.32 | 16.99 | 0.00 |
| 126 Chlorobenzene-d5 | 21.42 | 21.09 | 21.75 | 21.42 | 0.00 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msdx.i/23mar10.b/x032311.d

Date : 23-MAR-2010 22:13

Client ID: Level 6

Sample Info: 100ml #1911-273

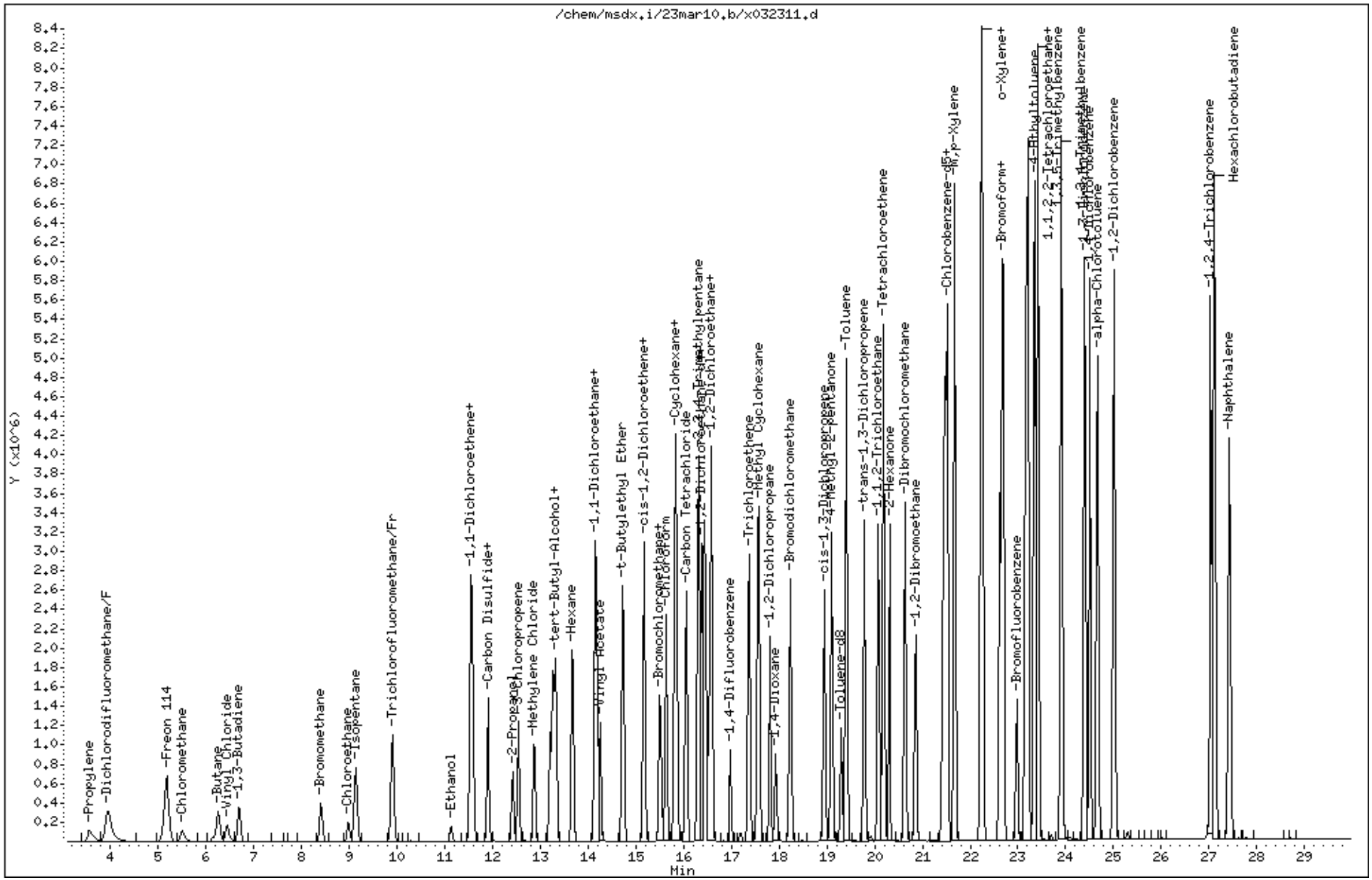
Column phase: RTx-624

Instrument: msdx.i

Operator: ra

Column diameter: 0.53





Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msdx.i/23mar10.b/x032312.d
Lab Smp Id: ICAL Client Smp ID: Level 7
Inj Date : 23-MAR-2010 22:49
Operator : ra Inst ID: msdx.i
Smp Info : 200ml #1911-273
Misc Info : 200ppbv (200ppbv)
Comment :
Method : /chem/msdx.i/23mar10.b/x10q0323a.m
Meth Date : 23-Mar-2010 23:23 abarton Quant Type: ISTD
Cal Date : 23-MAR-2010 22:49 Cal File: x032312.d
Als bottle: 1 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT09.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| | | | | AMOUNTS | | | |
|---|---|---|---|---|---|---|---|
| | | | | CAL-AMT | ON-COL | | |
| RT | EXP RT (REL RT) | MASS | RESPONSE | ( PPBV) | ( PPBV) | TARGET RANGE | RATIO |
| == | ====== ======== | ==== | ======== | ======= | ======= | ========== | ===== |
| * 82 Bromochloromethane | | | | | CAS #: 74-97-5 | | |
| 15.557 | 15.557 (1.000) | 130 | 258091 | 25.0000 | | 50.00- 150.00 | 100.00 |
| 15.557 | 15.557 (1.000) | 128 | 200443 | | | 27.66- 127.66 | 77.66 |
| 15.529 | 15.529 (1.000) | 49 | 330923 | | | 80.20- 180.20 | 128.22 |
| * 97 1,4-Difluorobenzene | | | | | CAS #: 540-36-3 | | |
| 16.995 | 16.995 (1.000) | 114 | 1132265 | 25.0000 | | 50.00- 150.00 | 100.00 |
| 16.995 | 16.995 (1.000) | 88 | 191954 | | | 0.00- 67.08 | 16.95 |
| * 126 Chlorobenzene-d5 | | | | | CAS #: 3114-55-4 | | |
| 21.419 | 21.419 (1.000) | 117 | 1089883 | 25.0000 | | 50.00- 150.00 | 100.00 |
| 21.419 | 21.419 (1.000) | 82 | 661716 | | | 11.03- 111.03 | 60.71 |
| $ 93 1,2-Dichloroethane-d4 | | | | | CAS #: 17060-07-0 | | |
| 16.414 | 16.414 (1.055) | 65 | 355099 | 25.0000 | 22.776 | 50.00- 150.00 | 100.00 |
| 16.414 | 16.414 (1.055) | 67 | 192963 | | | 3.54- 103.54 | 54.34 |
| $ 114 Toluene-d8 | | | | | CAS #: 2037-26-5 | | |
| 19.290 | 19.290 (1.135) | 98 | 1205839 | 25.0000 | 25.441 | 50.00- 150.00 | 100.00 |
| 19.290 | 19.290 (1.135) | 70 | 144033 | | | 0.00- 62.10 | 11.94 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 114 Toluene-d8 (continued) | | | | | | | |
| 19.290 | 19.290 (1.135) | 100 | 812683 | | | 17.13- 117.13 | 67.40 |
| $ 138 Bromofluorobenzene | | | | | CAS #: 460-00-4 | | |
| 22.995 | 22.995 (1.074) | 174 | 680332 | 25.0000 | 25.610 | 50.00- 150.00 | 100.00 |
| 22.995 | 22.995 (1.074) | 95 | 938466 | | | 85.28- 185.28 | 137.94 |
| 22.995 | 22.995 (1.074) | 176 | 663886 | | | 46.66- 146.66 | 97.58 |
| 7 Propylene | | | | | CAS #: 115-07-1 | | |
| 3.585 | 3.585 (0.230) | 41 | 736507 | 200.000 | 163.35 | 50.00- 150.00 | 100.00 |
| 3.585 | 3.585 (0.230) | 42 | 473854 | | | 15.48- 115.48 | 64.34 |
| 3.585 | 3.585 (0.230) | 39 | 607231 | | | 27.90- 127.90 | 82.45 |
| 9 Dichlorodifluoromethane/Fr12 | | | | | CAS #: 75-71-8 | | |
| 3.972 | 3.972 (0.255) | 85 | 3482182 | 200.000 | 170.40 | 50.00- 150.00 | 100.00 |
| 3.972 | 3.972 (0.255) | 87 | 1126404 | | | 0.00- 80.46 | 32.35 |
| 13 Freon 114 | | | | | CAS #: 76-14-2 | | |
| 5.216 | 5.216 (0.335) | 135 | 2329158 | 200.000 | 174.68 | 50.00- 150.00 | 100.00 |
| 5.216 | 5.216 (0.335) | 137 | 745320 | | | 0.00- 81.43 | 32.00 |
| 15 Chloromethane | | | | | CAS #: 74-87-3 | | |
| 5.520 | 5.520 (0.355) | 50 | 865985 | 200.000 | 175.35 | 50.00- 150.00 | 100.00 |
| 5.520 | 5.520 (0.355) | 52 | 281377 | | | 0.00- 82.17 | 32.49 |
| 20 Butane | | | | | CAS #: 106-97-8 | | |
| 6.294 | 6.294 (0.405) | 58 | 218888 | 200.000 | 176.56 | 50.00- 150.00 | 100.00 |
| 6.294 | 6.294 (0.405) | 43 | 1548797 | | | 660.00- 760.00 | 707.58 |
| 21 Vinyl Chloride | | | | | CAS #: 75-01-4 | | |
| 6.460 | 6.460 (0.415) | 62 | 1128548 | 200.000 | 180.38 | 50.00- 150.00 | 100.00 |
| 6.460 | 6.460 (0.415) | 64 | 358128 | | | 0.00- 81.56 | 31.73 |
| 23 1,3-Butadiene | | | | | CAS #: 106-99-0 | | |
| 6.709 | 6.709 (0.431) | 54 | 794080 | 200.000 | 182.12 | 50.00- 150.00 | 100.00 |
| 6.709 | 6.709 (0.431) | 39 | 848412 | | | 69.34- 169.34 | 106.84 |
| 25 Bromomethane | | | | | CAS #: 74-83-9 | | |
| 8.396 | 8.396 (0.540) | 94 | 1187946 | 200.000 | 175.06 | 50.00- 150.00 | 100.00 |
| 8.396 | 8.396 (0.540) | 96 | 1105864 | | | 43.80- 143.80 | 93.09 |
| 27 Chloroethane | | | | | CAS #: 75-00-3 | | |
| 9.004 | 9.004 (0.579) | 64 | 769111 | 200.000 | 164.46 | 50.00- 150.00 | 100.00 |
| 9.004 | 9.004 (0.579) | 49 | 181102 | | | 0.00- 73.54 | 23.55 |
| 9.004 | 9.004 (0.579) | 66 | 256600 | | | 0.00- 82.74 | 33.36 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 28 Isopentane | | | | | CAS #: 78-78-4 | | |
| 9.142 | 9.142 (0.588) | 43 | 1545733 | 200.000 | 171.59 | 50.00- 150.00 | 100.00 |
| 9.142 | 9.142 (0.588) | 57 | 1139381 | | | 24.52- 124.52 | 73.71 |
| 31 Trichlorofluoromethane/Fr11 | | | | | CAS #: 75-69-4 | | |
| 9.916 | 9.916 (0.637) | 101 | 4249689 | 200.000 | 174.57 | 50.00- 150.00 | 100.00 |
| 9.916 | 9.916 (0.637) | 103 | 2727936 | | | 14.64- 114.64 | 64.19 |
| 40 Ethanol | | | | | CAS #: 64-17-5 | | |
| 11.161 | 11.161 (0.717) | 45 | 613951 | 200.000 | 168.10 | 50.00- 150.00 | 100.00 |
| 11.161 | 11.161 (0.717) | 43 | 128347 | | | 0.00- 73.32 | 20.91 |
| 11.161 | 11.161 (0.717) | 46 | 241885 | | | 0.00- 86.84 | 39.40 |
| 42 1,1-Dichloroethene | | | | | CAS #: 75-35-4 | | |
| 11.548 | 11.548 (0.742) | 61 | 2691267 | 200.000 | 163.02 | 50.00- 150.00 | 100.00 |
| 11.548 | 11.548 (0.742) | 96 | 1634677 | | | 14.37- 114.37 | 60.74 |
| 11.548 | 11.548 (0.742) | 98 | 1040025 | | | 0.00- 89.44 | 38.64 |
| 44 Freon 113 | | | | | CAS #: 76-13-1 | | |
| 11.575 | 11.575 (0.744) | 151 | 3002292 | 200.000 | 168.37 | 50.00- 150.00 | 100.00 |
| 11.575 | 11.575 (0.744) | 153 | 1917820 | | | 14.80- 114.80 | 63.88 |
| 11.575 | 11.575 (0.744) | 101 | 3478908 | | | 70.48- 170.48 | 115.88 |
| 46 Carbon Disulfide | | | | | CAS #: 75-15-0 | | |
| 11.907 | 11.907 (0.765) | 76 | 5741568 | 200.000 | 179.73 | 50.00- 150.00 | 100.00 |
| 48 Acetone | | | | | CAS #: 67-64-1 | | |
| 11.935 | 11.935 (0.767) | 58 | 902116 | 200.000 | 171.90 | 50.00- 150.00 | 100.00 |
| 11.935 | 11.935 (0.767) | 43 | 2765171 | | | 241.90- 341.90 | 306.52 |
| 49 2-Propanol | | | | | CAS #: 67-63-0 | | |
| 12.432 | 12.432 (0.799) | 45 | 3344983 | 200.000 | 186.72 | 50.00- 150.00 | 100.00 |
| 12.432 | 12.432 (0.799) | 43 | 627304 | | | 0.00- 69.01 | 18.75 |
| 12.432 | 12.432 (0.799) | 59 | 142479 | | | 0.00- 54.28 | 4.26 |
| 51 3-Chloropropene | | | | | CAS #: 107-05-1 | | |
| 12.543 | 12.543 (0.806) | 76 | 1038268 | 200.000 | 183.87 | 50.00- 150.00 | 100.00 |
| 12.543 | 12.543 (0.806) | 41 | 2484616 | | | 189.04- 289.04 | 239.30 |
| 57 Methylene Chloride | | | | | CAS #: 75-09-2 | | |
| 12.875 | 12.875 (0.828) | 49 | 2212531 | 200.000 | 180.80 | 50.00- 150.00 | 100.00 |
| 12.902 | 12.902 (0.829) | 84 | 1916655 | | | 36.06- 136.06 | 86.63 |
| 12.875 | 12.875 (0.828) | 51 | 679715 | | | 0.00- 80.24 | 30.72 |
| 58 tert-Butyl-Alcohol | | | | | CAS #: 75-65-0 | | |
| 13.207 | 13.207 (0.849) | 59 | 4300405 | 200.000 | 187.51 | 50.00- 150.00 | 100.00 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 58 tert-Butyl-Alcohol (continued) | | | | | | | |
| 13.262 | 13.262 (0.852) | 41 | 2011723 | | | 7.50- 107.50 | 46.78 |
| 13.262 | 13.262 (0.852) | 57 | 1810264 | | | 0.00- 96.91 | 42.10 |
| 60 MTBE | | | | | CAS #: 1634-04-4 | | |
| 13.262 | 13.262 (0.852) | 73 | 6772671 | 200.000 | 179.13 | 50.00- 150.00 | 100.00 |
| 13.262 | 13.262 (0.852) | 57 | 1810264 | | | 0.00- 78.30 | 26.73 |
| 13.262 | 13.262 (0.852) | 41 | 2011723 | | | 0.00- 81.24 | 29.70 |
| 61 trans-1,2-Dichloroethene | | | | | CAS #: 156-60-5 | | |
| 13.317 | 13.317 (0.856) | 96 | 2216223 | 200.000 | 167.07 | 50.00- 150.00 | 100.00 |
| 13.317 | 13.317 (0.856) | 61 | 3114747 | | | 86.57- 186.57 | 140.54 |
| 13.317 | 13.317 (0.856) | 98 | 1412484 | | | 11.08- 111.08 | 63.73 |
| 65 Hexane | | | | | CAS #: 110-54-3 | | |
| 13.677 | 13.677 (0.879) | 57 | 3578486 | 200.000 | 165.05 | 50.00- 150.00 | 100.00 |
| 13.677 | 13.677 (0.879) | 43 | 2140675 | | | 11.57- 111.57 | 59.82 |
| 13.704 | 13.704 (0.881) | 86 | 713610 | | | 0.00- 69.73 | 19.94 |
| 67 1,1-Dichloroethane | | | | | CAS #: 75-34-3 | | |
| 14.174 | 14.174 (0.911) | 63 | 4013791 | 200.000 | 165.15 | 50.00- 150.00 | 100.00 |
| 14.174 | 14.174 (0.911) | 65 | 1305141 | | | 0.00- 82.62 | 32.52 |
| 68 Isopropyl ether | | | | | CAS #: 108-20-3 | | |
| 14.147 | 14.147 (0.909) | 45 | 7161874 | 200.000 | 167.27 | 50.00- 150.00 | 100.00 |
| 14.147 | 14.147 (0.909) | 87 | 2367258 | | | 0.00- 82.62 | 33.05 |
| 14.147 | 14.147 (0.909) | 59 | 864531 | | | 0.00- 62.33 | 12.07 |
| 69 Vinyl Acetate | | | | | CAS #: 108-05-4 | | |
| 14.257 | 14.257 (0.916) | 86 | 653914 | 200.000 | 185.41 | 50.00- 150.00 | 100.00 |
| 14.257 | 14.257 (0.916) | 43 | 5614611 | | | 838.14- 938.14 | 858.62 |
| 74 t-Butylethyl Ether | | | | | CAS #: 637-92-3 | | |
| 14.727 | 14.727 (0.947) | 59 | 7754606 | 200.000 | 176.92 | 50.00- 150.00 | 100.00 |
| 14.727 | 14.727 (0.947) | 87 | 3563870 | | | 0.00- 95.91 | 45.96 |
| 14.727 | 14.727 (0.947) | 41 | 1254733 | | | 0.00- 67.22 | 16.18 |
| 76 cis-1,2-Dichloroethene | | | | | CAS #: 156-59-2 | | |
| 15.170 | 15.170 (0.975) | 96 | 2462918 | 200.000 | 165.15 | 50.00- 150.00 | 100.00 |
| 15.170 | 15.170 (0.975) | 61 | 3163713 | | | 74.99- 174.99 | 128.45 |
| 15.170 | 15.170 (0.975) | 98 | 1562849 | | | 11.26- 111.26 | 63.46 |
| 77 2-Butanone | | | | | CAS #: 78-93-3 | | |
| 15.170 | 15.170 (0.975) | 72 | 1316564 | 200.000 | 175.02 | 50.00- 150.00 | 100.00 |
| 15.170 | 15.170 (0.975) | 43 | 4350952 | | | 291.77- 391.77 | 330.48 |
| 15.170 | 15.170 (0.975) | 57 | 357728 | | | 0.00- 80.83 | 27.17 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 81 Tetrahydrofuran | | | | | CAS #: 109-99-9 | | |
| 15.502 | 15.502 (0.996) | 42 | 2804148 | 200.000 | 177.76 | 50.00- 150.00 | 100.00 |
| 15.502 | 15.502 (0.996) | 71 | 1277120 | | | 0.00- 95.17 | 45.54 |
| 15.502 | 15.502 (0.996) | 72 | 1376084 | | | 0.00- 97.64 | 49.07 |
| 83 Chloroform | | | | | CAS #: 67-66-3 | | |
| 15.640 | 15.640 (1.005) | 83 | 4861598 | 200.000 | 169.88 | 50.00- 150.00 | 100.00 |
| 15.640 | 15.640 (1.005) | 85 | 3121144 | | | 13.30- 113.30 | 64.20 |
| 84 Cyclohexane | | | | | CAS #: 110-82-7 | | |
| 15.833 | 15.833 (1.018) | 84 | 3758807 | 200.000 | 168.22 | 50.00- 150.00 | 100.00 |
| 15.806 | 15.806 (1.016) | 56 | 3934505 | | | 59.32- 159.32 | 104.67 |
| 15.806 | 15.806 (1.016) | 41 | 1994604 | | | 6.25- 106.25 | 53.06 |
| 85 1,1,1-Trichloroethane | | | | | CAS #: 71-55-6 | | |
| 15.861 | 15.861 (1.020) | 97 | 4802420 | 200.000 | 165.09 | 50.00- 150.00 | 100.00 |
| 15.861 | 15.861 (1.020) | 99 | 3055700 | | | 13.20- 113.20 | 63.63 |
| 87 Carbon Tetrachloride | | | | | CAS #: 56-23-5 | | |
| 16.055 | 16.055 (1.032) | 119 | 4657474 | 200.000 | 174.09 | 50.00- 150.00 | 100.00 |
| 16.055 | 16.055 (1.032) | 117 | 5040085 | | | 57.80- 157.80 | 108.21 |
| 91 2,2,4-Trimethylpentane | | | | | CAS #: 540-84-1 | | |
| 16.331 | 16.331 (1.050) | 57 | 12374002 | 200.000 | 166.32 | 50.00- 150.00 | 100.00 |
| 16.331 | 16.331 (1.050) | 56 | 4004635 | | | 0.00- 83.35 | 32.36 |
| 16.331 | 16.331 (1.050) | 41 | 2982842 | | | 0.00- 74.44 | 24.11 |
| 92 Benzene | | | | | CAS #: 71-43-2 | | |
| 16.386 | 16.386 (0.964) | 78 | 8346054 | 200.000 | 174.58 | 50.00- 150.00 | 100.00 |
| 16.386 | 16.386 (0.964) | 77 | 1891463 | | | 0.00- 72.86 | 22.66 |
| 94 tert-amyl-Methyl Ether | | | | | CAS #: 994-05-8 | | |
| 16.442 | 16.442 (1.057) | 73 | 8572676 | 200.000 | 170.09 | 50.00- 150.00 | 100.00 |
| 16.469 | 16.469 (1.059) | 87 | 2003471 | | | 0.00- 73.39 | 23.37 |
| 16.442 | 16.442 (1.057) | 55 | 1783149 | | | 0.00- 72.12 | 20.80 |
| 95 1,2-Dichloroethane | | | | | CAS #: 107-06-2 | | |
| 16.525 | 16.525 (0.972) | 62 | 3380675 | 200.000 | 175.60 | 50.00- 150.00 | 100.00 |
| 16.525 | 16.525 (0.972) | 64 | 1087043 | | | 0.00- 82.38 | 32.15 |
| 96 Heptane | | | | | CAS #: 142-82-5 | | |
| 16.580 | 16.580 (0.976) | 71 | 3039898 | 200.000 | 168.65 | 50.00- 150.00 | 100.00 |
| 16.580 | 16.580 (0.976) | 43 | 4299444 | | | 92.16- 192.16 | 141.43 |
| 16.580 | 16.580 (0.976) | 57 | 2420072 | | | 30.60- 130.60 | 79.61 |
| 100 Trichloroethene | | | | | CAS #: 79-01-6 | | |
| 17.382 | 17.382 (1.023) | 95 | 3390657 | 200.000 | 176.75 | 50.00- 150.00 | 100.00 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 100 Trichloroethene (continued) | | | | | | | |
| 17.382 | 17.382 (1.023) | 130 | 3427860 | | | 49.95- 149.95 | 101.10 |
| 17.382 | 17.382 (1.023) | 97 | 2168579 | | | 13.64- 113.64 | 63.96 |
| 102 Methyl Cyclohexane | | | | | CAS #: 108-87-2 | | |
| 17.575 | 17.575 (1.130) | 83 | 5582352 | 200.000 | 172.48 | 50.00- 150.00 | 100.00 |
| 17.575 | 17.575 (1.130) | 98 | 2633703 | | | 0.00- 97.07 | 47.18 |
| 17.575 | 17.575 (1.130) | 55 | 3995530 | | | 23.96- 123.96 | 71.57 |
| 104 1,2-Dichloropropane | | | | | CAS #: 78-87-5 | | |
| 17.796 | 17.796 (1.047) | 63 | 3045645 | 200.000 | 182.16 | 50.00- 150.00 | 100.00 |
| 17.796 | 17.796 (1.047) | 62 | 2167073 | | | 20.11- 120.11 | 71.15 |
| 17.796 | 17.796 (1.047) | 41 | 1577164 | | | 5.46- 105.46 | 51.78 |
| 106 1,4-Dioxane | | | | | CAS #: 123-91-1 | | |
| 17.935 | 17.935 (1.055) | 88 | 2169249 | 200.000 | 190.42 | 50.00- 150.00 | 100.00 |
| 17.935 | 17.935 (1.055) | 58 | 1378210 | | | 16.55- 116.55 | 63.53 |
| 17.935 | 17.935 (1.055) | 57 | 427061 | | | 0.00- 70.49 | 19.69 |
| 108 Bromodichloromethane | | | | | CAS #: 75-27-4 | | |
| 18.239 | 18.239 (1.073) | 83 | 5770527 | 200.000 | 189.23 | 50.00- 150.00 | 100.00 |
| 18.239 | 18.239 (1.073) | 85 | 3656932 | | | 13.68- 113.68 | 63.37 |
| 110 cis-1,3-Dichloropropene | | | | | CAS #: 10061-01-5 | | |
| 18.958 | 18.958 (1.115) | 75 | 4994092 | 200.000 | 197.96 | 50.00- 150.00 | 100.00 |
| 18.958 | 18.958 (1.115) | 77 | 1579527 | | | 0.00- 82.07 | 31.63 |
| 18.958 | 18.958 (1.115) | 39 | 2148912 | | | 0.00- 95.44 | 43.03 |
| 112 4-Methyl-2-pentanone | | | | | CAS #: 108-10-1 | | |
| 19.096 | 19.096 (1.124) | 58 | 2566555 | 200.000 | 193.27 | 50.00- 150.00 | 100.00 |
| 19.096 | 19.096 (1.124) | 43 | 6099108 | | | 188.63- 288.63 | 237.64 |
| 19.096 | 19.096 (1.124) | 85 | 1288516 | | | 0.00- 99.25 | 50.20 |
| 115 Toluene | | | | | CAS #: 108-88-3 | | |
| 19.400 | 19.400 (1.142) | 91 | 10664883 | 200.000 | 179.47 | 50.00- 150.00 | 100.00 |
| 19.400 | 19.400 (1.142) | 92 | 6421708 | | | 9.88- 109.88 | 60.21 |
| 116 trans-1,3-Dichloropropene | | | | | CAS #: 10061-02-6 | | |
| 19.787 | 19.787 (0.924) | 75 | 5270666 | 200.000 | 195.38 | 50.00- 150.00 | 100.00 |
| 19.787 | 19.787 (0.924) | 77 | 1664194 | | | 0.00- 82.73 | 31.57 |
| 19.787 | 19.787 (0.924) | 39 | 2191559 | | | 0.00- 94.88 | 41.58 |
| 117 1,1,2-Trichloroethane | | | | | CAS #: 79-00-5 | | |
| 20.064 | 20.064 (0.937) | 97 | 3376643 | 200.000 | 179.11 | 50.00- 150.00 | 100.00 |
| 20.064 | 20.064 (0.937) | 99 | 2100363 | | | 12.75- 112.75 | 62.20 |
| 20.064 | 20.064 (0.937) | 83 | 2878952 | | | 36.54- 136.54 | 85.26 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 118 Tetrachloroethene | | | | | CAS #: 127-18-4 | | |
| 20.174 | 20.174 (0.942) | 166 | 4585072 | 200.000 | 169.78 | 50.00- 150.00 | 100.00 |
| 20.174 | 20.174 (0.942) | 129 | 3065762 | | | 19.61- 119.61 | 66.86 |
| 20.174 | 20.174 (0.942) | 131 | 2962476 | | | 17.66- 117.66 | 64.61 |
| 120 2-Hexanone | | | | | CAS #: 591-78-6 | | |
| 20.313 | 20.313 (0.948) | 58 | 3575689 | 200.000 | 184.79 | 50.00- 150.00 | 100.00 |
| 20.313 | 20.313 (0.948) | 43 | 6157350 | | | 123.68- 223.68 | 172.20 |
| 20.313 | 20.313 (0.948) | 100 | 881073 | | | 0.00- 73.54 | 24.64 |
| 124 Dibromochloromethane | | | | | CAS #: 124-48-1 | | |
| 20.644 | 20.644 (0.964) | 129 | 5344438 | 200.000 | 182.58 | 50.00- 150.00 | 100.00 |
| 20.644 | 20.644 (0.964) | 127 | 4162059 | | | 29.13- 129.13 | 77.88 |
| 125 1,2-Dibromoethane | | | | | CAS #: 106-93-4 | | |
| 20.866 | 20.866 (0.974) | 107 | 5022556 | 200.000 | 180.34 | 50.00- 150.00 | 100.00 |
| 20.866 | 20.866 (0.974) | 109 | 4717381 | | | 44.62- 144.62 | 93.92 |
| 127 Chlorobenzene | | | | | CAS #: 108-90-7 | | |
| 21.474 | 21.474 (1.003) | 112 | 8194789 | 200.000 | 177.11 | 50.00- 150.00 | 100.00 |
| 21.474 | 21.474 (1.003) | 114 | 2615911 | | | 0.00- 82.10 | 31.92 |
| 21.474 | 21.474 (1.003) | 77 | 6545211 | | | 42.95- 142.95 | 79.87 |
| 128 Ethyl Benzene | | | | | CAS #: 100-41-4 | | |
| 21.529 | 21.529 (1.005) | 106 | 4305693 | 200.000 | 174.68 | 50.00- 150.00 | 100.00 |
| 21.529 | 21.529 (1.005) | 91 | 14271267 | | | 282.07- 382.07 | 331.45 |
| 131 m,p-Xylene | | | | | CAS #: 108-38-3 | | |
| 21.667 | 21.667 (1.012) | 106 | 5629369 | 200.000 | 177.36 | 50.00- 150.00 | 100.00 |
| 21.667 | 21.667 (1.012) | 91 | 11809942 | | | 158.71- 258.71 | 209.79 |
| 132 o-Xylene | | | | | CAS #: 95-47-6 | | |
| 22.248 | 22.248 (1.039) | 106 | 5292664 | 200.000 | 177.18 | 50.00- 150.00 | 100.00 |
| 22.220 | 22.220 (1.037) | 91 | 11776945 | | | 172.56- 272.56 | 222.51 |
| 133 Styrene | | | | | CAS #: 100-42-5 | | |
| 22.276 | 22.276 (1.040) | 104 | 8660331 | 200.000 | 179.14 | 50.00- 150.00 | 100.00 |
| 22.276 | 22.276 (1.040) | 78 | 4670887 | | | 5.02- 105.02 | 53.93 |
| 135 Bromoform | | | | | CAS #: 75-25-2 | | |
| 22.607 | 22.607 (1.056) | 173 | 5529685 | 200.000 | 189.26 | 50.00- 150.00 | 100.00 |
| 22.607 | 22.607 (1.056) | 171 | 2859638 | | | 1.67- 101.67 | 51.71 |
| 136 Cumene | | | | | CAS #: 98-82-8 | | |
| 22.690 | 22.690 (1.059) | 105 | 15788741 | 200.000 | 174.47 | 50.00- 150.00 | 100.00(A) |
| 22.690 | 22.690 (1.059) | 120 | 3898736 | | | 0.00- 74.88 | 24.69 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 136 Cumene (continued) | | | | | | | |
| 22.663 | 22.663 (1.058) | 51 | 1348511 | | | 0.00- 59.69 | 8.54 |
| 139 1,1,2,2-Tetrachloroethane | | | | | CAS #: 79-34-5 | | |
| 23.160 | 23.160 (1.081) | 83 | 7425393 | 200.000 | 171.30 | 50.00- 150.00 | 100.00 |
| 23.160 | 23.160 (1.081) | 85 | 4726819 | | | 14.41- 114.41 | 63.66 |
| 140 Propylbenzene | | | | | CAS #: 103-65-1 | | |
| 23.216 | 23.216 (1.084) | 91 | 19060466 | 200.000 | 173.54 | 50.00- 150.00 | 100.00(A) |
| 23.216 | 23.216 (1.084) | 120 | 4047437 | | | 0.00- 71.67 | 21.23 |
| 23.216 | 23.216 (1.084) | 105 | 707629 | | | 0.00- 53.88 | 3.71 |
| 144 4-Ethyltoluene | | | | | CAS #: 622-96-8 | | |
| 23.354 | 23.354 (1.090) | 105 | 17923683 | 200.000 | 175.40 | 50.00- 150.00 | 100.00(A) |
| 23.354 | 23.354 (1.090) | 120 | 5061472 | | | 0.00- 78.76 | 28.24 |
| 146 1,3,5-Trimethylbenzene | | | | | CAS #: 108-67-8 | | |
| 23.409 | 23.409 (1.093) | 105 | 14119749 | 200.000 | 164.83 | 50.00- 150.00 | 100.00 |
| 23.409 | 23.409 (1.093) | 120 | 6327198 | | | 0.00- 95.92 | 44.81 |
| 151 1,2,4-Trimethylbenzene | | | | | CAS #: 95-63-6 | | |
| 23.907 | 23.907 (1.116) | 105 | 14211062 | 200.000 | 172.84 | 50.00- 150.00 | 100.00 |
| 23.907 | 23.907 (1.116) | 120 | 6009238 | | | 0.00- 93.46 | 42.29 |
| 156 1,3-Dichlorobenzene | | | | | CAS #: 541-73-1 | | |
| 24.377 | 24.377 (1.138) | 146 | 8842393 | 200.000 | 175.41 | 50.00- 150.00 | 100.00 |
| 24.377 | 24.377 (1.138) | 148 | 5614286 | | | 13.99- 113.99 | 63.49 |
| 24.377 | 24.377 (1.138) | 111 | 3733405 | | | 0.00- 92.34 | 42.22 |
| 158 1,4-Dichlorobenzene | | | | | CAS #: 106-46-7 | | |
| 24.515 | 24.515 (1.145) | 146 | 8530546 | 200.000 | 170.90 | 50.00- 150.00 | 100.00 |
| 24.515 | 24.515 (1.145) | 148 | 5426956 | | | 14.08- 114.08 | 63.62 |
| 24.515 | 24.515 (1.145) | 111 | 3465652 | | | 0.00- 90.50 | 40.63 |
| 160 alpha-Chlorotoluene | | | | | CAS #: 100-44-7 | | |
| 24.681 | 24.681 (1.152) | 91 | 14506982 | 200.000 | 214.50 | 50.00- 150.00 | 100.00(A) |
| 24.681 | 24.681 (1.152) | 126 | 2682352 | | | 0.00- 68.80 | 18.49 |
| 162 1,2-Dichlorobenzene | | | | | CAS #: 95-50-1 | | |
| 25.013 | 25.013 (1.168) | 146 | 8082160 | 200.000 | 171.64 | 50.00- 150.00 | 100.00 |
| 25.013 | 25.013 (1.168) | 148 | 5125988 | | | 14.24- 114.24 | 63.42 |
| 25.013 | 25.013 (1.168) | 111 | 3527956 | | | 0.00- 93.71 | 43.65 |
| 168 1,2,4-Trichlorobenzene | | | | | CAS #: 120-82-1 | | |
| 27.031 | 27.031 (1.262) | 180 | 6721818 | 200.000 | 181.88 | 50.00- 150.00 | 100.00 |
| 27.031 | 27.031 (1.262) | 182 | 6338191 | | | 44.94- 144.94 | 94.29 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 169 Hexachlorobutadiene | | | | | CAS #: 87-68-3 | | |
| 27.114 | 27.114 (1.266) | 225 | 5261063 | 200.000 | 168.61 | 50.00- 150.00 | 100.00 |
| 27.114 | 27.114 (1.266) | 223 | 3310362 | | | 13.33- 113.33 | 62.92 |
| 170 Naphthalene | | | | | CAS #: 91-20-3 | | |
| 27.418 | 27.418 (1.280) | 128 | 13731597 | 200.000 | 185.08 | 50.00- 150.00 | 100.00 |
| 27.418 | 27.418 (1.280) | 127 | 1702948 | | | 0.00- 62.65 | 12.40 |

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Report Date: 23-Mar-2010 23:23

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdx.i
Lab File ID: x032312.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: ra
Method File: /chem/msdx.i/23mar10.b/x10q0323a.m
Misc Info: 200ppbv (200ppbv)

Calibration Date: 23-MAR-2010
Calibration Time: 21:37
Client Smp ID: Level 7
Level: LOW
Sample Type: AIR

| | | AREA LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 82 Bromochloromethan | 224943 | 134966 | 314920 | 258091 | 14.74 |
| 97 1,4-Difluorobenze | 1075811 | 645487 | 1506135 | 1132265 | 5.25 |
| 126 Chlorobenzene-d5 | 1015916 | 609550 | 1422282 | 1089883 | 7.28 |

| | | RT LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 82 Bromochloromethan | 15.56 | 15.23 | 15.89 | 15.56 | 0.00 |
| 97 1,4-Difluorobenze | 16.99 | 16.66 | 17.32 | 16.99 | 0.00 |
| 126 Chlorobenzene-d5 | 21.42 | 21.09 | 21.75 | 21.42 | 0.00 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msdx.i/23mar10.b/x032312.d

Date : 23-MAR-2010 22:49

Client ID: Level 7

Sample Info: 200ml #1911-273

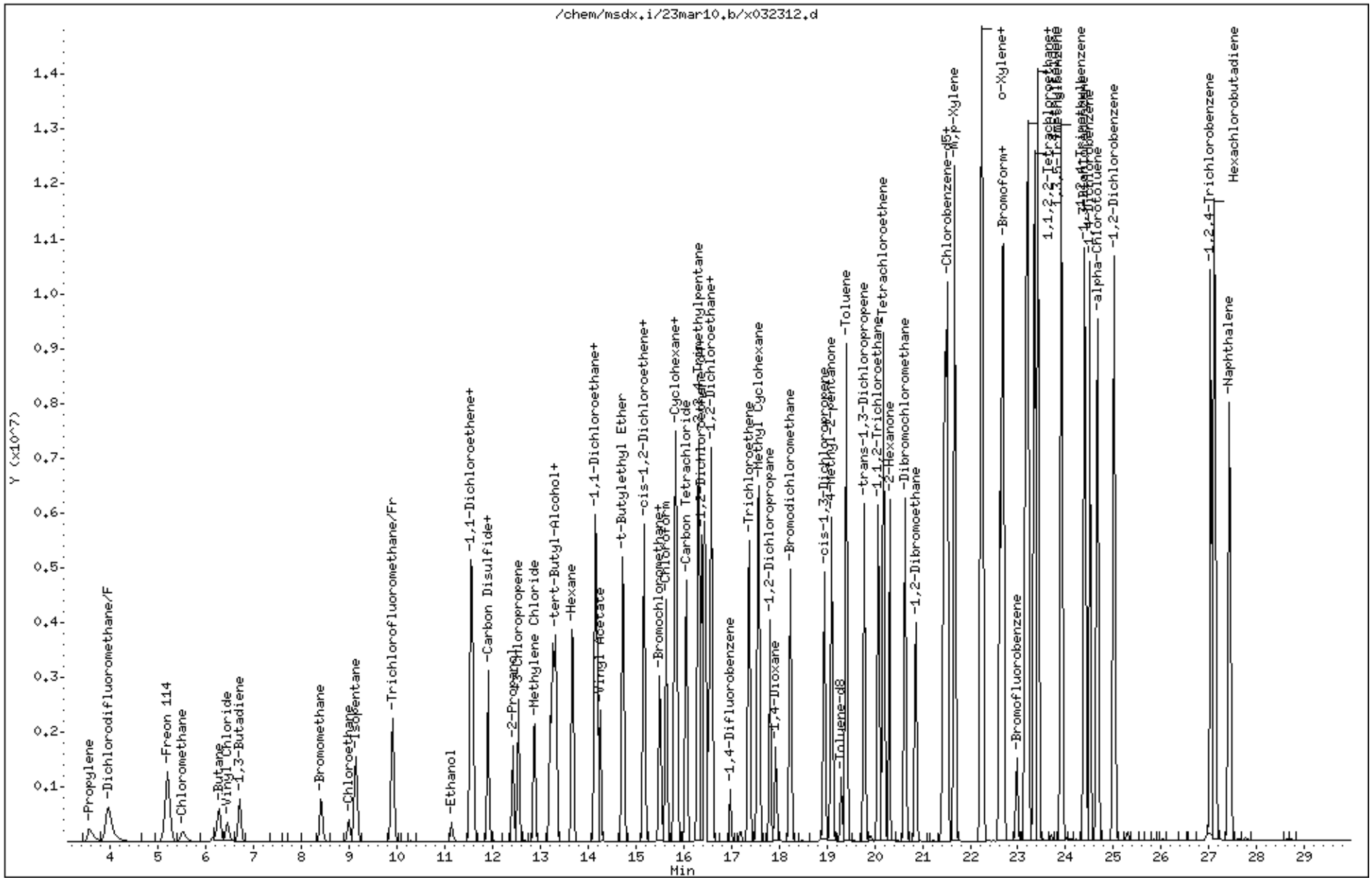
Column phase: RTx-624

Instrument: msdx.i

Operator: ra

Column diameter: 0.53





Air Toxics LTD.
Laboratory Services Since 1989

**Client Sample ID: CCV**

**Lab ID#: 1003514-05A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **x032702** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 3/27/10 08:47 AM** | |

| Compound | %Recovery |
|---|---|
| Freon 12 | 106 |
| Freon 114 | 103 |
| Chloromethane | 94 |
| Vinyl Chloride | 98 |
| 1,3-Butadiene | 98 |
| Bromomethane | 103 |
| Chloroethane | 96 |
| Freon 11 | 104 |
| Ethanol | 84 |
| Freon 113 | 99 |
| 1,1-Dichloroethene | 97 |
| Acetone | 89 |
| 2-Propanol | 86 |
| Carbon Disulfide | 102 |
| 3-Chloropropene | 95 |
| Methylene Chloride | 93 |
| Methyl tert-butyl ether | 95 |
| trans-1,2-Dichloroethene | 93 |
| Hexane | 86 |
| 1,1-Dichloroethane | 91 |
| 2-Butanone (Methyl Ethyl Ketone) | 93 |
| cis-1,2-Dichloroethene | 90 |
| Tetrahydrofuran | 86 |
| Chloroform | 91 |
| 1,1,1-Trichloroethane | 98 |
| Cyclohexane | 96 |
| Carbon Tetrachloride | 102 |
| 2,2,4-Trimethylpentane | 91 |
| Benzene | 96 |
| 1,2-Dichloroethane | 95 |
| Heptane | 97 |
| Trichloroethene | 96 |
| 1,2-Dichloropropane | 96 |
| 1,4-Dioxane | 97 |
| Bromodichloromethane | 101 |
| cis-1,3-Dichloropropene | 100 |
| 4-Methyl-2-pentanone | 98 |
| Toluene | 100 |
| trans-1,3-Dichloropropene | 107 |

Air Toxics LTD.
Laboratory Services Since 1989

**Client Sample ID: CCV**

**Lab ID#: 1003514-05A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **x032702** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 3/27/10 08:47 AM** | |

| Compound | %Recovery |
|---|---|
| 1,1,2-Trichloroethane | 100 |
| Tetrachloroethene | 101 |
| 2-Hexanone | 98 |
| Dibromochloromethane | 110 |
| 1,2-Dibromoethane (EDB) | 103 |
| Chlorobenzene | 100 |
| Ethyl Benzene | 104 |
| m,p-Xylene | 102 |
| o-Xylene | 102 |
| Styrene | 103 |
| Bromoform | 108 |
| Cumene | 102 |
| 1,1,2,2-Tetrachloroethane | 97 |
| Propylbenzene | 99 |
| 4-Ethyltoluene | 96 |
| 1,3,5-Trimethylbenzene | 94 |
| 1,2,4-Trimethylbenzene | 90 |
| 1,3-Dichlorobenzene | 91 |
| 1,4-Dichlorobenzene | 92 |
| alpha-Chlorotoluene | 102 |
| 1,2-Dichlorobenzene | 91 |
| 1,2,4-Trichlorobenzene | 82 |
| Hexachlorobutadiene | 90 |
| Naphthalene | 78 |

**Container Type: NA - Not Applicable**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| Toluene-d8 | 102 | 70-130 |
| 1,2-Dichloroethane-d4 | 99 | 70-130 |
| 4-Bromofluorobenzene | 100 | 70-130 |

Air Toxics Ltd.

## CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msdx.i Injection Date: 27-MAR-2010 08:47
Lab File ID: x032702.d Init. Cal. Date(s): 23-MAR-2010 23-MAR-2010
Analysis Type: AIR Init. Cal. Times: 19:05 22:49
Lab Sample ID: CCV-1 Quant Type: ISTD
Method: /chem/msdx.i/27mar10.b/x10q0323a.m

| COMPOUND | RRF / AMOUNT | RF50 | MIN RRF | %D / %DRIFT | MAX %D / %DRIFT | CURVE TYPE |
|---|---|---|---|---|---|---|
| $ 93 1,2-Dichloroethane-d4 | 1.51024 | 1.48909 | 0.010 | 1.40057 | 30.00000 | Averaged |
| $ 114 Toluene-d8 | 1.04651 | 1.06571 | 0.010 | -1.83459 | 30.00000 | Averaged |
| $ 138 Bromofluorobenzene | 0.60937 | 0.61205 | 0.010 | -0.44042 | 30.00000 | Averaged |
| 7 Propylene | 0.43674 | 0.40358 | 0.010 | 7.59180 | 30.00000 | Averaged |
| 9 Dichlorodifluoromethane/Fr1 | 1.97949 | 2.09594 | 0.010 | -5.88307 | 30.00000 | Averaged |
| 13 Freon 114 | 1.29159 | 1.33527 | 0.010 | -3.38217 | 30.00000 | Averaged |
| 15 Chloromethane | 0.47837 | 0.45199 | 0.010 | 5.51608 | 30.00000 | Averaged |
| 20 Butane | 0.12009 | 0.11509 | 0.010 | 4.16071 | 30.00000 | Averaged |
| 21 Vinyl Chloride | 0.60602 | 0.59687 | 0.010 | 1.50989 | 30.00000 | Averaged |
| 23 1,3-Butadiene | 0.42236 | 0.41506 | 0.010 | 1.72916 | 30.00000 | Averaged |
| 25 Bromomethane | 0.65731 | 0.67908 | 0.010 | -3.31090 | 30.00000 | Averaged |
| 27 Chloroethane | 0.45300 | 0.43396 | 0.010 | 4.20299 | 30.00000 | Averaged |
| 28 Isopentane | 0.87258 | 0.80370 | 0.010 | 7.89407 | 30.00000 | Averaged |
| 31 Trichlorofluoromethane/Fr11 | 2.35811 | 2.44354 | 0.010 | -3.62301 | 30.00000 | Averaged |
| 40 Ethanol | 0.35378 | 0.29814 | 0.010 | 15.72863 | 30.00000 | Averaged |
| 42 1,1-Dichloroethene | 1.59907 | 1.55569 | 0.010 | 2.71320 | 30.00000 | Averaged |
| 44 Freon 113 | 1.72722 | 1.71002 | 0.010 | 0.99566 | 30.00000 | Averaged |
| 46 Carbon Disulfide | 3.09445 | 3.16152 | 0.010 | -2.16742 | 30.00000 | Averaged |
| 48 Acetone | 0.50835 | 0.45193 | 0.010 | 11.09821 | 30.00000 | Averaged |
| 49 2-Propanol | 1.73524 | 1.49593 | 0.010 | 13.79150 | 30.00000 | Averaged |
| 51 3-Chloropropene | 0.54698 | 0.51924 | 0.010 | 5.07180 | 30.00000 | Averaged |
| 57 Methylene Chloride | 1.18537 | 1.10560 | 0.010 | 6.72996 | 30.00000 | Averaged |
| 58 tert-Butyl-Alcohol | 2.22149 | 1.90843 | 0.010 | 14.09238 | 30.00000 | Averaged |
| 60 MTBE | 3.66234 | 3.47407 | 0.010 | 5.14069 | 30.00000 | Averaged |
| 61 trans-1,2-Dichloroethene | 1.28494 | 1.19165 | 0.010 | 7.26022 | 30.00000 | Averaged |
| 65 Hexane | 2.10016 | 1.80268 | 0.010 | 14.16462 | 30.00000 | Averaged |
| 67 1,1-Dichloroethane | 2.35420 | 2.15169 | 0.010 | 8.60201 | 30.00000 | Averaged |
| 68 Isopropyl ether | 4.14729 | 3.68869 | 0.010 | 11.05766 | 30.00000 | Averaged |
| 69 Vinyl Acetate | 0.34163 | 0.32591 | 0.010 | 4.60053 | 30.00000 | Averaged |
| 74 t-Butylethyl Ether | 4.24558 | 3.81835 | 0.010 | 10.06290 | 30.00000 | Averaged |
| 76 cis-1,2-Dichloroethene | 1.44454 | 1.30111 | 0.010 | 9.92929 | 30.00000 | Averaged |
| 77 2-Butanone | 0.72866 | 0.68128 | 0.010 | 6.50133 | 30.00000 | Averaged |
| 81 Tetrahydrofuran | 1.52804 | 1.31196 | 0.010 | 14.14125 | 30.00000 | Averaged |
| 83 Chloroform | 2.77201 | 2.53004 | 0.010 | 8.72919 | 30.00000 | Averaged |
| 84 Cyclohexane | 2.16435 | 2.09016 | 0.010 | 3.42759 | 30.00000 | Averaged |
| 85 1,1,1-Trichloroethane | 2.81780 | 2.76213 | 0.010 | 1.97571 | 30.00000 | Averaged |

Air Toxics Ltd.

## CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msdx.i Injection Date: 27-MAR-2010 08:47
Lab File ID: x032702.d Init. Cal. Date(s): 23-MAR-2010 23-MAR-2010
Analysis Type: AIR Init. Cal. Times: 19:05 22:49
Lab Sample ID: CCV-1 Quant Type: ISTD
Method: /chem/msdx.i/27mar10.b/x10q0323a.m

| COMPOUND | RRF / AMOUNT | RF50 | MIN RRF | %D / %DRIFT | MAX %D / %DRIFT | CURVE TYPE |
|---|---|---|---|---|---|---|
| 87 Carbon Tetrachloride | 2.59140 | 2.64825 | 0.010 | -2.19359 | 30.00000 | Averaged |
| 91 2,2,4-Trimethylpentane | 7.20640 | 6.53148 | 0.010 | 9.36554 | 30.00000 | Averaged |
| 92 Benzene | 1.05557 | 1.01886 | 0.010 | 3.47840 | 30.00000 | Averaged |
| 94 tert-amyl-Methyl Ether | 4.88206 | 4.66762 | 0.010 | 4.39255 | 30.00000 | Averaged |
| 95 1,2-Dichloroethane | 0.42508 | 0.40331 | 0.010 | 5.12132 | 30.00000 | Averaged |
| 96 Heptane | 0.39799 | 0.38598 | 0.010 | 3.01774 | 30.00000 | Averaged |
| 100 Trichloroethene | 0.42357 | 0.40855 | 0.010 | 3.54597 | 30.00000 | Averaged |
| 102 Methyl Cyclohexane | 3.13513 | 3.04344 | 0.010 | 2.92434 | 30.00000 | Averaged |
| 104 1,2-Dichloropropane | 0.36915 | 0.35510 | 0.010 | 3.80793 | 30.00000 | Averaged |
| 106 1,4-Dioxane | 0.25152 | 0.24379 | 0.010 | 3.07504 | 30.00000 | Averaged |
| 108 Bromodichloromethane | 0.67331 | 0.68273 | 0.010 | -1.40006 | 30.00000 | Averaged |
| 110 cis-1,3-Dichloropropene | 0.55702 | 0.55664 | 0.010 | 0.06823 | 30.00000 | Averaged |
| 112 4-Methyl-2-pentanone | 0.29321 | 0.28843 | 0.010 | 1.62960 | 30.00000 | Averaged |
| 115 Toluene | 1.31205 | 1.30589 | 0.010 | 0.46970 | 30.00000 | Averaged |
| 116 trans-1,3-Dichloropropene | 0.61879 | 0.66397 | 0.010 | -7.30139 | 30.00000 | Averaged |
| 117 1,1,2-Trichloroethane | 0.43244 | 0.43368 | 0.010 | -0.28743 | 30.00000 | Averaged |
| 118 Tetrachloroethene | 0.61948 | 0.62697 | 0.010 | -1.20859 | 30.00000 | Averaged |
| 120 2-Hexanone | 0.44384 | 0.43437 | 0.010 | 2.13490 | 30.00000 | Averaged |
| 124 Dibromochloromethane | 0.67143 | 0.73595 | 0.010 | -9.61063 | 30.00000 | Averaged |
| 125 1,2-Dibromoethane | 0.63883 | 0.65960 | 0.010 | -3.25139 | 30.00000 | Averaged |
| 127 Chlorobenzene | 1.06134 | 1.05609 | 0.010 | 0.49453 | 30.00000 | Averaged |
| 128 Ethyl Benzene | 0.56540 | 0.58549 | 0.010 | -3.55372 | 30.00000 | Averaged |
| 131 m,p-Xylene | 0.72803 | 0.74168 | 0.010 | -1.87374 | 30.00000 | Averaged |
| 132 o-Xylene | 0.68520 | 0.69963 | 0.010 | -2.10638 | 30.00000 | Averaged |
| 133 Styrene | 1.10894 | 1.14495 | 0.010 | -3.24723 | 30.00000 | Averaged |
| 135 Bromoform | 0.67020 | 0.72048 | 0.010 | -7.50158 | 30.00000 | Averaged |
| 136 Cumene | 2.07578 | 2.11030 | 0.010 | -1.66300 | 30.00000 | Averaged |
| 139 1,1,2,2-Tetrachloroethane | 0.99430 | 0.96808 | 0.010 | 2.63658 | 30.00000 | Averaged |
| 140 Propylbenzene | 2.51938 | 2.49641 | 0.010 | 0.91177 | 30.00000 | Averaged |
| 144 4-Ethyltoluene | 2.34405 | 2.25539 | 0.010 | 3.78215 | 30.00000 | Averaged |
| 146 1,3,5-Trimethylbenzene | 1.96496 | 1.85788 | 0.010 | 5.44935 | 30.00000 | Averaged |
| 151 1,2,4-Trimethylbenzene | 1.88596 | 1.70096 | 0.010 | 9.80918 | 30.00000 | Averaged |
| 156 1,3-Dichlorobenzene | 1.15632 | 1.05644 | 0.010 | 8.63790 | 30.00000 | Averaged |
| 158 1,4-Dichlorobenzene | 1.14495 | 1.05225 | 0.010 | 8.09575 | 30.00000 | Averaged |
| 160 alpha-Chlorotoluene | 1.55132 | 1.58314 | 0.010 | -2.05153 | 30.00000 | Averaged |

Air Toxics Ltd.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msdx.i Injection Date: 27-MAR-2010 08:47
Lab File ID: x032702.d Init. Cal. Date(s): 23-MAR-2010 23-MAR-2010
Analysis Type: AIR Init. Cal. Times: 19:05 22:49
Lab Sample ID: CCV-1 Quant Type: ISTD
Method: /chem/msdx.i/27mar10.b/x10q0323a.m

| COMPOUND | RRF / AMOUNT | RF50 | MIN RRF | %D / %DRIFT | MAX %D / %DRIFT | CURVE TYPE |
|---|---|---|---|---|---|---|
| 162 1,2-Dichlorobenzene | 1.08014 | 0.97898 | 0.010 | 9.36584 | 30.00000 | Averaged |
| 168 1,2,4-Trichlorobenzene | 0.84772 | 0.69418 | 0.010 | 18.11162 | 30.00000 | Averaged |
| 169 Hexachlorobutadiene | 0.71573 | 0.64349 | 0.010 | 10.09378 | 30.00000 | Averaged |
| 170 Naphthalene | 1.70190 | 1.33500 | 0.010 | 21.55810 | 40.00000 | Averaged |

Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msdx.i/27mar10.b/x032702.d
Lab Smp Id: CCV-1 Client Smp ID: CCV-1
Inj Date : 27-MAR-2010 08:47
Operator : ra Inst ID: msdx.i
Smp Info : 50ml #1911-273
Misc Info : 50ppbv(200ppbv)
Comment :
Method : /chem/msdx.i/27mar10.b/x10q0323a.m
Meth Date : 27-Mar-2010 09:49 rallen Quant Type: ISTD
Cal Date : 23-MAR-2010 22:49 Cal File: x032312.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT09.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| | | | | AMOUNTS | | | |
|---|---|---|---|---|---|---|---|
| | | | | CAL-AMT | ON-COL | | |
| RT | EXP RT (REL RT) | MASS | RESPONSE | ( PPBV) | ( PPBV) | TARGET RANGE | RATIO |
| * 82 Bromochloromethane | | | | | CAS #: 74-97-5 | | |
| 15.557 | 15.557 (1.000) | 130 | 248468 | 25.0000 | | 80.00- 120.00 | 100.00 |
| 15.557 | 15.557 (1.000) | 128 | 192566 | | | 27.50- 127.50 | 77.50 |
| 15.529 | 15.529 (1.000) | 49 | 304398 | | | 72.51- 172.51 | 122.51 |
| * 97 1,4-Difluorobenzene | | | | | CAS #: 540-36-3 | | |
| 16.995 | 16.995 (1.000) | 114 | 1126336 | 25.0000 | | 80.00- 120.00 | 100.00 |
| 16.995 | 16.995 (1.000) | 88 | 191168 | | | 0.00- 66.97 | 16.97 |
| * 126 Chlorobenzene-d5 | | | | | CAS #: 3114-55-4 | | |
| 21.418 | 21.418 (1.000) | 117 | 1023653 | 25.0000 | | 80.00- 120.00 | 100.00 |
| 21.418 | 21.418 (1.000) | 82 | 637391 | | | 11.03- 111.03 | 62.27 |
| $ 93 1,2-Dichloroethane-d4 | | | | | CAS #: 17060-07-0 | | |
| 16.414 | 16.414 (1.055) | 65 | 369991 | 25.0000 | 24.650 | 80.00- 120.00 | 100.00 |
| 16.414 | 16.414 (1.055) | 67 | 202329 | | | 3.54- 103.54 | 54.68 |
| $ 114 Toluene-d8 | | | | | CAS #: 2037-26-5 | | |
| 19.289 | 19.289 (1.135) | 98 | 1200349 | 25.0000 | 25.459 | 80.00- 120.00 | 100.00 |
| 19.289 | 19.289 (1.135) | 70 | 142224 | | | 0.00- 62.10 | 11.85 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 114 Toluene-d8 (continued) | | | | | | | |
| 19.289 | 19.289 (1.135) | 100 | 807976 | | | 17.13- 117.13 | 67.31 |
| $ 138 Bromofluorobenzene | | | | | CAS #: 460-00-4 | | |
| 22.994 | 22.994 (1.074) | 174 | 626526 | 25.0000 | 25.110 | 80.00- 120.00 | 100.00 |
| 22.994 | 22.994 (1.074) | 95 | 843450 | | | 84.62- 184.62 | 134.62 |
| 22.994 | 22.994 (1.074) | 176 | 602653 | | | 46.19- 146.19 | 96.19 |
| 7 Propylene | | | | | CAS #: 115-07-1 | | |
| 3.585 | 3.585 (0.230) | 41 | 200553 | 50.0000 | 46.204 | 80.00- 120.00 | 100.00 |
| 3.585 | 3.585 (0.230) | 42 | 127120 | | | 15.48- 115.48 | 63.38 |
| 3.585 | 3.585 (0.230) | 39 | 164231 | | | 27.90- 127.90 | 81.89 |
| 9 Dichlorodifluoromethane/Fr12 | | | | | CAS #: 75-71-8 | | |
| 3.972 | 3.972 (0.255) | 85 | 1041550 | 50.0000 | 52.942 | 80.00- 120.00 | 100.00 |
| 3.972 | 3.972 (0.255) | 87 | 334700 | | | 0.00- 80.46 | 32.13 |
| 13 Freon 114 | | | | | CAS #: 76-14-2 | | |
| 5.188 | 5.188 (0.334) | 135 | 663546 | 50.0000 | 51.691 | 80.00- 120.00 | 100.00 |
| 5.188 | 5.188 (0.334) | 137 | 209937 | | | 0.00- 81.64 | 31.64 |
| 15 Chloromethane | | | | | CAS #: 74-87-3 | | |
| 5.548 | 5.548 (0.357) | 50 | 224608 | 50.0000 | 47.242 | 80.00- 120.00 | 100.00 |
| 5.548 | 5.548 (0.357) | 52 | 73044 | | | 0.00- 82.17 | 32.52 |
| 20 Butane | | | | | CAS #: 106-97-8 | | |
| 6.267 | 6.267 (0.403) | 58 | 57192 | 50.0000 | 47.920 | 80.00- 120.00 | 100.00 |
| 6.267 | 6.267 (0.403) | 43 | 391781 | | | 660.00- 760.00 | 685.03 |
| 21 Vinyl Chloride | | | | | CAS #: 75-01-4 | | |
| 6.460 | 6.460 (0.415) | 62 | 296605 | 50.0000 | 49.245 | 80.00- 120.00 | 100.00 |
| 6.460 | 6.460 (0.415) | 64 | 94622 | | | 0.00- 81.56 | 31.90 |
| 23 1,3-Butadiene | | | | | CAS #: 106-99-0 | | |
| 6.709 | 6.709 (0.431) | 54 | 206258 | 50.0000 | 49.135 | 80.00- 120.00 | 100.00 |
| 6.709 | 6.709 (0.431) | 39 | 215035 | | | 69.34- 169.34 | 104.26 |
| 25 Bromomethane | | | | | CAS #: 74-83-9 | | |
| 8.396 | 8.396 (0.540) | 94 | 337457 | 50.0000 | 51.655 | 80.00- 120.00 | 100.00 |
| 8.396 | 8.396 (0.540) | 96 | 314218 | | | 43.11- 143.11 | 93.11 |
| 27 Chloroethane | | | | | CAS #: 75-00-3 | | |
| 8.976 | 8.976 (0.577) | 64 | 215650 | 50.0000 | 47.898 | 80.00- 120.00 | 100.00 |
| 8.976 | 8.976 (0.577) | 49 | 50302 | | | 0.00- 73.54 | 23.33 |
| 8.976 | 8.976 (0.577) | 66 | 70855 | | | 0.00- 82.74 | 32.86 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 28 Isopentane | | | | | CAS #: 78-78-4 | | |
| 9.142 | 9.142 (0.588) | 43 | 399386 | 50.0000 | 46.053 | 80.00- 120.00 | 100.00 |
| 9.142 | 9.142 (0.588) | 57 | 302269 | | | 24.52- 124.52 | 75.68 |
| 31 Trichlorofluoromethane/Fr11 | | | | | CAS #: 75-69-4 | | |
| 9.916 | 9.916 (0.637) | 101 | 1214284 | 50.0000 | 51.812 | 80.00- 120.00 | 100.00 |
| 9.916 | 9.916 (0.637) | 103 | 781348 | | | 14.35- 114.35 | 64.35 |
| 40 Ethanol | | | | | CAS #: 64-17-5 | | |
| 11.133 | 11.133 (0.716) | 45 | 148155 | 50.0000 | 42.136 | 80.00- 120.00 | 100.00 |
| 11.133 | 11.133 (0.716) | 43 | 33843 | | | 0.00- 73.32 | 22.84 |
| 11.133 | 11.133 (0.716) | 46 | 58632 | | | 0.00- 86.84 | 39.57 |
| 42 1,1-Dichloroethene | | | | | CAS #: 75-35-4 | | |
| 11.548 | 11.548 (0.742) | 61 | 773077 | 50.0000 | 48.643 | 80.00- 120.00 | 100.00 |
| 11.548 | 11.548 (0.742) | 96 | 493269 | | | 13.81- 113.81 | 63.81 |
| 11.548 | 11.548 (0.742) | 98 | 314307 | | | 0.00- 90.66 | 40.66 |
| 44 Freon 113 | | | | | CAS #: 76-13-1 | | |
| 11.575 | 11.575 (0.744) | 151 | 849771 | 50.0000 | 49.502 | 80.00- 120.00 | 100.00 |
| 11.575 | 11.575 (0.744) | 153 | 547533 | | | 14.43- 114.43 | 64.43 |
| 11.575 | 11.575 (0.744) | 101 | 1038238 | | | 72.18- 172.18 | 122.18 |
| 46 Carbon Disulfide | | | | | CAS #: 75-15-0 | | |
| 11.907 | 11.907 (0.765) | 76 | 1571074 | 50.0000 | 51.084 | 80.00- 120.00 | 100.00 |
| 48 Acetone | | | | | CAS #: 67-64-1 | | |
| 11.935 | 11.935 (0.767) | 58 | 224582 | 50.0000 | 44.451 | 80.00- 120.00 | 100.00 |
| 11.935 | 11.935 (0.767) | 43 | 664203 | | | 241.90- 341.90 | 295.75 |
| 49 2-Propanol | | | | | CAS #: 67-63-0 | | |
| 12.405 | 12.405 (0.797) | 45 | 743380 | 50.0000 | 43.104 | 80.00- 120.00 | 100.00 |
| 12.405 | 12.405 (0.797) | 43 | 148173 | | | 0.00- 69.01 | 19.93 |
| 12.405 | 12.405 (0.797) | 59 | 33016 | | | 0.00- 54.28 | 4.44 |
| 51 3-Chloropropene | | | | | CAS #: 107-05-1 | | |
| 12.543 | 12.543 (0.806) | 76 | 258029 | 50.0000 | 47.464 | 80.00- 120.00 | 100.00 |
| 12.543 | 12.543 (0.806) | 41 | 584383 | | | 189.04- 289.04 | 226.48 |
| 57 Methylene Chloride | | | | | CAS #: 75-09-2 | | |
| 12.875 | 12.875 (0.828) | 49 | 549411 | 50.0000 | 46.635 | 80.00- 120.00 | 100.00 |
| 12.875 | 12.875 (0.828) | 84 | 499753 | | | 40.96- 140.96 | 90.96 |
| 12.875 | 12.875 (0.828) | 51 | 169627 | | | 0.00- 80.24 | 30.87 |
| 58 tert-Butyl-Alcohol | | | | | CAS #: 75-65-0 | | |
| 13.207 | 13.207 (0.849) | 59 | 948368 | 50.0000 | 42.954 | 80.00- 120.00 | 100.00 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 58 tert-Butyl-Alcohol (continued) | | | | | | | |
| 13.262 | 13.262 (0.852) | 41 | 497164 | | | 7.50- 107.50 | 52.42 |
| 13.262 | 13.262 (0.852) | 57 | 441186 | | | 0.00- 96.91 | 46.52 |
| 60 MTBE | | | | | CAS #: 1634-04-4 | | |
| 13.262 | 13.262 (0.852) | 73 | 1726389 | 50.0000 | 47.430 | 80.00- 120.00 | 100.00 |
| 13.262 | 13.262 (0.852) | 57 | 441186 | | | 0.00- 75.56 | 25.56 |
| 13.262 | 13.262 (0.852) | 41 | 497164 | | | 0.00- 81.24 | 28.80 |
| 61 trans-1,2-Dichloroethene | | | | | CAS #: 156-60-5 | | |
| 13.317 | 13.317 (0.856) | 96 | 592173 | 50.0000 | 46.370 | 80.00- 120.00 | 100.00 |
| 13.317 | 13.317 (0.856) | 61 | 806065 | | | 86.12- 186.12 | 136.12 |
| 13.317 | 13.317 (0.856) | 98 | 377065 | | | 11.08- 111.08 | 63.67 |
| 65 Hexane | | | | | CAS #: 110-54-3 | | |
| 13.677 | 13.677 (0.879) | 57 | 895818 | 50.0000 | 42.918 | 80.00- 120.00 | 100.00 |
| 13.677 | 13.677 (0.879) | 43 | 525501 | | | 11.57- 111.57 | 58.66 |
| 13.704 | 13.704 (0.881) | 86 | 183382 | | | 0.00- 69.73 | 20.47 |
| 67 1,1-Dichloroethane | | | | | CAS #: 75-34-3 | | |
| 14.174 | 14.174 (0.911) | 63 | 1069253 | 50.0000 | 45.699 | 80.00- 120.00 | 100.00 |
| 14.174 | 14.174 (0.911) | 65 | 347779 | | | 0.00- 82.53 | 32.53 |
| 68 Isopropyl ether | | | | | CAS #: 108-20-3 | | |
| 14.147 | 14.147 (0.909) | 45 | 1833044 | 50.0000 | 44.471 | 80.00- 120.00 | 100.00 |
| 14.147 | 14.147 (0.909) | 87 | 616941 | | | 0.00- 82.62 | 33.66 |
| 14.147 | 14.147 (0.909) | 59 | 228822 | | | 0.00- 62.33 | 12.48 |
| 69 Vinyl Acetate | | | | | CAS #: 108-05-4 | | |
| 14.257 | 14.257 (0.916) | 86 | 161958 | 50.0000 | 47.700 | 80.00- 120.00 | 100.00 |
| 14.257 | 14.257 (0.916) | 43 | 1322900 | | | 838.14- 938.14 | 816.82 |
| 74 t-Butylethyl Ether | | | | | CAS #: 637-92-3 | | |
| 14.727 | 14.727 (0.947) | 59 | 1897476 | 50.0000 | 44.968 | 80.00- 120.00 | 100.00 |
| 14.727 | 14.727 (0.947) | 87 | 895485 | | | 0.00- 95.91 | 47.19 |
| 14.727 | 14.727 (0.947) | 41 | 312271 | | | 0.00- 67.22 | 16.46 |
| 76 cis-1,2-Dichloroethene | | | | | CAS #: 156-59-2 | | |
| 15.170 | 15.170 (0.975) | 96 | 646568 | 50.0000 | 45.035 | 80.00- 120.00 | 100.00 |
| 15.170 | 15.170 (0.975) | 61 | 803798 | | | 74.32- 174.32 | 124.32 |
| 15.170 | 15.170 (0.975) | 98 | 404691 | | | 12.59- 112.59 | 62.59 |
| 77 2-Butanone | | | | | CAS #: 78-93-3 | | |
| 15.170 | 15.170 (0.975) | 72 | 338555 | 50.0000 | 46.749 | 80.00- 120.00 | 100.00 |
| 15.170 | 15.170 (0.975) | 43 | 1087424 | | | 271.20- 371.20 | 321.20 |
| 15.170 | 15.170 (0.975) | 57 | 91364 | | | 0.00- 80.83 | 26.99 |

| | | | | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| RT | EXP RT (REL RT) | MASS | RESPONSE | | | | |
| 81 Tetrahydrofuran | | | | | CAS #: 109-99-9 | | |
| 15.501 | 15.501 (0.996) | 42 | 651958 | 50.0000 | 42.929 | 80.00- 120.00 | 100.00 |
| 15.501 | 15.501 (0.996) | 71 | 308507 | | | 0.00- 97.32 | 47.32 |
| 15.501 | 15.501 (0.996) | 72 | 332035 | | | 0.00- 97.64 | 50.93 |
| 83 Chloroform | | | | | CAS #: 67-66-3 | | |
| 15.640 | 15.640 (1.005) | 83 | 1257266 | 50.0000 | 45.635 | 80.00- 120.00 | 100.00 |
| 15.640 | 15.640 (1.005) | 85 | 818429 | | | 15.10- 115.10 | 65.10 |
| 84 Cyclohexane | | | | | CAS #: 110-82-7 | | |
| 15.833 | 15.833 (1.018) | 84 | 1038676 | 50.0000 | 48.286 | 80.00- 120.00 | 100.00 |
| 15.806 | 15.806 (1.016) | 56 | 1062285 | | | 52.27- 152.27 | 102.27 |
| 15.806 | 15.806 (1.016) | 41 | 535024 | | | 1.51- 101.51 | 51.51 |
| 85 1,1,1-Trichloroethane | | | | | CAS #: 71-55-6 | | |
| 15.861 | 15.861 (1.020) | 97 | 1372603 | 50.0000 | 49.012 | 80.00- 120.00 | 100.00 |
| 15.861 | 15.861 (1.020) | 99 | 876512 | | | 13.86- 113.86 | 63.86 |
| 87 Carbon Tetrachloride | | | | | CAS #: 56-23-5 | | |
| 16.054 | 16.054 (1.032) | 119 | 1316010 | 50.0000 | 51.097 | 80.00- 120.00 | 100.00 |
| 16.054 | 16.054 (1.032) | 117 | 1421341 | | | 58.00- 158.00 | 108.00 |
| 91 2,2,4-Trimethylpentane | | | | | CAS #: 540-84-1 | | |
| 16.331 | 16.331 (1.050) | 57 | 3245729 | 50.0000 | 45.317 | 80.00- 120.00 | 100.00 |
| 16.331 | 16.331 (1.050) | 56 | 1069318 | | | 0.00- 83.35 | 32.95 |
| 16.331 | 16.331 (1.050) | 41 | 781881 | | | 0.00- 74.44 | 24.09 |
| 92 Benzene | | | | | CAS #: 71-43-2 | | |
| 16.386 | 16.386 (0.964) | 78 | 2295150 | 50.0000 | 48.261 | 80.00- 120.00 | 100.00 |
| 16.386 | 16.386 (0.964) | 77 | 527119 | | | 0.00- 72.86 | 22.97 |
| 94 tert-amyl-Methyl Ether | | | | | CAS #: 994-05-8 | | |
| 16.442 | 16.442 (1.057) | 73 | 2319507 | 50.0000 | 47.804 | 80.00- 120.00 | 100.00 |
| 16.469 | 16.469 (1.059) | 87 | 546111 | | | 0.00- 73.39 | 23.54 |
| 16.442 | 16.442 (1.057) | 55 | 505097 | | | 0.00- 72.12 | 21.78 |
| 95 1,2-Dichloroethane | | | | | CAS #: 107-06-2 | | |
| 16.525 | 16.525 (0.972) | 62 | 908536 | 50.0000 | 47.439 | 80.00- 120.00 | 100.00 |
| 16.525 | 16.525 (0.972) | 64 | 296248 | | | 0.00- 82.38 | 32.61 |
| 96 Heptane | | | | | CAS #: 142-82-5 | | |
| 16.580 | 16.580 (0.976) | 71 | 869476 | 50.0000 | 48.491 | 80.00- 120.00 | 100.00 |
| 16.580 | 16.580 (0.976) | 43 | 1206835 | | | 92.16- 192.16 | 138.80 |
| 16.580 | 16.580 (0.976) | 57 | 682737 | | | 30.60- 130.60 | 78.52 |
| 100 Trichloroethene | | | | | CAS #: 79-01-6 | | |
| 17.382 | 17.382 (1.023) | 95 | 920330 | 50.0000 | 48.227 | 80.00- 120.00 | 100.00 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 100 Trichloroethene (continued) | | | | | | | |
| 17.382 | 17.382 (1.023) | 130 | 919144 | | | 49.87- 149.87 | 99.87 |
| 17.382 | 17.382 (1.023) | 97 | 590056 | | | 14.11- 114.11 | 64.11 |
| 102 Methyl Cyclohexane | | | | | CAS #: 108-87-2 | | |
| 17.575 | 17.575 (1.130) | 83 | 1512397 | 50.0000 | 48.538 | 80.00- 120.00 | 100.00 |
| 17.575 | 17.575 (1.130) | 98 | 722577 | | | 0.00- 97.07 | 47.78 |
| 17.575 | 17.575 (1.130) | 55 | 1067470 | | | 23.96- 123.96 | 70.58 |
| 104 1,2-Dichloropropane | | | | | CAS #: 78-87-5 | | |
| 17.796 | 17.796 (1.047) | 63 | 799916 | 50.0000 | 48.096 | 80.00- 120.00 | 100.00 |
| 17.796 | 17.796 (1.047) | 62 | 567923 | | | 21.00- 121.00 | 71.00 |
| 17.796 | 17.796 (1.047) | 41 | 416594 | | | 2.08- 102.08 | 52.08 |
| 106 1,4-Dioxane | | | | | CAS #: 123-91-1 | | |
| 17.935 | 17.935 (1.055) | 88 | 549173 | 50.0000 | 48.462 | 80.00- 120.00 | 100.00 |
| 17.935 | 17.935 (1.055) | 58 | 344134 | | | 12.66- 112.66 | 62.66 |
| 17.935 | 17.935 (1.055) | 57 | 109153 | | | 0.00- 70.49 | 19.88 |
| 108 Bromodichloromethane | | | | | CAS #: 75-27-4 | | |
| 18.239 | 18.239 (1.073) | 83 | 1537975 | 50.0000 | 50.700 | 80.00- 120.00 | 100.00 |
| 18.239 | 18.239 (1.073) | 85 | 978769 | | | 13.64- 113.64 | 63.64 |
| 110 cis-1,3-Dichloropropene | | | | | CAS #: 10061-01-5 | | |
| 18.958 | 18.958 (1.115) | 75 | 1253917 | 50.0000 | 49.966 | 80.00- 120.00 | 100.00 |
| 18.958 | 18.958 (1.115) | 77 | 394664 | | | 0.00- 81.47 | 31.47 |
| 18.958 | 18.958 (1.115) | 39 | 533042 | | | 0.00- 92.51 | 42.51 |
| 112 4-Methyl-2-pentanone | | | | | CAS #: 108-10-1 | | |
| 19.096 | 19.096 (1.124) | 58 | 649737 | 50.0000 | 49.185 | 80.00- 120.00 | 100.00 |
| 19.096 | 19.096 (1.124) | 43 | 1554950 | | | 188.63- 288.63 | 239.32 |
| 19.096 | 19.096 (1.124) | 85 | 323095 | | | 0.00- 99.25 | 49.73 |
| 115 Toluene | | | | | CAS #: 108-88-3 | | |
| 19.400 | 19.400 (1.142) | 91 | 2941742 | 50.0000 | 49.765 | 80.00- 120.00 | 100.00 |
| 19.400 | 19.400 (1.142) | 92 | 1765580 | | | 10.02- 110.02 | 60.02 |
| 116 trans-1,3-Dichloropropene | | | | | CAS #: 10061-02-6 | | |
| 19.787 | 19.787 (0.924) | 75 | 1359355 | 50.0000 | 53.651 | 80.00- 120.00 | 100.00 |
| 19.787 | 19.787 (0.924) | 77 | 429170 | | | 0.00- 81.57 | 31.57 |
| 19.787 | 19.787 (0.924) | 39 | 560476 | | | 0.00- 91.23 | 41.23 |
| 117 1,1,2-Trichloroethane | | | | | CAS #: 79-00-5 | | |
| 20.064 | 20.064 (0.937) | 97 | 887876 | 50.0000 | 50.144 | 80.00- 120.00 | 100.00 |
| 20.064 | 20.064 (0.937) | 99 | 550368 | | | 11.99- 111.99 | 61.99 |
| 20.064 | 20.064 (0.937) | 83 | 754571 | | | 34.99- 134.99 | 84.99 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 118 Tetrachloroethene | | | | | CAS #: 127-18-4 | | |
| 20.174 | 20.174 (0.942) | 166 | 1283593 | 50.0000 | 50.604 | 80.00- 120.00 | 100.00 |
| 20.174 | 20.174 (0.942) | 129 | 912715 | | | 21.11- 121.11 | 71.11 |
| 20.174 | 20.174 (0.942) | 131 | 877892 | | | 18.39- 118.39 | 68.39 |
| 120 2-Hexanone | | | | | CAS #: 591-78-6 | | |
| 20.312 | 20.312 (0.948) | 58 | 889285 | 50.0000 | 48.932 | 80.00- 120.00 | 100.00 |
| 20.312 | 20.312 (0.948) | 43 | 1562205 | | | 125.67- 225.67 | 175.67 |
| 20.312 | 20.312 (0.948) | 100 | 217966 | | | 0.00- 73.54 | 24.51 |
| 124 Dibromochloromethane | | | | | CAS #: 124-48-1 | | |
| 20.644 | 20.644 (0.964) | 129 | 1506723 | 50.0000 | 54.805 | 80.00- 120.00 | 100.00 |
| 20.644 | 20.644 (0.964) | 127 | 1166753 | | | 29.13- 129.13 | 77.44 |
| 125 1,2-Dibromoethane | | | | | CAS #: 106-93-4 | | |
| 20.865 | 20.865 (0.974) | 107 | 1350397 | 50.0000 | 51.626 | 80.00- 120.00 | 100.00 |
| 20.865 | 20.865 (0.974) | 109 | 1253646 | | | 42.84- 142.84 | 92.84 |
| 127 Chlorobenzene | | | | | CAS #: 108-90-7 | | |
| 21.474 | 21.474 (1.003) | 112 | 2162139 | 50.0000 | 49.753 | 80.00- 120.00 | 100.00 |
| 21.474 | 21.474 (1.003) | 114 | 689363 | | | 0.00- 81.88 | 31.88 |
| 21.474 | 21.474 (1.003) | 77 | 1753337 | | | 31.09- 131.09 | 81.09 |
| 128 Ethyl Benzene | | | | | CAS #: 100-41-4 | | |
| 21.529 | 21.529 (1.005) | 106 | 1198679 | 50.0000 | 51.777 | 80.00- 120.00 | 100.00 |
| 21.529 | 21.529 (1.005) | 91 | 3949969 | | | 282.07- 382.07 | 329.53 |
| 131 m,p-Xylene | | | | | CAS #: 108-38-3 | | |
| 21.667 | 21.667 (1.012) | 106 | 1518436 | 50.0000 | 50.937 | 80.00- 120.00 | 100.00 |
| 21.667 | 21.667 (1.012) | 91 | 3195034 | | | 158.71- 258.71 | 210.42 |
| 132 o-Xylene | | | | | CAS #: 95-47-6 | | |
| 22.248 | 22.248 (1.039) | 106 | 1432362 | 50.0000 | 51.053 | 80.00- 120.00 | 100.00 |
| 22.248 | 22.248 (1.039) | 91 | 3183660 | | | 172.27- 272.27 | 222.27 |
| 133 Styrene | | | | | CAS #: 100-42-5 | | |
| 22.276 | 22.276 (1.040) | 104 | 2344071 | 50.0000 | 51.624 | 80.00- 120.00 | 100.00 |
| 22.276 | 22.276 (1.040) | 78 | 1287719 | | | 4.94- 104.94 | 54.94 |
| 135 Bromoform | | | | | CAS #: 75-25-2 | | |
| 22.607 | 22.607 (1.056) | 173 | 1475035 | 50.0000 | 53.751 | 80.00- 120.00 | 100.00 |
| 22.607 | 22.607 (1.056) | 171 | 757658 | | | 1.37- 101.37 | 51.37 |
| 136 Cumene | | | | | CAS #: 98-82-8 | | |
| 22.690 | 22.690 (1.059) | 105 | 4320434 | 50.0000 | 50.831 | 80.00- 120.00 | 100.00 |
| 22.690 | 22.690 (1.059) | 120 | 1073601 | | | 0.00- 74.88 | 24.85 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 136 Cumene (continued) | | | | | | | |
| 22.663 | 22.663 (1.058) | 51 | 403438 | | | 0.00- 59.69 | 9.34 |
| 139 1,1,2,2-Tetrachloroethane | | | | | CAS #: 79-34-5 | | |
| 23.160 | 23.160 (1.081) | 83 | 1981964 | 50.0000 | 48.682 | 80.00- 120.00 | 100.00 |
| 23.160 | 23.160 (1.081) | 85 | 1268126 | | | 13.98- 113.98 | 63.98 |
| 140 Propylbenzene | | | | | CAS #: 103-65-1 | | |
| 23.216 | 23.216 (1.084) | 91 | 5110906 | 50.0000 | 49.544 | 80.00- 120.00 | 100.00 |
| 23.216 | 23.216 (1.084) | 120 | 1086082 | | | 0.00- 71.67 | 21.25 |
| 23.216 | 23.216 (1.084) | 105 | 187991 | | | 0.00- 53.88 | 3.68 |
| 144 4-Ethyltoluene | | | | | CAS #: 622-96-8 | | |
| 23.354 | 23.354 (1.090) | 105 | 4617480 | 50.0000 | 48.109 | 80.00- 120.00 | 100.00 |
| 23.354 | 23.354 (1.090) | 120 | 1317516 | | | 0.00- 78.53 | 28.53 |
| 146 1,3,5-Trimethylbenzene | | | | | CAS #: 108-67-8 | | |
| 23.409 | 23.409 (1.093) | 105 | 3803649 | 50.0000 | 47.275 | 80.00- 120.00 | 100.00 |
| 23.409 | 23.409 (1.093) | 120 | 1711835 | | | 0.00- 95.92 | 45.01 |
| 151 1,2,4-Trimethylbenzene | | | | | CAS #: 95-63-6 | | |
| 23.907 | 23.907 (1.116) | 105 | 3482386 | 50.0000 | 45.095 | 80.00- 120.00 | 100.00 |
| 23.907 | 23.907 (1.116) | 120 | 1484035 | | | 0.00- 93.46 | 42.62 |
| 156 1,3-Dichlorobenzene | | | | | CAS #: 541-73-1 | | |
| 24.405 | 24.405 (1.139) | 146 | 2162851 | 50.0000 | 45.681 | 80.00- 120.00 | 100.00 |
| 24.405 | 24.405 (1.139) | 148 | 1381674 | | | 13.99- 113.99 | 63.88 |
| 24.377 | 24.377 (1.138) | 111 | 916189 | | | 0.00- 92.34 | 42.36 |
| 158 1,4-Dichlorobenzene | | | | | CAS #: 106-46-7 | | |
| 24.515 | 24.515 (1.145) | 146 | 2154287 | 50.0000 | 45.952 | 80.00- 120.00 | 100.00 |
| 24.515 | 24.515 (1.145) | 148 | 1369177 | | | 14.08- 114.08 | 63.56 |
| 24.515 | 24.515 (1.145) | 111 | 871384 | | | 0.00- 90.50 | 40.45 |
| 160 alpha-Chlorotoluene | | | | | CAS #: 100-44-7 | | |
| 24.681 | 24.681 (1.152) | 91 | 3241182 | 50.0000 | 51.026 | 80.00- 120.00 | 100.00 |
| 24.681 | 24.681 (1.152) | 126 | 606640 | | | 0.00- 68.80 | 18.72 |
| 162 1,2-Dichlorobenzene | | | | | CAS #: 95-50-1 | | |
| 25.013 | 25.013 (1.168) | 146 | 2004266 | 50.0000 | 45.317 | 80.00- 120.00 | 100.00 |
| 25.013 | 25.013 (1.168) | 148 | 1272983 | | | 13.51- 113.51 | 63.51 |
| 25.013 | 25.013 (1.168) | 111 | 871467 | | | 0.00- 93.48 | 43.48 |
| 168 1,2,4-Trichlorobenzene | | | | | CAS #: 120-82-1 | | |
| 27.031 | 27.031 (1.262) | 180 | 1421203 | 50.0000 | 40.944 | 80.00- 120.00 | 100.00 |
| 27.031 | 27.031 (1.262) | 182 | 1352828 | | | 45.19- 145.19 | 95.19 |

| | | | | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| RT | EXP RT (REL RT) | MASS | RESPONSE | | | | |
| == | ====== ======== | ==== | ======== | ======= | ======= | ========== | ===== |
| 169 Hexachlorobutadiene | | | | | CAS #: 87-68-3 | | |
| 27.114 | 27.114 (1.266) | 225 | 1317419 | 50.0000 | 44.953 | 80.00- 120.00 | 100.00 |
| 27.114 | 27.114 (1.266) | 223 | 833328 | | | 13.33- 113.33 | 63.25 |
| 170 Naphthalene | | | | | CAS #: 91-20-3 | | |
| 27.418 | 27.418 (1.280) | 128 | 2733151 | 50.0000 | 39.221 | 80.00- 120.00 | 100.00 |
| 27.418 | 27.418 (1.280) | 127 | 340352 | | | 0.00- 62.65 | 12.45 |

Report Date: 27-Mar-2010 09:49

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdx.i
Lab File ID: x032702.d
Lab Smp Id: CCV-1
Analysis Type: VOA
Quant Type: ISTD
Operator: ra
Method File: /chem/msdx.i/27mar10.b/x10q0323a.m
Misc Info: 50ppbv(200ppbv)

Calibration Date: 27-MAR-2010
Calibration Time: 08:47
Client Smp ID: CCV-1
Level: LOW
Sample Type: AIR

| | | AREA LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 82 Bromochloromethan | 248468 | 149081 | 347855 | 248468 | 0.00 |
| 97 1,4-Difluorobenze | 1126336 | 675802 | 1576870 | 1126336 | 0.00 |
| 126 Chlorobenzene-d5 | 1023653 | 614192 | 1433114 | 1023653 | 0.00 |

| | | RT LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 82 Bromochloromethan | 15.56 | 15.23 | 15.89 | 15.56 | 0.00 |
| 97 1,4-Difluorobenze | 16.99 | 16.66 | 17.32 | 16.99 | 0.00 |
| 126 Chlorobenzene-d5 | 21.42 | 21.09 | 21.75 | 21.42 | 0.00 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msdx.i/27mar10.b/x032702.d

Date : 27-MAR-2010 08:47

Client ID: CCV-1

Sample Info: 50ml #1911-273

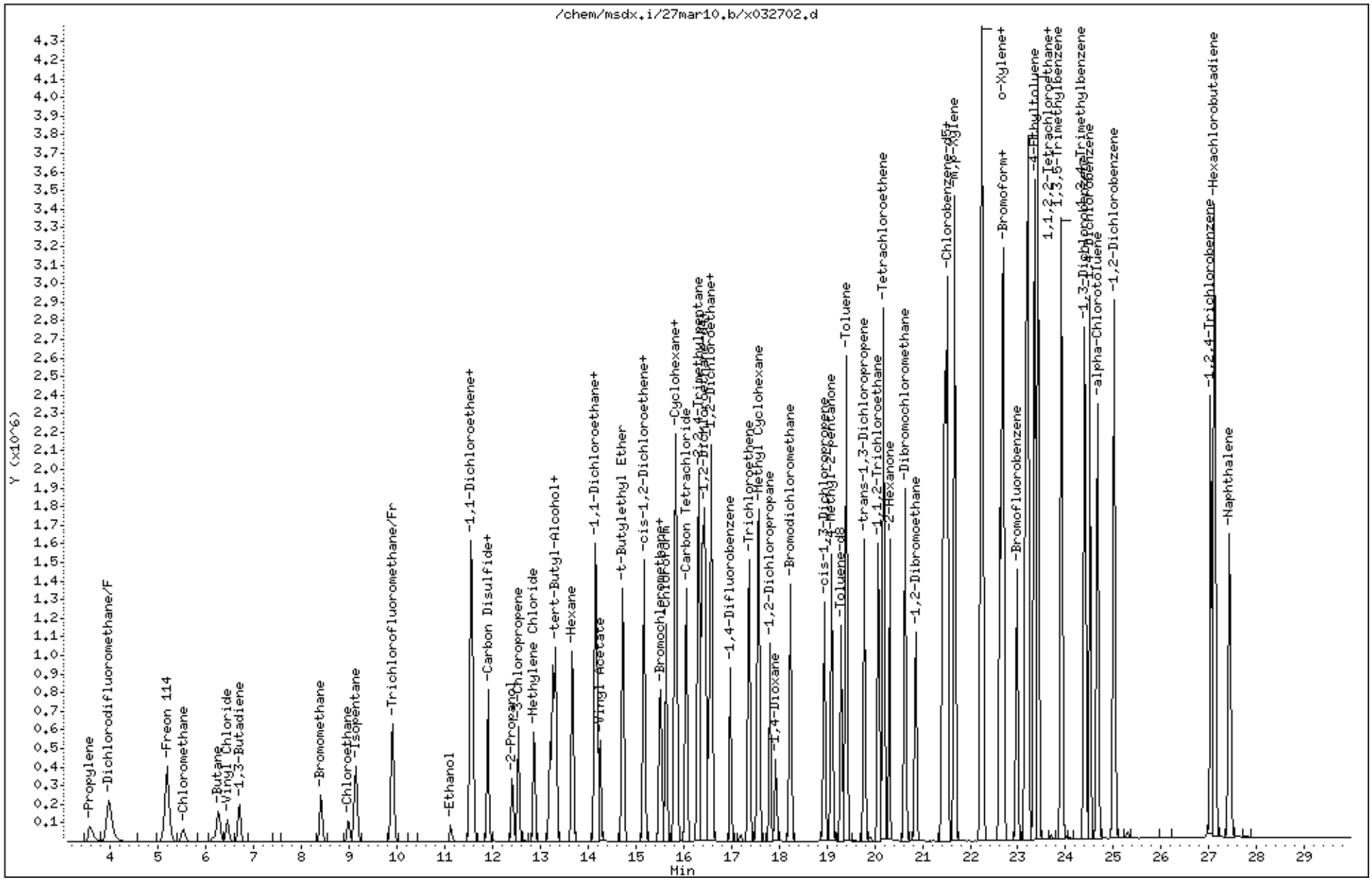
Column phase: RTx-624

Instrument: msdx.i

Operator: ra

Column diameter: 0.53





Air Toxics LTD.
Laboratory Services Since 1989

**Client Sample ID: LCS**

**Lab ID#: 1003514-06A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **x032703** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 3/27/10 09:23 AM** | |

| Compound | %Recovery |
|---|---|
| Freon 12 | 107 |
| Freon 114 | 104 |
| Chloromethane | 98 |
| Vinyl Chloride | 104 |
| 1,3-Butadiene | 101 |
| Bromomethane | 107 |
| Chloroethane | 100 |
| Freon 11 | 106 |
| Ethanol | 84 |
| Freon 113 | 91 |
| 1,1-Dichloroethene | 88 |
| Acetone | 90 |
| 2-Propanol | 89 |
| Carbon Disulfide | 102 |
| 3-Chloropropene | 97 |
| Methylene Chloride | 87 |
| Methyl tert-butyl ether | 99 |
| trans-1,2-Dichloroethene | 96 |
| Hexane | 95 |
| 1,1-Dichloroethane | 94 |
| 2-Butanone (Methyl Ethyl Ketone) | 102 |
| cis-1,2-Dichloroethene | 93 |
| Tetrahydrofuran | 94 |
| Chloroform | 96 |
| 1,1,1-Trichloroethane | 102 |
| Cyclohexane | 101 |
| Carbon Tetrachloride | 107 |
| 2,2,4-Trimethylpentane | 96 |
| Benzene | 96 |
| 1,2-Dichloroethane | 95 |
| Heptane | 99 |
| Trichloroethene | 99 |
| 1,2-Dichloropropane | 99 |
| 1,4-Dioxane | 99 |
| Bromodichloromethane | 103 |
| cis-1,3-Dichloropropene | 104 |
| 4-Methyl-2-pentanone | 98 |
| Toluene | 95 |
| trans-1,3-Dichloropropene | 113 |

Air Toxics LTD.
Laboratory Services Since 1989

**Client Sample ID: LCS**

**Lab ID#: 1003514-06A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **x032703** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 3/27/10 09:23 AM** | |

| Compound | %Recovery |
|---|---|
| 1,1,2-Trichloroethane | 104 |
| Tetrachloroethene | 104 |
| 2-Hexanone | 102 |
| Dibromochloromethane | 114 |
| 1,2-Dibromoethane (EDB) | 111 |
| Chlorobenzene | 104 |
| Ethyl Benzene | 107 |
| m,p-Xylene | 107 |
| o-Xylene | 105 |
| Styrene | 107 |
| Bromoform | 114 |
| Cumene | 103 |
| 1,1,2,2-Tetrachloroethane | 104 |
| Propylbenzene | 102 |
| 4-Ethyltoluene | 102 |
| 1,3,5-Trimethylbenzene | 99 |
| 1,2,4-Trimethylbenzene | 96 |
| 1,3-Dichlorobenzene | 99 |
| 1,4-Dichlorobenzene | 100 |
| alpha-Chlorotoluene | 102 |
| 1,2-Dichlorobenzene | 98 |
| 1,2,4-Trichlorobenzene | 90 |
| Hexachlorobutadiene | 95 |
| Naphthalene | 81 |

**Container Type: NA - Not Applicable**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| Toluene-d8 | 100 | 70-130 |
| 1,2-Dichloroethane-d4 | 102 | 70-130 |
| 4-Bromofluorobenzene | 102 | 70-130 |

Report Date: 27-Mar-2010 09:50

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: 27mar10
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: LCS-1 Client Smp ID: LCS-1
Level: LOW Operator: ra
Data Type: MS DATA SampleType: LCS
SpikeList File: 2926spectra.spk Quant Type: ISTD
Sublist File: AT09.sub
Method File: /chem/msdx.i/27mar10.b/x10q0323a.m
Misc Info: 50ppbv(200ppbv)

| SPIKE COMPOUND | CONC ADDED PPbV | CONC RECOVERED PPbV | % RECOVERED | LIMITS |
|---|---|---|---|---|
| 9 Dichlorodifluorome | 50.000 | 53.498 | 107.00 | 70-130 |
| 13 Freon 114 | 50.000 | 52.273 | 104.55 | 70-130 |
| 15 Chloromethane | 50.000 | 49.051 | 98.10 | 70-130 |
| 21 Vinyl Chloride | 50.000 | 51.844 | 103.69 | 70-130 |
| 23 1,3-Butadiene | 50.000 | 50.707 | 101.41 | 60-140 |
| 25 Bromomethane | 50.000 | 53.357 | 106.71 | 70-130 |
| 27 Chloroethane | 50.000 | 49.808 | 99.62 | 70-130 |
| 31 Trichlorofluoromet | 50.000 | 53.093 | 106.19 | 70-130 |
| 40 Ethanol | 50.000 | 42.011 | 84.02 | 60-140 |
| 44 Freon 113 | 50.000 | 45.682 | 91.36 | 70-130 |
| 42 1,1-Dichloroethene | 50.000 | 44.298 | 88.60 | 70-130 |
| 48 Acetone | 50.000 | 44.804 | 89.61 | 60-140 |
| 46 Carbon Disulfide | 50.000 | 51.135 | 102.27 | 60-140 |
| 49 2-Propanol | 50.000 | 44.658 | 89.32 | 60-140 |
| 57 Methylene Chloride | 50.000 | 43.437 | 86.87 | 70-130 |
| 60 MTBE | 50.000 | 49.640 | 99.28 | 60-140 |
| 61 trans-1,2-Dichloro | 50.000 | 48.016 | 96.03 | 60-140 |
| 65 Hexane | 50.000 | 47.533 | 95.07 | 60-140 |
| 69 Vinyl Acetate | 50.000 | 52.460 | 104.92 | 60-140 |
| 67 1,1-Dichloroethane | 50.000 | 46.816 | 93.63 | 70-130 |
| 76 cis-1,2-Dichloroet | 50.000 | 46.614 | 93.23 | 70-130 |
| 77 2-Butanone | 50.000 | 50.757 | 101.51 | 60-140 |
| 81 Tetrahydrofuran | 50.000 | 47.064 | 94.13 | 60-140 |
| 83 Chloroform | 50.000 | 48.128 | 96.26 | 70-130 |
| 84 Cyclohexane | 50.000 | 50.433 | 100.87 | 60-140 |
| 85 1,1,1-Trichloroeth | 50.000 | 50.834 | 101.67 | 70-130 |
| 87 Carbon Tetrachlori | 50.000 | 53.304 | 106.61 | 70-130 |
| 92 Benzene | 50.000 | 48.285 | 96.57 | 70-130 |
| 95 1,2-Dichloroethane | 50.000 | 47.587 | 95.17 | 70-130 |
| 96 Heptane | 50.000 | 49.382 | 98.76 | 60-140 |
| 100 Trichloroethene | 50.000 | 49.559 | 99.12 | 70-130 |
| 104 1,2-Dichloropropan | 50.000 | 49.507 | 99.01 | 70-130 |
| 106 1,4-Dioxane | 50.000 | 49.438 | 98.88 | 60-140 |

| SPIKE COMPOUND | CONC ADDED PPbV | CONC RECOVERED PPbV | % RECOVERED | LIMITS |
|---|---|---|---|---|
| 108 Bromodichlorometha | 50.000 | 51.374 | 102.75 | 60-140 |
| 110 cis-1,3-Dichloropr | 50.000 | 51.840 | 103.68 | 70-130 |
| 112 4-Methyl-2-pentano | 50.000 | 48.925 | 97.85 | 60-140 |
| 115 Toluene | 50.000 | 47.637 | 95.27 | 70-130 |
| 116 trans-1,3-Dichloro | 50.000 | 56.507 | 113.01 | 70-130 |
| 117 1,1,2-Trichloroeth | 50.000 | 52.179 | 104.36 | 70-130 |
| 118 Tetrachloroethene | 50.000 | 52.184 | 104.37 | 70-130 |
| 120 2-Hexanone | 50.000 | 51.064 | 102.13 | 60-140 |
| 124 Dibromochlorometha | 50.000 | 57.130 | 114.26 | 60-140 |
| 125 1,2-Dibromoethane | 50.000 | 55.353 | 110.71 | 70-130 |
| 127 Chlorobenzene | 50.000 | 51.868 | 103.74 | 70-130 |
| 128 Ethyl Benzene | 50.000 | 53.674 | 107.35 | 70-130 |
| 131 m,p-Xylene | 50.000 | 53.434 | 106.87 | 70-130 |
| 132 o-Xylene | 50.000 | 52.721 | 105.44 | 70-130 |
| 133 Styrene | 50.000 | 53.709 | 107.42 | 70-130 |
| 135 Bromoform | 50.000 | 56.758 | 113.52 | 60-140 |
| 139 1,1,2,2-Tetrachlor | 50.000 | 52.063 | 104.13 | 70-130 |
| 144 4-Ethyltoluene | 50.000 | 51.196 | 102.39 | 60-140 |
| 146 1,3,5-Trimethylben | 50.000 | 49.422 | 98.84 | 70-130 |
| 151 1,2,4-Trimethylben | 50.000 | 47.868 | 95.74 | 70-130 |
| 156 1,3-Dichlorobenzen | 50.000 | 49.365 | 98.73 | 70-130 |
| 158 1,4-Dichlorobenzen | 50.000 | 50.072 | 100.14 | 70-130 |
| 160 alpha-Chlorotoluen | 50.000 | 51.076 | 102.15 | 70-130 |
| 162 1,2-Dichlorobenzen | 50.000 | 48.781 | 97.56 | 70-130 |
| 168 1,2,4-Trichloroben | 50.000 | 45.259 | 90.52 | 70-130 |
| 169 Hexachlorobutadien | 50.000 | 47.533 | 95.07 | 70-130 |
| 140 Propylbenzene | 50.000 | 51.191 | 102.38 | 60-140 |
| 136 Cumene | 50.000 | 51.489 | 102.98 | 60-140 |
| 51 3-Chloropropene | 50.000 | 48.739 | 97.48 | 60-140 |
| 91 2,2,4-Trimethylpen | 50.000 | 48.053 | 96.11 | 60-140 |
| 28 Isopentane | 50.000 | 47.859 | 95.72 | 70-130 |
| 20 Butane | 50.000 | 47.173 | 94.35 | 70-130 |
| 102 Methyl Cyclohexane | 50.000 | 50.933 | 101.87 | 70-130 |
| 7 Propylene | 50.000 | 45.214 | 90.43 | 60-140 |
| 170 Naphthalene | 50.000 | 40.566 | 81.13 | 60-140 |
| 58 tert-Butyl-Alcohol | 50.000 | 48.580 | 97.16 | 60-140 |
| 68 Isopropyl ether | 50.000 | 49.087 | 98.17 | 60-140 |
| 74 t-Butylethyl Ether | 50.000 | 49.888 | 99.78 | 60-140 |
| 94 tert-amyl-Methyl E | 50.000 | 52.979 | 105.96 | 60-140 |

| SURROGATE COMPOUND | CONC ADDED PPbV | CONC RECOVERED PPbV | % RECOVERED | LIMITS |
|---|---|---|---|---|
| $ 93 1,2-Dichloroethane | 25.000 | 25.626 | 102.50 | 70-130 |

| SURROGATE COMPOUND | CONC ADDED PPbV | CONC RECOVERED PPbV | % RECOVERED | LIMITS |
|---|---|---|---|---|
| $ 114 Toluene-d8 | 25.000 | 24.960 | 99.84 | 70-130 |
| $ 138 Bromofluorobenzene | 25.000 | 25.505 | 102.02 | 70-130 |

Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msdx.i/27mar10.b/x032703.d
Lab Smp Id: LCS-1 Client Smp ID: LCS-1
Inj Date : 27-MAR-2010 09:23
Operator : ra Inst ID: msdx.i
Smp Info : 50ml #1911-274
Misc Info : 50ppbv(200ppbv)
Comment :
Method : /chem/msdx.i/27mar10.b/x10q0323a.m
Meth Date : 27-Mar-2010 09:49 rallen Quant Type: ISTD
Cal Date : 23-MAR-2010 22:49 Cal File: x032312.d
Als bottle: 3 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT09.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| | | | | CONCENTRATIONS ON-COL | FINAL | | |
|---|---|---|---|---|---|---|---|
| RT | EXP RT (REL RT) | MASS | RESPONSE | ( PPBV) | ( PPbV) | TARGET RANGE | RATIO |
| * 82 Bromochloromethane | | | | | CAS #: 74-97-5 | | |
| 15.557 | 15.557 (1.000) | 130 | 247912 | 25.0000 | | 80.00- 120.00 | 100.00 |
| 15.557 | 15.557 (1.000) | 128 | 192040 | | | 27.50- 127.50 | 77.46 |
| 15.529 | 15.529 (1.000) | 49 | 304809 | | | 72.51- 172.51 | 122.95 |
| * 97 1,4-Difluorobenzene | | | | | CAS #: 540-36-3 | | |
| 16.994 | 16.995 (1.000) | 114 | 1199845 | 25.0000 | | 80.00- 120.00 | 100.00 |
| 16.994 | 16.995 (1.000) | 88 | 205850 | | | 0.00- 66.97 | 17.16 |
| * 126 Chlorobenzene-d5 | | | | | CAS #: 3114-55-4 | | |
| 21.418 | 21.418 (1.000) | 117 | 1064172 | 25.0000 | | 80.00- 120.00 | 100.00 |
| 21.418 | 21.418 (1.000) | 82 | 655538 | | | 11.03- 111.03 | 61.60 |
| $ 93 1,2-Dichloroethane-d4 | | | | | CAS #: 17060-07-0 | | |
| 16.414 | 16.414 (1.055) | 65 | 383784 | 25.6261 | 25.626 | 80.00- 120.00 | 100.00 |
| 16.414 | 16.414 (1.055) | 67 | 210712 | | | 3.54- 103.54 | 54.90 |
| $ 114 Toluene-d8 | | | | | CAS #: 2037-26-5 | | |
| 19.289 | 19.289 (1.135) | 98 | 1253643 | 24.9600 | 24.960 | 80.00- 120.00 | 100.00 |
| 19.289 | 19.289 (1.135) | 70 | 147340 | | | 0.00- 62.10 | 11.75 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | CONCENTRATIONS FINAL ( PPbV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 114 Toluene-d8 (continued) | | | | | | | |
| 19.289 | 19.289 (1.135) | 100 | 840300 | | | 17.13- 117.13 | 67.03 |
| $ 138 Bromofluorobenzene | | | | | CAS #: 460-00-4 | | |
| 22.994 | 22.994 (1.074) | 174 | 661561 | 25.5047 | 25.505 | 80.00- 120.00 | 100.00 |
| 22.994 | 22.994 (1.074) | 95 | 901177 | | | 84.62- 184.62 | 136.22 |
| 22.994 | 22.994 (1.074) | 176 | 637371 | | | 46.19- 146.19 | 96.34 |
| 7 Propylene | | | | | CAS #: 115-07-1 | | |
| 3.584 | 3.585 (0.230) | 41 | 195818 | 45.2144 | 45.214 | 80.00- 120.00 | 100.00 |
| 3.584 | 3.585 (0.230) | 42 | 130224 | | | 15.48- 115.48 | 66.50 |
| 3.584 | 3.585 (0.230) | 39 | 156454 | | | 27.90- 127.90 | 79.90 |
| 9 Dichlorodifluoromethane/Fr12 | | | | | CAS #: 75-71-8 | | |
| 3.971 | 3.972 (0.255) | 85 | 1050143 | 53.4980 | 53.498 | 80.00- 120.00 | 100.00 |
| 3.971 | 3.972 (0.255) | 87 | 338373 | | | 0.00- 80.46 | 32.22 |
| 13 Freon 114 | | | | | CAS #: 76-14-2 | | |
| 5.188 | 5.188 (0.333) | 135 | 669519 | 52.2734 | 52.273 | 80.00- 120.00 | 100.00 |
| 5.188 | 5.188 (0.333) | 137 | 213498 | | | 0.00- 81.64 | 31.89 |
| 15 Chloromethane | | | | | CAS #: 74-87-3 | | |
| 5.520 | 5.548 (0.355) | 50 | 232689 | 49.0514 | 49.051 | 80.00- 120.00 | 100.00 |
| 5.548 | 5.548 (0.357) | 52 | 74332 | | | 0.00- 82.17 | 31.94 |
| 20 Butane | | | | | CAS #: 106-97-8 | | |
| 6.266 | 6.267 (0.403) | 58 | 56175 | 47.1731 | 47.173 | 80.00- 120.00 | 100.00 |
| 6.266 | 6.267 (0.403) | 43 | 392330 | | | 660.00- 760.00 | 698.41 |
| 21 Vinyl Chloride | | | | | CAS #: 75-01-4 | | |
| 6.460 | 6.460 (0.415) | 62 | 311557 | 51.8435 | 51.844 | 80.00- 120.00 | 100.00 |
| 6.460 | 6.460 (0.415) | 64 | 99380 | | | 0.00- 81.56 | 31.90 |
| 23 1,3-Butadiene | | | | | CAS #: 106-99-0 | | |
| 6.709 | 6.709 (0.431) | 54 | 212380 | 50.7073 | 50.707 | 80.00- 120.00 | 100.00 |
| 6.709 | 6.709 (0.431) | 39 | 223522 | | | 69.34- 169.34 | 105.25 |
| 25 Bromomethane | | | | | CAS #: 74-83-9 | | |
| 8.395 | 8.396 (0.540) | 94 | 347794 | 53.3572 | 53.357 | 80.00- 120.00 | 100.00 |
| 8.423 | 8.396 (0.541) | 96 | 325200 | | | 43.11- 143.11 | 93.50 |
| 27 Chloroethane | | | | | CAS #: 75-00-3 | | |
| 8.976 | 8.976 (0.577) | 64 | 223744 | 49.8077 | 49.808 | 80.00- 120.00 | 100.00 |
| 8.976 | 8.976 (0.577) | 49 | 52104 | | | 0.00- 73.54 | 23.29 |
| 9.004 | 8.976 (0.579) | 66 | 73970 | | | 0.00- 82.74 | 33.06 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPbV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 28 Isopentane | | | | | CAS #: 78-78-4 | | |
| 9.142 | 9.142 (0.588) | 43 | 414121 | 47.8591 | 47.859 | 80.00- 120.00 | 100.00 |
| 9.142 | 9.142 (0.588) | 57 | 316591 | | | 24.52- 124.52 | 76.45 |
| 31 Trichlorofluoromethane/Fr11 | | | | | CAS #: 75-69-4 | | |
| 9.916 | 9.916 (0.637) | 101 | 1241535 | 53.0931 | 53.093 | 80.00- 120.00 | 100.00 |
| 9.916 | 9.916 (0.637) | 103 | 800638 | | | 14.35- 114.35 | 64.49 |
| 40 Ethanol | | | | | CAS #: 64-17-5 | | |
| 11.133 | 11.133 (0.716) | 45 | 147385 | 42.0107 | 42.011 | 80.00- 120.00 | 100.00 |
| 11.133 | 11.133 (0.716) | 43 | 32736 | | | 0.00- 73.32 | 22.21 |
| 11.133 | 11.133 (0.716) | 46 | 57766 | | | 0.00- 86.84 | 39.19 |
| 42 1,1-Dichloroethene | | | | | CAS #: 75-35-4 | | |
| 11.547 | 11.548 (0.742) | 61 | 702438 | 44.2978 | 44.298 | 80.00- 120.00 | 100.00 |
| 11.547 | 11.548 (0.742) | 96 | 447876 | | | 13.81- 113.81 | 63.76 |
| 11.547 | 11.548 (0.742) | 98 | 282517 | | | 0.00- 90.66 | 40.22 |
| 44 Freon 113 | | | | | CAS #: 76-13-1 | | |
| 11.575 | 11.575 (0.744) | 151 | 782439 | 45.6821 | 45.682 | 80.00- 120.00 | 100.00 |
| 11.575 | 11.575 (0.744) | 153 | 500996 | | | 14.43- 114.43 | 64.03 |
| 11.575 | 11.575 (0.744) | 101 | 950037 | | | 72.18- 172.18 | 121.42 |
| 46 Carbon Disulfide | | | | | CAS #: 75-15-0 | | |
| 11.907 | 11.907 (0.765) | 76 | 1569125 | 51.1348 | 51.135 | 80.00- 120.00 | 100.00 |
| 48 Acetone | | | | | CAS #: 67-64-1 | | |
| 11.935 | 11.935 (0.767) | 58 | 225862 | 44.8045 | 44.804 | 80.00- 120.00 | 100.00 |
| 11.935 | 11.935 (0.767) | 43 | 661795 | | | 241.90- 341.90 | 293.01 |
| 49 2-Propanol | | | | | CAS #: 67-63-0 | | |
| 12.432 | 12.405 (0.799) | 45 | 768453 | 44.6580 | 44.658 | 80.00- 120.00 | 100.00 |
| 12.432 | 12.405 (0.799) | 43 | 150074 | | | 0.00- 69.01 | 19.53 |
| 12.432 | 12.405 (0.799) | 59 | 33330 | | | 0.00- 54.28 | 4.34 |
| 51 3-Chloropropene | | | | | CAS #: 107-05-1 | | |
| 12.543 | 12.543 (0.806) | 76 | 264368 | 48.7392 | 48.739 | 80.00- 120.00 | 100.00 |
| 12.543 | 12.543 (0.806) | 41 | 595410 | | | 189.04- 289.04 | 225.22 |
| 57 Methylene Chloride | | | | | CAS #: 75-09-2 | | |
| 12.875 | 12.875 (0.828) | 49 | 510593 | 43.4373 | 43.437 | 80.00- 120.00 | 100.00 |
| 12.902 | 12.875 (0.829) | 84 | 458117 | | | 40.96- 140.96 | 89.72 |
| 12.875 | 12.875 (0.828) | 51 | 155527 | | | 0.00- 80.24 | 30.46 |
| 58 tert-Butyl-Alcohol | | | | | CAS #: 75-65-0 | | |
| 13.206 | 13.207 (0.849) | 59 | 1070187 | 48.5800 | 48.580 | 80.00- 120.00 | 100.00 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | CONCENTRATIONS FINAL ( PPbV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 58 tert-Butyl-Alcohol (continued) | | | | | | | |
| 13.262 | 13.262 (0.852) | 41 | 528656 | | | 7.50- 107.50 | 49.40 |
| 13.262 | 13.262 (0.852) | 57 | 470522 | | | 0.00- 96.91 | 43.97 |
| 60 MTBE | | | | | CAS #: 1634-04-4 | | |
| 13.262 | 13.262 (0.852) | 73 | 1802792 | 49.6398 | 49.640 | 80.00- 120.00 | 100.00 |
| 13.262 | 13.262 (0.852) | 57 | 470522 | | | 0.00- 75.56 | 26.10 |
| 13.262 | 13.262 (0.852) | 41 | 528656 | | | 0.00- 81.24 | 29.32 |
| 61 trans-1,2-Dichloroethene | | | | | CAS #: 156-60-5 | | |
| 13.317 | 13.317 (0.856) | 96 | 611825 | 48.0162 | 48.016 | 80.00- 120.00 | 100.00 |
| 13.317 | 13.317 (0.856) | 61 | 835785 | | | 86.12- 186.12 | 136.61 |
| 13.317 | 13.317 (0.856) | 98 | 386264 | | | 11.08- 111.08 | 63.13 |
| 65 Hexane | | | | | CAS #: 110-54-3 | | |
| 13.676 | 13.677 (0.879) | 57 | 989940 | 47.5333 | 47.533 | 80.00- 120.00 | 100.00 |
| 13.676 | 13.677 (0.879) | 43 | 579626 | | | 11.57- 111.57 | 58.55 |
| 13.704 | 13.704 (0.881) | 86 | 201457 | | | 0.00- 69.73 | 20.35 |
| 67 1,1-Dichloroethane | | | | | CAS #: 75-34-3 | | |
| 14.174 | 14.174 (0.911) | 63 | 1092945 | 46.8163 | 46.816 | 80.00- 120.00 | 100.00 |
| 14.174 | 14.174 (0.911) | 65 | 357866 | | | 0.00- 82.53 | 32.74 |
| 68 Isopropyl ether | | | | | CAS #: 108-20-3 | | |
| 14.146 | 14.147 (0.909) | 45 | 2018772 | 49.0869 | 49.087 | 80.00- 120.00 | 100.00 |
| 14.146 | 14.147 (0.909) | 87 | 685958 | | | 0.00- 82.62 | 33.98 |
| 14.146 | 14.147 (0.909) | 59 | 249676 | | | 0.00- 62.33 | 12.37 |
| 69 Vinyl Acetate | | | | | CAS #: 108-05-4 | | |
| 14.257 | 14.257 (0.916) | 86 | 177722 | 52.4599 | 52.460 | 80.00- 120.00 | 100.00 |
| 14.257 | 14.257 (0.916) | 43 | 1472776 | | | 838.14- 938.14 | 828.70 |
| 74 t-Butylethyl Ether | | | | | CAS #: 637-92-3 | | |
| 14.727 | 14.727 (0.947) | 59 | 2100343 | 49.8880 | 49.888 | 80.00- 120.00 | 100.00 |
| 14.727 | 14.727 (0.947) | 87 | 994513 | | | 0.00- 95.91 | 47.35 |
| 14.727 | 14.727 (0.947) | 41 | 342782 | | | 0.00- 67.22 | 16.32 |
| 76 cis-1,2-Dichloroethene | | | | | CAS #: 156-59-2 | | |
| 15.170 | 15.170 (0.975) | 96 | 667734 | 46.6139 | 46.614 | 80.00- 120.00 | 100.00 |
| 15.170 | 15.170 (0.975) | 61 | 840671 | | | 74.32- 174.32 | 125.90 |
| 15.170 | 15.170 (0.975) | 98 | 425259 | | | 12.59- 112.59 | 63.69 |
| 77 2-Butanone | | | | | CAS #: 78-93-3 | | |
| 15.170 | 15.170 (0.975) | 72 | 366756 | 50.7570 | 50.757 | 80.00- 120.00 | 100.00 |
| 15.170 | 15.170 (0.975) | 43 | 1186827 | | | 271.20- 371.20 | 323.60 |
| 15.170 | 15.170 (0.975) | 57 | 98541 | | | 0.00- 80.83 | 26.87 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPbV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 81 Tetrahydrofuran | | | | | CAS #: 109-99-9 | | |
| 15.501 | 15.501 (0.996) | 42 | 713147 | 47.0638 | 47.064 | 80.00- 120.00 | 100.00 |
| 15.501 | 15.501 (0.996) | 71 | 330645 | | | 0.00- 97.32 | 46.36 |
| 15.501 | 15.501 (0.996) | 72 | 358408 | | | 0.00- 97.64 | 50.26 |
| 83 Chloroform | | | | | CAS #: 67-66-3 | | |
| 15.640 | 15.640 (1.005) | 83 | 1322981 | 48.1284 | 48.128 | 80.00- 120.00 | 100.00 |
| 15.640 | 15.640 (1.005) | 85 | 856863 | | | 15.10- 115.10 | 64.77 |
| 84 Cyclohexane | | | | | CAS #: 110-82-7 | | |
| 15.833 | 15.833 (1.018) | 84 | 1082427 | 50.4330 | 50.433 | 80.00- 120.00 | 100.00 |
| 15.805 | 15.806 (1.016) | 56 | 1104364 | | | 52.27- 152.27 | 102.03 |
| 15.805 | 15.806 (1.016) | 41 | 559887 | | | 1.51- 101.51 | 51.73 |
| 85 1,1,1-Trichloroethane | | | | | CAS #: 71-55-6 | | |
| 15.861 | 15.861 (1.020) | 97 | 1420434 | 50.8338 | 50.834 | 80.00- 120.00 | 100.00 |
| 15.861 | 15.861 (1.020) | 99 | 909732 | | | 13.86- 113.86 | 64.05 |
| 87 Carbon Tetrachloride | | | | | CAS #: 56-23-5 | | |
| 16.054 | 16.054 (1.032) | 119 | 1369793 | 53.3043 | 53.304 | 80.00- 120.00 | 100.00 |
| 16.054 | 16.054 (1.032) | 117 | 1478360 | | | 58.00- 158.00 | 107.93 |
| 91 2,2,4-Trimethylpentane | | | | | CAS #: 540-84-1 | | |
| 16.331 | 16.331 (1.050) | 57 | 3433970 | 48.0530 | 48.053 | 80.00- 120.00 | 100.00 |
| 16.331 | 16.331 (1.050) | 56 | 1125486 | | | 0.00- 83.35 | 32.78 |
| 16.331 | 16.331 (1.050) | 41 | 831896 | | | 0.00- 74.44 | 24.23 |
| 92 Benzene | | | | | CAS #: 71-43-2 | | |
| 16.386 | 16.386 (0.964) | 78 | 2446177 | 48.2852 | 48.285 | 80.00- 120.00 | 100.00 |
| 16.386 | 16.386 (0.964) | 77 | 560041 | | | 0.00- 72.86 | 22.89 |
| 94 tert-amyl-Methyl Ether | | | | | CAS #: 994-05-8 | | |
| 16.441 | 16.442 (1.057) | 73 | 2564857 | 52.9788 | 52.979 | 80.00- 120.00 | 100.00 |
| 16.469 | 16.469 (1.059) | 87 | 605342 | | | 0.00- 73.39 | 23.60 |
| 16.441 | 16.442 (1.057) | 55 | 545409 | | | 0.00- 72.12 | 21.26 |
| 95 1,2-Dichloroethane | | | | | CAS #: 107-06-2 | | |
| 16.524 | 16.525 (0.972) | 62 | 970838 | 47.5868 | 47.587 | 80.00- 120.00 | 100.00 |
| 16.524 | 16.525 (0.972) | 64 | 316382 | | | 0.00- 82.38 | 32.59 |
| 96 Heptane | | | | | CAS #: 142-82-5 | | |
| 16.580 | 16.580 (0.976) | 71 | 943239 | 49.3821 | 49.382 | 80.00- 120.00 | 100.00 |
| 16.580 | 16.580 (0.976) | 43 | 1303889 | | | 92.16- 192.16 | 138.24 |
| 16.580 | 16.580 (0.976) | 57 | 735457 | | | 30.60- 130.60 | 77.97 |
| 100 Trichloroethene | | | | | CAS #: 79-01-6 | | |
| 17.381 | 17.382 (1.023) | 95 | 1007470 | 49.5589 | 49.559 | 80.00- 120.00 | 100.00 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPbV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 100 Trichloroethene (continued) | | | | | | | |
| 17.381 | 17.382 (1.023) | 130 | 1003364 | | | 49.87- 149.87 | 99.59 |
| 17.381 | 17.382 (1.023) | 97 | 646469 | | | 14.11- 114.11 | 64.17 |
| 102 Methyl Cyclohexane | | | | | CAS #: 108-87-2 | | |
| 17.575 | 17.575 (1.130) | 83 | 1583465 | 50.9326 | 50.933 | 80.00- 120.00 | 100.00 |
| 17.575 | 17.575 (1.130) | 98 | 754513 | | | 0.00- 97.07 | 47.65 |
| 17.575 | 17.575 (1.130) | 55 | 1120329 | | | 23.96- 123.96 | 70.75 |
| 104 1,2-Dichloropropane | | | | | CAS #: 78-87-5 | | |
| 17.796 | 17.796 (1.047) | 63 | 877113 | 49.5066 | 49.507 | 80.00- 120.00 | 100.00 |
| 17.796 | 17.796 (1.047) | 62 | 623654 | | | 21.00- 121.00 | 71.10 |
| 17.796 | 17.796 (1.047) | 41 | 452611 | | | 2.08- 102.08 | 51.60 |
| 106 1,4-Dioxane | | | | | CAS #: 123-91-1 | | |
| 17.934 | 17.935 (1.055) | 88 | 596787 | 49.4377 | 49.438 | 80.00- 120.00 | 100.00 |
| 17.934 | 17.935 (1.055) | 58 | 377079 | | | 12.66- 112.66 | 63.18 |
| 17.934 | 17.935 (1.055) | 57 | 119779 | | | 0.00- 70.49 | 20.07 |
| 108 Bromodichloromethane | | | | | CAS #: 75-27-4 | | |
| 18.239 | 18.239 (1.073) | 83 | 1660114 | 51.3736 | 51.374 | 80.00- 120.00 | 100.00 |
| 18.239 | 18.239 (1.073) | 85 | 1060580 | | | 13.64- 113.64 | 63.89 |
| 110 cis-1,3-Dichloropropene | | | | | CAS #: 10061-01-5 | | |
| 18.957 | 18.958 (1.115) | 75 | 1385862 | 51.8403 | 51.840 | 80.00- 120.00 | 100.00 |
| 18.957 | 18.958 (1.115) | 77 | 438193 | | | 0.00- 81.47 | 31.62 |
| 18.957 | 18.958 (1.115) | 39 | 586920 | | | 0.00- 92.51 | 42.35 |
| 112 4-Methyl-2-pentanone | | | | | CAS #: 108-10-1 | | |
| 19.096 | 19.096 (1.124) | 58 | 688486 | 48.9254 | 48.925 | 80.00- 120.00 | 100.00 |
| 19.096 | 19.096 (1.124) | 43 | 1649465 | | | 188.63- 288.63 | 239.58 |
| 19.096 | 19.096 (1.124) | 85 | 342878 | | | 0.00- 99.25 | 49.80 |
| 115 Toluene | | | | | CAS #: 108-88-3 | | |
| 19.400 | 19.400 (1.142) | 91 | 2999724 | 47.6370 | 47.637 | 80.00- 120.00 | 100.00 |
| 19.400 | 19.400 (1.142) | 92 | 1801984 | | | 10.02- 110.02 | 60.07 |
| 116 trans-1,3-Dichloropropene | | | | | CAS #: 10061-02-6 | | |
| 19.787 | 19.787 (0.924) | 75 | 1488396 | 56.5070 | 56.507 | 80.00- 120.00 | 100.00 |
| 19.787 | 19.787 (0.924) | 77 | 471258 | | | 0.00- 81.57 | 31.66 |
| 19.787 | 19.787 (0.924) | 39 | 611473 | | | 0.00- 91.23 | 41.08 |
| 117 1,1,2-Trichloroethane | | | | | CAS #: 79-00-5 | | |
| 20.063 | 20.064 (0.937) | 97 | 960479 | 52.1787 | 52.179 | 80.00- 120.00 | 100.00 |
| 20.063 | 20.064 (0.937) | 99 | 600080 | | | 11.99- 111.99 | 62.48 |
| 20.063 | 20.064 (0.937) | 83 | 828438 | | | 34.99- 134.99 | 86.25 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | CONCENTRATIONS FINAL ( PPbV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 118 Tetrachloroethene | | | | | CAS #: 127-18-4 | | |
| 20.174 | 20.174 (0.942) | 166 | 1376067 | 52.1844 | 52.184 | 80.00- 120.00 | 100.00 |
| 20.174 | 20.174 (0.942) | 129 | 978209 | | | 21.11- 121.11 | 71.09 |
| 20.174 | 20.174 (0.942) | 131 | 944199 | | | 18.39- 118.39 | 68.62 |
| 120 2-Hexanone | | | | | CAS #: 591-78-6 | | |
| 20.312 | 20.312 (0.948) | 58 | 964754 | 51.0640 | 51.064 | 80.00- 120.00 | 100.00 |
| 20.312 | 20.312 (0.948) | 43 | 1707520 | | | 125.67- 225.67 | 176.99 |
| 20.312 | 20.312 (0.948) | 100 | 238923 | | | 0.00- 73.54 | 24.77 |
| 124 Dibromochloromethane | | | | | CAS #: 124-48-1 | | |
| 20.644 | 20.644 (0.964) | 129 | 1632819 | 57.1305 | 57.130 | 80.00- 120.00 | 100.00 |
| 20.644 | 20.644 (0.964) | 127 | 1266024 | | | 29.13- 129.13 | 77.54 |
| 125 1,2-Dibromoethane | | | | | CAS #: 106-93-4 | | |
| 20.865 | 20.865 (0.974) | 107 | 1505218 | 55.3535 | 55.353 | 80.00- 120.00 | 100.00 |
| 20.865 | 20.865 (0.974) | 109 | 1411873 | | | 42.84- 142.84 | 93.80 |
| 127 Chlorobenzene | | | | | CAS #: 108-90-7 | | |
| 21.474 | 21.474 (1.003) | 112 | 2343287 | 51.8680 | 51.868 | 80.00- 120.00 | 100.00 |
| 21.474 | 21.474 (1.003) | 114 | 747817 | | | 0.00- 81.88 | 31.91 |
| 21.474 | 21.474 (1.003) | 77 | 1883787 | | | 31.09- 131.09 | 80.39 |
| 128 Ethyl Benzene | | | | | CAS #: 100-41-4 | | |
| 21.529 | 21.529 (1.005) | 106 | 1291780 | 53.6738 | 53.674 | 80.00- 120.00 | 100.00 |
| 21.529 | 21.529 (1.005) | 91 | 4263220 | | | 282.07- 382.07 | 330.03 |
| 131 m,p-Xylene | | | | | CAS #: 108-38-3 | | |
| 21.667 | 21.667 (1.012) | 106 | 1655937 | 53.4343 | 53.434 | 80.00- 120.00 | 100.00 |
| 21.667 | 21.667 (1.012) | 91 | 3488851 | | | 158.71- 258.71 | 210.69 |
| 132 o-Xylene | | | | | CAS #: 95-47-6 | | |
| 22.248 | 22.248 (1.039) | 106 | 1537693 | 52.7206 | 52.721 | 80.00- 120.00 | 100.00 |
| 22.248 | 22.248 (1.039) | 91 | 3434798 | | | 172.27- 272.27 | 223.37 |
| 133 Styrene | | | | | CAS #: 100-42-5 | | |
| 22.275 | 22.276 (1.040) | 104 | 2535312 | 53.7094 | 53.709 | 80.00- 120.00 | 100.00 |
| 22.248 | 22.276 (1.039) | 78 | 1394621 | | | 4.94- 104.94 | 55.01 |
| 135 Bromoform | | | | | CAS #: 75-25-2 | | |
| 22.607 | 22.607 (1.056) | 173 | 1619227 | 56.7585 | 56.758 | 80.00- 120.00 | 100.00 |
| 22.607 | 22.607 (1.056) | 171 | 833542 | | | 1.37- 101.37 | 51.48 |
| 136 Cumene | | | | | CAS #: 98-82-8 | | |
| 22.690 | 22.690 (1.059) | 105 | 4549566 | 51.4892 | 51.489 | 80.00- 120.00 | 100.00 |
| 22.690 | 22.690 (1.059) | 120 | 1141874 | | | 0.00- 74.88 | 25.10 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | CONCENTRATIONS FINAL ( PPbV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 136 Cumene (continued) | | | | | | | |
| 22.663 | 22.663 (1.058) | 51 | 417754 | | | 0.00- 59.69 | 9.18 |
| 139 1,1,2,2-Tetrachloroethane | | | | | CAS #: 79-34-5 | | |
| 23.160 | 23.160 (1.081) | 83 | 2203540 | 52.0633 | 52.063 | 80.00- 120.00 | 100.00 |
| 23.160 | 23.160 (1.081) | 85 | 1411576 | | | 13.98- 113.98 | 64.06 |
| 140 Propylbenzene | | | | | CAS #: 103-65-1 | | |
| 23.215 | 23.216 (1.084) | 91 | 5489801 | 51.1908 | 51.191 | 80.00- 120.00 | 100.00 |
| 23.215 | 23.216 (1.084) | 120 | 1168870 | | | 0.00- 71.67 | 21.29 |
| 23.215 | 23.216 (1.084) | 105 | 203217 | | | 0.00- 53.88 | 3.70 |
| 144 4-Ethyltoluene | | | | | CAS #: 622-96-8 | | |
| 23.354 | 23.354 (1.090) | 105 | 5108262 | 51.1958 | 51.196 | 80.00- 120.00 | 100.00 |
| 23.354 | 23.354 (1.090) | 120 | 1457240 | | | 0.00- 78.53 | 28.53 |
| 146 1,3,5-Trimethylbenzene | | | | | CAS #: 108-67-8 | | |
| 23.409 | 23.409 (1.093) | 105 | 4133742 | 49.4218 | 49.422 | 80.00- 120.00 | 100.00 |
| 23.409 | 23.409 (1.093) | 120 | 1867745 | | | 0.00- 95.92 | 45.18 |
| 151 1,2,4-Trimethylbenzene | | | | | CAS #: 95-63-6 | | |
| 23.907 | 23.907 (1.116) | 105 | 3842796 | 47.8678 | 47.868 | 80.00- 120.00 | 100.00 |
| 23.907 | 23.907 (1.116) | 120 | 1641210 | | | 0.00- 93.46 | 42.71 |
| 156 1,3-Dichlorobenzene | | | | | CAS #: 541-73-1 | | |
| 24.377 | 24.405 (1.138) | 146 | 2429799 | 49.3652 | 49.365 | 80.00- 120.00 | 100.00 |
| 24.377 | 24.405 (1.138) | 148 | 1534304 | | | 13.99- 113.99 | 63.15 |
| 24.377 | 24.377 (1.138) | 111 | 1028502 | | | 0.00- 92.34 | 42.33 |
| 158 1,4-Dichlorobenzene | | | | | CAS #: 106-46-7 | | |
| 24.515 | 24.515 (1.145) | 146 | 2440368 | 50.0724 | 50.072 | 80.00- 120.00 | 100.00 |
| 24.515 | 24.515 (1.145) | 148 | 1550123 | | | 14.08- 114.08 | 63.52 |
| 24.515 | 24.515 (1.145) | 111 | 988215 | | | 0.00- 90.50 | 40.49 |
| 160 alpha-Chlorotoluene | | | | | CAS #: 100-44-7 | | |
| 24.681 | 24.681 (1.152) | 91 | 3372785 | 51.0759 | 51.076 | 80.00- 120.00 | 100.00 |
| 24.681 | 24.681 (1.152) | 126 | 633086 | | | 0.00- 68.80 | 18.77 |
| 162 1,2-Dichlorobenzene | | | | | CAS #: 95-50-1 | | |
| 25.013 | 25.013 (1.168) | 146 | 2242885 | 48.7814 | 48.781 | 80.00- 120.00 | 100.00 |
| 25.013 | 25.013 (1.168) | 148 | 1429956 | | | 13.51- 113.51 | 63.76 |
| 25.013 | 25.013 (1.168) | 111 | 978313 | | | 0.00- 93.48 | 43.62 |
| 168 1,2,4-Trichlorobenzene | | | | | CAS #: 120-82-1 | | |
| 27.031 | 27.031 (1.262) | 180 | 1633171 | 45.2594 | 45.259 | 80.00- 120.00 | 100.00 |
| 27.031 | 27.031 (1.262) | 182 | 1551052 | | | 45.19- 145.19 | 94.97 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPbV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 169 Hexachlorobutadiene | | | | | CAS #: 87-68-3 | | |
| 27.114 | 27.114 (1.266) | 225 | 1448161 | 47.5328 | 47.533 | 80.00- 120.00 | 100.00 |
| 27.114 | 27.114 (1.266) | 223 | 911431 | | | 13.33- 113.33 | 62.94 |
| 170 Naphthalene | | | | | CAS #: 91-20-3 | | |
| 27.418 | 27.418 (1.280) | 128 | 2938805 | 40.5664 | 40.566 | 80.00- 120.00 | 100.00 |
| 27.418 | 27.418 (1.280) | 127 | 368598 | | | 0.00- 62.65 | 12.54 |

Report Date: 27-Mar-2010 09:50

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdx.i
Lab File ID: x032703.d
Lab Smp Id: LCS-1
Analysis Type: VOA
Quant Type: ISTD
Operator: ra
Method File: /chem/msdx.i/27mar10.b/x10q0323a.m
Misc Info: 50ppbv(200ppbv)

Calibration Date: 27-MAR-2010
Calibration Time: 08:47
Client Smp ID: LCS-1
Level: LOW
Sample Type: AIR

| | | AREA LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 82 Bromochloromethan | 248468 | 149081 | 347855 | 247912 | -0.22 |
| 97 1,4-Difluorobenze | 1126336 | 675802 | 1576870 | 1199845 | 6.53 |
| 126 Chlorobenzene-d5 | 1023653 | 614192 | 1433114 | 1064172 | 3.96 |

| | | RT LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 82 Bromochloromethan | 15.56 | 15.23 | 15.89 | 15.56 | 0.00 |
| 97 1,4-Difluorobenze | 16.99 | 16.66 | 17.32 | 16.99 | 0.00 |
| 126 Chlorobenzene-d5 | 21.42 | 21.09 | 21.75 | 21.42 | 0.00 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msdx.i/27mar10.b/x032703.d

Date : 27-MAR-2010 09:23

Client ID: LCS-1

Sample Info: 50ml #1911-274

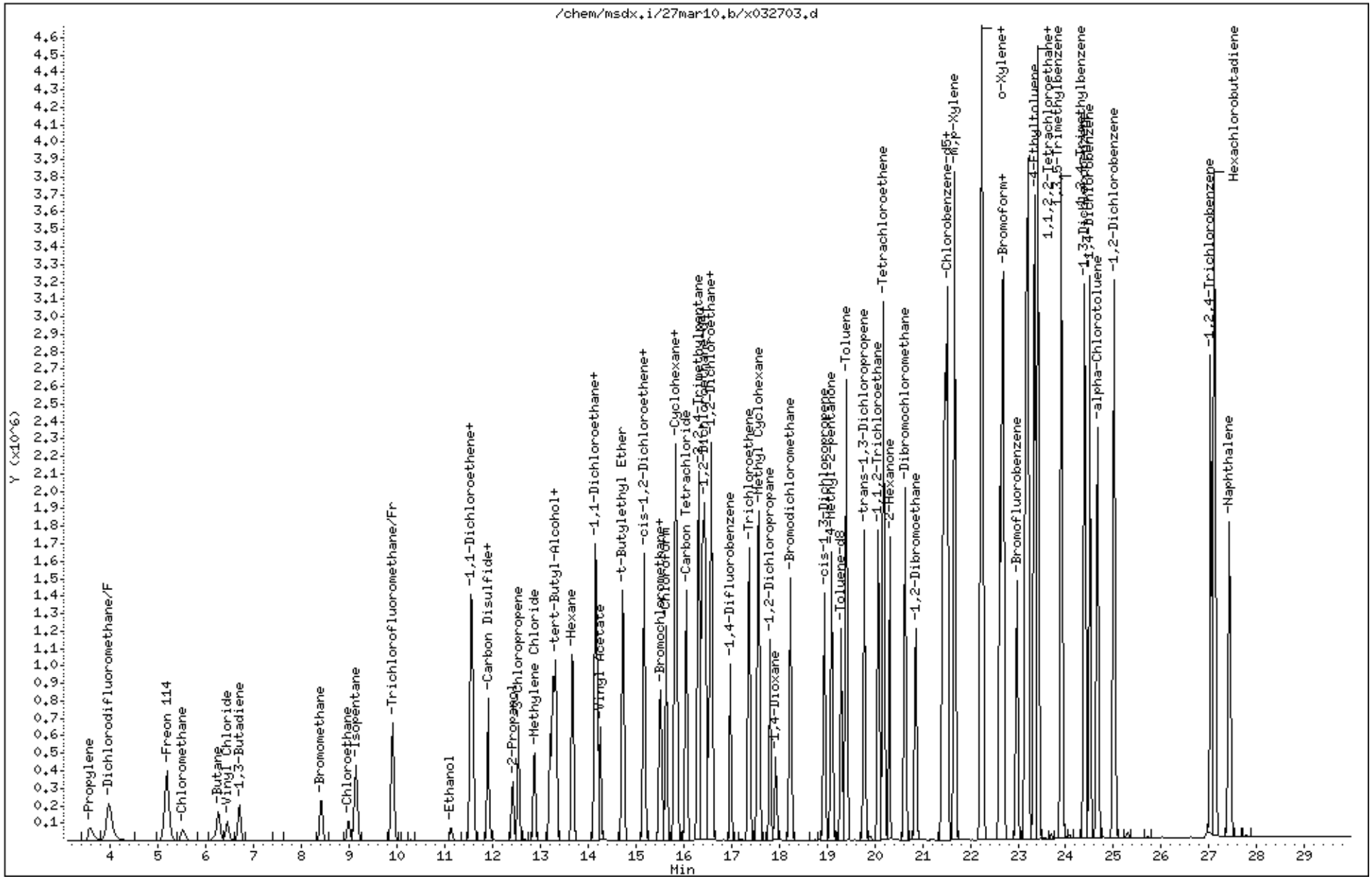
Column phase: RTx-624

Instrument: msdx.i

Operator: ra

Column diameter: 0.53





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# MSD-X

Logbook #: 1929

| m/z | ION ABUNDANCE CRITERIA | % REL. ABUNDANCE |
|---|---|---|
| 50 | 15.0 – 40.0% of mass 95 | 18.39 |
| 75 | 30.0 – 60.0% of mass 95 | 56.08 |
| 95 | Base peak, 100.00% relative abundance | 100.00 |
| 96 | 5.0 – 9.0% of mass 95 | 6.81 |
| 173 | Less than 2.0% of mass 174 | ( 0.88 )[1] |
| 174 | 50.0 – 100% of mass 95 | 71.52 |
| 175 | 5.0 – 9.0% of mass 174 | ( 7.45 )[1] |
| 176 | Greater than 95.0% but less than 101.0% of mass 174 | ( 96.14 )[1] |
| 177 | 5.0 – 9.0% of mass 176 | ( 6.60 )[2] |

[1] - value in parenthesis is % mass 174 [2] - value in parenthesis is % mass 176

BFB Injection Date: 3/27/10
BFB Injection Time: 0825
BFB File ID: X032701
Tekmar Purge Flow: 2
Vacuum: AB 3/29/10

| | | |
|---|---|---|
| IS/S Std.#: | 1911-315 | Exp. Date: 6/19/10 |
| BCM | 248468 | |
| 1,4-DFB | 1126336 | |
| CB-d5 | 1023653 | |

*Verified CCV IS vs ICAL mid-point (- 40%D)* RA/ *initials*

**Verify 176/174 m/z Ratio:** 89626/93221 x 100 = 96.14 %

**NOAH Cart #:** N/A **File #:** N/A

**Calculation Check:**

ppbv of compound $= \frac{Area_{Sample}}{Area_{IS}} \times \frac{Conc._{IS}}{RRF} = \frac{(\ 1200349\ )}{(\ 1126336\ )} \times \frac{(\ 25.00\ )}{(\ 1.04651\ )} =$ 25.459

| | |
|---|---|
| File ID: | X032702 |
| Compound: | TO1-cl8 |
| Initials: | RA |

*Reported Result* 25.459

**Method:** X10q0323a

| | Use | File # | Sample / Client Name | Can # | Pressure | Amt Loaded | DF | Loaded by Init. | Date Analyzed | Time Analyzed | Reviewed by Init. | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | ✓ | X032701 | BFB Tune Check | 1476-1235 | 50ng | 2uL | 1.00 | RA | 3/27/10 | 0825 | RA/ AB | |
| 2 | ✓ | 02 | CCV-1 (200ppbv) | 1911-273 | 50ppbv | 50mL | 1.00 | RA | | 0847 | RA/ AB | Ø out |
| 3 | ✓ | 03 | LCS-1 (200ppbv) | 1911-274 | 50ppbv | 50mL | 1.00 | RA | | 0923 | RA/ AB | Ø out |
| 4 | ✓ | 04 | Lab Blank | 33329 | Humid | 200mL | 1.00 | RA | | 1011 | RA/ AB | |
| 5 | ✓ | 05 | 10035116A-05A | 36522 | 24.4"Hg-15psi | 200mL | 10.52 | RA | | 1057 | RA/ AB | |
| 6 | ✓ | 06 | ↓ -18A | 36479 | 7.6"Hg-15psi | ~~10mL~~ 13mL RA 3/29/10 | ~~54.2~~ 45.2 | RA | | 1137 | RA/ AB | |
| 7 | ✓ | 07 | 10035116B-20A | 35547 | 8"Hg-15psi | 200mL | 2.76 | RA | | 1220 | RA/ AB | |
| 8 | ✓ | 08 | ↓ -21A | ~~34120~~ 37325 RA 3/29/10 | 2.4"Hg-15psi | 200mL | 2.20 | RA | ↓ | 1256 | RA/ AB | |

R An
Signature

3/27/10
Date

@ Air Toxics Ltd.

# MSD-X

Logbook #: 1929



| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9 | ✓ | X032709 | 10035168-22A | 33735 | 9.4"Hg-15psi | 200mL | 2.94 | RA | 3/27/10 | 1332 | RA/ ~~AB~~ | |
| 10 | ✓ | 10 | -23A | 37368 | 3"Hg-15psi | ~~200mL~~ 10mL RA 3/27/10 | ~~4.48~~ 448 | RA | | 1408 | XP/ ~~AB~~ | |
| 11 | ✓ | 11 | -24A | 31330 | 13.0"Hg-15psi | 200ml | 3.57 | XP | | 1451 | XP/ AB | Bact infection |
| 12 | ✓ | 12 | -25A | 35661 | 10.2"Hg-15psi | 200ml | 3.086 | XP | | 1532 | XP/AB | |
| 13 | ✓ | 13 | -26A | 35550 | 15.0"Hg-15psi | 200ml | 3.57 XP | XP | | 1615 | XP/AB | |
| 14 | ✓ | 14 | -26A | 34588 | 5.0"Hg-15psi | 200ml | 2.46 | XP | | 1708 | XP/AB | |
| 15 | ✓ | 15 | -27AA | 11437 | 10.4"Hg-15psi | 75ml | 11.2 | XP | | 1744 | XP/ AB | |
| 16 | ✓ | 16 | -27A | 1 | 1 | 75ml | 8.20 | XP | | 1827 | XP/AB | |
| 17 | ✓ | 17 | -28A | 33645 | 14.0"Hg-15psi | 200ml | 3.79 | XP | | 1908 | XP/AB | |
| 18 | ✓ | 18 | -29A | 37385 | 15.4"Hg-15psi | 200ml | 4.15 | XP | | 1944 | XP/AB | |
| 19 | ✓ | 19 | 10035174-01A | 35283 | 5.0"Hg-15psi | 200ml | 1.61 | XP | | 2031 | XP/AB | ✓ |
| 20 | ✓ | 20 | -02A | 34357 | 7.5"Hg-15psi | 200ml | 1.79 | XP | | 2113 | ~~AB~~ AB | ✓ |
| 21 | ✓ | 21 | -03A | 20948 | 24.0"Hg-15psi | 200ml | 6.70 | XP | | 2150 | ~~AB~~ AB | Cancelled per client request |
| 22 | | | | | | | | | | | | |
| 23 | | | | | | | | | | | | |
| 24 | | | | | | | | | | | | |
| 25 | | | | | | | | | | | | |
| 26 | | | | | | | | | | | | |
| 27 | | | | | | | | | | | | |
| 28 | | | | | | | | | | | | |
| 29 | | | | | | | | | | | | |
| 30 | | | | | | | | | | | | ~~3/30/10~~ |
| 31 | | | | | | | | | | | | |

**Comments:**

Jason Arnold
Signature

3/2010
Date

Air Toxics Ltd.

Data file : /var/chem/msdx.i/23mar10.b/x032304.d
Lab Smp Id: Client Smp ID: BFB
Inj Date : 23-MAR-2010 17:53
Operator : ra Inst ID: msdx.i
Smp Info : 2uL #1476-1235;BFB Tune Check; BFB Tune Check
Misc Info : 50ng
Comment :
Method : /var/chem/msdx.i/23mar10.b/bfb60.m
Meth Date : 23-Mar-2010 15:55 Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 1 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: WATER
Processing Host: eeyore

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.00000 | Dilution Factor |
| Uf | 1.00000 | ng unit correction factor |
| Vf | 1.00000 | Volumetric correction factor |
| Vi | 1.00000 | Injection Volume |

Cpnd Variable Local Compound Variable

| | | | | | CONCENTRATIONS ON-COL | CONCENTRATIONS FINAL | | |
|---|---|---|---|---|---|---|---|---|
| RT | EXP RT | DLT RT | MASS | RESPONSE | ( ug/L) | ( ug/L) | TARGET RANGE | RATIO |
| 1 bfb | | | | | | CAS #: 460-00-4 | | |
| 6.840 | 7.122 | -0.282 | 95 | 218176 | | | 100.00- 100.00 | 100.00 |
| 6.840 | 7.122 | -0.282 | 50 | 38760 | | | 15.00- 40.00 | 17.77 |
| 6.840 | 7.122 | -0.282 | 75 | 114105 | | | 30.00- 60.00 | 52.30 |
| 6.840 | 7.122 | -0.282 | 96 | 14524 | | | 5.00- 9.00 | 6.66 |
| 6.840 | 7.122 | -0.282 | 173 | 1264 | | | 0.00- 1.99 | 0.76 |
| 6.840 | 7.122 | -0.282 | 174 | 165674 | | | 50.01- 100.00 | 75.94 |
| 6.840 | 7.122 | -0.282 | 175 | 11622 | | | 5.00- 9.00 | 7.01 |
| 6.840 | 7.122 | -0.282 | 176 | 159933 | | | 95.01- 100.99 | 96.53 |
| 6.840 | 7.122 | -0.282 | 177 | 10508 | | | 5.00- 9.00 | 6.57 |

Data File: /var/chem/msdx.i/23mar10.b/x032304.d 

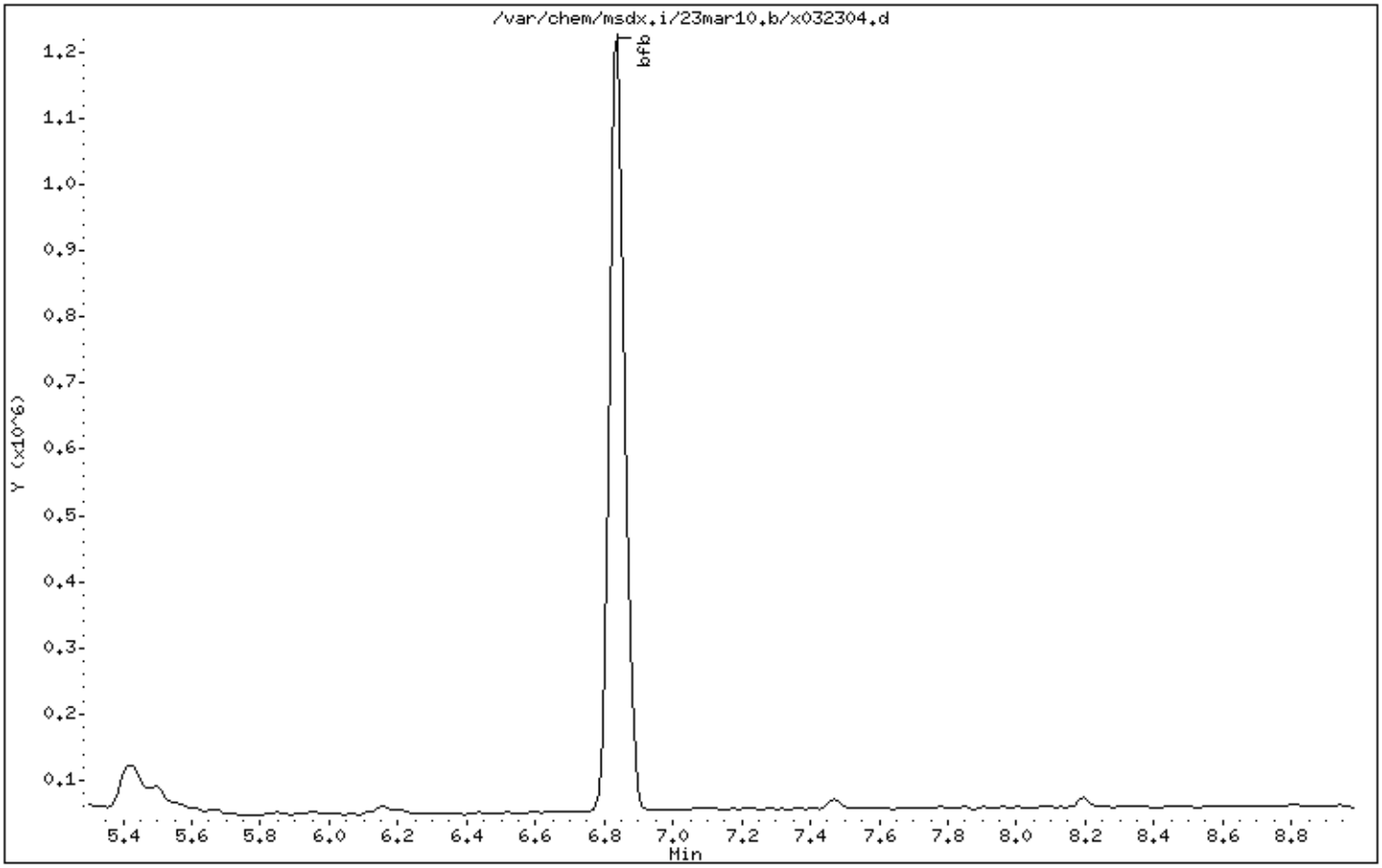
Date : 23-MAR-2010 17:53

Client ID: BFB Instrument: msdx.i

Sample Info: 2uL #1476-1235;BFB Tune Check; BFB Tune Check

Volume Injected (uL): 1.0 Operator: ra

Column phase: Column diameter: 2.00



Data File: /var/chem/msdx.i/23mar10.b/x032304.d

Date : 23-MAR-2010 17:53

Client ID: BFB

Instrument: msdx.i

Sample Info: 2uL #1476-1235;BFB Tune Check; BFB Tune Check

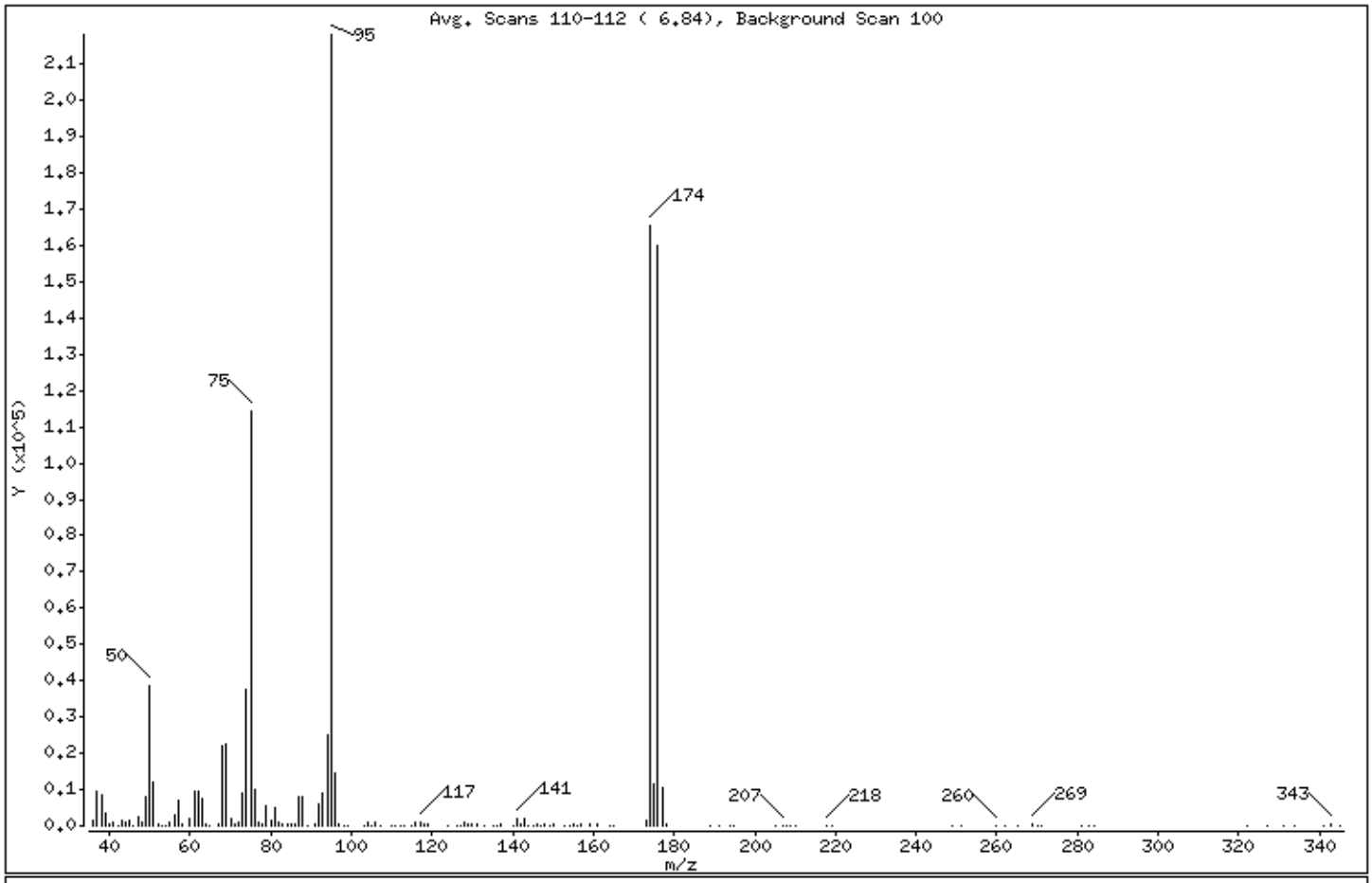
Volume Injected (uL): 1.0

Operator: ra

Column phase:

Column diameter: 2.00

1 bfb




| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 95 | Base Peak, 100% relative abundance | 100.00 |
| 50 | 15.00 - 40.00% of mass 95 | 17.77 |
| 75 | 30.00 - 60.00% of mass 95 | 52.30 |
| 96 | 5.00 - 9.00% of mass 95 | 6.66 |
| 173 | Less than 1.99% of mass 174 | 0.58 ( 0.76) |
| 174 | 50.01 - 100.00% of mass 95 | 75.94 |
| 175 | 5.00 - 9.00% of mass 174 | 5.33 ( 7.01) |
| 176 | 95.01 - 100.99% of mass 174 | 73.30 ( 96.53) |
| 177 | 5.00 - 9.00% of mass 176 | 4.82 ( 6.57) |

Date : 23-MAR-2010 17:53

Client ID: BFB Instrument: msdx.i

Sample Info: 2uL #1476-1235;BFB Tune Check; BFB Tune Check

Volume Injected (uL): 1.0 Operator: ra

Column phase: Column diameter: 2.00

Data File: x032304.d
Spectrum: Avg. Scans 110-112 ( 6.84), Background Scan 100
Location of Maximum: 95.00
Number of points: 141

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 36.00 | 1668 | 74.00 | 37488 | 117.00 | 1132 | 175.00 | 11622 |
| 37.00 | 9362 | 75.00 | 114104 | 118.00 | 751 | 176.00 | 159872 |
| 38.00 | 8452 | 76.00 | 9882 | 119.00 | 739 | 177.00 | 10508 |
| 39.00 | 3571 | 77.00 | 1206 | 124.00 | 64 | 178.00 | 273 |
| 40.00 | 257 | 78.00 | 752 | 126.00 | 116 | 189.00 | 59 |
| 41.00 | 803 | 79.00 | 5276 | 127.00 | 35 | 191.00 | 20 |
| 42.00 | 104 | 80.00 | 1564 | 128.00 | 795 | 194.00 | 120 |
| 43.00 | 1497 | 81.00 | 5206 | 129.00 | 394 | 195.00 | 67 |
| 44.00 | 798 | 82.00 | 1235 | 130.00 | 719 | 205.00 | 54 |
| 45.00 | 1696 | 83.00 | 271 | 131.00 | 377 | 207.00 | 239 |
| 46.00 | 78 | 84.00 | 325 | 133.00 | 78 | 208.00 | 127 |
| 47.00 | 2436 | 85.00 | 424 | 135.00 | 234 | 209.00 | 29 |
| 48.00 | 1101 | 86.00 | 292 | 136.00 | 116 | 210.00 | 16 |
| 49.00 | 8022 | 87.00 | 7914 | 137.00 | 399 | 218.00 | 110 |
| 50.00 | 38760 | 88.00 | 8112 | 140.00 | 149 | 219.00 | 26 |
| 51.00 | 11885 | 89.00 | 33 | 141.00 | 1964 | 249.00 | 93 |
| 52.00 | 445 | 91.00 | 717 | 142.00 | 345 | 251.00 | 117 |
| 53.00 | 76 | 92.00 | 5963 | 143.00 | 1804 | 260.00 | 136 |
| 54.00 | 120 | 93.00 | 9253 | 144.00 | 117 | 262.00 | 65 |
| 55.00 | 796 | 94.00 | 24872 | 145.00 | 243 | 265.00 | 39 |
| 56.00 | 3089 | 95.00 | 218176 | 146.00 | 325 | 269.00 | 286 |
| 57.00 | 7178 | 96.00 | 14524 | 147.00 | 48 | 270.00 | 142 |
| 58.00 | 283 | 97.00 | 627 | 148.00 | 542 | 271.00 | 104 |
| 60.00 | 1956 | 98.00 | 161 | 149.00 | 125 | 281.00 | 72 |
| 61.00 | 9700 | 99.00 | 104 | 150.00 | 255 | 283.00 | 42 |
| 62.00 | 9619 | 103.00 | 36 | 153.00 | 173 | 284.00 | 116 |
| 63.00 | 7436 | 104.00 | 782 | 154.00 | 110 | 322.00 | 15 |
| 64.00 | 713 | 105.00 | 128 | 155.00 | 504 | 327.00 | 15 |
| 65.00 | 134 | 106.00 | 849 | 156.00 | 168 | 331.00 | 123 |
| 67.00 | 454 | 107.00 | 191 | 157.00 | 422 | 334.00 | 6 |
| 68.00 | 22248 | 110.00 | 118 | 159.00 | 273 | 341.00 | 125 |
| 69.00 | 22504 | 111.00 | 133 | 161.00 | 264 | 343.00 | 280 |
| 70.00 | 2079 | 112.00 | 150 | 164.00 | 195 | 345.00 | 110 |
| 71.00 | 729 | 113.00 | 190 | 165.00 | 41 | | |
| 72.00 | 1074 | 115.00 | 188 | 173.00 | 1264 | | |

Data File: /var/chem/msdx.i/23mar10.b/x032304.d

Date : 23-MAR-2010 17:53

Client ID: BFB

Instrument: msdx.i

Sample Info: 2uL #1476-1235;BFB Tune Check; BFB Tune Check

Volume Injected (uL): 1.0

Operator: ra

Column phase:

Column diameter: 2.00

Data File: x032304.d
Spectrum: Avg. Scans 110-112 ( 6.84), Background Scan 100
Location of Maximum: 95.00
Number of points: 141

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 73.00 | 9136 | 116.00 | 791 | 174.00 | 165632 | | |

Air Toxics Ltd.

Data file : /var/chem/msdx.i/27mar10.b/x032701.d
Lab Smp Id: Client Smp ID: BFB
Inj Date : 27-MAR-2010 08:25
Operator : ra Inst ID: msdx.i
Smp Info : 2uL #1476-1235;BFB Tune Check; BFB Tune Check
Misc Info : 50ng
Comment :
Method : /var/chem/msdx.i/27mar10.b/bfb60.m
Meth Date : 27-Mar-2010 08:27 Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 1 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: WATER
Processing Host: eeyore

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.00000 | Dilution Factor |
| Uf | 1.00000 | ng unit correction factor |
| Vf | 1.00000 | Volumetric correction factor |
| Vi | 1.00000 | Injection Volume |

Cpnd Variable Local Compound Variable

| | | | | | CONCENTRATIONS ON-COL | CONCENTRATIONS FINAL | | |
|---|---|---|---|---|---|---|---|---|
| RT | EXP RT | DLT RT | MASS | RESPONSE | ( ug/L) | ( ug/L) | TARGET RANGE | RATIO |
| 1 bfb | | | | | | CAS #: 460-00-4 | | |
| 6.840 | 7.122 | -0.282 | 95 | 130341 | | | 100.00- 100.00 | 100.00 |
| 6.840 | 7.122 | -0.282 | 50 | 23965 | | | 15.00- 40.00 | 18.39 |
| 6.840 | 7.122 | -0.282 | 75 | 73089 | | | 30.00- 60.00 | 56.08 |
| 6.840 | 7.122 | -0.282 | 96 | 8870 | | | 5.00- 9.00 | 6.81 |
| 6.840 | 7.122 | -0.282 | 173 | 821 | | | 0.00- 1.99 | 0.88 |
| 6.840 | 7.122 | -0.282 | 174 | 93221 | | | 50.01- 100.00 | 71.52 |
| 6.840 | 7.122 | -0.282 | 175 | 6941 | | | 5.00- 9.00 | 7.45 |
| 6.840 | 7.122 | -0.282 | 176 | 89626 | | | 95.01- 100.99 | 96.14 |
| 6.840 | 7.122 | -0.282 | 177 | 5914 | | | 5.00- 9.00 | 6.60 |

Data File: /var/chem/msdx.i/27mar10.b/x032701.d

Page 1

Date : 27-MAR-2010 08:25

Client ID: BFB

Instrument: msdx.i

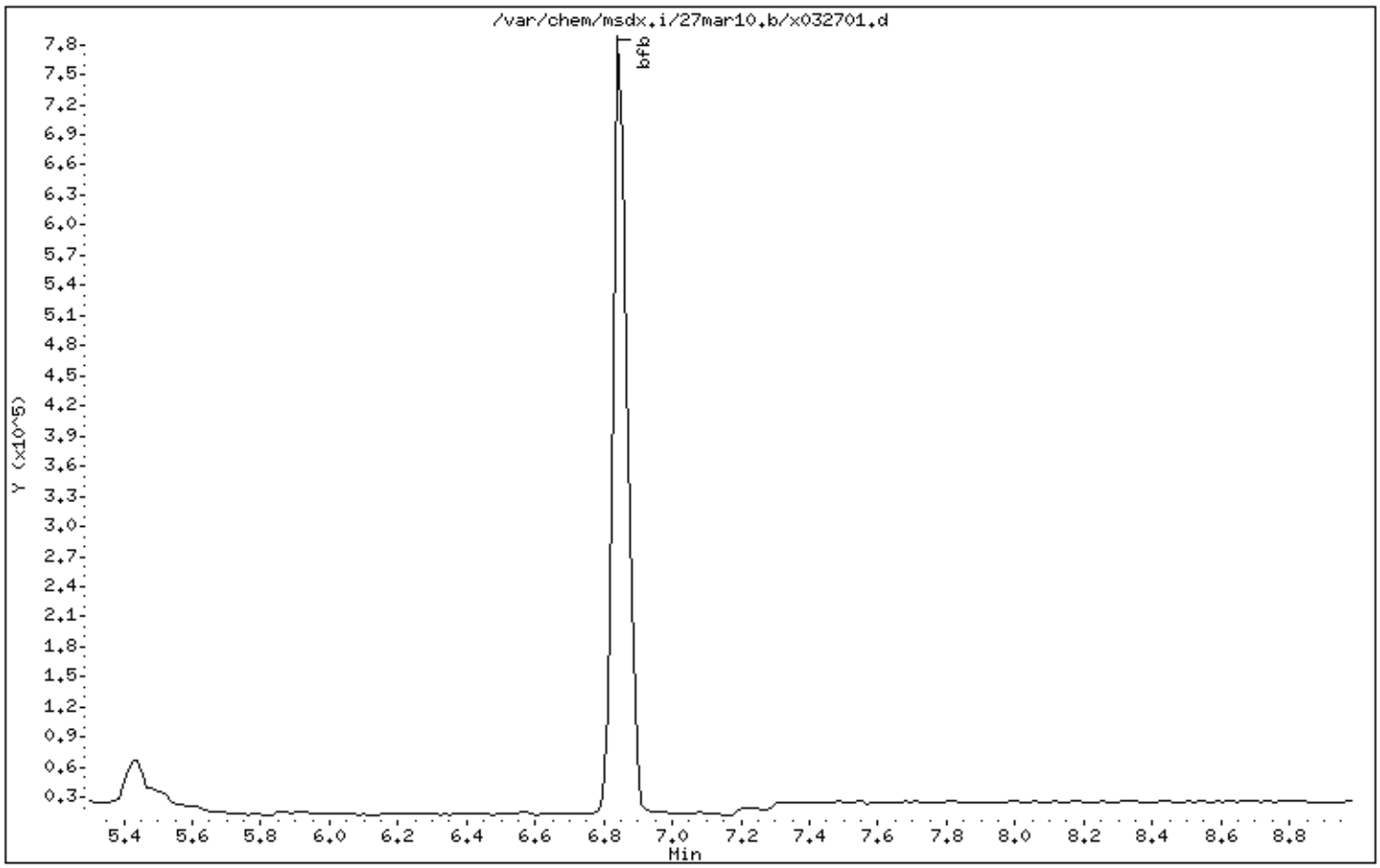
Sample Info: 2uL #1476-1235;BFB Tune Check; BFB Tune Check

Volume Injected (uL): 1.0

Operator: ra

Column phase:

Column diameter: 2.00



Data File: /var/chem/msdx.i/27mar10.b/x032701.d

Date : 27-MAR-2010 08:25

Client ID: BFB

Instrument: msdx.i

Sample Info: 2uL #1476-1235;BFB Tune Check; BFB Tune Check

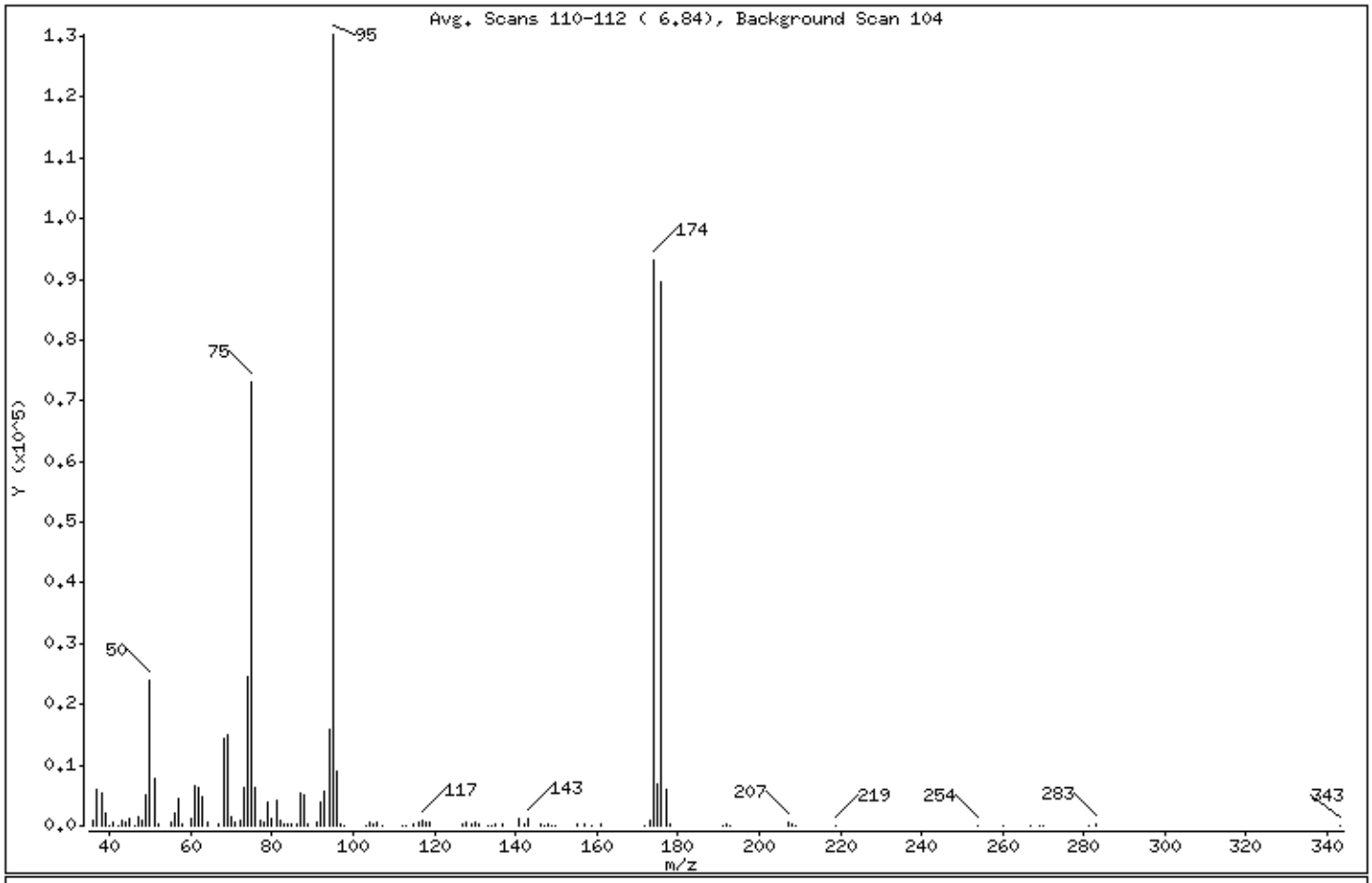
Volume Injected (uL): 1.0

Operator: ra

Column phase:

Column diameter: 2.00

1 bfb




| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 95 | Base Peak, 100% relative abundance | 100.00 |
| 50 | 15.00 - 40.00% of mass 95 | 18.39 |
| 75 | 30.00 - 60.00% of mass 95 | 56.08 |
| 96 | 5.00 - 9.00% of mass 95 | 6.81 |
| 173 | Less than 1.99% of mass 174 | 0.63 ( 0.88) |
| 174 | 50.01 - 100.00% of mass 95 | 71.52 |
| 175 | 5.00 - 9.00% of mass 174 | 5.33 ( 7.45) |
| 176 | 95.01 - 100.99% of mass 174 | 68.76 ( 96.14) |
| 177 | 5.00 - 9.00% of mass 176 | 4.54 ( 6.60) |

Data File: /var/chem/msdx.i/27mar10.b/x032701.d

Date : 27-MAR-2010 08:25

Client ID: BFB

Instrument: msdx.i

Sample Info: 2uL #1476-1235;BFB Tune Check; BFB Tune Check

Volume Injected (uL): 1.0

Operator: ra

Column phase:

Column diameter: 2.00

Data File: x032701.d
Spectrum: Avg. Scans 110-112 ( 6.84), Background Scan 104
Location of Maximum: 95.00
Number of points: 112

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 36.00 | 1040 | 70.00 | 1449 | 104.00 | 556 | 157.00 | 201 |
| 37.00 | 6120 | 71.00 | 603 | 105.00 | 240 | 159.00 | 61 |
| 38.00 | 5314 | 72.00 | 796 | 106.00 | 627 | 161.00 | 192 |
| 39.00 | 2145 | 73.00 | 6242 | 107.00 | 56 | 172.00 | 125 |
| 40.00 | 139 | 74.00 | 24520 | 112.00 | 109 | 173.00 | 821 |
| 41.00 | 582 | 75.00 | 73088 | 113.00 | 117 | 174.00 | 93216 |
| 42.00 | 107 | 76.00 | 6291 | 115.00 | 192 | 175.00 | 6941 |
| 43.00 | 986 | 77.00 | 870 | 116.00 | 527 | 176.00 | 89624 |
| 44.00 | 547 | 78.00 | 561 | 117.00 | 868 | 177.00 | 5914 |
| 45.00 | 1237 | 79.00 | 3862 | 118.00 | 522 | 178.00 | 173 |
| 46.00 | 52 | 80.00 | 1162 | 119.00 | 524 | 191.00 | 35 |
| 47.00 | 1435 | 81.00 | 4132 | 127.00 | 184 | 192.00 | 160 |
| 48.00 | 770 | 82.00 | 929 | 128.00 | 457 | 193.00 | 71 |
| 49.00 | 5142 | 83.00 | 174 | 129.00 | 277 | 207.00 | 529 |
| 50.00 | 23960 | 84.00 | 159 | 130.00 | 459 | 208.00 | 176 |
| 51.00 | 7661 | 85.00 | 410 | 131.00 | 160 | 209.00 | 13 |
| 52.00 | 379 | 86.00 | 192 | 133.00 | 31 | 219.00 | 61 |
| 55.00 | 615 | 87.00 | 5454 | 134.00 | 57 | 254.00 | 102 |
| 56.00 | 2226 | 88.00 | 5027 | 135.00 | 212 | 260.00 | 63 |
| 57.00 | 4642 | 89.00 | 186 | 137.00 | 242 | 267.00 | 110 |
| 58.00 | 265 | 91.00 | 636 | 141.00 | 1221 | 269.00 | 61 |
| 60.00 | 1258 | 92.00 | 4029 | 142.00 | 238 | 270.00 | 1 |
| 61.00 | 6517 | 93.00 | 5816 | 143.00 | 1257 | 281.00 | 22 |
| 62.00 | 6340 | 94.00 | 15806 | 146.00 | 169 | 283.00 | 184 |
| 63.00 | 4779 | 95.00 | 130336 | 147.00 | 25 | 343.00 | 61 |
| 64.00 | 471 | 96.00 | 8870 | 148.00 | 287 | | |
| 67.00 | 393 | 97.00 | 363 | 149.00 | 117 | | |
| 68.00 | 14437 | 98.00 | 54 | 150.00 | 77 | | |
| 69.00 | 14993 | 103.00 | 20 | 155.00 | 283 | | |

# Shipping/ Receiving Documents

# Air Toxics Ltd. Sample Receipt Confirmation Cover Page

Thank you for choosing Air Toxics Ltd. We have received your samples and have listed any Sample Receipt Descrepancies below.

In order to expedite analysis and reporting, please review the attached information for accuracy.

For corrections call: **Bryanna Langley at 916-985-1000**

ATL will proceed with the analysis as specified on the Chain of Custody and Sample Receipt Summary page.

**Please note** : The Sample Receipt Confirmation, including the total workorder charge, is subject to change upon secondary review. Our aim is to provide a confirmation to you in a timely manner. Sample Receipt Discrepancies, if any, may not include discrepancies regarding sample receipt pressure(s). Additionally, the Chain of Custody (COC) will be provided with the final report.

**180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630**

**(916) 985-1000 .FAX (916) 985-1020**
**Hours 6:30 A.M to 5:30 P.M. PST**

# Air Toxics LTD.

## CHAIN-OF-CUSTODY RECORD

**Sample Transportation Notice**
Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020



Project Manager: Ercal Kitt

**Collected by:** (Print and Sign) Sachiko Ou Sachiko Ou

Company: GEI Consultants Inc Email:

Address: 1 Orinoco Drive City: Brightwaters State: NY Zip: 11718

Phone: 860 682 3939 Fax: —

**Project Info:**
P.O. #:
Project #: 093180-1-1114
Project Name:

**Turn Around Time:**
☐ Normal
☐ Rush
specify

Lab Use Only
Pressurized by:
Date:
Pressurization Gas: N2 He

| Lab I.D. | Field Sample I.D. (Location) | Can # | Date of Collection | Time of Collection | Analyses Requested | Canister Pressure/Vacuum Initial | Final | Receipt | Final (psig) |
|---|---|---|---|---|---|---|---|---|---|
| 01A | UW AMS 4 | 2397 | 3/18/10 | 0658-1434 | TO-15 / Naphthalene | -30 | -6 | | |
| 02A | OW AMS 2 | 1850 | 3/18/10 | 0653-1430 | TO-15 / Naphthalene | -30 | -10 | | |
| 03A | DUPLICATE | 20946 | 3/18/10 | 0653-1430 | TO-15 / Naphthalene | -29.5 | -25.5 | | |

| Relinquished by: (signature) | Date/Time | Received by: (signature) | Date/Time |
|---|---|---|---|
| Sachiko Ou | 3/18/10 1500 | Monica Gallegos AIL | |
| Relinquished by: (signature) | Date/Time | Received by: (signature) | Date/Time |
| | | | 3/23/10 850 |
| Relinquished by: (signature) | Date/Time | Received by: (signature) | Date/Time |
| | | | |

**Notes:**

| Lab Use Only | Shipper Name | Air Bill # | Temp (°C) | Condition | Custody Seals Intact? | Work Order # |
|---|---|---|---|---|---|---|
| | Fed Ex | NA | Good | Yes No None | | 1003514 |

Form 1233 rev.11

Air Toxics LTD.
Laboratory Services Since 1989

# SAMPLE RECEIPT SUMMARY

## WORKORDER 1003514

**Client**

Ms. Theresa Landgraff
GEI Consultants, Inc.
110 Walt Whitman Road
Suite 204
Huntington Station, NY 11746

**Phone**

631-760-9300

**Fax**

**Sales Rep:** TL

**Date Promised:** 04/06/10
**Date Completed:** 4/6/10
**Date Received:** 3/23/10
**PO#:**
**Project#:** 093180-1-1114

**Total $:** $ 674.00
**Logged By:** MG

| Fraction | Sample # | Analysis | Collected | Receipt Vac./Pres. | Amount$ |
|---|---|---|---|---|---|
| 01A | UW AMS 4 | Modified TO-15 | 3/18/2010 | 5.0 "Hg | $225.00 |
| 02A | DW AMS 2 | Modified TO-15 | 3/18/2010 | 7.5 "Hg | $225.00 |
| 03A(cancelled) | DUPLICATE | Modified TO-15 | 3/18/2010 | 24.0 "Hg | $0.00 |
| 04A | Lab Blank | Modified TO-15 | NA | NA | $0.00 |
| 05A | CCV | Modified TO-15 | NA | NA | $0.00 |
| 06A | LCS | Modified TO-15 | NA | NA | $0.00 |

| | | |
|---|---|---|
| Misc. Charges | 6 Liter Summa Canister (2) @ $45.00 each., Shipment 71188 | $90.00 |
| | 6 Liter Summa Canister (1) @ $45.00 each., Shipment 71455 | $45.00 |
| | Blue Body Flow Controller (2) @ $25.00 each., Shipment 71188 | $50.00 |
| | Blue Body Flow Controller (1) @ $25.00 each., Shipment 71455 | $25.00 |
| | Duplicate Sampling T (1) @ $8.00 each. | $8.00 |
| | Sampling Cane-6 in (2) @ $3.00 each. | $6.00 |

**Note:** Samples received after 3 P.M. PST are considered to be received on the following work day.
Atlas Project Name/Profile#: BayShore OUI SL/KB/14046

**BILL TO:** Accounts Payable
GEI Consultants, Inc.
400 Unicorn Park Drive
Woburn, MA 01801

Analysis Code: TO-14A

**TERMS:**

Reporting Method: Modified TO-15 + Naph

# Sample Discrepancy Report

**Identification**

**Initiated By:** Vivian Ray **Project ID:**14046 **PM:** BL **Date:** 3/24/2010 **Discrepancy Type:** ☐ **1.** ☒ **2.** ☐ **3.**

**Workorder(s) affected:1003514** **Sample(s) affected:** 03A

## 1. Sample Receipt Discrepancies

**Narration Not Required:**

1.1. ☐ Sample container (cartridge/tube/VOA vial) was received broken, however sample was intact.

1.2. ☐ No brass cap on canister.

1.3. ☐ Date of Collection noted on first sample, but no arrow down to indicate all samples.

**Notify Lab for further determination:**

1.4. ☐ Tedlar bag received with minimal volume.

Initials: _____ Date: _____

**Narration Required in Lab Narrative and Sample Confirmation:**

1.5. ☐ COC was not filled out in ink.

1.6. ☐ COC improperly relinquished / received.

1.7. ☐ Sample tags / can numbers do not match the COC.

1.8. ☐ Sample date ☐ error / ☐ missing on COC but noted on sample tag (check one).

1.9. ☐ Custody Seal on the outside of the container was ☐ broken / ☐ improperly placed (check one).

1.10. ☐ ID-none on the sample Tag/Blank

1.11. ☐ Other (describe below).

**Describe the Discrepancy:** _____

## 2. Sample Receipt/Screening Discrepancies requiring PM notification

*Document on Cover Page of Sample Receipt Confirmation and in Receiving Notes of Lab Narrative*

**If Section II. is filled out PM must be notified within 24 hrs of initiation**

2.1. ☐ COC was not received with samples.

2.2. ☐ Analysis method(s) is ☐ not specified / ☐ incorrectly specified (check one) on the COC.

2.3. ☐ Incorrect sampling media / container for analysis requested.

2.4. ☐ Number of samples on the COC does not match the number of samples that were received.

2.5. ☐ Samples were received expired.

2.6. ☐ Sampling date (time for sulfur) is not documented for ☐ *some* / ☐ *any* samples (check one).

2.7. ☐ Sample received with amount of $H_2O$ in the Tedlar Bag.

2.8. ☐ Sample cannot be analyzed. Container was ☐ received broken / ☐ leaking / ☐ flat / ☐ defective.

2.9. ☐ Tedlar bag / canister received emitting a strong odor; Sample ☐ can / ☐ cannot (check one) be analyzed.

2.10. ☐ Tedlar Bag for Sulfur analysis has metal fitting.

2.11. ☐ Environmental Supply Company valves

2.12. ☐ Sorbent samples-sampling volume was not provided

2.13. ☐ Flow controller used – canister samples received at ambient or under pressure.

2.14. ☐ Canister was at ambient pressure at time of pressurization and (check all that apply):

- ☐ Canister failed leak check on two manifolds,
- ☐ Canister valve was open,
- ☐ Brass nut was loose/not present.
- ☐ Sample can be analyzed
- ☐ Cannot be analyzed

2.15. ☐ Canister sample received with a vacuum difference >5.0"Hg between the receipt vac. And the final vac. reported on the COC, indicating loss of vacuum.

2.16. ☒ Canister sample received at >15"Hg (*not* identified as a Trip/Field Blank).

2.17. ☐ Canister Trip Blank received at low vacuum (< 25"Hg).

2.18. ☐ Sorbent Sample received outside method required temperature of 2°C to 6°C; ☐ ice / ☐ blue ice (check one) was present. A temp. Blank ☐ was / ☐ was not present (check one).

2.19. ☐ Other (describe below)

**Initials:** _____ **Date:** _____ **Notify Receiving:** ☐ **Notify PM:** ☐

**Describe the Discrepancy:** The Receipt vacuum for 03A was 24.0"Hg.

## *3.* Lab Discrepancies requiring Team Leader/PM notification

*Document in Analytical Notes of Lab Narrative*

**If Section III. is filled out PM must be notified within 24 hrs of initiation**

3.1. ☐ Tedlar Bag found to be leaking at the time of analysis; sample ☐ can / ☐ cannot (check one) be analyzed.

3.2. ☐ Tedlar Bag found to be flat/low volume; sample cannot be analyzed.

3.3. ☐ Sulfur samples received with insufficient time to analyze prior to expiration.

3.4. ☐ Canister found to be leaking at the time of analysis.

3.5. ☐ VOST tube saturated; bag dilution necessary.

3.6. ☐ Sample loss due to instrument malfunction / broken glassware.

3.7. ☐ Low/high surrogate recoveries noted in QC/sample(s) for extractable samples.

3.8. ☐ Reporting Limit was raised.

3.9. ☐ Post weight > Pre weight in field/lab Blank for PM10/TSP samples.

3.10. ☐ Other (describe below).

**Initials:** _____ **Date:** _____ **Notify Receiving:** ☐ **Notify PM:** ☐ _____

**Team Lead Initials:** _____ **Date:** _____

**Describe the Discrepancy:** _____

_____

_____

**How Does this Affect Client:** _____

_____

_____

**Project Manager Use Only**

**Project Manager Notification** ☒ **Section 2 Complete** ☐ **Section 3 Complete**

**Action:**

☐ It is not necessary to notify the client. Narrate the discrepancy in Receiving Notes/Analytical Notes of Lab Narrative.

PM Initials:_____ Date: _____

☒ Client notification required. See attached client contact / email, or comments below:

Client Notification:

PM Initials:BI Person notified: Brian Skelly Date: 3/26/2010

☐ Waiting for Client Reply

Comments: **Cancel sample.**

_____

☐ Notify Lab Name: _____ Date: _____ **Notify Receiving:** ☒

☐ **Additional notifications attached.**

**Additional Comments:**

_____

# Other Records

# DILUTION FACTORS

$$\text{Dilution Factor} = \frac{\text{Final Pressure}}{\text{Initial Vacuum}} = \frac{14.7 \text{ psi} + \text{Final Pressure (psi)}}{14.7 \text{ psi} - [(\text{Initial Pressure ("Hg)}) (14.7 \text{ psi} / 30 \text{ "Hg})]}$$

$$\text{Dilution Factor} = \frac{\text{Final Pressure}}{\text{Initial Pressure}} = \frac{14.7 \text{ psi} + \text{Final Pressure (psi)}}{14.7 \text{ psi} + \text{Initial Pressure (psi)}}$$

| Initial Vacuum ("Hg) | **5 psi** Final Press. Dil. Factor | **10 psi** Final Press. Dil. Factor | **15 psi** Final Press. Dil. Factor |
|---|---|---|---|
| 0.0 | 1.34 | 1.68 | 2.02 |
| 0.5 | 1.36 | 1.71 | 2.05 |
| 1.0 | 1.39 | 1.74 | 2.09 |
| 1.5 | 1.41 | 1.77 | 2.13 |
| 2.0 | 1.44 | 1.80 | 2.16 |
| 2.5 | 1.46 | 1.83 | 2.20 |
| 3.0 | 1.49 | 1.87 | 2.24 |
| 3.5 | 1.52 | 1.90 | 2.29 |
| 4.0 | 1.55 | 1.94 | 2.33 |
| 4.5 | 1.58 | 1.98 | 2.38 |
| 5.0 | 1.61 | 2.02 | 2.42 |
| 5.5 | 1.64 | 2.06 | 2.47 |
| 6.0 | 1.68 | 2.10 | 2.53 |
| 6.5 | 1.71 | 2.15 | 2.58 |
| 7.0 | 1.75 | 2.19 | 2.64 |
| 7.5 | 1.79 | 2.24 | 2.69 |
| 8.0 | 1.83 | 2.29 | 2.76 |
| 8.5 | 1.87 | 2.34 | 2.82 |
| 9.0 | 1.91 | 2.40 | 2.89 |
| 9.5 | 1.96 | 2.46 | 2.96 |
| 10.0 | 2.01 | 2.52 | 3.03 |
| 10.5 | 2.06 | 2.59 | 3.11 |
| 11.0 | 2.12 | 2.65 | 3.19 |
| 11.5 | 2.17 | 2.72 | 3.28 |
| 12.0 | 2.23 | 2.80 | 3.37 |
| 12.5 | 2.30 | 2.88 | 3.46 |
| 13.0 | 2.36 | 2.97 | 3.57 |
| 13.5 | 2.44 | 3.06 | 3.67 |
| 14.0 | 2.51 | 3.15 | 3.79 |
| 14.5 | 2.59 | 3.25 | 3.91 |
| 15.0 | 2.68 | 3.36 | 4.04 |
| 15.5 | 2.77 | 3.48 | 4.18 |
| 16.0 | 2.87 | 3.60 | 4.33 |
| 16.5 | 2.98 | 3.73 | 4.49 |
| 17.0 | 3.09 | 3.88 | 4.66 |
| 17.5 | 3.22 | 4.03 | 4.85 |
| 18.0 | 3.35 | 4.20 | 5.05 |
| 18.5 | 3.50 | 4.38 | 5.27 |
| 19.0 | 3.65 | 4.58 | 5.51 |
| 19.5 | 3.83 | 4.80 | 5.77 |
| 20.0 | 4.02 | 5.04 | 6.06 |
| 20.5 | 4.23 | 5.31 | 6.38 |

| Initial Vacuum ("Hg) | **5 psi** Final Press. Dil. Factor | **10 psi** Final Press. Dil. Factor | **15 psi** Final Press. Dil. Factor |
|---|---|---|---|
| 21.0 | 4.47 | 5.60 | 6.73 |
| 21.5 | 4.73 | 5.93 | 7.13 |
| 22.0 | 5.03 | 6.30 | 7.58 |
| 22.5 | 5.36 | 6.72 | 8.08 |
| 23.0 | 5.74 | 7.20 | 8.66 |
| 23.5 | 6.19 | 7.76 | 9.32 |
| 24.0 | 6.70 | 8.40 | 10.10 |
| 24.5 | 7.31 | 9.17 | 11.02 |
| 25.0 | 8.04 | 10.08 | 12.12 |
| 25.5 | 8.93 | 11.20 | 13.47 |
| 26.0 | 10.05 | 12.60 | 15.15 |
| 26.5 | 11.49 | 14.40 | 17.32 |
| 27.0 | 13.40 | 16.80 | 20.20 |
| 27.5 | 16.08 | 20.16 | 24.24 |
| 28.0 | 20.10 | 25.20 | 30.31 |
| 28.5 | 26.80 | 33.61 | 40.41 |
| 29.0 | 40.20 | 50.41 | 60.61 |

| Initial Pressure (psi) | **5 psi** Final Press. Dil. Factor | **10 psi** Final Press. Dil. Factor | **15 psi** Final Press. Dil. Factor |
|---|---|---|---|
| 0.0 | 1.34 | 1.68 | 2.02 |
| 0.2 | 1.32 | 1.66 | 1.99 |
| 0.4 | 1.30 | 1.64 | 1.97 |
| 0.6 | 1.29 | 1.61 | 1.94 |
| 0.8 | 1.27 | 1.59 | 1.92 |
| 1.0 | 1.25 | 1.57 | 1.89 |
| 1.2 | 1.24 | 1.55 | 1.87 |
| 1.4 | 1.22 | 1.53 | 1.84 |
| 1.6 | 1.21 | 1.52 | 1.82 |
| 1.8 | 1.19 | 1.50 | 1.80 |
| 2.0 | 1.18 | 1.48 | 1.78 |
| 2.2 | 1.17 | 1.46 | 1.76 |
| 2.4 | 1.15 | 1.44 | 1.74 |
| 2.6 | 1.14 | 1.43 | 1.72 |
| 2.8 | 1.13 | 1.41 | 1.70 |
| 3.0 | 1.11 | 1.40 | 1.68 |
| 3.2 | 1.10 | 1.38 | 1.66 |
| 3.4 | 1.09 | 1.36 | 1.64 |
| 3.6 | 1.08 | 1.35 | 1.62 |
| 3.8 | 1.06 | 1.34 | 1.61 |
| 4.0 | 1.05 | 1.32 | 1.59 |

# DILUTION FACTORS

$$\text{Dilution Factor} = \frac{\text{Final Pressure}}{\text{Initial Pressure}} = \frac{\text{14.7 psi + Final Pressure (psi)}}{\text{14.7 psi + Initial Pressure (psi)}}$$

| Initial Pressure (psi) | **5 psi** Final Press. Dil. Factor | **10 psi** Final Press. Dil. Factor | **15 psi** Final Press. Dil. Factor |
|---|---|---|---|
| 0.0 | 1.34 | 1.68 | 2.02 |
| 0.2 | 1.32 | 1.66 | 1.99 |
| 0.4 | 1.30 | 1.64 | 1.97 |
| 0.6 | 1.29 | 1.61 | 1.94 |
| 0.8 | 1.27 | 1.59 | 1.92 |
| 1.0 | 1.25 | 1.57 | 1.89 |
| 1.2 | 1.24 | 1.55 | 1.87 |
| 1.4 | 1.22 | 1.53 | 1.84 |
| 1.6 | 1.21 | 1.52 | 1.82 |
| 1.8 | 1.19 | 1.50 | 1.80 |
| 2.0 | 1.18 | 1.48 | 1.78 |
| 2.2 | 1.17 | 1.46 | 1.76 |
| 2.4 | 1.15 | 1.44 | 1.74 |
| 2.6 | 1.14 | 1.43 | 1.72 |
| 2.8 | 1.13 | 1.41 | 1.70 |
| 3.0 | 1.11 | 1.40 | 1.68 |
| 3.2 | 1.10 | 1.38 | 1.66 |
| 3.4 | 1.09 | 1.36 | 1.64 |
| 3.6 | 1.08 | 1.35 | 1.62 |
| 3.8 | 1.06 | 1.34 | 1.61 |
| 4.0 | 1.05 | 1.32 | 1.59 |
| 4.2 | 1.04 | 1.31 | 1.57 |
| 4.4 | 1.03 | 1.29 | 1.55 |
| 4.6 | 1.02 | 1.28 | 1.54 |
| 4.8 | 1.01 | 1.27 | 1.52 |
| 5.0 | 1.00 | 1.25 | 1.51 |
| 5.2 | NA | 1.24 | 1.49 |
| 5.4 | NA | 1.23 | 1.48 |
| 5.6 | NA | 1.22 | 1.46 |
| 5.8 | NA | 1.20 | 1.45 |
| 6.0 | NA | 1.19 | 1.43 |
| 6.2 | NA | 1.18 | 1.42 |
| 6.4 | NA | 1.17 | 1.41 |
| 6.6 | NA | 1.16 | 1.39 |
| 6.8 | NA | 1.15 | 1.38 |
| 7.0 | NA | 1.14 | 1.37 |
| 7.2 | NA | 1.13 | 1.36 |
| 7.4 | NA | 1.12 | 1.34 |

| Initial Pressure (psi) | **5 psi** Final Press. Dil. Factor | **10 psi** Final Press. Dil. Factor | **15 psi** Final Press. Dil. Factor |
|---|---|---|---|
| 7.6 | NA | 1.11 | 1.33 |
| 7.8 | NA | 1.10 | 1.32 |
| 8.0 | NA | 1.09 | 1.31 |
| 8.2 | NA | 1.08 | 1.30 |
| 8.4 | NA | 1.07 | 1.29 |
| 8.6 | NA | 1.06 | 1.27 |
| 8.8 | NA | 1.05 | 1.26 |
| 9.0 | NA | 1.04 | 1.25 |
| 9.2 | NA | 1.03 | 1.24 |
| 9.4 | NA | 1.02 | 1.23 |
| 9.6 | NA | 1.02 | 1.22 |
| 9.8 | NA | 1.01 | 1.21 |
| 10.0 | NA | 1.00 | 1.20 |
| 10.2 | NA | NA | 1.19 |
| 10.4 | NA | NA | 1.18 |
| 10.6 | NA | NA | 1.17 |
| 10.8 | NA | NA | 1.16 |
| 11.0 | NA | NA | 1.16 |
| 11.2 | NA | NA | 1.15 |
| 11.4 | NA | NA | 1.14 |
| 11.6 | NA | NA | 1.13 |
| 11.8 | NA | NA | 1.12 |
| 12.0 | NA | NA | 1.11 |
| 12.2 | NA | NA | 1.10 |
| 12.4 | NA | NA | 1.10 |
| 12.6 | NA | NA | 1.09 |
| 12.8 | NA | NA | 1.08 |
| 13.0 | NA | NA | 1.07 |
| 13.2 | NA | NA | 1.06 |
| 13.4 | NA | NA | 1.06 |
| 13.6 | NA | NA | 1.05 |
| 13.8 | NA | NA | 1.04 |
| 14.0 | NA | NA | 1.03 |
| 14.2 | NA | NA | 1.03 |
| 14.4 | NA | NA | 1.02 |
| 14.6 | NA | NA | 1.01 |
| 14.8 | NA | NA | 1.01 |

# Compound Listing

**Modified TO-15 + Naph**

| CAS Number | Compound | Detection Limit ppbv | Type |
|---|---|---|---|
| 75-71-8 | Freon 12 | 0.50 | |
| 76-14-2 | Freon 114 | 0.50 | |
| 75-35-4 | 1,1-Dichloroethene | 0.50 | |
| 67-64-1 | Acetone | 2.0 | |
| 67-63-0 | 2-Propanol | 2.0 | |
| 75-15-0 | Carbon Disulfide | 0.50 | |
| 107-05-1 | 3-Chloropropene | 2.0 | |
| 75-09-2 | Methylene Chloride | 0.50 | |
| 1634-04-4 | Methyl tert-butyl ether | 0.50 | |
| 156-60-5 | trans-1,2-Dichloroethene | 0.50 | |
| 110-54-3 | Hexane | 0.50 | |
| 75-34-3 | 1,1-Dichloroethane | 0.50 | |
| 78-93-3 | 2-Butanone (Methyl Ethyl Ketone) | 0.50 | |
| 156-59-2 | cis-1,2-Dichloroethene | 0.50 | |
| 109-99-9 | Tetrahydrofuran | 0.50 | |
| 67-66-3 | Chloroform | 0.50 | |
| 71-55-6 | 1,1,1-Trichloroethane | 0.50 | |
| 110-82-7 | Cyclohexane | 0.50 | |
| 56-23-5 | Carbon Tetrachloride | 0.50 | |
| 540-84-1 | 2,2,4-Trimethylpentane | 0.50 | |
| 71-43-2 | Benzene | 0.50 | |
| 107-06-2 | 1,2-Dichloroethane | 0.50 | |
| 142-82-5 | Heptane | 0.50 | |
| 79-01-6 | Trichloroethene | 0.50 | |
| 78-87-5 | 1,2-Dichloropropane | 0.50 | |
| 123-91-1 | 1,4-Dioxane | 2.0 | |
| 75-27-4 | Bromodichloromethane | 0.50 | |
| 10061-01-5 | cis-1,3-Dichloropropene | 0.50 | |
| 108-10-1 | 4-Methyl-2-pentanone | 0.50 | |
| 108-88-3 | Toluene | 0.50 | |
| 10061-02-6 | trans-1,3-Dichloropropene | 0.50 | |
| 79-00-5 | 1,1,2-Trichloroethane | 0.50 | |
| 127-18-4 | Tetrachloroethene | 0.50 | |
| 591-78-6 | 2-Hexanone | 2.0 | |
| 124-48-1 | Dibromochloromethane | 0.50 | |
| 106-93-4 | 1,2-Dibromoethane (EDB) | 0.50 | |
| 108-90-7 | Chlorobenzene | 0.50 | |
| 100-41-4 | Ethyl Benzene | 0.50 | |
| 108-38-3 | m,p-Xylene | 0.50 | |
| 95-47-6 | o-Xylene | 0.50 | |
| 100-42-5 | Styrene | 0.50 | |
| 75-25-2 | Bromoform | 0.50 | |
| 98-82-8 | Cumene | 0.50 | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 0.50 | |
| 103-65-1 | Propylbenzene | 0.50 | |
| 622-96-8 | 4-Ethyltoluene | 0.50 | |

# Compound Listing

**Modified TO-15 + Naph**

| CAS Number | Compound | Detection Limit ppbv | Type |
|---|---|---|---|
| 108-67-8 | 1,3,5-Trimethylbenzene | 0.50 | |
| 95-63-6 | 1,2,4-Trimethylbenzene | 0.50 | |
| 541-73-1 | 1,3-Dichlorobenzene | 0.50 | |
| 106-46-7 | 1,4-Dichlorobenzene | 0.50 | |
| 100-44-7 | alpha-Chlorotoluene | 0.50 | |
| 95-50-1 | 1,2-Dichlorobenzene | 0.50 | |
| 120-82-1 | 1,2,4-Trichlorobenzene | 2.0 | |
| 87-68-3 | Hexachlorobutadiene | 2.0 | |
| 2037-26-5 | Toluene-d8 | | |
| 17060-07-0 | 1,2-Dichloroethane-d4 | | |
| 460-00-4 | 4-Bromofluorobenzene | | |
| 91-20-3 | Naphthalene | 2.0 | |
| 74-87-3 | Chloromethane | 2.0 | |
| 75-01-4 | Vinyl Chloride | 0.50 | |
| 106-99-0 | 1,3-Butadiene | 0.50 | |
| 74-83-9 | Bromomethane | 0.50 | |
| 75-00-3 | Chloroethane | 0.50 | |
| 75-69-4 | Freon 11 | 0.50 | |
| 64-17-5 | Ethanol | 2.0 | |
| 76-13-1 | Freon 113 | 0.50 | |

# DATA REVIEW CHECKLIST

**Work Order #:** 10°03514

| $A_1$ | $A_2$ | R | T | M | Q | |
|---|---|---|---|---|---|---|
| ☐ | ☐ | ☑ | ☑ | ☑ | ☐ | Analysis/Reporting vs. Project Profile/SOP requirements checked (i.e. 100% Dups, J-Flag to MDL, etc) |
| | | ☑ | ☑ | ☑ | ☐ | The final report has the correct reporting list, special units, and header info. |
| ☑ | ☐ | | | ☑ | | Non-Standard sublist printed/verified, LOQ and LOD verified |
| | ☐ | ☑ | ☑ | ☑ | | Lab Narrative is correct (proper method & description/Receiving & Analytical notes correct) |
| | | ☑ | ☑ | ☑ | ☐ | Sample Discrepancy Report (SDR) is completed |
| NA | ☐ | NA | NA | NA | ☐ | Corrective Action issued - # |
| ☑ | ☐ | ☑ | ☑ | ☑ | ☐ | Unusual circumstances have been documented in the notes section below |

**LUMEN** *validation report present and initialed* ***CIRCLE ( YES / NO )***

| | | | | | | |
|---|---|---|---|---|---|---|
| ☑ | ☐ | ☐ | ☑ | ☑ | ☐ | Lab Blank, CCV, LCS and DUP met QC criteria |
| ☑ | ☐ | ☐ | ☑ | ☑ | ☐ | Hold time is met for all samples |
| | | ☐ | NA | NA | ☐ | Appropriate data qualifier flags are applied |
| | | ☐ | NA | NA | ☐ | Manual integrations for samples and QC are properly documented |
| ☑ | ☐ | ☐ | ☑ | | ☐ | Samples analyzed within the project or method specific clock |
| | | ☐ | ☑ | | | Retention times have been verified |
| ☑ | ☐ | ☐ | ☑ | | ☐ | Appropriate ICAL(s) included |
| | | ☑ | ☑ | ☑ | ☐ | At least one result per sample is verified against the target quant sheets/raw data |
| ☑ | ☐ | ☐ | ☑ | | ☐ | Dilution factor correctly calculated (sample load volume, syringe and bag dilutions, can pressurization(s)) |
| ☑ | ☑ | ☑ | ☑ | | | Correct amount of sample analyzed (i.e. sample not over-diluted) |
| | | ☑ | ☐ | | | Spectra verified - documentation of spectral defense included (Section 5A of eCVP pkg) |
| | | NA | NA | | | TICs resemble reference spectra |
| | | ☐ | NA | | | TICs between duplicate samples are consistent |
| ☑ | ☐ | ☐ | ☑ | ☐ | ☐ | Checked samples for trends (i.e. Influent vs. Effluent, Field Dups, Field/Trip Blank, etc.) Dup. Cancelled. |
| ☑ | ☐ | ☐ | NA | | | Data for multiple analyses of sample(s) has been evaluated for comparability of results |
| | | NA | NA | | | Special units for all samples in the final report are correctly calculated |
| | | ☐ | NA | NA | | Manually entered results checked (i.e. TPH/NMOC) |
| ☑ | ☐ | ☑ | | | | Chain of Custody verified for any special comments (i.e. different compounds/RLs, action levels) |
| | | ☑ | | | | Chain of Custody scanned correctly |
| | | | | ☐ | | Verify sample id's vs. chain of custody |
| ☑ | | ☑ | | | | Date MDL(s) performed per instrument(s) 12/21/10 |
| ☑ | ☐ | ☑ | | | | Samples pressurized w/ appropriate gas ($N_2$ or He) ☐ Other (i.e. Tedlar bag, cartridge, sorbent) |
| ☑ | ☐ | ☑ | | | | Final pressure consistent with canister size (6L vs. 1L) |
| ☑ | ☐ | ☑ | | | | Verify receipt pressures |
| ☑ | ☐ | ☑ | | | | Verify canister ID #'s |
| | | ☑ | | ☑ | | Final invoice amount correct (adjusted for TAT, Penalties, Re-issue Charges etc.) |
| | | ☑ | ☑ | ☐ | ☐ | Client LUMEN report reviewed for accuracy and completeness |
| | | | ☑ | | | Final PDF report reviewed for correctness |

***Notes:*** *(to include: noting samples with QA/QC problems, Blanks with positive hits, narratives, etc.)*

A/R: Out in QC

-03A cancelled per client request, see SDR + Lab Narrative

M/Q:

| $A_1/A_2$ (Analytical Review/Date) | R/T (Reporting Review/Date) | M (Management Review/Date) | Q (QA Review/Date) |
|---|---|---|---|
| $A_1$: 12/22/10 | R: 1/3/10 | James Parker 1/6/10 | |
| $A_2$: | T: James Parker 1/6/10 | | |

**Note (1): Please check all the appropriate boxes. Indicate "NA" for any statement that does not apply.**
**Note (2): Management reviewer and reporting reviewer must be separate individuals.**

# Not Applicable


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Electronic Comprehensive Validation Package (eCVP)

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# COMPREHENSIVE VALIDATION PACKAGE

Modified TO-15

INVENTORY SHEET

Work Order #: 1003666

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| -Internal Standard Area and Retention Time Summary | | |
| -Surrogate Recovery Summary (If Applicable) | | |
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Comments:

Completed by:

| Vera Belitsky | Vera Belitsky / Document Control | 4/15/10 |
|---|---|---|
| (Signature) | ( Print Name & Title) | (Date) |

Air Toxics LTD.
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# WORK ORDER #: 1003666

Work Order Summary

| | | | |
|---|---|---|---|
| **CLIENT:** | Ms. Theresa Landgraff<br>GEI Consultants, Inc.<br>110 Walt Whitman Road<br>Suite 204<br>Huntington Station, NY 11746 | **BILL TO:** | Accounts Payable<br>GEI Consultants, Inc.<br>400 Unicorn Park Drive<br>Woburn, MA 01801 |
| **PHONE:** | 631-760-9300 | **P.O. #** | |
| **FAX:** | | **PROJECT #** | 093180-1-1114 |
| **DATE RECEIVED:** | 03/30/2010 | **CONTACT:** | Bryanna Langley |
| **DATE COMPLETED:** | 04/12/2010 | | |

| FRACTION # | NAME | TEST | RECEIPT VAC./PRES. | FINAL PRESSURE |
|---|---|---|---|---|
| 01A | DW AMS 1 (1) | Modified TO-15 | 0.60 psi | 5 psi |
| 02A | DW AMS 1 (2) | Modified TO-15 | 11.5 "Hg | 5 psi |
| 03A | Lab Blank | Modified TO-15 | NA | NA |
| 04A | CCV | Modified TO-15 | NA | NA |
| 05A | LCS | Modified TO-15 | NA | NA |

CERTIFIED BY: Linda D. Fruman DATE: 04/12/10

Laboratory Director

Certfication numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763,
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/09, Expiration date: 06/30/10
Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

**LABORATORY NARRATIVE**
**Modified TO-15**
**GEI Consultants, Inc.**
**Workorder# 1003666**

Two 6 Liter Summa Canister samples were received on March 30, 2010. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

| *Requirement* | *TO-15* | *ATL Modifications* |
|---|---|---|
| Daily CCV | </= 30% Difference | </= 30% Difference; Compounds exceeding this criterion and associated data are flagged and narrated. |
| Sample collection media | Summa canister | ATL recommends use of summa canisters to insure data defensibility, but will report results from Tedlar bags at client request |
| Method Detection Limit | Follow 40CFR Pt.136 App. B | The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases |

## Receiving Notes

The Chain of Custody (COC) information for sample DW AMS 1 (1) did not match the entry on the sample tag with regard to sample identification. The information on the COC was used to process and report the sample.

## Analytical Notes

There were no analytical discrepancies.

## Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction no performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified
b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

## Table 1

| Client Sample ID | Lab Sample ID | Date Collected | Date Received | Date Extracted | Sample Holding Time (Days) | Sample Extract Date Analyzed | Sample Extract Holding Time (Days) | Sample Condition |
|---|---|---|---|---|---|---|---|---|
| DW AMS 1 (1) | 1003666-01A | 3/25/2010 | 3/30/2010 | NA | 11 | 4/ 5/2010 | NA | Good |
| DW AMS 1 (2) | 1003666-02A | 3/25/2010 | 3/30/2010 | NA | 11 | 4/ 5/2010 | NA | Good |
| Lab Blank | 1003666-03A | NA | NA | NA | NA | 4/ 5/2010 | NA | Good |
| CCV | 1003666-04A | NA | NA | NA | NA | 4/ 5/2010 | NA | Good |
| LCS | 1003666-05A | NA | NA | NA | NA | 4/ 5/2010 | NA | Good |

# Sample Results and Raw Data

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# Summary of Detected Compounds
# MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: DW AMS 1 (1)**

**Lab ID#: 1003666-01A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (ug/m3) | Amount (ug/m3) |
|---|---|---|---|---|
| Ethanol | 2.6 | 14 | 4.9 | 27 |
| Acetone | 2.6 | 5.6 | 6.1 | 13 |
| Hexane | 0.64 | 0.90 | 2.3 | 3.2 |
| 2-Butanone (Methyl Ethyl Ketone) | 0.64 | 0.71 | 1.9 | 2.1 |
| Benzene | 0.64 | 1.2 | 2.1 | 3.7 |
| Toluene | 0.64 | 3.9 | 2.4 | 14 |
| Ethyl Benzene | 0.64 | 10 | 2.8 | 44 |
| m,p-Xylene | 0.64 | 12 | 2.8 | 51 |
| o-Xylene | 0.64 | 2.6 | 2.8 | 12 |
| Cumene | 0.64 | 0.74 | 3.2 | 3.7 |
| 4-Ethyltoluene | 0.64 | 4.1 | 3.2 | 20 |
| 1,3,5-Trimethylbenzene | 0.64 | 0.96 | 3.2 | 4.7 |
| 1,2,4-Trimethylbenzene | 0.64 | 2.6 | 3.2 | 13 |

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**Client Sample ID: DW AMS 1 (1)**

**Lab ID#: 1003666-01A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **d040523** | **Date of Collection:** | **3/25/10 7:09:00 AM** |
| **Dil. Factor:** | **1.29** | **Date of Analysis:** | **4/5/10 08:09 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (ug/m3) | Amount (ug/m3) |
|---|---|---|---|---|
| Freon 12 | 0.64 | Not Detected | 3.2 | Not Detected |
| Freon 114 | 0.64 | Not Detected | 4.5 | Not Detected |
| Chloromethane | 2.6 | Not Detected | 5.3 | Not Detected |
| Vinyl Chloride | 0.64 | Not Detected | 1.6 | Not Detected |
| 1,3-Butadiene | 0.64 | Not Detected | 1.4 | Not Detected |
| Bromomethane | 0.64 | Not Detected | 2.5 | Not Detected |
| Chloroethane | 0.64 | Not Detected | 1.7 | Not Detected |
| Freon 11 | 0.64 | Not Detected | 3.6 | Not Detected |
| Ethanol | 2.6 | 14 | 4.9 | 27 |
| Freon 113 | 0.64 | Not Detected | 4.9 | Not Detected |
| 1,1-Dichloroethene | 0.64 | Not Detected | 2.6 | Not Detected |
| Acetone | 2.6 | 5.6 | 6.1 | 13 |
| 2-Propanol | 2.6 | Not Detected | 6.3 | Not Detected |
| Carbon Disulfide | 0.64 | Not Detected | 2.0 | Not Detected |
| 3-Chloropropene | 2.6 | Not Detected | 8.1 | Not Detected |
| Methylene Chloride | 0.64 | Not Detected | 2.2 | Not Detected |
| Methyl tert-butyl ether | 0.64 | Not Detected | 2.3 | Not Detected |
| trans-1,2-Dichloroethene | 0.64 | Not Detected | 2.6 | Not Detected |
| Hexane | 0.64 | 0.90 | 2.3 | 3.2 |
| 1,1-Dichloroethane | 0.64 | Not Detected | 2.6 | Not Detected |
| 2-Butanone (Methyl Ethyl Ketone) | 0.64 | 0.71 | 1.9 | 2.1 |
| cis-1,2-Dichloroethene | 0.64 | Not Detected | 2.6 | Not Detected |
| Tetrahydrofuran | 0.64 | Not Detected | 1.9 | Not Detected |
| Chloroform | 0.64 | Not Detected | 3.1 | Not Detected |
| 1,1,1-Trichloroethane | 0.64 | Not Detected | 3.5 | Not Detected |
| Cyclohexane | 0.64 | Not Detected | 2.2 | Not Detected |
| Carbon Tetrachloride | 0.64 | Not Detected | 4.0 | Not Detected |
| 2,2,4-Trimethylpentane | 0.64 | Not Detected | 3.0 | Not Detected |
| Benzene | 0.64 | 1.2 | 2.1 | 3.7 |
| 1,2-Dichloroethane | 0.64 | Not Detected | 2.6 | Not Detected |
| Heptane | 0.64 | Not Detected | 2.6 | Not Detected |
| Trichloroethene | 0.64 | Not Detected | 3.5 | Not Detected |
| 1,2-Dichloropropane | 0.64 | Not Detected | 3.0 | Not Detected |
| 1,4-Dioxane | 2.6 | Not Detected | 9.3 | Not Detected |
| Bromodichloromethane | 0.64 | Not Detected | 4.3 | Not Detected |
| cis-1,3-Dichloropropene | 0.64 | Not Detected | 2.9 | Not Detected |
| 4-Methyl-2-pentanone | 0.64 | Not Detected | 2.6 | Not Detected |
| Toluene | 0.64 | 3.9 | 2.4 | 14 |
| trans-1,3-Dichloropropene | 0.64 | Not Detected | 2.9 | Not Detected |

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**Client Sample ID: DW AMS 1 (1)**

**Lab ID#: 1003666-01A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **d040523** | **Date of Collection: 3/25/10 7:09:00 AM** | |
| **Dil. Factor:** | **1.29** | **Date of Analysis: 4/5/10 08:09 PM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (ug/m3) | Amount (ug/m3) |
|---|---|---|---|---|
| 1,1,2-Trichloroethane | 0.64 | Not Detected | 3.5 | Not Detected |
| Tetrachloroethene | 0.64 | Not Detected | 4.4 | Not Detected |
| 2-Hexanone | 2.6 | Not Detected | 10 | Not Detected |
| Dibromochloromethane | 0.64 | Not Detected | 5.5 | Not Detected |
| 1,2-Dibromoethane (EDB) | 0.64 | Not Detected | 5.0 | Not Detected |
| Chlorobenzene | 0.64 | Not Detected | 3.0 | Not Detected |
| Ethyl Benzene | 0.64 | 10 | 2.8 | 44 |
| m,p-Xylene | 0.64 | 12 | 2.8 | 51 |
| o-Xylene | 0.64 | 2.6 | 2.8 | 12 |
| Styrene | 0.64 | Not Detected | 2.7 | Not Detected |
| Bromoform | 0.64 | Not Detected | 6.7 | Not Detected |
| Cumene | 0.64 | 0.74 | 3.2 | 3.7 |
| 1,1,2,2-Tetrachloroethane | 0.64 | Not Detected | 4.4 | Not Detected |
| Propylbenzene | 0.64 | Not Detected | 3.2 | Not Detected |
| 4-Ethyltoluene | 0.64 | 4.1 | 3.2 | 20 |
| 1,3,5-Trimethylbenzene | 0.64 | 0.96 | 3.2 | 4.7 |
| 1,2,4-Trimethylbenzene | 0.64 | 2.6 | 3.2 | 13 |
| 1,3-Dichlorobenzene | 0.64 | Not Detected | 3.9 | Not Detected |
| 1,4-Dichlorobenzene | 0.64 | Not Detected | 3.9 | Not Detected |
| alpha-Chlorotoluene | 0.64 | Not Detected | 3.3 | Not Detected |
| 1,2-Dichlorobenzene | 0.64 | Not Detected | 3.9 | Not Detected |
| 1,2,4-Trichlorobenzene | 2.6 | Not Detected | 19 | Not Detected |
| Hexachlorobutadiene | 2.6 | Not Detected | 28 | Not Detected |
| Naphthalene | 2.6 | Not Detected | 14 | Not Detected |

**Container Type: 6 Liter Summa Canister**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| Toluene-d8 | 101 | 70-130 |
| 1,2-Dichloroethane-d4 | 103 | 70-130 |
| 4-Bromofluorobenzene | 98 | 70-130 |

Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msdd.i/05apr10.b/d040523.d
Lab Smp Id: 1003666-01A
Inj Date : 05-APR-2010 20:09
Operator : ra Inst ID: msdd.i
Smp Info : 200mL #33790
Misc Info : 0.6psi->5psi
Comment :
Method : /chem/msdd.i/05apr10.b/d10q0331a.m
Meth Date : 05-Apr-2010 21:50 abarton Quant Type: ISTD
Cal Date : 31-MAR-2010 15:58 Cal File: d033117.d
Als bottle: 1
Dil Factor: 1.29000
Integrator: HP RTE Compound Sublist: TO15N.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| | | | | CONCENTRATIONS ON-COL | FINAL | | |
|---|---|---|---|---|---|---|---|
| RT | EXP RT (REL RT) | MASS | RESPONSE | ( PPBV) | ( PPBV) | TARGET RANGE | RATIO |
| == | ====== ======== | ==== | ======== | ======= | ======= | ========== | ===== |
| * 79 Bromochloromethane | | | | | CAS #: 74-97-5 | | |
| 4.591 | 4.591 (1.000) | 130 | 91780 | 25.0000 | | 80.00- 120.00 | 100.00 |
| 4.591 | 4.591 (1.000) | 128 | 71282 | | | 27.03- 127.03 | 77.67 |
| 4.591 | 4.591 (1.000) | 49 | 173099 | | | 130.24- 230.24 | 188.60 |
| * 100 1,4-Difluorobenzene | | | | | CAS #: 540-36-3 | | |
| 5.523 | 5.515 (1.000) | 114 | 393130 | 25.0000 | | 80.00- 120.00 | 100.00 |
| 5.515 | 5.515 (1.000) | 88 | 71190 | | | 0.00- 68.52 | 18.11 |
| * 134 Chlorobenzene-d5 | | | | | CAS #: 3114-55-4 | | |
| 7.965 | 7.958 (1.000) | 117 | 452588 | 25.0000 | | 80.00- 120.00 | 100.00 |
| 7.965 | 7.958 (1.000) | 82 | 290746 | | | 12.92- 112.92 | 64.24 |
| $ 91 1,2-Dichloroethane-d4 | | | | | CAS #: 17060-07-0 | | |
| 5.143 | 5.143 (1.120) | 65 | 191259 | 25.6987 | 25.699 | 80.00- 120.00 | 100.00 |
| 5.143 | 5.143 (1.120) | 67 | 94372 | | | 2.15- 102.15 | 49.34 |
| $ 114 Toluene-d8 | | | | | CAS #: 2037-26-5 | | |
| 6.747 | 6.740 (1.222) | 98 | 492438 | 25.2535 | 25.253 | 80.00- 120.00 | 100.00 |
| 6.747 | 6.740 (1.222) | 70 | 62022 | | | 0.00- 62.20 | 12.59 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 114 Toluene-d8 (continued) | | | | | | | |
| 6.747 | 6.740 (1.222) | 100 | 317163 | | | 15.58- 115.58 | 64.41 |
| $ 149 Bromofluorobenzene | | | | | CAS #: 460-00-4 | | |
| 8.939 | 8.925 (1.122) | 174 | 227975 | 24.6364 | 24.636 | 80.00- 120.00 | 100.00 |
| 8.939 | 8.925 (1.122) | 95 | 389703 | | | 118.65- 218.65 | 170.94 |
| 8.939 | 8.925 (1.122) | 176 | 217954 | | | 44.64- 144.64 | 95.60 |
| 29 Ethanol | | | | | CAS #: 64-17-5 | | |
| 2.177 | 2.163 (0.474) | 45 | 16969 | 11.1376 | 14.368 | 80.00- 120.00 | 100.00 |
| 2.185 | 2.163 (0.476) | 43 | 4831 | | | 0.00- 76.61 | 28.47 |
| 2.177 | 2.163 (0.474) | 46 | 6755 | | | 0.00- 88.16 | 39.81 |
| 38 Acetone | | | | | CAS #: 67-64-1 | | |
| 2.550 | 2.536 (0.555) | 58 | 8475 | 4.33745 | 5.595 | 80.00- 120.00 | 100.00 |
| 2.550 | 2.536 (0.555) | 43 | 32826 | | | 327.54- 427.54 | 387.33 |
| 58 Hexane | | | | | CAS #: 110-54-3 | | |
| 3.495 | 3.488 (0.761) | 57 | 4921 | 0.69390 | 0.8951 | 80.00- 120.00 | 100.00 |
| 3.495 | 3.488 (0.761) | 43 | 4658 | | | 19.39- 119.39 | 94.66 |
| 0.000 | 3.488 (0.000) | 86 | 0 | | | 0.00- 69.00 | 0.00 |
| 75 2-Butanone | | | | | CAS #: 78-93-3 | | |
| 4.412 | 4.391 (0.961) | 72 | 1209 | 0.54775 | 0.7066 | 80.00- 120.00 | 100.00 |
| 4.405 | 4.391 (0.959) | 43 | 6965 | | | 425.89- 525.89 | 576.10 |
| 4.899 | 4.391 (1.067) | 57 | 1244 | | | 29.81- 129.81 | 102.89 |
| 90 Benzene | | | | | CAS #: 71-43-2 | | |
| 5.129 | 5.122 (0.929) | 78 | 13483 | 0.89644 | 1.156 | 80.00- 120.00 | 100.00 |
| 5.129 | 5.122 (0.929) | 77 | 3141 | | | 0.00- 73.17 | 23.30 |
| 115 Toluene | | | | | CAS #: 108-88-3 | | |
| 6.798 | 6.798 (1.231) | 91 | 60121 | 2.99940 | 3.869 | 80.00- 120.00 | 100.00 |
| 6.798 | 6.798 (1.231) | 92 | 35959 | | | 9.81- 109.81 | 59.81 |
| 137 Ethyl Benzene | | | | | CAS #: 100-41-4 | | |
| 8.051 | 8.044 (1.011) | 106 | 67130 | 7.86203 | 10.142 | 80.00- 120.00 | 100.00 |
| 8.051 | 8.044 (1.011) | 91 | 226035 | | | 290.13- 390.13 | 336.71 |
| 140 m,p-Xylene | | | | | CAS #: 108-38-3 | | |
| 8.151 | 8.137 (1.023) | 106 | 99421 | 9.03609 | 11.656 | 80.00- 120.00 | 100.00 |
| 8.151 | 8.137 (1.023) | 91 | 204116 | | | 156.72- 256.72 | 205.30 |
| 141 o-Xylene | | | | | CAS #: 95-47-6 | | |
| 8.481 | 8.467 (1.065) | 106 | 21433 | 2.05625 | 2.652 | 80.00- 120.00 | 100.00 |
| 8.481 | 8.467 (1.065) | 91 | 46677 | | | 170.17- 270.17 | 217.78 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 147 Cumene | | | | | CAS #: 98-82-8 | | |
| 8.775 | 8.760 (1.102) | 105 | 18309 | 0.57784 | 0.7454 | 80.00- 120.00 | 100.00 |
| 8.767 | 8.760 (1.101) | 120 | 4765 | | | 0.00- 75.25 | 26.03 |
| 8.767 | 8.760 (1.101) | 51 | 2572 | | | 0.00- 62.26 | 14.05 |
| 155 4-Ethyltoluene | | | | | CAS #: 622-96-8 | | |
| 9.183 | 9.190 (1.153) | 120 | 29927 | 3.16019 | 4.077 | 80.00- 120.00 | 100.00 |
| 9.190 | 9.190 (1.154) | 105 | 104283 | | | 307.06- 407.06 | 348.46 |
| 156 1,3,5-Trimethylbenzene | | | | | CAS #: 108-67-8 | | |
| 9.262 | 9.247 (1.163) | 120 | 9518 | 0.74710 | 0.9638 | 80.00- 120.00 | 100.00 |
| 9.262 | 9.247 (1.163) | 105 | 20097 | | | 160.53- 260.53 | 211.15 |
| 162 1,2,4-Trimethylbenzene | | | | | CAS #: 95-63-6 | | |
| 9.570 | 9.555 (1.201) | 120 | 23709 | 2.00034 | 2.580 | 80.00- 120.00 | 100.00 |
| 9.570 | 9.555 (1.201) | 105 | 53202 | | | 174.98- 274.98 | 224.40 |

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdd.i
Lab File ID: d040523.d
Lab Smp Id: 1003666-01A
Analysis Type: VOA
Quant Type: ISTD
Operator: ra
Method File: /chem/msdd.i/05apr10.b/d10q0331a.m
Misc Info: 0.6psi->5psi

Calibration Date: 05-APR-2010
Calibration Time: 09:59
Level: LOW
Sample Type: AIR

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 5

| | | AREA LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 79 Bromochloromethan | 100921 | 60553 | 141289 | 91780 | -9.06 |
| 100 1,4-Difluorobenze | 426370 | 255822 | 596918 | 393130 | -7.80 |
| 134 Chlorobenzene-d5 | 463331 | 277999 | 648663 | 452588 | -2.32 |

| | | RT LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 79 Bromochloromethan | 4.59 | 4.26 | 4.92 | 4.59 | 0.00 |
| 100 1,4-Difluorobenze | 5.52 | 5.19 | 5.85 | 5.52 | 0.13 |
| 134 Chlorobenzene-d5 | 7.96 | 7.63 | 8.29 | 7.97 | 0.09 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Report Date: 12-Apr-2010 15:09

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: 05apr10
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1003666-01A
Level: LOW Operator: ra
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: 2926spectra.spk Quant Type: ISTD
Sublist File: TO15N.sub
Method File: /chem/msdd.i/05apr10.b/d10q0331a.m
Misc Info: 0.6psi->5psi

| SURROGATE COMPOUND | CONC ADDED PPBV | CONC RECOVERED PPBV | % RECOVERED | LIMITS |
|---|---|---|---|---|
| $ 91 1,2-Dichloroethane | 25.000 | 25.699 | 102.79 | 70-130 |
| $ 114 Toluene-d8 | 25.000 | 25.253 | 101.01 | 70-130 |
| $ 149 Bromofluorobenzene | 25.000 | 24.636 | 98.55 | 70-130 |

Data File: /chem/msdd.i/05apr10.b/d040523.d

Date : 05-APR-2010 20:09

Client ID:

Sample Info: 200mL #33790

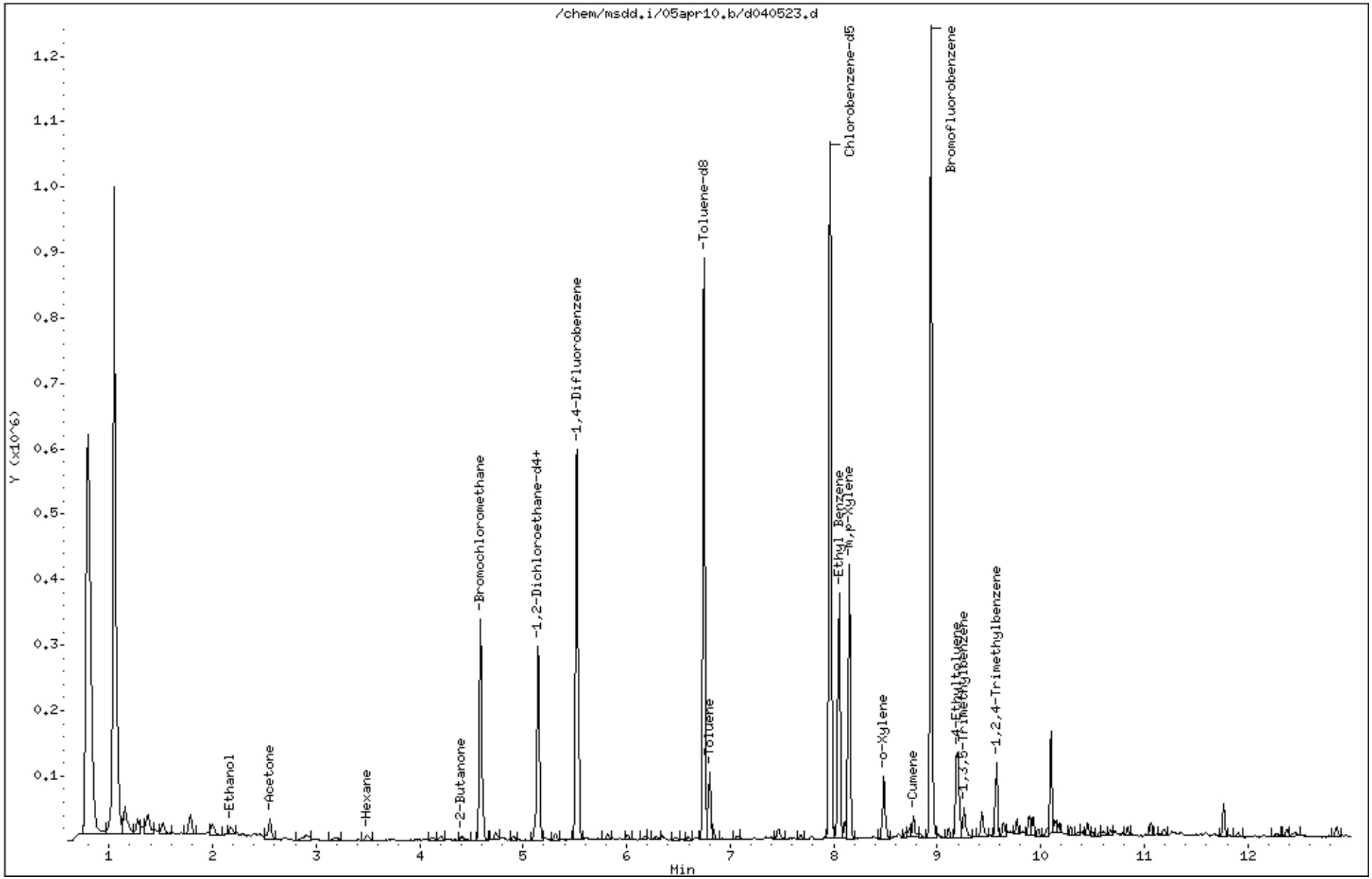
Column phase: RTx-624

Instrument: msdd.i

Operator: ra

Column diameter: 0.53





Data File: /chem/msdd.i/05apr10.b/d040523.d

Date : 05-APR-2010 20:09

Client ID:

Instrument: msdd.i

Sample Info: 200mL #33790

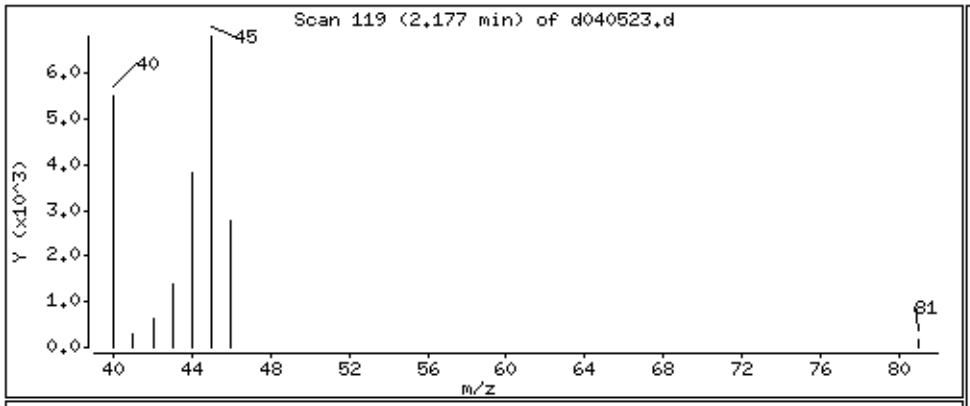
Operator: ra

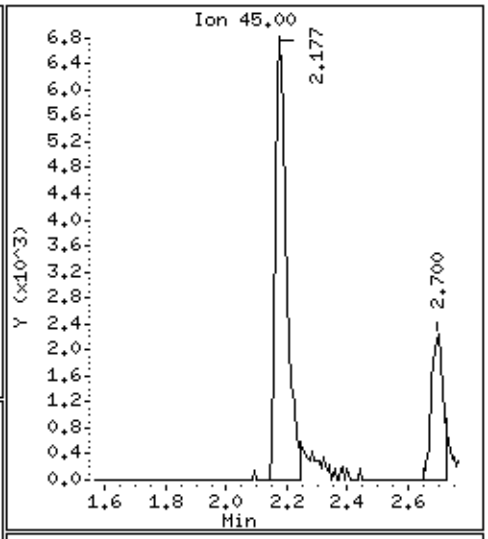
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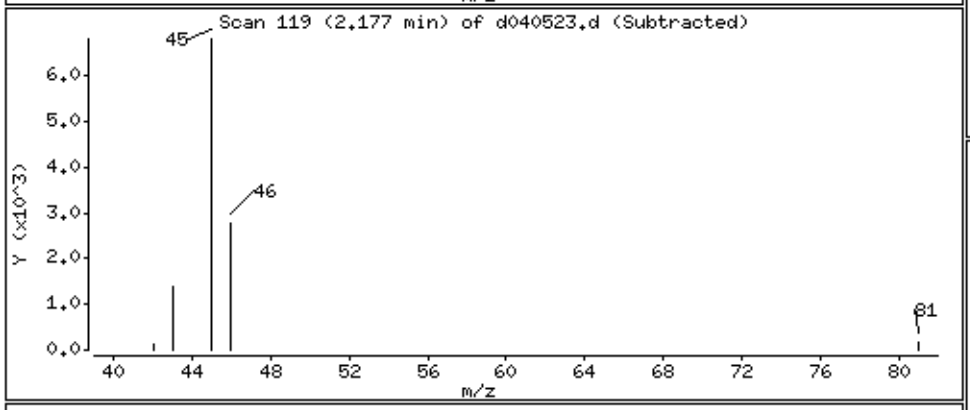
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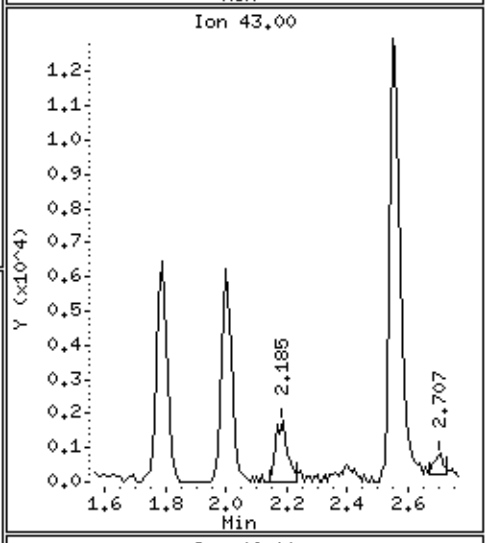
29 Ethanol

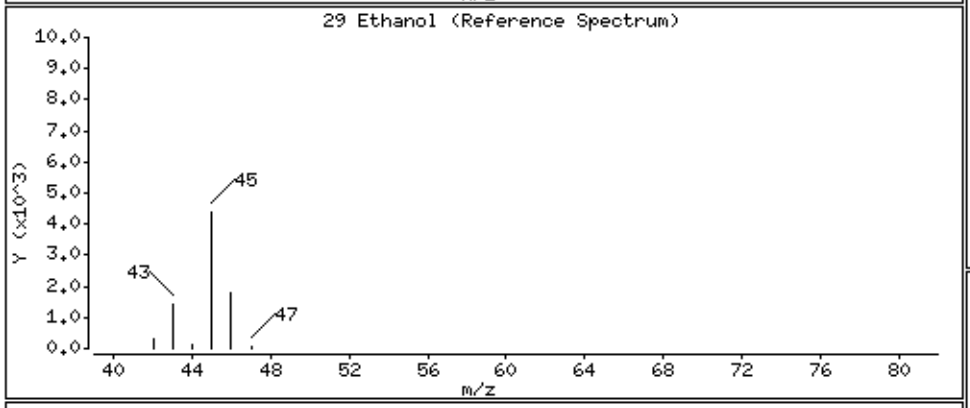
Concentration: 14.368 PPBV

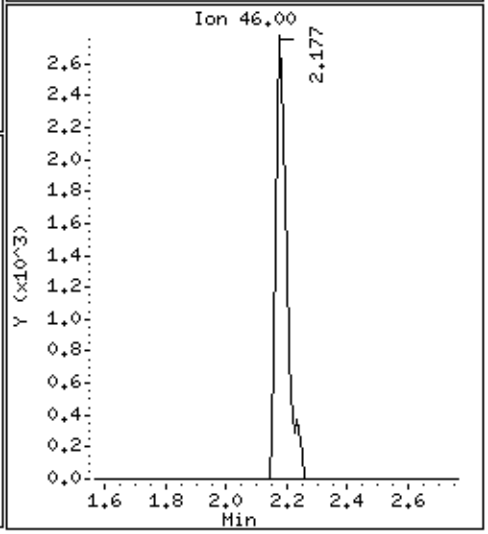


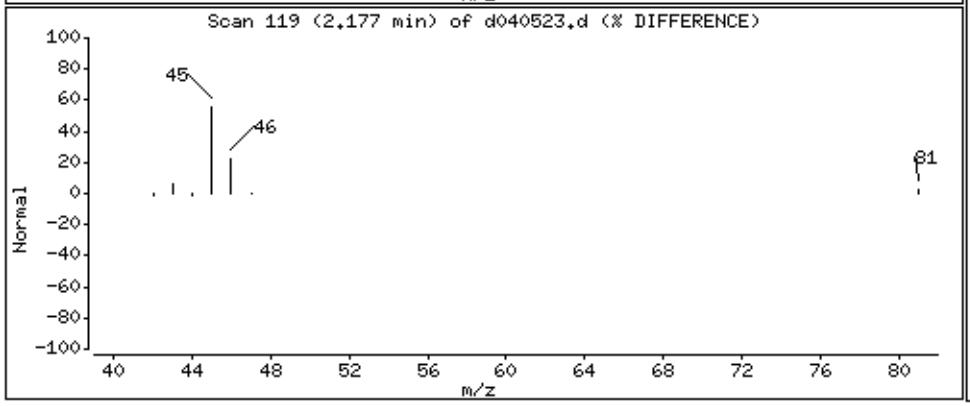



Data File: /chem/msdd.i/05apr10.b/d040523.d

Date : 05-APR-2010 20:09

Client ID:

Instrument: msdd.i

Sample Info: 200mL #33790

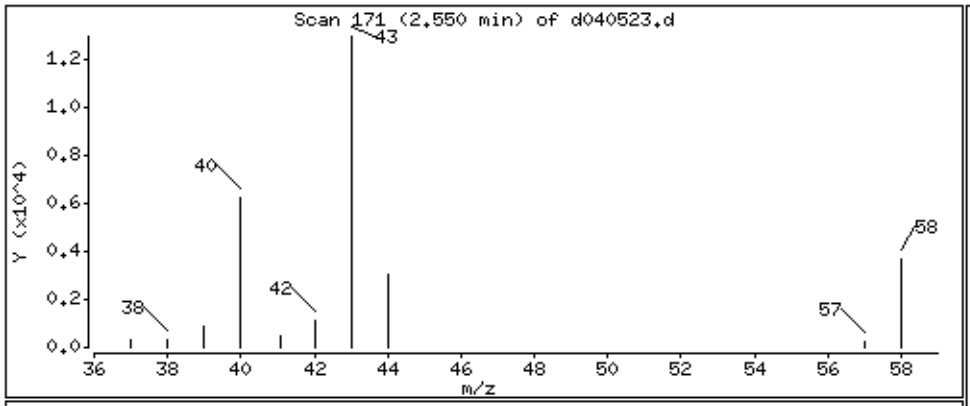
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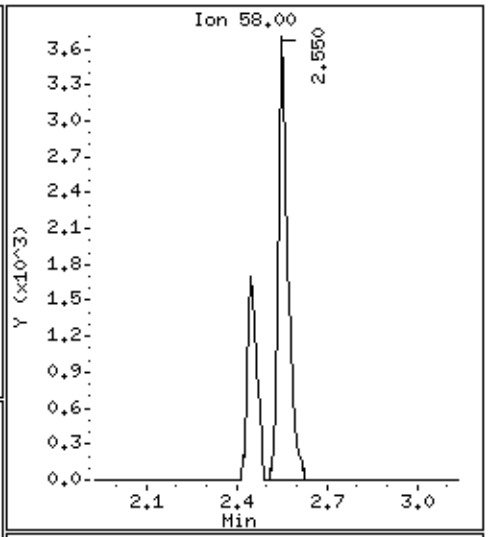
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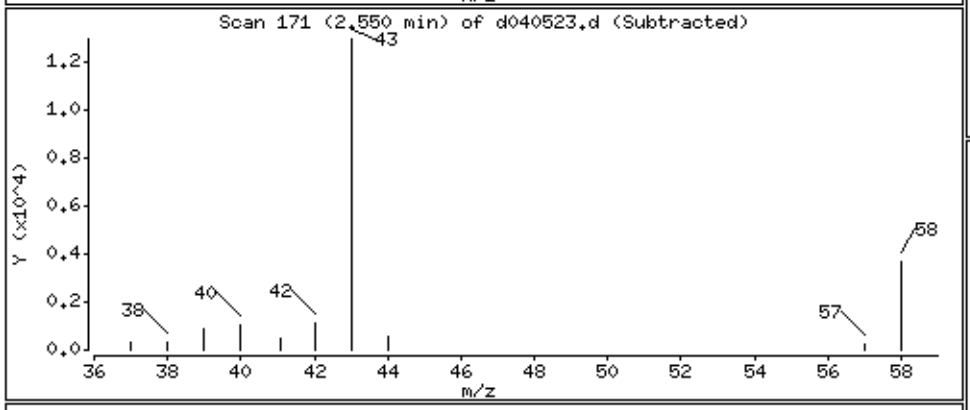
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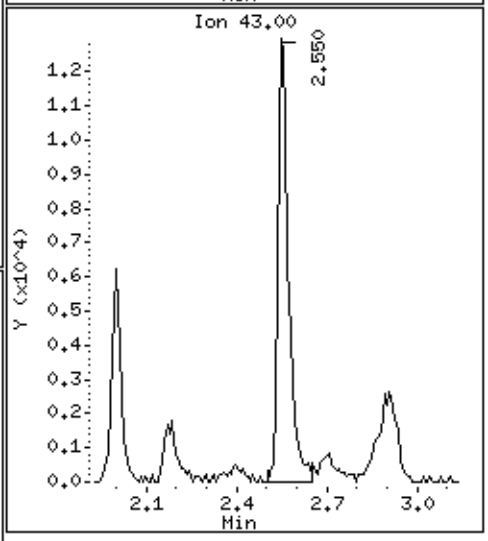
38 Acetone

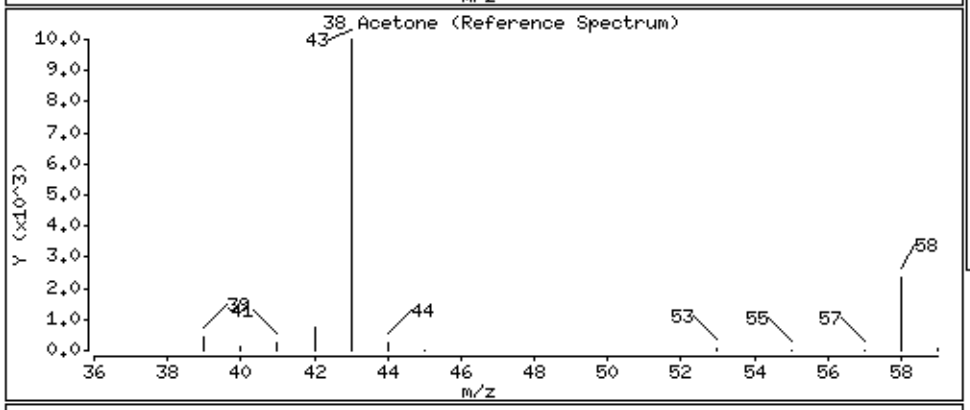
Concentration: 5.595 PPBV

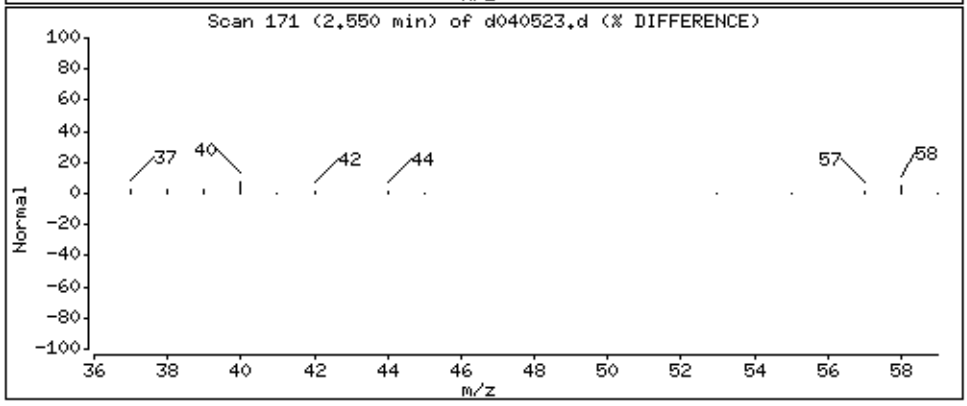


Data File: /chem/msdd.i/05apr10.b/d040523.d

Date : 05-APR-2010 20:09

Client ID:

Instrument: msdd.i

Sample Info: 200mL #33790

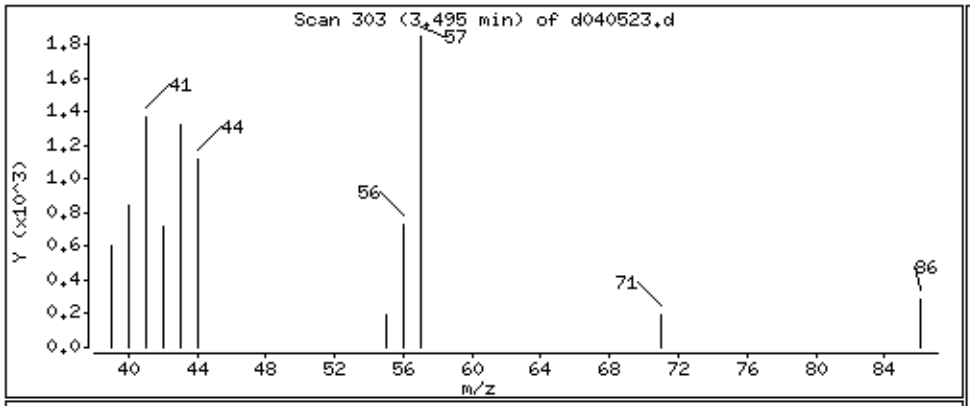
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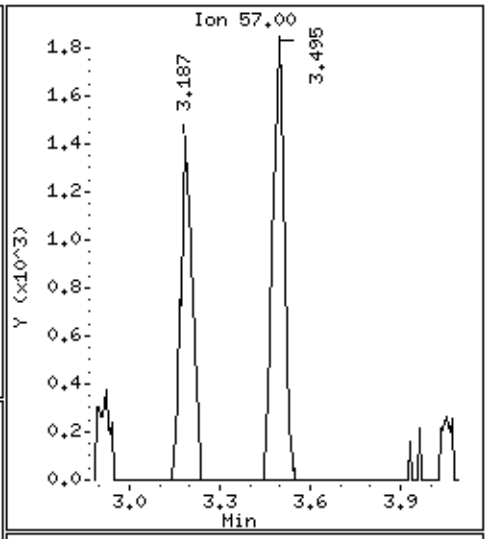
Column phase: RTx-624

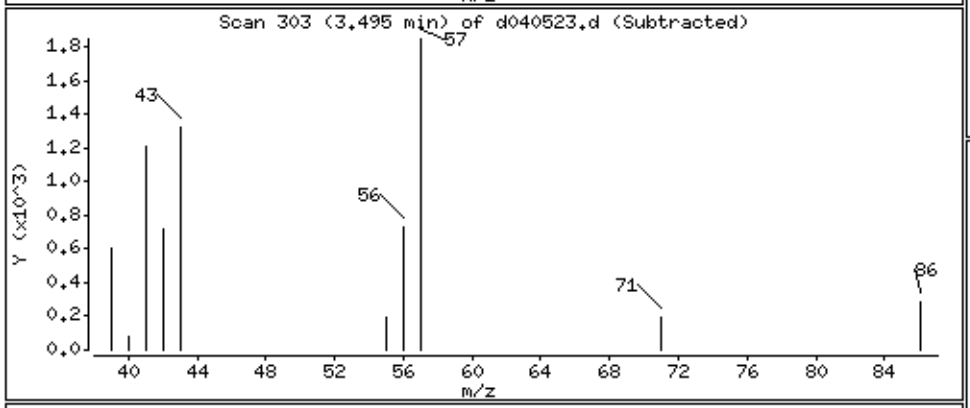
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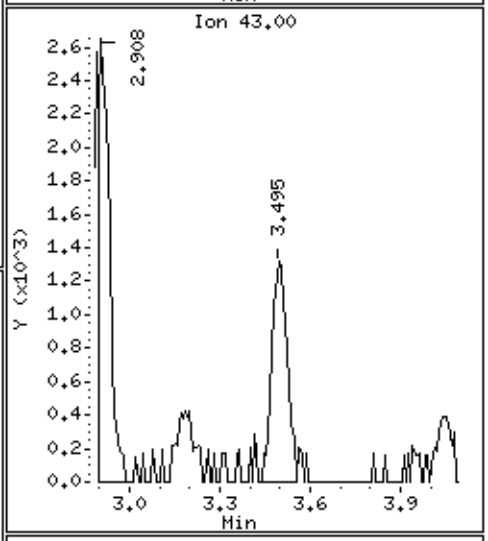
58 Hexane

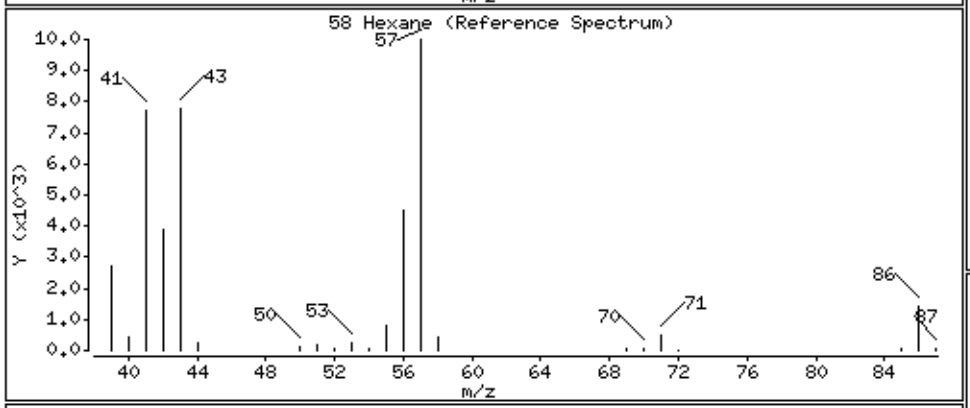
Concentration: 0.8951 PPBV

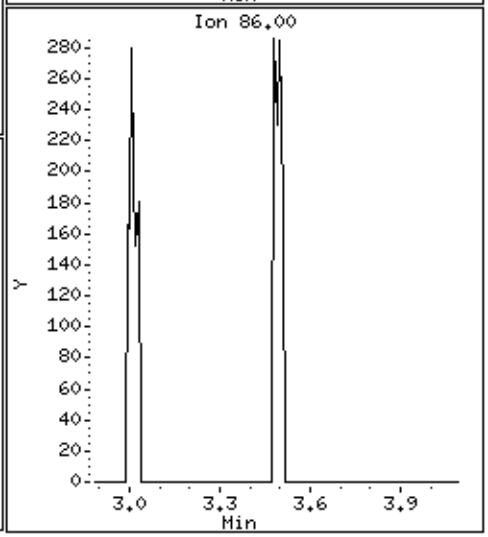


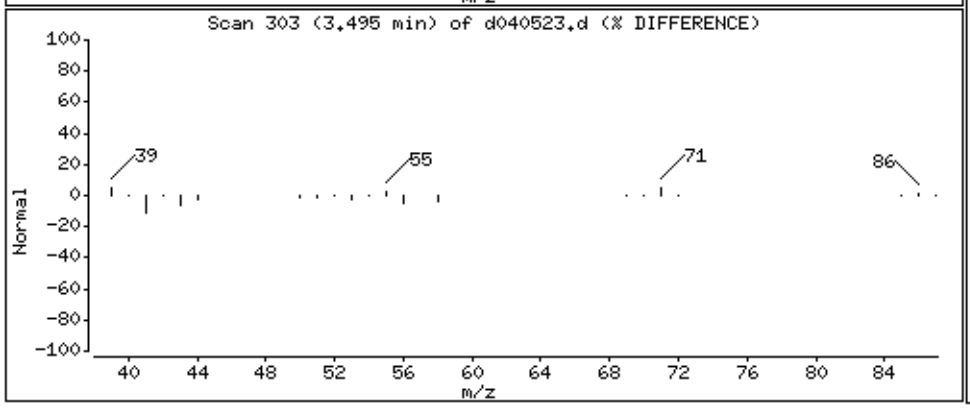



Data File: /chem/msdd.i/05apr10.b/d040523.d

Date : 05-APR-2010 20:09

Client ID:

Instrument: msdd.i

Sample Info: 200mL #33790

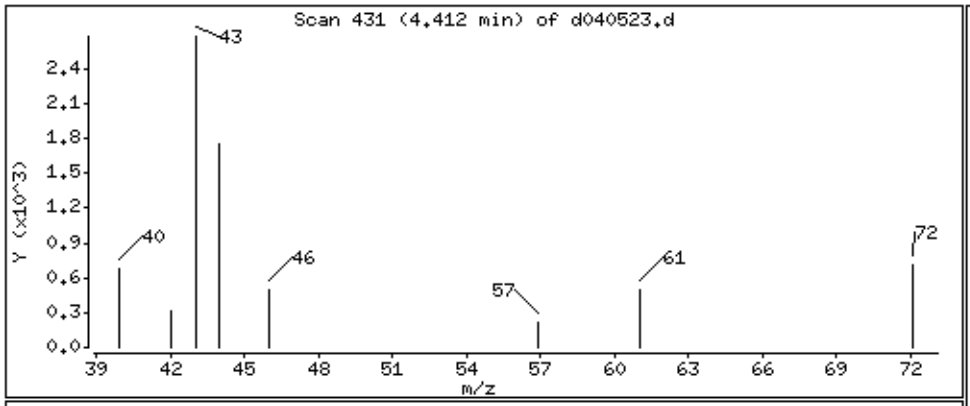
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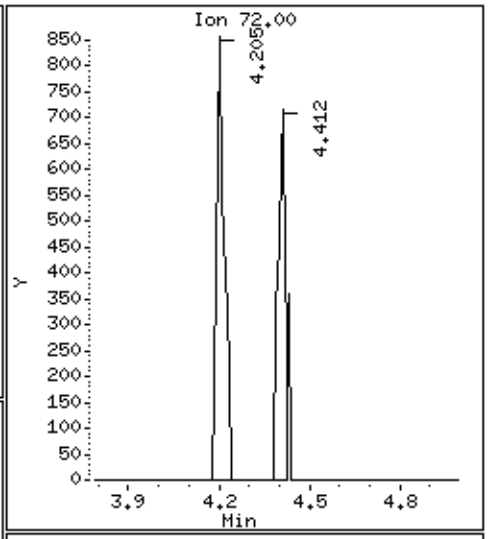
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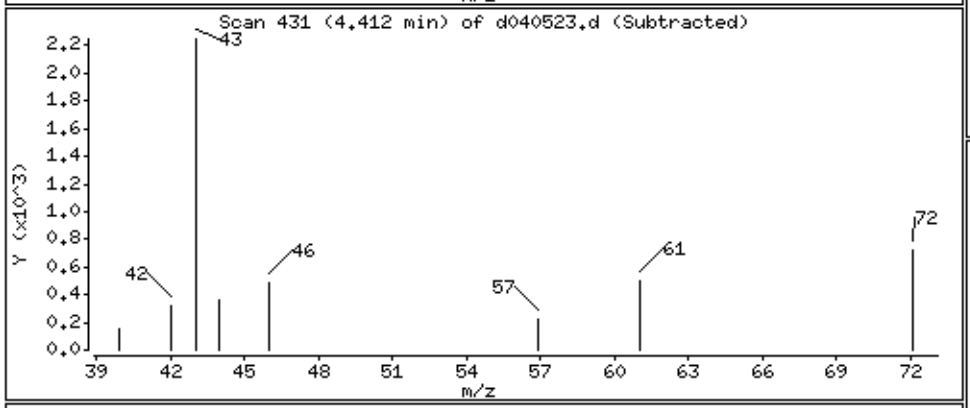
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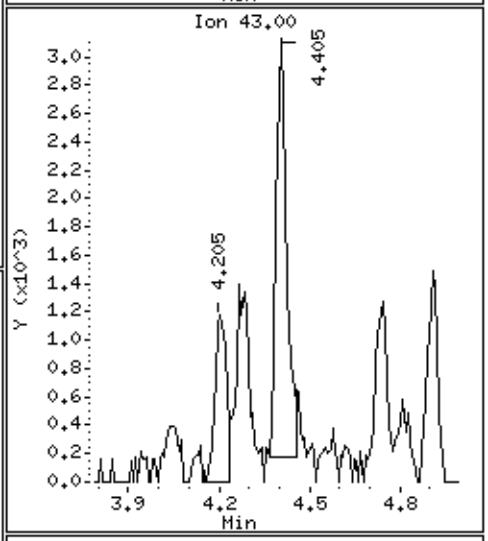
75 2-Butanone

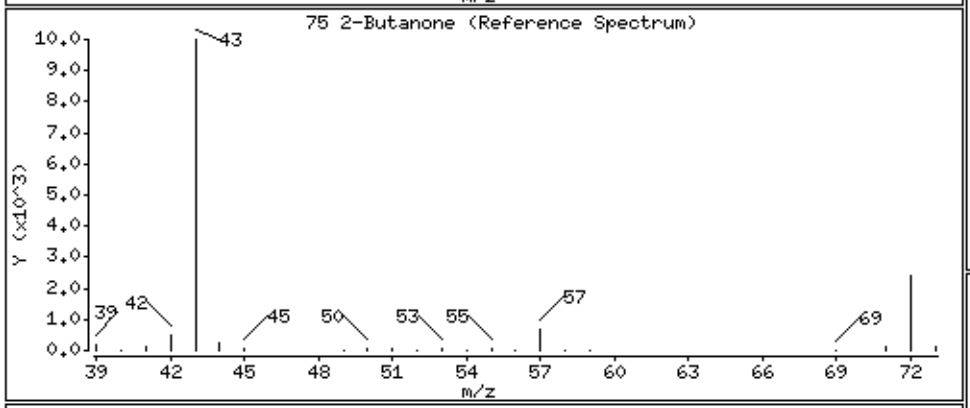
Concentration: 0.7066 PPBV

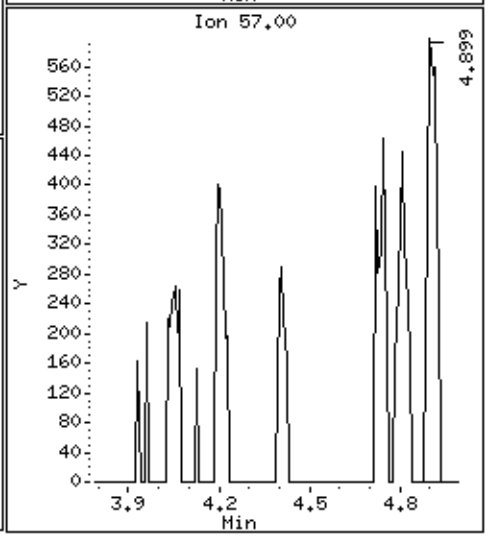


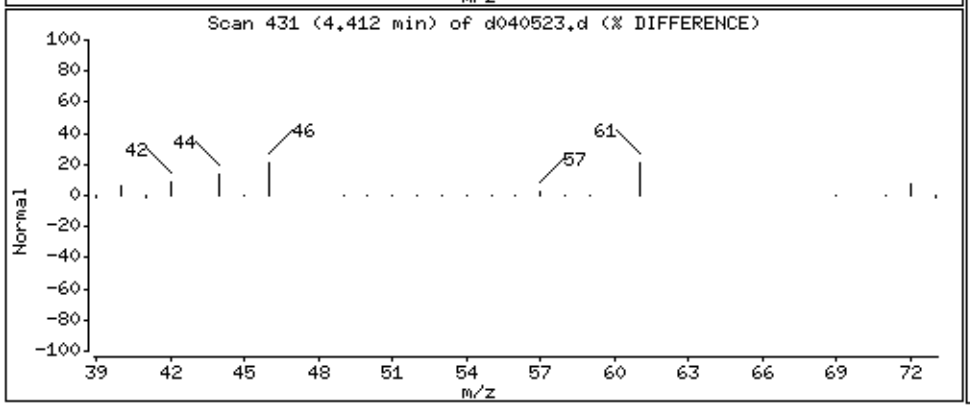



Data File: /chem/msdd.i/05apr10.b/d040523.d

Date : 05-APR-2010 20:09

Client ID:

Instrument: msdd.i

Sample Info: 200mL #33790

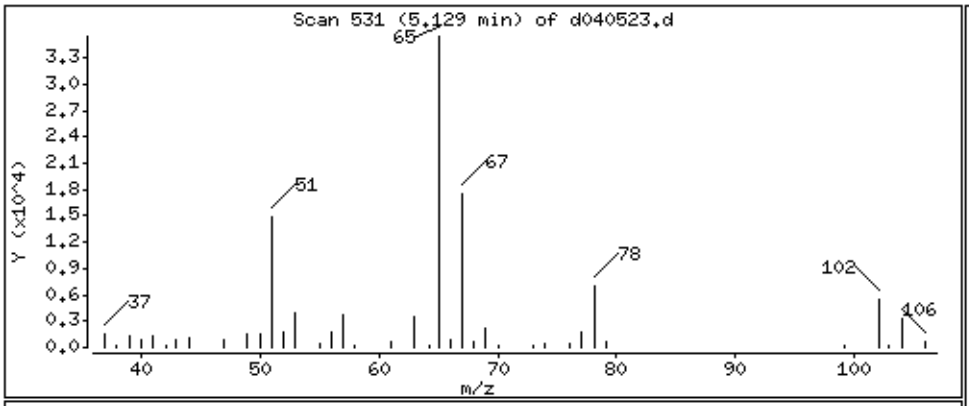
Operator: ra

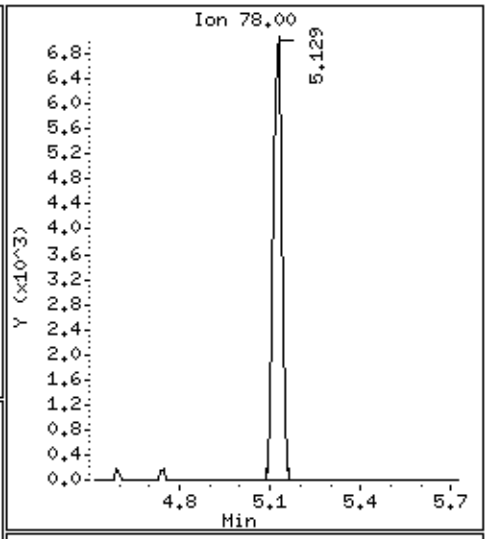
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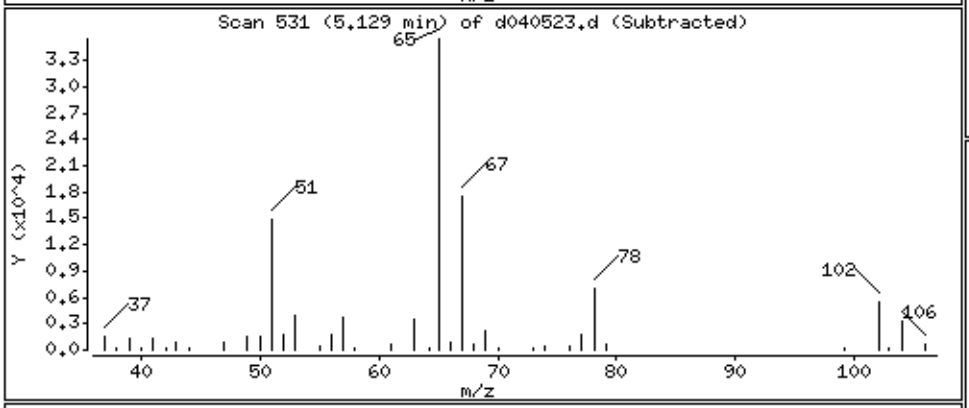
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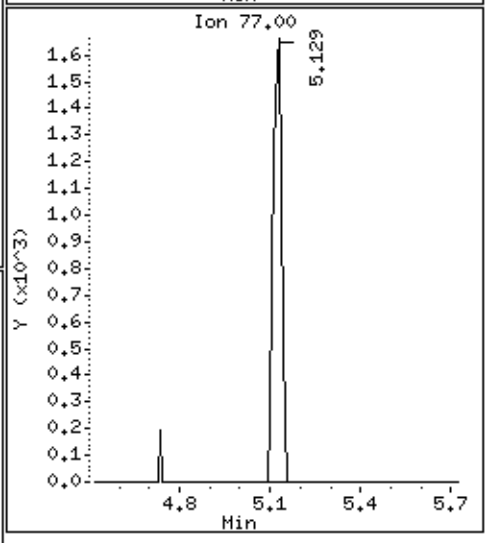
90 Benzene

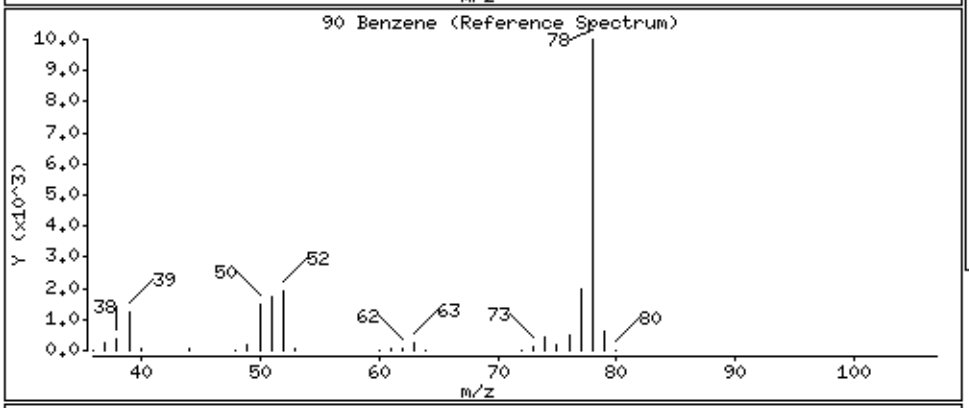
Concentration: 1.156 PPBV

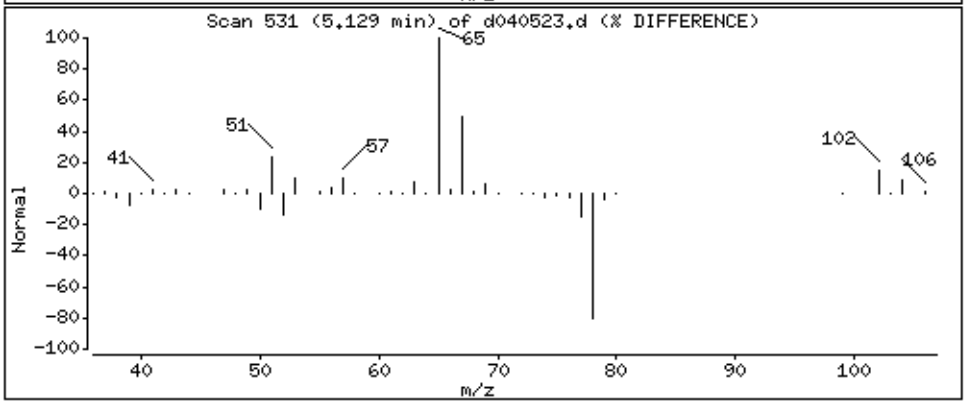


Data File: /chem/msdd.i/05apr10.b/d040523.d

Date : 05-APR-2010 20:09

Client ID:

Instrument: msdd.i

Sample Info: 200mL #33790

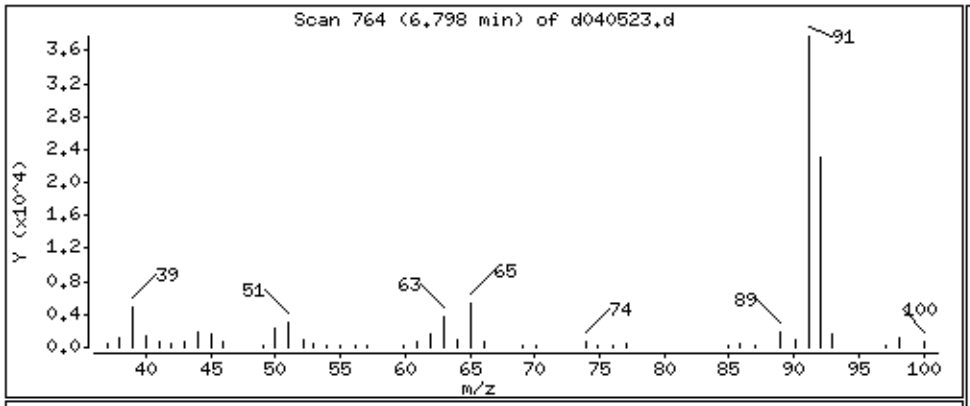
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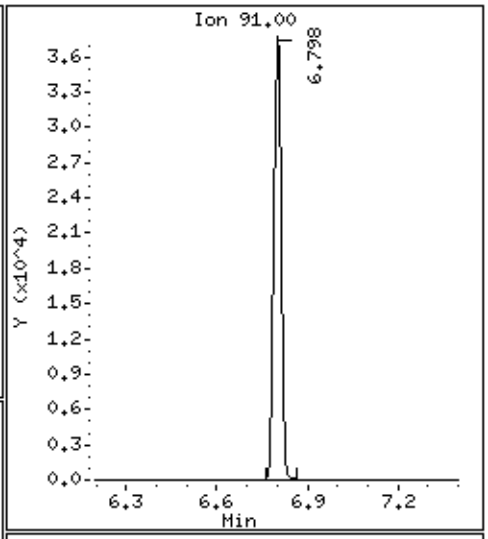
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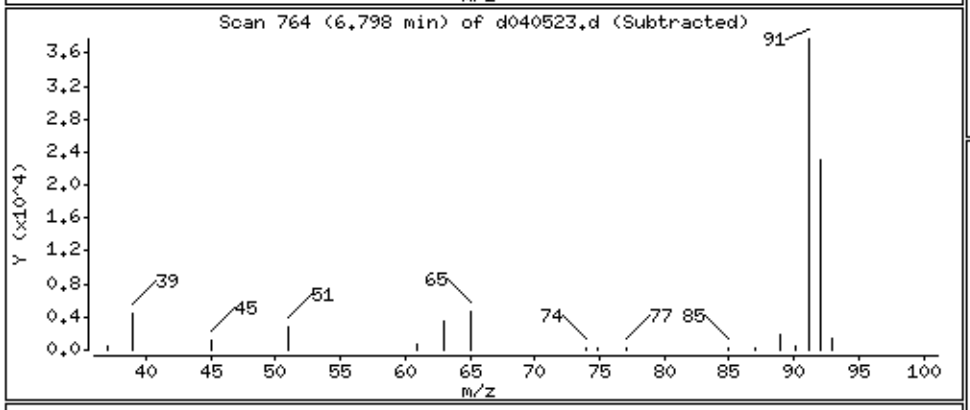
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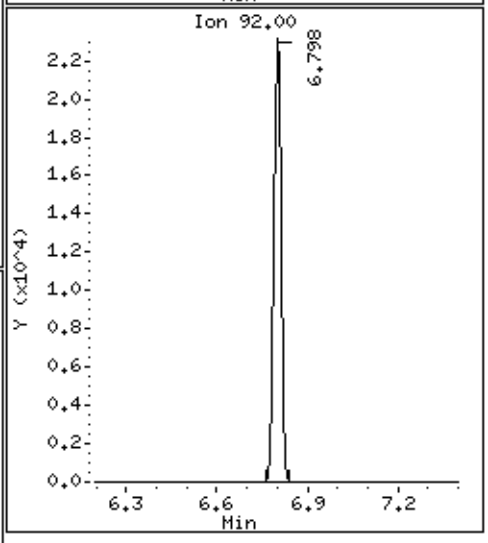
115 Toluene

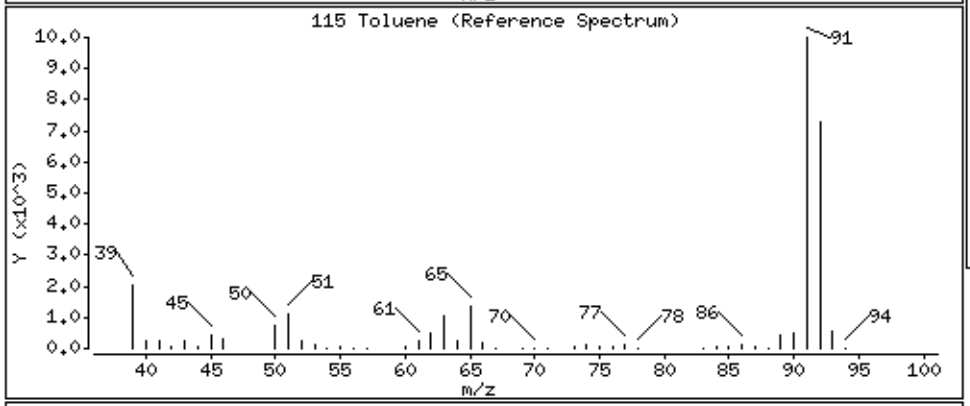
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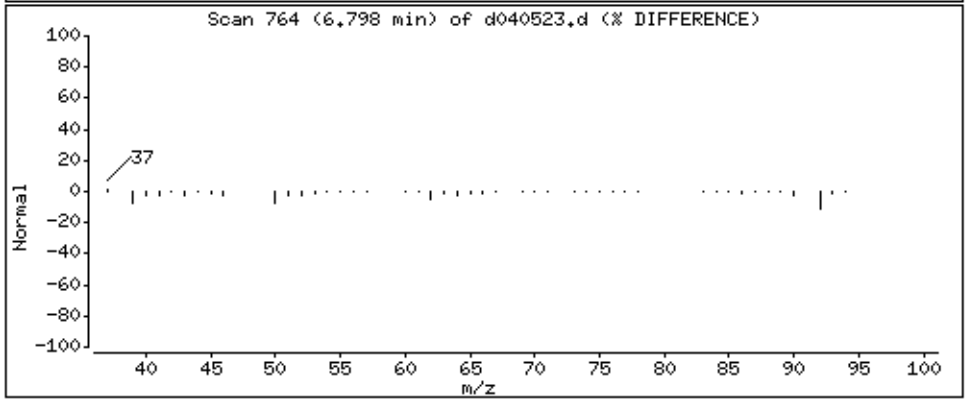


Data File: /chem/msdd.i/05apr10.b/d040523.d

Date : 05-APR-2010 20:09

Client ID:

Instrument: msdd.i

Sample Info: 200mL #33790

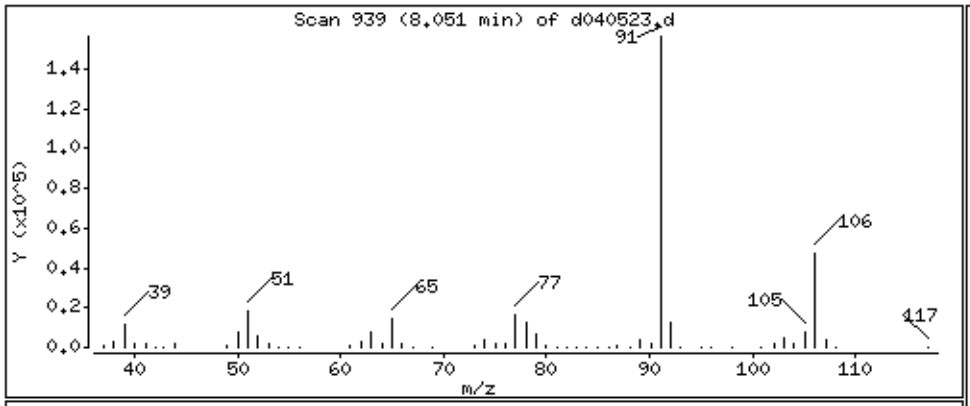
Operator: ra

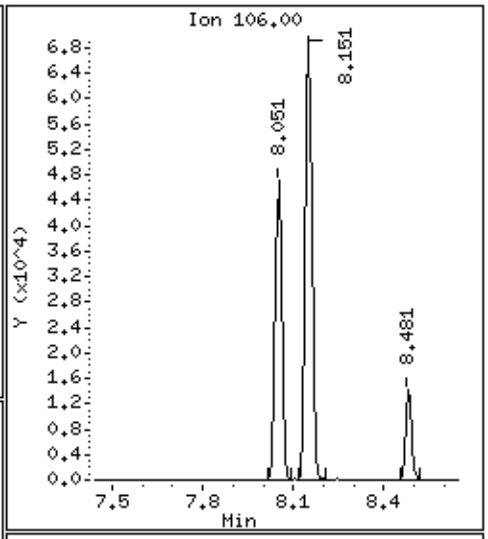
Column phase: RTx-624

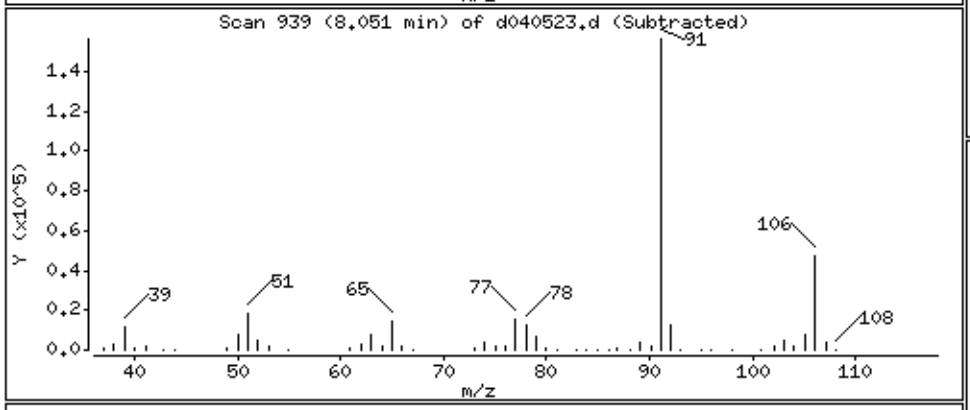
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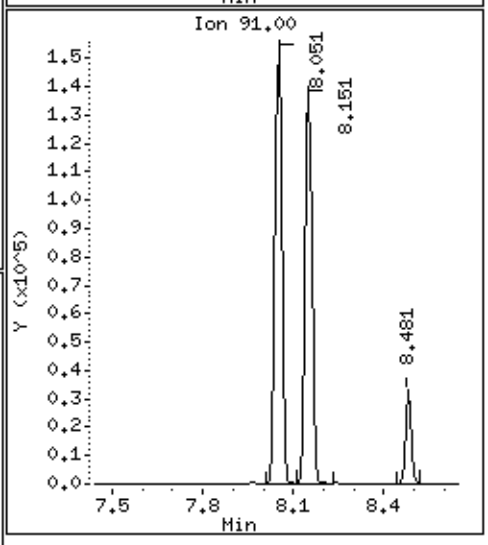
137 Ethyl Benzene

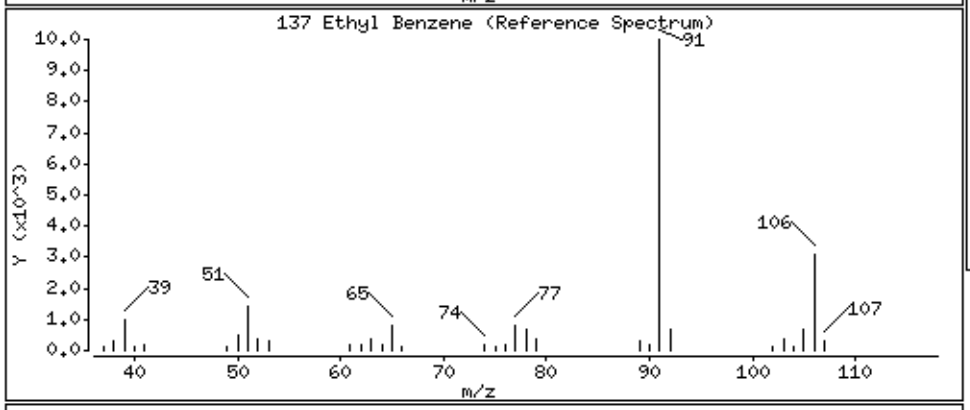
Concentration: 10.142 PPBV

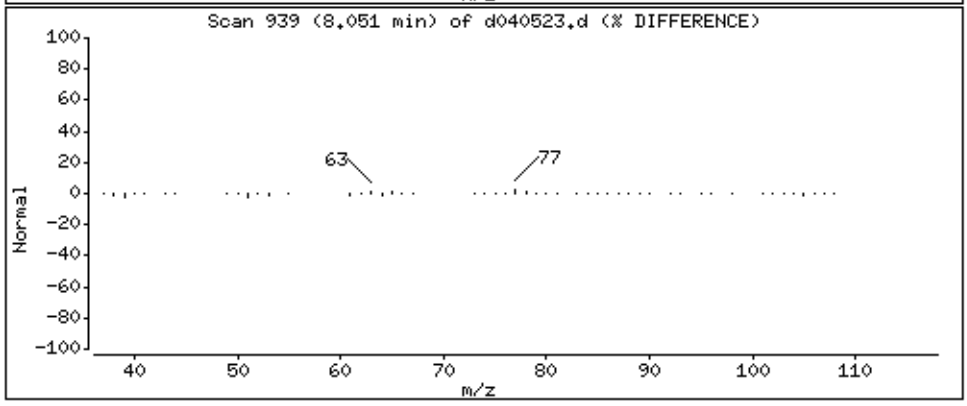


Data File: /chem/msdd.i/05apr10.b/d040523.d

Date : 05-APR-2010 20:09

Client ID:

Instrument: msdd.i

Sample Info: 200mL #33790

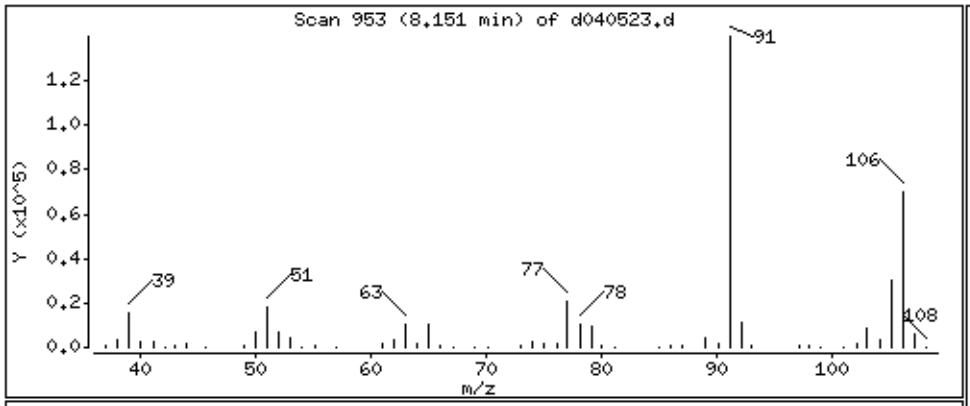
Operator: ra

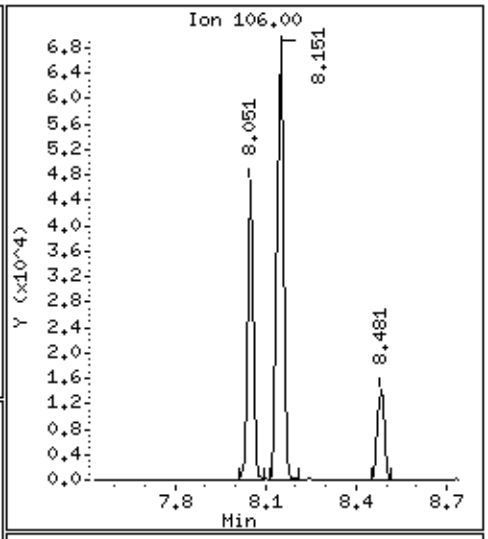
Column phase: RTx-624

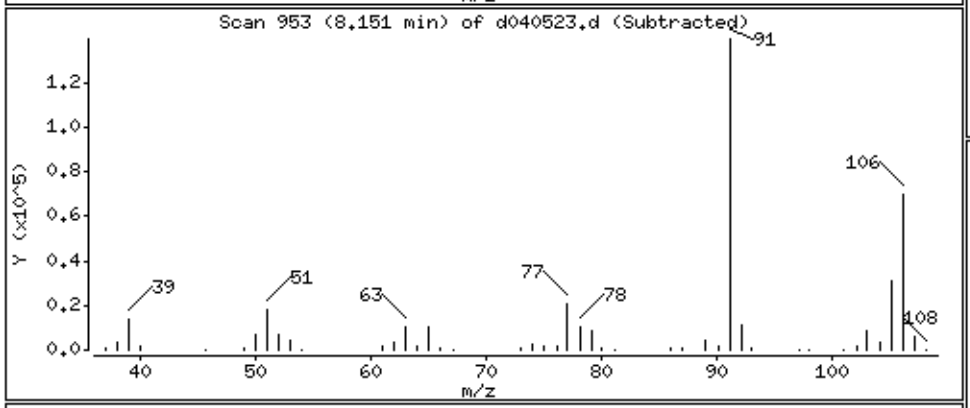
Column diameter: 0.53

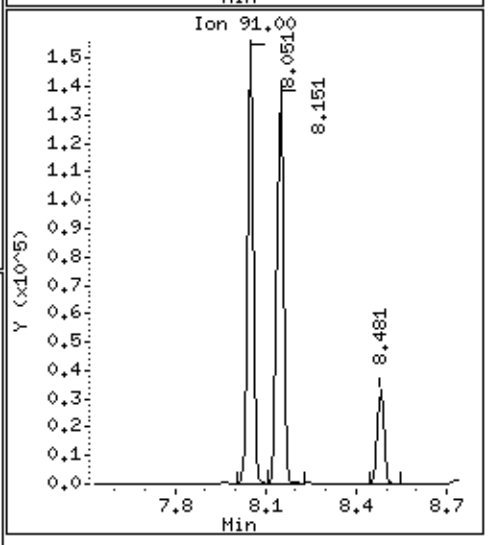
140 m,p-Xylene

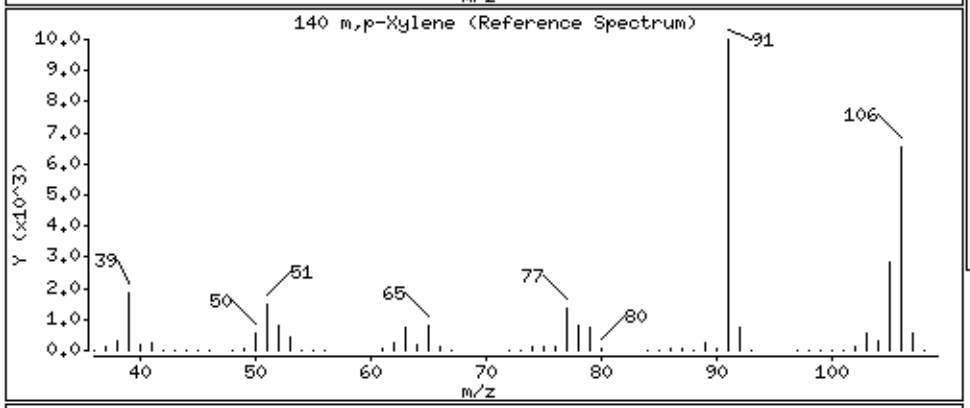
Concentration: 11.656 PPBV

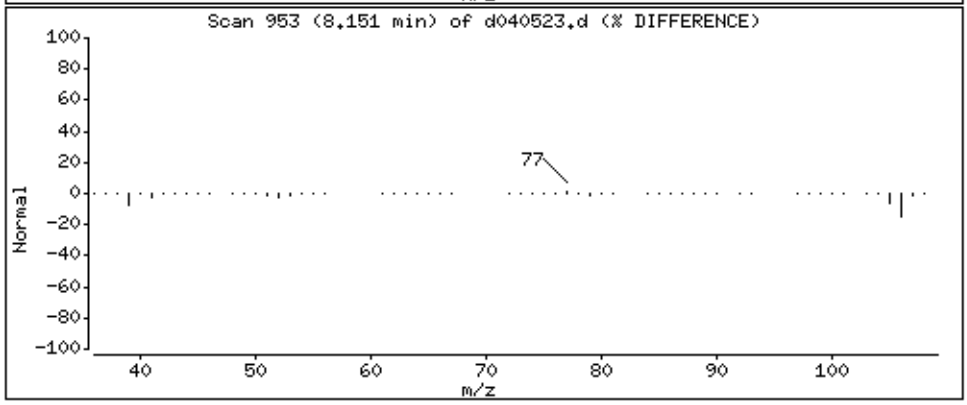


Data File: /chem/msdd.i/05apr10.b/d040523.d

Date : 05-APR-2010 20:09

Client ID:

Instrument: msdd.i

Sample Info: 200mL #33790

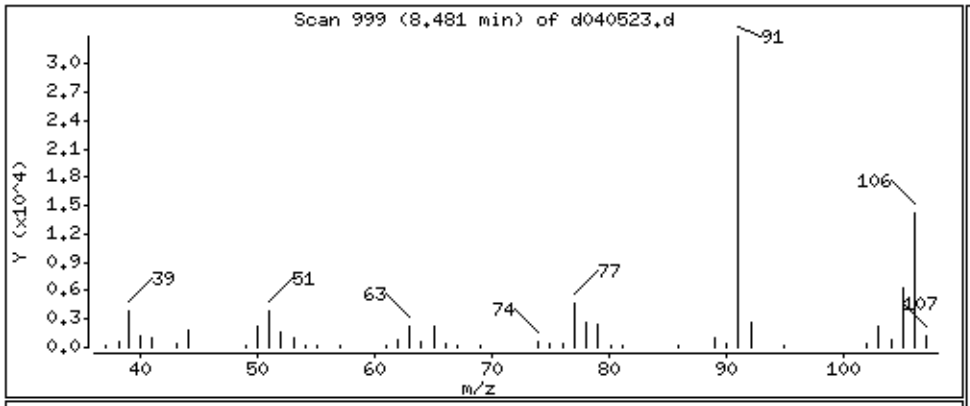
Operator: ra

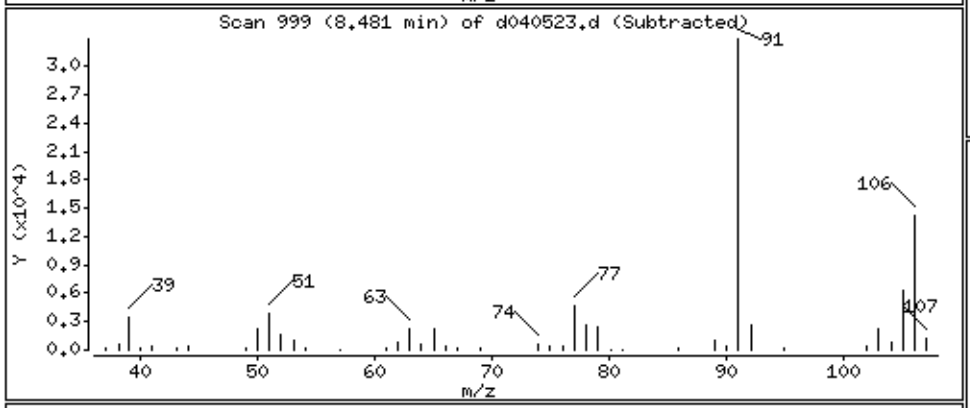
Column phase: RTx-624

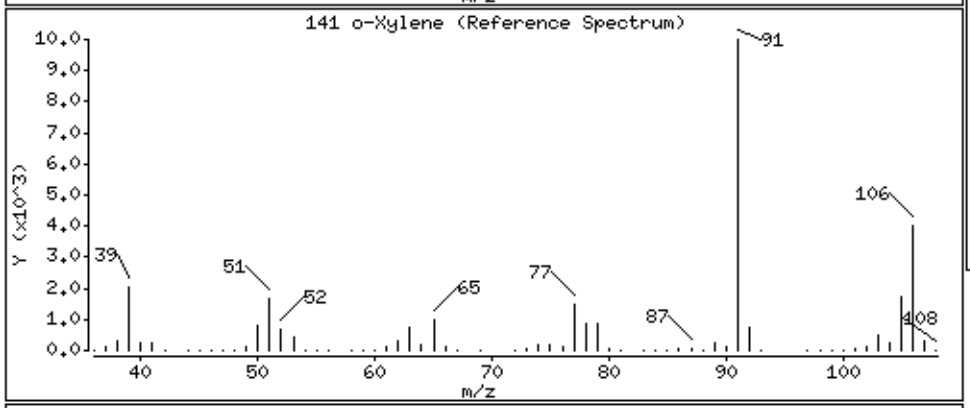
Column diameter: 0.53

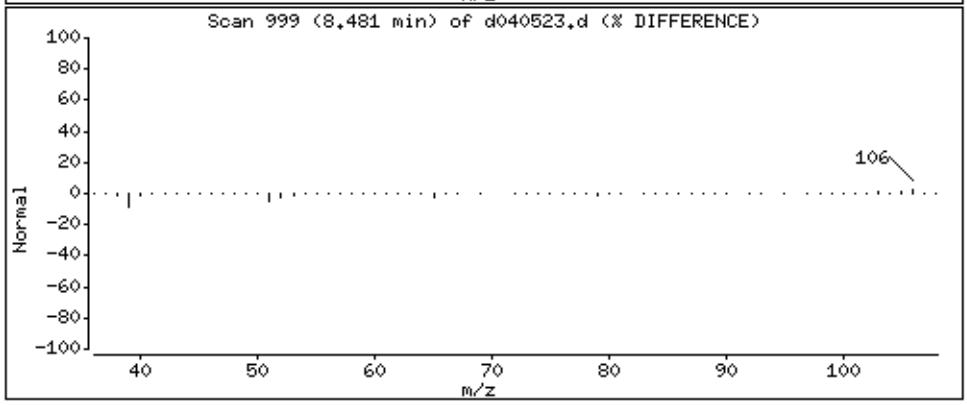
141 o-Xylene

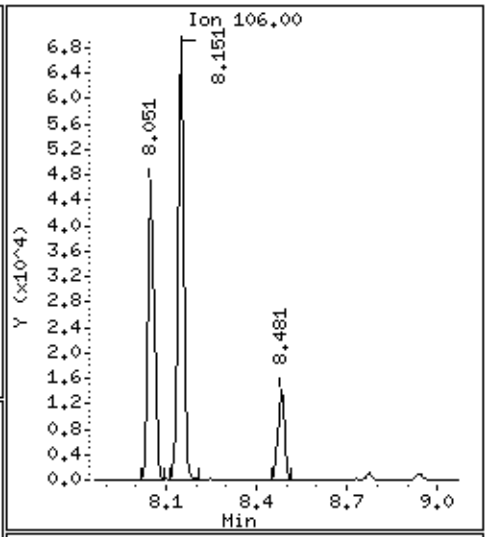
Concentration: 2.652 PPBV

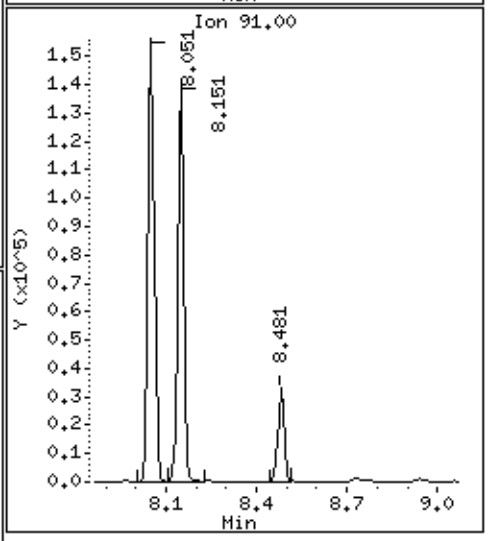


Data File: /chem/msdd.i/05apr10.b/d040523.d

Date : 05-APR-2010 20:09

Client ID:

Instrument: msdd.i

Sample Info: 200mL #33790

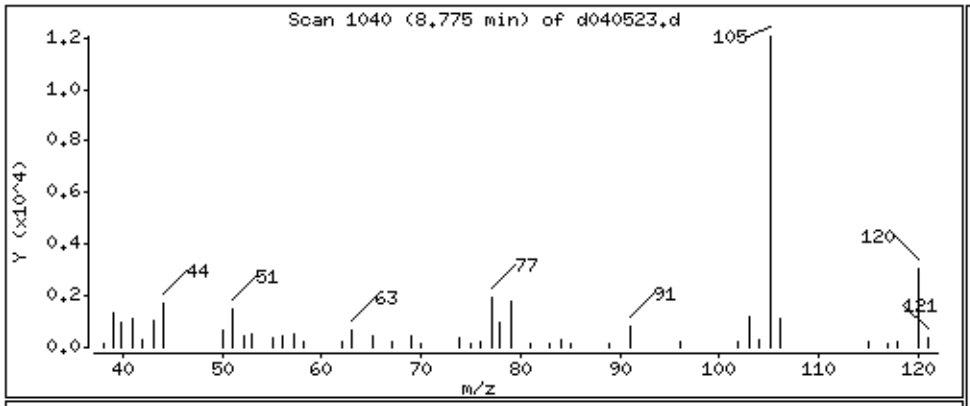
Operator: ra

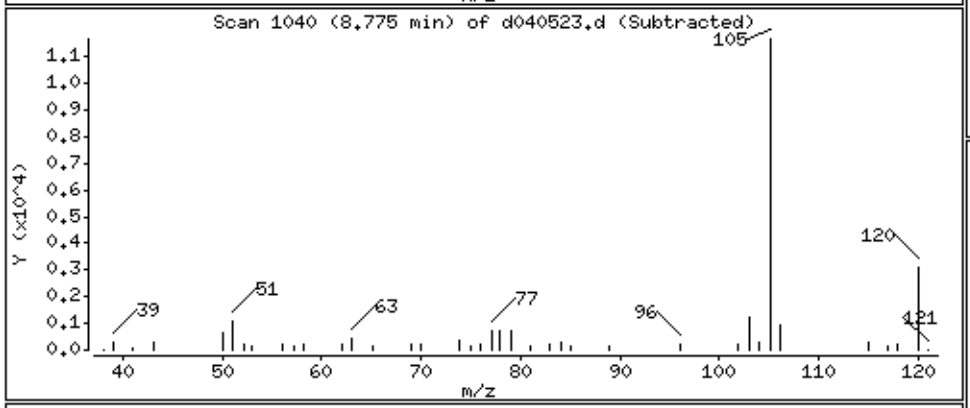
Column phase: RTx-624

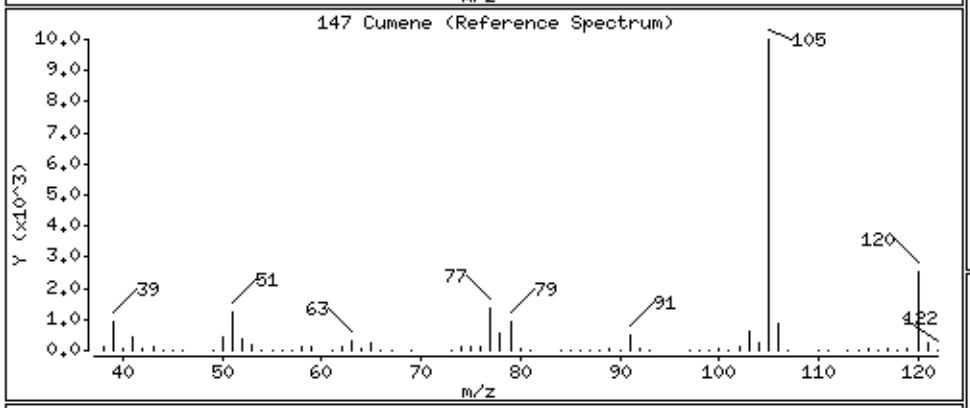
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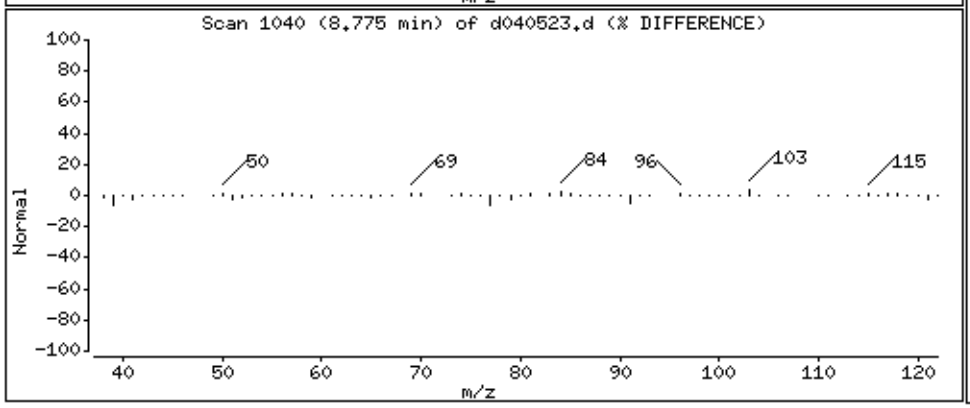
147 Cumene

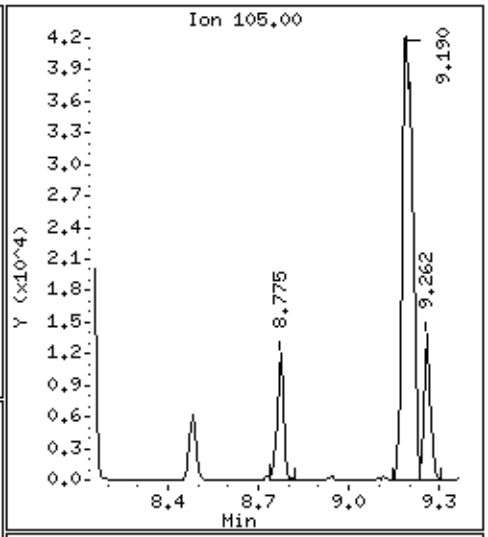
Concentration: 0.7454 PPBV

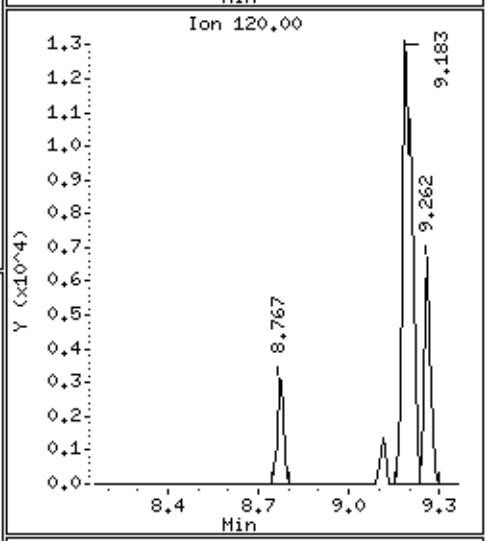


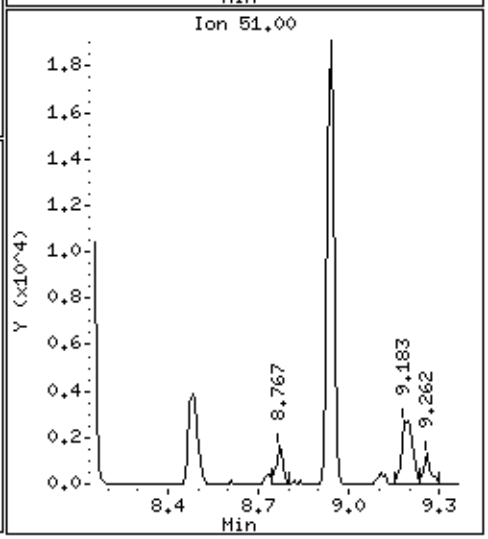



Data File: /chem/msdd.i/05apr10.b/d040523.d

Date : 05-APR-2010 20:09

Client ID:

Instrument: msdd.i

Sample Info: 200mL #33790

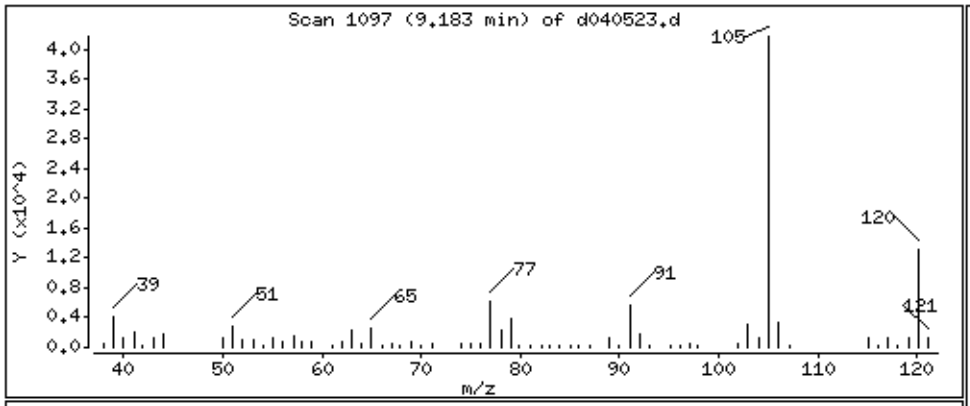
Operator: ra

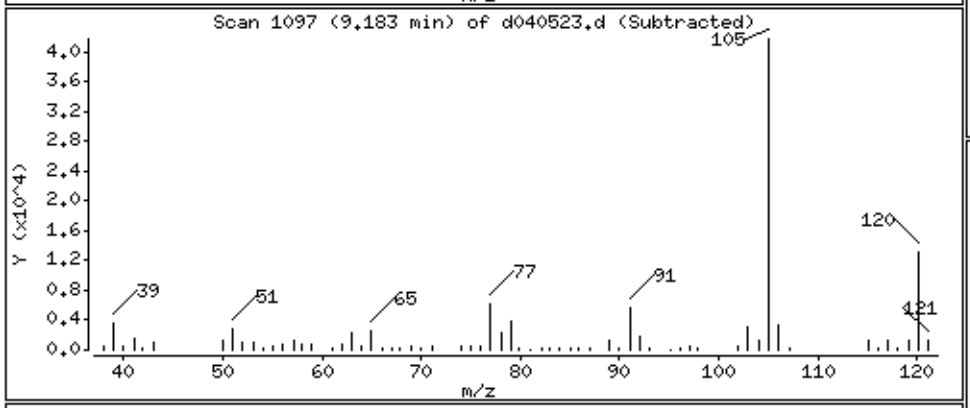
Column phase: RTx-624

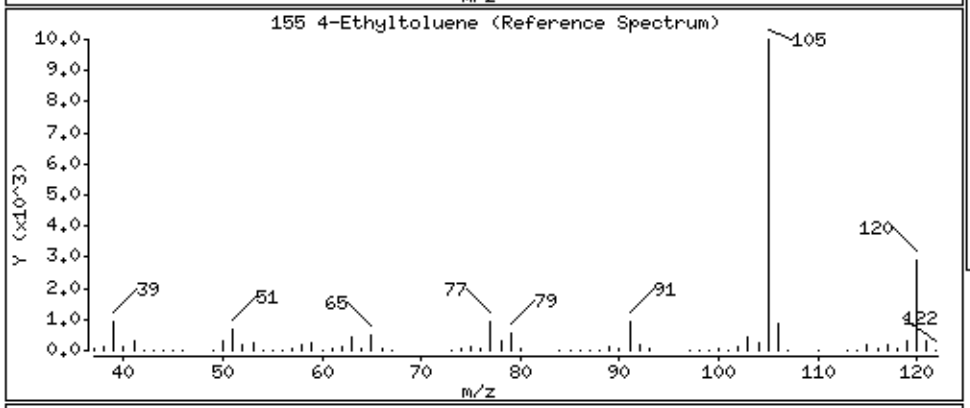
Column diameter: 0.53

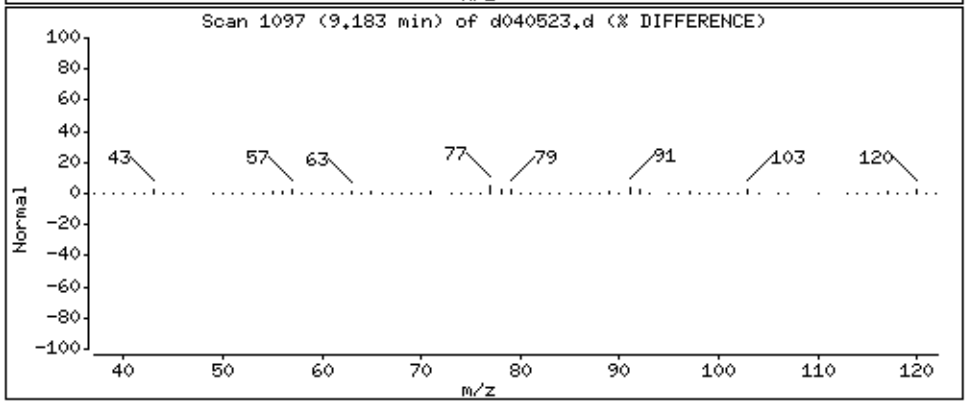
155 4-Ethyltoluene

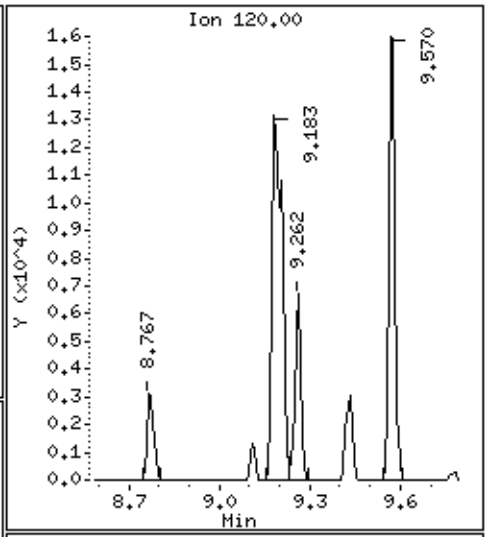
Concentration: 4.077 PPBV

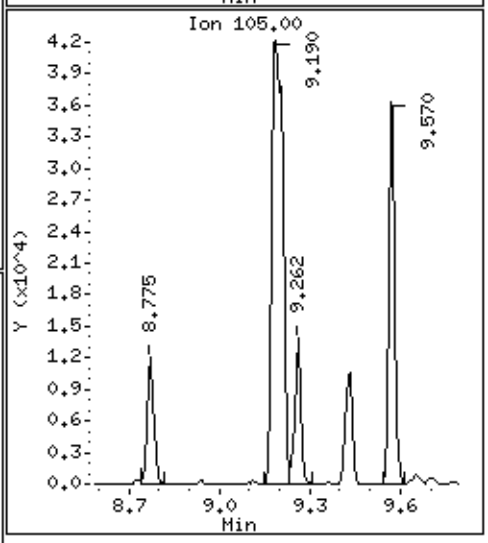


Data File: /chem/msdd.i/05apr10.b/d040523.d

Date : 05-APR-2010 20:09

Client ID:

Instrument: msdd.i

Sample Info: 200mL #33790

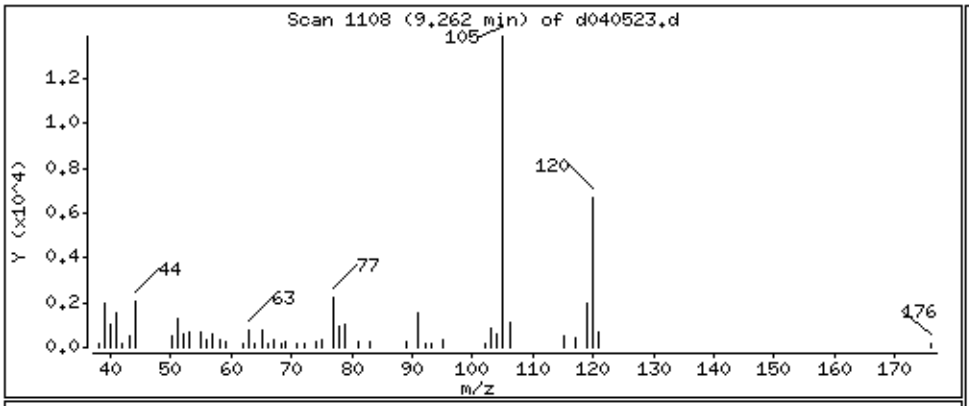
Operator: ra

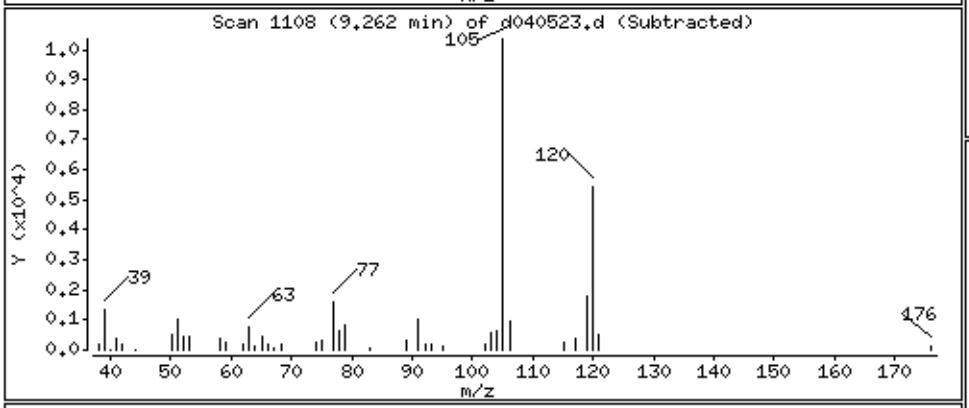
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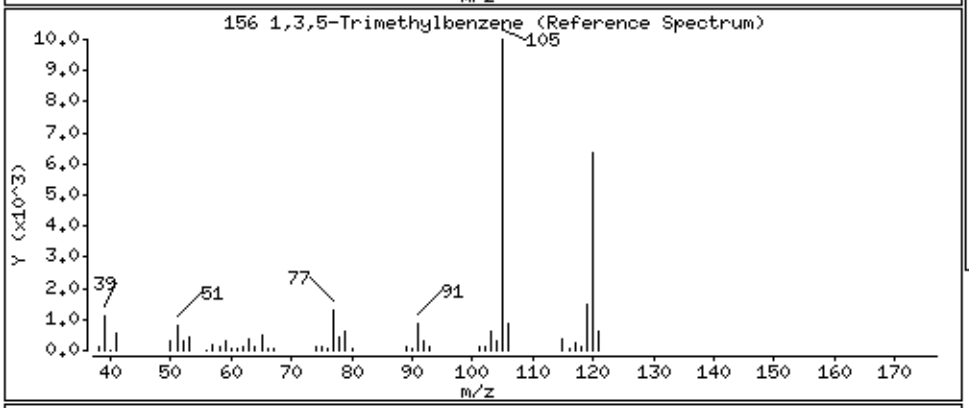
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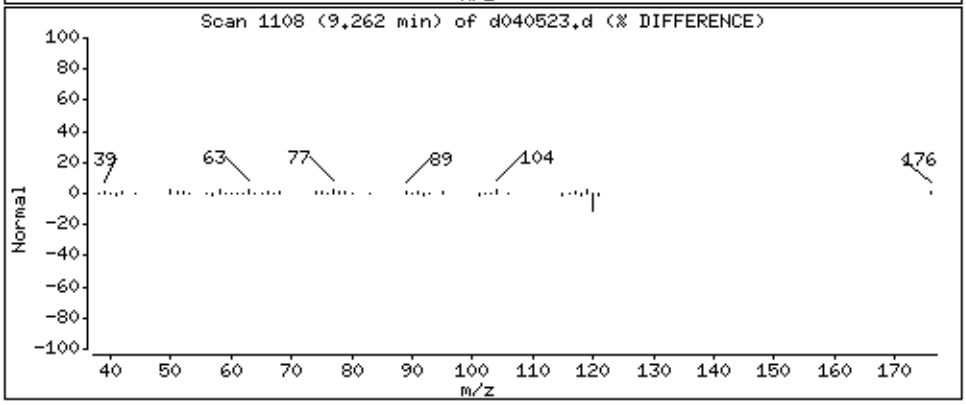
156 1,3,5-Trimethylbenzene

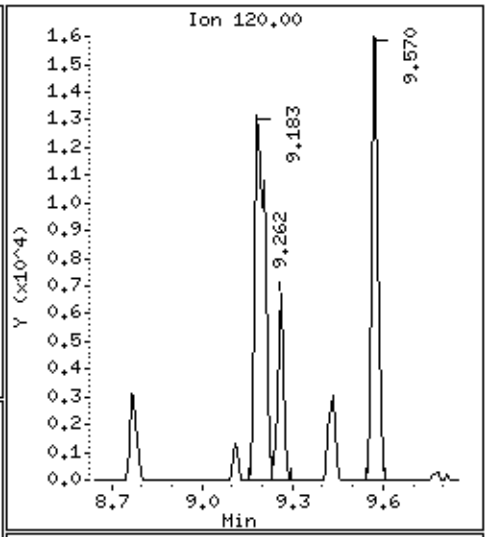
Concentration: 0.9638 PPBV

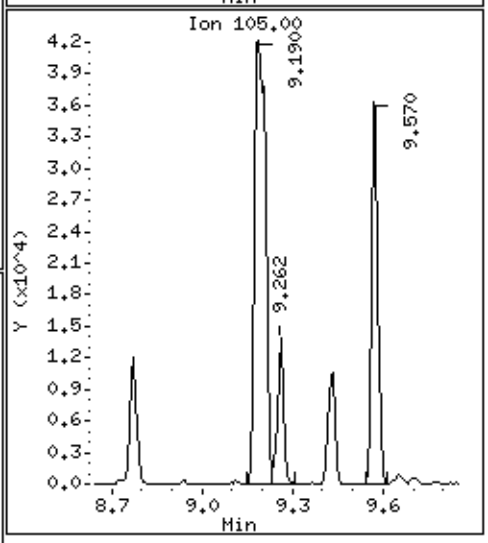


Data File: /chem/msdd.i/05apr10.b/d040523.d

Date : 05-APR-2010 20:09

Client ID:

Instrument: msdd.i

Sample Info: 200mL #33790

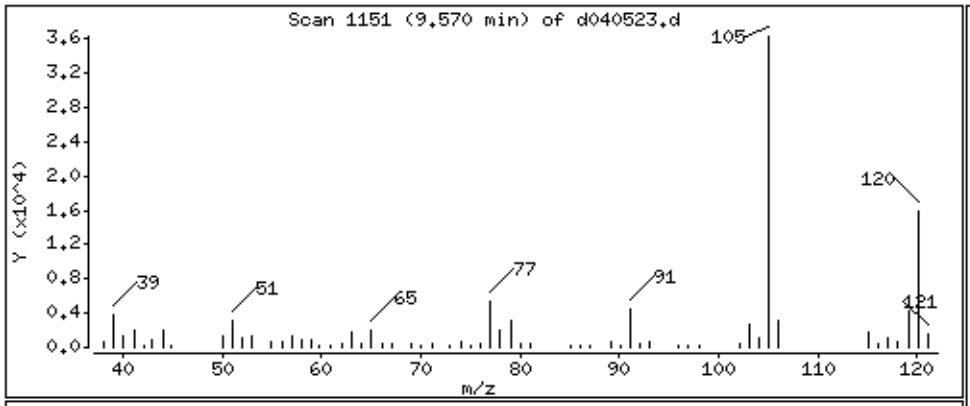
Operator: ra

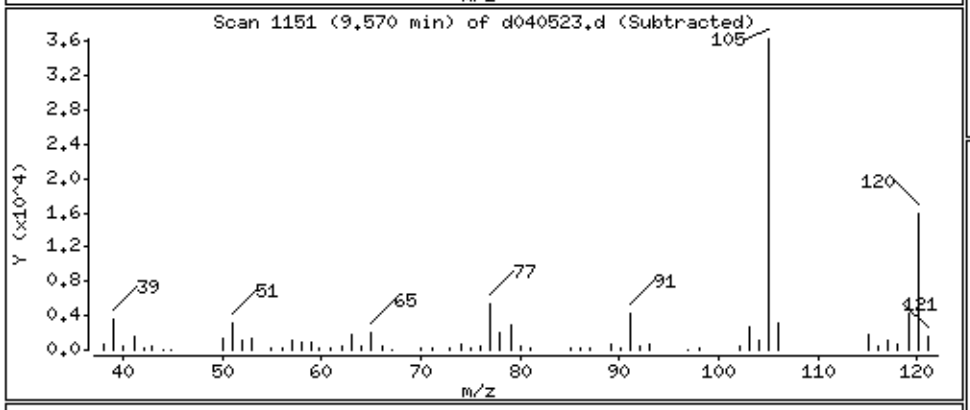
Column phase: RTx-624

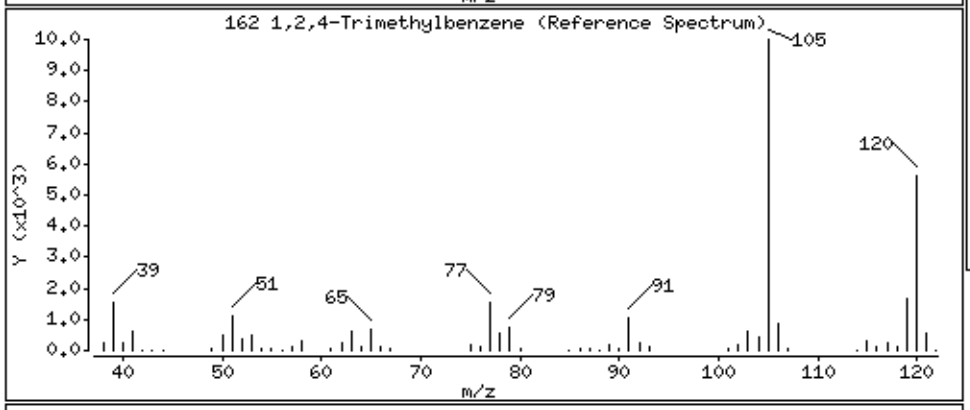
Column diameter: 0.53

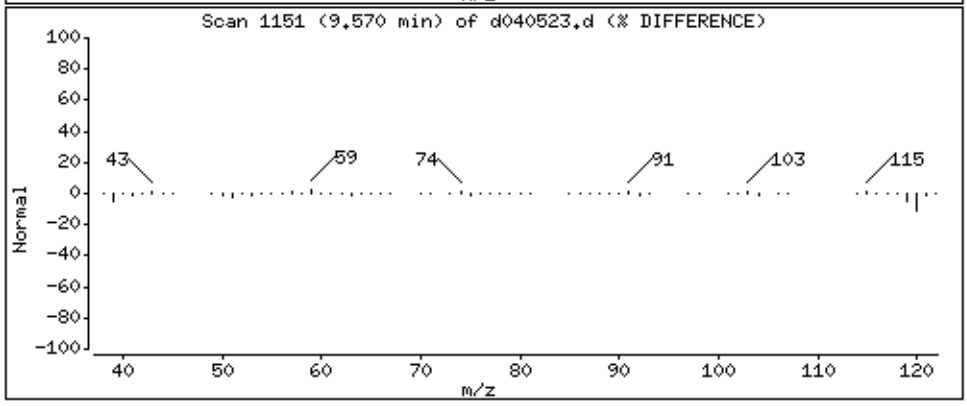
162 1,2,4-Trimethylbenzene

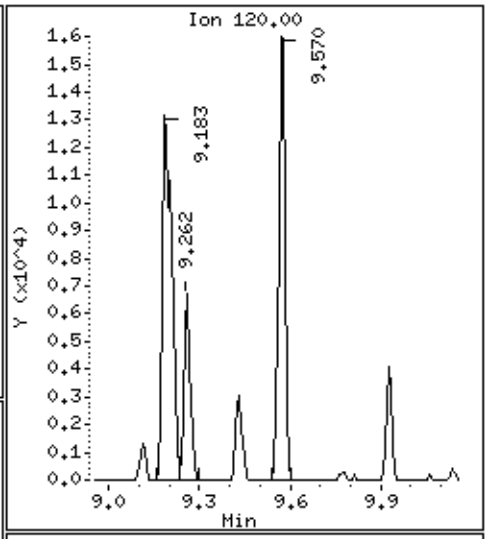
Concentration: 2.580 PPBV

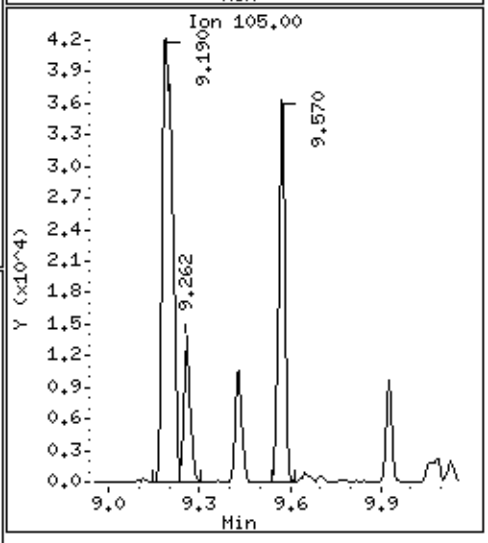


Air Toxics LTD.
Laboratory Services Since 1989

# Summary of Detected Compounds
# MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: DW AMS 1 (2)**

**Lab ID#: 1003666-02A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (ug/m3) | Amount (ug/m3) |
|---|---|---|---|---|
| Acetone | 4.3 | 4.6 | 10 | 11 |

Air Toxics LTD.
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**Client Sample ID: DW AMS 1 (2)**

**Lab ID#: 1003666-02A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **d040524** | **Date of Collection:** | **3/25/10 2:46:00 PM** |
| **Dil. Factor:** | **2.17** | **Date of Analysis:** | **4/5/10 08:58 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (ug/m3) | Amount (ug/m3) |
|---|---|---|---|---|
| Freon 12 | 1.1 | Not Detected | 5.4 | Not Detected |
| Freon 114 | 1.1 | Not Detected | 7.6 | Not Detected |
| Chloromethane | 4.3 | Not Detected | 9.0 | Not Detected |
| Vinyl Chloride | 1.1 | Not Detected | 2.8 | Not Detected |
| 1,3-Butadiene | 1.1 | Not Detected | 2.4 | Not Detected |
| Bromomethane | 1.1 | Not Detected | 4.2 | Not Detected |
| Chloroethane | 1.1 | Not Detected | 2.9 | Not Detected |
| Freon 11 | 1.1 | Not Detected | 6.1 | Not Detected |
| Ethanol | 4.3 | Not Detected | 8.2 | Not Detected |
| Freon 113 | 1.1 | Not Detected | 8.3 | Not Detected |
| 1,1-Dichloroethene | 1.1 | Not Detected | 4.3 | Not Detected |
| Acetone | 4.3 | 4.6 | 10 | 11 |
| 2-Propanol | 4.3 | Not Detected | 11 | Not Detected |
| Carbon Disulfide | 1.1 | Not Detected | 3.4 | Not Detected |
| 3-Chloropropene | 4.3 | Not Detected | 14 | Not Detected |
| Methylene Chloride | 1.1 | Not Detected | 3.8 | Not Detected |
| Methyl tert-butyl ether | 1.1 | Not Detected | 3.9 | Not Detected |
| trans-1,2-Dichloroethene | 1.1 | Not Detected | 4.3 | Not Detected |
| Hexane | 1.1 | Not Detected | 3.8 | Not Detected |
| 1,1-Dichloroethane | 1.1 | Not Detected | 4.4 | Not Detected |
| 2-Butanone (Methyl Ethyl Ketone) | 1.1 | Not Detected | 3.2 | Not Detected |
| cis-1,2-Dichloroethene | 1.1 | Not Detected | 4.3 | Not Detected |
| Tetrahydrofuran | 1.1 | Not Detected | 3.2 | Not Detected |
| Chloroform | 1.1 | Not Detected | 5.3 | Not Detected |
| 1,1,1-Trichloroethane | 1.1 | Not Detected | 5.9 | Not Detected |
| Cyclohexane | 1.1 | Not Detected | 3.7 | Not Detected |
| Carbon Tetrachloride | 1.1 | Not Detected | 6.8 | Not Detected |
| 2,2,4-Trimethylpentane | 1.1 | Not Detected | 5.1 | Not Detected |
| Benzene | 1.1 | Not Detected | 3.5 | Not Detected |
| 1,2-Dichloroethane | 1.1 | Not Detected | 4.4 | Not Detected |
| Heptane | 1.1 | Not Detected | 4.4 | Not Detected |
| Trichloroethene | 1.1 | Not Detected | 5.8 | Not Detected |
| 1,2-Dichloropropane | 1.1 | Not Detected | 5.0 | Not Detected |
| 1,4-Dioxane | 4.3 | Not Detected | 16 | Not Detected |
| Bromodichloromethane | 1.1 | Not Detected | 7.3 | Not Detected |
| cis-1,3-Dichloropropene | 1.1 | Not Detected | 4.9 | Not Detected |
| 4-Methyl-2-pentanone | 1.1 | Not Detected | 4.4 | Not Detected |
| Toluene | 1.1 | Not Detected | 4.1 | Not Detected |
| trans-1,3-Dichloropropene | 1.1 | Not Detected | 4.9 | Not Detected |

Air Toxics LTD.
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**Client Sample ID: DW AMS 1 (2)**

**Lab ID#: 1003666-02A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **d040524** | **Date of Collection:** | **3/25/10 2:46:00 PM** |
| **Dil. Factor:** | **2.17** | **Date of Analysis:** | **4/5/10 08:58 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (ug/m3) | Amount (ug/m3) |
|---|---|---|---|---|
| 1,1,2-Trichloroethane | 1.1 | Not Detected | 5.9 | Not Detected |
| Tetrachloroethene | 1.1 | Not Detected | 7.4 | Not Detected |
| 2-Hexanone | 4.3 | Not Detected | 18 | Not Detected |
| Dibromochloromethane | 1.1 | Not Detected | 9.2 | Not Detected |
| 1,2-Dibromoethane (EDB) | 1.1 | Not Detected | 8.3 | Not Detected |
| Chlorobenzene | 1.1 | Not Detected | 5.0 | Not Detected |
| Ethyl Benzene | 1.1 | Not Detected | 4.7 | Not Detected |
| m,p-Xylene | 1.1 | Not Detected | 4.7 | Not Detected |
| o-Xylene | 1.1 | Not Detected | 4.7 | Not Detected |
| Styrene | 1.1 | Not Detected | 4.6 | Not Detected |
| Bromoform | 1.1 | Not Detected | 11 | Not Detected |
| Cumene | 1.1 | Not Detected | 5.3 | Not Detected |
| 1,1,2,2-Tetrachloroethane | 1.1 | Not Detected | 7.4 | Not Detected |
| Propylbenzene | 1.1 | Not Detected | 5.3 | Not Detected |
| 4-Ethyltoluene | 1.1 | Not Detected | 5.3 | Not Detected |
| 1,3,5-Trimethylbenzene | 1.1 | Not Detected | 5.3 | Not Detected |
| 1,2,4-Trimethylbenzene | 1.1 | Not Detected | 5.3 | Not Detected |
| 1,3-Dichlorobenzene | 1.1 | Not Detected | 6.5 | Not Detected |
| 1,4-Dichlorobenzene | 1.1 | Not Detected | 6.5 | Not Detected |
| alpha-Chlorotoluene | 1.1 | Not Detected | 5.6 | Not Detected |
| 1,2-Dichlorobenzene | 1.1 | Not Detected | 6.5 | Not Detected |
| 1,2,4-Trichlorobenzene | 4.3 | Not Detected | 32 | Not Detected |
| Hexachlorobutadiene | 4.3 | Not Detected | 46 | Not Detected |
| Naphthalene | 4.3 | Not Detected | 23 | Not Detected |

**Container Type: 6 Liter Summa Canister**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| Toluene-d8 | 100 | 70-130 |
| 1,2-Dichloroethane-d4 | 103 | 70-130 |
| 4-Bromofluorobenzene | 98 | 70-130 |

Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msdd.i/05apr10.b/d040524.d
Lab Smp Id: 1003666-02A
Inj Date : 05-APR-2010 20:58
Operator : ra Inst ID: msdd.i
Smp Info : 200mL #9569
Misc Info : 11.5"Hg->5psi
Comment :
Method : /chem/msdd.i/05apr10.b/d10q0331a.m
Meth Date : 05-Apr-2010 21:50 abarton Quant Type: ISTD
Cal Date : 31-MAR-2010 15:58 Cal File: d033117.d
Als bottle: 1
Dil Factor: 2.17000
Integrator: HP RTE Compound Sublist: TO15N.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| | | | | CONCENTRATIONS ON-COL | CONCENTRATIONS FINAL | | |
|---|---|---|---|---|---|---|---|
| RT | EXP RT (REL RT) | MASS | RESPONSE | ( PPBV) | ( PPBV) | TARGET RANGE | RATIO |
| * 79 Bromochloromethane | | | | | CAS #: 74-97-5 | | |
| 4.591 | 4.591 (1.000) | 130 | 89536 | 25.0000 | | 80.00- 120.00 | 100.00 |
| 4.591 | 4.591 (1.000) | 128 | 69794 | | | 27.03- 127.03 | 77.95 |
| 4.584 | 4.591 (1.000) | 49 | 167982 | | | 130.24- 230.24 | 187.61 |
| * 100 1,4-Difluorobenzene | | | | | CAS #: 540-36-3 | | |
| 5.515 | 5.515 (1.000) | 114 | 383993 | 25.0000 | | 80.00- 120.00 | 100.00 |
| 5.515 | 5.515 (1.000) | 88 | 68713 | | | 0.00- 68.52 | 17.89 |
| * 134 Chlorobenzene-d5 | | | | | CAS #: 3114-55-4 | | |
| 7.958 | 7.958 (1.000) | 117 | 432710 | 25.0000 | | 80.00- 120.00 | 100.00 |
| 7.951 | 7.958 (1.000) | 82 | 273220 | | | 12.92- 112.92 | 63.14 |
| $ 91 1,2-Dichloroethane-d4 | | | | | CAS #: 17060-07-0 | | |
| 5.143 | 5.143 (1.120) | 65 | 187686 | 25.8506 | 25.851 | 80.00- 120.00 | 100.00 |
| 5.143 | 5.143 (1.120) | 67 | 89536 | | | 2.15- 102.15 | 47.71 |
| $ 114 Toluene-d8 | | | | | CAS #: 2037-26-5 | | |
| 6.747 | 6.740 (1.223) | 98 | 477623 | 25.0766 | 25.076 | 80.00- 120.00 | 100.00 |
| 6.740 | 6.740 (1.222) | 70 | 59773 | | | 0.00- 62.20 | 12.51 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 114 Toluene-d8 (continued) | | | | | | | |
| 6.740 | 6.740 (1.222) | 100 | 305355 | | | 15.58- 115.58 | 63.93 |
| $ 149 Bromofluorobenzene | | | | | CAS #: 460-00-4 | | |
| 8.925 | 8.925 (1.121) | 174 | 217950 | 24.6350 | 24.635 | 80.00- 120.00 | 100.00 |
| 8.925 | 8.925 (1.121) | 95 | 370870 | | | 118.65- 218.65 | 170.16 |
| 8.925 | 8.925 (1.121) | 176 | 208052 | | | 44.64- 144.64 | 95.46 |
| 38 Acetone | | | | | CAS #: 67-64-1 | | |
| 2.550 | 2.536 (0.555) | 58 | 4078 | 2.13940 | 4.642 | 80.00- 120.00 | 100.00 |
| 2.550 | 2.536 (0.555) | 43 | 15947 | | | 327.54- 427.54 | 391.05 |

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdd.i
Lab File ID: d040524.d
Lab Smp Id: 1003666-02A
Analysis Type: VOA
Quant Type: ISTD
Operator: ra
Method File: /chem/msdd.i/05apr10.b/d10q0331a.m
Misc Info: 11.5"Hg->5psi

Calibration Date: 05-APR-2010
Calibration Time: 09:59
Level: LOW
Sample Type: AIR

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 5

| | | AREA LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 79 Bromochloromethan | 100921 | 60553 | 141289 | 89536 | -11.28 |
| 100 1,4-Difluorobenze | 426370 | 255822 | 596918 | 383993 | -9.94 |
| 134 Chlorobenzene-d5 | 463331 | 277999 | 648663 | 432710 | -6.61 |

| | | RT LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 79 Bromochloromethan | 4.59 | 4.26 | 4.92 | 4.59 | 0.00 |
| 100 1,4-Difluorobenze | 5.52 | 5.19 | 5.85 | 5.52 | 0.00 |
| 134 Chlorobenzene-d5 | 7.96 | 7.63 | 8.29 | 7.96 | 0.00 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: 05apr10
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1003666-02A
Level: LOW Operator: ra
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: 2926spectra.spk Quant Type: ISTD
Sublist File: TO15N.sub
Method File: /chem/msdd.i/05apr10.b/d10q0331a.m
Misc Info: 11.5"Hg->5psi

| SURROGATE COMPOUND | CONC ADDED PPBV | CONC RECOVERED PPBV | % RECOVERED | LIMITS |
|---|---|---|---|---|
| $ 91 1,2-Dichloroethane | 25.000 | 25.851 | 103.40 | 70-130 |
| $ 114 Toluene-d8 | 25.000 | 25.076 | 100.31 | 70-130 |
| $ 149 Bromofluorobenzene | 25.000 | 24.635 | 98.54 | 70-130 |

Data File: /chem/msdd.i/05apr10.b/d040524.d

Date : 05-APR-2010 20:58

Client ID:

Sample Info: 200mL #9569

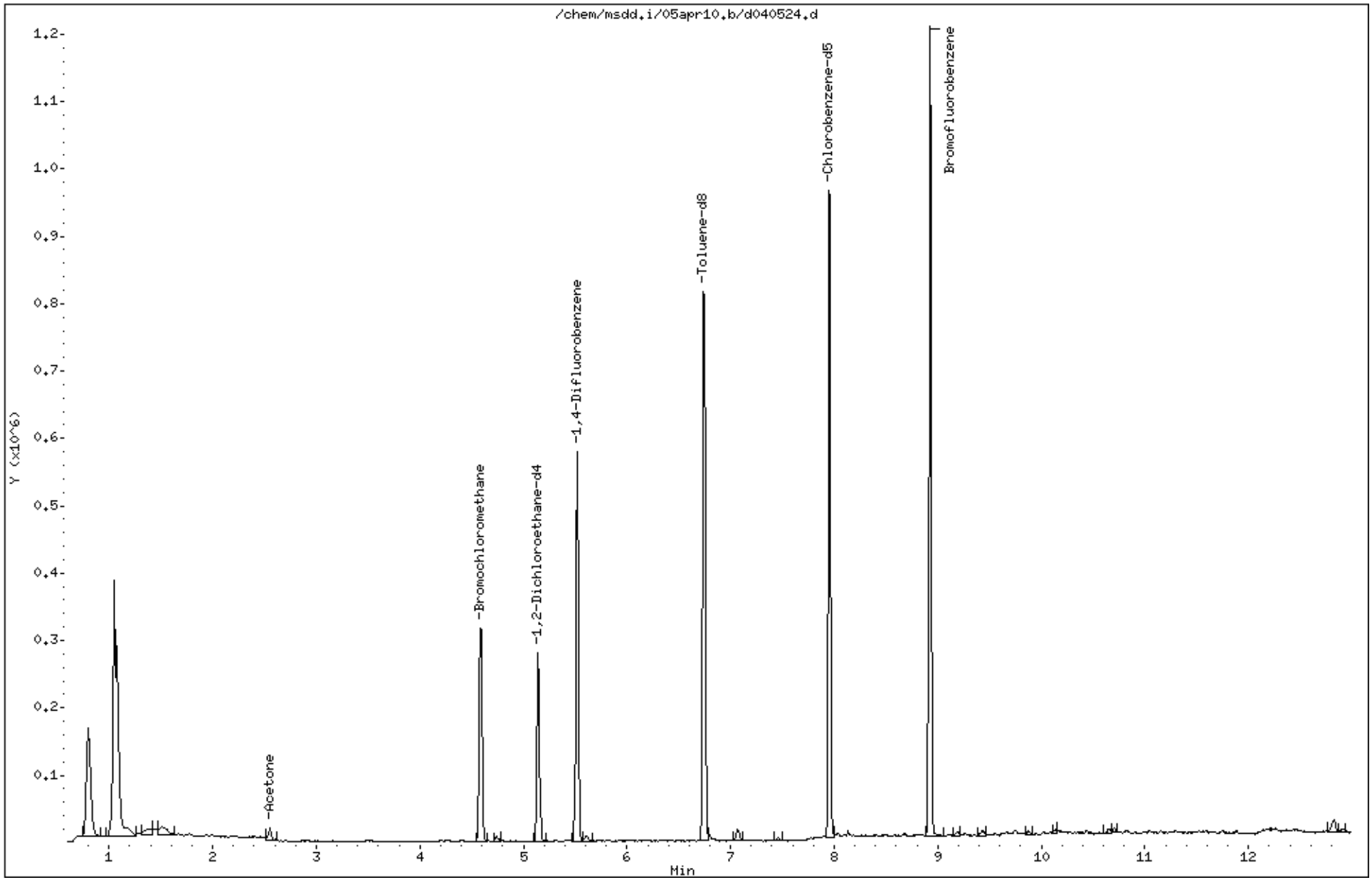
Column phase: RTx-624

Instrument: msdd.i

Operator: ra

Column diameter: 0.53





Data File: /chem/msdd.i/05apr10.b/d040524.d

Date : 05-APR-2010 20:58

Client ID:

Instrument: msdd.i

Sample Info: 200mL #9569

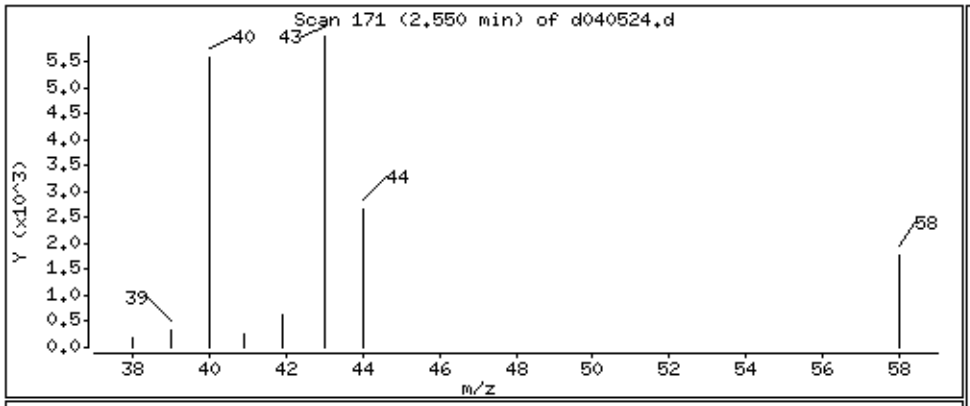
Operator: ra

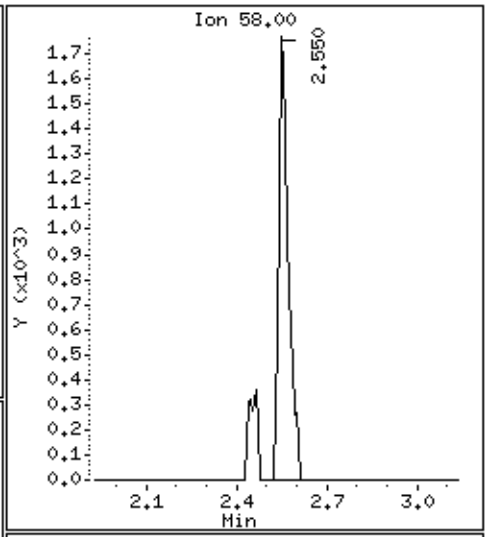
Column phase: RTx-624

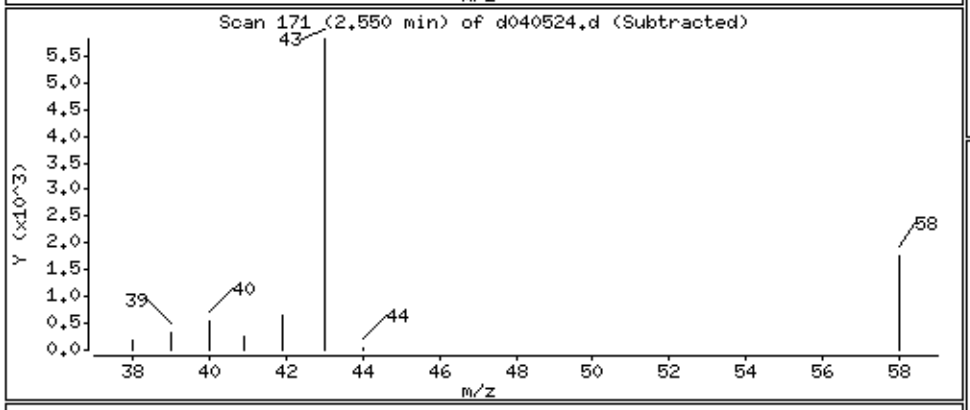
Column diameter: 0.53

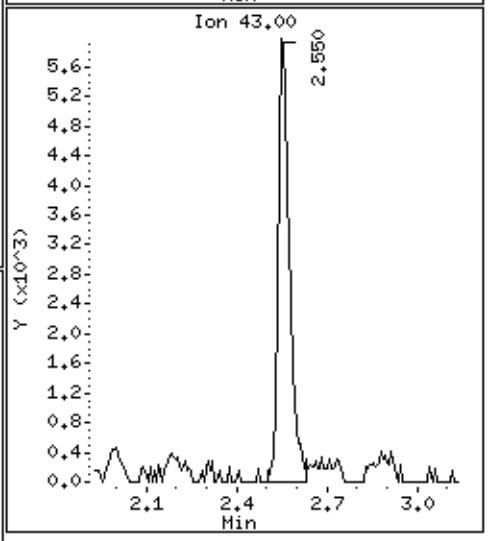
38 Acetone

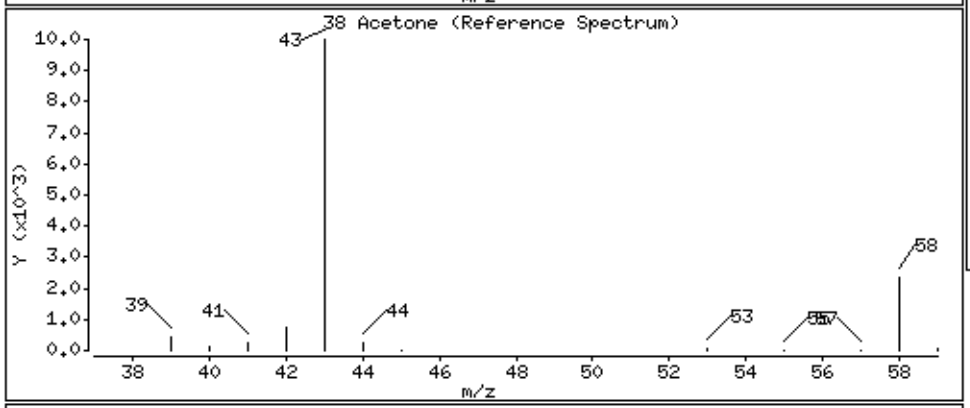
Concentration: 4.642 PPBV

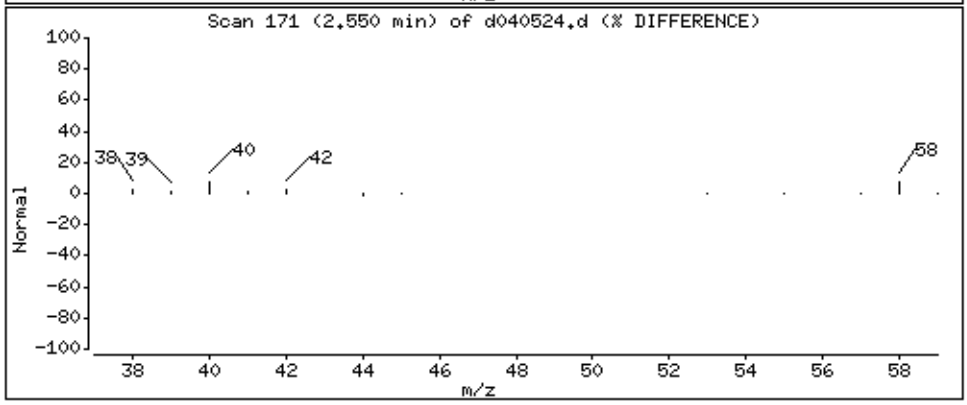


# QC Results and Raw Data

Air Toxics LTD.
Laboratory Services Since 1989

**Client Sample ID: Lab Blank**

**Lab ID#: 1003666-03A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **d040506** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 4/5/10 11:26 AM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (ug/m3) | Amount (ug/m3) |
|---|---|---|---|---|
| Freon 12 | 0.50 | Not Detected | 2.5 | Not Detected |
| Freon 114 | 0.50 | Not Detected | 3.5 | Not Detected |
| Chloromethane | 2.0 | Not Detected | 4.1 | Not Detected |
| Vinyl Chloride | 0.50 | Not Detected | 1.3 | Not Detected |
| 1,3-Butadiene | 0.50 | Not Detected | 1.1 | Not Detected |
| Bromomethane | 0.50 | Not Detected | 1.9 | Not Detected |
| Chloroethane | 0.50 | Not Detected | 1.3 | Not Detected |
| Freon 11 | 0.50 | Not Detected | 2.8 | Not Detected |
| Ethanol | 2.0 | Not Detected | 3.8 | Not Detected |
| Freon 113 | 0.50 | Not Detected | 3.8 | Not Detected |
| 1,1-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| Acetone | 2.0 | Not Detected | 4.8 | Not Detected |
| 2-Propanol | 2.0 | Not Detected | 4.9 | Not Detected |
| Carbon Disulfide | 0.50 | Not Detected | 1.6 | Not Detected |
| 3-Chloropropene | 2.0 | Not Detected | 6.3 | Not Detected |
| Methylene Chloride | 0.50 | Not Detected | 1.7 | Not Detected |
| Methyl tert-butyl ether | 0.50 | Not Detected | 1.8 | Not Detected |
| trans-1,2-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| Hexane | 0.50 | Not Detected | 1.8 | Not Detected |
| 1,1-Dichloroethane | 0.50 | Not Detected | 2.0 | Not Detected |
| 2-Butanone (Methyl Ethyl Ketone) | 0.50 | Not Detected | 1.5 | Not Detected |
| cis-1,2-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| Tetrahydrofuran | 0.50 | Not Detected | 1.5 | Not Detected |
| Chloroform | 0.50 | Not Detected | 2.4 | Not Detected |
| 1,1,1-Trichloroethane | 0.50 | Not Detected | 2.7 | Not Detected |
| Cyclohexane | 0.50 | Not Detected | 1.7 | Not Detected |
| Carbon Tetrachloride | 0.50 | Not Detected | 3.1 | Not Detected |
| 2,2,4-Trimethylpentane | 0.50 | Not Detected | 2.3 | Not Detected |
| Benzene | 0.50 | Not Detected | 1.6 | Not Detected |
| 1,2-Dichloroethane | 0.50 | Not Detected | 2.0 | Not Detected |
| Heptane | 0.50 | Not Detected | 2.0 | Not Detected |
| Trichloroethene | 0.50 | Not Detected | 2.7 | Not Detected |
| 1,2-Dichloropropane | 0.50 | Not Detected | 2.3 | Not Detected |
| 1,4-Dioxane | 2.0 | Not Detected | 7.2 | Not Detected |
| Bromodichloromethane | 0.50 | Not Detected | 3.4 | Not Detected |
| cis-1,3-Dichloropropene | 0.50 | Not Detected | 2.3 | Not Detected |
| 4-Methyl-2-pentanone | 0.50 | Not Detected | 2.0 | Not Detected |
| Toluene | 0.50 | Not Detected | 1.9 | Not Detected |
| trans-1,3-Dichloropropene | 0.50 | Not Detected | 2.3 | Not Detected |

Air Toxics LTD.
Laboratory Services Since 1989

**Client Sample ID: Lab Blank**

**Lab ID#: 1003666-03A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **d040506** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 4/5/10 11:26 AM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (ug/m3) | Amount (ug/m3) |
|---|---|---|---|---|
| 1,1,2-Trichloroethane | 0.50 | Not Detected | 2.7 | Not Detected |
| Tetrachloroethene | 0.50 | Not Detected | 3.4 | Not Detected |
| 2-Hexanone | 2.0 | Not Detected | 8.2 | Not Detected |
| Dibromochloromethane | 0.50 | Not Detected | 4.2 | Not Detected |
| 1,2-Dibromoethane (EDB) | 0.50 | Not Detected | 3.8 | Not Detected |
| Chlorobenzene | 0.50 | Not Detected | 2.3 | Not Detected |
| Ethyl Benzene | 0.50 | Not Detected | 2.2 | Not Detected |
| m,p-Xylene | 0.50 | Not Detected | 2.2 | Not Detected |
| o-Xylene | 0.50 | Not Detected | 2.2 | Not Detected |
| Styrene | 0.50 | Not Detected | 2.1 | Not Detected |
| Bromoform | 0.50 | Not Detected | 5.2 | Not Detected |
| Cumene | 0.50 | Not Detected | 2.4 | Not Detected |
| 1,1,2,2-Tetrachloroethane | 0.50 | Not Detected | 3.4 | Not Detected |
| Propylbenzene | 0.50 | Not Detected | 2.4 | Not Detected |
| 4-Ethyltoluene | 0.50 | Not Detected | 2.4 | Not Detected |
| 1,3,5-Trimethylbenzene | 0.50 | Not Detected | 2.4 | Not Detected |
| 1,2,4-Trimethylbenzene | 0.50 | Not Detected | 2.4 | Not Detected |
| 1,3-Dichlorobenzene | 0.50 | Not Detected | 3.0 | Not Detected |
| 1,4-Dichlorobenzene | 0.50 | Not Detected | 3.0 | Not Detected |
| alpha-Chlorotoluene | 0.50 | Not Detected | 2.6 | Not Detected |
| 1,2-Dichlorobenzene | 0.50 | Not Detected | 3.0 | Not Detected |
| 1,2,4-Trichlorobenzene | 2.0 | Not Detected | 15 | Not Detected |
| Hexachlorobutadiene | 2.0 | Not Detected | 21 | Not Detected |
| Naphthalene | 2.0 | Not Detected | 10 | Not Detected |

**Container Type: NA - Not Applicable**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| Toluene-d8 | 100 | 70-130 |
| 1,2-Dichloroethane-d4 | 101 | 70-130 |
| 4-Bromofluorobenzene | 98 | 70-130 |

Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msdd.i/05apr10.b/d040506.d
Lab Smp Id: Lab blank Client Smp ID: Lab Blank
Inj Date : 05-APR-2010 11:26
Operator : acb Inst ID: msdd.i
Smp Info : 200mL #24217
Misc Info : humid
Comment :
Method : /chem/msdd.i/05apr10.b/d10q0331a.m
Meth Date : 05-Apr-2010 21:50 abarton Quant Type: ISTD
Cal Date : 31-MAR-2010 15:58 Cal File: d033117.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: TO15.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| | | | | CONCENTRATIONS ON-COL | FINAL | | |
|---|---|---|---|---|---|---|---|
| RT | EXP RT (REL RT) | MASS | RESPONSE | ( PPBV) | ( PPBV) | TARGET RANGE | RATIO |
| * 79 Bromochloromethane | | | | | CAS #: 74-97-5 | | |
| 4.591 | 4.591 (1.000) | 130 | 92952 | 25.0000 | | 80.00- 120.00 | 100.00 |
| 4.591 | 4.591 (1.000) | 128 | 73591 | | | 27.03- 127.03 | 79.17 |
| 4.591 | 4.591 (1.000) | 49 | 171366 | | | 130.24- 230.24 | 184.36 |
| * 100 1,4-Difluorobenzene | | | | | CAS #: 540-36-3 | | |
| 5.523 | 5.515 (1.000) | 114 | 405683 | 25.0000 | | 80.00- 120.00 | 100.00 |
| 5.515 | 5.515 (1.000) | 88 | 74482 | | | 0.00- 68.52 | 18.36 |
| * 134 Chlorobenzene-d5 | | | | | CAS #: 3114-55-4 | | |
| 7.965 | 7.958 (1.000) | 117 | 458929 | 25.0000 | | 80.00- 120.00 | 100.00 |
| 7.965 | 7.958 (1.000) | 82 | 290083 | | | 12.92- 112.92 | 63.21 |
| $ 91 1,2-Dichloroethane-d4 | | | | | CAS #: 17060-07-0 | | |
| 5.143 | 5.143 (1.120) | 65 | 189943 | 25.2001 | 25.200 | 80.00- 120.00 | 100.00 |
| 5.143 | 5.143 (1.120) | 67 | 94195 | | | 2.15- 102.15 | 49.59 |
| $ 114 Toluene-d8 | | | | | CAS #: 2037-26-5 | | |
| 6.747 | 6.740 (1.222) | 98 | 504174 | 25.0553 | 25.055 | 80.00- 120.00 | 100.00 |
| 6.747 | 6.740 (1.222) | 70 | 61941 | | | 0.00- 62.20 | 12.29 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 114 Toluene-d8 (continued) | | | | | | | |
| 6.747 | 6.740 (1.222) | 100 | 323842 | | | 15.58- 115.58 | 64.23 |
| $ 149 Bromofluorobenzene | | | | | CAS #: 460-00-4 | | |
| 8.947 | 8.925 (1.123) | 174 | 230219 | 24.5351 | 24.535 | 80.00- 120.00 | 100.00 |
| 8.947 | 8.925 (1.123) | 95 | 397431 | | | 118.65- 218.65 | 172.63 |
| 8.947 | 8.925 (1.123) | 176 | 220408 | | | 44.64- 144.64 | 95.74 |

Report Date: 08-Apr-2010 16:00

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdd.i
Lab File ID: d040506.d
Lab Smp Id: Lab blank
Analysis Type: VOA
Quant Type: ISTD
Operator: acb
Method File: /chem/msdd.i/05apr10.b/d10q0331a.m
Misc Info: humid

Calibration Date: 05-APR-2010
Calibration Time: 09:59
Client Smp ID: Lab Blank
Level: LOW
Sample Type: AIR

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 5

| | | AREA LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 79 Bromochloromethan | 100921 | 60553 | 141289 | 92952 | -7.90 |
| 100 1,4-Difluorobenze | 426370 | 255822 | 596918 | 405683 | -4.85 |
| 134 Chlorobenzene-d5 | 463331 | 277999 | 648663 | 458929 | -0.95 |

| | | RT LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 79 Bromochloromethan | 4.59 | 4.26 | 4.92 | 4.59 | 0.00 |
| 100 1,4-Difluorobenze | 5.52 | 5.19 | 5.85 | 5.52 | 0.13 |
| 134 Chlorobenzene-d5 | 7.96 | 7.63 | 8.29 | 7.97 | 0.09 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Report Date: 08-Apr-2010 16:00

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: 05apr10
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: Lab blank Client Smp ID: Lab Blank
Level: LOW Operator: acb
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: 2926spectra.spk Quant Type: ISTD
Sublist File: TO15.sub
Method File: /chem/msdd.i/05apr10.b/d10q0331a.m
Misc Info: humid

| SURROGATE COMPOUND | CONC ADDED PPBV | CONC RECOVERED PPBV | % RECOVERED | LIMITS |
|---|---|---|---|---|
| $ 91 1,2-Dichloroethane | 25.000 | 25.200 | 100.80 | 70-130 |
| $ 114 Toluene-d8 | 25.000 | 25.055 | 100.22 | 70-130 |
| $ 149 Bromofluorobenzene | 25.000 | 24.535 | 98.14 | 70-130 |

Data File: /chem/msdd.i/05apr10.b/d040506.d

Date : 05-APR-2010 11:26

Client ID: Lab Blank

Sample Info: 200mL #24217

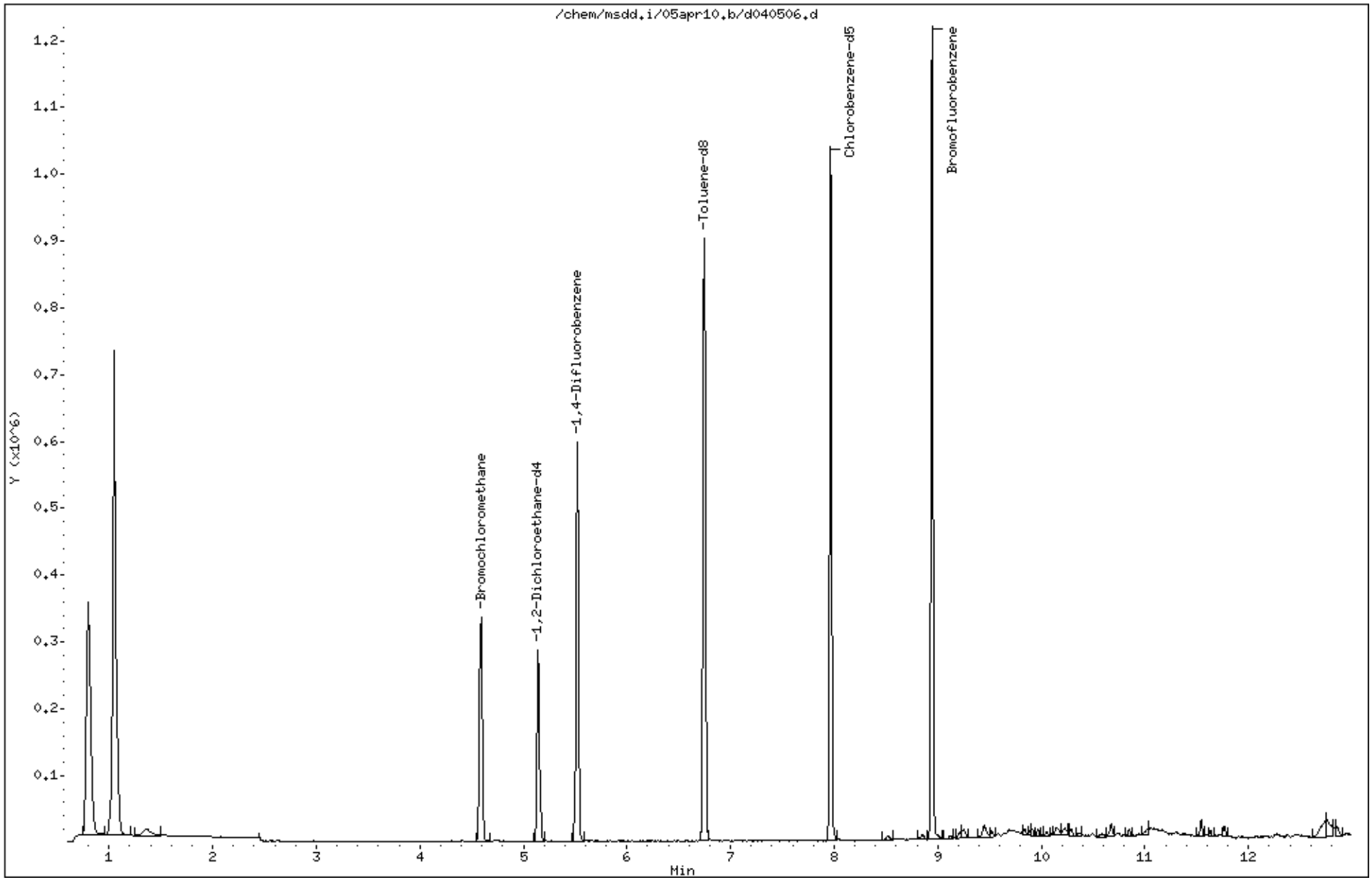
Column phase: RTx-624

Instrument: msdd.i

Operator: acb

Column diameter: 0.53





# LEVEL-IV VALIDATABLE

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

SURROGATE RECOVERY FORM

Lab Name: AIR TOXICS LIMITED. SDG No.: 1003666

| | CLIENT SAMPLE NO. | SURROGATE % RECOVERY | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 1,2-Dichloroethane-d4 | # | Toluene-d8 | # | 4-Bromofluorobenzene | # | | # | TOTAL OUT |
| 01 | DW AMS 1 (1) | 103 | | 101 | | 98 | | | | 0 |
| 02 | DW AMS 1 (2) | 103 | | 100 | | 98 | | | | 0 |
| 03 | Lab Blank | 101 | | 100 | | 98 | | | | 0 |
| 04 | CCV | 101 | | 99 | | 98 | | | | 0 |
| 05 | LCS | 102 | | 101 | | 98 | | | | 0 |
| 06 | | | | | | | | | | 0 |
| 07 | | | | | | | | | | 0 |
| 08 | | | | | | | | | | 0 |
| 09 | | | | | | | | | | 0 |
| 10 | | | | | | | | | | 0 |
| 11 | | | | | | | | | | 0 |
| 12 | | | | | | | | | | 0 |
| 13 | | | | | | | | | | 0 |
| 14 | | | | | | | | | | 0 |
| 15 | | | | | | | | | | 0 |
| 16 | | | | | | | | | | 0 |
| 17 | | | | | | | | | | 0 |
| 18 | | | | | | | | | | 0 |
| 19 | | | | | | | | | | 0 |
| 20 | | | | | | | | | | 0 |
| 21 | | | | | | | | | | 0 |
| 22 | | | | | | | | | | 0 |
| 23 | | | | | | | | | | 0 |
| 24 | | | | | | | | | | 0 |

Surrogate Recovery Limits

1,2-Dichloroethane-d4 70 - 130
Toluene-d8 70 - 130
4-Bromofluorobenzene 70 - 130

* Designates values outside of QC limits

# LEVEL-IV VALIDATABLE

Modified EPA Method TO-15 GC/MS Full Scan

INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: AIR TOXICS, LTD
SDG No: 1003666
Lab File ID: d040502.d
Date Analyzed: 04/05/2010
Instrument ID: msdd.i
Time Analyzed: 09:59 AM

| | | Chlorobenzene-d5 Area | # | RT | # | 1,4-Difluorobenzene Area | # | RT | # | Bromochloromethane Area | # | RT | # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 24-HOUR STD | 463331 | | 7.96 | | 426370 | | 5.52 | | 100921 | | 4.59 | |
| | UPPER LIMIT | 648663 | | 08.29 | | 596918 | | 05.85 | | 141289 | | 04.92 | |
| | LOWER LIMIT | 277999 | | 07.63 | | 255822 | | 05.19 | | 60553 | | 04.26 | |
| | CLIENT SAMPLE NO | | | | | | | | | | | | |
| 01 | DW AMS 1 (1) | 452588 | | 7.97 | | 393130 | | 5.52 | | 91780 | | 4.59 | |
| 02 | DW AMS 1 (2) | 432710 | | 7.96 | | 383993 | | 5.52 | | 89536 | | 4.59 | |
| 03 | Lab Blank | 458929 | | 7.97 | | 405683 | | 5.52 | | 92952 | | 4.59 | |
| 04 | CCV | 463331 | | 7.96 | | 426370 | | 5.52 | | 100921 | | 4.59 | |
| 05 | LCS | 472124 | | 7.95 | | 420122 | | 5.51 | | 97580 | | 4.58 | |
| 06 | | | | | | | | | | | | | |
| 07 | | | | | | | | | | | | | |
| 08 | | | | | | | | | | | | | |
| 09 | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | |
| 13 | | | | | | | | | | | | | |
| 14 | | | | | | | | | | | | | |
| 15 | | | | | | | | | | | | | |
| 16 | | | | | | | | | | | | | |
| 17 | | | | | | | | | | | | | |
| 18 | | | | | | | | | | | | | |
| 19 | | | | | | | | | | | | | |
| 20 | | | | | | | | | | | | | |
| 21 | | | | | | | | | | | | | |
| 22 | | | | | | | | | | | | | |

'Area Upper Limit=+40% of internal standard area'
'Area Lower Limit=-40% of internal standard area'

RT Upper Limit=+0.33 minutes of internal standard RT
RT Lower Limit=-0.33 minutes of internal standard RT

* Designates values outside of QC limits

# Air Toxics Ltd.

## INITIAL CALIBRATION DATA

Start Cal Date : 31-MAR-2010 13:49
End Cal Date : 31-MAR-2010 15:58
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msdd.i/31mar10a.b/d10q0331a.m
Cal Date : 01-Apr-2010 07:15 abarton
Curve Type : Average

Calibration File Names:
Level 1: /chem/msdd.i/31mar10a.b/d033111.d
Level 2: /chem/msdd.i/31mar10a.b/d033112.d
Level 3: /chem/msdd.i/31mar10a.b/d033113.d
Level 4: /chem/msdd.i/31mar10a.b/d033114.d
Level 5: /chem/msdd.i/31mar10a.b/d033115.d
Level 6: /chem/msdd.i/31mar10a.b/d033116.d
Level 7: /chem/msdd.i/31mar10a.b/d033117.d

| Compound | 0.30000 Level 1 | 0.50000 Level 2 | 2.000 Level 3 | 25.000 Level 4 | 50.000 Level 5 | 100.000 Level 6 | 200.000 Level 7 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 1 Dimethyl Ether | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 2 Acetaldehyde | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 3 Freon 13 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 4 2-Methyl-1-Butene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 5 Freon 134a | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 6 Propylene | +++++ | +++++ | 0.84394 | 0.82806 | 0.77338 | 0.79752 | 0.77652 | 0.80388 | 3.889 |
| 7 Dichlorodifluoromethane/Fr12 | +++++ | 3.04338 | 3.07592 | 3.38328 | 3.15906 | 3.20485 | 3.11189 | 3.16306 | 3.867 |

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Method file : /chem/msdd.i/31mar10a.b/d10q0331a.m
Cal Date : 01-Apr-2010 07:15 abarton
Curve Type : Average

| Compound | 0.30000 Level 1 | 0.50000 Level 2 | 2.000 Level 3 | 25.000 Level 4 | 50.000 Level 5 | 100.000 Level 6 | 200.000 Level 7 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 8 Freon 152a | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 9 Freon 22 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 10 Freon 114 | +++++ | 1.70425 | 1.78303 | 1.86773 | 1.68152 | 1.72848 | 1.66630 | 1.73855 | 4.336 |
| 11 Isobutane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 12 Freon142b | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 13 Chloromethane | +++++ | +++++ | 0.77281 | 0.75164 | 0.68953 | 0.67448 | 0.62382 | 0.70246 | 8.572 |
| 14 Butane | +++++ | +++++ | 0.18922 | 0.19584 | 0.20857 | 0.21465 | 0.21131 | 0.20392 | 5.332 |
| 15 Vinyl Chloride | +++++ | 0.82415 | 0.67814 | 1.10675 | 1.09718 | 1.11105 | 1.08358 | 0.98347 | 18.915 |
| 16 Freon 143a | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 17 Propanal | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |

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Method file : /chem/msdd.i/31mar10a.b/d10q0331a.m
Cal Date : 01-Apr-2010 07:15 abarton
Curve Type : Average

| Compound | 0.30000 Level 1 | 0.50000 Level 2 | 2.000 Level 3 | 25.000 Level 4 | 50.000 Level 5 | 100.000 Level 6 | 200.000 Level 7 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 18 1,3-Butadiene | +++++ | 0.94033 | 0.63301 | 0.87713 | 0.85005 | 0.87202 | 0.84874 | 0.83688 | 12.581 |
| 19 Freon 14 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 20 Vinyl Fluoride | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 21 Bromoethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 22 Isobutylene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 23 2,3-Dimethylbutane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 24 Bromomethane | +++++ | 0.93321 | 0.94437 | 0.97182 | 0.91163 | 0.92305 | 0.88614 | 0.92837 | 3.144 |
| 25 Chloroethane | +++++ | 0.72315 | 0.62933 | 0.63307 | 0.60618 | 0.61930 | 0.59066 | 0.63362 | 7.348 |
| 26 Isopentane | +++++ | +++++ | 1.28136 | 1.40265 | 1.30210 | 1.31822 | 1.28119 | 1.31710 | 3.818 |
| 27 Freon143a | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |

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Cal Date : 01-Apr-2010 07:15 abarton
Curve Type : Average

| Compound | 0.30000 Level 1 | 0.50000 Level 2 | 2.000 Level 3 | 25.000 Level 4 | 50.000 Level 5 | 100.000 Level 6 | 200.000 Level 7 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 28 Trichlorofluoromethane/Fr11 | +++++ | 3.26815 | 3.20186 | 3.40765 | 3.16339 | 3.53766 | 3.46832 | 3.34117 | 4.550 |
| 29 Ethanol | +++++ | +++++ | 0.40149 | 0.41886 | 0.41961 | 0.41701 | 0.41807 | 0.41501 | 1.836 |
| 30 Methanol | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 31 Dichlorofluoromethane/Fr21 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 32 2,4-Dimethylpentane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 33 Freon 113 | +++++ | 1.46905 | 1.47916 | 1.62843 | 1.51309 | 1.51000 | 1.48662 | 1.51439 | 3.861 |
| 34 1,1-Dichloroethene | +++++ | 0.59322 | 0.68170 | 0.70335 | 0.66896 | 0.67240 | 0.66802 | 0.66461 | 5.622 |
| 35 2-Butanol | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 36 3-Methyl-1-Hexene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 37 Vinyl Bromide | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |

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Curve Type : Average

| Compound | 0.30000 Level 1 | 0.50000 Level 2 | 2.000 Level 3 | 25.000 Level 4 | 50.000 Level 5 | 100.000 Level 6 | 200.000 Level 7 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 38 Acetone | +++++ | +++++ | 0.56471 | 0.52233 | 0.52308 | 0.52792 | 0.52310 | 0.53223 | 3.437 |
| 39 Methacrylonitrile | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 40 Carbon Disulfide | +++++ | 3.68402 | 3.22871 | 3.15026 | 3.07267 | 3.13811 | 3.13866 | 3.23541 | 6.964 |
| 41 2-Propanol | +++++ | +++++ | 1.56500 | 1.75990 | 1.84344 | 1.95636 | 2.03104 | 1.83115 | 9.909 |
| 42 Pentane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 43 1-Pentene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 44 3-Chloropropene | +++++ | +++++ | 0.48610 | 0.50284 | 0.50604 | 0.51581 | 0.51696 | 0.50555 | 2.465 |
| 45 Cyclopentene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 46 Methylene Chloride | +++++ | 1.31921 | 1.40828 | 1.38549 | 1.34460 | 1.36378 | 1.35746 | 1.36314 | 2.283 |
| 47 Acrolein | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |

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Curve Type : Average

| Compound | 0.30000 Level 1 | 0.50000 Level 2 | 2.000 Level 3 | 25.000 Level 4 | 50.000 Level 5 | 100.000 Level 6 | 200.000 Level 7 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 48 tert-Butyl-Alcohol | +++++ | +++++ | 2.01247 | 2.19866 | 2.21469 | 2.36793 | 2.42178 | 2.24311 | 7.170 |
| 49 Ethyl Ether | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 50 MTBE | +++++ | 2.98553 | 3.16826 | 3.34736 | 3.27770 | 3.37712 | 3.39063 | 3.25777 | 4.804 |
| 51 2-Methylpentane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 52 trans-1,2-Dichloroethene | +++++ | 0.60981 | 0.68991 | 0.72340 | 0.70153 | 0.70996 | 0.70264 | 0.68954 | 5.886 |
| 53 Freon123a | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 54 Freon123 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 55 Iodomethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 56 2,3,4-Trimethylpentane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 57 Methyl acetate | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |

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Curve Type : Average

| Compound | 0.30000 Level 1 | 0.50000 Level 2 | 2.000 Level 3 | 25.000 Level 4 | 50.000 Level 5 | 100.000 Level 6 | 200.000 Level 7 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 58 Hexane | +++++ | 1.83229 | 1.91511 | 2.04640 | 1.91875 | 1.95790 | 1.91993 | 1.93173 | 3.609 |
| 59 Pentanal | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 60 2,4,4-Trimethyl-1-pentene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 61 Cyclopentane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 62 Acetonitrile | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 63 Isopropyl ether | +++++ | +++++ | 4.34575 | 4.68188 | 4.43007 | 4.50115 | 4.45849 | 4.48347 | 2.780 |
| 64 1,1-Dichloroethane | +++++ | 2.21876 | 2.38515 | 2.52052 | 2.39939 | 2.42846 | 2.38656 | 2.38981 | 4.098 |
| 65 Vinyl Acetate | +++++ | +++++ | 0.19743 | 0.29091 | 0.27637 | 0.30202 | 0.29882 | 0.27311 | 15.909 |
| 66 2,4,4-Trimethyl-2-pentene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 67 1-Propanol | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |

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Curve Type : Average

| Compound | 0.30000 Level 1 | 0.50000 Level 2 | 2.000 Level 3 | 25.000 Level 4 | 50.000 Level 5 | 100.000 Level 6 | 200.000 Level 7 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 68 Chloroprene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 69 Butanal | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 70 Acrylonitrile | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 71 1-Hexene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 72 t-Butylethyl Ether | +++++ | +++++ | 3.98227 | 4.33111 | 4.16556 | 4.29098 | 4.35971 | 4.22593 | 3.670 |
| 73 2,2-Dichloropropane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 74 cis-1,2-Dichloroethene | +++++ | 0.74306 | 0.78826 | 0.80418 | 0.77900 | 0.79175 | 0.78665 | 0.78215 | 2.665 |
| 75 2-Butanone | +++++ | 0.50217 | 0.56213 | 0.62517 | 0.62825 | 0.64772 | 0.64188 | 0.60122 | 9.543 |
| 76 2,3-Dimethylpentane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 77 1-Bromo-2-Chloroethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |

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Curve Type : Average

| Compound | 0.30000 Level 1 | 0.50000 Level 2 | 2.000 Level 3 | 25.000 Level 4 | 50.000 Level 5 | 100.000 Level 6 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|
| | 200.000 Level 7 | | | | | | | |
| 78 Tetrahydrofuran | +++++ | 1.51031 | 1.57604 | 1.53626 | 1.53100 | 1.57016 | | |
| | 1.57743 | | | | | | 1.55020 | 1.816 |
| 80 Chloroform | +++++ | 2.67209 | 2.86659 | 2.99161 | 2.84674 | 2.88627 | | |
| | 2.84263 | | | | | | 2.85099 | 3.623 |
| 81 Ethyl Acetate | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| 82 Methyl Acrylate | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| 83 Cyclohexane | +++++ | 1.78013 | 1.65219 | 1.80639 | 1.73297 | 1.76274 | | |
| | 1.73332 | | | | | | 1.74462 | 3.056 |
| 84 Thiophene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| 85 1,1,1-Trichloroethane | +++++ | 2.71429 | 2.81398 | 3.03191 | 2.90730 | 2.97517 | | |
| | 2.92928 | | | | | | 2.89532 | 3.960 |
| 86 Carbon Tetrachloride | +++++ | 2.16422 | 2.28410 | 2.77925 | 2.66646 | 2.76796 | | |
| | 2.76201 | | | | | | 2.57067 | 10.661 |
| 87 1,1-Dichloropropene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| 88 Isobutanol | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |

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| Compound | 0.30000 Level 1 | 0.50000 Level 2 | 2.000 Level 3 | 25.000 Level 4 | 50.000 Level 5 | 100.000 Level 6 | 200.000 Level 7 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 89 2,2,4-Trimethylpentane | +++++ | 7.15275 | 7.07021 | 7.43212 | 7.16891 | 7.28845 | 7.19334 | 7.21763 | 1.752 |
| 90 Benzene | +++++ | 0.98737 | 0.93597 | 0.99253 | 0.94458 | 0.94922 | 0.92910 | 0.95646 | 2.813 |
| 92 2-Pentanone | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 93 tert-amyl-Methyl Ether | +++++ | +++++ | 3.61855 | 3.85785 | 3.81070 | 3.92696 | 3.97438 | 3.83769 | 3.587 |
| 94 1,2-Dichloroethane | +++++ | 0.48886 | 0.51295 | 0.53800 | 0.52418 | 0.52367 | 0.51190 | 0.51659 | 3.204 |
| 95 Heptane | +++++ | 0.31772 | 0.34903 | 0.36729 | 0.34727 | 0.35877 | 0.35442 | 0.34908 | 4.862 |
| 96 Ethyl acrylate | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 97 Methyl Methacrylate | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 98 Dibromomethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 99 Epichlorohydrin | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |

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| Compound | 0.30000 Level 1 | 0.50000 Level 2 | 2.000 Level 3 | 25.000 Level 4 | 50.000 Level 5 | 100.000 Level 6 | 200.000 Level 7 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 101 2-Chloroethyl vinyl ether | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 102 1-Butanol | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 103 Octane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 104 Trichloroethene | +++++ | 0.44567 | 0.42835 | 0.43388 | 0.42974 | 0.43289 | 0.42487 | 0.43257 | 1.662 |
| 105 Methyl Cyclohexane | +++++ | 2.54927 | 2.43211 | 2.74506 | 2.61145 | 2.63432 | 2.60878 | 2.59683 | 3.969 |
| 106 1,2-Dichloropropane | +++++ | 0.40083 | 0.38129 | 0.42565 | 0.39639 | 0.40311 | 0.39579 | 0.40051 | 3.614 |
| 107 1,4-Dioxane | +++++ | +++++ | 0.21567 | 0.22155 | 0.22689 | 0.23630 | 0.23688 | 0.22746 | 4.061 |
| 108 Bromodichloromethane | +++++ | 0.76810 | 0.70173 | 0.81194 | 0.78151 | 0.80616 | 0.78889 | 0.77639 | 5.144 |
| 109 Nonane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 110 cis-1,3-Dichloropropene | +++++ | 0.57558 | 0.51465 | 0.63798 | 0.61851 | 0.64727 | 0.63394 | 0.60466 | 8.408 |

Air Toxics Ltd.

INITIAL CALIBRATION DATA

Start Cal Date : 31-MAR-2010 13:49
End Cal Date : 31-MAR-2010 15:58
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msdd.i/31mar10a.b/d10q0331a.m
Cal Date : 01-Apr-2010 07:15 abarton
Curve Type : Average

| Compound | 0.30000 Level 1 | 0.50000 Level 2 | 2.000 Level 3 | 25.000 Level 4 | 50.000 Level 5 | 100.000 Level 6 | 200.000 Level 7 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 111 Cyclohexanone | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 112 4-Methyl-2-pentanone | +++++ | 0.32638 | 0.32968 | 0.36368 | 0.36319 | 0.37892 | 0.37714 | 0.35650 | 6.459 |
| 113 trans-1,4-dichloro-2-butene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 115 Toluene | +++++ | 1.22594 | 1.26356 | 1.33719 | 1.27363 | 1.28871 | 1.25897 | 1.27467 | 2.904 |
| 116 tert-Butylbenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 117 bis(2-chloroethyl)ether | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 118 trans-1,3-Dichloropropene | +++++ | 0.46912 | 0.44433 | 0.59450 | 0.58340 | 0.62005 | 0.61176 | 0.55386 | 13.853 |
| 119 alpha-Pinene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 120 1,1,2-Trichloroethane | +++++ | 0.35599 | 0.37669 | 0.41502 | 0.38869 | 0.39461 | 0.38832 | 0.38655 | 5.062 |
| 121 Decane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |

Air Toxics Ltd.

INITIAL CALIBRATION DATA

Start Cal Date : 31-MAR-2010 13:49
End Cal Date : 31-MAR-2010 15:58
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msdd.i/31mar10a.b/d10q0331a.m
Cal Date : 01-Apr-2010 07:15 abarton
Curve Type : Average

| Compound | 0.30000 Level 1 | 0.50000 Level 2 | 2.000 Level 3 | 25.000 Level 4 | 50.000 Level 5 | 100.000 Level 6 | 200.000 Level 7 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 122 Tetrachloroethene | +++++ | 0.45270 | 0.41423 | 0.45126 | 0.42909 | 0.43143 | 0.42031 | 0.43317 | 3.654 |
| 123 1,3-Dichloropropane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 124 Alphamethylstyrene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 125 2-Hexanone | +++++ | 0.39038 | 0.41158 | 0.44898 | 0.45711 | 0.47796 | 0.48252 | 0.44476 | 8.266 |
| 126 Butyl Acetate | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 127 beta-Pinene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 128 Dibromochloromethane | +++++ | 0.56173 | 0.52836 | 0.65433 | 0.62620 | 0.64724 | 0.63595 | 0.60897 | 8.462 |
| 129 Dodecane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 130 1,2-Dibromoethane | +++++ | 0.58683 | 0.56614 | 0.63457 | 0.60555 | 0.61859 | 0.60596 | 0.60294 | 3.977 |
| 131 D-Limonene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |

# Air Toxics Ltd.

## INITIAL CALIBRATION DATA

Start Cal Date : 31-MAR-2010 13:49
End Cal Date : 31-MAR-2010 15:58
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msdd.i/31mar10a.b/d10q0331a.m
Cal Date : 01-Apr-2010 07:15 abarton
Curve Type : Average

| Compound | 0.30000 Level 1 | 0.50000 Level 2 | 2.000 Level 3 | 25.000 Level 4 | 50.000 Level 5 | 100.000 Level 6 | 200.000 Level 7 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 132 Hexachloroethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 133 Undecane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 135 Chlorobenzene | +++++ | 1.02781 | 0.94880 | 0.92907 | 0.89300 | 0.90378 | 0.88232 | 0.93080 | 5.735 |
| 136 Indan | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 137 Ethyl Benzene | +++++ | 0.43707 | 0.44443 | 0.49927 | 0.48368 | 0.48776 | 0.47768 | 0.47165 | 5.313 |
| 138 1,1,1,2-Tetrachloroethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 139 Indene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 140 m,p-Xylene | +++++ | 0.59113 | 0.59877 | 0.61958 | 0.60757 | 0.61984 | 0.60969 | 0.60776 | 1.871 |
| 141 o-Xylene | +++++ | 0.54502 | 0.55073 | 0.59946 | 0.58302 | 0.59406 | 0.58228 | 0.57576 | 3.932 |
| 142 Styrene | +++++ | 0.85539 | 0.88184 | 0.98995 | 0.96839 | 0.99346 | 0.97426 | 0.94388 | 6.318 |

Air Toxics Ltd.

INITIAL CALIBRATION DATA

Start Cal Date : 31-MAR-2010 13:49
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Integrator : HP RTE
Method file : /chem/msdd.i/31mar10a.b/d10q0331a.m
Cal Date : 01-Apr-2010 07:15 abarton
Curve Type : Average

| Compound | 0.30000 Level 1 | 0.50000 Level 2 | 2.000 Level 3 | 25.000 Level 4 | 50.000 Level 5 | 100.000 Level 6 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|
| | 200.000 Level 7 | | | | | | | |
| 143 2-Heptanone | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| 144 1,2,3-Trichlorobenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| 145 Bromoform | +++++ | 0.42750 | 0.40361 | 0.53875 | 0.52829 | 0.54742 | | |
| | 0.53976 | | | | | | 0.49755 | 12.914 |
| 146 Aniline | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| 147 Cumene | +++++ | 1.67737 | 1.67114 | 1.81039 | 1.76637 | 1.79735 | | |
| | 1.77867 | | | | | | 1.75021 | 3.473 |
| 148 Isooctyl Alcohol | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| 150 2-Methylnaphthalene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| 151 1,1,2,2-Tetrachloroethane | +++++ | 0.93354 | 0.93236 | 0.99536 | 0.96089 | 0.99198 | | |
| | 0.97264 | | | | | | 0.96446 | 2.850 |
| 152 Bromobenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| 153 Propylbenzene | +++++ | 2.14052 | 2.14241 | 2.25870 | 2.23070 | 2.30067 | | |
| | 2.26107 | | | | | | 2.22235 | 2.992 |

Air Toxics Ltd.

INITIAL CALIBRATION DATA

Start Cal Date : 31-MAR-2010 13:49
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Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msdd.i/31mar10a.b/d10q0331a.m
Cal Date : 01-Apr-2010 07:15 abarton
Curve Type : Average

| Compound | 0.30000 Level 1 | 0.50000 Level 2 | 2.000 Level 3 | 25.000 Level 4 | 50.000 Level 5 | 100.000 Level 6 | 200.000 Level 7 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 154 1,2,3-Trichloropropane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| 155 4-Ethyltoluene | +++++ | 0.49637 | 0.49755 | 0.53680 | 0.52942 | 0.54013 | 0.53835 | 0.52310 | 3.934 |
| 156 1,3,5-Trimethylbenzene | 0.66314 | 0.67349 | 0.68194 | 0.73498 | 0.71841 | 0.73777 | 0.71637 | 0.70373 | 4.321 |
| 157 2-Chlorotoluene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| 158 4-Chlorotoluene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| 159 Diisobutyl Ketone | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| 160 Quinoline | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| 161 p-Cymene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| 162 1,2,4-Trimethylbenzene | 0.66557 | 0.61897 | 0.61060 | 0.66522 | 0.66279 | 0.68666 | 0.67315 | 0.65471 | 4.355 |
| 163 Pentachloroethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |

Air Toxics Ltd.

INITIAL CALIBRATION DATA

Start Cal Date : 31-MAR-2010 13:49
End Cal Date : 31-MAR-2010 15:58
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msdd.i/31mar10a.b/d10q0331a.m
Cal Date : 01-Apr-2010 07:15 abarton
Curve Type : Average

| Compound | 0.30000 Level 1 | 0.50000 Level 2 | 2.000 Level 3 | 25.000 Level 4 | 50.000 Level 5 | 100.000 Level 6 | 200.000 Level 7 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 164 sec-Butylbenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 165 1,3-Dichlorobenzene | +++++ | 0.87883 | 0.87932 | 0.85863 | 0.85860 | 0.88648 | 0.87299 | 0.87247 | 1.325 |
| 166 1,4-Dichlorobenzene | +++++ | 0.89710 | 0.91859 | 0.86623 | 0.87248 | 0.89917 | 0.88769 | 0.89021 | 2.149 |
| 167 1,2,3-Trimethylbenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 168 alpha-Chlorotoluene | +++++ | 0.86721 | 0.76236 | 1.21103 | 1.33842 | 1.50304 | 1.53704 | 1.20318 | 26.981 |
| 169 1,3,5-Trichlorobenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 170 Butylbenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 171 1,2-Dichlorobenzene | +++++ | 0.76805 | 0.81011 | 0.79636 | 0.80177 | 0.82859 | 0.81818 | 0.80384 | 2.608 |
| 172 Isooctyl Acrylate | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 173 1,2-Dibromo-3-Chloropropane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |

# Air Toxics Ltd.

## INITIAL CALIBRATION DATA

Start Cal Date : 31-MAR-2010 13:49
End Cal Date : 31-MAR-2010 15:58
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msdd.i/31mar10a.b/d10q0331a.m
Cal Date : 01-Apr-2010 07:15 abarton
Curve Type : Average

| Compound | 0.30000 Level 1 | 0.50000 Level 2 | 2.000 Level 3 | 25.000 Level 4 | 50.000 Level 5 | 100.000 Level 6 | 200.000 Level 7 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 174 1,2,4-Trichlorobenzene | +++++ | +++++ | 0.66725 | 0.53658 | 0.60520 | 0.65186 | 0.65400 | 0.62298 | 8.621 |
| 175 Hexachlorobutadiene | +++++ | +++++ | 0.42191 | 0.39599 | 0.41335 | 0.43522 | 0.43258 | 0.41981 | 3.793 |
| 176 Naphthalene | +++++ | +++++ | 1.72325 | 1.39292 | 1.58564 | 1.73111 | 1.77431 | 1.64145 | 9.500 |
| $ 91 1,2-Dichloroethane-d4 | 1.95837 | 1.96555 | 1.97822 | 2.01572 | 2.03697 | 2.10454 | 2.13123 | 2.02723 | 3.368 |
| $ 114 Toluene-d8 | 1.23050 | 1.23253 | 1.23926 | 1.24679 | 1.24244 | 1.24128 | 1.24744 | 1.24004 | 0.526 |
| $ 149 Bromofluorobenzene | 0.50160 | 0.51036 | 0.50786 | 0.50642 | 0.51478 | 0.51787 | 0.51914 | 0.51115 | 1.256 |

Calibration History

Method : /chem/msdd.i/31mar10a.b/d10q0331a.m
Start Cal Date: 31-MAR-2010 13:49
End Cal Date : 31-MAR-2010 15:58

Initial Calibration

| Injection Date | Sublist | Calibration File |
|---|---|---|
| Cal Level: 1 , Cal Amount: 0.30000 | | |
| 31-MAR-2010 13:49 | AFCEElow | /chem/msdd.i/31mar10a.b/d033111.d |
| Cal Level: 2 , Cal Amount: 0.50000 | | |
| 31-MAR-2010 14:09 | AT09low | /chem/msdd.i/31mar10a.b/d033112.d |
| Cal Level: 3 , Cal Amount: 2.00000 | | |
| 31-MAR-2010 14:28 | AT09mdl | /chem/msdd.i/31mar10a.b/d033113.d |
| Cal Level: 4 , Cal Amount: 25.00000 | | |
| 31-MAR-2010 14:59 | AT09 | /chem/msdd.i/31mar10a.b/d033114.d |
| Cal Level: 5 , Cal Amount: 50.00000 | | |
| 31-MAR-2010 15:19 | AT09 | /chem/msdd.i/31mar10a.b/d033115.d |
| Cal Level: 6 , Cal Amount: 100.00000 | | |
| 31-MAR-2010 15:38 | AT09 | /chem/msdd.i/31mar10a.b/d033116.d |
| Cal Level: 7 , Cal Amount: 200.00000 | | |
| 31-MAR-2010 15:58 | AT09 | /chem/msdd.i/31mar10a.b/d033117.d |

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 5

| Ccal Level: 5 , Ccal Amount: 50.000 |
|---|

| 31-MAR-2010 15:19 | AT09 | /chem/msdd.i/31mar10a.b/d033115.d |
|---|---|---|
| Ccal Level: 5 , Ccal Amount: 50.000 | | |
| 31-MAR-2010 15:19 | AT09 | /chem/msdd.i/31mar10a.b/d033115a.d |

RA 3/31/10
JP 4/1/10

Air Toxics Ltd.

INITIAL CALIBRATION DATA

MDL: 12/11/09

1CAL: Ø out

Start Cal Date : 31-MAR-2010 13:49
End Cal Date : 31-MAR-2010 15:58
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msdd.i/31mar10a.b/d10q0331a.m
Cal Date : 31-Mar-2010 21:25 aburke
Curve Type : Average

1CAL LCS: Ø out
1911-277, 50ppbv (60ppbv)

Calibration File Names:
Level 1: /chem/msdd.i/31mar10a.b/d033111.d
Level 2: /chem/msdd.i/31mar10a.b/d033112.d
Level 3: /chem/msdd.i/31mar10a.b/d033113.d
Level 4: /chem/msdd.i/31mar10a.b/d033114.d
Level 5: /chem/msdd.i/31mar10a.b/d033115.d
Level 6: /chem/msdd.i/31mar10a.b/d033116.d
Level 7: /chem/msdd.i/31mar10a.b/d033117.d

OK for AFCEE

0.3ppbv: 1,2,4-TMB & 1,3,5-TMB

| Compound | 0.30000 Level 1 | 0.50000 Level 2 | 2.000 Level 3 | 25.000 Level 4 | 50.000 Level 5 | 100.000 Level 6 | 200.000 Level 7 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 1 Dimethyl Ether | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 2 Acetaldehyde | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 3 Freon 13 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 4 2-Methyl-1-Butene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 5 Freon 134a | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 6 Propylene | +++++ | +++++ | 0.84394 | 0.82806 | 0.77338 | 0.79752 | 0.77652 | 0.80388 | 3.889 |
| 7 Dichlorodifluoromethane/Fr12 | +++++ | 3.04338 | 3.07592 | 3.38328 | 3.15906 | 3.20485 | 3.11189 | 3.16306 | 3.867 |

## Initial Calibration Narrative

A 7 point initial calibration was analyzed on MSD-D on 03/31/10

The following compounds used 0.3 as the lowest calibration concentration:
1,3,5-Trimethylbenzene and 1,2,4-Trimethylbenzene.

@ Air Toxics Ltd.

# MSD-D

Logbook #: 1959

| m/z | ION ABUNDANCE CRITERIA | % REL. ABUNDANCE |
|---|---|---|
| 50 | 15.0 – 40.0% of mass 95 | 21.65 |
| 75 | 30.0 – 60.0% of mass 95 | 52.27 |
| 95 | Base peak, 100.00% relative abundance | 100.00 |
| 96 | 5.0 – 9.0% of mass 95 | 6.95 |
| 173 | Less than 2.0% of mass 174 | 0.42 ( 0.72 )[1] |
| 174 | 50.0 – 100% of mass 95 | 55.68 |
| 175 | 5.0 – 9.0% of mass 174 | 4.72 ( 8.05 )[1] |
| 176 | Greater than 95.0% but less than 101.0% of mass 174 | 56.34 96.00 )[1] |
| 177 | 5.0 – 9.0% of mass 176 | 3.81 6.76 )[2] |

[1] - value in parenthesis is % mass 174 [2] - value in parenthesis is % mass 176

BFB Injection Date: 3/31/10
BFB Injection Time: 1209
BFB File ID: D033108
Tekmar Purge Flow: 2
Vacuum: 5 3/31/10

| | |
|---|---|
| IS/S Std.#: | 1911-322 Exp. Date: 6/30/10 |
| BCM | 104005 |
| 1,4-DFB | 450386 |
| CB-d5 | 514163 |

*Verified CCV IS vs ICAL mid-point (- 40%D)* RA (initials)

**Verify 176/174 m/z Ratio:** (151552/157856)*100= 95.99% **NOAH Cart #:** N/A **File #:** N/A

**Calculation Check:**

ppbv of compound $= \frac{Area_{Sample}}{Area_{IS}} \times \frac{Conc._{IS}}{RRF} = \frac{(\quad)}{(\quad)} \times \frac{(\quad)}{(\quad)} =$

| | |
|---|---|
| File ID: | |
| Compound: | |
| Initials: | |

*Reported Result* _____

**Method:** ~~D10Q033L~~ 4/1/10

| | Use | File # | Sample / Client Name | Can # | Pressure | Amt Loaded | DF | Loaded by Init. | Date Analyzed | Time Analyzed | Reviewed by Init. | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ~~D033108~~ ~~3/31/10~~ | | | | | | | | | | |
| 1 | ✓ | ~~D033107~~ | BFB | 1911-322 | 36 ng | 1.0 mL | 1.00 | IS | 3/31/10 | 1209 | | |
| 2 | ✓ | D033109 | SYSTEM BLANK | 2427 | HUMID | 200 mL | " | " | " | 1246 | — | |
| 3 | ✓ | 10 | " | " | " | " | " | " | " | 1306 | — | |
| 4 | ✓ | 11 | ICAL Level 1 | 1911-328 | 0.3 ppbv | 30 mL | " | " | " | 1349 | | |
| 5 | ✓ | 12 | " 2 | 1911-328 | 0.5 | 50 mL | " | " | " | 1409 | | |
| 6 | ✓ | 13 | " 3 | " | 2.0 | 200 mL | " | " | " | 1428 | | |
| 7 | ✓ | 14 | " 4 | FI36-87 | 25 ppbv | 25 mL | 1.00 | RA | " | 1459 | | |
| 8 | ✓ | 15 | " 5 | ↓ | 50 ppbv | 50 mL | ↓ | RA | ↓ | 1519 | RA | |

Laura Overman

4/1/10
Date

@ Air Toxics Ltd. **MSD-D** Logbook #: 1959

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9 | ✓ | DO33116 | ICAL level 6 | 1936-87 | 100ppbv | 100mL | 1.00 | RA | | 3/31/10 | 1538 | RA | | |
| 10 | ✓ | 17 | ↓ 7 | ↓ | 200ppbv | 200mL | ↓ | RA | | 3/31/10 | 1558 | RA | | |
| 11 | X | 18 | System Blank | 24217 | Humid | 200mL | 1.00 | RA | | | 1624 | RA | — | |
| 12 | X | 19 | ↓ | ↓ | ↓ | ↓ | ↓ | RA | | | 1644 | RA | — | |
| 13 | ✓ | 20 | ↓ | ↓ | ↓ | ↓ | ↓ | RA | | | 1714 | RA | | |
| 14 | ✓ | 21 | LCS (200ppbv) | 1911-277 | 50ppbv | 50mL | 1.00 | RA | | | 1734 | RA | | Ø OUT |
| 15 | X | 22 | Lab Blank | 24217 | Humid | 200mL | 1.00 | RA | | | 1756 | RA | — | |
| 16 | X | 23 | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | | | 1827 | RA | — | |
| 17 | ✓ | 24 | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | | | 1847 | RA | | |
| 18 | ✓ | 25 | 1003597-01A | 1474 | 4.6"Hg-15psi | 200mL | 2.39 | RA | | | 1943 | RA | | |
| 19 | ✓ | 26 | -02A | 2076 | 3.2"Hg-15psi | 200mL | 226 | RA | | | 2003 | RA | | |
| 20 | ✓ | 27 | -03A | 33597 | 2.4"Hg-15psi | 200mL | 220 | RA | | | 2023 | RA | | |
| 21 | ✓ | 28 | 1003570-01A ~~0911~~ RA 3/31/10 | 33594 | ↓ | ↓ | ↓ | RA | | | 2043 | RA | | |
| 22 | ✓ | 29 | -02A | 2042 | 3"Hg-15psi | 200mL | 224 | RA | | | 2108 | RA | | |
| 23 | ✓ | 30 | -03A | 3016 | 0.1psi-15psi | 200mL | 200 | RA | | | 2128 | RA | | |
| 24 | ✓ | 31 | -04A | 11438 | 4.4"Hg-15psi | 200mL | 2.37 | RA | | | 2148 | RA | | |
| 25 | ✓ | 32 | -05A | 2067 | 2"Hg-15psi | 200mL | 2.16 | RA | | | 2208 | RA | | |
| 26 | ✓ | 33 | -06A | 1350 | 3"Hg-15psi | 200mL | 2.24 | RA | | | 2227 | RA | | |
| 27 | ✓ | 34 | -07A | 34582 | 1"Hg-15psi | 200mL | 2.09 | RA | | | 2250 | RA | | |
| 28 | ✓ | 35 | -08A | 35673 | 0.2"Hg-15psi | 200mL | 2.03 | RA | | | 2314 | RA | AER | |
| 29 | ✓ | 36 | -09A | 34594 | 0.4"Hg-15psi | 200mL | 2.05 | RA | | | 2340 | AER | | |
| 30 | ✓ | 37 | -09AA | ↓ | ↓ | ↓ | 2.05 | RA | | | 0000 | AER | | |
| 31 | | | | | | | | | | | | | | |

4/1/10

**Comments:**

Signature

4/1/10
Date

Air Toxics Ltd.
Modified EPA Methods TO-14A/TO-15
Internal Standard and Associated Target Compounds and Surrogates

| Bromochloromethane |
|---|
| **Target Compounds:** |
| Freon 12 |
| Freon 114 |
| Chloromethane |
| Vinyl Chloride |
| 1,3-Butadiene |
| Bromomethane |
| Chloroethane |
| Freon 11 |
| Ethanol |
| Freon 113 |
| 1,1-Dichloroethene |
| Acetone |
| 2-Propanol |
| Carbon Disulfide |
| 3-Chloropropene |
| Methylene Chloride |
| Methyl tert-butyl ether |
| trans-1,2-Dichloroethene |
| Hexane |
| 1,1-Dichloroethane |
| 2-Butanone (Methyl Ethyl Ketone) |
| cis-1,2-Dichloroethene |
| Tetrahydrofuran |
| Chloroform |
| 1,1,1-Trichloroethane |
| Cyclohexane |
| Carbon Tetrachloride |
| 2,2,4-Trimethylpentane |
| **Surrogates:** |
| 1,2-Dichloroethane-d4 |

| 1,4-Difluorobenzene |
|---|
| **Target Compounds:** |
| Benzene |
| 1,2-Dichloroethane |
| Heptane |
| Trichloroethene |
| 1,2-Dichloropropane |
| 1,4-Dioxane |
| Bromodichloromethane |
| cis-1,3-Dichloropropene |
| 4-Methyl-2-pentanone |
| Toluene |
| **Surrogates:** |
| Toluene-d8 |

| Chlorobenzene-d5 |
|---|
| **Target Compounds:** |
| trans-1,3-Dichloropropene |
| 1,1,2-Trichloroethane |
| Tetrachloroethene |
| 2-Hexanone |
| Dibromochloromethane |
| 1,2-Dibromoethane (EDB) |
| Chlorobenzene |
| Ethyl Benzene |
| m,p-Xylene |
| o-Xylene |
| Styrene |
| Bromoform |
| Cumene |
| 1,1,2,2-Tetrachloroethane |
| Propylbenzene |
| 4-Ethyltoluene |
| 1,3,5-Trimethylbenzene |
| 1,2,4-Trimethylbenzene |
| 1,3-Dichlorobenzene |
| 1,4-Dichlorobenzene |
| alpha-Chlorotoluene |
| 1,2-Dichlorobenzene |
| 1,2,4-Trichlorobenzene |
| Hexachlorobutadiene |
| **Surrogates:** |
| Bromofluorobenzene |

Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msdd.i/31mar10a.b/d033121.d
Lab Smp Id: LCS Client Smp ID: LCS
Inj Date : 31-MAR-2010 17:34
Operator : ra Inst ID: msdd.i
Smp Info : 50ml #1911-277
Misc Info : 50ppbv(200ppbv)
Comment :
Method : /chem/msdd.i/31mar10a.b/d10q0331a.m
Meth Date : 31-Mar-2010 16:26 aburke Quant Type: ISTD
Cal Date : 31-MAR-2010 15:58 Cal File: d033117.d
Als bottle: 3 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT09.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| | | | | | CONCENTRATIONS ON-COL | FINAL | | |
|---|---|---|---|---|---|---|---|---|
| RT | EXP RT (REL RT) | MASS | RESPONSE | ( PPBV) | ( PPBV) | TARGET RANGE | | RATIO |
| == | ====== ======== | ==== | ======== | ======= | ======= | ========== | | ===== |
| * 79 Bromochloromethane | | | | | | CAS #: 74-97-5 | | |
| 4.590 | 4.576 (1.000) | 130 | 103381 | 25.0000 | | 80.00- 120.00 | | 100.00 |
| 4.590 | 4.576 (1.000) | 128 | 80959 | | | 27.50- 127.50 | | 78.31 |
| 4.583 | 4.576 (1.000) | 49 | 184114 | | | 124.89- 224.89 | | 178.09 |
| * 100 1,4-Difluorobenzene | | | | | | CAS #: 540-36-3 | | |
| 5.514 | 5.507 (1.000) | 114 | 457985 | 25.0000 | | 80.00- 120.00 | | 100.00 |
| 5.514 | 5.507 (1.000) | 88 | 82479 | | | 0.00- 68.55 | | 18.01 |
| * 134 Chlorobenzene-d5 | | | | | | CAS #: 3114-55-4 | | |
| 7.964 | 7.950 (1.000) | 117 | 512396 | 25.0000 | | 80.00- 120.00 | | 100.00 |
| 7.964 | 7.950 (1.000) | 82 | 320299 | | | 12.92- 112.92 | | 62.51 |
| $ 91 1,2-Dichloroethane-d4 | | | | | | CAS #: 17060-07-0 | | |
| 5.141 | 5.127 (1.120) | 65 | 211752 | 25.2594 | 25.259 | 80.00- 120.00 | | 100.00 |
| 5.141 | 5.127 (1.120) | 67 | 115865 | | | 2.15- 102.15 | | 54.72 |
| $ 114 Toluene-d8 | | | | | | CAS #: 2037-26-5 | | |
| 6.746 | 6.732 (1.223) | 98 | 559445 | 24.6270 | 24.627 | 80.00- 120.00 | | 100.00 |
| 6.746 | 6.732 (1.223) | 70 | 68780 | | | 0.00- 62.20 | | 12.29 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 114 Toluene-d8 (continued) | | | | | | | |
| 6.746 | 6.732 (1.223) | 100 | 369161 | | | 15.58- 115.58 | 65.99 |
| $ 149 Bromofluorobenzene | | | | | CAS #: 460-00-4 | | |
| 8.945 | 8.931 (1.123) | 174 | 260757 | 24.8899 | 24.890 | 80.00- 120.00 | 100.00 |
| 8.945 | 8.924 (1.123) | 95 | 448729 | | | 119.71- 219.71 | 172.09 |
| 8.945 | 8.931 (1.123) | 176 | 251674 | | | 45.58- 145.58 | 96.52 |
| 6 Propylene | | | | | CAS #: 115-07-1 | | |
| 1.153 | 1.153 (0.251) | 41 | 155057 | 46.6443 | 46.644 | 80.00- 120.00 | 100.00 |
| 1.153 | 1.153 (0.251) | 42 | 101053 | | | 14.09- 114.09 | 65.17 |
| 1.153 | 1.153 (0.251) | 39 | 121502 | | | 29.45- 129.45 | 78.36 |
| 7 Dichlorodifluoromethane/Fr12 | | | | | CAS #: 75-71-8 | | |
| 1.167 | 1.167 (0.254) | 85 | 669525 | 51.1868 | 51.187 | 80.00- 120.00 | 100.00 |
| 1.167 | 1.167 (0.254) | 87 | 217725 | | | 0.00- 82.88 | 32.52 |
| 10 Freon 114 | | | | | CAS #: 76-14-2 | | |
| 1.264 | 1.265 (0.275) | 135 | 354859 | 49.3591 | 49.359 | 80.00- 120.00 | 100.00 |
| 1.264 | 1.265 (0.275) | 137 | 114666 | | | 0.00- 82.54 | 32.31 |
| 13 Chloromethane | | | | | CAS #: 74-87-3 | | |
| 1.320 | 1.321 (0.288) | 50 | 146842 | 50.5511 | 50.551 | 80.00- 120.00 | 100.00 |
| 1.320 | 1.321 (0.288) | 52 | 47830 | | | 0.00- 83.02 | 32.57 |
| 14 Butane | | | | | CAS #: 106-97-8 | | |
| 1.376 | 1.377 (0.300) | 58 | 43025 | 51.0229 | 51.023 | 80.00- 120.00 | 100.00 |
| 1.376 | 1.377 (0.300) | 43 | 313008 | | | 701.77- 801.77 | 727.50 |
| 15 Vinyl Chloride | | | | | CAS #: 75-01-4 | | |
| 1.404 | 1.405 (0.306) | 62 | 231324 | 56.8797 | 56.880 | 80.00- 120.00 | 100.00 |
| 1.404 | 1.405 (0.306) | 64 | 75259 | | | 0.00- 97.20 | 32.53 |
| 18 1,3-Butadiene | | | | | CAS #: 106-99-0 | | |
| 1.432 | 1.433 (0.312) | 54 | 182192 | 52.6461 | 52.646 | 80.00- 120.00 | 100.00 |
| 1.418 | 1.433 (0.309) | 39 | 212023 | | | 75.63- 175.63 | 116.37 |
| 24 Bromomethane | | | | | CAS #: 74-83-9 | | |
| 1.670 | 1.684 (0.364) | 94 | 193451 | 50.3905 | 50.390 | 80.00- 120.00 | 100.00 |
| 1.670 | 1.684 (0.364) | 96 | 181158 | | | 44.64- 144.64 | 93.65 |
| 25 Chloroethane | | | | | CAS #: 75-00-3 | | |
| 1.754 | 1.754 (0.382) | 64 | 127064 | 48.4948 | 48.495 | 80.00- 120.00 | 100.00 |
| 1.754 | 1.754 (0.382) | 66 | 40980 | | | 0.00- 86.90 | 32.25 |
| 1.754 | 1.754 (0.382) | 49 | 35944 | | | 0.00- 78.42 | 28.29 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 26 Isopentane | | | | | CAS #: 78-78-4 | | |
| 1.782 | 1.782 (0.388) | 43 | 275357 | 50.5563 | 50.556 | 80.00- 120.00 | 100.00 |
| 1.782 | 1.782 (0.388) | 57 | 196862 | | | 20.70- 120.70 | 71.49 |
| 28 Trichlorofluoromethane/Fr11 | | | | | CAS #: 75-69-4 | | |
| 1.950 | 1.950 (0.425) | 101 | 733793 | 53.1098 | 53.110 | 80.00- 120.00 | 100.00 |
| 1.950 | 1.950 (0.425) | 103 | 432600 | | | 15.00- 115.00 | 58.95 |
| 29 Ethanol | | | | | CAS #: 64-17-5 | | |
| 2.162 | 2.162 (0.471) | 45 | 81377 | 47.4183 | 47.418 | 80.00- 120.00 | 100.00 |
| 2.162 | 2.162 (0.471) | 43 | 19227 | | | 0.00- 76.61 | 23.63 |
| 2.162 | 2.162 (0.471) | 46 | 30928 | | | 0.00- 88.16 | 38.01 |
| 33 Freon 113 | | | | | CAS #: 76-13-1 | | |
| 2.412 | 2.413 (0.526) | 151 | 280915 | 44.8576 | 44.858 | 80.00- 120.00 | 100.00 |
| 2.412 | 2.413 (0.526) | 153 | 178974 | | | 13.28- 113.28 | 63.71 |
| 2.412 | 2.413 (0.526) | 101 | 415793 | | | 96.44- 196.44 | 148.01 |
| 34 1,1-Dichloroethene | | | | | CAS #: 75-35-4 | | |
| 2.427 | 2.434 (0.529) | 98 | 123723 | 45.0179 | 45.018 | 80.00- 120.00 | 100.00 |
| 2.427 | 2.434 (0.529) | 96 | 192576 | | | 106.89- 206.89 | 155.65 |
| 2.427 | 2.427 (0.529) | 61 | 389438 | | | 263.25- 363.25 | 314.77 |
| 38 Acetone | | | | | CAS #: 67-64-1 | | |
| 2.541 | 2.541 (0.554) | 58 | 106584 | 48.4277 | 48.428 | 80.00- 120.00 | 100.00 |
| 2.541 | 2.541 (0.554) | 43 | 381553 | | | 327.54- 427.54 | 357.98 |
| 40 Carbon Disulfide | | | | | CAS #: 75-15-0 | | |
| 2.627 | 2.627 (0.572) | 76 | 633246 | 47.3307 | 47.331 | 80.00- 120.00 | 100.00 |
| 41 2-Propanol | | | | | CAS #: 67-63-0 | | |
| 2.685 | 2.685 (0.585) | 45 | 362618 | 47.8879 | 47.888 | 80.00- 120.00 | 100.00 |
| 2.677 | 2.685 (0.583) | 43 | 85057 | | | 0.00- 72.17 | 23.46 |
| 2.677 | 2.685 (0.583) | 59 | 14256 | | | 0.00- 85.00 | 3.93 |
| 44 3-Chloropropene | | | | | CAS #: 107-05-1 | | |
| 2.835 | 2.835 (0.618) | 76 | 102606 | 49.0804 | 49.080 | 80.00- 120.00 | 100.00 |
| 2.828 | 2.828 (0.616) | 41 | 300221 | | | 245.26- 345.26 | 292.60 |
| 46 Methylene Chloride | | | | | CAS #: 75-09-2 | | |
| 3.000 | 3.000 (0.654) | 49 | 262949 | 46.6478 | 46.648 | 80.00- 120.00 | 100.00 |
| 3.000 | 3.000 (0.654) | 84 | 177406 | | | 18.14- 118.14 | 67.47 |
| 3.000 | 3.000 (0.654) | 51 | 80051 | | | 0.00- 80.39 | 30.44 |
| 48 tert-Butyl-Alcohol | | | | | CAS #: 75-65-0 | | |
| 3.136 | 3.136 (0.683) | 59 | 464716 | 50.0999 | 50.100 | 80.00- 120.00 | 100.00 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 48 tert-Butyl-Alcohol (continued) | | | | | | | |
| 3.136 | 3.136 (0.683) | 41 | 127633 | | | 0.00- 83.59 | 27.46 |
| 3.136 | 3.136 (0.683) | 57 | 50765 | | | 0.00- 57.49 | 10.92 |
| 50 MTBE | | | | | CAS #: 1634-04-4 | | |
| 3.243 | 3.243 (0.707) | 73 | 679688 | 50.4532 | 50.453 | 80.00- 120.00 | 100.00 |
| 3.243 | 3.243 (0.707) | 57 | 158179 | | | 0.00- 72.69 | 23.27 |
| 3.243 | 3.243 (0.707) | 41 | 165280 | | | 0.00- 75.17 | 24.32 |
| 52 trans-1,2-Dichloroethene | | | | | CAS #: 156-60-5 | | |
| 3.258 | 3.258 (0.710) | 98 | 145428 | 51.0018 | 51.002 | 80.00- 120.00 | 100.00 |
| 3.258 | 3.258 (0.710) | 61 | 385203 | | | 215.31- 315.31 | 264.88 |
| 3.258 | 3.258 (0.710) | 96 | 227520 | | | 114.13- 214.13 | 156.45 |
| 58 Hexane | | | | | CAS #: 110-54-3 | | |
| 3.487 | 3.487 (0.760) | 57 | 407775 | 51.0474 | 51.047 | 80.00- 120.00 | 100.00 |
| 3.487 | 3.487 (0.760) | 43 | 256608 | | | 19.39- 119.39 | 62.93 |
| 3.487 | 3.480 (0.760) | 86 | 63459 | | | 0.00- 69.00 | 15.56 |
| 63 Isopropyl ether | | | | | CAS #: 108-20-3 | | |
| 3.773 | 3.766 (0.822) | 45 | 953476 | 51.4275 | 51.427 | 80.00- 120.00 | 100.00 |
| 3.773 | 3.766 (0.822) | 87 | 227150 | | | 0.00- 73.47 | 23.82 |
| 3.773 | 3.766 (0.822) | 59 | 104710 | | | 0.00- 60.91 | 10.98 |
| 64 1,1-Dichloroethane | | | | | CAS #: 75-34-3 | | |
| 3.759 | 3.752 (0.819) | 63 | 485359 | 49.1134 | 49.113 | 80.00- 120.00 | 100.00 |
| 3.759 | 3.752 (0.819) | 65 | 153704 | | | 0.00- 81.84 | 31.67 |
| 65 Vinyl Acetate | | | | | CAS #: 108-05-4 | | |
| 3.809 | 3.809 (0.830) | 86 | 58317 | 51.6366 | 51.637 | 80.00- 120.00 | 100.00 |
| 3.809 | 3.802 (0.830) | 43 | 1124875 | | | 1533.22-1633.22 | 1928.90 |
| 72 t-Butylethyl Ether | | | | | CAS #: 637-92-3 | | |
| 4.139 | 4.132 (0.902) | 59 | 897599 | 51.3641 | 51.364 | 80.00- 120.00 | 100.00 |
| 4.139 | 4.139 (0.902) | 87 | 339195 | | | 0.00- 87.49 | 37.79 |
| 4.139 | 4.132 (0.902) | 41 | 178520 | | | 0.00- 70.38 | 19.89 |
| 74 cis-1,2-Dichloroethene | | | | | CAS #: 156-59-2 | | |
| 4.354 | 4.347 (0.948) | 98 | 160227 | 49.5386 | 49.539 | 80.00- 120.00 | 100.00 |
| 4.354 | 4.347 (0.948) | 96 | 249793 | | | 105.04- 205.04 | 155.90 |
| 4.354 | 4.347 (0.948) | 61 | 396470 | | | 194.70- 294.70 | 247.44 |
| 75 2-Butanone | | | | | CAS #: 78-93-3 | | |
| 4.389 | 4.382 (0.956) | 72 | 131613 | 52.9375 | 52.938 | 80.00- 120.00 | 100.00 |
| 4.389 | 4.382 (0.956) | 43 | 600502 | | | 399.09- 499.09 | 456.26 |
| 4.389 | 4.382 (0.956) | 57 | 47009 | | | 29.81- 129.81 | 35.72 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 78 Tetrahydrofuran | | | | | CAS #: 109-99-9 | | |
| 4.590 | 4.583 (1.000) | 42 | 323356 | 50.4421 | 50.442 | 80.00- 120.00 | 100.00 |
| 4.590 | 4.583 (1.000) | 71 | 116633 | | | 0.00- 85.98 | 36.07 |
| 4.590 | 4.583 (1.000) | 72 | 123232 | | | 0.00- 86.75 | 38.11 |
| 80 Chloroform | | | | | CAS #: 67-66-3 | | |
| 4.662 | 4.655 (1.016) | 83 | 580915 | 49.2739 | 49.274 | 80.00- 120.00 | 100.00 |
| 4.662 | 4.655 (1.016) | 85 | 374960 | | | 14.07- 114.07 | 64.55 |
| 83 Cyclohexane | | | | | CAS #: 110-82-7 | | |
| 4.769 | 4.762 (1.039) | 84 | 362021 | 50.1801 | 50.180 | 80.00- 120.00 | 100.00 |
| 4.769 | 4.762 (1.039) | 56 | 461241 | | | 76.68- 176.68 | 127.41 |
| 4.769 | 4.762 (1.039) | 41 | 267861 | | | 23.44- 123.44 | 73.99 |
| 85 1,1,1-Trichloroethane | | | | | CAS #: 71-55-6 | | |
| 4.790 | 4.776 (1.044) | 97 | 594161 | 49.6257 | 49.626 | 80.00- 120.00 | 100.00 |
| 4.790 | 4.776 (1.044) | 99 | 383316 | | | 13.90- 113.90 | 64.51 |
| 86 Carbon Tetrachloride | | | | | CAS #: 56-23-5 | | |
| 4.905 | 4.891 (1.069) | 119 | 553080 | 52.0285 | 52.028 | 80.00- 120.00 | 100.00 |
| 4.905 | 4.891 (1.069) | 117 | 572004 | | | 53.91- 153.91 | 103.42 |
| 89 2,2,4-Trimethylpentane | | | | | CAS #: 540-84-1 | | |
| 5.134 | 5.120 (1.119) | 57 | 1512563 | 50.6778 | 50.678 | 80.00- 120.00 | 100.00 |
| 5.134 | 5.120 (1.119) | 56 | 472973 | | | 0.00- 81.50 | 31.27 |
| 5.134 | 5.120 (1.119) | 41 | 394726 | | | 0.00- 77.21 | 26.10 |
| 90 Benzene | | | | | CAS #: 71-43-2 | | |
| 5.120 | 5.113 (0.929) | 78 | 850798 | 48.5565 | 48.556 | 80.00- 120.00 | 100.00 |
| 5.120 | 5.113 (0.929) | 77 | 199184 | | | 0.00- 73.17 | 23.41 |
| 93 tert-amyl-Methyl Ether | | | | | CAS #: 994-05-8 | | |
| 5.220 | 5.206 (1.137) | 73 | 805799 | 50.7757 | 50.776 | 80.00- 120.00 | 100.00 |
| 5.220 | 5.206 (1.137) | 87 | 197901 | | | 0.00- 74.24 | 24.56 |
| 5.220 | 5.206 (1.137) | 55 | 273491 | | | 0.00- 83.70 | 33.94 |
| 94 1,2-Dichloroethane | | | | | CAS #: 107-06-2 | | |
| 5.213 | 5.199 (0.945) | 62 | 460233 | 48.6314 | 48.631 | 80.00- 120.00 | 100.00 |
| 5.213 | 5.199 (0.945) | 64 | 147366 | | | 0.00- 83.10 | 32.02 |
| 95 Heptane | | | | | CAS #: 142-82-5 | | |
| 5.306 | 5.299 (0.962) | 71 | 319999 | 50.0391 | 50.039 | 80.00- 120.00 | 100.00 |
| 5.306 | 5.299 (0.962) | 43 | 597359 | | | 146.63- 246.63 | 186.68 |
| 5.306 | 5.299 (0.962) | 57 | 327724 | | | 54.79- 154.79 | 102.41 |
| 104 Trichloroethene | | | | | CAS #: 79-01-6 | | |
| 5.707 | 5.693 (1.035) | 95 | 381273 | 48.1141 | 48.114 | 80.00- 120.00 | 100.00 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 104 Trichloroethene (continued) | | | | | | | |
| 5.707 | 5.693 (1.035) | 130 | 341166 | | | 37.87- 137.87 | 89.48 |
| 5.707 | 5.693 (1.035) | 97 | 252614 | | | 14.69- 114.69 | 66.26 |
| 105 Methyl Cyclohexane | | | | | CAS #: 108-87-2 | | |
| 5.815 | 5.801 (1.267) | 83 | 545553 | 50.8034 | 50.803 | 80.00- 120.00 | 100.00 |
| 5.815 | 5.801 (1.267) | 98 | 255134 | | | 0.00- 96.57 | 46.77 |
| 5.815 | 5.801 (1.267) | 55 | 481183 | | | 39.57- 139.57 | 88.20 |
| 106 1,2-Dichloropropane | | | | | CAS #: 78-87-5 | | |
| 5.944 | 5.930 (1.078) | 63 | 365994 | 49.8827 | 49.883 | 80.00- 120.00 | 100.00 |
| 5.944 | 5.930 (1.078) | 62 | 261228 | | | 21.89- 121.89 | 71.37 |
| 5.944 | 5.930 (1.078) | 41 | 225204 | | | 11.07- 111.07 | 61.53 |
| 107 1,4-Dioxane | | | | | CAS #: 123-91-1 | | |
| 6.044 | 6.030 (1.096) | 88 | 199125 | 47.7877 | 47.788 | 80.00- 120.00 | 100.00 |
| 6.044 | 6.023 (1.096) | 58 | 151056 | | | 26.63- 126.63 | 75.86 |
| 6.037 | 6.023 (1.095) | 57 | 50924 | | | 0.00- 76.30 | 25.57 |
| 108 Bromodichloromethane | | | | | CAS #: 75-27-4 | | |
| 6.180 | 6.166 (1.121) | 83 | 702915 | 49.4210 | 49.421 | 80.00- 120.00 | 100.00 |
| 6.180 | 6.166 (1.121) | 85 | 453935 | | | 14.18- 114.18 | 64.58 |
| 110 cis-1,3-Dichloropropene | | | | | CAS #: 10061-01-5 | | |
| 6.567 | 6.546 (1.191) | 75 | 563008 | 50.8271 | 50.827 | 80.00- 120.00 | 100.00 |
| 6.567 | 6.546 (1.191) | 77 | 174945 | | | 0.00- 81.33 | 31.07 |
| 6.560 | 6.546 (1.190) | 39 | 310941 | | | 5.35- 105.35 | 55.23 |
| 112 4-Methyl-2-pentanone | | | | | CAS #: 108-10-1 | | |
| 6.689 | 6.675 (1.213) | 58 | 317411 | 48.6021 | 48.602 | 80.00- 120.00 | 100.00 |
| 6.689 | 6.675 (1.213) | 43 | 871719 | | | 224.75- 324.75 | 274.63 |
| 6.689 | 6.675 (1.213) | 85 | 127631 | | | 0.00- 89.27 | 40.21 |
| 115 Toluene | | | | | CAS #: 108-88-3 | | |
| 6.803 | 6.789 (1.234) | 91 | 1098961 | 47.0625 | 47.062 | 80.00- 120.00 | 100.00 |
| 6.803 | 6.789 (1.234) | 92 | 653931 | | | 8.97- 108.97 | 59.50 |
| 118 trans-1,3-Dichloropropene | | | | | CAS #: 10061-02-6 | | |
| 7.047 | 7.033 (0.885) | 75 | 597618 | 52.6450 | 52.645 | 80.00- 120.00 | 100.00 |
| 7.047 | 7.033 (0.885) | 77 | 187784 | | | 0.00- 81.46 | 31.42 |
| 7.047 | 7.033 (0.885) | 39 | 305284 | | | 1.00- 101.00 | 51.08 |
| 120 1,1,2-Trichloroethane | | | | | CAS #: 79-00-5 | | |
| 7.197 | 7.183 (0.904) | 97 | 409689 | 51.7107 | 51.711 | 80.00- 120.00 | 100.00 |
| 7.197 | 7.183 (0.904) | 99 | 250536 | | | 12.13- 112.13 | 61.15 |
| 7.197 | 7.183 (0.904) | 83 | 364896 | | | 39.12- 139.12 | 89.07 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 122 Tetrachloroethene | | | | | CAS #: 127-18-4 | | |
| 7.233 | 7.219 (0.908) | 166 | 440742 | 49.6433 | 49.643 | 80.00- 120.00 | 100.00 |
| 7.233 | 7.219 (0.908) | 129 | 368674 | | | 33.74- 133.74 | 83.65 |
| 7.233 | 7.219 (0.908) | 131 | 348869 | | | 29.11- 129.11 | 79.15 |
| 125 2-Hexanone | | | | | CAS #: 591-78-6 | | |
| 7.384 | 7.369 (0.927) | 58 | 454163 | 49.8224 | 49.822 | 80.00- 120.00 | 100.00 |
| 7.384 | 7.369 (0.927) | 43 | 893178 | | | 144.27- 244.27 | 196.66 |
| 7.384 | 7.369 (0.927) | 100 | 85384 | | | 0.00- 68.42 | 18.80 |
| 128 Dibromochloromethane | | | | | CAS #: 124-48-1 | | |
| 7.498 | 7.484 (0.942) | 129 | 647924 | 51.9116 | 51.912 | 80.00- 120.00 | 100.00 |
| 7.498 | 7.484 (0.942) | 127 | 502837 | | | 27.80- 127.80 | 77.61 |
| 130 1,2-Dibromoethane | | | | | CAS #: 106-93-4 | | |
| 7.606 | 7.591 (0.955) | 107 | 649670 | 52.5717 | 52.572 | 80.00- 120.00 | 100.00 |
| 7.606 | 7.591 (0.955) | 109 | 613752 | | | 43.98- 143.98 | 94.47 |
| 135 Chlorobenzene | | | | | CAS #: 108-90-7 | | |
| 7.992 | 7.978 (1.004) | 112 | 927569 | 48.6212 | 48.621 | 80.00- 120.00 | 100.00 |
| 7.992 | 7.978 (1.004) | 114 | 298484 | | | 0.00- 82.17 | 32.18 |
| 7.992 | 7.971 (1.004) | 77 | 626958 | | | 17.19- 117.19 | 67.59 |
| 137 Ethyl Benzene | | | | | CAS #: 100-41-4 | | |
| 8.050 | 8.036 (1.011) | 106 | 505215 | 52.2627 | 52.263 | 80.00- 120.00 | 100.00 |
| 8.050 | 8.036 (1.011) | 91 | 1666312 | | | 290.13- 390.13 | 329.82 |
| 140 m,p-Xylene | | | | | CAS #: 108-38-3 | | |
| 8.150 | 8.136 (1.023) | 106 | 637417 | 51.1709 | 51.171 | 80.00- 120.00 | 100.00 |
| 8.150 | 8.136 (1.023) | 91 | 1318340 | | | 156.72- 256.72 | 206.83 |
| 141 o-Xylene | | | | | CAS #: 95-47-6 | | |
| 8.487 | 8.465 (1.066) | 106 | 597564 | 50.6377 | 50.638 | 80.00- 120.00 | 100.00 |
| 8.487 | 8.465 (1.066) | 91 | 1310762 | | | 167.04- 267.04 | 219.35 |
| 142 Styrene | | | | | CAS #: 100-42-5 | | |
| 8.501 | 8.487 (1.067) | 104 | 973072 | 50.2993 | 50.299 | 80.00- 120.00 | 100.00 |
| 8.501 | 8.487 (1.067) | 78 | 535484 | | | 5.01- 105.01 | 55.03 |
| 145 Bromoform | | | | | CAS #: 75-25-2 | | |
| 8.680 | 8.666 (1.090) | 173 | 527407 | 51.7177 | 51.718 | 80.00- 120.00 | 100.00 |
| 8.680 | 8.666 (1.090) | 171 | 275990 | | | 1.61- 101.61 | 52.33 |
| 147 Cumene | | | | | CAS #: 98-82-8 | | |
| 8.773 | 8.759 (1.102) | 105 | 1789468 | 49.8847 | 49.885 | 80.00- 120.00 | 100.00 |
| 8.773 | 8.759 (1.102) | 120 | 449630 | | | 0.00- 75.25 | 25.13 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 147 Cumene (continued) | | | | | | | |
| 8.773 | 8.759 (1.102) | 51 | 207346 | | | 0.00- 62.26 | 11.59 |
| 151 1,1,2,2-Tetrachloroethane | | | | | CAS #: 79-34-5 | | |
| 9.081 | 9.067 (1.140) | 83 | 1013133 | 51.2525 | 51.252 | 80.00- 120.00 | 100.00 |
| 9.081 | 9.067 (1.140) | 85 | 650975 | | | 14.71- 114.71 | 64.25 |
| 153 Propylbenzene | | | | | CAS #: 103-65-1 | | |
| 9.110 | 9.096 (1.144) | 91 | 2272127 | 49.8833 | 49.883 | 80.00- 120.00 | 100.00 |
| 9.117 | 9.096 (1.145) | 120 | 484899 | | | 0.00- 71.30 | 21.34 |
| 9.117 | 9.096 (1.145) | 105 | 79909 | | | 0.00- 68.74 | 3.52 |
| 155 4-Ethyltoluene | | | | | CAS #: 622-96-8 | | |
| 9.210 | 9.189 (1.157) | 120 | 543051 | 50.6509 | 50.651 | 80.00- 120.00 | 100.00 |
| 9.210 | 9.189 (1.157) | 105 | 1909119 | | | 302.71- 402.71 | 351.55 |
| 156 1,3,5-Trimethylbenzene | | | | | CAS #: 108-67-8 | | |
| 9.260 | 9.246 (1.163) | 120 | 754134 | 52.2852 | 52.285 | 80.00- 120.00 | 100.00 |
| 9.260 | 9.246 (1.163) | 105 | 1584790 | | | 160.53- 260.53 | 210.15 |
| 162 1,2,4-Trimethylbenzene | | | | | CAS #: 95-63-6 | | |
| 9.575 | 9.561 (1.202) | 120 | 678947 | 50.5968 | 50.597 | 80.00- 120.00 | 100.00 |
| 9.575 | 9.554 (1.202) | 105 | 1524995 | | | 174.98- 274.98 | 224.61 |
| 165 1,3-Dichlorobenzene | | | | | CAS #: 541-73-1 | | |
| 9.833 | 9.819 (1.235) | 146 | 885884 | 49.5403 | 49.540 | 80.00- 120.00 | 100.00 |
| 9.833 | 9.819 (1.235) | 148 | 564369 | | | 13.36- 113.36 | 63.71 |
| 9.833 | 9.819 (1.235) | 111 | 402988 | | | 0.00- 95.45 | 45.49 |
| 166 1,4-Dichlorobenzene | | | | | CAS #: 106-46-7 | | |
| 9.912 | 9.898 (1.245) | 146 | 913556 | 50.0699 | 50.070 | 80.00- 120.00 | 100.00 |
| 9.912 | 9.898 (1.245) | 148 | 578537 | | | 13.03- 113.03 | 63.33 |
| 9.912 | 9.898 (1.245) | 111 | 400397 | | | 0.00- 93.63 | 43.83 |
| 168 alpha-Chlorotoluene | | | | | CAS #: 100-44-7 | | |
| 10.027 | 10.020 (1.259) | 91 | 1163344 | 47.1748 | 47.175 | 80.00- 120.00 | 100.00 |
| 10.034 | 10.020 (1.260) | 126 | 209484 | | | 0.00- 67.76 | 18.01 |
| 171 1,2-Dichlorobenzene | | | | | CAS #: 95-50-1 | | |
| 10.227 | 10.213 (1.284) | 146 | 834175 | 50.6314 | 50.631 | 80.00- 120.00 | 100.00 |
| 10.227 | 10.213 (1.284) | 148 | 525530 | | | 13.23- 113.23 | 63.00 |
| 10.227 | 10.213 (1.284) | 111 | 393719 | | | 0.00- 97.35 | 47.20 |
| 174 1,2,4-Trichlorobenzene | | | | | CAS #: 120-82-1 | | |
| 11.531 | 11.524 (1.448) | 180 | 609628 | 47.7448 | 47.745 | 80.00- 120.00 | 100.00 |
| 11.531 | 11.524 (1.448) | 182 | 574362 | | | 44.30- 144.30 | 94.22 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 175 Hexachlorobutadiene | | | | | CAS #: 87-68-3 | | |
| 11.624 | 11.617 (1.460) | 225 | 433614 | 50.3949 | 50.395 | 80.00- 120.00 | 100.00 |
| 11.624 | 11.617 (1.460) | 223 | 274897 | | | 14.17- 114.17 | 63.40 |
| 176 Naphthalene | | | | | CAS #: 91-20-3 | | |
| 11.753 | 11.746 (1.476) | 128 | 1461956 | 43.4552 | 43.455 | 80.00- 120.00 | 100.00 |
| 11.753 | 11.746 (1.476) | 127 | 184855 | | | 0.00- 62.93 | 12.64 |

Report Date: 31-Mar-2010 17:56

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdd.i
Lab File ID: d033121.d
Lab Smp Id: LCS
Analysis Type: VOA
Quant Type: ISTD
Operator: ra
Method File: /chem/msdd.i/31mar10a.b/d10q0331a.m
Misc Info: 50ppbv(200ppbv)

Calibration Date: 31-MAR-2010
Calibration Time: 15:19
Client Smp ID: LCS
Level: LOW
Sample Type: AIR

| | | AREA LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 79 Bromochloromethan | 104005 | 62403 | 145607 | 103381 | -0.60 |
| 100 1,4-Difluorobenze | 450386 | 270232 | 630540 | 457985 | 1.69 |
| 134 Chlorobenzene-d5 | 514163 | 308498 | 719828 | 512396 | -0.34 |

| | | RT LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 79 Bromochloromethan | 4.58 | 4.25 | 4.91 | 4.59 | 0.31 |
| 100 1,4-Difluorobenze | 5.51 | 5.18 | 5.84 | 5.51 | 0.13 |
| 134 Chlorobenzene-d5 | 7.95 | 7.62 | 8.28 | 7.96 | 0.18 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Report Date: 31-Mar-2010 17:56

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: 31mar10a
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: LCS Client Smp ID: LCS
Level: LOW Operator: ra
Data Type: MS DATA SampleType: LCS
SpikeList File: 2926spectra.spk Quant Type: ISTD
Sublist File: AT09.sub
Method File: /chem/msdd.i/31mar10a.b/d10q0331a.m
Misc Info: 50ppbv(200ppbv)

| | SPIKE COMPOUND | CONC ADDED PPBV | CONC RECOVERED PPBV | % RECOVERED | LIMITS |
|---|---|---|---|---|---|
| 6 | Propylene | 50.000 | 46.644 | 93.29 | 60-140 |
| 7 | Dichlorodifluorome | 50.000 | 51.187 | 102.37 | 70-130 |
| 10 | Freon 114 | 50.000 | 49.359 | 98.72 | 70-130 |
| 13 | Chloromethane | 50.000 | 50.551 | 101.10 | 70-130 |
| 15 | Vinyl Chloride | 50.000 | 56.880 | 113.76 | 70-130 |
| 18 | 1,3-Butadiene | 50.000 | 52.646 | 105.29 | 60-140 |
| 24 | Bromomethane | 50.000 | 50.390 | 100.78 | 70-130 |
| 25 | Chloroethane | 50.000 | 48.495 | 96.99 | 70-130 |
| 28 | Trichlorofluoromet | 50.000 | 53.110 | 106.22 | 70-130 |
| 29 | Ethanol | 50.000 | 47.418 | 94.84 | 60-140 |
| 33 | Freon 113 | 50.000 | 44.858 | 89.72 | 70-130 |
| 34 | 1,1-Dichloroethene | 50.000 | 45.018 | 90.04 | 70-130 |
| 38 | Acetone | 50.000 | 48.428 | 96.86 | 60-140 |
| 40 | Carbon Disulfide | 50.000 | 47.331 | 94.66 | 60-140 |
| 41 | 2-Propanol | 50.000 | 47.888 | 95.78 | 60-140 |
| 46 | Methylene Chloride | 50.000 | 46.648 | 93.30 | 70-130 |
| 50 | MTBE | 50.000 | 50.453 | 100.91 | 60-140 |
| 52 | trans-1,2-Dichloro | 50.000 | 51.002 | 102.00 | 60-140 |
| 58 | Hexane | 50.000 | 51.047 | 102.09 | 60-140 |
| 65 | Vinyl Acetate | 50.000 | 51.637 | 103.27 | 60-140 |
| 64 | 1,1-Dichloroethane | 50.000 | 49.113 | 98.23 | 70-130 |
| 74 | cis-1,2-Dichloroet | 50.000 | 49.539 | 99.08 | 70-130 |
| 75 | 2-Butanone | 50.000 | 52.938 | 105.88 | 60-140 |
| 78 | Tetrahydrofuran | 50.000 | 50.442 | 100.88 | 60-140 |
| 80 | Chloroform | 50.000 | 49.274 | 98.55 | 70-130 |
| 83 | Cyclohexane | 50.000 | 50.180 | 100.36 | 60-140 |
| 85 | 1,1,1-Trichloroeth | 50.000 | 49.626 | 99.25 | 70-130 |
| 86 | Carbon Tetrachlori | 50.000 | 52.028 | 104.06 | 70-130 |
| 90 | Benzene | 50.000 | 48.556 | 97.11 | 70-130 |
| 94 | 1,2-Dichloroethane | 50.000 | 48.631 | 97.26 | 70-130 |
| 95 | Heptane | 50.000 | 50.039 | 100.08 | 60-140 |
| 104 | Trichloroethene | 50.000 | 48.114 | 96.23 | 70-130 |
| 106 | 1,2-Dichloropropan | 50.000 | 49.883 | 99.77 | 70-130 |

| SPIKE COMPOUND | CONC ADDED PPBV | CONC RECOVERED PPBV | % RECOVERED | LIMITS |
|---|---|---|---|---|
| 107 1,4-Dioxane | 50.000 | 47.788 | 95.58 | 60-140 |
| 108 Bromodichlorometha | 50.000 | 49.421 | 98.84 | 60-140 |
| 110 cis-1,3-Dichloropr | 50.000 | 50.827 | 101.65 | 70-130 |
| 112 4-Methyl-2-pentano | 50.000 | 48.602 | 97.20 | 60-140 |
| 115 Toluene | 50.000 | 47.062 | 94.12 | 70-130 |
| 118 trans-1,3-Dichloro | 50.000 | 52.645 | 105.29 | 70-130 |
| 120 1,1,2-Trichloroeth | 50.000 | 51.711 | 103.42 | 70-130 |
| 122 Tetrachloroethene | 50.000 | 49.643 | 99.29 | 70-130 |
| 125 2-Hexanone | 50.000 | 49.822 | 99.64 | 60-140 |
| 128 Dibromochlorometha | 50.000 | 51.912 | 103.82 | 60-140 |
| 130 1,2-Dibromoethane | 50.000 | 52.572 | 105.14 | 70-130 |
| 135 Chlorobenzene | 50.000 | 48.621 | 97.24 | 70-130 |
| 137 Ethyl Benzene | 50.000 | 52.263 | 104.53 | 70-130 |
| 140 m,p-Xylene | 50.000 | 51.171 | 102.34 | 70-130 |
| 141 o-Xylene | 50.000 | 50.638 | 101.28 | 70-130 |
| 142 Styrene | 50.000 | 50.299 | 100.60 | 70-130 |
| 145 Bromoform | 50.000 | 51.718 | 103.44 | 60-140 |
| 151 1,1,2,2-Tetrachlor | 50.000 | 51.252 | 102.51 | 70-130 |
| 155 4-Ethyltoluene | 50.000 | 50.651 | 101.30 | 60-140 |
| 156 1,3,5-Trimethylben | 50.000 | 52.285 | 104.57 | 70-130 |
| 162 1,2,4-Trimethylben | 50.000 | 50.597 | 101.19 | 70-130 |
| 165 1,3-Dichlorobenzen | 50.000 | 49.540 | 99.08 | 70-130 |
| 166 1,4-Dichlorobenzen | 50.000 | 50.070 | 100.14 | 70-130 |
| 168 alpha-Chlorotoluen | 50.000 | 47.175 | 94.35 | 70-130 |
| 171 1,2-Dichlorobenzen | 50.000 | 50.631 | 101.26 | 70-130 |
| 174 1,2,4-Trichloroben | 50.000 | 47.745 | 95.49 | 70-130 |
| 175 Hexachlorobutadien | 50.000 | 50.395 | 100.79 | 70-130 |
| 153 Propylbenzene | 50.000 | 49.883 | 99.77 | 60-140 |
| 147 Cumene | 50.000 | 49.885 | 99.77 | 60-140 |
| 44 3-Chloropropene | 50.000 | 49.080 | 98.16 | 60-140 |
| 89 2,2,4-Trimethylpen | 50.000 | 50.678 | 101.36 | 60-140 |
| 26 Isopentane | 50.000 | 50.556 | 101.11 | 70-130 |
| 14 Butane | 50.000 | 51.023 | 102.05 | 70-130 |
| 105 Methyl Cyclohexane | 50.000 | 50.803 | 101.61 | 70-130 |
| 48 tert-Butyl-Alcohol | 50.000 | 50.100 | 100.20 | 60-140 |
| 176 Naphthalene | 50.000 | 43.455 | 86.91 | 60-140 |
| 63 Isopropyl ether | 50.000 | 51.427 | 102.85 | 60-140 |
| 72 t-Butylethyl Ether | 50.000 | 51.364 | 102.73 | 60-140 |
| 93 tert-amyl-Methyl E | 50.000 | 50.776 | 101.55 | 60-140 |

| SURROGATE COMPOUND | CONC ADDED PPBV | CONC RECOVERED PPBV | % RECOVERED | LIMITS |
|---|---|---|---|---|
| $ 91 1,2-Dichloroethane | 25.000 | 25.259 | 101.04 | 70-130 |

| SURROGATE COMPOUND | CONC ADDED PPBV | CONC RECOVERED PPBV | % RECOVERED | LIMITS |
|---|---|---|---|---|
| $ 114 Toluene-d8 | 25.000 | 24.627 | 98.51 | 70-130 |
| $ 149 Bromofluorobenzene | 25.000 | 24.890 | 99.56 | 70-130 |

Data File: /chem/msdd_i/31mar10a_b/d033121.d

Date : 31-MAR-2010 17:34

Client ID: LCS

Sample Info: 50ml #1911-277

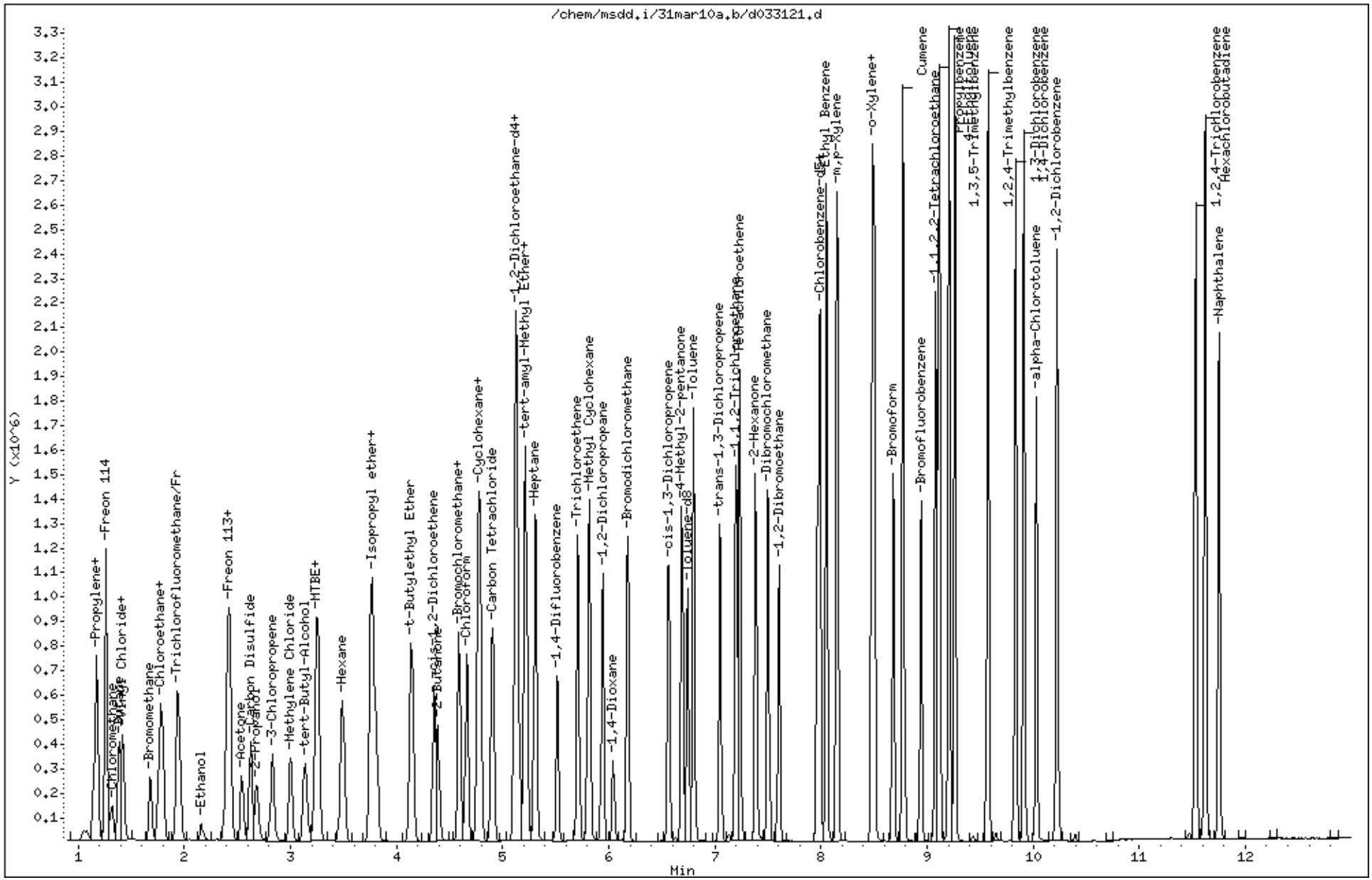
Column phase: RTx-624

Instrument: msdd_i

Operator: ra

Column diameter: 0.53





Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msdd.i/31mar10a.b/d033111.d
Lab Smp Id: ICAL Level 1 Client Smp ID: ICAL level 1
Inj Date : 31-MAR-2010 13:49
Operator : kjj Inst ID: msdd.i
Smp Info : 30ml #1911-328
Misc Info : 2.0ppbv->0.3ppbv
Comment :
Method : /chem/msdd.i/31mar10a.b/d10q0331a.m
Meth Date : 31-Mar-2010 16:10 aburke Quant Type: ISTD
Cal Date : 31-MAR-2010 13:49 Cal File: d033111.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AFCEElow.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| | | | | AMOUNTS | | | |
|---|---|---|---|---|---|---|---|
| | | | | CAL-AMT | ON-COL | | |
| RT | EXP RT (REL RT) | MASS | RESPONSE | ( PPBV) | ( PPBV) | TARGET RANGE | RATIO |
| == | ====== ======== | ==== | ======== | ======= | ======= | ========== | ===== |
| * 79 Bromochloromethane | | | | | CAS #: 74-97-5 | | |
| 4.576 | 4.576 (1.000) | 130 | 107022 | 25.0000 | | 50.00- 150.00 | 100.00 |
| 4.576 | 4.576 (1.000) | 128 | 82790 | | | 27.33- 127.33 | 77.36 |
| 4.576 | 4.576 (1.000) | 49 | 182429 | | | 123.46- 223.46 | 170.46 |
| * 100 1,4-Difluorobenzene | | | | | CAS #: 540-36-3 | | |
| 5.500 | 5.500 (1.000) | 114 | 458673 | 25.0000 | | 50.00- 150.00 | 100.00 |
| 5.500 | 5.500 (1.000) | 88 | 84612 | | | 0.00- 68.33 | 18.45 |
| * 134 Chlorobenzene-d5 | | | | | CAS #: 3114-55-4 | | |
| 7.949 | 7.949 (1.000) | 117 | 514723 | 25.0000 | | 50.00- 150.00 | 100.00 |
| 7.949 | 7.949 (1.000) | 82 | 321772 | | | 12.92- 112.92 | 62.51 |
| $ 91 1,2-Dichloroethane-d4 | | | | | CAS #: 17060-07-0 | | |
| 5.127 | 5.127 (1.121) | 65 | 209589 | 25.0000 | 24.359 | 50.00- 150.00 | 100.00 |
| 5.127 | 5.127 (1.121) | 67 | 102550 | | | 2.15- 102.15 | 48.93 |
| $ 114 Toluene-d8 | | | | | CAS #: 2037-26-5 | | |
| 6.732 | 6.732 (1.224) | 98 | 564399 | 25.0000 | 24.832 | 50.00- 150.00 | 100.00 |
| 6.732 | 6.732 (1.224) | 70 | 70138 | | | 0.00- 62.20 | 12.43 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 114 Toluene-d8 (continued) | | | | | | | |
| 6.732 | 6.732 (1.224) | 100 | 368241 | | | 15.58- 115.58 | 65.24 |
| $ 149 Bromofluorobenzene | | | | | | CAS #: 460-00-4 | |
| 8.931 | 8.931 (1.123) | 174 | 258185 | 25.0000 | 24.597 | 50.00- 150.00 | 100.00 |
| 8.924 | 8.924 (1.123) | 95 | 437828 | | | 120.42- 220.42 | 169.58 |
| 8.931 | 8.931 (1.123) | 176 | 250166 | | | 46.27- 146.27 | 96.89 |
| 162 1,2,4-Trimethylbenzene | | | | | | CAS #: 95-63-6 | |
| 9.554 | 9.554 (1.202) | 120 | 4111 | 0.30000 | 0.3064 | 50.00- 150.00 | 100.00(a) |
| 9.561 | 9.561 (1.203) | 105 | 8852 | | | 174.98- 274.98 | 215.32 |
| 156 1,3,5-Trimethylbenzene | | | | | | CAS #: 108-67-8 | |
| 9.246 | 9.246 (1.163) | 120 | 4096 | 0.30000 | 0.2835 | 50.00- 150.00 | 100.00(a) |
| 9.246 | 9.246 (1.163) | 105 | 9036 | | | 160.53- 260.53 | 220.61 |

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Report Date: 31-Mar-2010 16:10

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdd.i
Lab File ID: d033111.d
Lab Smp Id: ICAL Level 1
Analysis Type: VOA
Quant Type: ISTD
Operator: kjj
Method File: /chem/msdd.i/31mar10a.b/d10q0331a.m
Misc Info: 2.0ppbv->0.3ppbv

Calibration Date: 31-MAR-2010
Calibration Time: 15:19
Client Smp ID: ICAL level 1
Level: LOW
Sample Type: AIR

| | | AREA LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 79 Bromochloromethan | 104005 | 62403 | 145607 | 107022 | 2.90 |
| 100 1,4-Difluorobenze | 450386 | 270232 | 630540 | 458673 | 1.84 |
| 134 Chlorobenzene-d5 | 514163 | 308498 | 719828 | 514723 | 0.11 |

| | | RT LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 79 Bromochloromethan | 4.58 | 4.25 | 4.91 | 4.58 | 0.00 |
| 100 1,4-Difluorobenze | 5.51 | 5.18 | 5.84 | 5.50 | -0.13 |
| 134 Chlorobenzene-d5 | 7.95 | 7.62 | 8.28 | 7.95 | 0.00 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msdd.i/31mar10a.b/d033111.d

Date : 31-MAR-2010 13:49

Client ID: ICAL level 1

Sample Info: 30ml #1911-328

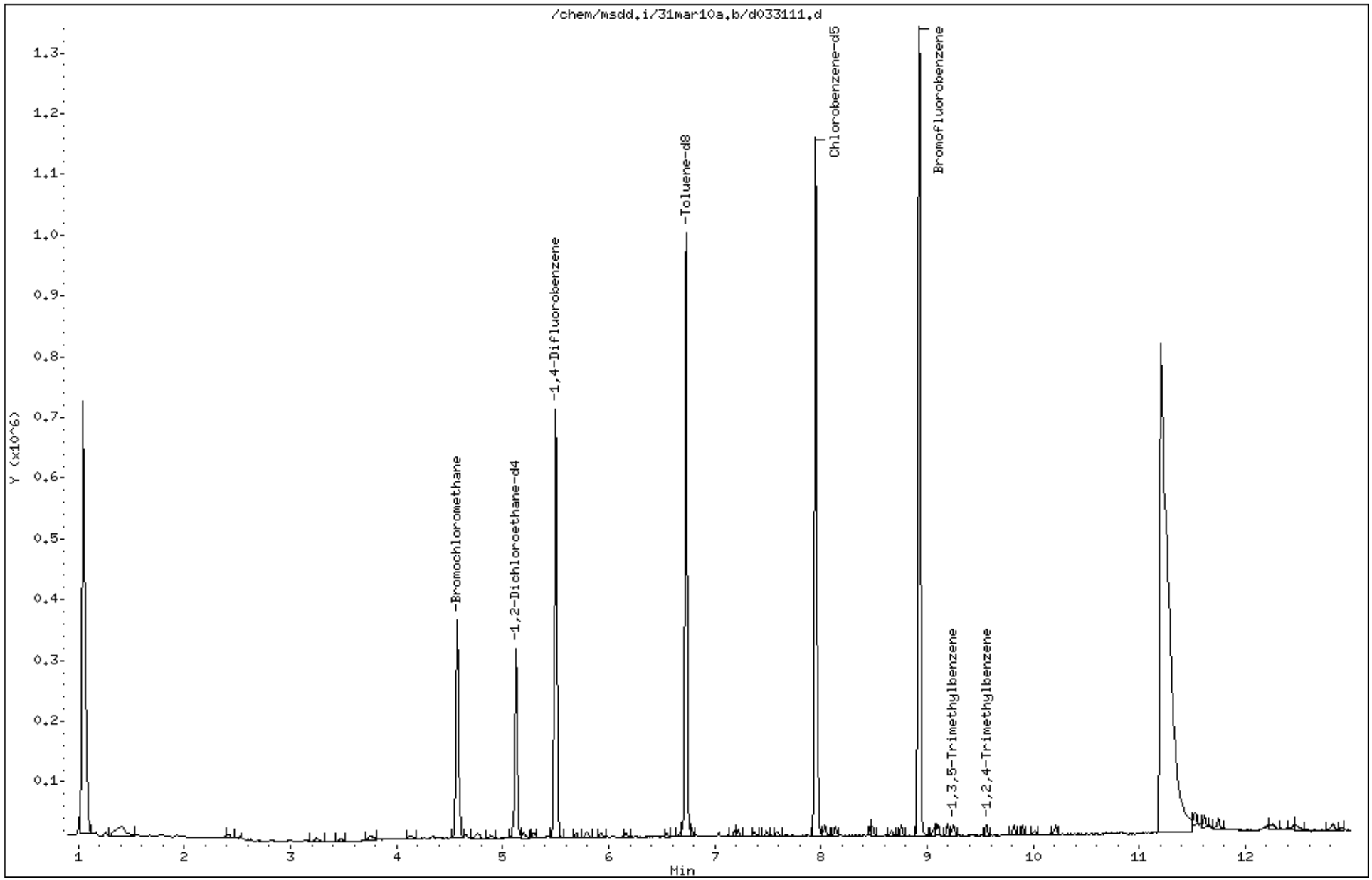
Column phase: RTx-624

Instrument: msdd.i

Operator: kjj

Column diameter: 0.53





Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msdd.i/31mar10a.b/d033112.d
Lab Smp Id: ICAL Level 2 Client Smp ID: ICAL level 2
Inj Date : 31-MAR-2010 14:09
Operator : kjj Inst ID: msdd.i
Smp Info : 50ml #1911-328
Misc Info : 2.0ppbv->0.5ppbv
Comment :
Method : /chem/msdd.i/31mar10a.b/d10q0331a.m
Meth Date : 31-Mar-2010 16:11 aburke Quant Type: ISTD
Cal Date : 31-MAR-2010 14:09 Cal File: d033112.d
Als bottle: 2 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT09low.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| | | | | AMOUNTS | | | |
|---|---|---|---|---|---|---|---|
| | | | | CAL-AMT | ON-COL | | |
| RT | EXP RT (REL RT) | MASS | RESPONSE | ( PPBV) | ( PPBV) | TARGET RANGE | RATIO |
| == | ====== ======== | ==== | ======== | ======= | ======= | ========== | ===== |
| * 79 Bromochloromethane | | | | | CAS #: 74-97-5 | | |
| 4.576 | 4.576 (1.000) | 130 | 105442 | 25.0000 | | 50.00- 150.00 | 100.00 |
| 4.576 | 4.576 (1.000) | 128 | 80732 | | | 27.33- 127.33 | 76.57 |
| 4.576 | 4.576 (1.000) | 49 | 180376 | | | 123.46- 223.46 | 171.07 |
| * 100 1,4-Difluorobenzene | | | | | CAS #: 540-36-3 | | |
| 5.507 | 5.507 (1.000) | 114 | 456058 | 25.0000 | | 50.00- 150.00 | 100.00 |
| 5.507 | 5.507 (1.000) | 88 | 83016 | | | 0.00- 68.33 | 18.20 |
| * 134 Chlorobenzene-d5 | | | | | CAS #: 3114-55-4 | | |
| 7.950 | 7.950 (1.000) | 117 | 511814 | 25.0000 | | 50.00- 150.00 | 100.00 |
| 7.950 | 7.950 (1.000) | 82 | 323957 | | | 12.92- 112.92 | 63.30 |
| $ 91 1,2-Dichloroethane-d4 | | | | | CAS #: 17060-07-0 | | |
| 5.127 | 5.127 (1.121) | 65 | 207252 | 25.0000 | 24.448 | 50.00- 150.00 | 100.00 |
| 5.134 | 5.134 (1.122) | 67 | 101506 | | | 2.15- 102.15 | 48.98 |
| $ 114 Toluene-d8 | | | | | CAS #: 2037-26-5 | | |
| 6.732 | 6.732 (1.222) | 98 | 562104 | 25.0000 | 24.873 | 50.00- 150.00 | 100.00 |
| 6.732 | 6.732 (1.222) | 70 | 68665 | | | 0.00- 62.20 | 12.22 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 114 Toluene-d8 (continued) | | | | | | | |
| 6.732 | 6.732 (1.222) | 100 | 370674 | | | 15.58- 115.58 | 65.94 |
| $ 149 Bromofluorobenzene | | | | | CAS #: 460-00-4 | | |
| 8.931 | 8.931 (1.123) | 174 | 261209 | 25.0000 | 25.027 | 50.00- 150.00 | 100.00 |
| 8.924 | 8.924 (1.123) | 95 | 443426 | | | 120.42- 220.42 | 169.76 |
| 8.931 | 8.931 (1.123) | 176 | 251732 | | | 46.27- 146.27 | 96.37 |
| 7 Dichlorodifluoromethane/Fr12 | | | | | CAS #: 75-71-8 | | |
| 1.167 | 1.167 (0.255) | 85 | 6418 | 0.50000 | 0.4795 | 50.00- 150.00 | 100.00(a) |
| 1.167 | 1.167 (0.255) | 87 | 2151 | | | 0.00- 82.88 | 33.52 |
| 10 Freon 114 | | | | | CAS #: 76-14-2 | | |
| 1.265 | 1.265 (0.276) | 135 | 3594 | 0.50000 | 0.4861 | 50.00- 150.00 | 100.00(a) |
| 1.265 | 1.265 (0.276) | 137 | 1333 | | | 0.00- 82.69 | 37.09 |
| 15 Vinyl Chloride | | | | | CAS #: 75-01-4 | | |
| 1.391 | 1.391 (0.304) | 62 | 1738 | 0.50000 | 0.4277 | 50.00- 150.00 | 100.00(a) |
| 1.391 | 1.391 (0.304) | 64 | 1650 | | | 0.00- 97.20 | 94.94 |
| 18 1,3-Butadiene | | | | | CAS #: 106-99-0 | | |
| 1.419 | 1.419 (0.310) | 54 | 1983 | 0.50000 | 0.5634 | 50.00- 150.00 | 100.00 |
| 1.419 | 1.419 (0.310) | 39 | 3404 | | | 75.63- 175.63 | 171.66 |
| 24 Bromomethane | | | | | CAS #: 74-83-9 | | |
| 1.670 | 1.670 (0.365) | 94 | 1968 | 0.50000 | 0.4981 | 50.00- 150.00 | 100.00(a) |
| 1.684 | 1.684 (0.368) | 96 | 1681 | | | 41.64- 141.64 | 85.42 |
| 25 Chloroethane | | | | | CAS #: 75-00-3 | | |
| 1.754 | 1.754 (0.383) | 64 | 1525 | 0.50000 | 0.5630 | 50.00- 150.00 | 100.00(T) |
| 1.936 | 1.936 (0.423) | 66 | 932 | | | 0.00- 86.90 | 61.11 |
| 0.000 | 1.000 (0.000) | 49 | 0 | | | 0.00- 78.35 | 0.00 |
| 28 Trichlorofluoromethane/Fr11 | | | | | CAS #: 75-69-4 | | |
| 1.950 | 1.950 (0.426) | 101 | 6892 | 0.50000 | 0.4928 | 50.00- 150.00 | 100.00(a) |
| 1.936 | 1.936 (0.423) | 103 | 4305 | | | 12.85- 112.85 | 62.46 |
| 33 Freon 113 | | | | | CAS #: 76-13-1 | | |
| 2.413 | 2.413 (0.527) | 151 | 3098 | 0.50000 | 0.4832 | 50.00- 150.00 | 100.00(a) |
| 2.405 | 2.405 (0.526) | 153 | 1867 | | | 13.56- 113.56 | 60.26 |
| 2.413 | 2.413 (0.527) | 101 | 4345 | | | 96.53- 196.53 | 140.25 |
| 34 1,1-Dichloroethene | | | | | CAS #: 75-35-4 | | |
| 2.427 | 2.427 (0.530) | 98 | 1251 | 0.50000 | 0.4468 | 50.00- 150.00 | 100.00(a) |
| 2.434 | 2.434 (0.532) | 96 | 2104 | | | 107.46- 207.46 | 168.19 |
| 2.427 | 2.427 (0.530) | 61 | 4422 | | | 270.84- 370.84 | 353.48 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 40 Carbon Disulfide | | | | | CAS #: 75-15-0 | | |
| 2.620 | 2.620 (0.573) | 76 | 7769 | 0.50000 | 0.5659 | 50.00- 150.00 | 100.00 |
| 46 Methylene Chloride | | | | | CAS #: 75-09-2 | | |
| 3.007 | 3.007 (0.657) | 49 | 2782 | 0.50000 | 0.4835 | 50.00- 150.00 | 100.00(Ta) |
| 3.007 | 3.007 (0.657) | 84 | 1908 | | | 18.20- 118.20 | 68.58 |
| 0.000 | 1.000 (0.000) | 51 | 0 | | | 0.00- 80.39 | 0.00 |
| 50 MTBE | | | | | CAS #: 1634-04-4 | | |
| 3.251 | 3.251 (0.710) | 73 | 6296 | 0.50000 | 0.4620 | 50.00- 150.00 | 100.00(a) |
| 3.251 | 3.251 (0.710) | 57 | 1482 | | | 0.00- 73.10 | 23.54 |
| 3.236 | 3.236 (0.707) | 41 | 1360 | | | 0.00- 75.17 | 21.60 |
| 52 trans-1,2-Dichloroethene | | | | | CAS #: 156-60-5 | | |
| 3.258 | 3.258 (0.712) | 98 | 1286 | 0.50000 | 0.4439 | 50.00- 150.00 | 100.00(a) |
| 3.258 | 3.258 (0.712) | 61 | 3891 | | | 222.42- 322.42 | 302.57 |
| 3.258 | 3.258 (0.712) | 96 | 2432 | | | 114.13- 214.13 | 189.11 |
| 58 Hexane | | | | | CAS #: 110-54-3 | | |
| 3.487 | 3.487 (0.762) | 57 | 3864 | 0.50000 | 0.4737 | 50.00- 150.00 | 100.00(a) |
| 3.480 | 3.480 (0.760) | 43 | 3351 | | | 19.39- 119.39 | 86.72 |
| 2.993 | 2.993 (0.654) | 86 | 1229 | | | 0.00- 69.00 | 31.81 |
| 64 1,1-Dichloroethane | | | | | CAS #: 75-34-3 | | |
| 3.752 | 3.752 (0.820) | 63 | 4679 | 0.50000 | 0.4641 | 50.00- 150.00 | 100.00(a) |
| 3.752 | 3.752 (0.820) | 65 | 1469 | | | 0.00- 81.96 | 31.40 |
| 75 2-Butanone | | | | | CAS #: 78-93-3 | | |
| 4.397 | 4.397 (0.961) | 72 | 1059 | 0.50000 | 0.4234 | 50.00- 150.00 | 100.00(a) |
| 4.404 | 4.404 (0.962) | 43 | 3458 | | | 391.89- 491.89 | 326.53 |
| 4.132 | 4.132 (0.903) | 57 | 2709 | | | 29.81- 129.81 | 255.81 |
| 74 cis-1,2-Dichloroethene | | | | | CAS #: 156-59-2 | | |
| 4.347 | 4.347 (0.950) | 98 | 1567 | 0.50000 | 0.4756 | 50.00- 150.00 | 100.00(a) |
| 4.347 | 4.347 (0.950) | 96 | 2638 | | | 108.90- 208.90 | 168.35 |
| 4.347 | 4.347 (0.950) | 61 | 3742 | | | 194.41- 294.41 | 238.80 |
| 78 Tetrahydrofuran | | | | | CAS #: 109-99-9 | | |
| 4.604 | 4.604 (1.006) | 42 | 3185 | 0.50000 | 0.4888 | 50.00- 150.00 | 100.00(a) |
| 4.604 | 4.604 (1.006) | 71 | 1161 | | | 0.00- 85.98 | 36.45 |
| 4.397 | 4.397 (0.961) | 72 | 1059 | | | 0.00- 86.75 | 33.25 |
| 80 Chloroform | | | | | CAS #: 67-66-3 | | |
| 4.655 | 4.655 (1.017) | 83 | 5635 | 0.50000 | 0.4683 | 50.00- 150.00 | 100.00(a) |
| 4.655 | 4.655 (1.017) | 85 | 3892 | | | 15.01- 115.01 | 69.07 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 85 1,1,1-Trichloroethane | | | | | CAS #: 71-55-6 | | |
| 4.769 | 4.769 (1.042) | 97 | 5724 | 0.50000 | 0.4698 | 50.00- 150.00 | 100.00(a) |
| 4.776 | 4.776 (1.044) | 99 | 3549 | | | 13.41- 113.41 | 62.00 |
| 83 Cyclohexane | | | | | CAS #: 110-82-7 | | |
| 4.755 | 4.755 (1.039) | 84 | 3754 | 0.50000 | 0.5095 | 50.00- 150.00 | 100.00 |
| 4.755 | 4.755 (1.039) | 56 | 4817 | | | 78.59- 178.59 | 128.32 |
| 4.762 | 4.762 (1.041) | 41 | 3210 | | | 26.74- 126.74 | 85.51 |
| 86 Carbon Tetrachloride | | | | | CAS #: 56-23-5 | | |
| 4.891 | 4.891 (1.069) | 119 | 4564 | 0.50000 | 0.4273 | 50.00- 150.00 | 100.00(a) |
| 4.891 | 4.891 (1.069) | 117 | 4915 | | | 53.70- 153.70 | 107.69 |
| 89 2,2,4-Trimethylpentane | | | | | CAS #: 540-84-1 | | |
| 5.113 | 5.113 (1.117) | 57 | 15084 | 0.50000 | 0.4952 | 50.00- 150.00 | 100.00(a) |
| 5.120 | 5.120 (1.119) | 56 | 4724 | | | 0.00- 81.50 | 31.32 |
| 5.106 | 5.106 (1.116) | 41 | 4469 | | | 0.00- 77.21 | 29.63 |
| 90 Benzene | | | | | CAS #: 71-43-2 | | |
| 5.113 | 5.113 (0.928) | 78 | 9006 | 0.50000 | 0.5132 | 50.00- 150.00 | 100.00 |
| 5.113 | 5.113 (0.928) | 77 | 1894 | | | 0.00- 73.17 | 21.03 |
| 94 1,2-Dichloroethane | | | | | CAS #: 107-06-2 | | |
| 5.206 | 5.206 (0.945) | 62 | 4459 | 0.50000 | 0.4723 | 50.00- 150.00 | 100.00(a) |
| 5.199 | 5.199 (0.944) | 64 | 1587 | | | 0.00- 83.10 | 35.59 |
| 95 Heptane | | | | | CAS #: 142-82-5 | | |
| 5.299 | 5.299 (0.962) | 71 | 2898 | 0.50000 | 0.4565 | 50.00- 150.00 | 100.00(a) |
| 5.292 | 5.292 (0.961) | 43 | 6890 | | | 146.63- 246.63 | 237.75 |
| 5.292 | 5.292 (0.961) | 57 | 3202 | | | 54.79- 154.79 | 110.49 |
| 104 Trichloroethene | | | | | CAS #: 79-01-6 | | |
| 5.693 | 5.693 (1.034) | 95 | 4065 | 0.50000 | 0.5133 | 50.00- 150.00 | 100.00 |
| 5.700 | 5.700 (1.035) | 130 | 3326 | | | 36.71- 136.71 | 81.82 |
| 5.693 | 5.693 (1.034) | 97 | 2493 | | | 14.60- 114.60 | 61.33 |
| 105 Methyl Cyclohexane | | | | | CAS #: 108-87-2 | | |
| 5.801 | 5.801 (1.268) | 83 | 5376 | 0.50000 | 0.4913 | 50.00- 150.00 | 100.00(a) |
| 5.808 | 5.808 (1.269) | 98 | 2399 | | | 0.00- 96.57 | 44.62 |
| 5.801 | 5.801 (1.268) | 55 | 4703 | | | 39.57- 139.57 | 87.48 |
| 106 1,2-Dichloropropane | | | | | CAS #: 78-87-5 | | |
| 5.930 | 5.930 (1.077) | 63 | 3656 | 0.50000 | 0.4992 | 50.00- 150.00 | 100.00(a) |
| 5.930 | 5.930 (1.077) | 62 | 2567 | | | 20.35- 120.35 | 70.21 |
| 5.922 | 5.922 (1.075) | 41 | 2497 | | | 13.49- 113.49 | 68.30 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 108 Bromodichloromethane | | | | | CAS #: 75-27-4 | | |
| 6.166 | 6.166 (1.120) | 83 | 7006 | 0.50000 | 0.4963 | 50.00- 150.00 | 100.00(a) |
| 6.159 | 6.159 (1.118) | 85 | 4334 | | | 13.44- 113.44 | 61.86 |
| 110 cis-1,3-Dichloropropene | | | | | CAS #: 10061-01-5 | | |
| 6.553 | 6.553 (1.190) | 75 | 5250 | 0.50000 | 0.4806 | 50.00- 150.00 | 100.00(a) |
| 6.553 | 6.553 (1.190) | 77 | 1652 | | | 0.00- 81.59 | 31.47 |
| 6.553 | 6.553 (1.190) | 39 | 3134 | | | 5.92- 105.92 | 59.70 |
| 112 4-Methyl-2-pentanone | | | | | CAS #: 108-10-1 | | |
| 6.682 | 6.682 (1.213) | 58 | 2977 | 0.50000 | 0.4631 | 50.00- 150.00 | 100.00(a) |
| 6.682 | 6.682 (1.213) | 43 | 8582 | | | 224.75- 324.75 | 288.28 |
| 6.682 | 6.682 (1.213) | 85 | 1076 | | | 0.00- 89.27 | 36.14 |
| 115 Toluene | | | | | CAS #: 108-88-3 | | |
| 6.782 | 6.782 (1.232) | 91 | 11182 | 0.50000 | 0.4797 | 50.00- 150.00 | 100.00(a) |
| 6.789 | 6.789 (1.233) | 92 | 6687 | | | 9.29- 109.29 | 59.80 |
| 118 trans-1,3-Dichloropropene | | | | | CAS #: 10061-02-6 | | |
| 7.040 | 7.040 (0.886) | 75 | 4802 | 0.50000 | 0.4325 | 50.00- 150.00 | 100.00(a) |
| 7.040 | 7.040 (0.886) | 77 | 1690 | | | 0.00- 83.09 | 35.19 |
| 7.040 | 7.040 (0.886) | 39 | 2978 | | | 4.25- 104.25 | 62.02 |
| 120 1,1,2-Trichloroethane | | | | | CAS #: 79-00-5 | | |
| 7.183 | 7.183 (0.904) | 97 | 3644 | 0.50000 | 0.4609 | 50.00- 150.00 | 100.00(a) |
| 7.183 | 7.183 (0.904) | 99 | 2297 | | | 12.25- 112.25 | 63.04 |
| 7.190 | 7.190 (0.904) | 83 | 3736 | | | 42.00- 142.00 | 102.52 |
| 122 Tetrachloroethene | | | | | CAS #: 127-18-4 | | |
| 7.219 | 7.219 (0.908) | 166 | 4634 | 0.50000 | 0.5195 | 50.00- 150.00 | 100.00 |
| 7.219 | 7.219 (0.908) | 129 | 3880 | | | 33.95- 133.95 | 83.73 |
| 7.219 | 7.219 (0.908) | 131 | 3242 | | | 27.31- 127.31 | 69.96 |
| 125 2-Hexanone | | | | | CAS #: 591-78-6 | | |
| 7.377 | 7.377 (0.928) | 58 | 3996 | 0.50000 | 0.4464 | 50.00- 150.00 | 100.00(Ta) |
| 7.377 | 7.377 (0.928) | 43 | 8326 | | | 146.90- 246.90 | 208.36 |
| 0.000 | 1.000 (0.000) | 100 | 0 | | | 0.00- 68.42 | 0.00 |
| 128 Dibromochloromethane | | | | | CAS #: 124-48-1 | | |
| 7.491 | 7.491 (0.942) | 129 | 5750 | 0.50000 | 0.4653 | 50.00- 150.00 | 100.00(a) |
| 7.484 | 7.484 (0.941) | 127 | 4514 | | | 27.80- 127.80 | 78.50 |
| 130 1,2-Dibromoethane | | | | | CAS #: 106-93-4 | | |
| 7.591 | 7.591 (0.955) | 107 | 6007 | 0.50000 | 0.4871 | 50.00- 150.00 | 100.00(a) |
| 7.591 | 7.591 (0.955) | 109 | 5831 | | | 44.92- 144.92 | 97.07 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 135 Chlorobenzene | | | | | CAS #: 108-90-7 | | |
| 7.978 | 7.978 (1.004) | 112 | 10521 | 0.50000 | 0.5464 | 50.00- 150.00 | 100.00 |
| 7.978 | 7.978 (1.004) | 114 | 3545 | | | 0.00- 82.27 | 33.69 |
| 7.971 | 7.971 (1.003) | 77 | 9077 | | | 23.60- 123.60 | 86.28 |
| 137 Ethyl Benzene | | | | | CAS #: 100-41-4 | | |
| 8.036 | 8.036 (1.011) | 106 | 4474 | 0.50000 | 0.4645 | 50.00- 150.00 | 100.00(a) |
| 8.036 | 8.036 (1.011) | 91 | 16276 | | | 290.13- 390.13 | 363.79 |
| 140 m,p-Xylene | | | | | CAS #: 108-38-3 | | |
| 8.136 | 8.136 (1.023) | 106 | 6051 | 0.50000 | 0.4866 | 50.00- 150.00 | 100.00(a) |
| 8.136 | 8.136 (1.023) | 91 | 12266 | | | 156.72- 256.72 | 202.71 |
| 141 o-Xylene | | | | | CAS #: 95-47-6 | | |
| 8.465 | 8.465 (1.065) | 106 | 5579 | 0.50000 | 0.4744 | 50.00- 150.00 | 100.00(a) |
| 8.465 | 8.465 (1.065) | 91 | 12059 | | | 167.29- 267.29 | 216.15 |
| 142 Styrene | | | | | CAS #: 100-42-5 | | |
| 8.494 | 8.494 (1.068) | 104 | 8756 | 0.50000 | 0.4560 | 50.00- 150.00 | 100.00(a) |
| 8.487 | 8.487 (1.068) | 78 | 4830 | | | 5.25- 105.25 | 55.16 |
| 145 Bromoform | | | | | CAS #: 75-25-2 | | |
| 8.666 | 8.666 (1.090) | 173 | 4376 | 0.50000 | 0.4370 | 50.00- 150.00 | 100.00(a) |
| 8.666 | 8.666 (1.090) | 171 | 2329 | | | 2.47- 102.47 | 53.22 |
| 147 Cumene | | | | | CAS #: 98-82-8 | | |
| 8.759 | 8.759 (1.102) | 105 | 17170 | 0.50000 | 0.4808 | 50.00- 150.00 | 100.00(a) |
| 8.759 | 8.759 (1.102) | 120 | 4257 | | | 0.00- 75.25 | 24.79 |
| 8.759 | 8.759 (1.102) | 51 | 2525 | | | 0.00- 62.26 | 14.71 |
| 151 1,1,2,2-Tetrachloroethane | | | | | CAS #: 79-34-5 | | |
| 9.060 | 9.060 (1.140) | 83 | 9556 | 0.50000 | 0.4848 | 50.00- 150.00 | 100.00(a) |
| 9.067 | 9.067 (1.141) | 85 | 6199 | | | 14.89- 114.89 | 64.87 |
| 153 Propylbenzene | | | | | CAS #: 103-65-1 | | |
| 9.096 | 9.096 (1.144) | 91 | 21911 | 0.50000 | 0.4833 | 50.00- 150.00 | 100.00(a) |
| 9.096 | 9.096 (1.144) | 120 | 4661 | | | 0.00- 71.30 | 21.27 |
| 9.189 | 9.189 (1.156) | 105 | 17388 | | | 0.00- 68.74 | 79.36 |
| 155 4-Ethyltoluene | | | | | CAS #: 622-96-8 | | |
| 9.189 | 9.189 (1.156) | 120 | 5081 | 0.50000 | 0.4772 | 50.00- 150.00 | 100.00(a) |
| 9.189 | 9.189 (1.156) | 105 | 17388 | | | 299.99- 399.99 | 342.22 |
| 156 1,3,5-Trimethylbenzene | | | | | CAS #: 108-67-8 | | |
| 9.246 | 9.246 (1.163) | 120 | 6894 | 0.50000 | 0.4800 | 50.00- 150.00 | 100.00(a) |
| 9.246 | 9.246 (1.163) | 105 | 14090 | | | 160.53- 260.53 | 204.38 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 162 1,2,4-Trimethylbenzene | | | | | CAS #: 95-63-6 | | |
| 9.561 | 9.561 (1.203) | 120 | 6336 | 0.50000 | 0.4749 | 50.00- 150.00 | 100.00(a) |
| 9.554 | 9.554 (1.202) | 105 | 14777 | | | 174.98- 274.98 | 233.22 |
| 165 1,3-Dichlorobenzene | | | | | CAS #: 541-73-1 | | |
| 9.819 | 9.819 (1.235) | 146 | 8996 | 0.50000 | 0.5037 | 50.00- 150.00 | 100.00 |
| 9.819 | 9.819 (1.235) | 148 | 5665 | | | 13.36- 113.36 | 62.97 |
| 9.819 | 9.819 (1.235) | 111 | 4112 | | | 0.00- 95.45 | 45.71 |
| 166 1,4-Dichlorobenzene | | | | | CAS #: 106-46-7 | | |
| 9.898 | 9.898 (1.245) | 146 | 9183 | 0.50000 | 0.5036 | 50.00- 150.00 | 100.00 |
| 9.898 | 9.898 (1.245) | 148 | 5653 | | | 13.03- 113.03 | 61.56 |
| 9.898 | 9.898 (1.245) | 111 | 3978 | | | 0.00- 93.63 | 43.32 |
| 168 alpha-Chlorotoluene | | | | | CAS #: 100-44-7 | | |
| 10.012 | 10.012 (1.260) | 91 | 8877 | 0.50000 | 0.3816 | 50.00- 150.00 | 100.00(a) |
| 10.020 | 10.020 (1.260) | 126 | 1430 | | | 0.00- 67.76 | 16.11 |
| 171 1,2-Dichlorobenzene | | | | | CAS #: 95-50-1 | | |
| 10.213 | 10.213 (1.285) | 146 | 7862 | 0.50000 | 0.4794 | 50.00- 150.00 | 100.00(a) |
| 10.213 | 10.213 (1.285) | 148 | 5398 | | | 13.96- 113.96 | 68.66 |
| 10.213 | 10.213 (1.285) | 111 | 4124 | | | 0.00- 98.36 | 52.45 |

QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Report Date: 31-Mar-2010 16:11

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdd.i
Lab File ID: d033112.d
Lab Smp Id: ICAL Level 2
Analysis Type: VOA
Quant Type: ISTD
Operator: kjj
Method File: /chem/msdd.i/31mar10a.b/d10q0331a.m
Misc Info: 2.0ppbv->0.5ppbv

Calibration Date: 31-MAR-2010
Calibration Time: 15:19
Client Smp ID: ICAL level 2
Level: LOW
Sample Type: AIR

| | | AREA LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 79 Bromochloromethan | 104005 | 62403 | 145607 | 105442 | 1.38 |
| 100 1,4-Difluorobenze | 450386 | 270232 | 630540 | 456058 | 1.26 |
| 134 Chlorobenzene-d5 | 514163 | 308498 | 719828 | 511814 | -0.46 |

| | | RT LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 79 Bromochloromethan | 4.58 | 4.25 | 4.91 | 4.58 | 0.00 |
| 100 1,4-Difluorobenze | 5.51 | 5.18 | 5.84 | 5.51 | 0.00 |
| 134 Chlorobenzene-d5 | 7.95 | 7.62 | 8.28 | 7.95 | 0.00 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msdd.i/31mar10a.b/d033112.d

Date : 31-MAR-2010 14:09

Client ID: ICAL level 2

Sample Info: 50ml #1911-328

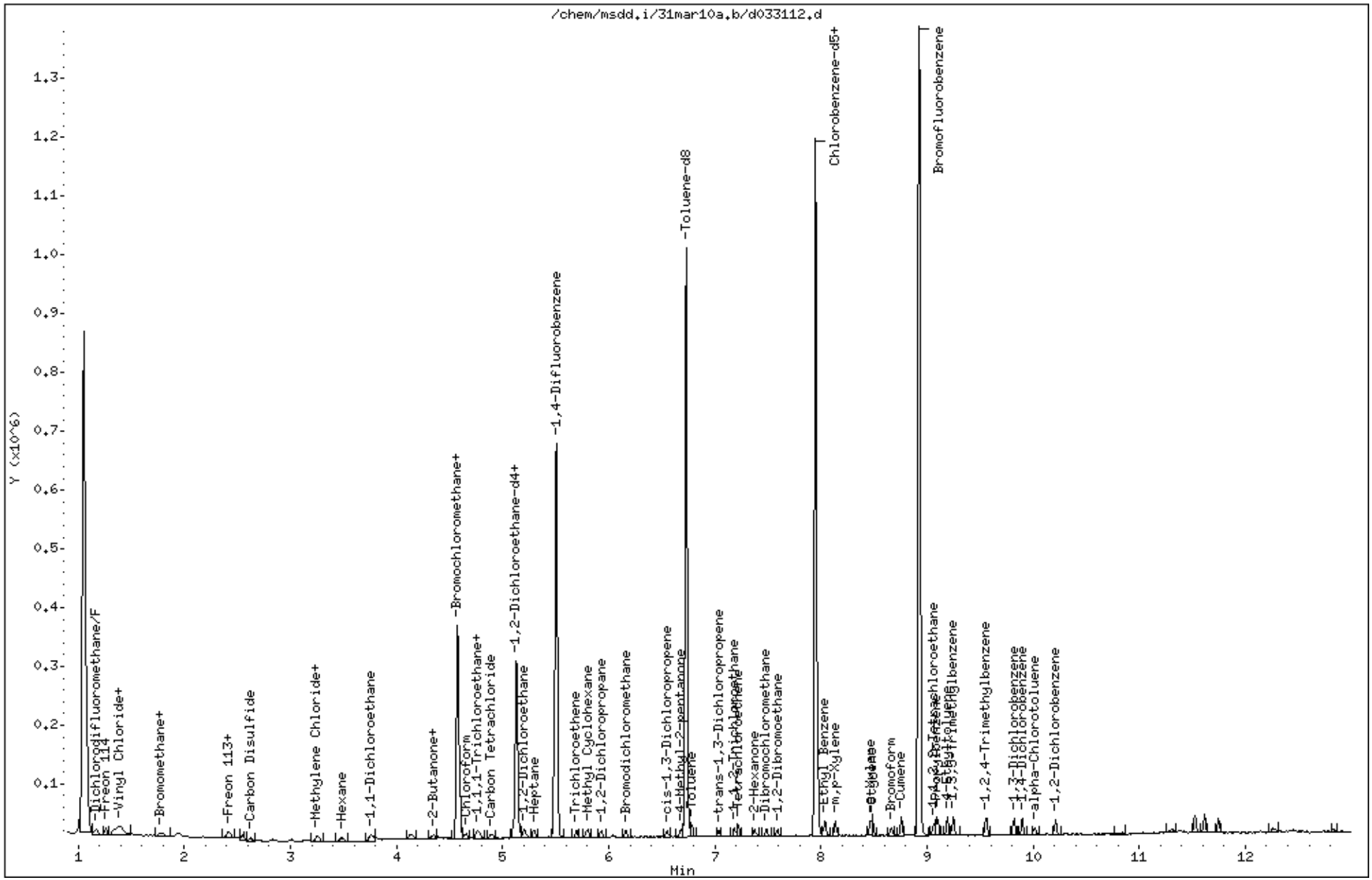
Column phase: RTx-624

Instrument: msdd.i

Operator: kjj

Column diameter: 0.53





Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msdd.i/31mar10a.b/d033113.d
Lab Smp Id: ICAL Level 3 Client Smp ID: ICAL level 3
Inj Date : 31-MAR-2010 14:28
Operator : kjj Inst ID: msdd.i
Smp Info : 200ml #1911-328
Misc Info : 2.0ppbv->2.0ppbv
Comment :
Method : /chem/msdd.i/31mar10a.b/d10q0331a.m
Meth Date : 31-Mar-2010 16:11 aburke Quant Type: ISTD
Cal Date : 31-MAR-2010 14:28 Cal File: d033113.d
Als bottle: 3 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT09mdl.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| | | | | AMOUNTS | | | |
|---|---|---|---|---|---|---|---|
| | | | | CAL-AMT | ON-COL | | |
| RT | EXP RT (REL RT) | MASS | RESPONSE | ( PPBV) | ( PPBV) | TARGET RANGE | RATIO |
| == | ====== ======== | ==== | ======== | ======= | ======= | ========== | ===== |
| * 79 Bromochloromethane | | | | | CAS #: 74-97-5 | | |
| 4.590 | 4.590 (1.000) | 130 | 101933 | 25.0000 | | 50.00- 150.00 | 100.00 |
| 4.590 | 4.590 (1.000) | 128 | 79886 | | | 27.33- 127.33 | 78.37 |
| 4.590 | 4.590 (1.000) | 49 | 178403 | | | 123.46- 223.46 | 175.02 |
| * 100 1,4-Difluorobenzene | | | | | CAS #: 540-36-3 | | |
| 5.514 | 5.514 (1.000) | 114 | 448318 | 25.0000 | | 50.00- 150.00 | 100.00 |
| 5.514 | 5.514 (1.000) | 88 | 82470 | | | 0.00- 68.33 | 18.40 |
| * 134 Chlorobenzene-d5 | | | | | CAS #: 3114-55-4 | | |
| 7.964 | 7.964 (1.000) | 117 | 509501 | 25.0000 | | 50.00- 150.00 | 100.00 |
| 7.964 | 7.964 (1.000) | 82 | 319143 | | | 12.92- 112.92 | 62.64 |
| $ 91 1,2-Dichloroethane-d4 | | | | | CAS #: 17060-07-0 | | |
| 5.142 | 5.142 (1.120) | 65 | 201646 | 25.0000 | 24.606 | 50.00- 150.00 | 100.00 |
| 5.142 | 5.142 (1.120) | 67 | 99525 | | | 2.15- 102.15 | 49.36 |
| $ 114 Toluene-d8 | | | | | CAS #: 2037-26-5 | | |
| 6.746 | 6.746 (1.223) | 98 | 555581 | 25.0000 | 25.009 | 50.00- 150.00 | 100.00 |
| 6.746 | 6.746 (1.223) | 70 | 67652 | | | 0.00- 62.20 | 12.18 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 114 Toluene-d8 (continued) | | | | | | | |
| 6.746 | 6.746 (1.223) | 100 | 362572 | | | 15.58- 115.58 | 65.26 |
| $ 149 Bromofluorobenzene | | | | | CAS #: 460-00-4 | | |
| 8.945 | 8.945 (1.123) | 174 | 258756 | 25.0000 | 24.904 | 50.00- 150.00 | 100.00 |
| 8.945 | 8.945 (1.123) | 95 | 440418 | | | 120.42- 220.42 | 170.21 |
| 8.945 | 8.945 (1.123) | 176 | 247651 | | | 46.27- 146.27 | 95.71 |
| 6 Propylene | | | | | CAS #: 115-07-1 | | |
| 1.153 | 1.153 (0.251) | 41 | 6882 | 2.00000 | 2.082 | 50.00- 150.00 | 100.00 |
| 1.153 | 1.153 (0.251) | 42 | 4177 | | | 14.09- 114.09 | 60.69 |
| 1.153 | 1.153 (0.251) | 39 | 5394 | | | 29.45- 129.45 | 78.38 |
| 7 Dichlorodifluoromethane/Fr12 | | | | | CAS #: 75-71-8 | | |
| 1.181 | 1.181 (0.257) | 85 | 25083 | 2.00000 | 1.939 | 50.00- 150.00 | 100.00 |
| 1.181 | 1.181 (0.257) | 87 | 8380 | | | 0.00- 82.88 | 33.41 |
| 10 Freon 114 | | | | | CAS #: 76-14-2 | | |
| 1.265 | 1.265 (0.276) | 135 | 14540 | 2.00000 | 2.034 | 50.00- 150.00 | 100.00 |
| 1.265 | 1.265 (0.276) | 137 | 4527 | | | 0.00- 82.69 | 31.13 |
| 13 Chloromethane | | | | | CAS #: 74-87-3 | | |
| 1.321 | 1.321 (0.288) | 50 | 6302 | 2.00000 | 2.140 | 50.00- 150.00 | 100.00 |
| 1.321 | 1.321 (0.288) | 52 | 2035 | | | 0.00- 83.02 | 32.29 |
| 14 Butane | | | | | CAS #: 106-97-8 | | |
| 1.377 | 1.377 (0.300) | 58 | 1543 | 2.00000 | 1.873 | 50.00- 150.00 | 100.00(a) |
| 1.377 | 1.377 (0.300) | 43 | 13128 | | | 701.77- 801.77 | 850.81 |
| 15 Vinyl Chloride | | | | | CAS #: 75-01-4 | | |
| 1.405 | 1.405 (0.306) | 62 | 5530 | 2.00000 | 1.408 | 50.00- 150.00 | 100.00 |
| 1.405 | 1.405 (0.306) | 64 | 2424 | | | 0.00- 97.20 | 43.83 |
| 18 1,3-Butadiene | | | | | CAS #: 106-99-0 | | |
| 1.419 | 1.419 (0.309) | 54 | 5162 | 2.00000 | 1.517 | 50.00- 150.00 | 100.00 |
| 1.419 | 1.419 (0.309) | 39 | 6001 | | | 75.63- 175.63 | 116.25 |
| 24 Bromomethane | | | | | CAS #: 74-83-9 | | |
| 1.684 | 1.684 (0.367) | 94 | 7701 | 2.00000 | 2.016 | 50.00- 150.00 | 100.00 |
| 1.684 | 1.684 (0.367) | 96 | 6917 | | | 41.64- 141.64 | 89.82 |
| 25 Chloroethane | | | | | CAS #: 75-00-3 | | |
| 1.754 | 1.754 (0.382) | 64 | 5132 | 2.00000 | 1.960 | 50.00- 150.00 | 100.00 |
| 1.754 | 1.754 (0.382) | 66 | 1455 | | | 0.00- 86.90 | 28.35 |
| 1.754 | 1.754 (0.382) | 49 | 1378 | | | 0.00- 78.35 | 26.85 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 26 Isopentane | | | | | CAS #: 78-78-4 | | |
| 1.782 | 1.782 (0.388) | 43 | 10449 | 2.00000 | 1.932 | 50.00- 150.00 | 100.00(a) |
| 1.782 | 1.782 (0.388) | 57 | 7443 | | | 20.70- 120.70 | 71.23 |
| 28 Trichlorofluoromethane/Fr11 | | | | | CAS #: 75-69-4 | | |
| 1.936 | 1.936 (0.422) | 101 | 26110 | 2.00000 | 1.931 | 50.00- 150.00 | 100.00 |
| 1.936 | 1.936 (0.422) | 103 | 16634 | | | 12.85- 112.85 | 63.71 |
| 29 Ethanol | | | | | CAS #: 64-17-5 | | |
| 2.176 | 2.176 (0.474) | 45 | 3274 | 2.00000 | 1.938 | 50.00- 150.00 | 100.00(Ta) |
| 2.190 | 2.190 (0.477) | 43 | 1136 | | | 0.00- 76.61 | 34.70 |
| 0.000 | 1.000 (0.000) | 46 | 0 | | | 0.00- 88.16 | 0.00 |
| 33 Freon 113 | | | | | CAS #: 76-13-1 | | |
| 2.398 | 2.398 (0.522) | 151 | 12062 | 2.00000 | 1.946 | 50.00- 150.00 | 100.00 |
| 2.405 | 2.405 (0.524) | 153 | 8030 | | | 13.56- 113.56 | 66.57 |
| 2.412 | 2.412 (0.526) | 101 | 18330 | | | 96.53- 196.53 | 151.96 |
| 34 1,1-Dichloroethene | | | | | CAS #: 75-35-4 | | |
| 2.427 | 2.427 (0.529) | 98 | 5559 | 2.00000 | 2.054 | 50.00- 150.00 | 100.00 |
| 2.434 | 2.434 (0.530) | 96 | 8453 | | | 107.46- 207.46 | 152.06 |
| 2.427 | 2.427 (0.529) | 61 | 17190 | | | 270.84- 370.84 | 309.23 |
| 38 Acetone | | | | | CAS #: 67-64-1 | | |
| 2.556 | 2.556 (0.557) | 58 | 4605 | 2.00000 | 2.113 | 50.00- 150.00 | 100.00 |
| 2.556 | 2.556 (0.557) | 43 | 18547 | | | 327.54- 427.54 | 402.76 |
| 41 2-Propanol | | | | | CAS #: 67-63-0 | | |
| 2.706 | 2.706 (0.590) | 45 | 12762 | 2.00000 | 1.757 | 50.00- 150.00 | 100.00(a) |
| 2.706 | 2.706 (0.590) | 43 | 2689 | | | 0.00- 72.17 | 21.07 |
| 3.150 | 3.150 (0.686) | 59 | 16411 | | | 0.00- 85.00 | 128.59 |
| 40 Carbon Disulfide | | | | | CAS #: 75-15-0 | | |
| 2.627 | 2.627 (0.572) | 76 | 26329 | 2.00000 | 1.984 | 50.00- 150.00 | 100.00 |
| 44 3-Chloropropene | | | | | CAS #: 107-05-1 | | |
| 2.828 | 2.828 (0.616) | 76 | 3964 | 2.00000 | 1.934 | 50.00- 150.00 | 100.00(a) |
| 2.835 | 2.835 (0.618) | 41 | 12077 | | | 245.26- 345.26 | 304.67 |
| 46 Methylene Chloride | | | | | CAS #: 75-09-2 | | |
| 3.000 | 3.000 (0.654) | 49 | 11484 | 2.00000 | 2.064 | 50.00- 150.00 | 100.00 |
| 3.007 | 3.007 (0.655) | 84 | 7730 | | | 18.20- 118.20 | 67.31 |
| 3.007 | 3.007 (0.655) | 51 | 3617 | | | 0.00- 80.39 | 31.50 |
| 48 tert-Butyl-Alcohol | | | | | CAS #: 75-65-0 | | |
| 3.150 | 3.150 (0.686) | 59 | 16411 | 2.00000 | 1.831 | 50.00- 150.00 | 100.00(a) |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 48 tert-Butyl-Alcohol (continued) | | | | | | | |
| 3.150 | 3.150 (0.686) | 41 | 5513 | | | 0.00- 83.59 | 33.59 |
| 3.150 | 3.150 (0.686) | 57 | 1229 | | | 0.00- 57.49 | 7.49 |
| 50 MTBE | | | | | CAS #: 1634-04-4 | | |
| 3.251 | 3.251 (0.708) | 73 | 25836 | 2.00000 | 1.961 | 50.00- 150.00 | 100.00 |
| 3.258 | 3.258 (0.710) | 57 | 5960 | | | 0.00- 73.10 | 23.07 |
| 3.258 | 3.258 (0.710) | 41 | 7792 | | | 0.00- 75.17 | 30.16 |
| 52 trans-1,2-Dichloroethene | | | | | CAS #: 156-60-5 | | |
| 3.265 | 3.265 (0.711) | 98 | 5626 | 2.00000 | 2.009 | 50.00- 150.00 | 100.00 |
| 3.258 | 3.258 (0.710) | 61 | 15169 | | | 222.42- 322.42 | 269.62 |
| 3.265 | 3.265 (0.711) | 96 | 9458 | | | 114.13- 214.13 | 168.11 |
| 58 Hexane | | | | | CAS #: 110-54-3 | | |
| 3.494 | 3.494 (0.761) | 57 | 15617 | 2.00000 | 1.980 | 50.00- 150.00 | 100.00 |
| 3.487 | 3.487 (0.760) | 43 | 11010 | | | 19.39- 119.39 | 70.50 |
| 3.494 | 3.494 (0.761) | 86 | 2351 | | | 0.00- 69.00 | 15.05 |
| 64 1,1-Dichloroethane | | | | | CAS #: 75-34-3 | | |
| 3.759 | 3.759 (0.819) | 63 | 19450 | 2.00000 | 1.996 | 50.00- 150.00 | 100.00 |
| 3.759 | 3.759 (0.819) | 65 | 6244 | | | 0.00- 81.96 | 32.10 |
| 63 Isopropyl ether | | | | | CAS #: 108-20-3 | | |
| 3.773 | 3.773 (0.822) | 45 | 35438 | 2.00000 | 1.936 | 50.00- 150.00 | 100.00(a) |
| 3.773 | 3.773 (0.822) | 87 | 7741 | | | 0.00- 73.47 | 21.84 |
| 3.773 | 3.773 (0.822) | 59 | 3779 | | | 0.00- 60.91 | 10.66 |
| 65 Vinyl Acetate | | | | | CAS #: 108-05-4 | | |
| 3.816 | 3.816 (0.831) | 86 | 1610 | 2.00000 | 1.481 | 50.00- 150.00 | 100.00(a) |
| 3.816 | 3.816 (0.831) | 43 | 25979 | | | 1533.22-1633.22 | 1613.60 |
| 72 t-Butylethyl Ether | | | | | CAS #: 637-92-3 | | |
| 4.146 | 4.146 (0.903) | 59 | 32474 | 2.00000 | 1.900 | 50.00- 150.00 | 100.00(a) |
| 4.139 | 4.139 (0.902) | 87 | 11992 | | | 0.00- 87.49 | 36.93 |
| 4.146 | 4.146 (0.903) | 41 | 7366 | | | 0.00- 70.38 | 22.68 |
| 74 cis-1,2-Dichloroethene | | | | | CAS #: 156-59-2 | | |
| 4.354 | 4.354 (0.948) | 98 | 6428 | 2.00000 | 2.018 | 50.00- 150.00 | 100.00 |
| 4.354 | 4.354 (0.948) | 96 | 10218 | | | 108.90- 208.90 | 158.96 |
| 4.354 | 4.354 (0.948) | 61 | 15672 | | | 194.41- 294.41 | 243.81 |
| 75 2-Butanone | | | | | CAS #: 78-93-3 | | |
| 4.404 | 4.404 (0.959) | 72 | 4584 | 2.00000 | 1.896 | 50.00- 150.00 | 100.00 |
| 4.404 | 4.404 (0.959) | 43 | 23410 | | | 391.89- 491.89 | 510.69 |
| 4.404 | 4.404 (0.959) | 57 | 1582 | | | 29.81- 129.81 | 34.51 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 78 Tetrahydrofuran | | | | | CAS #: 109-99-9 | | |
| 4.604 | 4.604 (1.003) | 42 | 12852 | 2.00000 | 2.040 | 50.00- 150.00 | 100.00 |
| 4.604 | 4.604 (1.003) | 71 | 4150 | | | 0.00- 85.98 | 32.29 |
| 4.604 | 4.604 (1.003) | 72 | 4519 | | | 0.00- 86.75 | 35.16 |
| 80 Chloroform | | | | | CAS #: 67-66-3 | | |
| 4.662 | 4.662 (1.016) | 83 | 23376 | 2.00000 | 2.010 | 50.00- 150.00 | 100.00 |
| 4.662 | 4.662 (1.016) | 85 | 14840 | | | 15.01- 115.01 | 63.48 |
| 85 1,1,1-Trichloroethane | | | | | CAS #: 71-55-6 | | |
| 4.783 | 4.783 (1.042) | 97 | 22947 | 2.00000 | 1.948 | 50.00- 150.00 | 100.00 |
| 4.783 | 4.783 (1.042) | 99 | 14528 | | | 13.41- 113.41 | 63.31 |
| 83 Cyclohexane | | | | | CAS #: 110-82-7 | | |
| 4.769 | 4.769 (1.039) | 84 | 13473 | 2.00000 | 1.892 | 50.00- 150.00 | 100.00 |
| 4.769 | 4.769 (1.039) | 56 | 18220 | | | 78.59- 178.59 | 135.23 |
| 4.769 | 4.769 (1.039) | 41 | 10609 | | | 26.74- 126.74 | 78.74 |
| 86 Carbon Tetrachloride | | | | | CAS #: 56-23-5 | | |
| 4.905 | 4.905 (1.069) | 119 | 18626 | 2.00000 | 1.804 | 50.00- 150.00 | 100.00 |
| 4.905 | 4.905 (1.069) | 117 | 18524 | | | 53.70- 153.70 | 99.45 |
| 90 Benzene | | | | | CAS #: 71-43-2 | | |
| 5.120 | 5.120 (0.929) | 78 | 33569 | 2.00000 | 1.946 | 50.00- 150.00 | 100.00 |
| 5.120 | 5.120 (0.929) | 77 | 8072 | | | 0.00- 73.17 | 24.05 |
| 89 2,2,4-Trimethylpentane | | | | | CAS #: 540-84-1 | | |
| 5.127 | 5.127 (1.117) | 57 | 57655 | 2.00000 | 1.958 | 50.00- 150.00 | 100.00 |
| 5.127 | 5.127 (1.117) | 56 | 18836 | | | 0.00- 81.50 | 32.67 |
| 5.127 | 5.127 (1.117) | 41 | 15773 | | | 0.00- 77.21 | 27.36 |
| 94 1,2-Dichloroethane | | | | | CAS #: 107-06-2 | | |
| 5.213 | 5.213 (0.945) | 62 | 18397 | 2.00000 | 1.982 | 50.00- 150.00 | 100.00 |
| 5.213 | 5.213 (0.945) | 64 | 5981 | | | 0.00- 83.10 | 32.51 |
| 93 tert-amyl-Methyl Ether | | | | | CAS #: 994-05-8 | | |
| 5.220 | 5.220 (1.137) | 73 | 29508 | 2.00000 | 1.903 | 50.00- 150.00 | 100.00(a) |
| 5.213 | 5.213 (1.136) | 87 | 6883 | | | 0.00- 74.24 | 23.33 |
| 5.213 | 5.213 (1.136) | 55 | 10681 | | | 0.00- 83.70 | 36.20 |
| 95 Heptane | | | | | CAS #: 142-82-5 | | |
| 5.306 | 5.306 (0.962) | 71 | 12518 | 2.00000 | 2.006 | 50.00- 150.00 | 100.00 |
| 5.306 | 5.306 (0.962) | 43 | 23029 | | | 146.63- 246.63 | 183.97 |
| 5.306 | 5.306 (0.962) | 57 | 13148 | | | 54.79- 154.79 | 105.03 |
| 104 Trichloroethene | | | | | CAS #: 79-01-6 | | |
| 5.707 | 5.707 (1.035) | 95 | 15363 | 2.00000 | 1.973 | 50.00- 150.00 | 100.00 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 104 Trichloroethene (continued) | | | | | | | |
| 5.707 | 5.707 (1.035) | 130 | 12885 | | | 36.71- 136.71 | 83.87 |
| 5.707 | 5.707 (1.035) | 97 | 10156 | | | 14.60- 114.60 | 66.11 |
| 105 Methyl Cyclohexane | | | | | CAS #: 108-87-2 | | |
| 5.815 | 5.815 (1.267) | 83 | 19833 | 2.00000 | 1.875 | 50.00- 150.00 | 100.00 |
| 5.815 | 5.815 (1.267) | 98 | 9541 | | | 0.00- 96.57 | 48.11 |
| 5.815 | 5.815 (1.267) | 55 | 18479 | | | 39.57- 139.57 | 93.17 |
| 106 1,2-Dichloropropane | | | | | CAS #: 78-87-5 | | |
| 5.944 | 5.944 (1.078) | 63 | 13675 | 2.00000 | 1.900 | 50.00- 150.00 | 100.00 |
| 5.944 | 5.944 (1.078) | 62 | 9696 | | | 20.35- 120.35 | 70.90 |
| 5.937 | 5.937 (1.077) | 41 | 9191 | | | 13.49- 113.49 | 67.21 |
| 107 1,4-Dioxane | | | | | CAS #: 123-91-1 | | |
| 6.051 | 6.051 (1.097) | 88 | 7735 | 2.00000 | 1.916 | 50.00- 150.00 | 100.00(a) |
| 6.044 | 6.044 (1.096) | 58 | 6312 | | | 27.58- 127.58 | 81.60 |
| 6.044 | 6.044 (1.096) | 57 | 2196 | | | 0.00- 76.30 | 28.39 |
| 108 Bromodichloromethane | | | | | CAS #: 75-27-4 | | |
| 6.180 | 6.180 (1.121) | 83 | 25168 | 2.00000 | 1.814 | 50.00- 150.00 | 100.00 |
| 6.180 | 6.180 (1.121) | 85 | 15595 | | | 13.44- 113.44 | 61.96 |
| 110 cis-1,3-Dichloropropene | | | | | CAS #: 10061-01-5 | | |
| 6.560 | 6.560 (1.190) | 75 | 18458 | 2.00000 | 1.719 | 50.00- 150.00 | 100.00 |
| 6.560 | 6.560 (1.190) | 77 | 6034 | | | 0.00- 81.59 | 32.69 |
| 6.567 | 6.567 (1.191) | 39 | 10673 | | | 5.92- 105.92 | 57.82 |
| 112 4-Methyl-2-pentanone | | | | | CAS #: 108-10-1 | | |
| 6.696 | 6.696 (1.214) | 58 | 11824 | 2.00000 | 1.871 | 50.00- 150.00 | 100.00 |
| 6.696 | 6.696 (1.214) | 43 | 31618 | | | 224.75- 324.75 | 267.41 |
| 6.696 | 6.696 (1.214) | 85 | 4712 | | | 0.00- 89.27 | 39.85 |
| 115 Toluene | | | | | CAS #: 108-88-3 | | |
| 6.796 | 6.796 (1.233) | 91 | 45318 | 2.00000 | 1.978 | 50.00- 150.00 | 100.00 |
| 6.803 | 6.803 (1.234) | 92 | 26362 | | | 9.29- 109.29 | 58.17 |
| 118 trans-1,3-Dichloropropene | | | | | CAS #: 10061-02-6 | | |
| 7.054 | 7.054 (0.886) | 75 | 18111 | 2.00000 | 1.639 | 50.00- 150.00 | 100.00 |
| 7.047 | 7.047 (0.885) | 77 | 6452 | | | 0.00- 83.09 | 35.62 |
| 7.047 | 7.047 (0.885) | 39 | 10274 | | | 4.25- 104.25 | 56.73 |
| 120 1,1,2-Trichloroethane | | | | | CAS #: 79-00-5 | | |
| 7.197 | 7.197 (0.904) | 97 | 15354 | 2.00000 | 1.951 | 50.00- 150.00 | 100.00 |
| 7.197 | 7.197 (0.904) | 99 | 9580 | | | 12.25- 112.25 | 62.39 |
| 7.197 | 7.197 (0.904) | 83 | 13958 | | | 42.00- 142.00 | 90.91 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 122 Tetrachloroethene | | | | | CAS #: 127-18-4 | | |
| 7.240 | 7.240 (0.909) | 166 | 16884 | 2.00000 | 1.901 | 50.00- 150.00 | 100.00 |
| 7.233 | 7.233 (0.908) | 129 | 14349 | | | 33.95- 133.95 | 84.99 |
| 7.233 | 7.233 (0.908) | 131 | 13359 | | | 27.31- 127.31 | 79.12 |
| 125 2-Hexanone | | | | | CAS #: 591-78-6 | | |
| 7.391 | 7.391 (0.928) | 58 | 16776 | 2.00000 | 1.883 | 50.00- 150.00 | 100.00(a) |
| 7.391 | 7.391 (0.928) | 43 | 32376 | | | 146.90- 246.90 | 192.99 |
| 7.391 | 7.391 (0.928) | 100 | 3063 | | | 0.00- 68.42 | 18.26 |
| 128 Dibromochloromethane | | | | | CAS #: 124-48-1 | | |
| 7.505 | 7.505 (0.942) | 129 | 21536 | 2.00000 | 1.751 | 50.00- 150.00 | 100.00 |
| 7.498 | 7.498 (0.942) | 127 | 16815 | | | 27.80- 127.80 | 78.08 |
| 130 1,2-Dibromoethane | | | | | CAS #: 106-93-4 | | |
| 7.606 | 7.606 (0.955) | 107 | 23076 | 2.00000 | 1.880 | 50.00- 150.00 | 100.00 |
| 7.606 | 7.606 (0.955) | 109 | 22130 | | | 44.92- 144.92 | 95.90 |
| 135 Chlorobenzene | | | | | CAS #: 108-90-7 | | |
| 7.992 | 7.992 (1.004) | 112 | 38673 | 2.00000 | 2.018 | 50.00- 150.00 | 100.00 |
| 7.992 | 7.992 (1.004) | 114 | 12049 | | | 0.00- 82.27 | 31.16 |
| 7.992 | 7.992 (1.004) | 77 | 30880 | | | 23.60- 123.60 | 79.85 |
| 137 Ethyl Benzene | | | | | CAS #: 100-41-4 | | |
| 8.050 | 8.050 (1.011) | 106 | 18115 | 2.00000 | 1.889 | 50.00- 150.00 | 100.00 |
| 8.050 | 8.050 (1.011) | 91 | 62363 | | | 290.13- 390.13 | 344.26 |
| 140 m,p-Xylene | | | | | CAS #: 108-38-3 | | |
| 8.150 | 8.150 (1.023) | 106 | 24406 | 2.00000 | 1.972 | 50.00- 150.00 | 100.00 |
| 8.150 | 8.150 (1.023) | 91 | 50377 | | | 156.72- 256.72 | 206.41 |
| 141 o-Xylene | | | | | CAS #: 95-47-6 | | |
| 8.487 | 8.487 (1.066) | 106 | 22448 | 2.00000 | 1.917 | 50.00- 150.00 | 100.00 |
| 8.487 | 8.487 (1.066) | 91 | 48849 | | | 167.29- 267.29 | 217.61 |
| 142 Styrene | | | | | CAS #: 100-42-5 | | |
| 8.508 | 8.508 (1.068) | 104 | 35944 | 2.00000 | 1.881 | 50.00- 150.00 | 100.00 |
| 8.508 | 8.508 (1.068) | 78 | 19776 | | | 5.25- 105.25 | 55.02 |
| 145 Bromoform | | | | | CAS #: 75-25-2 | | |
| 8.680 | 8.680 (1.090) | 173 | 16451 | 2.00000 | 1.650 | 50.00- 150.00 | 100.00 |
| 8.680 | 8.680 (1.090) | 171 | 8774 | | | 2.47- 102.47 | 53.33 |
| 147 Cumene | | | | | CAS #: 98-82-8 | | |
| 8.773 | 8.773 (1.102) | 105 | 68116 | 2.00000 | 1.916 | 50.00- 150.00 | 100.00 |
| 8.773 | 8.773 (1.102) | 120 | 17325 | | | 0.00- 75.25 | 25.43 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 147 Cumene (continued) | | | | | | | |
| 8.773 | 8.773 (1.102) | 51 | 7809 | | | 0.00- 62.26 | 11.46 |
| 151 1,1,2,2-Tetrachloroethane | | | | | CAS #: 79-34-5 | | |
| 9.081 | 9.081 (1.140) | 83 | 38003 | 2.00000 | 1.937 | 50.00- 150.00 | 100.00 |
| 9.081 | 9.081 (1.140) | 85 | 25232 | | | 14.89- 114.89 | 66.39 |
| 153 Propylbenzene | | | | | CAS #: 103-65-1 | | |
| 9.110 | 9.110 (1.144) | 91 | 87325 | 2.00000 | 1.935 | 50.00- 150.00 | 100.00 |
| 9.117 | 9.117 (1.145) | 120 | 19091 | | | 0.00- 71.30 | 21.86 |
| 9.117 | 9.117 (1.145) | 105 | 3125 | | | 0.00- 68.74 | 3.58 |
| 155 4-Ethyltoluene | | | | | CAS #: 622-96-8 | | |
| 9.210 | 9.210 (1.157) | 120 | 20280 | 2.00000 | 1.913 | 50.00- 150.00 | 100.00 |
| 9.210 | 9.210 (1.157) | 105 | 70834 | | | 299.99- 399.99 | 349.28 |
| 156 1,3,5-Trimethylbenzene | | | | | CAS #: 108-67-8 | | |
| 9.260 | 9.260 (1.163) | 120 | 27796 | 2.00000 | 1.944 | 50.00- 150.00 | 100.00 |
| 9.260 | 9.260 (1.163) | 105 | 57495 | | | 160.53- 260.53 | 206.85 |
| 162 1,2,4-Trimethylbenzene | | | | | CAS #: 95-63-6 | | |
| 9.576 | 9.576 (1.202) | 120 | 24888 | 2.00000 | 1.874 | 50.00- 150.00 | 100.00 |
| 9.576 | 9.576 (1.202) | 105 | 56094 | | | 174.98- 274.98 | 225.39 |
| 165 1,3-Dichlorobenzene | | | | | CAS #: 541-73-1 | | |
| 9.833 | 9.833 (1.235) | 146 | 35841 | 2.00000 | 2.016 | 50.00- 150.00 | 100.00 |
| 9.833 | 9.833 (1.235) | 148 | 22900 | | | 13.36- 113.36 | 63.89 |
| 9.833 | 9.833 (1.235) | 111 | 16069 | | | 0.00- 95.45 | 44.83 |
| 166 1,4-Dichlorobenzene | | | | | CAS #: 106-46-7 | | |
| 9.919 | 9.919 (1.246) | 146 | 37442 | 2.00000 | 2.063 | 50.00- 150.00 | 100.00 |
| 9.919 | 9.919 (1.246) | 148 | 23660 | | | 13.03- 113.03 | 63.19 |
| 9.919 | 9.919 (1.246) | 111 | 16387 | | | 0.00- 93.63 | 43.77 |
| 168 alpha-Chlorotoluene | | | | | CAS #: 100-44-7 | | |
| 10.034 | 10.034 (1.260) | 91 | 31074 | 2.00000 | 1.342 | 50.00- 150.00 | 100.00 |
| 10.034 | 10.034 (1.260) | 126 | 5477 | | | 0.00- 67.76 | 17.63 |
| 171 1,2-Dichlorobenzene | | | | | CAS #: 95-50-1 | | |
| 10.227 | 10.227 (1.284) | 146 | 33020 | 2.00000 | 2.023 | 50.00- 150.00 | 100.00 |
| 10.227 | 10.227 (1.284) | 148 | 20425 | | | 13.96- 113.96 | 61.86 |
| 10.227 | 10.227 (1.284) | 111 | 15667 | | | 0.00- 98.36 | 47.45 |
| 174 1,2,4-Trichlorobenzene | | | | | CAS #: 120-82-1 | | |
| 11.545 | 11.545 (1.450) | 180 | 27197 | 2.00000 | 2.169 | 50.00- 150.00 | 100.00 |
| 11.545 | 11.545 (1.450) | 182 | 25810 | | | 44.68- 144.68 | 94.90 |

| | | | | AMOUNTS | | | |
|---|---|---|---|---|---|---|---|
| | | | | CAL-AMT | ON-COL | | |
| RT | EXP RT (REL RT) | MASS | RESPONSE | ( PPBV) | ( PPBV) | TARGET RANGE | RATIO |
| 175 Hexachlorobutadiene | | | | | CAS #: 87-68-3 | | |
| 11.631 | 11.631 (1.461) | 225 | 17197 | 2.00000 | 2.025 | 50.00- 150.00 | 100.00 |
| 11.638 | 11.638 (1.461) | 223 | 11194 | | | 14.17- 114.17 | 65.09 |
| 176 Naphthalene | | | | | CAS #: 91-20-3 | | |
| 11.767 | 11.767 (1.478) | 128 | 70240 | 2.00000 | 2.143 | 50.00- 150.00 | 100.00 |
| 11.767 | 11.767 (1.478) | 127 | 9106 | | | 0.00- 62.93 | 12.96 |

QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Report Date: 31-Mar-2010 16:11

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdd.i
Lab File ID: d033113.d
Lab Smp Id: ICAL Level 3
Analysis Type: VOA
Quant Type: ISTD
Operator: kjj
Method File: /chem/msdd.i/31mar10a.b/d10q0331a.m
Misc Info: 2.0ppbv->2.0ppbv

Calibration Date: 31-MAR-2010
Calibration Time: 15:19
Client Smp ID: ICAL level 3
Level: LOW
Sample Type: AIR

| | | AREA LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 79 Bromochloromethan | 104005 | 62403 | 145607 | 101933 | -1.99 |
| 100 1,4-Difluorobenze | 450386 | 270232 | 630540 | 448318 | -0.46 |
| 134 Chlorobenzene-d5 | 514163 | 308498 | 719828 | 509501 | -0.91 |

| | | RT LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 79 Bromochloromethan | 4.58 | 4.25 | 4.91 | 4.59 | 0.31 |
| 100 1,4-Difluorobenze | 5.51 | 5.18 | 5.84 | 5.51 | 0.13 |
| 134 Chlorobenzene-d5 | 7.95 | 7.62 | 8.28 | 7.96 | 0.18 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msdd.i/31mar10a.b/d033113.d

Date : 31-MAR-2010 14:28

Client ID: ICAL level 3

Sample Info: 200ml #1911-328

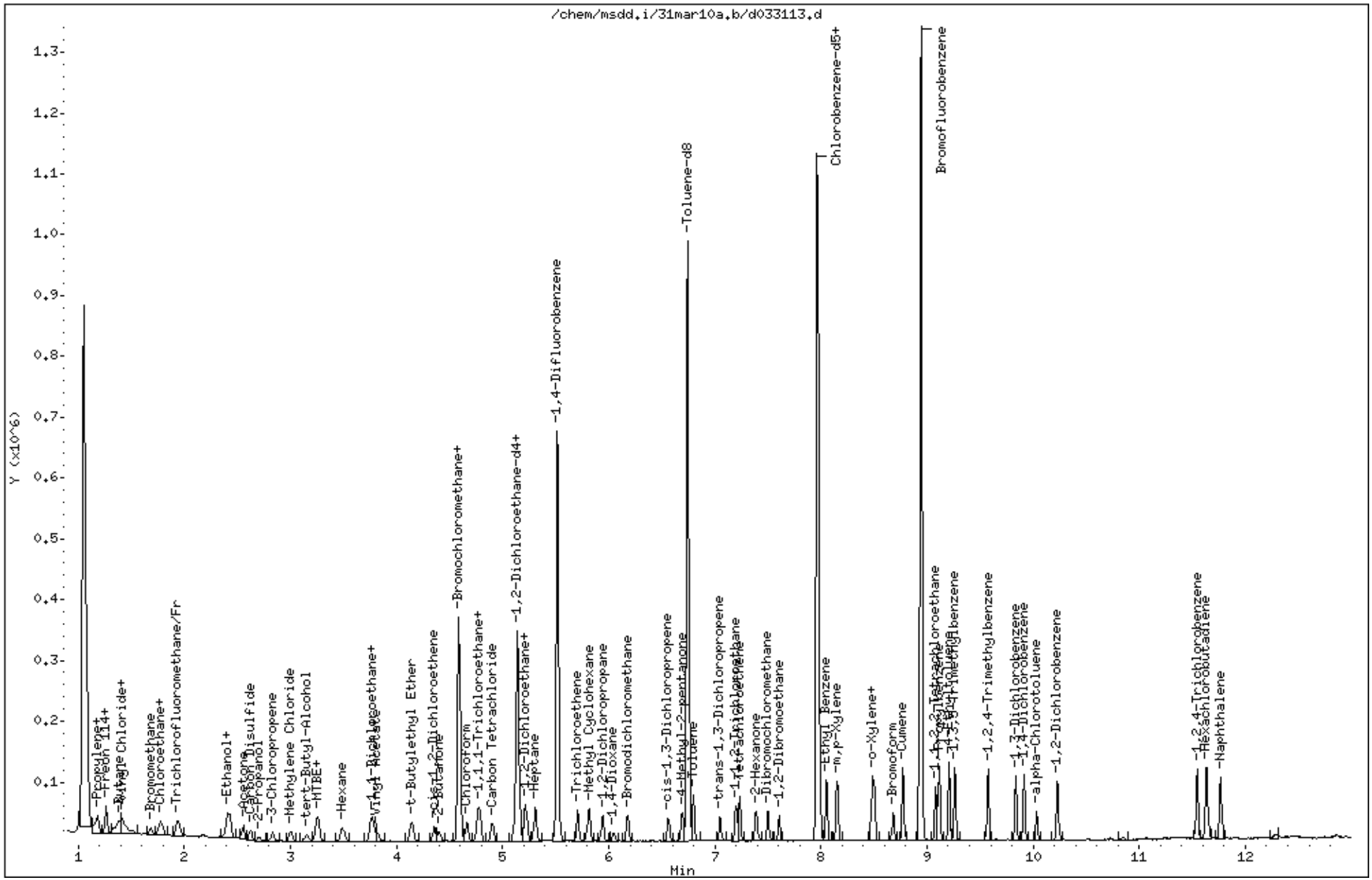
Column phase: RTx-624

Instrument: msdd.i

Operator: kjj

Column diameter: 0.53





Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msdd.i/31mar10a.b/d033114.d
Lab Smp Id: ICAL Level 4 Client Smp ID: ICAL level 4
Inj Date : 31-MAR-2010 14:59
Operator : ra Inst ID: msdd.i
Smp Info : 25ml #1936-87
Misc Info : 25ppbv->200ppbv
Comment :
Method : /chem/msdd.i/31mar10a.b/d10q0331a.m
Meth Date : 31-Mar-2010 16:11 aburke Quant Type: ISTD
Cal Date : 31-MAR-2010 14:59 Cal File: d033114.d
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT09.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| | | | | AMOUNTS | | | |
|---|---|---|---|---|---|---|---|
| | | | | CAL-AMT | ON-COL | | |
| RT | EXP RT (REL RT) | MASS | RESPONSE | ( PPBV) | ( PPBV) | TARGET RANGE | RATIO |
| == | ====== ======== | ==== | ======== | ======= | ======= | ========== | ===== |
| * 79 Bromochloromethane | | | | | CAS #: 74-97-5 | | |
| 4.576 | 4.576 (1.000) | 130 | 100796 | 25.0000 | | 50.00- 150.00 | 100.00 |
| 4.576 | 4.576 (1.000) | 128 | 78402 | | | 27.33- 127.33 | 77.78 |
| 4.569 | 4.569 (1.000) | 49 | 175008 | | | 123.46- 223.46 | 173.63 |
| * 100 1,4-Difluorobenzene | | | | | CAS #: 540-36-3 | | |
| 5.500 | 5.500 (1.000) | 114 | 444740 | 25.0000 | | 50.00- 150.00 | 100.00 |
| 5.500 | 5.500 (1.000) | 88 | 81008 | | | 0.00- 68.33 | 18.21 |
| * 134 Chlorobenzene-d5 | | | | | CAS #: 3114-55-4 | | |
| 7.949 | 7.949 (1.000) | 117 | 503732 | 25.0000 | | 50.00- 150.00 | 100.00 |
| 7.949 | 7.949 (1.000) | 82 | 317935 | | | 12.92- 112.92 | 63.12 |
| $ 91 1,2-Dichloroethane-d4 | | | | | CAS #: 17060-07-0 | | |
| 5.127 | 5.127 (1.121) | 65 | 203177 | 25.0000 | 25.072 | 50.00- 150.00 | 100.00 |
| 5.127 | 5.127 (1.121) | 67 | 106113 | | | 2.15- 102.15 | 52.23 |
| $ 114 Toluene-d8 | | | | | CAS #: 2037-26-5 | | |
| 6.732 | 6.732 (1.224) | 98 | 554498 | 25.0000 | 25.161 | 50.00- 150.00 | 100.00 |
| 6.725 | 6.725 (1.223) | 70 | 66651 | | | 0.00- 62.20 | 12.02 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 114 Toluene-d8 (continued) | | | | | | | |
| 6.732 | 6.732 (1.224) | 100 | 358177 | | | 15.58- 115.58 | 64.59 |
| $ 149 Bromofluorobenzene | | | | | CAS #: 460-00-4 | | |
| 8.924 | 8.924 (1.123) | 174 | 255101 | 25.0000 | 24.834 | 50.00- 150.00 | 100.00 |
| 8.924 | 8.924 (1.123) | 95 | 440694 | | | 120.42- 220.42 | 172.75 |
| 8.924 | 8.924 (1.123) | 176 | 247954 | | | 46.27- 146.27 | 97.20 |
| 6 Propylene | | | | | CAS #: 115-07-1 | | |
| 1.139 | 1.139 (0.249) | 41 | 83465 | 25.0000 | 25.534 | 50.00- 150.00 | 100.00 |
| 1.139 | 1.139 (0.249) | 42 | 54526 | | | 14.09- 114.09 | 65.33 |
| 1.139 | 1.139 (0.249) | 39 | 67992 | | | 29.45- 129.45 | 81.46 |
| 7 Dichlorodifluoromethane/Fr12 | | | | | CAS #: 75-71-8 | | |
| 1.167 | 1.167 (0.255) | 85 | 341021 | 25.0000 | 26.654 | 50.00- 150.00 | 100.00 |
| 1.167 | 1.167 (0.255) | 87 | 111973 | | | 0.00- 82.88 | 32.83 |
| 10 Freon 114 | | | | | CAS #: 76-14-2 | | |
| 1.265 | 1.265 (0.276) | 135 | 188260 | 25.0000 | 26.636 | 50.00- 150.00 | 100.00 |
| 1.265 | 1.265 (0.276) | 137 | 59000 | | | 0.00- 82.69 | 31.34 |
| 13 Chloromethane | | | | | CAS #: 74-87-3 | | |
| 1.307 | 1.307 (0.286) | 50 | 75762 | 25.0000 | 26.022 | 50.00- 150.00 | 100.00 |
| 1.307 | 1.307 (0.286) | 52 | 25717 | | | 0.00- 83.02 | 33.94 |
| 14 Butane | | | | | CAS #: 106-97-8 | | |
| 1.377 | 1.377 (0.301) | 58 | 19740 | 25.0000 | 24.230 | 50.00- 150.00 | 100.00 |
| 1.377 | 1.377 (0.301) | 43 | 140170 | | | 701.77- 801.77 | 710.08 |
| 15 Vinyl Chloride | | | | | CAS #: 75-01-4 | | |
| 1.391 | 1.391 (0.304) | 62 | 111556 | 25.0000 | 28.718 | 50.00- 150.00 | 100.00 |
| 1.391 | 1.391 (0.304) | 64 | 36497 | | | 0.00- 97.20 | 32.72 |
| 18 1,3-Butadiene | | | | | CAS #: 106-99-0 | | |
| 1.419 | 1.419 (0.310) | 54 | 88411 | 25.0000 | 26.277 | 50.00- 150.00 | 100.00 |
| 1.419 | 1.419 (0.310) | 39 | 101337 | | | 75.63- 175.63 | 114.62 |
| 24 Bromomethane | | | | | CAS #: 74-83-9 | | |
| 1.670 | 1.670 (0.365) | 94 | 97956 | 25.0000 | 25.934 | 50.00- 150.00 | 100.00 |
| 1.670 | 1.670 (0.365) | 96 | 92608 | | | 41.64- 141.64 | 94.54 |
| 25 Chloroethane | | | | | CAS #: 75-00-3 | | |
| 1.754 | 1.754 (0.383) | 64 | 63811 | 25.0000 | 24.644 | 50.00- 150.00 | 100.00 |
| 1.754 | 1.754 (0.383) | 66 | 20280 | | | 0.00- 86.90 | 31.78 |
| 1.754 | 1.754 (0.383) | 49 | 18408 | | | 0.00- 78.35 | 28.85 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 26 Isopentane | | | | | CAS #: 78-78-4 | | |
| 1.782 | 1.782 (0.390) | 43 | 141382 | 25.0000 | 26.444 | 50.00- 150.00 | 100.00 |
| 1.782 | 1.782 (0.390) | 57 | 98130 | | | 20.70- 120.70 | 69.41 |
| 28 Trichlorofluoromethane/Fr11 | | | | | CAS #: 75-69-4 | | |
| 1.936 | 1.936 (0.423) | 101 | 343477 | 25.0000 | 25.693 | 50.00- 150.00 | 100.00 |
| 1.936 | 1.936 (0.423) | 103 | 220541 | | | 12.85- 112.85 | 64.21 |
| 29 Ethanol | | | | | CAS #: 64-17-5 | | |
| 2.162 | 2.162 (0.472) | 45 | 42219 | 25.0000 | 25.278 | 50.00- 150.00 | 100.00 |
| 2.162 | 2.162 (0.472) | 43 | 10431 | | | 0.00- 76.61 | 24.71 |
| 2.162 | 2.162 (0.472) | 46 | 16023 | | | 0.00- 88.16 | 37.95 |
| 33 Freon 113 | | | | | CAS #: 76-13-1 | | |
| 2.405 | 2.405 (0.526) | 151 | 164139 | 25.0000 | 26.784 | 50.00- 150.00 | 100.00 |
| 2.405 | 2.405 (0.526) | 153 | 104350 | | | 13.56- 113.56 | 63.57 |
| 2.405 | 2.405 (0.526) | 101 | 239761 | | | 96.53- 196.53 | 146.07 |
| 34 1,1-Dichloroethene | | | | | CAS #: 75-35-4 | | |
| 2.427 | 2.427 (0.530) | 98 | 70895 | 25.0000 | 26.485 | 50.00- 150.00 | 100.00 |
| 2.427 | 2.427 (0.530) | 96 | 109071 | | | 107.46- 207.46 | 153.85 |
| 2.427 | 2.427 (0.530) | 61 | 221367 | | | 270.84- 370.84 | 312.25 |
| 38 Acetone | | | | | CAS #: 67-64-1 | | |
| 2.541 | 2.541 (0.555) | 58 | 52649 | 25.0000 | 24.430 | 50.00- 150.00 | 100.00 |
| 2.541 | 2.541 (0.555) | 43 | 195515 | | | 327.54- 427.54 | 371.36 |
| 40 Carbon Disulfide | | | | | CAS #: 75-15-0 | | |
| 2.620 | 2.620 (0.573) | 76 | 317534 | 25.0000 | 24.197 | 50.00- 150.00 | 100.00 |
| 41 2-Propanol | | | | | CAS #: 67-63-0 | | |
| 2.677 | 2.677 (0.585) | 45 | 177391 | 25.0000 | 24.701 | 50.00- 150.00 | 100.00 |
| 2.677 | 2.677 (0.585) | 43 | 39464 | | | 0.00- 72.17 | 22.25 |
| 2.685 | 2.685 (0.587) | 59 | 6770 | | | 0.00- 85.00 | 3.82 |
| 44 3-Chloropropene | | | | | CAS #: 107-05-1 | | |
| 2.828 | 2.828 (0.618) | 76 | 50684 | 25.0000 | 25.007 | 50.00- 150.00 | 100.00 |
| 2.821 | 2.821 (0.616) | 41 | 149467 | | | 245.26- 345.26 | 294.90 |
| 46 Methylene Chloride | | | | | CAS #: 75-09-2 | | |
| 2.993 | 2.993 (0.654) | 49 | 139652 | 25.0000 | 25.389 | 50.00- 150.00 | 100.00 |
| 2.993 | 2.993 (0.654) | 84 | 95654 | | | 18.20- 118.20 | 68.49 |
| 2.993 | 2.993 (0.654) | 51 | 41329 | | | 0.00- 80.39 | 29.59 |
| 48 tert-Butyl-Alcohol | | | | | CAS #: 75-65-0 | | |
| 3.136 | 3.136 (0.685) | 59 | 221616 | 25.0000 | 25.002 | 50.00- 150.00 | 100.00 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 48 tert-Butyl-Alcohol (continued) | | | | | | | |
| 3.136 | 3.136 (0.685) | 41 | 61758 | | | 0.00- 83.59 | 27.87 |
| 3.136 | 3.136 (0.685) | 57 | 24581 | | | 0.00- 57.49 | 11.09 |
| 50 MTBE | | | | | CAS #: 1634-04-4 | | |
| 3.243 | 3.243 (0.709) | 73 | 337401 | 25.0000 | 25.899 | 50.00- 150.00 | 100.00 |
| 3.236 | 3.236 (0.707) | 57 | 78119 | | | 0.00- 73.10 | 23.15 |
| 3.243 | 3.243 (0.709) | 41 | 87729 | | | 0.00- 75.17 | 26.00 |
| 52 trans-1,2-Dichloroethene | | | | | CAS #: 156-60-5 | | |
| 3.251 | 3.251 (0.710) | 98 | 72916 | 25.0000 | 26.328 | 50.00- 150.00 | 100.00 |
| 3.251 | 3.251 (0.710) | 61 | 189721 | | | 222.42- 322.42 | 260.19 |
| 3.251 | 3.251 (0.710) | 96 | 112197 | | | 114.13- 214.13 | 153.87 |
| 58 Hexane | | | | | CAS #: 110-54-3 | | |
| 3.480 | 3.480 (0.760) | 57 | 206269 | 25.0000 | 26.452 | 50.00- 150.00 | 100.00 |
| 3.480 | 3.480 (0.760) | 43 | 129953 | | | 19.39- 119.39 | 63.00 |
| 3.480 | 3.480 (0.760) | 86 | 33132 | | | 0.00- 69.00 | 16.06 |
| 63 Isopropyl ether | | | | | CAS #: 108-20-3 | | |
| 3.759 | 3.759 (0.822) | 45 | 471915 | 25.0000 | 26.070 | 50.00- 150.00 | 100.00 |
| 3.759 | 3.759 (0.822) | 87 | 111572 | | | 0.00- 73.47 | 23.64 |
| 3.759 | 3.759 (0.822) | 59 | 51327 | | | 0.00- 60.91 | 10.88 |
| 64 1,1-Dichloroethane | | | | | CAS #: 75-34-3 | | |
| 3.745 | 3.745 (0.818) | 63 | 254058 | 25.0000 | 26.360 | 50.00- 150.00 | 100.00 |
| 3.745 | 3.745 (0.818) | 65 | 81891 | | | 0.00- 81.96 | 32.23 |
| 65 Vinyl Acetate | | | | | CAS #: 108-05-4 | | |
| 3.802 | 3.802 (0.831) | 86 | 29323 | 25.0000 | 27.272 | 50.00- 150.00 | 100.00 |
| 3.802 | 3.802 (0.831) | 43 | 390796 | | | 1533.22-1633.22 | 1332.73 |
| 72 t-Butylethyl Ether | | | | | CAS #: 637-92-3 | | |
| 4.132 | 4.132 (0.903) | 59 | 436559 | 25.0000 | 25.827 | 50.00- 150.00 | 100.00 |
| 4.132 | 4.132 (0.903) | 87 | 163633 | | | 0.00- 87.49 | 37.48 |
| 4.124 | 4.124 (0.901) | 41 | 88263 | | | 0.00- 70.38 | 20.22 |
| 74 cis-1,2-Dichloroethene | | | | | CAS #: 156-59-2 | | |
| 4.339 | 4.339 (0.948) | 98 | 81058 | 25.0000 | 25.734 | 50.00- 150.00 | 100.00 |
| 4.339 | 4.339 (0.948) | 96 | 125959 | | | 108.90- 208.90 | 155.39 |
| 4.339 | 4.339 (0.948) | 61 | 202041 | | | 194.41- 294.41 | 249.25 |
| 75 2-Butanone | | | | | CAS #: 78-93-3 | | |
| 4.382 | 4.382 (0.958) | 72 | 63015 | 25.0000 | 26.352 | 50.00- 150.00 | 100.00 |
| 4.375 | 4.375 (0.956) | 43 | 297880 | | | 391.89- 491.89 | 472.71 |
| 4.375 | 4.375 (0.956) | 57 | 22950 | | | 29.81- 129.81 | 36.42 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 78 Tetrahydrofuran | | | | | CAS #: 109-99-9 | | |
| 4.576 | 4.576 (1.000) | 42 | 154849 | 25.0000 | 24.862 | 50.00- 150.00 | 100.00 |
| 4.583 | 4.583 (1.002) | 71 | 59209 | | | 0.00- 85.98 | 38.24 |
| 4.583 | 4.583 (1.002) | 72 | 60588 | | | 0.00- 86.75 | 39.13 |
| 80 Chloroform | | | | | CAS #: 67-66-3 | | |
| 4.647 | 4.647 (1.016) | 83 | 301542 | 25.0000 | 26.218 | 50.00- 150.00 | 100.00 |
| 4.647 | 4.647 (1.016) | 85 | 192546 | | | 15.01- 115.01 | 63.85 |
| 83 Cyclohexane | | | | | CAS #: 110-82-7 | | |
| 4.755 | 4.755 (1.039) | 84 | 182077 | 25.0000 | 25.852 | 50.00- 150.00 | 100.00 |
| 4.755 | 4.755 (1.039) | 56 | 230617 | | | 78.59- 178.59 | 126.66 |
| 4.755 | 4.755 (1.039) | 41 | 134461 | | | 26.74- 126.74 | 73.85 |
| 85 1,1,1-Trichloroethane | | | | | CAS #: 71-55-6 | | |
| 4.769 | 4.769 (1.042) | 97 | 305604 | 25.0000 | 26.241 | 50.00- 150.00 | 100.00 |
| 4.769 | 4.769 (1.042) | 99 | 195855 | | | 13.41- 113.41 | 64.09 |
| 86 Carbon Tetrachloride | | | | | CAS #: 56-23-5 | | |
| 4.891 | 4.891 (1.069) | 119 | 280137 | 25.0000 | 27.437 | 50.00- 150.00 | 100.00 |
| 4.891 | 4.891 (1.069) | 117 | 290924 | | | 53.70- 153.70 | 103.85 |
| 89 2,2,4-Trimethylpentane | | | | | CAS #: 540-84-1 | | |
| 5.113 | 5.113 (1.117) | 57 | 749128 | 25.0000 | 25.726 | 50.00- 150.00 | 100.00 |
| 5.113 | 5.113 (1.117) | 56 | 234905 | | | 0.00- 81.50 | 31.36 |
| 5.113 | 5.113 (1.117) | 41 | 203047 | | | 0.00- 77.21 | 27.10 |
| 90 Benzene | | | | | CAS #: 71-43-2 | | |
| 5.106 | 5.106 (0.928) | 78 | 441419 | 25.0000 | 25.795 | 50.00- 150.00 | 100.00 |
| 5.106 | 5.106 (0.928) | 77 | 104392 | | | 0.00- 73.17 | 23.65 |
| 93 tert-amyl-Methyl Ether | | | | | CAS #: 994-05-8 | | |
| 5.199 | 5.199 (1.136) | 73 | 388856 | 25.0000 | 25.357 | 50.00- 150.00 | 100.00 |
| 5.199 | 5.199 (1.136) | 87 | 95652 | | | 0.00- 74.24 | 24.60 |
| 5.206 | 5.206 (1.138) | 55 | 133868 | | | 0.00- 83.70 | 34.43 |
| 94 1,2-Dichloroethane | | | | | CAS #: 107-06-2 | | |
| 5.199 | 5.199 (0.945) | 62 | 239269 | 25.0000 | 25.989 | 50.00- 150.00 | 100.00 |
| 5.199 | 5.199 (0.945) | 64 | 79106 | | | 0.00- 83.10 | 33.06 |
| 95 Heptane | | | | | CAS #: 142-82-5 | | |
| 5.292 | 5.292 (0.962) | 71 | 163347 | 25.0000 | 26.384 | 50.00- 150.00 | 100.00 |
| 5.292 | 5.292 (0.962) | 43 | 302626 | | | 146.63- 246.63 | 185.27 |
| 5.292 | 5.292 (0.962) | 57 | 161600 | | | 54.79- 154.79 | 98.93 |
| 104 Trichloroethene | | | | | CAS #: 79-01-6 | | |
| 5.693 | 5.693 (1.035) | 95 | 192963 | 25.0000 | 24.987 | 50.00- 150.00 | 100.00 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 104 Trichloroethene (continued) | | | | | | | |
| 5.693 | 5.693 (1.035) | 130 | 177045 | | | 36.71- 136.71 | 91.75 |
| 5.693 | 5.693 (1.035) | 97 | 127884 | | | 14.60- 114.60 | 66.27 |
| 105 Methyl Cyclohexane | | | | | CAS #: 108-87-2 | | |
| 5.801 | 5.801 (1.268) | 83 | 276691 | 25.0000 | 26.451 | 50.00- 150.00 | 100.00 |
| 5.801 | 5.801 (1.268) | 98 | 129022 | | | 0.00- 96.57 | 46.63 |
| 5.793 | 5.793 (1.266) | 55 | 246964 | | | 39.57- 139.57 | 89.26 |
| 106 1,2-Dichloropropane | | | | | CAS #: 78-87-5 | | |
| 5.930 | 5.930 (1.078) | 63 | 189304 | 25.0000 | 26.507 | 50.00- 150.00 | 100.00 |
| 5.930 | 5.930 (1.078) | 62 | 129330 | | | 20.35- 120.35 | 68.32 |
| 5.922 | 5.922 (1.077) | 41 | 113186 | | | 13.49- 113.49 | 59.79 |
| 107 1,4-Dioxane | | | | | CAS #: 123-91-1 | | |
| 6.030 | 6.030 (1.096) | 88 | 98531 | 25.0000 | 24.605 | 50.00- 150.00 | 100.00 |
| 6.023 | 6.023 (1.095) | 58 | 74622 | | | 27.58- 127.58 | 75.73 |
| 6.023 | 6.023 (1.095) | 57 | 25564 | | | 0.00- 76.30 | 25.95 |
| 108 Bromodichloromethane | | | | | CAS #: 75-27-4 | | |
| 6.159 | 6.159 (1.120) | 83 | 361101 | 25.0000 | 26.229 | 50.00- 150.00 | 100.00 |
| 6.159 | 6.159 (1.120) | 85 | 236335 | | | 13.44- 113.44 | 65.45 |
| 110 cis-1,3-Dichloropropene | | | | | CAS #: 10061-01-5 | | |
| 6.546 | 6.546 (1.190) | 75 | 283735 | 25.0000 | 26.636 | 50.00- 150.00 | 100.00 |
| 6.546 | 6.546 (1.190) | 77 | 88572 | | | 0.00- 81.59 | 31.22 |
| 6.546 | 6.546 (1.190) | 39 | 151182 | | | 5.92- 105.92 | 53.28 |
| 112 4-Methyl-2-pentanone | | | | | CAS #: 108-10-1 | | |
| 6.674 | 6.674 (1.214) | 58 | 161741 | 25.0000 | 25.802 | 50.00- 150.00 | 100.00 |
| 6.674 | 6.674 (1.214) | 43 | 444250 | | | 224.75- 324.75 | 274.67 |
| 6.674 | 6.674 (1.214) | 85 | 65768 | | | 0.00- 89.27 | 40.66 |
| 115 Toluene | | | | | CAS #: 108-88-3 | | |
| 6.782 | 6.782 (1.233) | 91 | 594701 | 25.0000 | 26.162 | 50.00- 150.00 | 100.00 |
| 6.782 | 6.782 (1.233) | 92 | 355140 | | | 9.29- 109.29 | 59.72 |
| 118 trans-1,3-Dichloropropene | | | | | CAS #: 10061-02-6 | | |
| 7.033 | 7.033 (0.885) | 75 | 299470 | 25.0000 | 27.408 | 50.00- 150.00 | 100.00 |
| 7.033 | 7.033 (0.885) | 77 | 95023 | | | 0.00- 83.09 | 31.73 |
| 7.033 | 7.033 (0.885) | 39 | 153000 | | | 4.25- 104.25 | 51.09 |
| 120 1,1,2-Trichloroethane | | | | | CAS #: 79-00-5 | | |
| 7.183 | 7.183 (0.904) | 97 | 209057 | 25.0000 | 26.865 | 50.00- 150.00 | 100.00 |
| 7.183 | 7.183 (0.904) | 99 | 129586 | | | 12.25- 112.25 | 61.99 |
| 7.183 | 7.183 (0.904) | 83 | 184593 | | | 42.00- 142.00 | 88.30 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 122 Tetrachloroethene | | | | | CAS #: 127-18-4 | | |
| 7.219 | 7.219 (0.908) | 166 | 227314 | 25.0000 | 25.890 | 50.00- 150.00 | 100.00 |
| 7.219 | 7.219 (0.908) | 129 | 189449 | | | 33.95- 133.95 | 83.34 |
| 7.219 | 7.219 (0.908) | 131 | 178122 | | | 27.31- 127.31 | 78.36 |
| 125 2-Hexanone | | | | | CAS #: 591-78-6 | | |
| 7.369 | 7.369 (0.927) | 58 | 226167 | 25.0000 | 25.674 | 50.00- 150.00 | 100.00 |
| 7.369 | 7.369 (0.927) | 43 | 438011 | | | 146.90- 246.90 | 193.67 |
| 7.369 | 7.369 (0.927) | 100 | 41508 | | | 0.00- 68.42 | 18.35 |
| 128 Dibromochloromethane | | | | | CAS #: 124-48-1 | | |
| 7.484 | 7.484 (0.941) | 129 | 329605 | 25.0000 | 27.102 | 50.00- 150.00 | 100.00 |
| 7.484 | 7.484 (0.941) | 127 | 253981 | | | 27.80- 127.80 | 77.06 |
| 130 1,2-Dibromoethane | | | | | CAS #: 106-93-4 | | |
| 7.591 | 7.591 (0.955) | 107 | 319652 | 25.0000 | 26.338 | 50.00- 150.00 | 100.00 |
| 7.591 | 7.591 (0.955) | 109 | 299039 | | | 44.92- 144.92 | 93.55 |
| 135 Chlorobenzene | | | | | CAS #: 108-90-7 | | |
| 7.971 | 7.971 (1.003) | 112 | 468000 | 25.0000 | 24.696 | 50.00- 150.00 | 100.00 |
| 7.971 | 7.971 (1.003) | 114 | 150877 | | | 0.00- 82.27 | 32.24 |
| 7.971 | 7.971 (1.003) | 77 | 316500 | | | 23.60- 123.60 | 67.63 |
| 137 Ethyl Benzene | | | | | CAS #: 100-41-4 | | |
| 8.035 | 8.035 (1.011) | 106 | 251496 | 25.0000 | 26.532 | 50.00- 150.00 | 100.00 |
| 8.035 | 8.035 (1.011) | 91 | 833804 | | | 290.13- 390.13 | 331.54 |
| 140 m,p-Xylene | | | | | CAS #: 108-38-3 | | |
| 8.136 | 8.136 (1.023) | 106 | 312101 | 25.0000 | 25.502 | 50.00- 150.00 | 100.00 |
| 8.136 | 8.136 (1.023) | 91 | 650997 | | | 156.72- 256.72 | 208.59 |
| 141 o-Xylene | | | | | CAS #: 95-47-6 | | |
| 8.465 | 8.465 (1.065) | 106 | 301969 | 25.0000 | 26.088 | 50.00- 150.00 | 100.00 |
| 8.465 | 8.465 (1.065) | 91 | 657410 | | | 167.29- 267.29 | 217.71 |
| 142 Styrene | | | | | CAS #: 100-42-5 | | |
| 8.487 | 8.487 (1.068) | 104 | 498669 | 25.0000 | 26.390 | 50.00- 150.00 | 100.00 |
| 8.487 | 8.487 (1.068) | 78 | 277535 | | | 5.25- 105.25 | 55.66 |
| 145 Bromoform | | | | | CAS #: 75-25-2 | | |
| 8.666 | 8.666 (1.090) | 173 | 271387 | 25.0000 | 27.537 | 50.00- 150.00 | 100.00 |
| 8.666 | 8.666 (1.090) | 171 | 141615 | | | 2.47- 102.47 | 52.18 |
| 147 Cumene | | | | | CAS #: 98-82-8 | | |
| 8.759 | 8.759 (1.102) | 105 | 911953 | 25.0000 | 25.944 | 50.00- 150.00 | 100.00 |
| 8.759 | 8.759 (1.102) | 120 | 232066 | | | 0.00- 75.25 | 25.45 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 147 Cumene (continued) | | | | | | | |
| 8.759 | 8.759 (1.102) | 51 | 107021 | | | 0.00- 62.26 | 11.74 |
| 151 1,1,2,2-Tetrachloroethane | | | | | CAS #: 79-34-5 | | |
| 9.060 | 9.060 (1.140) | 83 | 501394 | 25.0000 | 25.845 | 50.00- 150.00 | 100.00 |
| 9.060 | 9.060 (1.140) | 85 | 320330 | | | 14.89- 114.89 | 63.89 |
| 153 Propylbenzene | | | | | CAS #: 103-65-1 | | |
| 9.096 | 9.096 (1.144) | 91 | 1137780 | 25.0000 | 25.498 | 50.00- 150.00 | 100.00 |
| 9.096 | 9.096 (1.144) | 120 | 241659 | | | 0.00- 71.30 | 21.24 |
| 9.096 | 9.096 (1.144) | 105 | 40826 | | | 0.00- 68.74 | 3.59 |
| 155 4-Ethyltoluene | | | | | CAS #: 622-96-8 | | |
| 9.189 | 9.189 (1.156) | 120 | 270405 | 25.0000 | 25.805 | 50.00- 150.00 | 100.00 |
| 9.189 | 9.189 (1.156) | 105 | 951185 | | | 299.99- 399.99 | 351.76 |
| 156 1,3,5-Trimethylbenzene | | | | | CAS #: 108-67-8 | | |
| 9.246 | 9.246 (1.163) | 120 | 370231 | 25.0000 | 26.188 | 50.00- 150.00 | 100.00 |
| 9.246 | 9.246 (1.163) | 105 | 777732 | | | 160.53- 260.53 | 210.07 |
| 162 1,2,4-Trimethylbenzene | | | | | CAS #: 95-63-6 | | |
| 9.554 | 9.554 (1.202) | 120 | 335091 | 25.0000 | 25.521 | 50.00- 150.00 | 100.00 |
| 9.554 | 9.554 (1.202) | 105 | 753189 | | | 174.98- 274.98 | 224.77 |
| 165 1,3-Dichlorobenzene | | | | | CAS #: 541-73-1 | | |
| 9.819 | 9.819 (1.235) | 146 | 432519 | 25.0000 | 24.606 | 50.00- 150.00 | 100.00 |
| 9.819 | 9.819 (1.235) | 148 | 275363 | | | 13.36- 113.36 | 63.66 |
| 9.819 | 9.819 (1.235) | 111 | 197086 | | | 0.00- 95.45 | 45.57 |
| 166 1,4-Dichlorobenzene | | | | | CAS #: 106-46-7 | | |
| 9.898 | 9.898 (1.245) | 146 | 436347 | 25.0000 | 24.313 | 50.00- 150.00 | 100.00 |
| 9.898 | 9.898 (1.245) | 148 | 278753 | | | 13.03- 113.03 | 63.88 |
| 9.898 | 9.898 (1.245) | 111 | 189843 | | | 0.00- 93.63 | 43.51 |
| 168 alpha-Chlorotoluene | | | | | CAS #: 100-44-7 | | |
| 10.012 | 10.012 (1.260) | 91 | 610033 | 25.0000 | 26.641 | 50.00- 150.00 | 100.00 |
| 10.020 | 10.020 (1.260) | 126 | 113022 | | | 0.00- 67.76 | 18.53 |
| 171 1,2-Dichlorobenzene | | | | | CAS #: 95-50-1 | | |
| 10.213 | 10.213 (1.285) | 146 | 401153 | 25.0000 | 24.856 | 50.00- 150.00 | 100.00 |
| 10.213 | 10.213 (1.285) | 148 | 252009 | | | 13.96- 113.96 | 62.82 |
| 10.213 | 10.213 (1.285) | 111 | 189099 | | | 0.00- 98.36 | 47.14 |
| 174 1,2,4-Trichlorobenzene | | | | | CAS #: 120-82-1 | | |
| 11.524 | 11.524 (1.450) | 180 | 270294 | 25.0000 | 21.804 | 50.00- 150.00 | 100.00 |
| 11.524 | 11.524 (1.450) | 182 | 256645 | | | 44.68- 144.68 | 94.95 |

| | | | | AMOUNTS | | | |
|---|---|---|---|---|---|---|---|
| | | | | CAL-AMT | ON-COL | | |
| RT | EXP RT (REL RT) | MASS | RESPONSE | ( PPBV) | ( PPBV) | TARGET RANGE | RATIO |
| == | ====== ======== | ==== | ======== | ======= | ======= | ========== | ===== |
| 175 Hexachlorobutadiene | | | | | CAS #: 87-68-3 | | |
| 11.617 | 11.617 (1.461) | 225 | 199471 | 25.0000 | 23.762 | 50.00- 150.00 | 100.00 |
| 11.617 | 11.617 (1.461) | 223 | 127460 | | | 14.17- 114.17 | 63.90 |
| 176 Naphthalene | | | | | CAS #: 91-20-3 | | |
| 11.746 | 11.746 (1.478) | 128 | 701660 | 25.0000 | 21.653 | 50.00- 150.00 | 100.00 |
| 11.746 | 11.746 (1.478) | 127 | 90869 | | | 0.00- 62.93 | 12.95 |

Report Date: 31-Mar-2010 16:11

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdd.i
Lab File ID: d033114.d
Lab Smp Id: ICAL Level 4
Analysis Type: VOA
Quant Type: ISTD
Operator: ra
Method File: /chem/msdd.i/31mar10a.b/d10q0331a.m
Misc Info: 25ppbv->200ppbv

Calibration Date: 31-MAR-2010
Calibration Time: 15:19
Client Smp ID: ICAL level 4
Level: LOW
Sample Type: AIR

| | | AREA LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 79 Bromochloromethan | 104005 | 62403 | 145607 | 100796 | -3.09 |
| 100 1,4-Difluorobenze | 450386 | 270232 | 630540 | 444740 | -1.25 |
| 134 Chlorobenzene-d5 | 514163 | 308498 | 719828 | 503732 | -2.03 |

| | | RT LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 79 Bromochloromethan | 4.58 | 4.25 | 4.91 | 4.58 | 0.00 |
| 100 1,4-Difluorobenze | 5.51 | 5.18 | 5.84 | 5.50 | -0.13 |
| 134 Chlorobenzene-d5 | 7.95 | 7.62 | 8.28 | 7.95 | 0.00 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msdd.i/31mar10a.b/d033114.d

Date : 31-MAR-2010 14:59

Client ID: ICAL level 4

Sample Info: 25ml #1936-87

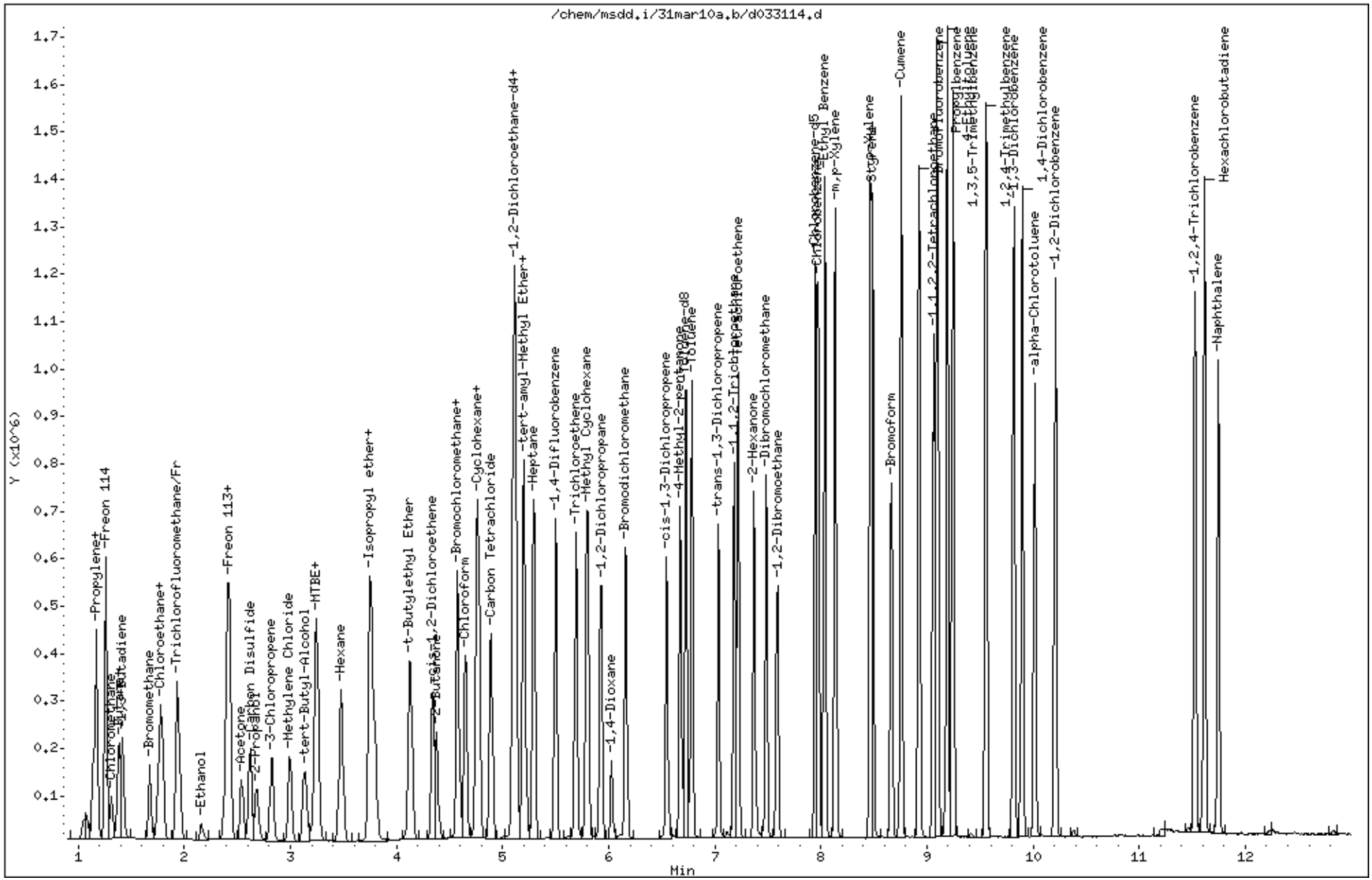
Column phase: RTx-624

Instrument: msdd.i

Operator: ra

Column diameter: 0.53





Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msdd.i/31mar10a.b/d033115.d
Lab Smp Id: ICAL Level 5 Client Smp ID: ICAL level 5
Inj Date : 31-MAR-2010 15:19
Operator : ra Inst ID: msdd.i
Smp Info : 50ml #1936-87
Misc Info : 50ppbv->200ppbv
Comment :
Method : /chem/msdd.i/31mar10a.b/d10q0331a.m
Meth Date : 31-Mar-2010 16:11 aburke Quant Type: ISTD
Cal Date : 31-MAR-2010 15:19 Cal File: d033115.d
Als bottle: 2 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT09.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| | | | | AMOUNTS | | | |
|---|---|---|---|---|---|---|---|
| | | | | CAL-AMT | ON-COL | | |
| RT | EXP RT (REL RT) | MASS | RESPONSE | ( PPBV) | ( PPBV) | TARGET RANGE | RATIO |
| == | ====== ======== | ==== | ======== | ======= | ======= | ========== | ===== |
| * 79 Bromochloromethane | | | | | CAS #: 74-97-5 | | |
| 4.576 | 4.576 (1.000) | 130 | 104005 | 25.0000 | | 80.00- 120.00 | 100.00 |
| 4.576 | 4.576 (1.000) | 128 | 80602 | | | 27.50- 127.50 | 77.50 |
| 4.576 | 4.576 (1.000) | 49 | 181894 | | | 124.89- 224.89 | 174.89 |
| * 100 1,4-Difluorobenzene | | | | | CAS #: 540-36-3 | | |
| 5.507 | 5.507 (1.000) | 114 | 450381 | 25.0000 | | 80.00- 120.00 | 100.00 |
| 5.507 | 5.507 (1.000) | 88 | 83566 | | | 0.00- 68.55 | 18.55 |
| * 134 Chlorobenzene-d5 | | | | | CAS #: 3114-55-4 | | |
| 7.950 | 7.950 (1.000) | 117 | 514163 | 25.0000 | | 80.00- 120.00 | 100.00 |
| 7.950 | 7.950 (1.000) | 82 | 323128 | | | 12.92- 112.92 | 62.85 |
| $ 91 1,2-Dichloroethane-d4 | | | | | CAS #: 17060-07-0 | | |
| 5.127 | 5.127 (1.121) | 65 | 211855 | 25.0000 | 25.337 | 80.00- 120.00 | 100.00 |
| 5.127 | 5.127 (1.121) | 67 | 116070 | | | 2.15- 102.15 | 54.79 |
| $ 114 Toluene-d8 | | | | | CAS #: 2037-26-5 | | |
| 6.732 | 6.732 (1.222) | 98 | 559573 | 25.0000 | 25.074 | 80.00- 120.00 | 100.00 |
| 6.732 | 6.732 (1.222) | 70 | 68324 | | | 0.00- 62.20 | 12.21 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 114 Toluene-d8 (continued) | | | | | | | |
| 6.732 | 6.732 (1.222) | 100 | 368183 | | | 15.58- 115.58 | 65.80 |
| $ 149 Bromofluorobenzene | | | | | CAS #: 460-00-4 | | |
| 8.931 | 8.931 (1.123) | 174 | 264681 | 25.0000 | 25.243 | 80.00- 120.00 | 100.00 |
| 8.924 | 8.924 (1.123) | 95 | 449186 | | | 119.71- 219.71 | 169.71 |
| 8.931 | 8.931 (1.123) | 176 | 252988 | | | 45.58- 145.58 | 95.58 |
| 6 Propylene | | | | | CAS #: 115-07-1 | | |
| 1.153 | 1.153 (0.252) | 41 | 160870 | 50.0000 | 47.697 | 80.00- 120.00 | 100.00 |
| 1.153 | 1.153 (0.252) | 42 | 106023 | | | 14.09- 114.09 | 65.91 |
| 1.153 | 1.153 (0.252) | 39 | 127943 | | | 29.45- 129.45 | 79.53 |
| 7 Dichlorodifluoromethane/Fr12 | | | | | CAS #: 75-71-8 | | |
| 1.167 | 1.167 (0.255) | 85 | 657116 | 50.0000 | 49.776 | 80.00- 120.00 | 100.00 |
| 1.167 | 1.167 (0.255) | 87 | 212307 | | | 0.00- 82.88 | 32.31 |
| 10 Freon 114 | | | | | CAS #: 76-14-2 | | |
| 1.265 | 1.265 (0.276) | 135 | 349774 | 50.0000 | 47.961 | 80.00- 120.00 | 100.00 |
| 1.265 | 1.265 (0.276) | 137 | 113799 | | | 0.00- 82.54 | 32.54 |
| 13 Chloromethane | | | | | CAS #: 74-87-3 | | |
| 1.321 | 1.321 (0.289) | 50 | 143429 | 50.0000 | 47.744 | 80.00- 120.00 | 100.00 |
| 1.321 | 1.321 (0.289) | 52 | 47453 | | | 0.00- 83.02 | 33.08 |
| 14 Butane | | | | | CAS #: 106-97-8 | | |
| 1.377 | 1.377 (0.301) | 58 | 43384 | 50.0000 | 51.608 | 80.00- 120.00 | 100.00 |
| 1.377 | 1.377 (0.301) | 43 | 313056 | | | 701.77- 801.77 | 721.59 |
| 15 Vinyl Chloride | | | | | CAS #: 75-01-4 | | |
| 1.405 | 1.405 (0.307) | 62 | 228224 | 50.0000 | 56.940 | 80.00- 120.00 | 100.00 |
| 1.405 | 1.405 (0.307) | 64 | 74603 | | | 0.00- 97.20 | 32.69 |
| 18 1,3-Butadiene | | | | | CAS #: 106-99-0 | | |
| 1.433 | 1.433 (0.313) | 54 | 176819 | 50.0000 | 50.931 | 80.00- 120.00 | 100.00 |
| 1.433 | 1.433 (0.313) | 39 | 207372 | | | 75.63- 175.63 | 117.28 |
| 24 Bromomethane | | | | | CAS #: 74-83-9 | | |
| 1.684 | 1.684 (0.368) | 94 | 189628 | 50.0000 | 48.656 | 80.00- 120.00 | 100.00 |
| 1.684 | 1.684 (0.368) | 96 | 179470 | | | 44.64- 144.64 | 94.64 |
| 25 Chloroethane | | | | | CAS #: 75-00-3 | | |
| 1.754 | 1.754 (0.383) | 64 | 126092 | 50.0000 | 47.195 | 80.00- 120.00 | 100.00 |
| 1.754 | 1.754 (0.383) | 66 | 40212 | | | 0.00- 86.90 | 31.89 |
| 1.754 | 1.754 (0.383) | 49 | 36541 | | | 0.00- 78.35 | 28.98 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 26 Isopentane | | | | | CAS #: 78-78-4 | | |
| 1.782 | 1.782 (0.390) | 43 | 270850 | 50.0000 | 49.096 | 80.00- 120.00 | 100.00 |
| 1.782 | 1.782 (0.390) | 57 | 191361 | | | 20.70- 120.70 | 70.65 |
| 28 Trichlorofluoromethane/Fr11 | | | | | CAS #: 75-69-4 | | |
| 1.950 | 1.950 (0.426) | 101 | 658017 | 50.0000 | 47.703 | 80.00- 120.00 | 100.00 |
| 1.950 | 1.950 (0.426) | 103 | 427716 | | | 15.00- 115.00 | 65.00 |
| 29 Ethanol | | | | | CAS #: 64-17-5 | | |
| 2.162 | 2.162 (0.472) | 45 | 87283 | 50.0000 | 50.648 | 80.00- 120.00 | 100.00 |
| 2.162 | 2.162 (0.472) | 43 | 20741 | | | 0.00- 76.61 | 23.76 |
| 2.162 | 2.162 (0.472) | 46 | 32685 | | | 0.00- 88.16 | 37.45 |
| 33 Freon 113 | | | | | CAS #: 76-13-1 | | |
| 2.413 | 2.413 (0.527) | 151 | 314738 | 50.0000 | 49.774 | 80.00- 120.00 | 100.00 |
| 2.413 | 2.413 (0.527) | 153 | 199181 | | | 13.28- 113.28 | 63.28 |
| 2.413 | 2.413 (0.527) | 101 | 460910 | | | 96.44- 196.44 | 146.44 |
| 34 1,1-Dichloroethene | | | | | CAS #: 75-35-4 | | |
| 2.434 | 2.434 (0.532) | 98 | 139150 | 50.0000 | 50.379 | 80.00- 120.00 | 100.00 |
| 2.434 | 2.434 (0.532) | 96 | 218309 | | | 106.89- 206.89 | 156.89 |
| 2.427 | 2.427 (0.530) | 61 | 435894 | | | 263.25- 363.25 | 313.25 |
| 38 Acetone | | | | | CAS #: 67-64-1 | | |
| 2.541 | 2.541 (0.555) | 58 | 108805 | 50.0000 | 48.930 | 80.00- 120.00 | 100.00 |
| 2.541 | 2.541 (0.555) | 43 | 396975 | | | 327.54- 427.54 | 364.85 |
| 40 Carbon Disulfide | | | | | CAS #: 75-15-0 | | |
| 2.627 | 2.627 (0.574) | 76 | 639147 | 50.0000 | 47.203 | 80.00- 120.00 | 100.00 |
| 41 2-Propanol | | | | | CAS #: 67-63-0 | | |
| 2.685 | 2.685 (0.587) | 45 | 383454 | 50.0000 | 51.748 | 80.00- 120.00 | 100.00 |
| 2.685 | 2.685 (0.587) | 43 | 90937 | | | 0.00- 72.17 | 23.72 |
| 2.685 | 2.685 (0.587) | 59 | 14504 | | | 0.00- 85.00 | 3.78 |
| 44 3-Chloropropene | | | | | CAS #: 107-05-1 | | |
| 2.835 | 2.835 (0.620) | 76 | 105262 | 50.0000 | 50.333 | 80.00- 120.00 | 100.00 |
| 2.828 | 2.828 (0.618) | 41 | 306525 | | | 245.26- 345.26 | 291.20 |
| 46 Methylene Chloride | | | | | CAS #: 75-09-2 | | |
| 3.000 | 3.000 (0.656) | 49 | 279690 | 50.0000 | 49.279 | 80.00- 120.00 | 100.00 |
| 3.000 | 3.000 (0.656) | 84 | 190569 | | | 18.14- 118.14 | 68.14 |
| 3.000 | 3.000 (0.656) | 51 | 84246 | | | 0.00- 80.39 | 30.12 |
| 48 tert-Butyl-Alcohol | | | | | CAS #: 75-65-0 | | |
| 3.136 | 3.136 (0.685) | 59 | 460678 | 50.0000 | 50.370 | 80.00- 120.00 | 100.00 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 48 tert-Butyl-Alcohol (continued) | | | | | | | |
| 3.136 | 3.136 (0.685) | 41 | 122915 | | | 0.00- 83.59 | 26.68 |
| 3.136 | 3.136 (0.685) | 57 | 50439 | | | 0.00- 57.49 | 10.95 |
| 50 MTBE | | | | | CAS #: 1634-04-4 | | |
| 3.243 | 3.243 (0.709) | 73 | 681794 | 50.0000 | 50.720 | 80.00- 120.00 | 100.00 |
| 3.243 | 3.243 (0.709) | 57 | 154733 | | | 0.00- 72.69 | 22.69 |
| 3.243 | 3.243 (0.709) | 41 | 169237 | | | 0.00- 75.17 | 24.82 |
| 52 trans-1,2-Dichloroethene | | | | | CAS #: 156-60-5 | | |
| 3.258 | 3.258 (0.712) | 98 | 145925 | 50.0000 | 51.063 | 80.00- 120.00 | 100.00 |
| 3.258 | 3.258 (0.712) | 61 | 387154 | | | 215.31- 315.31 | 265.31 |
| 3.258 | 3.258 (0.712) | 96 | 224830 | | | 114.13- 214.13 | 154.07 |
| 58 Hexane | | | | | CAS #: 110-54-3 | | |
| 3.487 | 3.487 (0.762) | 57 | 399120 | 50.0000 | 49.604 | 80.00- 120.00 | 100.00 |
| 3.487 | 3.487 (0.762) | 43 | 253842 | | | 19.39- 119.39 | 63.60 |
| 3.480 | 3.480 (0.760) | 86 | 63999 | | | 0.00- 69.00 | 16.04 |
| 63 Isopropyl ether | | | | | CAS #: 108-20-3 | | |
| 3.766 | 3.766 (0.823) | 45 | 921499 | 50.0000 | 49.336 | 80.00- 120.00 | 100.00 |
| 3.766 | 3.766 (0.823) | 87 | 221951 | | | 0.00- 73.47 | 24.09 |
| 3.766 | 3.766 (0.823) | 59 | 101905 | | | 0.00- 60.91 | 11.06 |
| 64 1,1-Dichloroethane | | | | | CAS #: 75-34-3 | | |
| 3.752 | 3.752 (0.820) | 63 | 499098 | 50.0000 | 50.187 | 80.00- 120.00 | 100.00 |
| 3.752 | 3.752 (0.820) | 65 | 158933 | | | 0.00- 81.84 | 31.84 |
| 65 Vinyl Acetate | | | | | CAS #: 108-05-4 | | |
| 3.809 | 3.809 (0.832) | 86 | 57487 | 50.0000 | 51.816 | 80.00- 120.00 | 100.00 |
| 3.802 | 3.802 (0.831) | 43 | 1115220 | | | 1533.22-1633.22 | 1939.95 |
| 72 t-Butylethyl Ether | | | | | CAS #: 637-92-3 | | |
| 4.132 | 4.132 (0.903) | 59 | 866479 | 50.0000 | 49.679 | 80.00- 120.00 | 100.00 |
| 4.139 | 4.139 (0.904) | 87 | 326258 | | | 0.00- 87.49 | 37.65 |
| 4.132 | 4.132 (0.903) | 41 | 170014 | | | 0.00- 70.38 | 19.62 |
| 74 cis-1,2-Dichloroethene | | | | | CAS #: 156-59-2 | | |
| 4.347 | 4.347 (0.950) | 98 | 162040 | 50.0000 | 49.856 | 80.00- 120.00 | 100.00 |
| 4.347 | 4.347 (0.950) | 96 | 251228 | | | 105.04- 205.04 | 155.04 |
| 4.347 | 4.347 (0.950) | 61 | 396519 | | | 194.70- 294.70 | 244.70 |
| 75 2-Butanone | | | | | CAS #: 78-93-3 | | |
| 4.382 | 4.382 (0.958) | 72 | 130683 | 50.0000 | 52.964 | 80.00- 120.00 | 100.00 |
| 4.382 | 4.382 (0.958) | 43 | 586890 | | | 399.09- 499.09 | 449.09 |
| 4.382 | 4.382 (0.958) | 57 | 47040 | | | 29.81- 129.81 | 36.00 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 78 Tetrahydrofuran | | | | | CAS #: 109-99-9 | | |
| 4.583 | 4.583 (1.002) | 42 | 318463 | 50.0000 | 49.555 | 80.00- 120.00 | 100.00 |
| 4.583 | 4.583 (1.002) | 71 | 115716 | | | 0.00- 85.98 | 36.34 |
| 4.583 | 4.583 (1.002) | 72 | 121347 | | | 0.00- 86.75 | 38.10 |
| 80 Chloroform | | | | | CAS #: 67-66-3 | | |
| 4.655 | 4.655 (1.017) | 83 | 592151 | 50.0000 | 49.896 | 80.00- 120.00 | 100.00 |
| 4.655 | 4.655 (1.017) | 85 | 379407 | | | 14.07- 114.07 | 64.07 |
| 83 Cyclohexane | | | | | CAS #: 110-82-7 | | |
| 4.762 | 4.762 (1.041) | 84 | 360476 | 50.0000 | 49.602 | 80.00- 120.00 | 100.00 |
| 4.762 | 4.762 (1.041) | 56 | 456655 | | | 76.68- 176.68 | 126.68 |
| 4.762 | 4.762 (1.041) | 41 | 264732 | | | 23.44- 123.44 | 73.44 |
| 85 1,1,1-Trichloroethane | | | | | CAS #: 71-55-6 | | |
| 4.776 | 4.776 (1.044) | 97 | 604747 | 50.0000 | 50.325 | 80.00- 120.00 | 100.00 |
| 4.776 | 4.776 (1.044) | 99 | 386413 | | | 13.90- 113.90 | 63.90 |
| 86 Carbon Tetrachloride | | | | | CAS #: 56-23-5 | | |
| 4.891 | 4.891 (1.069) | 119 | 554651 | 50.0000 | 52.647 | 80.00- 120.00 | 100.00 |
| 4.891 | 4.891 (1.069) | 117 | 576348 | | | 53.91- 153.91 | 103.91 |
| 89 2,2,4-Trimethylpentane | | | | | CAS #: 540-84-1 | | |
| 5.120 | 5.120 (1.119) | 57 | 1491205 | 50.0000 | 49.629 | 80.00- 120.00 | 100.00 |
| 5.120 | 5.120 (1.119) | 56 | 464162 | | | 0.00- 81.50 | 31.13 |
| 5.120 | 5.120 (1.119) | 41 | 389698 | | | 0.00- 77.21 | 26.13 |
| 90 Benzene | | | | | CAS #: 71-43-2 | | |
| 5.113 | 5.113 (0.928) | 78 | 850841 | 50.0000 | 49.098 | 80.00- 120.00 | 100.00 |
| 5.113 | 5.113 (0.928) | 77 | 201696 | | | 0.00- 73.17 | 23.71 |
| 93 tert-amyl-Methyl Ether | | | | | CAS #: 994-05-8 | | |
| 5.206 | 5.206 (1.138) | 73 | 792664 | 50.0000 | 50.094 | 80.00- 120.00 | 100.00 |
| 5.206 | 5.206 (1.138) | 87 | 193000 | | | 0.00- 74.24 | 24.35 |
| 5.206 | 5.206 (1.138) | 55 | 258589 | | | 0.00- 83.70 | 32.62 |
| 94 1,2-Dichloroethane | | | | | CAS #: 107-06-2 | | |
| 5.199 | 5.199 (0.944) | 62 | 472161 | 50.0000 | 50.642 | 80.00- 120.00 | 100.00 |
| 5.199 | 5.199 (0.944) | 64 | 151171 | | | 0.00- 83.10 | 32.02 |
| 95 Heptane | | | | | CAS #: 142-82-5 | | |
| 5.299 | 5.299 (0.962) | 71 | 312809 | 50.0000 | 49.893 | 80.00- 120.00 | 100.00 |
| 5.299 | 5.299 (0.962) | 43 | 593207 | | | 146.63- 246.63 | 189.64 |
| 5.299 | 5.299 (0.962) | 57 | 328158 | | | 54.79- 154.79 | 104.91 |
| 104 Trichloroethene | | | | | CAS #: 79-01-6 | | |
| 5.693 | 5.693 (1.034) | 95 | 387090 | 50.0000 | 49.497 | 80.00- 120.00 | 100.00 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 104 Trichloroethene (continued) | | | | | | | |
| 5.693 | 5.693 (1.034) | 130 | 340144 | | | 37.87- 137.87 | 87.87 |
| 5.693 | 5.693 (1.034) | 97 | 250412 | | | 14.69- 114.69 | 64.69 |
| 105 Methyl Cyclohexane | | | | | CAS #: 108-87-2 | | |
| 5.801 | 5.801 (1.268) | 83 | 543207 | 50.0000 | 50.328 | 80.00- 120.00 | 100.00 |
| 5.801 | 5.801 (1.268) | 98 | 251963 | | | 0.00- 96.57 | 46.38 |
| 5.801 | 5.801 (1.268) | 55 | 481964 | | | 39.57- 139.57 | 88.73 |
| 106 1,2-Dichloropropane | | | | | CAS #: 78-87-5 | | |
| 5.930 | 5.930 (1.077) | 63 | 357053 | 50.0000 | 49.370 | 80.00- 120.00 | 100.00 |
| 5.930 | 5.930 (1.077) | 62 | 256686 | | | 21.89- 121.89 | 71.89 |
| 5.930 | 5.930 (1.077) | 41 | 218055 | | | 11.07- 111.07 | 61.07 |
| 107 1,4-Dioxane | | | | | CAS #: 123-91-1 | | |
| 6.030 | 6.030 (1.095) | 88 | 204372 | 50.0000 | 50.397 | 80.00- 120.00 | 100.00 |
| 6.023 | 6.023 (1.094) | 58 | 156611 | | | 26.63- 126.63 | 76.63 |
| 6.023 | 6.023 (1.094) | 57 | 51420 | | | 0.00- 76.30 | 25.16 |
| 108 Bromodichloromethane | | | | | CAS #: 75-27-4 | | |
| 6.166 | 6.166 (1.120) | 83 | 703959 | 50.0000 | 50.493 | 80.00- 120.00 | 100.00 |
| 6.166 | 6.166 (1.120) | 85 | 451769 | | | 14.18- 114.18 | 64.18 |
| 110 cis-1,3-Dichloropropene | | | | | CAS #: 10061-01-5 | | |
| 6.546 | 6.546 (1.189) | 75 | 557134 | 50.0000 | 51.646 | 80.00- 120.00 | 100.00 |
| 6.546 | 6.546 (1.189) | 77 | 174558 | | | 0.00- 81.33 | 31.33 |
| 6.546 | 6.546 (1.189) | 39 | 308392 | | | 5.35- 105.35 | 55.35 |
| 112 4-Methyl-2-pentanone | | | | | CAS #: 108-10-1 | | |
| 6.675 | 6.675 (1.212) | 58 | 327149 | 50.0000 | 51.536 | 80.00- 120.00 | 100.00 |
| 6.675 | 6.675 (1.212) | 43 | 893772 | | | 224.75- 324.75 | 273.20 |
| 6.675 | 6.675 (1.212) | 85 | 130733 | | | 0.00- 89.27 | 39.96 |
| 115 Toluene | | | | | CAS #: 108-88-3 | | |
| 6.789 | 6.789 (1.233) | 91 | 1147239 | 50.0000 | 49.837 | 80.00- 120.00 | 100.00 |
| 6.789 | 6.789 (1.233) | 92 | 676566 | | | 8.97- 108.97 | 58.97 |
| 118 trans-1,3-Dichloropropene | | | | | CAS #: 10061-02-6 | | |
| 7.033 | 7.033 (0.885) | 75 | 599928 | 50.0000 | 53.792 | 80.00- 120.00 | 100.00 |
| 7.033 | 7.033 (0.885) | 77 | 188753 | | | 0.00- 81.46 | 31.46 |
| 7.033 | 7.033 (0.885) | 39 | 305935 | | | 1.00- 101.00 | 51.00 |
| 120 1,1,2-Trichloroethane | | | | | CAS #: 79-00-5 | | |
| 7.183 | 7.183 (0.904) | 97 | 399702 | 50.0000 | 50.323 | 80.00- 120.00 | 100.00 |
| 7.183 | 7.183 (0.904) | 99 | 248351 | | | 12.13- 112.13 | 62.13 |
| 7.183 | 7.183 (0.904) | 83 | 356224 | | | 39.12- 139.12 | 89.12 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 122 Tetrachloroethene | | | | | CAS #: 127-18-4 | | |
| 7.219 | 7.219 (0.908) | 166 | 441240 | 50.0000 | 49.236 | 80.00- 120.00 | 100.00 |
| 7.219 | 7.219 (0.908) | 129 | 369502 | | | 33.74- 133.74 | 83.74 |
| 7.219 | 7.219 (0.908) | 131 | 349082 | | | 29.11- 129.11 | 79.11 |
| 125 2-Hexanone | | | | | CAS #: 591-78-6 | | |
| 7.369 | 7.369 (0.927) | 58 | 470062 | 50.0000 | 52.277 | 80.00- 120.00 | 100.00 |
| 7.369 | 7.369 (0.927) | 43 | 913170 | | | 144.27- 244.27 | 194.27 |
| 7.369 | 7.369 (0.927) | 100 | 87187 | | | 0.00- 68.42 | 18.55 |
| 128 Dibromochloromethane | | | | | CAS #: 124-48-1 | | |
| 7.484 | 7.484 (0.941) | 129 | 643933 | 50.0000 | 51.874 | 80.00- 120.00 | 100.00 |
| 7.484 | 7.484 (0.941) | 127 | 501574 | | | 27.80- 127.80 | 77.89 |
| 130 1,2-Dibromoethane | | | | | CAS #: 106-93-4 | | |
| 7.591 | 7.591 (0.955) | 107 | 622700 | 50.0000 | 50.266 | 80.00- 120.00 | 100.00 |
| 7.591 | 7.591 (0.955) | 109 | 585228 | | | 43.98- 143.98 | 93.98 |
| 135 Chlorobenzene | | | | | CAS #: 108-90-7 | | |
| 7.978 | 7.978 (1.004) | 112 | 918299 | 50.0000 | 47.475 | 80.00- 120.00 | 100.00 |
| 7.978 | 7.978 (1.004) | 114 | 295395 | | | 0.00- 82.17 | 32.17 |
| 7.971 | 7.971 (1.003) | 77 | 616978 | | | 17.19- 117.19 | 67.19 |
| 137 Ethyl Benzene | | | | | CAS #: 100-41-4 | | |
| 8.036 | 8.036 (1.011) | 106 | 497385 | 50.0000 | 51.407 | 80.00- 120.00 | 100.00 |
| 8.036 | 8.036 (1.011) | 91 | 1635268 | | | 290.13- 390.13 | 328.77 |
| 140 m,p-Xylene | | | | | CAS #: 108-38-3 | | |
| 8.136 | 8.136 (1.023) | 106 | 624778 | 50.0000 | 50.016 | 80.00- 120.00 | 100.00 |
| 8.136 | 8.136 (1.023) | 91 | 1296583 | | | 156.72- 256.72 | 207.53 |
| 141 o-Xylene | | | | | CAS #: 95-47-6 | | |
| 8.465 | 8.465 (1.065) | 106 | 599537 | 50.0000 | 50.745 | 80.00- 120.00 | 100.00 |
| 8.465 | 8.465 (1.065) | 91 | 1301225 | | | 167.04- 267.04 | 217.04 |
| 142 Styrene | | | | | CAS #: 100-42-5 | | |
| 8.487 | 8.487 (1.068) | 104 | 995821 | 50.0000 | 51.631 | 80.00- 120.00 | 100.00 |
| 8.487 | 8.487 (1.068) | 78 | 547838 | | | 5.01- 105.01 | 55.01 |
| 145 Bromoform | | | | | CAS #: 75-25-2 | | |
| 8.666 | 8.666 (1.090) | 173 | 543254 | 50.0000 | 54.005 | 80.00- 120.00 | 100.00 |
| 8.666 | 8.666 (1.090) | 171 | 280387 | | | 1.61- 101.61 | 51.61 |
| 147 Cumene | | | | | CAS #: 98-82-8 | | |
| 8.759 | 8.759 (1.102) | 105 | 1816402 | 50.0000 | 50.626 | 80.00- 120.00 | 100.00 |
| 8.759 | 8.759 (1.102) | 120 | 458947 | | | 0.00- 75.25 | 25.27 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 147 Cumene (continued) | | | | | | | |
| 8.759 | 8.759 (1.102) | 51 | 212743 | | | 0.00- 62.26 | 11.71 |
| 151 1,1,2,2-Tetrachloroethane | | | | | CAS #: 79-34-5 | | |
| 9.067 | 9.067 (1.141) | 83 | 988113 | 50.0000 | 49.900 | 80.00- 120.00 | 100.00 |
| 9.067 | 9.067 (1.141) | 85 | 639391 | | | 14.71- 114.71 | 64.71 |
| 153 Propylbenzene | | | | | CAS #: 103-65-1 | | |
| 9.096 | 9.096 (1.144) | 91 | 2293888 | 50.0000 | 50.363 | 80.00- 120.00 | 100.00 |
| 9.096 | 9.096 (1.144) | 120 | 486712 | | | 0.00- 71.30 | 21.22 |
| 9.096 | 9.096 (1.144) | 105 | 83589 | | | 0.00- 68.74 | 3.64 |
| 155 4-Ethyltoluene | | | | | CAS #: 622-96-8 | | |
| 9.189 | 9.189 (1.156) | 120 | 544412 | 50.0000 | 50.900 | 80.00- 120.00 | 100.00 |
| 9.189 | 9.189 (1.156) | 105 | 1920199 | | | 302.71- 402.71 | 352.71 |
| 156 1,3,5-Trimethylbenzene | | | | | CAS #: 108-67-8 | | |
| 9.246 | 9.246 (1.163) | 120 | 738755 | 50.0000 | 51.196 | 80.00- 120.00 | 100.00 |
| 9.246 | 9.246 (1.163) | 105 | 1547864 | | | 160.53- 260.53 | 209.52 |
| 162 1,2,4-Trimethylbenzene | | | | | CAS #: 95-63-6 | | |
| 9.561 | 9.561 (1.203) | 120 | 681560 | 50.0000 | 50.856 | 80.00- 120.00 | 100.00 |
| 9.554 | 9.554 (1.202) | 105 | 1535845 | | | 174.98- 274.98 | 225.34 |
| 165 1,3-Dichlorobenzene | | | | | CAS #: 541-73-1 | | |
| 9.819 | 9.819 (1.235) | 146 | 882919 | 50.0000 | 49.211 | 80.00- 120.00 | 100.00 |
| 9.819 | 9.819 (1.235) | 148 | 557941 | | | 13.36- 113.36 | 63.19 |
| 9.819 | 9.819 (1.235) | 111 | 401570 | | | 0.00- 95.45 | 45.48 |
| 166 1,4-Dichlorobenzene | | | | | CAS #: 106-46-7 | | |
| 9.898 | 9.898 (1.245) | 146 | 897193 | 50.0000 | 48.976 | 80.00- 120.00 | 100.00 |
| 9.898 | 9.898 (1.245) | 148 | 565124 | | | 13.03- 113.03 | 62.99 |
| 9.898 | 9.898 (1.245) | 111 | 390249 | | | 0.00- 93.63 | 43.50 |
| 168 alpha-Chlorotoluene | | | | | CAS #: 100-44-7 | | |
| 10.020 | 10.020 (1.260) | 91 | 1376327 | 50.0000 | 58.888 | 80.00- 120.00 | 100.00 |
| 10.020 | 10.020 (1.260) | 126 | 252161 | | | 0.00- 67.76 | 18.32 |
| 171 1,2-Dichlorobenzene | | | | | CAS #: 95-50-1 | | |
| 10.213 | 10.213 (1.285) | 146 | 824483 | 50.0000 | 50.050 | 80.00- 120.00 | 100.00 |
| 10.213 | 10.213 (1.285) | 148 | 521347 | | | 13.23- 113.23 | 63.23 |
| 10.213 | 10.213 (1.285) | 111 | 390381 | | | 0.00- 97.35 | 47.35 |
| 174 1,2,4-Trichlorobenzene | | | | | CAS #: 120-82-1 | | |
| 11.524 | 11.524 (1.450) | 180 | 622339 | 50.0000 | 49.185 | 80.00- 120.00 | 100.00 |
| 11.524 | 11.524 (1.450) | 182 | 586874 | | | 44.30- 144.30 | 94.30 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 175 Hexachlorobutadiene | | | | | CAS #: 87-68-3 | | |
| 11.617 | 11.617 (1.461) | 225 | 425060 | 50.0000 | 49.608 | 80.00- 120.00 | 100.00 |
| 11.617 | 11.617 (1.461) | 223 | 272604 | | | 14.17- 114.17 | 64.13 |
| 176 Naphthalene | | | | | CAS #: 91-20-3 | | |
| 11.746 | 11.746 (1.478) | 128 | 1630553 | 50.0000 | 49.298 | 80.00- 120.00 | 100.00 |
| 11.746 | 11.746 (1.478) | 127 | 211301 | | | 0.00- 62.93 | 12.96 |

Report Date: 31-Mar-2010 16:11

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdd.i
Lab File ID: d033115.d
Lab Smp Id: ICAL Level 5
Analysis Type: VOA
Quant Type: ISTD
Operator: ra
Method File: /chem/msdd.i/31mar10a.b/d10q0331a.m
Misc Info: 50ppbv->200ppbv

Calibration Date: 31-MAR-2010
Calibration Time: 15:19
Client Smp ID: ICAL level 5
Level: LOW
Sample Type: AIR

| | | AREA LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 79 Bromochloromethan | 104005 | 62403 | 145607 | 104005 | 0.00 |
| 100 1,4-Difluorobenze | 450381 | 270229 | 630533 | 450381 | 0.00 |
| 134 Chlorobenzene-d5 | 514163 | 308498 | 719828 | 514163 | 0.00 |

| | | RT LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 79 Bromochloromethan | 4.58 | 4.25 | 4.91 | 4.58 | 0.00 |
| 100 1,4-Difluorobenze | 5.51 | 5.18 | 5.84 | 5.51 | 0.00 |
| 134 Chlorobenzene-d5 | 7.95 | 7.62 | 8.28 | 7.95 | 0.00 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msdd.i/31mar10a.b/d033115.d

Date : 31-MAR-2010 15:19

Client ID: ICAL level 5

Sample Info: 50ml #1936-87

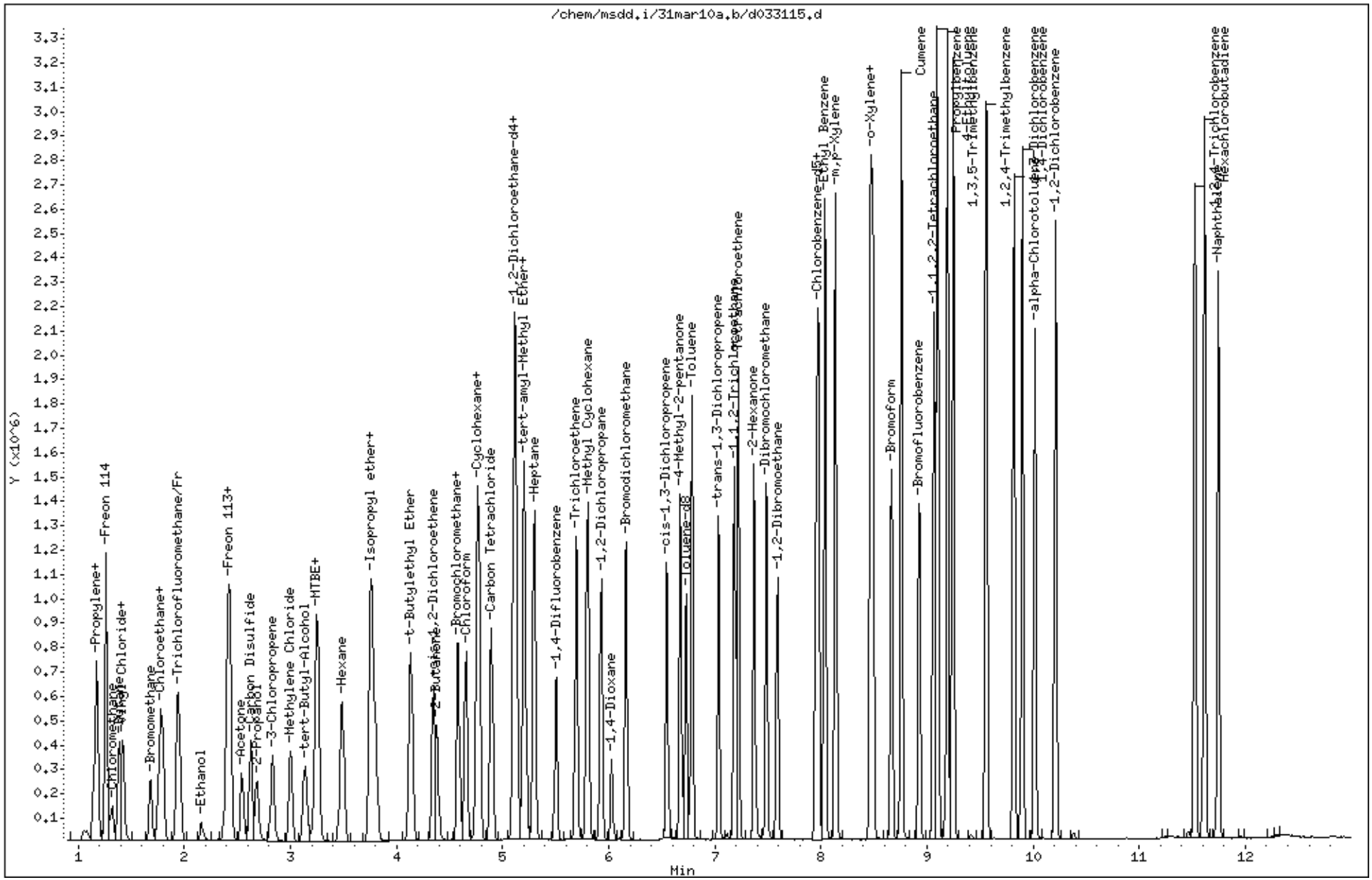
Column phase: RTx-624

Instrument: msdd.i

Operator: ra

Column diameter: 0.53





Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msdd.i/31mar10a.b/d033116.d
Lab Smp Id: ICAL Level 6 Client Smp ID: ICAL level 6
Inj Date : 31-MAR-2010 15:38
Operator : ra Inst ID: msdd.i
Smp Info : 100ml #1936-87
Misc Info : 100ppbv->200ppbv
Comment :
Method : /chem/msdd.i/31mar10a.b/d10q0331a.m
Meth Date : 31-Mar-2010 16:11 aburke Quant Type: ISTD
Cal Date : 31-MAR-2010 15:38 Cal File: d033116.d
Als bottle: 3 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT09.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| | | | | AMOUNTS | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | CAL-AMT | ON-COL | | | |
| RT | EXP RT (REL RT) | MASS | RESPONSE | ( PPBV) | ( PPBV) | TARGET RANGE | | RATIO |
| == | ====== ======== | ==== | ======== | ======= | ======= | ========== | | ===== |
| * 79 Bromochloromethane | | | | | CAS #: 74-97-5 | | | |
| 4.576 | 4.576 (1.000) | 130 | 101977 | 25.0000 | | 50.00- 150.00 | | 100.00 |
| 4.576 | 4.576 (1.000) | 128 | 77907 | | | 27.33- 127.33 | | 76.40 |
| 4.576 | 4.576 (1.000) | 49 | 179171 | | | 123.46- 223.46 | | 175.70 |
| * 100 1,4-Difluorobenzene | | | | | CAS #: 540-36-3 | | | |
| 5.507 | 5.507 (1.000) | 114 | 442820 | 25.0000 | | 50.00- 150.00 | | 100.00 |
| 5.507 | 5.507 (1.000) | 88 | 80505 | | | 0.00- 68.33 | | 18.18 |
| * 134 Chlorobenzene-d5 | | | | | CAS #: 3114-55-4 | | | |
| 7.950 | 7.950 (1.000) | 117 | 501525 | 25.0000 | | 50.00- 150.00 | | 100.00 |
| 7.950 | 7.950 (1.000) | 82 | 316395 | | | 12.92- 112.92 | | 63.09 |
| $ 91 1,2-Dichloroethane-d4 | | | | | CAS #: 17060-07-0 | | | |
| 5.127 | 5.127 (1.121) | 65 | 214615 | 25.0000 | 26.177 | 50.00- 150.00 | | 100.00 |
| 5.127 | 5.127 (1.121) | 67 | 125875 | | | 2.15- 102.15 | | 58.65 |
| $ 114 Toluene-d8 | | | | | CAS #: 2037-26-5 | | | |
| 6.732 | 6.732 (1.222) | 98 | 549665 | 25.0000 | 25.050 | 50.00- 150.00 | | 100.00 |
| 6.732 | 6.732 (1.222) | 70 | 66927 | | | 0.00- 62.20 | | 12.18 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 114 Toluene-d8 (continued) | | | | | | | |
| 6.732 | 6.732 (1.222) | 100 | 366429 | | | 15.58- 115.58 | 66.66 |
| $ 149 Bromofluorobenzene | | | | | CAS #: 460-00-4 | | |
| 8.931 | 8.931 (1.123) | 174 | 259726 | 25.0000 | 25.395 | 50.00- 150.00 | 100.00 |
| 8.931 | 8.931 (1.123) | 95 | 442856 | | | 120.42- 220.42 | 170.51 |
| 8.931 | 8.931 (1.123) | 176 | 248973 | | | 46.27- 146.27 | 95.86 |
| 6 Propylene | | | | | CAS #: 115-07-1 | | |
| 1.153 | 1.153 (0.252) | 41 | 325314 | 100.000 | 98.371 | 50.00- 150.00 | 100.00 |
| 1.153 | 1.153 (0.252) | 42 | 209628 | | | 14.09- 114.09 | 64.44 |
| 1.153 | 1.153 (0.252) | 39 | 255202 | | | 29.45- 129.45 | 78.45 |
| 7 Dichlorodifluoromethane/Fr12 | | | | | CAS #: 75-71-8 | | |
| 1.181 | 1.181 (0.258) | 85 | 1307284 | 100.000 | 100.99 | 50.00- 150.00 | 100.00 |
| 1.181 | 1.181 (0.258) | 87 | 422873 | | | 0.00- 82.88 | 32.35 |
| 10 Freon 114 | | | | | CAS #: 76-14-2 | | |
| 1.265 | 1.265 (0.276) | 135 | 705060 | 100.000 | 98.601 | 50.00- 150.00 | 100.00 |
| 1.265 | 1.265 (0.276) | 137 | 221200 | | | 0.00- 82.69 | 31.37 |
| 13 Chloromethane | | | | | CAS #: 74-87-3 | | |
| 1.321 | 1.321 (0.289) | 50 | 275125 | 100.000 | 93.403 | 50.00- 150.00 | 100.00 |
| 1.321 | 1.321 (0.289) | 52 | 90084 | | | 0.00- 83.02 | 32.74 |
| 14 Butane | | | | | CAS #: 106-97-8 | | |
| 1.377 | 1.377 (0.301) | 58 | 87557 | 100.000 | 106.22 | 50.00- 150.00 | 100.00 |
| 1.377 | 1.377 (0.301) | 43 | 634450 | | | 701.77- 801.77 | 724.61 |
| 15 Vinyl Chloride | | | | | CAS #: 75-01-4 | | |
| 1.405 | 1.405 (0.307) | 62 | 453205 | 100.000 | 115.32 | 50.00- 150.00 | 100.00 |
| 1.405 | 1.405 (0.307) | 64 | 144198 | | | 0.00- 97.20 | 31.82 |
| 18 1,3-Butadiene | | | | | CAS #: 106-99-0 | | |
| 1.433 | 1.433 (0.313) | 54 | 355702 | 100.000 | 104.49 | 50.00- 150.00 | 100.00 |
| 1.433 | 1.433 (0.313) | 39 | 385304 | | | 75.63- 175.63 | 108.32 |
| 24 Bromomethane | | | | | CAS #: 74-83-9 | | |
| 1.684 | 1.684 (0.368) | 94 | 376521 | 100.000 | 98.531 | 50.00- 150.00 | 100.00 |
| 1.684 | 1.684 (0.368) | 96 | 353146 | | | 41.64- 141.64 | 93.79 |
| 25 Chloroethane | | | | | CAS #: 75-00-3 | | |
| 1.754 | 1.754 (0.383) | 64 | 252619 | 100.000 | 96.434 | 50.00- 150.00 | 100.00 |
| 1.754 | 1.754 (0.383) | 66 | 79225 | | | 0.00- 86.90 | 31.36 |
| 1.754 | 1.754 (0.383) | 49 | 72546 | | | 0.00- 78.35 | 28.72 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 26 Isopentane | | | | | CAS #: 78-78-4 | | |
| 1.782 | 1.782 (0.390) | 43 | 537714 | 100.000 | 99.407 | 50.00- 150.00 | 100.00 |
| 1.782 | 1.782 (0.390) | 57 | 384413 | | | 20.70- 120.70 | 71.49 |
| 28 Trichlorofluoromethane/Fr11 | | | | | CAS #: 75-69-4 | | |
| 1.950 | 1.950 (0.426) | 101 | 1443039 | 100.000 | 106.69 | 50.00- 150.00 | 100.00 |
| 1.950 | 1.950 (0.426) | 103 | 849483 | | | 12.85- 112.85 | 58.87 |
| 29 Ethanol | | | | | CAS #: 64-17-5 | | |
| 2.162 | 2.162 (0.472) | 45 | 170102 | 100.000 | 100.67 | 50.00- 150.00 | 100.00 |
| 2.162 | 2.162 (0.472) | 43 | 39619 | | | 0.00- 76.61 | 23.29 |
| 2.162 | 2.162 (0.472) | 46 | 66456 | | | 0.00- 88.16 | 39.07 |
| 33 Freon 113 | | | | | CAS #: 76-13-1 | | |
| 2.405 | 2.405 (0.526) | 151 | 615942 | 100.000 | 99.346 | 50.00- 150.00 | 100.00 |
| 2.405 | 2.405 (0.526) | 153 | 394797 | | | 13.56- 113.56 | 64.10 |
| 2.405 | 2.405 (0.526) | 101 | 911122 | | | 96.53- 196.53 | 147.92 |
| 34 1,1-Dichloroethene | | | | | CAS #: 75-35-4 | | |
| 2.427 | 2.427 (0.530) | 98 | 274276 | 100.000 | 101.28 | 50.00- 150.00 | 100.00 |
| 2.427 | 2.427 (0.530) | 96 | 428731 | | | 107.46- 207.46 | 156.31 |
| 2.427 | 2.427 (0.530) | 61 | 866746 | | | 270.84- 370.84 | 316.01 |
| 38 Acetone | | | | | CAS #: 67-64-1 | | |
| 2.534 | 2.534 (0.554) | 58 | 215342 | 100.000 | 98.767 | 50.00- 150.00 | 100.00 |
| 2.534 | 2.534 (0.554) | 43 | 799360 | | | 327.54- 427.54 | 371.20 |
| 40 Carbon Disulfide | | | | | CAS #: 75-15-0 | | |
| 2.620 | 2.620 (0.573) | 76 | 1280059 | 100.000 | 96.416 | 50.00- 150.00 | 100.00 |
| 41 2-Propanol | | | | | CAS #: 67-63-0 | | |
| 2.670 | 2.670 (0.584) | 45 | 798014 | 100.000 | 109.84 | 50.00- 150.00 | 100.00 |
| 2.670 | 2.670 (0.584) | 43 | 172905 | | | 0.00- 72.17 | 21.67 |
| 2.670 | 2.670 (0.584) | 59 | 30434 | | | 0.00- 85.00 | 3.81 |
| 44 3-Chloropropene | | | | | CAS #: 107-05-1 | | |
| 2.828 | 2.828 (0.618) | 76 | 210402 | 100.000 | 102.61 | 50.00- 150.00 | 100.00 |
| 2.821 | 2.821 (0.616) | 41 | 610754 | | | 245.26- 345.26 | 290.28 |
| 46 Methylene Chloride | | | | | CAS #: 75-09-2 | | |
| 2.993 | 2.993 (0.654) | 49 | 556295 | 100.000 | 99.964 | 50.00- 150.00 | 100.00 |
| 2.993 | 2.993 (0.654) | 84 | 380866 | | | 18.20- 118.20 | 68.46 |
| 2.993 | 2.993 (0.654) | 51 | 168717 | | | 0.00- 80.39 | 30.33 |
| 48 tert-Butyl-Alcohol | | | | | CAS #: 75-65-0 | | |
| 3.129 | 3.129 (0.684) | 59 | 965898 | 100.000 | 107.71 | 50.00- 150.00 | 100.00 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 48 tert-Butyl-Alcohol (continued) | | | | | | | |
| 3.129 | 3.129 (0.684) | 41 | 242479 | | | 0.00- 83.59 | 25.10 |
| 3.129 | 3.129 (0.684) | 57 | 105476 | | | 0.00- 57.49 | 10.92 |
| 50 MTBE | | | | | CAS #: 1634-04-4 | | |
| 3.236 | 3.236 (0.707) | 73 | 1377553 | 100.000 | 104.52 | 50.00- 150.00 | 100.00 |
| 3.236 | 3.236 (0.707) | 57 | 317547 | | | 0.00- 73.10 | 23.05 |
| 3.236 | 3.236 (0.707) | 41 | 320420 | | | 0.00- 75.17 | 23.26 |
| 52 trans-1,2-Dichloroethene | | | | | CAS #: 156-60-5 | | |
| 3.251 | 3.251 (0.710) | 98 | 289599 | 100.000 | 103.35 | 50.00- 150.00 | 100.00 |
| 3.251 | 3.251 (0.710) | 61 | 765743 | | | 222.42- 322.42 | 264.41 |
| 3.251 | 3.251 (0.710) | 96 | 450288 | | | 114.13- 214.13 | 155.49 |
| 58 Hexane | | | | | CAS #: 110-54-3 | | |
| 3.480 | 3.480 (0.760) | 57 | 798644 | 100.000 | 101.23 | 50.00- 150.00 | 100.00 |
| 3.480 | 3.480 (0.760) | 43 | 503949 | | | 19.39- 119.39 | 63.10 |
| 3.487 | 3.487 (0.762) | 86 | 128200 | | | 0.00- 69.00 | 16.05 |
| 63 Isopropyl ether | | | | | CAS #: 108-20-3 | | |
| 3.759 | 3.759 (0.822) | 45 | 1836054 | 100.000 | 100.25 | 50.00- 150.00 | 100.00 |
| 3.759 | 3.759 (0.822) | 87 | 446000 | | | 0.00- 73.47 | 24.29 |
| 3.759 | 3.759 (0.822) | 59 | 202535 | | | 0.00- 60.91 | 11.03 |
| 64 1,1-Dichloroethane | | | | | CAS #: 75-34-3 | | |
| 3.745 | 3.745 (0.818) | 63 | 990590 | 100.000 | 101.59 | 50.00- 150.00 | 100.00 |
| 3.745 | 3.745 (0.818) | 65 | 319214 | | | 0.00- 81.96 | 32.22 |
| 65 Vinyl Acetate | | | | | CAS #: 108-05-4 | | |
| 3.802 | 3.802 (0.831) | 86 | 123195 | 100.000 | 113.25 | 50.00- 150.00 | 100.00 |
| 3.802 | 3.802 (0.831) | 43 | 1782136 | | | 1533.22-1633.22 | 1446.60 |
| 72 t-Butylethyl Ether | | | | | CAS #: 637-92-3 | | |
| 4.125 | 4.125 (0.901) | 59 | 1750326 | 100.000 | 102.35 | 50.00- 150.00 | 100.00 |
| 4.132 | 4.132 (0.903) | 87 | 663033 | | | 0.00- 87.49 | 37.88 |
| 4.125 | 4.125 (0.901) | 41 | 332496 | | | 0.00- 70.38 | 19.00 |
| 74 cis-1,2-Dichloroethene | | | | | CAS #: 156-59-2 | | |
| 4.347 | 4.347 (0.950) | 98 | 322962 | 100.000 | 101.34 | 50.00- 150.00 | 100.00 |
| 4.347 | 4.347 (0.950) | 96 | 506195 | | | 108.90- 208.90 | 156.74 |
| 4.339 | 4.339 (0.948) | 61 | 792800 | | | 194.41- 294.41 | 245.48 |
| 75 2-Butanone | | | | | CAS #: 78-93-3 | | |
| 4.375 | 4.375 (0.956) | 72 | 264210 | 100.000 | 109.21 | 50.00- 150.00 | 100.00 |
| 4.375 | 4.375 (0.956) | 43 | 1190076 | | | 391.89- 491.89 | 450.43 |
| 4.375 | 4.375 (0.956) | 57 | 95981 | | | 29.81- 129.81 | 36.33 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 78 Tetrahydrofuran | | | | | CAS #: 109-99-9 | | |
| 4.576 | 4.576 (1.000) | 42 | 640481 | 100.000 | 101.64 | 50.00- 150.00 | 100.00 |
| 4.576 | 4.576 (1.000) | 71 | 234372 | | | 0.00- 85.98 | 36.59 |
| 4.576 | 4.576 (1.000) | 72 | 244074 | | | 0.00- 86.75 | 38.11 |
| 80 Chloroform | | | | | CAS #: 67-66-3 | | |
| 4.655 | 4.655 (1.017) | 83 | 1177333 | 100.000 | 101.18 | 50.00- 150.00 | 100.00 |
| 4.655 | 4.655 (1.017) | 85 | 760513 | | | 15.01- 115.01 | 64.60 |
| 83 Cyclohexane | | | | | CAS #: 110-82-7 | | |
| 4.755 | 4.755 (1.039) | 84 | 719037 | 100.000 | 100.91 | 50.00- 150.00 | 100.00 |
| 4.755 | 4.755 (1.039) | 56 | 906279 | | | 78.59- 178.59 | 126.04 |
| 4.755 | 4.755 (1.039) | 41 | 518965 | | | 26.74- 126.74 | 72.18 |
| 85 1,1,1-Trichloroethane | | | | | CAS #: 71-55-6 | | |
| 4.776 | 4.776 (1.044) | 97 | 1213597 | 100.000 | 103.00 | 50.00- 150.00 | 100.00 |
| 4.776 | 4.776 (1.044) | 99 | 773753 | | | 13.41- 113.41 | 63.76 |
| 86 Carbon Tetrachloride | | | | | CAS #: 56-23-5 | | |
| 4.891 | 4.891 (1.069) | 119 | 1129074 | 100.000 | 109.30 | 50.00- 150.00 | 100.00 |
| 4.891 | 4.891 (1.069) | 117 | 1169701 | | | 53.70- 153.70 | 103.60 |
| 89 2,2,4-Trimethylpentane | | | | | CAS #: 540-84-1 | | |
| 5.120 | 5.120 (1.119) | 57 | 2973019 | 100.000 | 100.91 | 50.00- 150.00 | 100.00 |
| 5.120 | 5.120 (1.119) | 56 | 921839 | | | 0.00- 81.50 | 31.01 |
| 5.120 | 5.120 (1.119) | 41 | 768356 | | | 0.00- 77.21 | 25.84 |
| 90 Benzene | | | | | CAS #: 71-43-2 | | |
| 5.106 | 5.106 (0.927) | 78 | 1681334 | 100.000 | 98.678 | 50.00- 150.00 | 100.00 |
| 5.106 | 5.106 (0.927) | 77 | 394166 | | | 0.00- 73.17 | 23.44 |
| 93 tert-amyl-Methyl Ether | | | | | CAS #: 994-05-8 | | |
| 5.206 | 5.206 (1.138) | 73 | 1601838 | 100.000 | 103.24 | 50.00- 150.00 | 100.00 |
| 5.206 | 5.206 (1.138) | 87 | 395410 | | | 0.00- 74.24 | 24.68 |
| 5.199 | 5.199 (1.136) | 55 | 505544 | | | 0.00- 83.70 | 31.56 |
| 94 1,2-Dichloroethane | | | | | CAS #: 107-06-2 | | |
| 5.199 | 5.199 (0.944) | 62 | 927575 | 100.000 | 101.19 | 50.00- 150.00 | 100.00 |
| 5.199 | 5.199 (0.944) | 64 | 300023 | | | 0.00- 83.10 | 32.34 |
| 95 Heptane | | | | | CAS #: 142-82-5 | | |
| 5.299 | 5.299 (0.962) | 71 | 635476 | 100.000 | 103.09 | 50.00- 150.00 | 100.00 |
| 5.299 | 5.299 (0.962) | 43 | 1185306 | | | 146.63- 246.63 | 186.52 |
| 5.299 | 5.299 (0.962) | 57 | 664486 | | | 54.79- 154.79 | 104.57 |
| 104 Trichloroethene | | | | | CAS #: 79-01-6 | | |
| 5.693 | 5.693 (1.034) | 95 | 766772 | 100.000 | 99.720 | 50.00- 150.00 | 100.00 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 104 Trichloroethene (continued) | | | | | | | |
| 5.693 | 5.693 (1.034) | 130 | 676636 | | | 36.71- 136.71 | 88.24 |
| 5.693 | 5.693 (1.034) | 97 | 495403 | | | 14.60- 114.60 | 64.61 |
| 105 Methyl Cyclohexane | | | | | CAS #: 108-87-2 | | |
| 5.801 | 5.801 (1.268) | 83 | 1074560 | 100.000 | 101.54 | 50.00- 150.00 | 100.00 |
| 5.801 | 5.801 (1.268) | 98 | 506125 | | | 0.00- 96.57 | 47.10 |
| 5.801 | 5.801 (1.268) | 55 | 958805 | | | 39.57- 139.57 | 89.23 |
| 106 1,2-Dichloropropane | | | | | CAS #: 78-87-5 | | |
| 5.930 | 5.930 (1.077) | 63 | 714015 | 100.000 | 100.41 | 50.00- 150.00 | 100.00 |
| 5.930 | 5.930 (1.077) | 62 | 502897 | | | 20.35- 120.35 | 70.43 |
| 5.930 | 5.930 (1.077) | 41 | 436173 | | | 13.49- 113.49 | 61.09 |
| 107 1,4-Dioxane | | | | | CAS #: 123-91-1 | | |
| 6.023 | 6.023 (1.094) | 88 | 418558 | 100.000 | 104.98 | 50.00- 150.00 | 100.00 |
| 6.023 | 6.023 (1.094) | 58 | 319516 | | | 27.58- 127.58 | 76.34 |
| 6.023 | 6.023 (1.094) | 57 | 107578 | | | 0.00- 76.30 | 25.70 |
| 108 Bromodichloromethane | | | | | CAS #: 75-27-4 | | |
| 6.166 | 6.166 (1.120) | 83 | 1427936 | 100.000 | 104.17 | 50.00- 150.00 | 100.00 |
| 6.166 | 6.166 (1.120) | 85 | 910499 | | | 13.44- 113.44 | 63.76 |
| 110 cis-1,3-Dichloropropene | | | | | CAS #: 10061-01-5 | | |
| 6.546 | 6.546 (1.189) | 75 | 1146504 | 100.000 | 108.10 | 50.00- 150.00 | 100.00 |
| 6.546 | 6.546 (1.189) | 77 | 358068 | | | 0.00- 81.59 | 31.23 |
| 6.546 | 6.546 (1.189) | 39 | 612651 | | | 5.92- 105.92 | 53.44 |
| 112 4-Methyl-2-pentanone | | | | | CAS #: 108-10-1 | | |
| 6.675 | 6.675 (1.212) | 58 | 671167 | 100.000 | 107.53 | 50.00- 150.00 | 100.00 |
| 6.675 | 6.675 (1.212) | 43 | 1813572 | | | 224.75- 324.75 | 270.21 |
| 6.675 | 6.675 (1.212) | 85 | 266791 | | | 0.00- 89.27 | 39.75 |
| 115 Toluene | | | | | CAS #: 108-88-3 | | |
| 6.782 | 6.782 (1.232) | 91 | 2282659 | 100.000 | 100.85 | 50.00- 150.00 | 100.00 |
| 6.782 | 6.782 (1.232) | 92 | 1364789 | | | 9.29- 109.29 | 59.79 |
| 118 trans-1,3-Dichloropropene | | | | | CAS #: 10061-02-6 | | |
| 7.033 | 7.033 (0.885) | 75 | 1243883 | 100.000 | 114.34 | 50.00- 150.00 | 100.00 |
| 7.033 | 7.033 (0.885) | 77 | 391049 | | | 0.00- 83.09 | 31.44 |
| 7.033 | 7.033 (0.885) | 39 | 626917 | | | 4.25- 104.25 | 50.40 |
| 120 1,1,2-Trichloroethane | | | | | CAS #: 79-00-5 | | |
| 7.183 | 7.183 (0.904) | 97 | 791625 | 100.000 | 102.18 | 50.00- 150.00 | 100.00 |
| 7.183 | 7.183 (0.904) | 99 | 488347 | | | 12.25- 112.25 | 61.69 |
| 7.183 | 7.183 (0.904) | 83 | 705530 | | | 42.00- 142.00 | 89.12 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 122 Tetrachloroethene | | | | | CAS #: 127-18-4 | | |
| 7.219 | 7.219 (0.908) | 166 | 865495 | 100.000 | 99.011 | 50.00- 150.00 | 100.00 |
| 7.219 | 7.219 (0.908) | 129 | 726650 | | | 33.95- 133.95 | 83.96 |
| 7.219 | 7.219 (0.908) | 131 | 692240 | | | 27.31- 127.31 | 79.98 |
| 125 2-Hexanone | | | | | CAS #: 591-78-6 | | |
| 7.369 | 7.369 (0.927) | 58 | 958840 | 100.000 | 109.32 | 50.00- 150.00 | 100.00 |
| 7.369 | 7.369 (0.927) | 43 | 1871624 | | | 146.90- 246.90 | 195.20 |
| 7.369 | 7.369 (0.927) | 100 | 177711 | | | 0.00- 68.42 | 18.53 |
| 128 Dibromochloromethane | | | | | CAS #: 124-48-1 | | |
| 7.491 | 7.491 (0.942) | 129 | 1298425 | 100.000 | 107.24 | 50.00- 150.00 | 100.00 |
| 7.491 | 7.491 (0.942) | 127 | 1005762 | | | 27.80- 127.80 | 77.46 |
| 130 1,2-Dibromoethane | | | | | CAS #: 106-93-4 | | |
| 7.591 | 7.591 (0.955) | 107 | 1240957 | 100.000 | 102.70 | 50.00- 150.00 | 100.00 |
| 7.591 | 7.591 (0.955) | 109 | 1167798 | | | 44.92- 144.92 | 94.10 |
| 135 Chlorobenzene | | | | | CAS #: 108-90-7 | | |
| 7.978 | 7.978 (1.004) | 112 | 1813075 | 100.000 | 96.096 | 50.00- 150.00 | 100.00 |
| 7.978 | 7.978 (1.004) | 114 | 582313 | | | 0.00- 82.27 | 32.12 |
| 7.978 | 7.978 (1.004) | 77 | 1215988 | | | 23.60- 123.60 | 67.07 |
| 137 Ethyl Benzene | | | | | CAS #: 100-41-4 | | |
| 8.036 | 8.036 (1.011) | 106 | 978493 | 100.000 | 103.68 | 50.00- 150.00 | 100.00 |
| 8.036 | 8.036 (1.011) | 91 | 3251260 | | | 290.13- 390.13 | 332.27 |
| 140 m,p-Xylene | | | | | CAS #: 108-38-3 | | |
| 8.136 | 8.136 (1.023) | 106 | 1243459 | 100.000 | 102.05 | 50.00- 150.00 | 100.00 |
| 8.136 | 8.136 (1.023) | 91 | 2590756 | | | 156.72- 256.72 | 208.35 |
| 141 o-Xylene | | | | | CAS #: 95-47-6 | | |
| 8.473 | 8.473 (1.066) | 106 | 1191746 | 100.000 | 103.41 | 50.00- 150.00 | 100.00 |
| 8.473 | 8.473 (1.066) | 91 | 2597123 | | | 167.29- 267.29 | 217.93 |
| 142 Styrene | | | | | CAS #: 100-42-5 | | |
| 8.494 | 8.494 (1.068) | 104 | 1992978 | 100.000 | 105.93 | 50.00- 150.00 | 100.00 |
| 8.487 | 8.487 (1.068) | 78 | 1103660 | | | 5.25- 105.25 | 55.38 |
| 145 Bromoform | | | | | CAS #: 75-25-2 | | |
| 8.666 | 8.666 (1.090) | 173 | 1098179 | 100.000 | 111.92 | 50.00- 150.00 | 100.00 |
| 8.666 | 8.666 (1.090) | 171 | 571256 | | | 2.47- 102.47 | 52.02 |
| 147 Cumene | | | | | CAS #: 98-82-8 | | |
| 8.759 | 8.759 (1.102) | 105 | 3605658 | 100.000 | 103.03 | 50.00- 150.00 | 100.00(A) |
| 8.759 | 8.759 (1.102) | 120 | 911855 | | | 0.00- 75.25 | 25.29 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 147 Cumene (continued) | | | | | | | |
| 8.759 | 8.759 (1.102) | 51 | 420893 | | | 0.00- 62.26 | 11.67 |
| 151 1,1,2,2-Tetrachloroethane | | | | | CAS #: 79-34-5 | | |
| 9.067 | 9.067 (1.141) | 83 | 1990010 | 100.000 | 103.03 | 50.00- 150.00 | 100.00 |
| 9.067 | 9.067 (1.141) | 85 | 1285670 | | | 14.89- 114.89 | 64.61 |
| 153 Propylbenzene | | | | | CAS #: 103-65-1 | | |
| 9.096 | 9.096 (1.144) | 91 | 4615375 | 100.000 | 103.89 | 50.00- 150.00 | 100.00(A) |
| 9.096 | 9.096 (1.144) | 120 | 964080 | | | 0.00- 71.30 | 20.89 |
| 9.096 | 9.096 (1.144) | 105 | 162323 | | | 0.00- 68.74 | 3.52 |
| 155 4-Ethyltoluene | | | | | CAS #: 622-96-8 | | |
| 9.196 | 9.196 (1.157) | 120 | 1083558 | 100.000 | 103.86 | 50.00- 150.00 | 100.00 |
| 9.196 | 9.196 (1.157) | 105 | 3835555 | | | 299.99- 399.99 | 353.98 |
| 156 1,3,5-Trimethylbenzene | | | | | CAS #: 108-67-8 | | |
| 9.246 | 9.246 (1.163) | 120 | 1480036 | 100.000 | 105.15 | 50.00- 150.00 | 100.00 |
| 9.246 | 9.246 (1.163) | 105 | 3134514 | | | 160.53- 260.53 | 211.79 |
| 162 1,2,4-Trimethylbenzene | | | | | CAS #: 95-63-6 | | |
| 9.561 | 9.561 (1.203) | 120 | 1377505 | 100.000 | 105.37 | 50.00- 150.00 | 100.00(A) |
| 9.561 | 9.561 (1.203) | 105 | 3111216 | | | 174.98- 274.98 | 225.86 |
| 165 1,3-Dichlorobenzene | | | | | CAS #: 541-73-1 | | |
| 9.819 | 9.819 (1.235) | 146 | 1778363 | 100.000 | 101.62 | 50.00- 150.00 | 100.00 |
| 9.819 | 9.819 (1.235) | 148 | 1121347 | | | 13.36- 113.36 | 63.06 |
| 9.819 | 9.819 (1.235) | 111 | 812346 | | | 0.00- 95.45 | 45.68 |
| 166 1,4-Dichlorobenzene | | | | | CAS #: 106-46-7 | | |
| 9.898 | 9.898 (1.245) | 146 | 1803821 | 100.000 | 100.95 | 50.00- 150.00 | 100.00 |
| 9.898 | 9.898 (1.245) | 148 | 1146167 | | | 13.03- 113.03 | 63.54 |
| 9.898 | 9.898 (1.245) | 111 | 794333 | | | 0.00- 93.63 | 44.04 |
| 168 alpha-Chlorotoluene | | | | | CAS #: 100-44-7 | | |
| 10.020 | 10.020 (1.260) | 91 | 3015255 | 100.000 | 132.26 | 50.00- 150.00 | 100.00 |
| 10.020 | 10.020 (1.260) | 126 | 548956 | | | 0.00- 67.76 | 18.21 |
| 171 1,2-Dichlorobenzene | | | | | CAS #: 95-50-1 | | |
| 10.213 | 10.213 (1.285) | 146 | 1662228 | 100.000 | 103.45 | 50.00- 150.00 | 100.00 |
| 10.213 | 10.213 (1.285) | 148 | 1051357 | | | 13.96- 113.96 | 63.25 |
| 10.213 | 10.213 (1.285) | 111 | 788180 | | | 0.00- 98.36 | 47.42 |
| 174 1,2,4-Trichlorobenzene | | | | | CAS #: 120-82-1 | | |
| 11.524 | 11.524 (1.450) | 180 | 1307704 | 100.000 | 105.96 | 50.00- 150.00 | 100.00 |
| 11.531 | 11.531 (1.451) | 182 | 1236553 | | | 44.68- 144.68 | 94.56 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 175 Hexachlorobutadiene | | | | | CAS #: 87-68-3 | | |
| 11.617 | 11.617 (1.461) | 225 | 873093 | 100.000 | 104.46 | 50.00- 150.00 | 100.00 |
| 11.617 | 11.617 (1.461) | 223 | 554807 | | | 14.17- 114.17 | 63.55 |
| 176 Naphthalene | | | | | CAS #: 91-20-3 | | |
| 11.746 | 11.746 (1.478) | 128 | 3472787 | 100.000 | 107.64 | 50.00- 150.00 | 100.00(A) |
| 11.746 | 11.746 (1.478) | 127 | 445734 | | | 0.00- 62.93 | 12.84 |

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Report Date: 31-Mar-2010 16:11

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdd.i
Lab File ID: d033116.d
Lab Smp Id: ICAL Level 6
Analysis Type: VOA
Quant Type: ISTD
Operator: ra
Method File: /chem/msdd.i/31mar10a.b/d10q0331a.m
Misc Info: 100ppbv->200ppbv

Calibration Date: 31-MAR-2010
Calibration Time: 15:19
Client Smp ID: ICAL level 6
Level: LOW
Sample Type: AIR

| | | AREA LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 79 Bromochloromethan | 104005 | 62403 | 145607 | 101977 | -1.95 |
| 100 1,4-Difluorobenze | 450381 | 270229 | 630533 | 442820 | -1.68 |
| 134 Chlorobenzene-d5 | 514163 | 308498 | 719828 | 501525 | -2.46 |

| | | RT LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 79 Bromochloromethan | 4.58 | 4.25 | 4.91 | 4.58 | 0.00 |
| 100 1,4-Difluorobenze | 5.51 | 5.18 | 5.84 | 5.51 | 0.00 |
| 134 Chlorobenzene-d5 | 7.95 | 7.62 | 8.28 | 7.95 | 0.00 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msdd_i/31mar10a_b/d033116.d

Date : 31-MAR-2010 15:38

Client ID: ICAL level 6

Sample Info: 100ml #1936-87

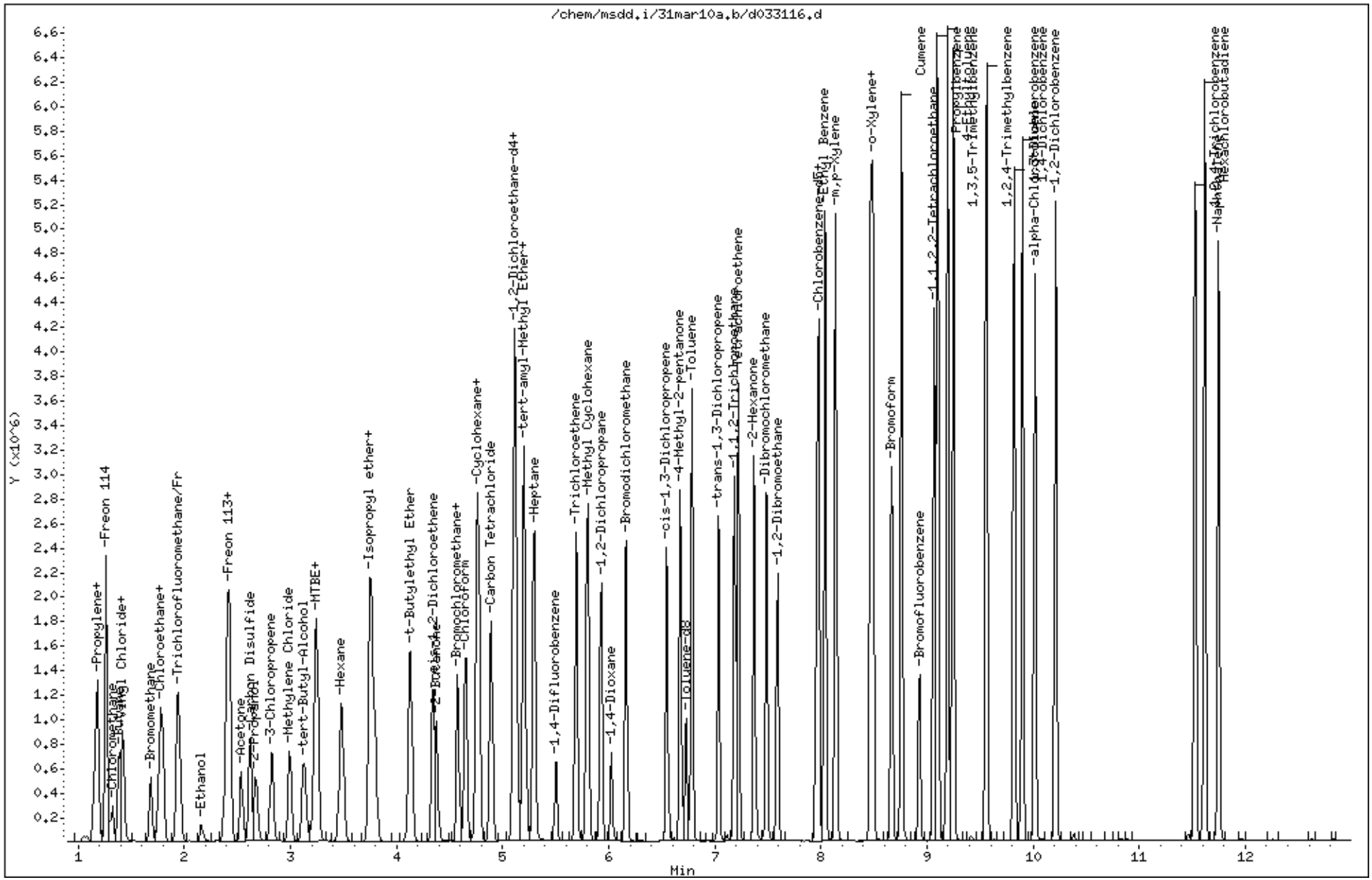
Column phase: RTx-624

Instrument: msdd_i

Operator: ra

Column diameter: 0.53





Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msdd.i/31mar10a.b/d033117.d
Lab Smp Id: ICAL Level 7 Client Smp ID: ICAL level 7
Inj Date : 31-MAR-2010 15:58
Operator : ra Inst ID: msdd.i
Smp Info : 200ml #1936-87
Misc Info : 200ppbv->200ppbv
Comment :
Method : /chem/msdd.i/31mar10a.b/d10q0331a.m
Meth Date : 31-Mar-2010 16:11 aburke Quant Type: ISTD
Cal Date : 31-MAR-2010 15:58 Cal File: d033117.d
Als bottle: 3 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT09.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| | | | | AMOUNTS | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | CAL-AMT | ON-COL | | | |
| RT | EXP RT (REL RT) | MASS | RESPONSE | ( PPBV) | ( PPBV) | TARGET RANGE | | RATIO |
| == | ====== ======== | ==== | ======== | ======= | ======= | ========== | | ===== |
| * 79 Bromochloromethane | | | | | CAS #: 74-97-5 | | | |
| 4.590 | 4.590 (1.000) | 130 | 104612 | 25.0000 | | 50.00- | 150.00 | 100.00 |
| 4.590 | 4.590 (1.000) | 128 | 80382 | | | 27.33- | 127.33 | 76.84 |
| 4.590 | 4.590 (1.000) | 49 | 183062 | | | 123.46- | 223.46 | 174.99 |
| * 100 1,4-Difluorobenzene | | | | | CAS #: 540-36-3 | | | |
| 5.521 | 5.521 (1.000) | 114 | 453362 | 25.0000 | | 50.00- | 150.00 | 100.00 |
| 5.521 | 5.521 (1.000) | 88 | 82522 | | | 0.00- | 68.33 | 18.20 |
| * 134 Chlorobenzene-d5 | | | | | CAS #: 3114-55-4 | | | |
| 7.971 | 7.971 (1.000) | 117 | 513615 | 25.0000 | | 50.00- | 150.00 | 100.00 |
| 7.964 | 7.964 (1.000) | 82 | 326296 | | | 12.92- | 112.92 | 63.53 |
| $ 91 1,2-Dichloroethane-d4 | | | | | CAS #: 17060-07-0 | | | |
| 5.141 | 5.141 (1.120) | 65 | 222952 | 25.0000 | 26.282 | 50.00- | 150.00 | 100.00 |
| 5.141 | 5.141 (1.120) | 67 | 149453 | | | 2.15- | 102.15 | 67.03 |
| $ 114 Toluene-d8 | | | | | CAS #: 2037-26-5 | | | |
| 6.746 | 6.746 (1.222) | 98 | 565543 | 25.0000 | 25.149 | 50.00- | 150.00 | 100.00 |
| 6.746 | 6.746 (1.222) | 70 | 68845 | | | 0.00- | 62.20 | 12.17 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 114 Toluene-d8 (continued) | | | | | | | |
| 6.746 | 6.746 (1.222) | 100 | 381275 | | | 15.58- 115.58 | 67.42 |
| $ 149 Bromofluorobenzene | | | | | CAS #: 460-00-4 | | |
| 8.945 | 8.945 (1.122) | 174 | 266640 | 25.0000 | 25.391 | 50.00- 150.00 | 100.00 |
| 8.945 | 8.945 (1.122) | 95 | 455805 | | | 120.42- 220.42 | 170.94 |
| 8.945 | 8.945 (1.122) | 176 | 255725 | | | 46.27- 146.27 | 95.91 |
| 6 Propylene | | | | | CAS #: 115-07-1 | | |
| 1.153 | 1.153 (0.251) | 41 | 649866 | 200.000 | 193.19 | 50.00- 150.00 | 100.00 |
| 1.153 | 1.153 (0.251) | 42 | 421867 | | | 14.09- 114.09 | 64.92 |
| 1.153 | 1.153 (0.251) | 39 | 509178 | | | 29.45- 129.45 | 78.35 |
| 7 Dichlorodifluoromethane/Fr12 | | | | | CAS #: 75-71-8 | | |
| 1.181 | 1.181 (0.257) | 85 | 2604326 | 200.000 | 196.76 | 50.00- 150.00 | 100.00 |
| 1.181 | 1.181 (0.257) | 87 | 839457 | | | 0.00- 82.88 | 32.23 |
| 10 Freon 114 | | | | | CAS #: 76-14-2 | | |
| 1.264 | 1.264 (0.275) | 135 | 1394518 | 200.000 | 191.69 | 50.00- 150.00 | 100.00 |
| 1.264 | 1.264 (0.275) | 137 | 440705 | | | 0.00- 82.69 | 31.60 |
| 13 Chloromethane | | | | | CAS #: 74-87-3 | | |
| 1.320 | 1.320 (0.288) | 50 | 522072 | 200.000 | 177.61 | 50.00- 150.00 | 100.00 |
| 1.320 | 1.320 (0.288) | 52 | 166738 | | | 0.00- 83.02 | 31.94 |
| 14 Butane | | | | | CAS #: 106-97-8 | | |
| 1.390 | 1.390 (0.303) | 58 | 176848 | 200.000 | 207.25 | 50.00- 150.00 | 100.00(A) |
| 1.390 | 1.390 (0.303) | 43 | 1296434 | | | 701.77- 801.77 | 733.08 |
| 15 Vinyl Chloride | | | | | CAS #: 75-01-4 | | |
| 1.404 | 1.404 (0.306) | 62 | 906841 | 200.000 | 220.36 | 50.00- 150.00 | 100.00(A) |
| 1.404 | 1.404 (0.306) | 64 | 287672 | | | 0.00- 97.20 | 31.72 |
| 18 1,3-Butadiene | | | | | CAS #: 106-99-0 | | |
| 1.432 | 1.432 (0.312) | 54 | 710304 | 200.000 | 202.83 | 50.00- 150.00 | 100.00(A) |
| 1.432 | 1.432 (0.312) | 39 | 778950 | | | 75.63- 175.63 | 109.66 |
| 24 Bromomethane | | | | | CAS #: 74-83-9 | | |
| 1.684 | 1.684 (0.367) | 94 | 741605 | 200.000 | 190.90 | 50.00- 150.00 | 100.00 |
| 1.684 | 1.684 (0.367) | 96 | 696627 | | | 41.64- 141.64 | 93.94 |
| 25 Chloroethane | | | | | CAS #: 75-00-3 | | |
| 1.768 | 1.768 (0.385) | 64 | 494321 | 200.000 | 186.44 | 50.00- 150.00 | 100.00 |
| 1.768 | 1.768 (0.385) | 66 | 154444 | | | 0.00- 86.90 | 31.24 |
| 1.768 | 1.768 (0.385) | 49 | 141916 | | | 0.00- 78.42 | 28.71 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 26 Isopentane | | | | | CAS #: 78-78-4 | | |
| 1.782 | 1.782 (0.388) | 43 | 1072219 | 200.000 | 194.54 | 50.00- 150.00 | 100.00 |
| 1.782 | 1.782 (0.388) | 57 | 765693 | | | 20.70- 120.70 | 71.41 |
| 28 Trichlorofluoromethane/Fr11 | | | | | CAS #: 75-69-4 | | |
| 1.950 | 1.950 (0.425) | 101 | 2902621 | 200.000 | 207.61 | 50.00- 150.00 | 100.00(A) |
| 1.950 | 1.950 (0.425) | 103 | 1693936 | | | 12.85- 112.85 | 58.36 |
| 29 Ethanol | | | | | CAS #: 64-17-5 | | |
| 2.162 | 2.162 (0.471) | 45 | 349880 | 200.000 | 201.48 | 50.00- 150.00 | 100.00(A) |
| 2.169 | 2.169 (0.472) | 43 | 78645 | | | 0.00- 76.61 | 22.48 |
| 2.162 | 2.162 (0.471) | 46 | 137584 | | | 0.00- 88.16 | 39.32 |
| 33 Freon 113 | | | | | CAS #: 76-13-1 | | |
| 2.412 | 2.412 (0.526) | 151 | 1244147 | 200.000 | 196.33 | 50.00- 150.00 | 100.00 |
| 2.412 | 2.412 (0.526) | 153 | 790444 | | | 13.56- 113.56 | 63.53 |
| 2.412 | 2.412 (0.526) | 101 | 1838614 | | | 96.53- 196.53 | 147.78 |
| 34 1,1-Dichloroethene | | | | | CAS #: 75-35-4 | | |
| 2.434 | 2.434 (0.530) | 98 | 559064 | 200.000 | 201.03 | 50.00- 150.00 | 100.00(A) |
| 2.434 | 2.434 (0.530) | 96 | 868763 | | | 107.46- 207.46 | 155.40 |
| 2.434 | 2.434 (0.530) | 61 | 1752292 | | | 270.84- 370.84 | 313.43 |
| 38 Acetone | | | | | CAS #: 67-64-1 | | |
| 2.541 | 2.541 (0.554) | 58 | 437782 | 200.000 | 196.57 | 50.00- 150.00 | 100.00 |
| 2.541 | 2.541 (0.554) | 43 | 1619211 | | | 327.54- 427.54 | 369.87 |
| 40 Carbon Disulfide | | | | | CAS #: 75-15-0 | | |
| 2.627 | 2.627 (0.572) | 76 | 2626729 | 200.000 | 194.02 | 50.00- 150.00 | 100.00 |
| 41 2-Propanol | | | | | CAS #: 67-63-0 | | |
| 2.677 | 2.677 (0.583) | 45 | 1699768 | 200.000 | 221.83 | 50.00- 150.00 | 100.00(A) |
| 2.677 | 2.677 (0.583) | 43 | 361834 | | | 0.00- 72.17 | 21.29 |
| 2.677 | 2.677 (0.583) | 59 | 65185 | | | 0.00- 85.00 | 3.83 |
| 44 3-Chloropropene | | | | | CAS #: 107-05-1 | | |
| 2.835 | 2.835 (0.618) | 76 | 432638 | 200.000 | 204.51 | 50.00- 150.00 | 100.00(A) |
| 2.835 | 2.835 (0.618) | 41 | 1253373 | | | 245.26- 345.26 | 289.70 |
| 46 Methylene Chloride | | | | | CAS #: 75-09-2 | | |
| 3.007 | 3.007 (0.655) | 49 | 1136056 | 200.000 | 199.17 | 50.00- 150.00 | 100.00 |
| 3.007 | 3.007 (0.655) | 84 | 772067 | | | 18.20- 118.20 | 67.96 |
| 3.007 | 3.007 (0.655) | 51 | 341028 | | | 0.00- 80.39 | 30.02 |
| 48 tert-Butyl-Alcohol | | | | | CAS #: 75-65-0 | | |
| 3.136 | 3.136 (0.683) | 59 | 2026774 | 200.000 | 215.93 | 50.00- 150.00 | 100.00(A) |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 48 tert-Butyl-Alcohol (continued) | | | | | | | |
| 3.136 | 3.136 (0.683) | 41 | 508164 | | | 0.00- 83.59 | 25.07 |
| 3.136 | 3.136 (0.683) | 57 | 220997 | | | 0.00- 57.49 | 10.90 |
| 50 MTBE | | | | | CAS #: 1634-04-4 | | |
| 3.243 | 3.243 (0.707) | 73 | 2837606 | 200.000 | 208.16 | 50.00- 150.00 | 100.00(A) |
| 3.243 | 3.243 (0.707) | 57 | 640185 | | | 0.00- 73.10 | 22.56 |
| 3.243 | 3.243 (0.707) | 41 | 651423 | | | 0.00- 75.17 | 22.96 |
| 52 trans-1,2-Dichloroethene | | | | | CAS #: 156-60-5 | | |
| 3.265 | 3.265 (0.711) | 98 | 588038 | 200.000 | 203.80 | 50.00- 150.00 | 100.00(A) |
| 3.265 | 3.265 (0.711) | 61 | 1555312 | | | 222.42- 322.42 | 264.49 |
| 3.265 | 3.265 (0.711) | 96 | 914202 | | | 114.13- 214.13 | 155.47 |
| 58 Hexane | | | | | CAS #: 110-54-3 | | |
| 3.494 | 3.494 (0.761) | 57 | 1606778 | 200.000 | 198.78 | 50.00- 150.00 | 100.00 |
| 3.494 | 3.494 (0.761) | 43 | 1021414 | | | 19.39- 119.39 | 63.57 |
| 3.494 | 3.494 (0.761) | 86 | 257504 | | | 0.00- 69.00 | 16.03 |
| 63 Isopropyl ether | | | | | CAS #: 108-20-3 | | |
| 3.773 | 3.773 (0.822) | 45 | 3731289 | 200.000 | 198.88 | 50.00- 150.00 | 100.00 |
| 3.773 | 3.773 (0.822) | 87 | 899211 | | | 0.00- 73.47 | 24.10 |
| 3.773 | 3.773 (0.822) | 59 | 405303 | | | 0.00- 60.91 | 10.86 |
| 64 1,1-Dichloroethane | | | | | CAS #: 75-34-3 | | |
| 3.759 | 3.759 (0.819) | 63 | 1997305 | 200.000 | 199.73 | 50.00- 150.00 | 100.00 |
| 3.759 | 3.759 (0.819) | 65 | 637391 | | | 0.00- 81.96 | 31.91 |
| 65 Vinyl Acetate | | | | | CAS #: 108-05-4 | | |
| 3.816 | 3.816 (0.831) | 86 | 250078 | 200.000 | 218.82 | 50.00- 150.00 | 100.00(A) |
| 3.816 | 3.816 (0.831) | 43 | 3597782 | | | 1533.22-1633.22 | 1438.66 |
| 72 t-Butylethyl Ether | | | | | CAS #: 637-92-3 | | |
| 4.139 | 4.139 (0.902) | 59 | 3648623 | 200.000 | 206.33 | 50.00- 150.00 | 100.00(A) |
| 4.139 | 4.139 (0.902) | 87 | 1383856 | | | 0.00- 87.49 | 37.93 |
| 4.139 | 4.139 (0.902) | 41 | 677953 | | | 0.00- 70.38 | 18.58 |
| 74 cis-1,2-Dichloroethene | | | | | CAS #: 156-59-2 | | |
| 4.361 | 4.361 (0.950) | 98 | 658347 | 200.000 | 201.15 | 50.00- 150.00 | 100.00(A) |
| 4.361 | 4.361 (0.950) | 96 | 1027793 | | | 108.90- 208.90 | 156.12 |
| 4.361 | 4.361 (0.950) | 61 | 1619793 | | | 194.41- 294.41 | 246.04 |
| 75 2-Butanone | | | | | CAS #: 78-93-3 | | |
| 4.389 | 4.389 (0.956) | 72 | 537184 | 200.000 | 213.52 | 50.00- 150.00 | 100.00(A) |
| 4.389 | 4.389 (0.956) | 43 | 2430708 | | | 391.89- 491.89 | 452.49 |
| 4.389 | 4.389 (0.956) | 57 | 189885 | | | 29.81- 129.81 | 35.35 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 78 Tetrahydrofuran | | | | | CAS #: 109-99-9 | | |
| 4.590 | 4.590 (1.000) | 42 | 1320141 | 200.000 | 203.51 | 50.00- 150.00 | 100.00(A) |
| 4.590 | 4.590 (1.000) | 71 | 482187 | | | 0.00- 85.98 | 36.53 |
| 4.590 | 4.590 (1.000) | 72 | 509127 | | | 0.00- 86.75 | 38.57 |
| 80 Chloroform | | | | | CAS #: 67-66-3 | | |
| 4.669 | 4.669 (1.017) | 83 | 2378982 | 200.000 | 199.41 | 50.00- 150.00 | 100.00 |
| 4.669 | 4.669 (1.017) | 85 | 1542187 | | | 15.01- 115.01 | 64.83 |
| 83 Cyclohexane | | | | | CAS #: 110-82-7 | | |
| 4.769 | 4.769 (1.039) | 84 | 1450607 | 200.000 | 198.70 | 50.00- 150.00 | 100.00 |
| 4.769 | 4.769 (1.039) | 56 | 1834636 | | | 78.59- 178.59 | 126.47 |
| 4.769 | 4.769 (1.039) | 41 | 1049808 | | | 26.74- 126.74 | 72.37 |
| 85 1,1,1-Trichloroethane | | | | | CAS #: 71-55-6 | | |
| 4.790 | 4.790 (1.044) | 97 | 2451502 | 200.000 | 202.34 | 50.00- 150.00 | 100.00(A) |
| 4.790 | 4.790 (1.044) | 99 | 1570353 | | | 13.41- 113.41 | 64.06 |
| 86 Carbon Tetrachloride | | | | | CAS #: 56-23-5 | | |
| 4.905 | 4.905 (1.069) | 119 | 2311516 | 200.000 | 214.89 | 50.00- 150.00 | 100.00(A) |
| 4.905 | 4.905 (1.069) | 117 | 2392813 | | | 53.70- 153.70 | 103.52 |
| 89 2,2,4-Trimethylpentane | | | | | CAS #: 540-84-1 | | |
| 5.134 | 5.134 (1.119) | 57 | 6020074 | 200.000 | 199.33 | 50.00- 150.00 | 100.00 |
| 5.134 | 5.134 (1.119) | 56 | 1860763 | | | 0.00- 81.50 | 30.91 |
| 5.134 | 5.134 (1.119) | 41 | 1549776 | | | 0.00- 77.21 | 25.74 |
| 90 Benzene | | | | | CAS #: 71-43-2 | | |
| 5.127 | 5.127 (0.929) | 78 | 3369757 | 200.000 | 194.28 | 50.00- 150.00 | 100.00 |
| 5.127 | 5.127 (0.929) | 77 | 790338 | | | 0.00- 73.17 | 23.45 |
| 93 tert-amyl-Methyl Ether | | | | | CAS #: 994-05-8 | | |
| 5.220 | 5.220 (1.137) | 73 | 3326146 | 200.000 | 207.12 | 50.00- 150.00 | 100.00(A) |
| 5.220 | 5.220 (1.137) | 87 | 810638 | | | 0.00- 74.24 | 24.37 |
| 5.220 | 5.220 (1.137) | 55 | 1024208 | | | 0.00- 83.70 | 30.79 |
| 94 1,2-Dichloroethane | | | | | CAS #: 107-06-2 | | |
| 5.213 | 5.213 (0.944) | 62 | 1856624 | 200.000 | 198.18 | 50.00- 150.00 | 100.00 |
| 5.213 | 5.213 (0.944) | 64 | 600369 | | | 0.00- 83.10 | 32.34 |
| 95 Heptane | | | | | CAS #: 142-82-5 | | |
| 5.313 | 5.313 (0.962) | 71 | 1285443 | 200.000 | 203.06 | 50.00- 150.00 | 100.00(A) |
| 5.313 | 5.313 (0.962) | 43 | 2399975 | | | 146.63- 246.63 | 186.70 |
| 5.313 | 5.313 (0.962) | 57 | 1337128 | | | 54.79- 154.79 | 104.02 |
| 104 Trichloroethene | | | | | CAS #: 79-01-6 | | |
| 5.707 | 5.707 (1.034) | 95 | 1540966 | 200.000 | 196.44 | 50.00- 150.00 | 100.00 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 104 Trichloroethene (continued) | | | | | | | |
| 5.707 | 5.707 (1.034) | 130 | 1364258 | | | 36.71- 136.71 | 88.53 |
| 5.707 | 5.707 (1.034) | 97 | 998299 | | | 14.60- 114.60 | 64.78 |
| 105 Methyl Cyclohexane | | | | | CAS #: 108-87-2 | | |
| 5.815 | 5.815 (1.267) | 83 | 2183274 | 200.000 | 200.92 | 50.00- 150.00 | 100.00(A) |
| 5.815 | 5.815 (1.267) | 98 | 1018692 | | | 0.00- 96.57 | 46.66 |
| 5.815 | 5.815 (1.267) | 55 | 1946091 | | | 39.57- 139.57 | 89.14 |
| 106 1,2-Dichloropropane | | | | | CAS #: 78-87-5 | | |
| 5.944 | 5.944 (1.077) | 63 | 1435506 | 200.000 | 197.64 | 50.00- 150.00 | 100.00 |
| 5.944 | 5.944 (1.077) | 62 | 1025156 | | | 20.35- 120.35 | 71.41 |
| 5.944 | 5.944 (1.077) | 41 | 874730 | | | 13.49- 113.49 | 60.94 |
| 107 1,4-Dioxane | | | | | CAS #: 123-91-1 | | |
| 6.037 | 6.037 (1.093) | 88 | 859130 | 200.000 | 208.28 | 50.00- 150.00 | 100.00(A) |
| 6.037 | 6.037 (1.093) | 58 | 659809 | | | 27.58- 127.58 | 76.80 |
| 6.037 | 6.037 (1.093) | 57 | 220004 | | | 0.00- 76.30 | 25.61 |
| 108 Bromodichloromethane | | | | | CAS #: 75-27-4 | | |
| 6.180 | 6.180 (1.119) | 83 | 2861223 | 200.000 | 203.22 | 50.00- 150.00 | 100.00(A) |
| 6.180 | 6.180 (1.119) | 85 | 1830769 | | | 13.44- 113.44 | 63.99 |
| 110 cis-1,3-Dichloropropene | | | | | CAS #: 10061-01-5 | | |
| 6.567 | 6.567 (1.189) | 75 | 2299217 | 200.000 | 209.68 | 50.00- 150.00 | 100.00(A) |
| 6.567 | 6.567 (1.189) | 77 | 713602 | | | 0.00- 81.59 | 31.04 |
| 6.560 | 6.560 (1.188) | 39 | 1230477 | | | 5.92- 105.92 | 53.52 |
| 112 4-Methyl-2-pentanone | | | | | CAS #: 108-10-1 | | |
| 6.689 | 6.689 (1.211) | 58 | 1367839 | 200.000 | 211.58 | 50.00- 150.00 | 100.00(A) |
| 6.689 | 6.689 (1.211) | 43 | 3679127 | | | 224.75- 324.75 | 268.97 |
| 6.689 | 6.689 (1.211) | 85 | 545316 | | | 0.00- 89.27 | 39.87 |
| 115 Toluene | | | | | CAS #: 108-88-3 | | |
| 6.803 | 6.803 (1.232) | 91 | 4566161 | 200.000 | 197.54 | 50.00- 150.00 | 100.00 |
| 6.803 | 6.803 (1.232) | 92 | 2715536 | | | 9.29- 109.29 | 59.47 |
| 118 trans-1,3-Dichloropropene | | | | | CAS #: 10061-02-6 | | |
| 7.054 | 7.054 (0.885) | 75 | 2513681 | 200.000 | 220.91 | 50.00- 150.00 | 100.00(A) |
| 7.054 | 7.054 (0.885) | 77 | 793749 | | | 0.00- 83.09 | 31.58 |
| 7.047 | 7.047 (0.884) | 39 | 1265269 | | | 4.25- 104.25 | 50.34 |
| 120 1,1,2-Trichloroethane | | | | | CAS #: 79-00-5 | | |
| 7.197 | 7.197 (0.903) | 97 | 1595558 | 200.000 | 200.91 | 50.00- 150.00 | 100.00(A) |
| 7.197 | 7.197 (0.903) | 99 | 986973 | | | 12.25- 112.25 | 61.86 |
| 7.197 | 7.197 (0.903) | 83 | 1420777 | | | 42.00- 142.00 | 89.05 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 122 Tetrachloroethene | | | | | CAS #: 127-18-4 | | |
| 7.240 | 7.240 (0.908) | 166 | 1727016 | 200.000 | 194.06 | 50.00- 150.00 | 100.00 |
| 7.233 | 7.233 (0.907) | 129 | 1451498 | | | 33.95- 133.95 | 84.05 |
| 7.240 | 7.240 (0.908) | 131 | 1368487 | | | 27.31- 127.31 | 79.24 |
| 125 2-Hexanone | | | | | CAS #: 591-78-6 | | |
| 7.383 | 7.383 (0.926) | 58 | 1982627 | 200.000 | 216.98 | 50.00- 150.00 | 100.00(A) |
| 7.383 | 7.383 (0.926) | 43 | 3854169 | | | 146.90- 246.90 | 194.40 |
| 7.383 | 7.383 (0.926) | 100 | 366581 | | | 0.00- 68.42 | 18.49 |
| 128 Dibromochloromethane | | | | | CAS #: 124-48-1 | | |
| 7.505 | 7.505 (0.942) | 129 | 2613088 | 200.000 | 208.86 | 50.00- 150.00 | 100.00(A) |
| 7.505 | 7.505 (0.942) | 127 | 2017249 | | | 27.80- 127.80 | 77.20 |
| 130 1,2-Dibromoethane | | | | | CAS #: 106-93-4 | | |
| 7.606 | 7.606 (0.954) | 107 | 2489852 | 200.000 | 201.00 | 50.00- 150.00 | 100.00(A) |
| 7.606 | 7.606 (0.954) | 109 | 2339706 | | | 44.92- 144.92 | 93.97 |
| 135 Chlorobenzene | | | | | CAS #: 108-90-7 | | |
| 7.992 | 7.992 (1.003) | 112 | 3625386 | 200.000 | 189.58 | 50.00- 150.00 | 100.00 |
| 7.992 | 7.992 (1.003) | 114 | 1160303 | | | 0.00- 82.27 | 32.00 |
| 7.992 | 7.992 (1.003) | 77 | 2456088 | | | 23.60- 123.60 | 67.75 |
| 137 Ethyl Benzene | | | | | CAS #: 100-41-4 | | |
| 8.057 | 8.057 (1.011) | 106 | 1962753 | 200.000 | 202.56 | 50.00- 150.00 | 100.00(A) |
| 8.050 | 8.050 (1.010) | 91 | 6553056 | | | 290.13- 390.13 | 333.87 |
| 140 m,p-Xylene | | | | | CAS #: 108-38-3 | | |
| 8.150 | 8.150 (1.022) | 106 | 2505178 | 200.000 | 200.63 | 50.00- 150.00 | 100.00(A) |
| 8.150 | 8.150 (1.022) | 91 | 5247899 | | | 156.72- 256.72 | 209.48 |
| 141 o-Xylene | | | | | CAS #: 95-47-6 | | |
| 8.487 | 8.487 (1.065) | 106 | 2392542 | 200.000 | 202.26 | 50.00- 150.00 | 100.00(A) |
| 8.487 | 8.487 (1.065) | 91 | 5256579 | | | 167.29- 267.29 | 219.71 |
| 142 Styrene | | | | | CAS #: 100-42-5 | | |
| 8.508 | 8.508 (1.067) | 104 | 4003151 | 200.000 | 206.44 | 50.00- 150.00 | 100.00(A) |
| 8.508 | 8.508 (1.067) | 78 | 2214394 | | | 5.25- 105.25 | 55.32 |
| 145 Bromoform | | | | | CAS #: 75-25-2 | | |
| 8.680 | 8.680 (1.089) | 173 | 2217832 | 200.000 | 216.96 | 50.00- 150.00 | 100.00(A) |
| 8.680 | 8.680 (1.089) | 171 | 1145578 | | | 2.47- 102.47 | 51.65 |
| 147 Cumene | | | | | CAS #: 98-82-8 | | |
| 8.773 | 8.773 (1.101) | 105 | 7308396 | 200.000 | 203.25 | 50.00- 150.00 | 100.00(A) |
| 8.773 | 8.773 (1.101) | 120 | 1826802 | | | 0.00- 75.25 | 25.00 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 147 Cumene (continued) | | | | | | | |
| 8.773 | 8.773 (1.101) | 51 | 850635 | | | 0.00- 62.26 | 11.64 |
| 151 1,1,2,2-Tetrachloroethane | | | | | CAS #: 79-34-5 | | |
| 9.081 | 9.081 (1.139) | 83 | 3996509 | 200.000 | 201.70 | 50.00- 150.00 | 100.00(A) |
| 9.081 | 9.081 (1.139) | 85 | 2578876 | | | 14.89- 114.89 | 64.53 |
| 153 Propylbenzene | | | | | CAS #: 103-65-1 | | |
| 9.117 | 9.117 (1.144) | 91 | 9290536 | 200.000 | 203.48 | 50.00- 150.00 | 100.00(A) |
| 9.117 | 9.117 (1.144) | 120 | 1948467 | | | 0.00- 71.30 | 20.97 |
| 9.117 | 9.117 (1.144) | 105 | 329620 | | | 0.00- 68.74 | 3.55 |
| 155 4-Ethyltoluene | | | | | CAS #: 622-96-8 | | |
| 9.210 | 9.210 (1.155) | 120 | 2212047 | 200.000 | 205.83 | 50.00- 150.00 | 100.00(A) |
| 9.210 | 9.210 (1.155) | 105 | 7836547 | | | 299.99- 399.99 | 354.27 |
| 156 1,3,5-Trimethylbenzene | | | | | CAS #: 108-67-8 | | |
| 9.260 | 9.260 (1.162) | 120 | 2943509 | 200.000 | 203.59 | 50.00- 150.00 | 100.00(A) |
| 9.260 | 9.260 (1.162) | 105 | 6248431 | | | 160.53- 260.53 | 212.28 |
| 162 1,2,4-Trimethylbenzene | | | | | CAS #: 95-63-6 | | |
| 9.575 | 9.575 (1.201) | 120 | 2765907 | 200.000 | 205.63 | 50.00- 150.00 | 100.00(A) |
| 9.575 | 9.575 (1.201) | 105 | 6273393 | | | 174.98- 274.98 | 226.81 |
| 165 1,3-Dichlorobenzene | | | | | CAS #: 541-73-1 | | |
| 9.840 | 9.840 (1.235) | 146 | 3587033 | 200.000 | 200.12 | 50.00- 150.00 | 100.00(A) |
| 9.840 | 9.840 (1.235) | 148 | 2268187 | | | 13.36- 113.36 | 63.23 |
| 9.833 | 9.833 (1.234) | 111 | 1641390 | | | 0.00- 95.45 | 45.76 |
| 166 1,4-Dichlorobenzene | | | | | CAS #: 106-46-7 | | |
| 9.919 | 9.919 (1.244) | 146 | 3647453 | 200.000 | 199.43 | 50.00- 150.00 | 100.00 |
| 9.919 | 9.919 (1.244) | 148 | 2313077 | | | 13.03- 113.03 | 63.42 |
| 9.912 | 9.912 (1.244) | 111 | 1601262 | | | 0.00- 93.63 | 43.90 |
| 168 alpha-Chlorotoluene | | | | | CAS #: 100-44-7 | | |
| 10.034 | 10.034 (1.259) | 91 | 6315590 | 200.000 | 255.50 | 50.00- 150.00 | 100.00(A) |
| 10.034 | 10.034 (1.259) | 126 | 1134177 | | | 0.00- 67.76 | 17.96 |
| 171 1,2-Dichlorobenzene | | | | | CAS #: 95-50-1 | | |
| 10.227 | 10.227 (1.283) | 146 | 3361832 | 200.000 | 203.57 | 50.00- 150.00 | 100.00(A) |
| 10.227 | 10.227 (1.283) | 148 | 2122797 | | | 13.96- 113.96 | 63.14 |
| 10.227 | 10.227 (1.283) | 111 | 1606761 | | | 0.00- 98.36 | 47.79 |
| 174 1,2,4-Trichlorobenzene | | | | | CAS #: 120-82-1 | | |
| 11.545 | 11.545 (1.448) | 180 | 2687250 | 200.000 | 209.96 | 50.00- 150.00 | 100.00(A) |
| 11.545 | 11.545 (1.448) | 182 | 2551679 | | | 44.68- 144.68 | 94.96 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 175 Hexachlorobutadiene | | | | | CAS #: 87-68-3 | | |
| 11.638 | 11.638 (1.460) | 225 | 1777417 | 200.000 | 206.08 | 50.00- 150.00 | 100.00(A) |
| 11.638 | 11.638 (1.460) | 223 | 1128185 | | | 14.17- 114.17 | 63.47 |
| 176 Naphthalene | | | | | CAS #: 91-20-3 | | |
| 11.767 | 11.767 (1.476) | 128 | 7290496 | 200.000 | 216.19 | 50.00- 150.00 | 100.00(A) |
| 11.767 | 11.767 (1.476) | 127 | 928784 | | | 0.00- 62.93 | 12.74 |

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Report Date: 31-Mar-2010 16:11

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdd.i
Lab File ID: d033117.d
Lab Smp Id: ICAL Level 7
Analysis Type: VOA
Quant Type: ISTD
Operator: ra
Method File: /chem/msdd.i/31mar10a.b/d10q0331a.m
Misc Info: 200ppbv->200ppbv

Calibration Date: 31-MAR-2010
Calibration Time: 15:19
Client Smp ID: ICAL level 7
Level: LOW
Sample Type: AIR

| | | AREA LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 79 Bromochloromethan | 104005 | 62403 | 145607 | 104612 | 0.58 |
| 100 1,4-Difluorobenze | 450381 | 270229 | 630533 | 453362 | 0.66 |
| 134 Chlorobenzene-d5 | 514163 | 308498 | 719828 | 513615 | -0.11 |

| | | RT LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 79 Bromochloromethan | 4.58 | 4.25 | 4.91 | 4.59 | 0.31 |
| 100 1,4-Difluorobenze | 5.51 | 5.18 | 5.84 | 5.52 | 0.26 |
| 134 Chlorobenzene-d5 | 7.95 | 7.62 | 8.28 | 7.97 | 0.27 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msdd.i/31mar10a.b/d033117.d

Date : 31-MAR-2010 15:58

Client ID: ICAL level 7

Sample Info: 200ml #1936-87

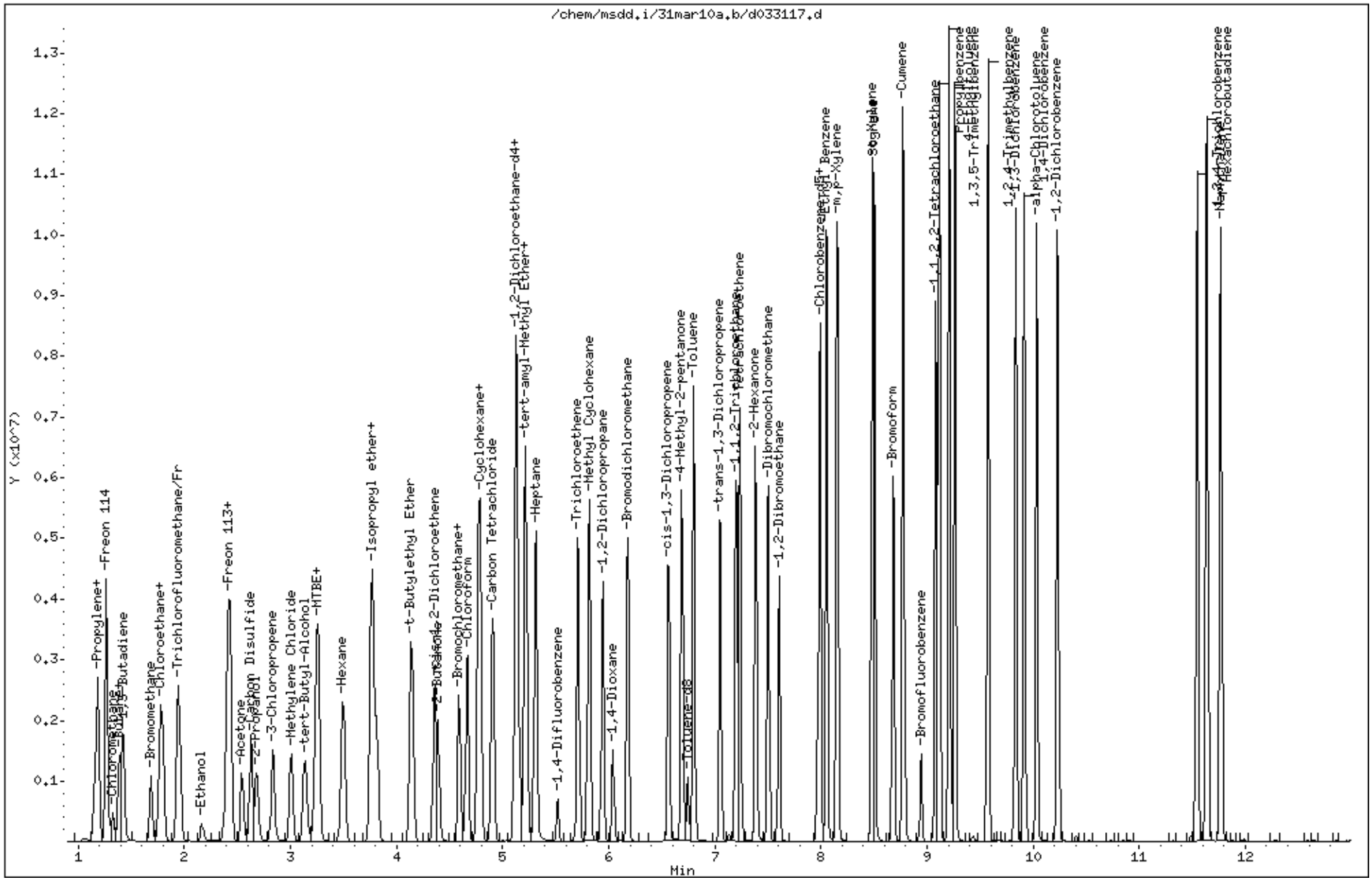
Column phase: RTx-624

Instrument: msdd.i

Operator: ra

Column diameter: 0.53





Air Toxics LTD.
Laboratory Services Since 1989

**Client Sample ID: CCV**

**Lab ID#: 1003666-04A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **d040502** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 4/5/10 09:59 AM** | |

| Compound | %Recovery |
|---|---|
| Freon 12 | 101 |
| Freon 114 | 98 |
| Chloromethane | 105 |
| Vinyl Chloride | 113 |
| 1,3-Butadiene | 108 |
| Bromomethane | 101 |
| Chloroethane | 97 |
| Freon 11 | 94 |
| Ethanol | 104 |
| Freon 113 | 99 |
| 1,1-Dichloroethene | 100 |
| Acetone | 101 |
| 2-Propanol | 100 |
| Carbon Disulfide | 95 |
| 3-Chloropropene | 98 |
| Methylene Chloride | 103 |
| Methyl tert-butyl ether | 97 |
| trans-1,2-Dichloroethene | 101 |
| Hexane | 101 |
| 1,1-Dichloroethane | 102 |
| 2-Butanone (Methyl Ethyl Ketone) | 104 |
| cis-1,2-Dichloroethene | 99 |
| Tetrahydrofuran | 101 |
| Chloroform | 99 |
| 1,1,1-Trichloroethane | 97 |
| Cyclohexane | 98 |
| Carbon Tetrachloride | 99 |
| 2,2,4-Trimethylpentane | 99 |
| Benzene | 99 |
| 1,2-Dichloroethane | 103 |
| Heptane | 103 |
| Trichloroethene | 99 |
| 1,2-Dichloropropane | 100 |
| 1,4-Dioxane | 99 |
| Bromodichloromethane | 102 |
| cis-1,3-Dichloropropene | 100 |
| 4-Methyl-2-pentanone | 101 |
| Toluene | 99 |
| trans-1,3-Dichloropropene | 106 |

Air Toxics LTD.
Laboratory Services Since 1989

**Client Sample ID: CCV**

**Lab ID#: 1003666-04A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **d040502** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 4/5/10 09:59 AM** | |

| Compound | %Recovery |
|---|---|
| 1,1,2-Trichloroethane | 105 |
| Tetrachloroethene | 102 |
| 2-Hexanone | 106 |
| Dibromochloromethane | 106 |
| 1,2-Dibromoethane (EDB) | 105 |
| Chlorobenzene | 98 |
| Ethyl Benzene | 104 |
| m,p-Xylene | 103 |
| o-Xylene | 103 |
| Styrene | 106 |
| Bromoform | 108 |
| Cumene | 103 |
| 1,1,2,2-Tetrachloroethane | 102 |
| Propylbenzene | 103 |
| 4-Ethyltoluene | 101 |
| 1,3,5-Trimethylbenzene | 103 |
| 1,2,4-Trimethylbenzene | 102 |
| 1,3-Dichlorobenzene | 99 |
| 1,4-Dichlorobenzene | 99 |
| alpha-Chlorotoluene | 104 |
| 1,2-Dichlorobenzene | 100 |
| 1,2,4-Trichlorobenzene | 90 |
| Hexachlorobutadiene | 97 |
| Naphthalene | 92 |

**Container Type: NA - Not Applicable**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| Toluene-d8 | 99 | 70-130 |
| 1,2-Dichloroethane-d4 | 101 | 70-130 |
| 4-Bromofluorobenzene | 98 | 70-130 |

Air Toxics Ltd.

## CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msdd.i Injection Date: 05-APR-2010 09:59
Lab File ID: d040502.d Init. Cal. Date(s): 31-MAR-2010 31-MAR-2010
Analysis Type: AIR Init. Cal. Times: 13:49 15:58
Lab Sample ID: CCV Quant Type: ISTD
Method: /var/chem/msdd.i/05apr10.b/d10q0331a.m

| COMPOUND | RRF / AMOUNT | RF50 | MIN RRF | %D / %DRIFT | MAX %D / %DRIFT | CURVE TYPE |
|---|---|---|---|---|---|---|
| $ 91 1,2-Dichloroethane-d4 | 2.02723 | 2.05685 | 0.010 | 1.46091 | 30.00000 | Averaged |
| $ 114 Toluene-d8 | 1.24004 | 1.22818 | 0.010 | -0.95589 | 30.00000 | Averaged |
| $ 149 Bromofluorobenzene | 0.51115 | 0.50290 | 0.010 | -1.61336 | 30.00000 | Averaged |
| 6 Propylene | 0.80388 | 0.82839 | 0.010 | 3.04879 | 30.00000 | Averaged |
| 7 Dichlorodifluoromethane/Fr1 | 3.16306 | 3.18866 | 0.010 | 0.80935 | 30.00000 | Averaged |
| 10 Freon 114 | 1.73855 | 1.70716 | 0.010 | -1.80562 | 30.00000 | Averaged |
| 13 Chloromethane | 0.70246 | 0.73781 | 0.010 | 5.03302 | 30.00000 | Averaged |
| 14 Butane | 0.20392 | 0.20186 | 0.010 | -1.00866 | 30.00000 | Averaged |
| 15 Vinyl Chloride | 0.98347 | 1.11089 | 0.010 | 12.95559 | 30.00000 | Averaged |
| 18 1,3-Butadiene | 0.83688 | 0.90186 | 0.010 | 7.76520 | 30.00000 | Averaged |
| 24 Bromomethane | 0.92837 | 0.93840 | 0.010 | 1.08046 | 30.00000 | Averaged |
| 25 Chloroethane | 0.63362 | 0.61773 | 0.010 | -2.50715 | 30.00000 | Averaged |
| 26 Isopentane | 1.31710 | 1.36303 | 0.010 | 3.48661 | 30.00000 | Averaged |
| 28 Trichlorofluoromethane/Fr11 | 3.34117 | 3.15565 | 0.010 | -5.55264 | 30.00000 | Averaged |
| 29 Ethanol | 0.41501 | 0.43275 | 0.010 | 4.27644 | 30.00000 | Averaged |
| 33 Freon 113 | 1.51439 | 1.49643 | 0.010 | -1.18624 | 30.00000 | Averaged |
| 34 1,1-Dichloroethene | 0.66461 | 0.66618 | 0.010 | 0.23660 | 30.00000 | Averaged |
| 38 Acetone | 0.53223 | 0.53552 | 0.010 | 0.61824 | 30.00000 | Averaged |
| 40 Carbon Disulfide | 3.23541 | 3.08614 | 0.010 | -4.61344 | 30.00000 | Averaged |
| 41 2-Propanol | 1.83115 | 1.83837 | 0.010 | 0.39463 | 30.00000 | Averaged |
| 44 3-Chloropropene | 0.50555 | 0.49709 | 0.010 | -1.67296 | 30.00000 | Averaged |
| 46 Methylene Chloride | 1.36314 | 1.40860 | 0.010 | 3.33501 | 30.00000 | Averaged |
| 48 tert-Butyl-Alcohol | 2.24311 | 2.06990 | 0.010 | -7.72187 | 30.00000 | Averaged |
| 50 MTBE | 3.25777 | 3.17575 | 0.010 | -2.51752 | 30.00000 | Averaged |
| 52 trans-1,2-Dichloroethene | 0.68954 | 0.69865 | 0.010 | 1.32070 | 30.00000 | Averaged |
| 58 Hexane | 1.93173 | 1.95320 | 0.010 | 1.11153 | 30.00000 | Averaged |
| 63 Isopropyl ether | 4.48347 | 4.56933 | 0.010 | 1.91515 | 30.00000 | Averaged |
| 64 1,1-Dichloroethane | 2.38981 | 2.43649 | 0.010 | 1.95365 | 30.00000 | Averaged |
| 65 Vinyl Acetate | 0.27311 | 0.27051 | 0.010 | -0.95049 | 30.00000 | Averaged |
| 72 t-Butylethyl Ether | 4.22593 | 4.02765 | 0.010 | -4.69194 | 30.00000 | Averaged |
| 74 cis-1,2-Dichloroethene | 0.78215 | 0.77228 | 0.010 | -1.26184 | 30.00000 | Averaged |
| 75 2-Butanone | 0.60122 | 0.62833 | 0.010 | 4.50859 | 30.00000 | Averaged |
| 78 Tetrahydrofuran | 1.55020 | 1.57008 | 0.010 | 1.28282 | 30.00000 | Averaged |
| 80 Chloroform | 2.85099 | 2.83205 | 0.010 | -0.66433 | 30.00000 | Averaged |
| 83 Cyclohexane | 1.74462 | 1.71754 | 0.010 | -1.55231 | 30.00000 | Averaged |
| 85 1,1,1-Trichloroethane | 2.89532 | 2.80258 | 0.010 | -3.20302 | 30.00000 | Averaged |

Air Toxics Ltd.

## CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msdd.i Injection Date: 05-APR-2010 09:59
Lab File ID: d040502.d Init. Cal. Date(s): 31-MAR-2010 31-MAR-2010
Analysis Type: AIR Init. Cal. Times: 13:49 15:58
Lab Sample ID: CCV Quant Type: ISTD
Method: /var/chem/msdd.i/05apr10.b/d10q0331a.m

| COMPOUND | RRF / AMOUNT | RF50 | MIN RRF | %D / %DRIFT | MAX %D / %DRIFT | CURVE TYPE |
|---|---|---|---|---|---|---|
| 86 Carbon Tetrachloride | 2.57067 | 2.54438 | 0.010 | -1.02274 | 30.00000 | Averaged |
| 89 2,2,4-Trimethylpentane | 7.21763 | 7.14820 | 0.010 | -0.96201 | 30.00000 | Averaged |
| 90 Benzene | 0.95646 | 0.94806 | 0.010 | -0.87889 | 30.00000 | Averaged |
| 93 tert-amyl-Methyl Ether | 3.83769 | 3.53779 | 0.010 | -7.81454 | 30.00000 | Averaged |
| 94 1,2-Dichloroethane | 0.51659 | 0.53094 | 0.010 | 2.77774 | 30.00000 | Averaged |
| 95 Heptane | 0.34908 | 0.35887 | 0.010 | 2.80424 | 30.00000 | Averaged |
| 104 Trichloroethene | 0.43257 | 0.42879 | 0.010 | -0.87248 | 30.00000 | Averaged |
| 105 Methyl Cyclohexane | 2.59683 | 2.52141 | 0.010 | -2.90441 | 30.00000 | Averaged |
| 106 1,2-Dichloropropane | 0.40051 | 0.40121 | 0.010 | 0.17388 | 30.00000 | Averaged |
| 107 1,4-Dioxane | 0.22746 | 0.22619 | 0.010 | -0.55489 | 30.00000 | Averaged |
| 108 Bromodichloromethane | 0.77639 | 0.79248 | 0.010 | 2.07233 | 30.00000 | Averaged |
| 110 cis-1,3-Dichloropropene | 0.60466 | 0.60279 | 0.010 | -0.30876 | 30.00000 | Averaged |
| 112 4-Methyl-2-pentanone | 0.35650 | 0.35879 | 0.010 | 0.64304 | 30.00000 | Averaged |
| 115 Toluene | 1.27467 | 1.26758 | 0.010 | -0.55609 | 30.00000 | Averaged |
| 118 trans-1,3-Dichloropropene | 0.55386 | 0.58990 | 0.010 | 6.50653 | 30.00000 | Averaged |
| 120 1,1,2-Trichloroethane | 0.38655 | 0.40707 | 0.010 | 5.30863 | 30.00000 | Averaged |
| 122 Tetrachloroethene | 0.43317 | 0.44335 | 0.010 | 2.34928 | 30.00000 | Averaged |
| 125 2-Hexanone | 0.44476 | 0.46926 | 0.010 | 5.50984 | 30.00000 | Averaged |
| 128 Dibromochloromethane | 0.60897 | 0.64530 | 0.010 | 5.96579 | 30.00000 | Averaged |
| 130 1,2-Dibromoethane | 0.60294 | 0.63219 | 0.010 | 4.85152 | 30.00000 | Averaged |
| 135 Chlorobenzene | 0.93080 | 0.91662 | 0.010 | -1.52263 | 30.00000 | Averaged |
| 137 Ethyl Benzene | 0.47165 | 0.49311 | 0.010 | 4.54952 | 30.00000 | Averaged |
| 140 m,p-Xylene | 0.60776 | 0.62603 | 0.010 | 3.00529 | 30.00000 | Averaged |
| 141 o-Xylene | 0.57576 | 0.59221 | 0.010 | 2.85609 | 30.00000 | Averaged |
| 142 Styrene | 0.94388 | 0.99865 | 0.010 | 5.80270 | 30.00000 | Averaged |
| 145 Bromoform | 0.49755 | 0.53655 | 0.010 | 7.83666 | 30.00000 | Averaged |
| 147 Cumene | 1.75021 | 1.80412 | 0.010 | 3.07992 | 30.00000 | Averaged |
| 151 1,1,2,2-Tetrachloroethane | 0.96446 | 0.98802 | 0.010 | 2.44236 | 30.00000 | Averaged |
| 153 Propylbenzene | 2.22235 | 2.28584 | 0.010 | 2.85706 | 30.00000 | Averaged |
| 155 4-Ethyltoluene | 0.52310 | 0.52826 | 0.010 | 0.98629 | 30.00000 | Averaged |
| 156 1,3,5-Trimethylbenzene | 0.70373 | 0.72367 | 0.010 | 2.83385 | 30.00000 | Averaged |
| 162 1,2,4-Trimethylbenzene | 0.65471 | 0.67019 | 0.010 | 2.36544 | 30.00000 | Averaged |
| 165 1,3-Dichlorobenzene | 0.87247 | 0.86489 | 0.010 | -0.86908 | 30.00000 | Averaged |
| 166 1,4-Dichlorobenzene | 0.89021 | 0.88367 | 0.010 | -0.73529 | 30.00000 | Averaged |
| 168 alpha-Chlorotoluene | 1.20318 | 1.24706 | 0.010 | 3.64667 | 30.00000 | Averaged |

Air Toxics Ltd.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msdd.i Injection Date: 05-APR-2010 09:59
Lab File ID: d040502.d Init. Cal. Date(s): 31-MAR-2010 31-MAR-2010
Analysis Type: AIR Init. Cal. Times: 13:49 15:58
Lab Sample ID: CCV Quant Type: ISTD
Method: /var/chem/msdd.i/05apr10.b/d10q0331a.m

| COMPOUND | RRF / AMOUNT | RF50 | MIN RRF | %D / %DRIFT | MAX %D / %DRIFT | CURVE TYPE |
|---|---|---|---|---|---|---|
| 171 1,2-Dichlorobenzene | 0.80384 | 0.80467 | 0.010 | 0.10272 | 30.00000 | Averaged |
| 174 1,2,4-Trichlorobenzene | 0.62298 | 0.56439 | 0.010 | -9.40472 | 30.00000 | Averaged |
| 175 Hexachlorobutadiene | 0.41981 | 0.40805 | 0.010 | -2.80117 | 30.00000 | Averaged |
| 176 Naphthalene | 1.64145 | 1.51067 | 0.010 | -7.96732 | 40.00000 | Averaged |

Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msdd.i/05apr10.b/d040502.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 05-APR-2010 09:59
Operator : acb Inst ID: msdd.i
Smp Info : 50ml #1936-87
Misc Info : 50ppbv(200ppbv)
Comment :
Method : /var/chem/msdd.i/05apr10.b/d10q0331a.m
Meth Date : 05-Apr-2010 10:23 abarton Quant Type: ISTD
Cal Date : 31-MAR-2010 15:58 Cal File: d033117.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT09.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| | | | | AMOUNTS | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | CAL-AMT | ON-COL | | | |
| RT | EXP RT (REL RT) | MASS | RESPONSE | ( PPBV) | ( PPBV) | TARGET RANGE | | RATIO |
| == | ====== ======== | ==== | ======== | ======= | ======= | ========== | | ===== |
| * 79 Bromochloromethane | | | | | CAS #: 74-97-5 | | | |
| 4.591 | 4.591 (1.000) | 130 | 100921 | 25.0000 | | 80.00- 120.00 | | 100.00 |
| 4.584 | 4.584 (1.000) | 128 | 77737 | | | 27.03- 127.03 | | 77.03 |
| 4.584 | 4.584 (1.000) | 49 | 181902 | | | 130.24- 230.24 | | 180.24 |
| * 100 1,4-Difluorobenzene | | | | | CAS #: 540-36-3 | | | |
| 5.515 | 5.515 (1.000) | 114 | 426370 | 25.0000 | | 80.00- 120.00 | | 100.00 |
| 5.515 | 5.515 (1.000) | 88 | 78971 | | | 0.00- 68.52 | | 18.52 |
| * 134 Chlorobenzene-d5 | | | | | CAS #: 3114-55-4 | | | |
| 7.958 | 7.958 (1.000) | 117 | 463331 | 25.0000 | | 80.00- 120.00 | | 100.00 |
| 7.958 | 7.958 (1.000) | 82 | 296732 | | | 12.92- 112.92 | | 64.04 |
| $ 91 1,2-Dichloroethane-d4 | | | | | CAS #: 17060-07-0 | | | |
| 5.143 | 5.143 (1.120) | 65 | 207579 | 25.0000 | 25.365 | 80.00- 120.00 | | 100.00 |
| 5.143 | 5.143 (1.120) | 67 | 111735 | | | 2.15- 102.15 | | 53.83 |
| $ 114 Toluene-d8 | | | | | CAS #: 2037-26-5 | | | |
| 6.740 | 6.740 (1.222) | 98 | 523660 | 25.0000 | 24.761 | 80.00- 120.00 | | 100.00 |
| 6.740 | 6.740 (1.222) | 70 | 65231 | | | 0.00- 62.20 | | 12.46 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 114 Toluene-d8 (continued) | | | | | | | |
| 6.740 | 6.740 (1.222) | 100 | 345962 | | | 15.58- 115.58 | 66.07 |
| $ 149 Bromofluorobenzene | | | | | CAS #: 460-00-4 | | |
| 8.925 | 8.925 (1.121) | 174 | 233010 | 25.0000 | 24.597 | 80.00- 120.00 | 100.00 |
| 8.925 | 8.925 (1.121) | 95 | 392970 | | | 118.65- 218.65 | 168.65 |
| 8.925 | 8.925 (1.121) | 176 | 220521 | | | 44.64- 144.64 | 94.64 |
| 6 Propylene | | | | | CAS #: 115-07-1 | | |
| 1.147 | 1.147 (0.250) | 41 | 167204 | 50.0000 | 51.524 | 80.00- 120.00 | 100.00 |
| 1.147 | 1.147 (0.250) | 42 | 110235 | | | 14.09- 114.09 | 65.93 |
| 1.147 | 1.147 (0.250) | 39 | 132665 | | | 29.45- 129.45 | 79.34 |
| 7 Dichlorodifluoromethane/Fr12 | | | | | CAS #: 75-71-8 | | |
| 1.175 | 1.175 (0.256) | 85 | 643606 | 50.0000 | 50.405 | 80.00- 120.00 | 100.00 |
| 1.175 | 1.175 (0.256) | 87 | 207841 | | | 0.00- 82.88 | 32.29 |
| 10 Freon 114 | | | | | CAS #: 76-14-2 | | |
| 1.273 | 1.273 (0.277) | 135 | 344577 | 50.0000 | 49.097 | 80.00- 120.00 | 100.00 |
| 1.273 | 1.273 (0.277) | 137 | 110756 | | | 0.00- 82.14 | 32.14 |
| 13 Chloromethane | | | | | CAS #: 74-87-3 | | |
| 1.315 | 1.315 (0.286) | 50 | 148921 | 50.0000 | 52.516 | 80.00- 120.00 | 100.00 |
| 1.315 | 1.315 (0.286) | 52 | 48152 | | | 0.00- 83.02 | 32.33 |
| 14 Butane | | | | | CAS #: 106-97-8 | | |
| 1.384 | 1.384 (0.302) | 58 | 40744 | 50.0000 | 49.496 | 80.00- 120.00 | 100.00 |
| 1.384 | 1.384 (0.302) | 43 | 291409 | | | 701.77- 801.77 | 715.22 |
| 15 Vinyl Chloride | | | | | CAS #: 75-01-4 | | |
| 1.398 | 1.398 (0.305) | 62 | 224224 | 50.0000 | 56.478 | 80.00- 120.00 | 100.00 |
| 1.398 | 1.398 (0.305) | 64 | 73480 | | | 0.00- 97.20 | 32.77 |
| 18 1,3-Butadiene | | | | | CAS #: 106-99-0 | | |
| 1.426 | 1.426 (0.311) | 54 | 182034 | 50.0000 | 53.882 | 80.00- 120.00 | 100.00 |
| 1.426 | 1.426 (0.311) | 39 | 199504 | | | 75.63- 175.63 | 109.60 |
| 24 Bromomethane | | | | | CAS #: 74-83-9 | | |
| 1.678 | 1.678 (0.366) | 94 | 189409 | 50.0000 | 50.540 | 80.00- 120.00 | 100.00 |
| 1.678 | 1.678 (0.366) | 96 | 177320 | | | 43.62- 143.62 | 93.62 |
| 25 Chloroethane | | | | | CAS #: 75-00-3 | | |
| 1.748 | 1.748 (0.381) | 64 | 124684 | 50.0000 | 48.746 | 80.00- 120.00 | 100.00 |
| 1.748 | 1.748 (0.381) | 66 | 39863 | | | 0.00- 86.90 | 31.97 |
| 1.748 | 1.748 (0.381) | 49 | 36816 | | | 0.00- 78.42 | 29.53 |

| | | | | AMOUNTS | | | |
|---|---|---|---|---|---|---|---|
| | | | | CAL-AMT | ON-COL | | |
| RT | EXP RT (REL RT) | MASS | RESPONSE | ( PPBV) | ( PPBV) | TARGET RANGE | RATIO |
| 26 Isopentane | | | | | CAS #: 78-78-4 | | |
| 1.790 | 1.790 (0.390) | 43 | 275116 | 50.0000 | 51.743 | 80.00- 120.00 | 100.00 |
| 1.790 | 1.790 (0.390) | 57 | 193813 | | | 20.70- 120.70 | 70.45 |
| 28 Trichlorofluoromethane/Fr11 | | | | | CAS #: 75-69-4 | | |
| 1.944 | 1.944 (0.423) | 101 | 636942 | 50.0000 | 47.224 | 80.00- 120.00 | 100.00 |
| 1.944 | 1.944 (0.423) | 103 | 413274 | | | 14.88- 114.88 | 64.88 |
| 29 Ethanol | | | | | CAS #: 64-17-5 | | |
| 2.163 | 2.163 (0.471) | 45 | 87348 | 50.0000 | 52.138 | 80.00- 120.00 | 100.00 |
| 2.156 | 2.156 (0.470) | 43 | 20830 | | | 0.00- 76.61 | 23.85 |
| 2.163 | 2.163 (0.471) | 46 | 33084 | | | 0.00- 88.16 | 37.88 |
| 33 Freon 113 | | | | | CAS #: 76-13-1 | | |
| 2.407 | 2.407 (0.524) | 151 | 302042 | 50.0000 | 49.407 | 80.00- 120.00 | 100.00 |
| 2.407 | 2.407 (0.524) | 153 | 190200 | | | 12.97- 112.97 | 62.97 |
| 2.407 | 2.407 (0.524) | 101 | 446445 | | | 97.81- 197.81 | 147.81 |
| 34 1,1-Dichloroethene | | | | | CAS #: 75-35-4 | | |
| 2.428 | 2.428 (0.529) | 98 | 134463 | 50.0000 | 50.118 | 80.00- 120.00 | 100.00 |
| 2.428 | 2.428 (0.529) | 96 | 209067 | | | 105.48- 205.48 | 155.48 |
| 2.428 | 2.428 (0.529) | 61 | 426308 | | | 267.04- 367.04 | 317.04 |
| 38 Acetone | | | | | CAS #: 67-64-1 | | |
| 2.536 | 2.536 (0.552) | 58 | 108090 | 50.0000 | 50.309 | 80.00- 120.00 | 100.00 |
| 2.536 | 2.536 (0.552) | 43 | 405861 | | | 327.54- 427.54 | 375.48 |
| 40 Carbon Disulfide | | | | | CAS #: 75-15-0 | | |
| 2.622 | 2.622 (0.571) | 76 | 622913 | 50.0000 | 47.693 | 80.00- 120.00 | 100.00 |
| 41 2-Propanol | | | | | CAS #: 67-63-0 | | |
| 2.679 | 2.679 (0.583) | 45 | 371061 | 50.0000 | 50.197 | 80.00- 120.00 | 100.00 |
| 2.679 | 2.679 (0.583) | 43 | 84574 | | | 0.00- 72.17 | 22.79 |
| 2.686 | 2.686 (0.585) | 59 | 14195 | | | 0.00- 85.00 | 3.83 |
| 44 3-Chloropropene | | | | | CAS #: 107-05-1 | | |
| 2.829 | 2.829 (0.616) | 76 | 100334 | 50.0000 | 49.164 | 80.00- 120.00 | 100.00 |
| 2.829 | 2.829 (0.616) | 41 | 309278 | | | 245.26- 345.26 | 308.25 |
| 46 Methylene Chloride | | | | | CAS #: 75-09-2 | | |
| 3.001 | 3.001 (0.654) | 49 | 284314 | 50.0000 | 51.668 | 80.00- 120.00 | 100.00 |
| 3.001 | 3.001 (0.654) | 84 | 187159 | | | 15.83- 115.83 | 65.83 |
| 3.001 | 3.001 (0.654) | 51 | 84371 | | | 0.00- 80.39 | 29.68 |
| 48 tert-Butyl-Alcohol | | | | | CAS #: 75-65-0 | | |
| 3.137 | 3.137 (0.683) | 59 | 417792 | 50.0000 | 46.139 | 80.00- 120.00 | 100.00 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 48 tert-Butyl-Alcohol (continued) | | | | | | | |
| 3.137 | 3.137 (0.683) | 41 | 133374 | | | 0.00- 83.59 | 31.92 |
| 3.137 | 3.137 (0.683) | 57 | 45751 | | | 0.00- 57.49 | 10.95 |
| 50 MTBE | | | | | CAS #: 1634-04-4 | | |
| 3.245 | 3.245 (0.707) | 73 | 641000 | 50.0000 | 48.741 | 80.00- 120.00 | 100.00 |
| 3.245 | 3.245 (0.707) | 57 | 151394 | | | 0.00- 73.62 | 23.62 |
| 3.238 | 3.238 (0.705) | 41 | 170379 | | | 0.00- 75.17 | 26.58 |
| 52 trans-1,2-Dichloroethene | | | | | CAS #: 156-60-5 | | |
| 3.259 | 3.259 (0.710) | 98 | 141017 | 50.0000 | 50.660 | 80.00- 120.00 | 100.00 |
| 3.259 | 3.259 (0.710) | 61 | 381520 | | | 220.55- 320.55 | 270.55 |
| 3.259 | 3.259 (0.710) | 96 | 218862 | | | 114.13- 214.13 | 155.20 |
| 58 Hexane | | | | | CAS #: 110-54-3 | | |
| 3.488 | 3.488 (0.760) | 57 | 394238 | 50.0000 | 50.556 | 80.00- 120.00 | 100.00 |
| 3.488 | 3.488 (0.760) | 43 | 256713 | | | 19.39- 119.39 | 65.12 |
| 3.488 | 3.488 (0.760) | 86 | 62411 | | | 0.00- 69.00 | 15.83 |
| 63 Isopropyl ether | | | | | CAS #: 108-20-3 | | |
| 3.768 | 3.768 (0.821) | 45 | 922283 | 50.0000 | 50.958 | 80.00- 120.00 | 100.00 |
| 3.775 | 3.775 (0.822) | 87 | 213099 | | | 0.00- 73.47 | 23.11 |
| 3.768 | 3.768 (0.821) | 59 | 99558 | | | 0.00- 60.91 | 10.79 |
| 64 1,1-Dichloroethane | | | | | CAS #: 75-34-3 | | |
| 3.753 | 3.753 (0.817) | 63 | 491787 | 50.0000 | 50.977 | 80.00- 120.00 | 100.00 |
| 3.753 | 3.753 (0.817) | 65 | 154750 | | | 0.00- 81.47 | 31.47 |
| 65 Vinyl Acetate | | | | | CAS #: 108-05-4 | | |
| 3.811 | 3.811 (0.830) | 86 | 54601 | 50.0000 | 49.525 | 80.00- 120.00 | 100.00 |
| 3.811 | 3.811 (0.830) | 43 | 1119654 | | | 1533.22-1633.22 | 2050.61 |
| 72 t-Butylethyl Ether | | | | | CAS #: 637-92-3 | | |
| 4.140 | 4.140 (0.902) | 59 | 812949 | 50.0000 | 47.654 | 80.00- 120.00 | 100.00 |
| 4.140 | 4.140 (0.902) | 87 | 305056 | | | 0.00- 87.49 | 37.52 |
| 4.140 | 4.140 (0.902) | 41 | 173883 | | | 0.00- 70.38 | 21.39 |
| 74 cis-1,2-Dichloroethene | | | | | CAS #: 156-59-2 | | |
| 4.355 | 4.355 (0.949) | 98 | 155879 | 50.0000 | 49.369 | 80.00- 120.00 | 100.00 |
| 4.355 | 4.355 (0.949) | 96 | 240455 | | | 104.26- 204.26 | 154.26 |
| 4.355 | 4.355 (0.949) | 61 | 389119 | | | 199.63- 299.63 | 249.63 |
| 75 2-Butanone | | | | | CAS #: 78-93-3 | | |
| 4.391 | 4.391 (0.956) | 72 | 126823 | 50.0000 | 52.254 | 80.00- 120.00 | 100.00 |
| 4.391 | 4.391 (0.956) | 43 | 603540 | | | 425.89- 525.89 | 475.89 |
| 4.391 | 4.391 (0.956) | 57 | 46711 | | | 29.81- 129.81 | 36.83 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 78 Tetrahydrofuran | | | | | CAS #: 109-99-9 | | |
| 4.591 | 4.591 (1.000) | 42 | 316909 | 50.0000 | 50.641 | 80.00- 120.00 | 100.00 |
| 4.591 | 4.591 (1.000) | 71 | 111104 | | | 0.00- 85.98 | 35.06 |
| 4.591 | 4.591 (1.000) | 72 | 116841 | | | 0.00- 86.75 | 36.87 |
| 80 Chloroform | | | | | CAS #: 67-66-3 | | |
| 4.663 | 4.663 (1.016) | 83 | 571626 | 50.0000 | 49.668 | 80.00- 120.00 | 100.00 |
| 4.663 | 4.663 (1.016) | 85 | 363779 | | | 13.64- 113.64 | 63.64 |
| 83 Cyclohexane | | | | | CAS #: 110-82-7 | | |
| 4.771 | 4.771 (1.039) | 84 | 346672 | 50.0000 | 49.224 | 80.00- 120.00 | 100.00 |
| 4.771 | 4.771 (1.039) | 56 | 445265 | | | 78.44- 178.44 | 128.44 |
| 4.771 | 4.771 (1.039) | 41 | 263893 | | | 26.12- 126.12 | 76.12 |
| 85 1,1,1-Trichloroethane | | | | | CAS #: 71-55-6 | | |
| 4.785 | 4.785 (1.042) | 97 | 565679 | 50.0000 | 48.398 | 80.00- 120.00 | 100.00 |
| 4.785 | 4.785 (1.042) | 99 | 360377 | | | 13.71- 113.71 | 63.71 |
| 86 Carbon Tetrachloride | | | | | CAS #: 56-23-5 | | |
| 4.907 | 4.907 (1.069) | 119 | 513562 | 50.0000 | 49.489 | 80.00- 120.00 | 100.00 |
| 4.907 | 4.907 (1.069) | 117 | 529603 | | | 53.12- 153.12 | 103.12 |
| 89 2,2,4-Trimethylpentane | | | | | CAS #: 540-84-1 | | |
| 5.129 | 5.129 (1.117) | 57 | 1442806 | 50.0000 | 49.519 | 80.00- 120.00 | 100.00 |
| 5.129 | 5.129 (1.117) | 56 | 463719 | | | 0.00- 81.50 | 32.14 |
| 5.129 | 5.129 (1.117) | 41 | 395679 | | | 0.00- 77.21 | 27.42 |
| 90 Benzene | | | | | CAS #: 71-43-2 | | |
| 5.122 | 5.122 (0.929) | 78 | 808446 | 50.0000 | 49.560 | 80.00- 120.00 | 100.00 |
| 5.122 | 5.122 (0.929) | 77 | 191044 | | | 0.00- 73.17 | 23.63 |
| 93 tert-amyl-Methyl Ether | | | | | CAS #: 994-05-8 | | |
| 5.215 | 5.215 (1.136) | 73 | 714075 | 50.0000 | 46.093 | 80.00- 120.00 | 100.00 |
| 5.222 | 5.222 (1.137) | 87 | 169626 | | | 0.00- 74.24 | 23.75 |
| 5.215 | 5.215 (1.136) | 55 | 263740 | | | 0.00- 83.70 | 36.93 |
| 94 1,2-Dichloroethane | | | | | CAS #: 107-06-2 | | |
| 5.215 | 5.215 (0.945) | 62 | 452757 | 50.0000 | 51.389 | 80.00- 120.00 | 100.00 |
| 5.215 | 5.215 (0.945) | 64 | 147946 | | | 0.00- 83.10 | 32.68 |
| 95 Heptane | | | | | CAS #: 142-82-5 | | |
| 5.308 | 5.308 (0.962) | 71 | 306024 | 50.0000 | 51.402 | 80.00- 120.00 | 100.00 |
| 5.308 | 5.308 (0.962) | 43 | 591128 | | | 146.63- 246.63 | 193.16 |
| 5.308 | 5.308 (0.962) | 57 | 305538 | | | 54.79- 154.79 | 99.84 |
| 104 Trichloroethene | | | | | CAS #: 79-01-6 | | |
| 5.709 | 5.709 (1.035) | 95 | 365648 | 50.0000 | 49.564 | 80.00- 120.00 | 100.00 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 104 Trichloroethene (continued) | | | | | | | |
| 5.709 | 5.709 (1.035) | 130 | 327093 | | | 39.46- 139.46 | 89.46 |
| 5.709 | 5.709 (1.035) | 97 | 236630 | | | 14.72- 114.72 | 64.72 |
| 105 Methyl Cyclohexane | | | | | CAS #: 108-87-2 | | |
| 5.816 | 5.816 (1.267) | 83 | 508926 | 50.0000 | 48.548 | 80.00- 120.00 | 100.00 |
| 5.816 | 5.816 (1.267) | 98 | 241432 | | | 0.00- 96.57 | 47.44 |
| 5.816 | 5.816 (1.267) | 55 | 466002 | | | 39.57- 139.57 | 91.57 |
| 106 1,2-Dichloropropane | | | | | CAS #: 78-87-5 | | |
| 5.945 | 5.945 (1.078) | 63 | 342124 | 50.0000 | 50.087 | 80.00- 120.00 | 100.00 |
| 5.945 | 5.945 (1.078) | 62 | 243778 | | | 21.25- 121.25 | 71.25 |
| 5.945 | 5.945 (1.078) | 41 | 215833 | | | 13.09- 113.09 | 63.09 |
| 107 1,4-Dioxane | | | | | CAS #: 123-91-1 | | |
| 6.046 | 6.046 (1.096) | 88 | 192885 | 50.0000 | 49.722 | 80.00- 120.00 | 100.00 |
| 6.046 | 6.046 (1.096) | 58 | 148104 | | | 26.78- 126.78 | 76.78 |
| 6.038 | 6.038 (1.095) | 57 | 50308 | | | 0.00- 76.30 | 26.08 |
| 108 Bromodichloromethane | | | | | CAS #: 75-27-4 | | |
| 6.182 | 6.182 (1.121) | 83 | 675779 | 50.0000 | 51.036 | 80.00- 120.00 | 100.00 |
| 6.182 | 6.182 (1.121) | 85 | 429684 | | | 13.58- 113.58 | 63.58 |
| 110 cis-1,3-Dichloropropene | | | | | CAS #: 10061-01-5 | | |
| 6.561 | 6.561 (1.190) | 75 | 514022 | 50.0000 | 49.846 | 80.00- 120.00 | 100.00 |
| 6.561 | 6.561 (1.190) | 77 | 164302 | | | 0.00- 81.96 | 31.96 |
| 6.561 | 6.561 (1.190) | 39 | 292209 | | | 6.85- 106.85 | 56.85 |
| 112 4-Methyl-2-pentanone | | | | | CAS #: 108-10-1 | | |
| 6.690 | 6.690 (1.213) | 58 | 305954 | 50.0000 | 50.322 | 80.00- 120.00 | 100.00 |
| 6.690 | 6.690 (1.213) | 43 | 857269 | | | 224.75- 324.75 | 280.20 |
| 6.690 | 6.690 (1.213) | 85 | 121817 | | | 0.00- 89.27 | 39.82 |
| 115 Toluene | | | | | CAS #: 108-88-3 | | |
| 6.798 | 6.798 (1.232) | 91 | 1080914 | 50.0000 | 49.722 | 80.00- 120.00 | 100.00 |
| 6.798 | 6.798 (1.232) | 92 | 646498 | | | 9.81- 109.81 | 59.81 |
| 118 trans-1,3-Dichloropropene | | | | | CAS #: 10061-02-6 | | |
| 7.048 | 7.048 (0.886) | 75 | 546636 | 50.0000 | 53.253 | 80.00- 120.00 | 100.00 |
| 7.041 | 7.041 (0.885) | 77 | 174178 | | | 0.00- 81.86 | 31.86 |
| 7.041 | 7.041 (0.885) | 39 | 284471 | | | 2.04- 102.04 | 52.04 |
| 120 1,1,2-Trichloroethane | | | | | CAS #: 79-00-5 | | |
| 7.192 | 7.192 (0.904) | 97 | 377219 | 50.0000 | 52.654 | 80.00- 120.00 | 100.00 |
| 7.192 | 7.192 (0.904) | 99 | 233041 | | | 11.78- 111.78 | 61.78 |
| 7.192 | 7.192 (0.904) | 83 | 333336 | | | 38.37- 138.37 | 88.37 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 122 Tetrachloroethene | | | | | CAS #: 127-18-4 | | |
| 7.227 | 7.227 (0.908) | 166 | 410832 | 50.0000 | 51.175 | 80.00- 120.00 | 100.00 |
| 7.227 | 7.227 (0.908) | 129 | 341776 | | | 33.19- 133.19 | 83.19 |
| 7.227 | 7.227 (0.908) | 131 | 323101 | | | 28.65- 128.65 | 78.65 |
| 125 2-Hexanone | | | | | CAS #: 591-78-6 | | |
| 7.378 | 7.378 (0.927) | 58 | 434846 | 50.0000 | 52.755 | 80.00- 120.00 | 100.00 |
| 7.378 | 7.378 (0.927) | 43 | 869293 | | | 149.91- 249.91 | 199.91 |
| 7.378 | 7.378 (0.927) | 100 | 80719 | | | 0.00- 68.42 | 18.56 |
| 128 Dibromochloromethane | | | | | CAS #: 124-48-1 | | |
| 7.492 | 7.492 (0.941) | 129 | 597972 | 50.0000 | 52.983 | 80.00- 120.00 | 100.00 |
| 7.492 | 7.492 (0.941) | 127 | 464108 | | | 27.80- 127.80 | 77.61 |
| 130 1,2-Dibromoethane | | | | | CAS #: 106-93-4 | | |
| 7.593 | 7.593 (0.954) | 107 | 585829 | 50.0000 | 52.426 | 80.00- 120.00 | 100.00 |
| 7.593 | 7.593 (0.954) | 109 | 551778 | | | 44.19- 144.19 | 94.19 |
| 135 Chlorobenzene | | | | | CAS #: 108-90-7 | | |
| 7.980 | 7.980 (1.003) | 112 | 849401 | 50.0000 | 49.239 | 80.00- 120.00 | 100.00 |
| 7.980 | 7.980 (1.003) | 114 | 272222 | | | 0.00- 82.05 | 32.05 |
| 7.980 | 7.980 (1.003) | 77 | 571683 | | | 17.30- 117.30 | 67.30 |
| 137 Ethyl Benzene | | | | | CAS #: 100-41-4 | | |
| 8.044 | 8.044 (1.011) | 106 | 456943 | 50.0000 | 52.275 | 80.00- 120.00 | 100.00 |
| 8.044 | 8.044 (1.011) | 91 | 1528815 | | | 290.13- 390.13 | 334.57 |
| 140 m,p-Xylene | | | | | CAS #: 108-38-3 | | |
| 8.137 | 8.137 (1.022) | 106 | 580117 | 50.0000 | 51.503 | 80.00- 120.00 | 100.00 |
| 8.137 | 8.137 (1.022) | 91 | 1197305 | | | 156.72- 256.72 | 206.39 |
| 141 o-Xylene | | | | | CAS #: 95-47-6 | | |
| 8.467 | 8.467 (1.064) | 106 | 548777 | 50.0000 | 51.428 | 80.00- 120.00 | 100.00 |
| 8.467 | 8.467 (1.064) | 91 | 1208242 | | | 170.17- 270.17 | 220.17 |
| 142 Styrene | | | | | CAS #: 100-42-5 | | |
| 8.488 | 8.488 (1.067) | 104 | 925413 | 50.0000 | 52.901 | 80.00- 120.00 | 100.00 |
| 8.488 | 8.488 (1.067) | 78 | 508125 | | | 4.91- 104.91 | 54.91 |
| 145 Bromoform | | | | | CAS #: 75-25-2 | | |
| 8.667 | 8.667 (1.089) | 173 | 497197 | 50.0000 | 53.918 | 80.00- 120.00 | 100.00 |
| 8.667 | 8.667 (1.089) | 171 | 258845 | | | 2.06- 102.06 | 52.06 |
| 147 Cumene | | | | | CAS #: 98-82-8 | | |
| 8.760 | 8.760 (1.101) | 105 | 1671809 | 50.0000 | 51.540 | 80.00- 120.00 | 100.00 |
| 8.760 | 8.760 (1.101) | 120 | 419982 | | | 0.00- 75.25 | 25.12 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 147 Cumene (continued) | | | | | | | |
| 8.760 | 8.760 (1.101) | 51 | 197543 | | | 0.00- 62.26 | 11.82 |
| 151 1,1,2,2-Tetrachloroethane | | | | | CAS #: 79-34-5 | | |
| 9.061 | 9.061 (1.139) | 83 | 915559 | 50.0000 | 51.221 | 80.00- 120.00 | 100.00 |
| 9.061 | 9.061 (1.139) | 85 | 590819 | | | 14.53- 114.53 | 64.53 |
| 153 Propylbenzene | | | | | CAS #: 103-65-1 | | |
| 9.097 | 9.097 (1.143) | 91 | 2118201 | 50.0000 | 51.428 | 80.00- 120.00 | 100.00 |
| 9.097 | 9.097 (1.143) | 120 | 450207 | | | 0.00- 71.30 | 21.25 |
| 9.097 | 9.097 (1.143) | 105 | 76685 | | | 0.00- 68.74 | 3.62 |
| 155 4-Ethyltoluene | | | | | CAS #: 622-96-8 | | |
| 9.190 | 9.190 (1.155) | 120 | 489521 | 50.0000 | 50.493 | 80.00- 120.00 | 100.00 |
| 9.190 | 9.190 (1.155) | 105 | 1747906 | | | 307.06- 407.06 | 357.06 |
| 156 1,3,5-Trimethylbenzene | | | | | CAS #: 108-67-8 | | |
| 9.247 | 9.247 (1.162) | 120 | 670597 | 50.0000 | 51.417 | 80.00- 120.00 | 100.00 |
| 9.247 | 9.247 (1.162) | 105 | 1429998 | | | 160.53- 260.53 | 213.24 |
| 162 1,2,4-Trimethylbenzene | | | | | CAS #: 95-63-6 | | |
| 9.555 | 9.555 (1.201) | 120 | 621043 | 50.0000 | 51.183 | 80.00- 120.00 | 100.00 |
| 9.555 | 9.555 (1.201) | 105 | 1393698 | | | 174.98- 274.98 | 224.41 |
| 165 1,3-Dichlorobenzene | | | | | CAS #: 541-73-1 | | |
| 9.820 | 9.820 (1.234) | 146 | 801462 | 50.0000 | 49.565 | 80.00- 120.00 | 100.00 |
| 9.820 | 9.820 (1.234) | 148 | 510026 | | | 13.36- 113.36 | 63.64 |
| 9.820 | 9.820 (1.234) | 111 | 368719 | | | 0.00- 95.45 | 46.01 |
| 166 1,4-Dichlorobenzene | | | | | CAS #: 106-46-7 | | |
| 9.899 | 9.899 (1.244) | 146 | 818859 | 50.0000 | 49.632 | 80.00- 120.00 | 100.00 |
| 9.899 | 9.899 (1.244) | 148 | 520136 | | | 13.03- 113.03 | 63.52 |
| 9.899 | 9.899 (1.244) | 111 | 357303 | | | 0.00- 93.63 | 43.63 |
| 168 alpha-Chlorotoluene | | | | | CAS #: 100-44-7 | | |
| 10.014 | 10.014 (1.258) | 91 | 1155603 | 50.0000 | 51.823 | 80.00- 120.00 | 100.00 |
| 10.014 | 10.014 (1.258) | 126 | 208336 | | | 0.00- 67.76 | 18.03 |
| 171 1,2-Dichlorobenzene | | | | | CAS #: 95-50-1 | | |
| 10.207 | 10.207 (1.283) | 146 | 745656 | 50.0000 | 50.051 | 80.00- 120.00 | 100.00 |
| 10.207 | 10.207 (1.283) | 148 | 472687 | | | 13.39- 113.39 | 63.39 |
| 10.207 | 10.207 (1.283) | 111 | 357116 | | | 0.00- 97.89 | 47.89 |
| 174 1,2,4-Trichlorobenzene | | | | | CAS #: 120-82-1 | | |
| 11.525 | 11.525 (1.448) | 180 | 522998 | 50.0000 | 45.298 | 80.00- 120.00 | 100.00 |
| 11.525 | 11.525 (1.448) | 182 | 498853 | | | 45.38- 145.38 | 95.38 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 175 Hexachlorobutadiene | | | | | CAS #: 87-68-3 | | |
| 11.618 | 11.618 (1.460) | 225 | 378123 | 50.0000 | 48.599 | 80.00- 120.00 | 100.00 |
| 11.618 | 11.618 (1.460) | 223 | 240746 | | | 14.17- 114.17 | 63.67 |
| 176 Naphthalene | | | | | CAS #: 91-20-3 | | |
| 11.747 | 11.747 (1.476) | 128 | 1399879 | 50.0000 | 46.016 | 80.00- 120.00 | 100.00 |
| 11.747 | 11.747 (1.476) | 127 | 179257 | | | 0.00- 62.93 | 12.81 |

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdd.i
Lab File ID: d040502.d
Lab Smp Id: CCV
Analysis Type: VOA
Quant Type: ISTD
Operator: acb
Method File: /var/chem/msdd.i/05apr10.b/d10q0331a.m
Misc Info: 50ppbv(200ppbv)

Calibration Date: 05-APR-2010
Calibration Time: 09:59
Client Smp ID: CCV
Level: LOW
Sample Type: AIR

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 5

| | | AREA LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 79 Bromochloromethan | 104005 | 62403 | 145607 | 100921 | -2.97 |
| 100 1,4-Difluorobenze | 450381 | 270229 | 630533 | 426370 | -5.33 |
| 134 Chlorobenzene-d5 | 514163 | 308498 | 719828 | 463331 | -9.89 |

| | | RT LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 79 Bromochloromethan | 4.58 | 4.25 | 4.91 | 4.59 | 0.34 |
| 100 1,4-Difluorobenze | 5.51 | 5.18 | 5.84 | 5.52 | 0.15 |
| 134 Chlorobenzene-d5 | 7.95 | 7.62 | 8.28 | 7.96 | 0.11 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msdd.i/05apr10.b/d040502.d

Date : 05-APR-2010 09:59

Client ID: CCV

Sample Info: 50ml #1936-87

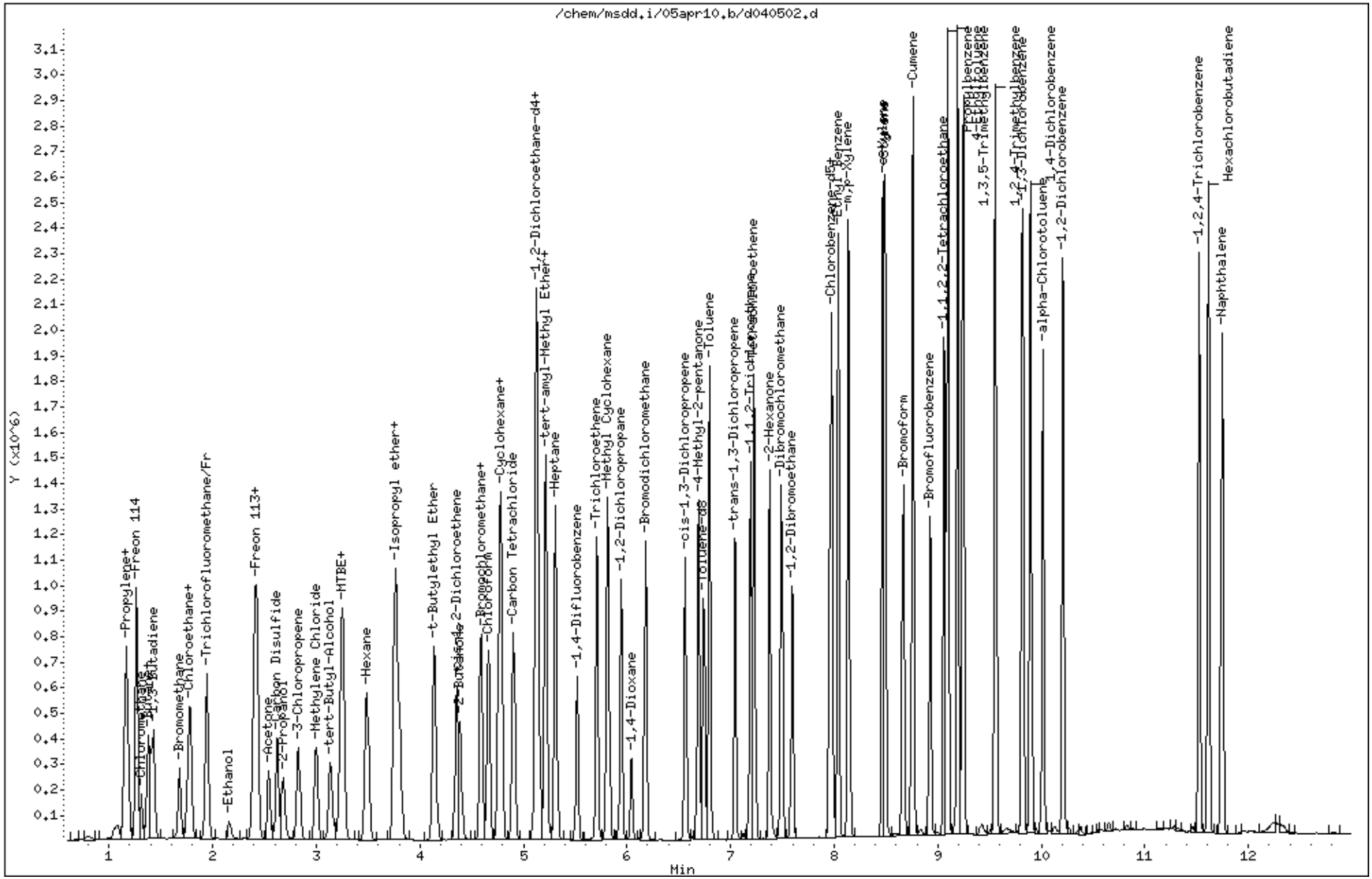
Column phase: RTx-624

Instrument: msdd.i

Operator: acb

Column diameter: 0.53





Air Toxics LTD.
Laboratory Services Since 1989

**Client Sample ID: LCS**

**Lab ID#: 1003666-05A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **d040503** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 4/5/10 10:18 AM** | |

| Compound | %Recovery |
|---|---|
| Freon 12 | 101 |
| Freon 114 | 97 |
| Chloromethane | 109 |
| Vinyl Chloride | 117 |
| 1,3-Butadiene | 107 |
| Bromomethane | 101 |
| Chloroethane | 100 |
| Freon 11 | 108 |
| Ethanol | 96 |
| Freon 113 | 89 |
| 1,1-Dichloroethene | 91 |
| Acetone | 98 |
| 2-Propanol | 100 |
| Carbon Disulfide | 98 |
| 3-Chloropropene | 101 |
| Methylene Chloride | 98 |
| Methyl tert-butyl ether | 100 |
| trans-1,2-Dichloroethene | 104 |
| Hexane | 104 |
| 1,1-Dichloroethane | 99 |
| 2-Butanone (Methyl Ethyl Ketone) | 106 |
| cis-1,2-Dichloroethene | 99 |
| Tetrahydrofuran | 104 |
| Chloroform | 98 |
| 1,1,1-Trichloroethane | 99 |
| Cyclohexane | 100 |
| Carbon Tetrachloride | 102 |
| 2,2,4-Trimethylpentane | 102 |
| Benzene | 98 |
| 1,2-Dichloroethane | 101 |
| Heptane | 102 |
| Trichloroethene | 98 |
| 1,2-Dichloropropane | 101 |
| 1,4-Dioxane | 96 |
| Bromodichloromethane | 102 |
| cis-1,3-Dichloropropene | 104 |
| 4-Methyl-2-pentanone | 98 |
| Toluene | 96 |
| trans-1,3-Dichloropropene | 108 |

Air Toxics LTD.
Laboratory Services Since 1989

**Client Sample ID: LCS**

**Lab ID#: 1003666-05A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **d040503** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 4/5/10 10:18 AM** | |

| Compound | %Recovery |
|---|---|
| 1,1,2-Trichloroethane | 103 |
| Tetrachloroethene | 98 |
| 2-Hexanone | 100 |
| Dibromochloromethane | 106 |
| 1,2-Dibromoethane (EDB) | 107 |
| Chlorobenzene | 98 |
| Ethyl Benzene | 106 |
| m,p-Xylene | 102 |
| o-Xylene | 102 |
| Styrene | 101 |
| Bromoform | 107 |
| Cumene | 100 |
| 1,1,2,2-Tetrachloroethane | 104 |
| Propylbenzene | 101 |
| 4-Ethyltoluene | 101 |
| 1,3,5-Trimethylbenzene | 103 |
| 1,2,4-Trimethylbenzene | 101 |
| 1,3-Dichlorobenzene | 100 |
| 1,4-Dichlorobenzene | 100 |
| alpha-Chlorotoluene | 90 |
| 1,2-Dichlorobenzene | 102 |
| 1,2,4-Trichlorobenzene | 93 |
| Hexachlorobutadiene | 99 |
| Naphthalene | 85 |

**Container Type: NA - Not Applicable**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| Toluene-d8 | 101 | 70-130 |
| 1,2-Dichloroethane-d4 | 102 | 70-130 |
| 4-Bromofluorobenzene | 98 | 70-130 |

Report Date: 05-Apr-2010 11:09

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: 05apr10
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: LCS Client Smp ID: LCS
Level: LOW Operator: acb
Data Type: MS DATA SampleType: LCS
SpikeList File: 2926spectra.spk Quant Type: ISTD
Sublist File: AT09.sub
Method File: /var/chem/msdd.i/05apr10.b/d10q0331a.m
Misc Info: 50ppbv(200ppbv)

| SPIKE | COMPOUND | CONC ADDED PPBV | CONC RECOVERED PPBV | % RECOVERED | LIMITS |
|---|---|---|---|---|---|
| 6 | Propylene | 50.000 | 48.326 | 96.65 | 60-140 |
| 7 | Dichlorodifluorome | 50.000 | 50.634 | 101.27 | 70-130 |
| 10 | Freon 114 | 50.000 | 48.446 | 96.89 | 70-130 |
| 13 | Chloromethane | 50.000 | 54.662 | 109.32 | 70-130 |
| 15 | Vinyl Chloride | 50.000 | 58.387 | 116.77 | 70-130 |
| 18 | 1,3-Butadiene | 50.000 | 53.529 | 107.06 | 60-140 |
| 24 | Bromomethane | 50.000 | 50.504 | 101.01 | 70-130 |
| 25 | Chloroethane | 50.000 | 49.796 | 99.59 | 70-130 |
| 28 | Trichlorofluoromet | 50.000 | 53.789 | 107.58 | 70-130 |
| 29 | Ethanol | 50.000 | 47.999 | 96.00 | 60-140 |
| 33 | Freon 113 | 50.000 | 44.442 | 88.88 | 70-130 |
| 34 | 1,1-Dichloroethene | 50.000 | 45.369 | 90.74 | 70-130 |
| 38 | Acetone | 50.000 | 48.948 | 97.90 | 60-140 |
| 40 | Carbon Disulfide | 50.000 | 48.969 | 97.94 | 60-140 |
| 41 | 2-Propanol | 50.000 | 49.828 | 99.66 | 60-140 |
| 46 | Methylene Chloride | 50.000 | 48.859 | 97.72 | 70-130 |
| 50 | MTBE | 50.000 | 49.788 | 99.58 | 60-140 |
| 52 | trans-1,2-Dichloro | 50.000 | 52.050 | 104.10 | 60-140 |
| 58 | Hexane | 50.000 | 52.216 | 104.43 | 60-140 |
| 65 | Vinyl Acetate | 50.000 | 51.217 | 102.43 | 60-140 |
| 64 | 1,1-Dichloroethane | 50.000 | 49.488 | 98.98 | 70-130 |
| 74 | cis-1,2-Dichloroet | 50.000 | 49.362 | 98.72 | 70-130 |
| 75 | 2-Butanone | 50.000 | 53.248 | 106.50 | 60-140 |
| 78 | Tetrahydrofuran | 50.000 | 51.890 | 103.78 | 60-140 |
| 80 | Chloroform | 50.000 | 48.950 | 97.90 | 70-130 |
| 83 | Cyclohexane | 50.000 | 49.884 | 99.77 | 60-140 |
| 85 | 1,1,1-Trichloroeth | 50.000 | 49.488 | 98.98 | 70-130 |
| 86 | Carbon Tetrachlori | 50.000 | 51.115 | 102.23 | 70-130 |
| 90 | Benzene | 50.000 | 49.115 | 98.23 | 70-130 |
| 94 | 1,2-Dichloroethane | 50.000 | 50.352 | 100.71 | 70-130 |
| 95 | Heptane | 50.000 | 51.242 | 102.48 | 60-140 |
| 104 | Trichloroethene | 50.000 | 49.111 | 98.22 | 70-130 |
| 106 | 1,2-Dichloropropan | 50.000 | 50.628 | 101.26 | 70-130 |

| SPIKE COMPOUND | CONC ADDED PPBV | CONC RECOVERED PPBV | % RECOVERED | LIMITS |
|---|---|---|---|---|
| 107 1,4-Dioxane | 50.000 | 47.949 | 95.90 | 60-140 |
| 108 Bromodichlorometha | 50.000 | 50.971 | 101.94 | 60-140 |
| 110 cis-1,3-Dichloropr | 50.000 | 51.769 | 103.54 | 70-130 |
| 112 4-Methyl-2-pentano | 50.000 | 48.868 | 97.74 | 60-140 |
| 115 Toluene | 50.000 | 48.058 | 96.12 | 70-130 |
| 118 trans-1,3-Dichloro | 50.000 | 53.900 | 107.80 | 70-130 |
| 120 1,1,2-Trichloroeth | 50.000 | 51.486 | 102.97 | 70-130 |
| 122 Tetrachloroethene | 50.000 | 48.986 | 97.97 | 70-130 |
| 125 2-Hexanone | 50.000 | 49.856 | 99.71 | 60-140 |
| 128 Dibromochlorometha | 50.000 | 52.875 | 105.75 | 60-140 |
| 130 1,2-Dibromoethane | 50.000 | 53.596 | 107.19 | 70-130 |
| 135 Chlorobenzene | 50.000 | 48.988 | 97.98 | 70-130 |
| 137 Ethyl Benzene | 50.000 | 52.839 | 105.68 | 70-130 |
| 140 m,p-Xylene | 50.000 | 51.134 | 102.27 | 70-130 |
| 141 o-Xylene | 50.000 | 50.946 | 101.89 | 70-130 |
| 142 Styrene | 50.000 | 50.681 | 101.36 | 70-130 |
| 145 Bromoform | 50.000 | 53.600 | 107.20 | 60-140 |
| 151 1,1,2,2-Tetrachlor | 50.000 | 51.969 | 103.94 | 70-130 |
| 155 4-Ethyltoluene | 50.000 | 50.410 | 100.82 | 60-140 |
| 156 1,3,5-Trimethylben | 50.000 | 51.674 | 103.35 | 70-130 |
| 162 1,2,4-Trimethylben | 50.000 | 50.470 | 100.94 | 70-130 |
| 165 1,3-Dichlorobenzen | 50.000 | 49.862 | 99.72 | 70-130 |
| 166 1,4-Dichlorobenzen | 50.000 | 50.293 | 100.59 | 70-130 |
| 168 alpha-Chlorotoluen | 50.000 | 45.096 | 90.19 | 70-130 |
| 171 1,2-Dichlorobenzen | 50.000 | 51.258 | 102.52 | 70-130 |
| 174 1,2,4-Trichloroben | 50.000 | 46.406 | 92.81 | 70-130 |
| 175 Hexachlorobutadien | 50.000 | 49.622 | 99.24 | 70-130 |
| 153 Propylbenzene | 50.000 | 50.663 | 101.33 | 60-140 |
| 147 Cumene | 50.000 | 49.964 | 99.93 | 60-140 |
| 44 3-Chloropropene | 50.000 | 50.617 | 101.23 | 60-140 |
| 89 2,2,4-Trimethylpen | 50.000 | 50.956 | 101.91 | 60-140 |
| 26 Isopentane | 50.000 | 53.718 | 107.44 | 70-130 |
| 14 Butane | 50.000 | 53.359 | 106.72 | 70-130 |
| 105 Methyl Cyclohexane | 50.000 | 49.496 | 98.99 | 70-130 |
| 48 tert-Butyl-Alcohol | 50.000 | 47.452 | 94.90 | 60-140 |
| 176 Naphthalene | 50.000 | 42.610 | 85.22 | 60-140 |
| 63 Isopropyl ether | 50.000 | 52.805 | 105.61 | 60-140 |
| 72 t-Butylethyl Ether | 50.000 | 50.114 | 100.23 | 60-140 |
| 93 tert-amyl-Methyl E | 50.000 | 48.923 | 97.85 | 60-140 |

| SURROGATE COMPOUND | CONC ADDED PPBV | CONC RECOVERED PPBV | % RECOVERED | LIMITS |
|---|---|---|---|---|
| $ 91 1,2-Dichloroethane | 25.000 | 25.539 | 102.16 | 70-130 |

| SURROGATE COMPOUND | CONC ADDED PPBV | CONC RECOVERED PPBV | % RECOVERED | LIMITS |
|---|---|---|---|---|
| $ 114 Toluene-d8 | 25.000 | 25.157 | 100.63 | 70-130 |
| $ 149 Bromofluorobenzene | 25.000 | 24.547 | 98.19 | 70-130 |

Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msdd.i/05apr10.b/d040503.d
Lab Smp Id: LCS Client Smp ID: LCS
Inj Date : 05-APR-2010 10:18
Operator : acb Inst ID: msdd.i
Smp Info : 50ml #1911-277
Misc Info : 50ppbv(200ppbv)
Comment :
Method : /var/chem/msdd.i/05apr10.b/d10q0331a.m
Meth Date : 05-Apr-2010 10:23 abarton Quant Type: ISTD
Cal Date : 31-MAR-2010 15:58 Cal File: d033117.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT09.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| | | | | | CONCENTRATIONS ON-COL | CONCENTRATIONS FINAL | | |
|---|---|---|---|---|---|---|---|---|
| RT | EXP RT (REL RT) | MASS | RESPONSE | | ( PPBV) | ( PPBV) | TARGET RANGE | RATIO |
| * 79 Bromochloromethane | | | | | | CAS #: 74-97-5 | | |
| 4.584 | 4.591 (1.000) | 130 | 97580 | 25.0000 | | | 80.00- 120.00 | 100.00 |
| 4.584 | 4.584 (1.000) | 128 | 76733 | | | | 27.03- 127.03 | 78.64 |
| 4.584 | 4.584 (1.000) | 49 | 179499 | | | | 130.24- 230.24 | 183.95 |
| * 100 1,4-Difluorobenzene | | | | | | CAS #: 540-36-3 | | |
| 5.508 | 5.515 (1.000) | 114 | 420122 | 25.0000 | | | 80.00- 120.00 | 100.00 |
| 5.508 | 5.515 (1.000) | 88 | 77170 | | | | 0.00- 68.52 | 18.37 |
| * 134 Chlorobenzene-d5 | | | | | | CAS #: 3114-55-4 | | |
| 7.951 | 7.958 (1.000) | 117 | 472124 | 25.0000 | | | 80.00- 120.00 | 100.00 |
| 7.951 | 7.958 (1.000) | 82 | 300654 | | | | 12.92- 112.92 | 63.68 |
| $ 91 1,2-Dichloroethane-d4 | | | | | | CAS #: 17060-07-0 | | |
| 5.136 | 5.143 (1.120) | 65 | 202084 | 25.5392 | 25.539 | | 80.00- 120.00 | 100.00 |
| 5.136 | 5.143 (1.120) | 67 | 108996 | | | | 2.15- 102.15 | 53.94 |
| $ 114 Toluene-d8 | | | | | | CAS #: 2037-26-5 | | |
| 6.733 | 6.740 (1.222) | 98 | 524239 | 25.1571 | 25.157 | | 80.00- 120.00 | 100.00 |
| 6.726 | 6.740 (1.221) | 70 | 63695 | | | | 0.00- 62.20 | 12.15 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | CONCENTRATIONS FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 114 Toluene-d8 (continued) | | | | | | | |
| 6.733 | 6.740 (1.222) | 100 | 347923 | | | 15.58- 115.58 | 66.37 |
| $ 149 Bromofluorobenzene | | | | | CAS #: 460-00-4 | | |
| 8.925 | 8.925 (1.123) | 174 | 236952 | 24.5469 | 24.547 | 80.00- 120.00 | 100.00 |
| 8.925 | 8.925 (1.123) | 95 | 405456 | | | 118.65- 218.65 | 171.11 |
| 8.925 | 8.925 (1.123) | 176 | 225069 | | | 44.64- 144.64 | 94.99 |
| 6 Propylene | | | | | CAS #: 115-07-1 | | |
| 1.147 | 1.147 (0.250) | 41 | 151634 | 48.3263 | 48.326 | 80.00- 120.00 | 100.00 |
| 1.147 | 1.147 (0.250) | 42 | 99433 | | | 14.09- 114.09 | 65.57 |
| 1.147 | 1.147 (0.250) | 39 | 120445 | | | 29.45- 129.45 | 79.43 |
| 7 Dichlorodifluoromethane/Fr12 | | | | | CAS #: 75-71-8 | | |
| 1.175 | 1.175 (0.256) | 85 | 625125 | 50.6335 | 50.634 | 80.00- 120.00 | 100.00 |
| 1.175 | 1.175 (0.256) | 87 | 204726 | | | 0.00- 82.88 | 32.75 |
| 10 Freon 114 | | | | | CAS #: 76-14-2 | | |
| 1.272 | 1.273 (0.278) | 135 | 328749 | 48.4457 | 48.446 | 80.00- 120.00 | 100.00 |
| 1.272 | 1.273 (0.278) | 137 | 103928 | | | 0.00- 82.14 | 31.61 |
| 13 Chloromethane | | | | | CAS #: 74-87-3 | | |
| 1.314 | 1.315 (0.287) | 50 | 149874 | 54.6622 | 54.662 | 80.00- 120.00 | 100.00 |
| 1.314 | 1.315 (0.287) | 52 | 47783 | | | 0.00- 83.02 | 31.88 |
| 14 Butane | | | | | CAS #: 106-97-8 | | |
| 1.384 | 1.384 (0.302) | 58 | 42470 | 53.3589 | 53.359 | 80.00- 120.00 | 100.00 |
| 1.384 | 1.384 (0.302) | 43 | 321225 | | | 701.77- 801.77 | 756.36 |
| 15 Vinyl Chloride | | | | | CAS #: 75-01-4 | | |
| 1.398 | 1.398 (0.305) | 62 | 224131 | 58.3873 | 58.387 | 80.00- 120.00 | 100.00 |
| 1.398 | 1.398 (0.305) | 64 | 71174 | | | 0.00- 97.20 | 31.76 |
| 18 1,3-Butadiene | | | | | CAS #: 106-99-0 | | |
| 1.426 | 1.426 (0.311) | 54 | 174854 | 53.5294 | 53.529 | 80.00- 120.00 | 100.00 |
| 1.426 | 1.426 (0.311) | 39 | 198031 | | | 75.63- 175.63 | 113.26 |
| 24 Bromomethane | | | | | CAS #: 74-83-9 | | |
| 1.678 | 1.678 (0.366) | 94 | 183008 | 50.5042 | 50.504 | 80.00- 120.00 | 100.00 |
| 1.678 | 1.678 (0.366) | 96 | 174037 | | | 43.62- 143.62 | 95.10 |
| 25 Chloroethane | | | | | CAS #: 75-00-3 | | |
| 1.748 | 1.748 (0.381) | 64 | 123152 | 49.7960 | 49.796 | 80.00- 120.00 | 100.00 |
| 1.748 | 1.748 (0.381) | 66 | 38399 | | | 0.00- 86.90 | 31.18 |
| 1.748 | 1.748 (0.381) | 49 | 35537 | | | 0.00- 78.42 | 28.86 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 26 Isopentane | | | | | CAS #: 78-78-4 | | |
| 1.790 | 1.790 (0.390) | 43 | 276163 | 53.7186 | 53.718 | 80.00- 120.00 | 100.00 |
| 1.790 | 1.790 (0.390) | 57 | 191105 | | | 20.70- 120.70 | 69.20 |
| 28 Trichlorofluoromethane/Fr11 | | | | | CAS #: 75-69-4 | | |
| 1.944 | 1.944 (0.424) | 101 | 701474 | 53.7888 | 53.789 | 80.00- 120.00 | 100.00 |
| 1.944 | 1.944 (0.424) | 103 | 400575 | | | 14.88- 114.88 | 57.10 |
| 29 Ethanol | | | | | CAS #: 64-17-5 | | |
| 2.163 | 2.163 (0.472) | 45 | 77752 | 47.9994 | 47.999 | 80.00- 120.00 | 100.00 |
| 2.163 | 2.156 (0.472) | 43 | 18583 | | | 0.00- 76.61 | 23.90 |
| 2.163 | 2.163 (0.472) | 46 | 30318 | | | 0.00- 88.16 | 38.99 |
| 33 Freon 113 | | | | | CAS #: 76-13-1 | | |
| 2.407 | 2.407 (0.525) | 151 | 262698 | 44.4424 | 44.442 | 80.00- 120.00 | 100.00 |
| 2.414 | 2.407 (0.527) | 153 | 168398 | | | 12.97- 112.97 | 64.10 |
| 2.407 | 2.407 (0.525) | 101 | 388352 | | | 97.81- 197.81 | 147.83 |
| 34 1,1-Dichloroethene | | | | | CAS #: 75-35-4 | | |
| 2.428 | 2.428 (0.530) | 98 | 117692 | 45.3692 | 45.369 | 80.00- 120.00 | 100.00 |
| 2.428 | 2.428 (0.530) | 96 | 183469 | | | 105.48- 205.48 | 155.89 |
| 2.428 | 2.428 (0.530) | 61 | 377666 | | | 267.04- 367.04 | 320.89 |
| 38 Acetone | | | | | CAS #: 67-64-1 | | |
| 2.543 | 2.536 (0.555) | 58 | 101684 | 48.9480 | 48.948 | 80.00- 120.00 | 100.00 |
| 2.543 | 2.536 (0.555) | 43 | 375836 | | | 327.54- 427.54 | 369.61 |
| 40 Carbon Disulfide | | | | | CAS #: 75-15-0 | | |
| 2.629 | 2.622 (0.573) | 76 | 618404 | 48.9692 | 48.969 | 80.00- 120.00 | 100.00 |
| 41 2-Propanol | | | | | CAS #: 67-63-0 | | |
| 2.686 | 2.679 (0.586) | 45 | 356134 | 49.8275 | 49.828 | 80.00- 120.00 | 100.00 |
| 2.679 | 2.679 (0.584) | 43 | 77998 | | | 0.00- 72.17 | 21.90 |
| 2.679 | 2.686 (0.584) | 59 | 13538 | | | 0.00- 85.00 | 3.80 |
| 44 3-Chloropropene | | | | | CAS #: 107-05-1 | | |
| 2.829 | 2.829 (0.617) | 76 | 99881 | 50.6172 | 50.617 | 80.00- 120.00 | 100.00 |
| 2.829 | 2.829 (0.617) | 41 | 299116 | | | 245.26- 345.26 | 299.47 |
| 46 Methylene Chloride | | | | | CAS #: 75-09-2 | | |
| 3.001 | 3.001 (0.655) | 49 | 259958 | 48.8588 | 48.859 | 80.00- 120.00 | 100.00 |
| 3.001 | 3.001 (0.655) | 84 | 169955 | | | 15.83- 115.83 | 65.38 |
| 3.001 | 3.001 (0.655) | 51 | 77730 | | | 0.00- 80.39 | 29.90 |
| 48 tert-Butyl-Alcohol | | | | | CAS #: 75-65-0 | | |
| 3.137 | 3.137 (0.684) | 59 | 415452 | 47.4515 | 47.452 | 80.00- 120.00 | 100.00 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 48 tert-Butyl-Alcohol (continued) | | | | | | | |
| 3.137 | 3.137 (0.684) | 41 | 133535 | | | 0.00- 83.59 | 32.14 |
| 3.137 | 3.137 (0.684) | 57 | 45997 | | | 0.00- 57.49 | 11.07 |
| 50 MTBE | | | | | CAS #: 1634-04-4 | | |
| 3.245 | 3.245 (0.708) | 73 | 633089 | 49.7879 | 49.788 | 80.00- 120.00 | 100.00 |
| 3.245 | 3.245 (0.708) | 57 | 147201 | | | 0.00- 73.62 | 23.25 |
| 3.245 | 3.238 (0.708) | 41 | 169148 | | | 0.00- 75.17 | 26.72 |
| 52 trans-1,2-Dichloroethene | | | | | CAS #: 156-60-5 | | |
| 3.259 | 3.259 (0.711) | 98 | 140090 | 52.0505 | 52.050 | 80.00- 120.00 | 100.00 |
| 3.259 | 3.259 (0.711) | 61 | 379218 | | | 220.55- 320.55 | 270.70 |
| 3.259 | 3.259 (0.711) | 96 | 217594 | | | 114.13- 214.13 | 155.32 |
| 58 Hexane | | | | | CAS #: 110-54-3 | | |
| 3.488 | 3.488 (0.761) | 57 | 393703 | 52.2158 | 52.216 | 80.00- 120.00 | 100.00 |
| 3.488 | 3.488 (0.761) | 43 | 253357 | | | 19.39- 119.39 | 64.35 |
| 3.488 | 3.488 (0.761) | 86 | 60095 | | | 0.00- 69.00 | 15.26 |
| 63 Isopropyl ether | | | | | CAS #: 108-20-3 | | |
| 3.775 | 3.768 (0.823) | 45 | 924086 | 52.8053 | 52.805 | 80.00- 120.00 | 100.00 |
| 3.775 | 3.775 (0.823) | 87 | 214715 | | | 0.00- 73.47 | 23.24 |
| 3.775 | 3.768 (0.823) | 59 | 100335 | | | 0.00- 60.91 | 10.86 |
| 64 1,1-Dichloroethane | | | | | CAS #: 75-34-3 | | |
| 3.760 | 3.753 (0.820) | 63 | 461624 | 49.4886 | 49.488 | 80.00- 120.00 | 100.00 |
| 3.760 | 3.753 (0.820) | 65 | 145698 | | | 0.00- 81.47 | 31.56 |
| 65 Vinyl Acetate | | | | | CAS #: 108-05-4 | | |
| 3.811 | 3.811 (0.831) | 86 | 54597 | 51.2167 | 51.217 | 80.00- 120.00 | 100.00 |
| 3.811 | 3.811 (0.831) | 43 | 828859 | | | 1533.22-1633.22 | 1518.14 |
| 72 t-Butylethyl Ether | | | | | CAS #: 637-92-3 | | |
| 4.140 | 4.140 (0.903) | 59 | 826622 | 50.1146 | 50.114 | 80.00- 120.00 | 100.00 |
| 4.140 | 4.140 (0.903) | 87 | 311665 | | | 0.00- 87.49 | 37.70 |
| 4.140 | 4.140 (0.903) | 41 | 177144 | | | 0.00- 70.38 | 21.43 |
| 74 cis-1,2-Dichloroethene | | | | | CAS #: 156-59-2 | | |
| 4.355 | 4.355 (0.950) | 98 | 150697 | 49.3620 | 49.362 | 80.00- 120.00 | 100.00 |
| 4.355 | 4.355 (0.950) | 96 | 233868 | | | 104.26- 204.26 | 155.19 |
| 4.355 | 4.355 (0.950) | 61 | 376103 | | | 199.63- 299.63 | 249.58 |
| 75 2-Butanone | | | | | CAS #: 78-93-3 | | |
| 4.391 | 4.391 (0.958) | 72 | 124956 | 53.2478 | 53.248 | 80.00- 120.00 | 100.00 |
| 4.384 | 4.391 (0.956) | 43 | 572850 | | | 425.89- 525.89 | 458.44 |
| 4.384 | 4.391 (0.956) | 57 | 42997 | | | 29.81- 129.81 | 34.41 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 78 Tetrahydrofuran | | | | | CAS #: 109-99-9 | | |
| 4.584 | 4.591 (1.000) | 42 | 313975 | 51.8904 | 51.890 | 80.00- 120.00 | 100.00 |
| 4.584 | 4.591 (1.000) | 71 | 111999 | | | 0.00- 85.98 | 35.67 |
| 4.584 | 4.591 (1.000) | 72 | 115967 | | | 0.00- 86.75 | 36.94 |
| 80 Chloroform | | | | | CAS #: 67-66-3 | | |
| 4.656 | 4.663 (1.016) | 83 | 544714 | 48.9500 | 48.950 | 80.00- 120.00 | 100.00 |
| 4.656 | 4.663 (1.016) | 85 | 351446 | | | 13.64- 113.64 | 64.52 |
| 83 Cyclohexane | | | | | CAS #: 110-82-7 | | |
| 4.763 | 4.771 (1.039) | 84 | 339691 | 49.8840 | 49.884 | 80.00- 120.00 | 100.00 |
| 4.763 | 4.771 (1.039) | 56 | 441861 | | | 78.44- 178.44 | 130.08 |
| 4.763 | 4.771 (1.039) | 41 | 258094 | | | 26.12- 126.12 | 75.98 |
| 85 1,1,1-Trichloroethane | | | | | CAS #: 71-55-6 | | |
| 4.778 | 4.785 (1.042) | 97 | 559262 | 49.4878 | 49.488 | 80.00- 120.00 | 100.00 |
| 4.785 | 4.785 (1.044) | 99 | 357421 | | | 13.71- 113.71 | 63.91 |
| 86 Carbon Tetrachloride | | | | | CAS #: 56-23-5 | | |
| 4.899 | 4.907 (1.069) | 119 | 512879 | 51.1150 | 51.115 | 80.00- 120.00 | 100.00 |
| 4.899 | 4.907 (1.069) | 117 | 527063 | | | 53.12- 153.12 | 102.77 |
| 89 2,2,4-Trimethylpentane | | | | | CAS #: 540-84-1 | | |
| 5.121 | 5.129 (1.117) | 57 | 1435511 | 50.9555 | 50.956 | 80.00- 120.00 | 100.00 |
| 5.121 | 5.129 (1.117) | 56 | 452712 | | | 0.00- 81.50 | 31.54 |
| 5.121 | 5.129 (1.117) | 41 | 388525 | | | 0.00- 77.21 | 27.07 |
| 90 Benzene | | | | | CAS #: 71-43-2 | | |
| 5.114 | 5.122 (0.928) | 78 | 789439 | 49.1151 | 49.115 | 80.00- 120.00 | 100.00 |
| 5.114 | 5.122 (0.928) | 77 | 189636 | | | 0.00- 73.17 | 24.02 |
| 93 tert-amyl-Methyl Ether | | | | | CAS #: 994-05-8 | | |
| 5.207 | 5.215 (1.136) | 73 | 732834 | 48.9232 | 48.923 | 80.00- 120.00 | 100.00 |
| 5.207 | 5.222 (1.136) | 87 | 178355 | | | 0.00- 74.24 | 24.34 |
| 5.207 | 5.215 (1.136) | 55 | 265611 | | | 0.00- 83.70 | 36.24 |
| 94 1,2-Dichloroethane | | | | | CAS #: 107-06-2 | | |
| 5.207 | 5.215 (0.945) | 62 | 437126 | 50.3526 | 50.352 | 80.00- 120.00 | 100.00 |
| 5.200 | 5.215 (0.944) | 64 | 138960 | | | 0.00- 83.10 | 31.79 |
| 95 Heptane | | | | | CAS #: 142-82-5 | | |
| 5.301 | 5.308 (0.962) | 71 | 300601 | 51.2421 | 51.242 | 80.00- 120.00 | 100.00 |
| 5.301 | 5.308 (0.962) | 43 | 576913 | | | 146.63- 246.63 | 191.92 |
| 5.301 | 5.308 (0.962) | 57 | 297918 | | | 54.79- 154.79 | 99.11 |
| 104 Trichloroethene | | | | | CAS #: 79-01-6 | | |
| 5.702 | 5.709 (1.035) | 95 | 356999 | 49.1111 | 49.111 | 80.00- 120.00 | 100.00 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 104 Trichloroethene (continued) | | | | | | | |
| 5.702 | 5.709 (1.035) | 130 | 318409 | | | 39.46- 139.46 | 89.19 |
| 5.702 | 5.709 (1.035) | 97 | 231331 | | | 14.72- 114.72 | 64.80 |
| 105 Methyl Cyclohexane | | | | | CAS #: 108-87-2 | | |
| 5.802 | 5.816 (1.266) | 83 | 501688 | 49.4959 | 49.496 | 80.00- 120.00 | 100.00 |
| 5.802 | 5.816 (1.266) | 98 | 233553 | | | 0.00- 96.57 | 46.55 |
| 5.802 | 5.816 (1.266) | 55 | 455574 | | | 39.57- 139.57 | 90.81 |
| 106 1,2-Dichloropropane | | | | | CAS #: 78-87-5 | | |
| 5.931 | 5.945 (1.077) | 63 | 340750 | 50.6277 | 50.628 | 80.00- 120.00 | 100.00 |
| 5.931 | 5.945 (1.077) | 62 | 242143 | | | 21.25- 121.25 | 71.06 |
| 5.931 | 5.945 (1.077) | 41 | 213448 | | | 13.09- 113.09 | 62.64 |
| 107 1,4-Dioxane | | | | | CAS #: 123-91-1 | | |
| 6.031 | 6.046 (1.095) | 88 | 183280 | 47.9492 | 47.949 | 80.00- 120.00 | 100.00 |
| 6.031 | 6.046 (1.095) | 58 | 141847 | | | 26.78- 126.78 | 77.39 |
| 6.031 | 6.038 (1.095) | 57 | 48835 | | | 0.00- 76.30 | 26.65 |
| 108 Bromodichloromethane | | | | | CAS #: 75-27-4 | | |
| 6.167 | 6.182 (1.120) | 83 | 665029 | 50.9712 | 50.971 | 80.00- 120.00 | 100.00 |
| 6.167 | 6.182 (1.120) | 85 | 425107 | | | 13.58- 113.58 | 63.92 |
| 110 cis-1,3-Dichloropropene | | | | | CAS #: 10061-01-5 | | |
| 6.547 | 6.561 (1.189) | 75 | 526035 | 51.7692 | 51.769 | 80.00- 120.00 | 100.00 |
| 6.547 | 6.561 (1.189) | 77 | 162827 | | | 0.00- 81.96 | 30.95 |
| 6.547 | 6.561 (1.189) | 39 | 284746 | | | 6.85- 106.85 | 54.13 |
| 112 4-Methyl-2-pentanone | | | | | CAS #: 108-10-1 | | |
| 6.676 | 6.690 (1.212) | 58 | 292766 | 48.8686 | 48.868 | 80.00- 120.00 | 100.00 |
| 6.676 | 6.690 (1.212) | 43 | 824394 | | | 224.75- 324.75 | 281.59 |
| 6.676 | 6.690 (1.212) | 85 | 116893 | | | 0.00- 89.27 | 39.93 |
| 115 Toluene | | | | | CAS #: 108-88-3 | | |
| 6.783 | 6.798 (1.231) | 91 | 1029443 | 48.0585 | 48.058 | 80.00- 120.00 | 100.00 |
| 6.783 | 6.798 (1.231) | 92 | 610195 | | | 9.81- 109.81 | 59.27 |
| 118 trans-1,3-Dichloropropene | | | | | CAS #: 10061-02-6 | | |
| 7.034 | 7.048 (0.885) | 75 | 563770 | 53.8996 | 53.900 | 80.00- 120.00 | 100.00 |
| 7.034 | 7.041 (0.885) | 77 | 177505 | | | 0.00- 81.86 | 31.49 |
| 7.034 | 7.041 (0.885) | 39 | 292948 | | | 2.04- 102.04 | 51.96 |
| 120 1,1,2-Trichloroethane | | | | | CAS #: 79-00-5 | | |
| 7.184 | 7.192 (0.904) | 97 | 375850 | 51.4861 | 51.486 | 80.00- 120.00 | 100.00 |
| 7.184 | 7.192 (0.904) | 99 | 230868 | | | 11.78- 111.78 | 61.43 |
| 7.184 | 7.192 (0.904) | 83 | 336445 | | | 38.37- 138.37 | 89.52 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 122 Tetrachloroethene | | | | | CAS #: 127-18-4 | | |
| 7.220 | 7.227 (0.908) | 166 | 400721 | 48.9855 | 48.986 | 80.00- 120.00 | 100.00 |
| 7.220 | 7.227 (0.908) | 129 | 342279 | | | 33.19- 133.19 | 85.42 |
| 7.220 | 7.227 (0.908) | 131 | 320587 | | | 28.65- 128.65 | 80.00 |
| 125 2-Hexanone | | | | | CAS #: 591-78-6 | | |
| 7.371 | 7.378 (0.927) | 58 | 418747 | 49.8557 | 49.856 | 80.00- 120.00 | 100.00 |
| 7.371 | 7.378 (0.927) | 43 | 848388 | | | 149.91- 249.91 | 202.60 |
| 7.371 | 7.378 (0.927) | 100 | 76789 | | | 0.00- 68.42 | 18.34 |
| 128 Dibromochloromethane | | | | | CAS #: 124-48-1 | | |
| 7.485 | 7.492 (0.941) | 129 | 608076 | 52.8747 | 52.875 | 80.00- 120.00 | 100.00 |
| 7.485 | 7.492 (0.941) | 127 | 472308 | | | 27.80- 127.80 | 77.67 |
| 130 1,2-Dibromoethane | | | | | CAS #: 106-93-4 | | |
| 7.586 | 7.593 (0.954) | 107 | 610275 | 53.5963 | 53.596 | 80.00- 120.00 | 100.00 |
| 7.586 | 7.593 (0.954) | 109 | 575074 | | | 44.19- 144.19 | 94.23 |
| 135 Chlorobenzene | | | | | CAS #: 108-90-7 | | |
| 7.972 | 7.980 (1.003) | 112 | 861123 | 48.9885 | 48.988 | 80.00- 120.00 | 100.00 |
| 7.972 | 7.980 (1.003) | 114 | 275749 | | | 0.00- 82.05 | 32.02 |
| 7.972 | 7.980 (1.003) | 77 | 579850 | | | 17.30- 117.30 | 67.34 |
| 137 Ethyl Benzene | | | | | CAS #: 100-41-4 | | |
| 8.037 | 8.044 (1.011) | 106 | 470637 | 52.8386 | 52.839 | 80.00- 120.00 | 100.00 |
| 8.037 | 8.044 (1.011) | 91 | 1558114 | | | 290.13- 390.13 | 331.06 |
| 140 m,p-Xylene | | | | | CAS #: 108-38-3 | | |
| 8.137 | 8.137 (1.023) | 106 | 586897 | 51.1342 | 51.134 | 80.00- 120.00 | 100.00 |
| 8.130 | 8.137 (1.023) | 91 | 1231341 | | | 156.72- 256.72 | 209.81 |
| 141 o-Xylene | | | | | CAS #: 95-47-6 | | |
| 8.467 | 8.467 (1.065) | 106 | 553956 | 50.9465 | 50.946 | 80.00- 120.00 | 100.00 |
| 8.467 | 8.467 (1.065) | 91 | 1221010 | | | 170.17- 270.17 | 220.42 |
| 142 Styrene | | | | | CAS #: 100-42-5 | | |
| 8.488 | 8.488 (1.068) | 104 | 903398 | 50.6810 | 50.681 | 80.00- 120.00 | 100.00 |
| 8.481 | 8.488 (1.067) | 78 | 501448 | | | 4.91- 104.91 | 55.51 |
| 145 Bromoform | | | | | CAS #: 75-25-2 | | |
| 8.660 | 8.667 (1.089) | 173 | 503637 | 53.5995 | 53.600 | 80.00- 120.00 | 100.00 |
| 8.660 | 8.667 (1.089) | 171 | 262128 | | | 2.06- 102.06 | 52.05 |
| 147 Cumene | | | | | CAS #: 98-82-8 | | |
| 8.753 | 8.760 (1.101) | 105 | 1651438 | 49.9637 | 49.964 | 80.00- 120.00 | 100.00 |
| 8.753 | 8.760 (1.101) | 120 | 417679 | | | 0.00- 75.25 | 25.29 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 147 Cumene (continued) | | | | | | | |
| 8.753 | 8.760 (1.101) | 51 | 194018 | | | 0.00- 62.26 | 11.75 |
| 151 1,1,2,2-Tetrachloroethane | | | | | CAS #: 79-34-5 | | |
| 9.061 | 9.061 (1.140) | 83 | 946548 | 51.9686 | 51.969 | 80.00- 120.00 | 100.00 |
| 9.061 | 9.061 (1.140) | 85 | 603089 | | | 14.53- 114.53 | 63.71 |
| 153 Propylbenzene | | | | | CAS #: 103-65-1 | | |
| 9.090 | 9.097 (1.143) | 91 | 2126288 | 50.6634 | 50.663 | 80.00- 120.00 | 100.00 |
| 9.097 | 9.097 (1.144) | 120 | 445214 | | | 0.00- 71.30 | 20.94 |
| 9.090 | 9.097 (1.143) | 105 | 74617 | | | 0.00- 68.74 | 3.51 |
| 155 4-Ethyltoluene | | | | | CAS #: 622-96-8 | | |
| 9.190 | 9.190 (1.156) | 120 | 497985 | 50.4095 | 50.410 | 80.00- 120.00 | 100.00 |
| 9.190 | 9.190 (1.156) | 105 | 1766614 | | | 307.06- 407.06 | 354.75 |
| 156 1,3,5-Trimethylbenzene | | | | | CAS #: 108-67-8 | | |
| 9.240 | 9.247 (1.162) | 120 | 686736 | 51.6737 | 51.674 | 80.00- 120.00 | 100.00 |
| 9.240 | 9.247 (1.162) | 105 | 1462486 | | | 160.53- 260.53 | 212.96 |
| 162 1,2,4-Trimethylbenzene | | | | | CAS #: 95-63-6 | | |
| 9.555 | 9.555 (1.202) | 120 | 624018 | 50.4701 | 50.470 | 80.00- 120.00 | 100.00 |
| 9.555 | 9.555 (1.202) | 105 | 1425582 | | | 174.98- 274.98 | 228.45 |
| 165 1,3-Dichlorobenzene | | | | | CAS #: 541-73-1 | | |
| 9.813 | 9.820 (1.234) | 146 | 821553 | 49.8617 | 49.862 | 80.00- 120.00 | 100.00 |
| 9.813 | 9.820 (1.234) | 148 | 520848 | | | 13.36- 113.36 | 63.40 |
| 9.813 | 9.820 (1.234) | 111 | 374470 | | | 0.00- 95.45 | 45.58 |
| 166 1,4-Dichlorobenzene | | | | | CAS #: 106-46-7 | | |
| 9.892 | 9.899 (1.244) | 146 | 845507 | 50.2931 | 50.293 | 80.00- 120.00 | 100.00 |
| 9.892 | 9.899 (1.244) | 148 | 529503 | | | 13.03- 113.03 | 62.63 |
| 9.892 | 9.899 (1.244) | 111 | 370355 | | | 0.00- 93.63 | 43.80 |
| 168 alpha-Chlorotoluene | | | | | CAS #: 100-44-7 | | |
| 10.014 | 10.014 (1.259) | 91 | 1024683 | 45.0964 | 45.096 | 80.00- 120.00 | 100.00 |
| 10.014 | 10.014 (1.259) | 126 | 183821 | | | 0.00- 67.76 | 17.94 |
| 171 1,2-Dichlorobenzene | | | | | CAS #: 95-50-1 | | |
| 10.207 | 10.207 (1.284) | 146 | 778121 | 51.2578 | 51.258 | 80.00- 120.00 | 100.00 |
| 10.207 | 10.207 (1.284) | 148 | 490240 | | | 13.39- 113.39 | 63.00 |
| 10.207 | 10.207 (1.284) | 111 | 365974 | | | 0.00- 97.89 | 47.03 |
| 174 1,2,4-Trichlorobenzene | | | | | CAS #: 120-82-1 | | |
| 11.525 | 11.525 (1.450) | 180 | 545968 | 46.4064 | 46.406 | 80.00- 120.00 | 100.00 |
| 11.525 | 11.525 (1.450) | 182 | 515411 | | | 45.38- 145.38 | 94.40 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 175 Hexachlorobutadiene | | | | | CAS #: 87-68-3 | | |
| 11.611 | 11.618 (1.460) | 225 | 393410 | 49.6225 | 49.622 | 80.00- 120.00 | 100.00 |
| 11.611 | 11.618 (1.460) | 223 | 247559 | | | 14.17- 114.17 | 62.93 |
| 176 Naphthalene | | | | | CAS #: 91-20-3 | | |
| 11.740 | 11.747 (1.477) | 128 | 1320839 | 42.6095 | 42.610 | 80.00- 120.00 | 100.00 |
| 11.747 | 11.747 (1.477) | 127 | 170972 | | | 0.00- 62.93 | 12.94 |

Report Date: 05-Apr-2010 11:09

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdd.i
Lab File ID: d040503.d
Lab Smp Id: LCS
Analysis Type: VOA
Quant Type: ISTD
Operator: acb
Method File: /var/chem/msdd.i/05apr10.b/d10q0331a.m
Misc Info: 50ppbv(200ppbv)

Calibration Date: 05-APR-2010
Calibration Time: 09:59
Client Smp ID: LCS
Level: LOW
Sample Type: AIR

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 5

| | | AREA LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 79 Bromochloromethan | 100921 | 60553 | 141289 | 97580 | -3.31 |
| 100 1,4-Difluorobenze | 426370 | 255822 | 596918 | 420122 | -1.47 |
| 134 Chlorobenzene-d5 | 463331 | 277999 | 648663 | 472124 | 1.90 |

| | | RT LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 79 Bromochloromethan | 4.59 | 4.26 | 4.92 | 4.58 | -0.16 |
| 100 1,4-Difluorobenze | 5.52 | 5.19 | 5.85 | 5.51 | -0.13 |
| 134 Chlorobenzene-d5 | 7.96 | 7.63 | 8.29 | 7.95 | -0.09 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msdd.i/05apr10.b/d040503.d

Date : 05-APR-2010 10:18

Client ID: LCS

Sample Info: 50ml #1911-277

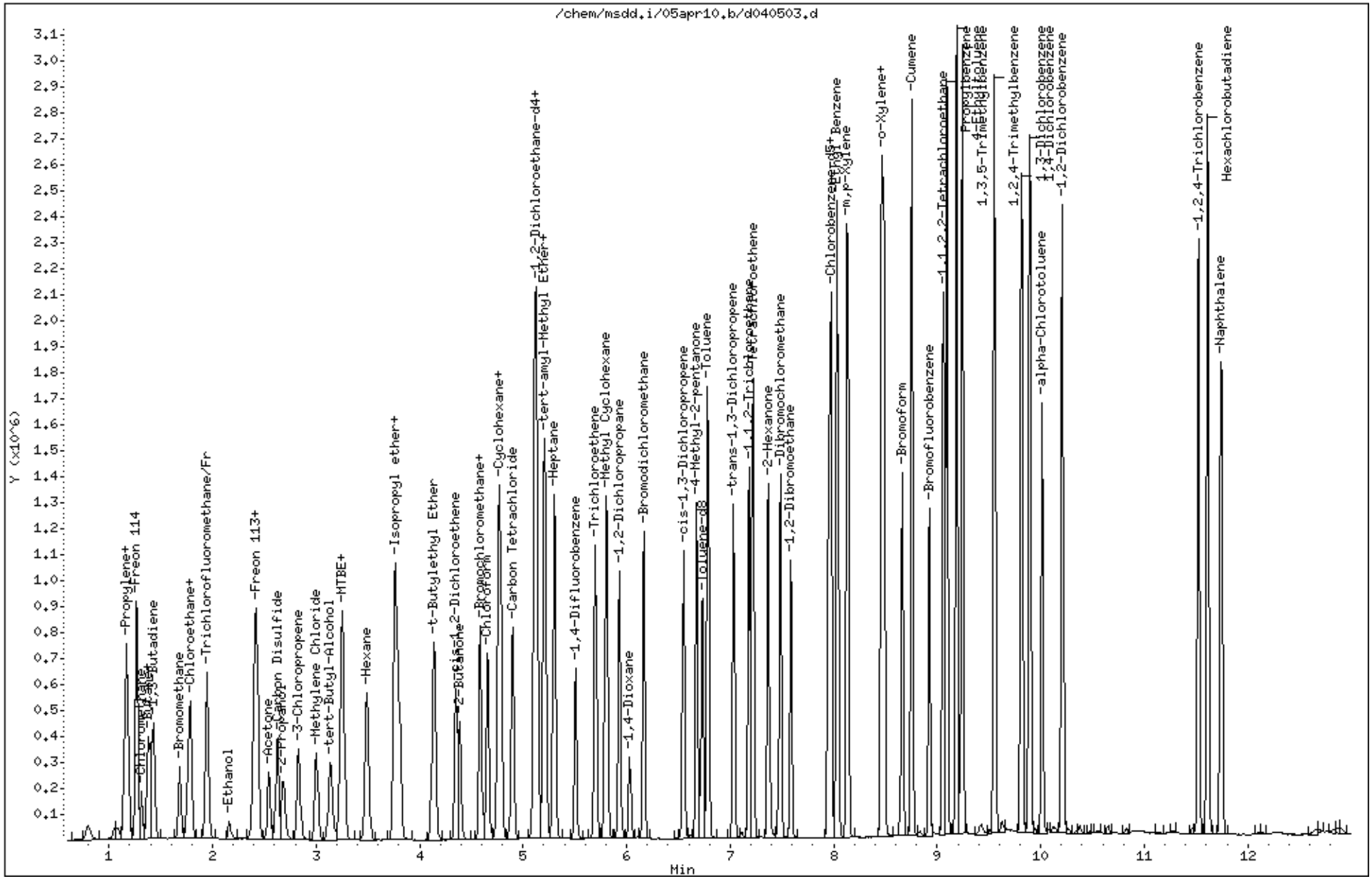
Column phase: RTx-624

Instrument: msdd.i

Operator: acb

Column diameter: 0.53





**@ Air Toxics Ltd.** **MSD-D** **Logbook #: 1959**

| m/z | ION ABUNDANCE CRITERIA | % REL. ABUNDANCE |
|---|---|---|
| 50 | 15.0 – 40.0% of mass 95 | 23.07 |
| 75 | 30.0 – 60.0% of mass 95 | 53.06 |
| 95 | Base peak, 100.00% relative abundance | 100 |
| 96 | 5.0 – 9.0% of mass 95 | 6.70 |
| 173 | Less than 2.0% of mass 174 | (0.00)[1] |
| 174 | 50.0 – 100% of mass 95 | 56.27 |
| 175 | 5.0 – 9.0% of mass 174 | (7.64)[1] |
| 176 | Greater than 95.0% but less than 101.0% of mass 174 | (97.13)[1] |
| 177 | 5.0 – 9.0% of mass 176 | (6.86)[2] |

[1] - value in parenthesis is % mass 174 [2] - value in parenthesis is % mass 176

BFB Injection Date: 04/05/10
BFB Injection Time: 0921
BFB File ID: D040501
Tekmar Purge Flow: 2 CR 04/05/10
Vacuum:

| | |
|---|---|
| IS/S Std.#: 1911-322 | Exp. Date: 06/30/10 |
| BCM 100921 | |
| 1,4-DFB 426370 | |
| CB-d5 463331 | |

*Verified CCV IS vs ICAL mid-point (- 40%D)* KES *initials*

**Verify 176/174 m/z Ratio:** (128666/132464)100 = 97.13

**NOAH Cart #:** NA **File #:** NA

**Calculation Check:**

ppbv of compound $= \frac{Area_{Sample}}{Area_{IS}} \times \frac{Conc._{IS}}{RRF} = \frac{(523660)}{(426370)} \times \frac{(25.00)}{(1.24004)} =$ 24.761

| | |
|---|---|
| File ID: | D040502 |
| Compound: | Toluene-d8 |
| Initials: | CR |

*Reported Result* 24.761

**Method:** D10g0331A

| | Use | File # | Sample / Client Name | Can # | Pressure | Amt Loaded | DF | Loaded by Init. | Date Analyzed | Time Analyzed | Reviewed by Init. | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | ✓ | D040501 | BFB Tune Check | 1911-322 | 36psig | 1mL | 1.00 | KES | 4/5/10 | 0921 | KES | |
| 2 | ✓ | 02 | CCV (200ppbv) | 1936-879 | 50psig | 50mL | | | | 0958 | KES | |
| 3 | ✓ | 03 | LCS ↓ | 1911-277 | ↓ | ↓ | | | | 1018 | KES | |
| 4 | X | 04 | System Blank | 24217 | normal | 200mL | | | | 1037 | KES | |
| 5 | X | 05 | Lab Blank | ↓ | ↓ | ↓ | | | | 1056 | KES | |
| 6 | ✓ | 06 ~~07~~ | Lab Blank | ↓ | ↓ | ↓ | ↓ | | | 1126 | KES | |
| 7 | ✓ | 07 ~~06~~ | 100 3572-14A | 1479 | 7.4psig 15psi | ↓ | 2.64 | | | ~~1215~~ CR 04/06/10 | CR/KM | Time: 1153 |
| 8 | X | 08 ~~09~~ | ↓ -15A | 34620 | 5.2psig 15psi | 100mL | 4.88 | ↓ | ↓ | ~~1241~~ CR 04/06/10 | CR/KM 4/6/10 | Time: 1213 avg 200mL |

CR 04/05/10

Carol Ross
Signature

04/05/2010
Date

@ Air Toxics Ltd. CR 04/05/10

# MSD-D

Logbook #: 1959

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9 | ✓ | D040510009 | 1003572-16A | 35609 | 7"Hg-15psi | 200mL | 2.64 | Alb | 4/5/10 | ~~1301~~ CR 04/05/10 | CR | Time 1241 |
| 10 | ✓ | 10 | -17A | 1747 | ↓ | ↓ | ↓ | ↓ | | 1301 | CR | |
| 11 | ✓ | 11 | -18A | 35600 | 6.2"Hg-15psi | ↓ | 2.55 | CR | | 1355 | CR | |
| 12 | ✓ | 12 | 1003629A-01A | 34373 | 16"Hg-5psi | 200mL | 2.87 | CR | | 1429 | RA | |
| 13 | ✓ | 13 | -02A | 36050 | 22"Hg-5psi | 70mL | 14.4 | RA | | 1456 | RA | |
| 14 | ✓ | 14 | -02A | ↓ | ↓ | 200mL | 5.03 | RA | | 1525 | RA | |
| 15 | ✓ | 15 | -03A | 35776 | 10"Hg-5psi | 200mL | 2.01 | RA | | 1550 | RA | |
| 16 | ✓ | 16 | 1003630A-01A | 36524 | 10"Hg-15psi | 200mL | 3.03 | RA | | 1609 | RA | |
| 17 | ✓ | 17 | -02A | 1028 | ↓ | ↓ | ↓ | RA | | 1629 | RA | |
| 18 | X | 18 | -03A | 35716 | 10.5"Hg-15psi | ~~200mL~~ 50mL RA 4/5/10 | ~~3.11~~ 12.4 | RA | | 1708 | RA | re 200mL |
| 19 | ✓ | 19 | -03A | ↓ | ↓ | 200mL | 3.11 | RA | | 1808 | RA | |
| 20 | ✓ | 20 | -04A | 1358 | 7"Hg-15psi | 200mL | 2.64 | RA | | 1847 | RA | |
| 21 | ✓ | 21 | -05A | 37416 | 10.5"Hg-15psi | 200mL | 3.11 | RA | | 1925 | RA | |
| 22 | ✓ | 22 | -06A | 37428 | 10"Hg-15psi | 200mL | 3.03 | RA | | 1949 | RA | |
| 23 | ✓ | 23 | 1003616A6-01A | 35790 | 0.6psi-5psi | 200mL | 1.29 | RA | | 2009 | RA | |
| 24 | ✓ | 24 | -02A | 9569 | 11.5"Hg-5psi | 200mL | 2.17 | RA | | 2058 | RA | |
| 25 | ✓ | 25 | 1003637-01A | 5627 | 1.5"Hg-5psi | 10mL | 28.2 | RA | | 2116 | RA | |
| 26 | X | 26 | System Blank | 24217 | Humid | 200mL | 1.01 | RA | | 2135 | RA | |
| 27 | ✓ | 27 | ↓ | ↓ | ↓ | ↓ | ↓ | RA | | 2155 | RA | |
| 28 | ✓ | 28 | 1003637-01AA | 5627 | 1.5"Hg-5psi | 10mL | 28.2 | RA | | 2212 | DM | |
| 29 | X | 29 | System Blank | 24217 | Humid | 200mL | 1.00 | RA | | 2232 | DM | |
| 30 | X | 30 | ↓ | ↓ | ↓ | ↓ | ↓ | RA | | 2252 | DM | |
| 31 | S | 31 | 1003633-06A | 33573 | 1"Hg-5psi | 50mL | 4.00 | RA | | 2319 | DM | screen |
| 32 | S | 32 | 07A | 3737 | 0.5"Hg-5psi | 50mL | 4.00 | DM | | 2339 | DM | |
| 33 | S | 33 | 08A | 95639 | 3.5"Hg-5psi | | 4.00 | | | 2359 | DM | |
| 34 | S | 34 | 09A | 9201 | 3.0"Hg-5psi | | | | 4/6/10 | 0031 | DM | |
| 35 | S | 35 | 11A | 94305 | 6.0"Hg-5psi | | | | | 0051 | DM | |

**Comments:**

Signature

4/6/10
Date

Air Toxics Ltd.

Data file : /var/chem/msdd.i/31mar10a.b/d033108.d
Lab Smp Id: BFB Client Smp ID: BFB
Inj Date : 31-MAR-2010 12:09
Operator : kjj Inst ID: msdd.i
Smp Info : 1.0ml #1911-322;BFB;BFB
Misc Info : 36ng
Comment :
Method : /var/chem/msdd.i/31mar10a.b/bfb30.m
Meth Date : 31-Mar-2010 12:20 Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 1 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: WATER
Processing Host: eeyore

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.00000 | Dilution Factor |
| Uf | 1.00000 | ng unit correction factor |
| Vf | 1.00000 | Volumetric correction factor |
| Vi | 1.00000 | Injection Volume |

Cpnd Variable Local Compound Variable

| | | | | | CONCENTRATIONS ON-COL | CONCENTRATIONS FINAL | | |
|---|---|---|---|---|---|---|---|---|
| RT | EXP RT | DLT RT | MASS | RESPONSE | ( ug/L) | ( ug/L) | TARGET RANGE | RATIO |
| 1 bfb | | | | | | CAS #: 460-00-4 | | |
| 8.945 | 9.235 | -0.290 | 95 | 269056 | | | 100.00- 100.00 | 100.00 |
| 8.945 | 9.235 | -0.290 | 50 | 58240 | | | 15.00- 40.00 | 21.65 |
| 8.945 | 9.235 | -0.290 | 75 | 140648 | | | 30.00- 60.00 | 52.27 |
| 8.945 | 9.235 | -0.290 | 96 | 18704 | | | 5.00- 9.00 | 6.95 |
| 8.945 | 9.235 | -0.290 | 173 | 1136 | | | 0.00- 1.99 | 0.72 |
| 8.945 | 9.235 | -0.290 | 174 | 157893 | | | 50.01- 100.00 | 58.68 |
| 8.945 | 9.235 | -0.290 | 175 | 12708 | | | 5.00- 9.00 | 8.05 |
| 8.945 | 9.235 | -0.290 | 176 | 151578 | | | 95.01- 100.99 | 96.00 |
| 8.945 | 9.235 | -0.290 | 177 | 10242 | | | 5.00- 9.00 | 6.76 |

Data File: /var/chem/msdd.i/31mar10a.b/d033108.d



Date : 31-MAR-2010 12:09

Client ID: BFB

Instrument: msdd.i

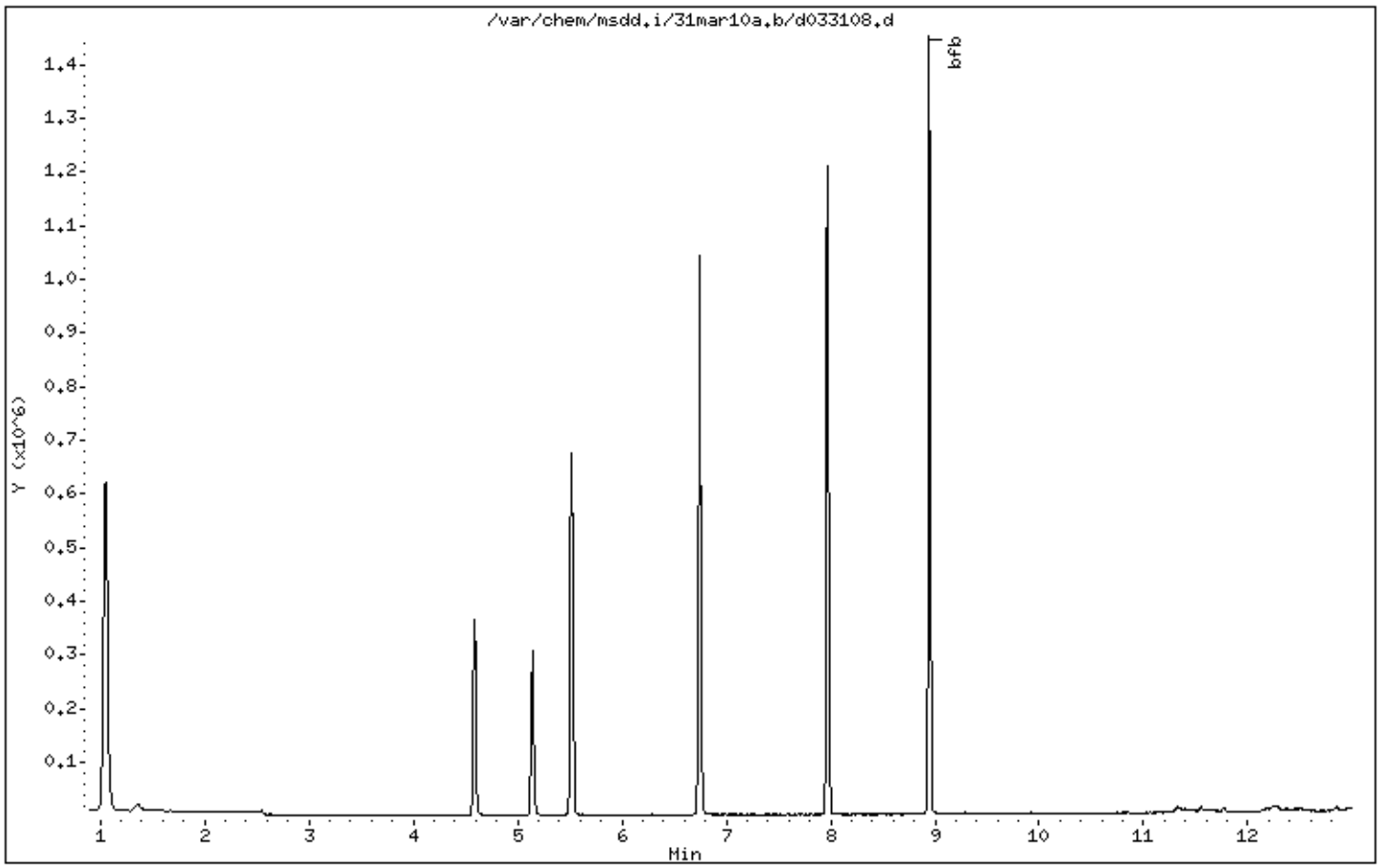
Sample Info: 1.0ml #1911-322;BFB;BFB

Volume Injected (uL): 1.0

Operator: kjj

Column phase:

Column diameter: 2.00



Data File: /var/chem/msdd.i/31mar10a.b/d033108.d

Date : 31-MAR-2010 12:09

Client ID: BFB

Instrument: msdd.i

Sample Info: 1.0ml #1911-322;BFB;BFB

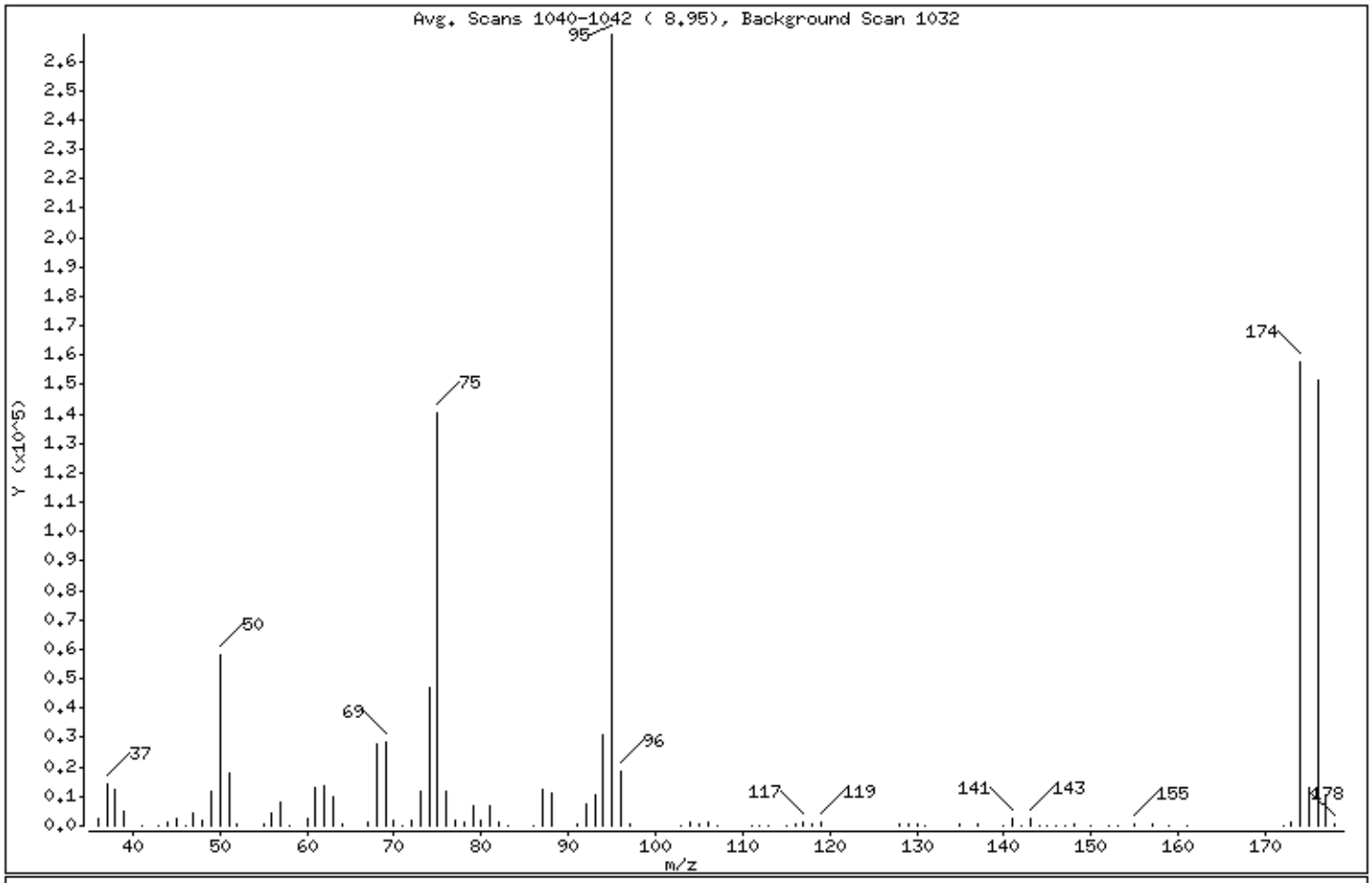
Volume Injected (uL): 1.0

Operator: kjj

Column phase:

Column diameter: 2.00

1 bfb




| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 95 | Base Peak, 100% relative abundance | 100.00 |
| 50 | 15.00 - 40.00% of mass 95 | 21.65 |
| 75 | 30.00 - 60.00% of mass 95 | 52.27 |
| 96 | 5.00 - 9.00% of mass 95 | 6.95 |
| 173 | Less than 1.99% of mass 174 | 0.42 ( 0.72) |
| 174 | 50.01 - 100.00% of mass 95 | 58.68 |
| 175 | 5.00 - 9.00% of mass 174 | 4.72 ( 8.05) |
| 176 | 95.01 - 100.99% of mass 174 | 56.34 ( 96.00) |
| 177 | 5.00 - 9.00% of mass 176 | 3.81 ( 6.76) |

Data File: /var/chem/msdd.i/31mar10a.b/d033108.d

Date : 31-MAR-2010 12:09

Client ID: BFB

Instrument: msdd.i

Sample Info: 1.0ml #1911-322;BFB;BFB

Volume Injected (uL): 1.0

Operator: kjj

Column phase:

Column diameter: 2.00

Data File: d033108.d
Spectrum: Avg. Scans 1040-1042 ( 8.95), Background Scan 1032
Location of Maximum: 95.00
Number of points: 93

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 36.00 | 2519 | 67.00 | 932 | 95.00 | 269056 | 142.00 | 73 |
| 37.00 | 14188 | 68.00 | 27832 | 96.00 | 18704 | 143.00 | 2460 |
| 38.00 | 12370 | 69.00 | 28408 | 97.00 | 548 | 144.00 | 157 |
| 39.00 | 4815 | 70.00 | 2089 | 103.00 | 66 | 145.00 | 196 |
| 41.00 | 9 | 71.00 | 62 | 104.00 | 1007 | 146.00 | 240 |
| 43.00 | 20 | 72.00 | 1594 | 105.00 | 376 | 147.00 | 105 |
| 44.00 | 1427 | 73.00 | 11601 | 106.00 | 985 | 148.00 | 535 |
| 45.00 | 2607 | 74.00 | 47120 | 107.00 | 223 | 150.00 | 224 |
| 46.00 | 70 | 75.00 | 140608 | 111.00 | 112 | 152.00 | 51 |
| 47.00 | 4031 | 76.00 | 12023 | 112.00 | 116 | 153.00 | 50 |
| 48.00 | 1842 | 77.00 | 1611 | 113.00 | 249 | 155.00 | 460 |
| 49.00 | 11992 | 78.00 | 1102 | 115.00 | 282 | 157.00 | 355 |
| 50.00 | 58240 | 79.00 | 6943 | 116.00 | 836 | 159.00 | 258 |
| 51.00 | 18080 | 80.00 | 1636 | 117.00 | 1501 | 161.00 | 228 |
| 52.00 | 846 | 81.00 | 6960 | 118.00 | 892 | 172.00 | 52 |
| 55.00 | 798 | 82.00 | 1348 | 119.00 | 1171 | 173.00 | 1136 |
| 56.00 | 4279 | 83.00 | 52 | 128.00 | 801 | 174.00 | 157888 |
| 57.00 | 7854 | 86.00 | 262 | 129.00 | 403 | 175.00 | 12708 |
| 58.00 | 301 | 87.00 | 12086 | 130.00 | 763 | 176.00 | 151552 |
| 60.00 | 2560 | 88.00 | 11007 | 131.00 | 230 | 177.00 | 10242 |
| 61.00 | 13237 | 91.00 | 871 | 135.00 | 416 | 178.00 | 318 |
| 62.00 | 13303 | 92.00 | 7409 | 137.00 | 404 | | |
| 63.00 | 9812 | 93.00 | 10764 | 140.00 | 150 | | |
| 64.00 | 903 | 94.00 | 31208 | 141.00 | 2519 | | |

Air Toxics Ltd.

Data file : /var/chem/msdd.i/05apr10.b/d040501.d
Lab Smp Id: BFB Client Smp ID: BFB
Inj Date : 05-APR-2010 09:21
Operator : acb Inst ID: msdd.i
Smp Info : 50ml #1911-322; BFB Tune Check; BFB Tune Chec
Misc Info : 36ng
Comment :
Method : /var/chem/msdd.i/05apr10.b/bfb30.m
Meth Date : 05-Apr-2010 09:33 Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 1 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: WATER
Processing Host: eeyore

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.00000 | Dilution Factor |
| Uf | 1.00000 | ng unit correction factor |
| Vf | 1.00000 | Volumetric correction factor |
| Vi | 1.00000 | Injection Volume |

Cpnd Variable Local Compound Variable

| | | | | | CONCENTRATIONS ON-COL | CONCENTRATIONS FINAL | | |
|---|---|---|---|---|---|---|---|---|
| RT | EXP RT | DLT RT | MASS | RESPONSE | ( ug/L) | ( ug/L) | TARGET RANGE | RATIO |
| 1 bfb | | | | | | CAS #: 460-00-4 | | |
| 8.938 | 9.235 | -0.297 | 95 | 235392 | | | 100.00- 100.00 | 100.00 |
| 8.938 | 9.235 | -0.297 | 50 | 54311 | | | 15.00- 40.00 | 23.07 |
| 8.938 | 9.235 | -0.297 | 75 | 124901 | | | 30.00- 60.00 | 53.06 |
| 8.938 | 9.235 | -0.297 | 96 | 15769 | | | 5.00- 9.00 | 6.70 |
| 8.938 | 9.235 | -0.297 | 173 | 0 | | | 0.00- 1.99 | 0.00 |
| 8.938 | 9.235 | -0.297 | 174 | 132464 | | | 50.01- 100.00 | 56.27 |
| 8.938 | 9.235 | -0.297 | 175 | 10118 | | | 5.00- 9.00 | 7.64 |
| 8.938 | 9.235 | -0.297 | 176 | 128666 | | | 95.01- 100.99 | 97.13 |
| 8.938 | 9.235 | -0.297 | 177 | 8744 | | | 5.00- 9.00 | 6.80 |

Data File: /var/chem/msdd.i/05apr10.b/d040501.d 

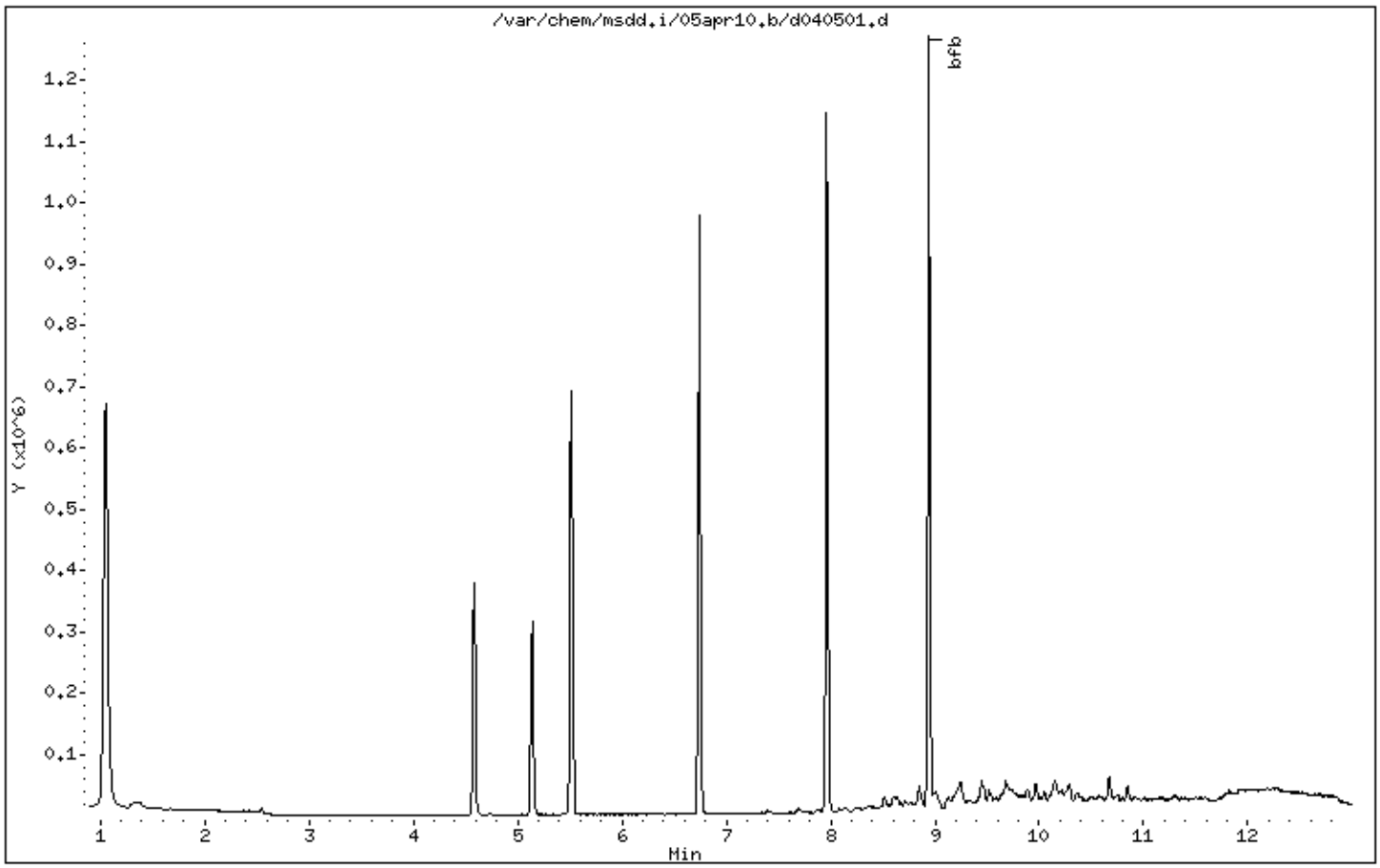
Date : 05-APR-2010 09:21

Client ID: BFB Instrument: msdd.i

Sample Info: 50ml #1911-322; BFB Tune Check; BFB Tune Chec

Volume Injected (uL): 1.0 Operator: acb

Column phase: Column diameter: 2.00



Data File: /var/chem/msdd.i/05apr10.b/d040501.d

Date : 05-APR-2010 09:21

Client ID: BFB

Instrument: msdd.i

Sample Info: 50ml #1911-322; BFB Tune Check; BFB Tune Chec

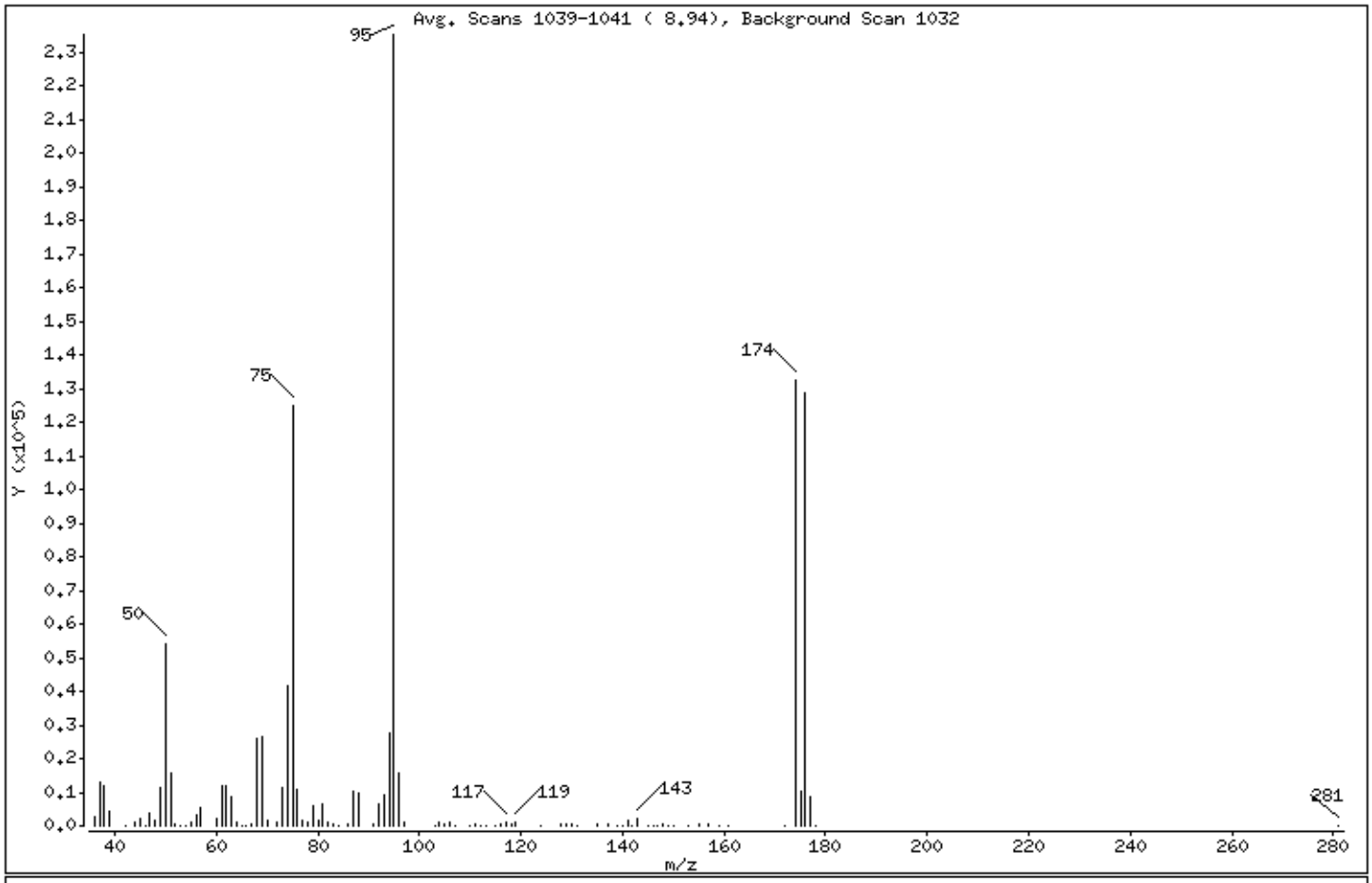
Volume Injected (uL): 1.0

Operator: acb

Column phase:

Column diameter: 2.00

1 bfb




| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 95 | Base Peak, 100% relative abundance | 100.00 |
| 50 | 15.00 - 40.00% of mass 95 | 23.07 |
| 75 | 30.00 - 60.00% of mass 95 | 53.06 |
| 96 | 5.00 - 9.00% of mass 95 | 6.70 |
| 173 | Less than 1.99% of mass 174 | 0.00 ( 0.00) |
| 174 | 50.01 - 100.00% of mass 95 | 56.27 |
| 175 | 5.00 - 9.00% of mass 174 | 4.30 ( 7.64) |
| 176 | 95.01 - 100.99% of mass 174 | 54.66 ( 97.13) |
| 177 | 5.00 - 9.00% of mass 176 | 3.71 ( 6.80) |

Date : 05-APR-2010 09:21

Client ID: BFB Instrument: msdd.i

Sample Info: 50ml #1911-322; BFB Tune Check; BFB Tune Chec

Volume Injected (uL): 1.0 Operator: acb

Column phase: Column diameter: 2.00

Data File: d040501.d
Spectrum: Avg. Scans 1039-1041 ( 8.94), Background Scan 1032
Location of Maximum: 95.00
Number of points: 97

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 36.00 | 2491 | 66.00 | 53 | 95.00 | 235392 | 140.00 | 196 |
| 37.00 | 13050 | 67.00 | 428 | 96.00 | 15769 | 141.00 | 1716 |
| 38.00 | 11727 | 68.00 | 25728 | 97.00 | 885 | 142.00 | 215 |
| 39.00 | 4388 | 69.00 | 26376 | 103.00 | 205 | 143.00 | 1952 |
| 42.00 | 211 | 70.00 | 1730 | 104.00 | 846 | 145.00 | 120 |
| 44.00 | 1192 | 72.00 | 1297 | 105.00 | 384 | 146.00 | 171 |
| 45.00 | 2153 | 73.00 | 11139 | 106.00 | 910 | 147.00 | 51 |
| 46.00 | 172 | 74.00 | 41784 | 107.00 | 163 | 148.00 | 373 |
| 47.00 | 3835 | 75.00 | 124896 | 110.00 | 215 | 149.00 | 84 |
| 48.00 | 1674 | 76.00 | 11021 | 111.00 | 468 | 150.00 | 170 |
| 49.00 | 11471 | 77.00 | 1363 | 112.00 | 266 | 153.00 | 157 |
| 50.00 | 54304 | 78.00 | 1010 | 113.00 | 167 | 155.00 | 444 |
| 51.00 | 15905 | 79.00 | 6204 | 115.00 | 232 | 157.00 | 308 |
| 52.00 | 652 | 80.00 | 1704 | 116.00 | 708 | 159.00 | 202 |
| 53.00 | 11 | 81.00 | 6243 | 117.00 | 1273 | 161.00 | 163 |
| 54.00 | 17 | 82.00 | 1290 | 118.00 | 782 | 172.00 | 253 |
| 55.00 | 1121 | 83.00 | 538 | 119.00 | 1025 | 174.00 | 132416 |
| 56.00 | 3394 | 84.00 | 29 | 124.00 | 106 | 175.00 | 10118 |
| 57.00 | 5537 | 86.00 | 349 | 128.00 | 659 | 176.00 | 128664 |
| 60.00 | 2126 | 87.00 | 10205 | 129.00 | 275 | 177.00 | 8744 |
| 61.00 | 11968 | 88.00 | 9584 | 130.00 | 680 | 178.00 | 145 |
| 62.00 | 11944 | 91.00 | 743 | 131.00 | 193 | 281.00 | 91 |
| 63.00 | 8591 | 92.00 | 6606 | 135.00 | 296 | | |
| 64.00 | 864 | 93.00 | 9331 | 137.00 | 317 | | |
| 65.00 | 152 | 94.00 | 27456 | 139.00 | 137 | | |

# Shipping/ Receiving Documents

# Air Toxics Ltd. Sample Receipt Confirmation Cover Page

Thank you for choosing Air Toxics Ltd. We have received your samples and have listed any Sample Receipt Descrepancies below.

In order to expedite analysis and reporting, please review the attached information for accuracy.

For corrections call: **Bryanna Langley at 916-985-1000**

ATL will proceed with the analysis as specified on the Chain of Custody and Sample Receipt Summary page.

**Please note** : The Sample Receipt Confirmation, including the total workorder charge, is subject to change upon secondary review. Our aim is to provide a confirmation to you in a timely manner. Sample Receipt Discrepancies, if any, may not include discrepancies regarding sample receipt pressure(s). Additionally, the Chain of Custody (COC) will be provided with the final report.

**180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630**

**(916) 985-1000 .FAX (916) 985-1020**
**Hours 6:30 A.M to 5:30 P.M. PST**

# Air Toxics LTD.

## CHAIN-OF-CUSTODY RECORD

**Sample Transportation Notice**
Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

Page ____ of ____

Project Manager: Errol Kitt
**Collected by:** (Print and Sign): Sochivly Ou
Company: GEI Consultants, Inc. Email:
Address: 1 Orinoco Drive City: Brightwaters State: NY Zip: 11718
Phone: 860-682-3939 Fax:

**Project Info:**
P.O. #:
Project #: 093180-1-1114
Project Name:

**Turn Around Time:**
☐ Normal
☐ Rush
specify

Lab use only
Pressurized by:
Date:
Pressurization Gas: $N_2$ He

| Lab I.D. | Field Sample I.D. (Location) | Can # | Date of Collection | Time of Collection | Analyses Requested | Canister Pressure/Vacuum Initial | Final | Receipt | Final (psi) |
|---|---|---|---|---|---|---|---|---|---|
| 01A | DW AMS 1 (1) | 3254 | 03/15/10 | 0654 0709 | TO-15 / Naphthalene | -29 | -2.5 | | |
| | ~~Post AMS~~ SO | 3036 | 03/15/10 | 0850 | TO-15 / Naphthalene | -30 | VACUUM | | |
| 02A | DW AMS 1 (2) | 3674 | 3/15/10 | 0952 1446 | TO-15 / Naphthalene | -29.5 | -1.3 | | |

Relinquished by: (signature) Sochivly Ou Date/Time 3/15/10 / 1515
Received by: (signature) Monica Gregson AIR 3/30/10 900
Relinquished by: (signature) Date/Time
Received by: (signature) Date/Time
Relinquished by: (signature) Date/Time
Received by: (signature) Date/Time

**Notes:**
3254 had lost a lot of pressure was @ -29 @ 0654 then was @ -2.5 @ 0709

Lab Use Only: Shipper Name: Fed Ex | Air Bill #: | Temp (°C): NA | Condition: Good | Custody Seals Intact? Yes No None | Work Order #: 003666

Form 1256 rev.11

Air Toxics LTD.
Laboratory Services Since 1989

# SAMPLE RECEIPT SUMMARY

## WORKORDER 1003666

**Client**

Ms. Theresa Landgraff
GEI Consultants, Inc.
110 Walt Whitman Road
Suite 204
Huntington Station, NY 11746

**Sales Rep:** TL

**Phone**

631-760-9300

**Fax**

**Date Promised:** 04/13/10
**Date Completed:** 4/13/10
**Date Received:** 3/30/10
**PO#:**
**Project#:** 093180-1-1114

**Total $:** $ 596.00
**Logged By:** KM

| Fraction | Sample # | Analysis | Collected | Receipt Vac./Pres. | Amount$ |
|---|---|---|---|---|---|
| 01A | DW AMS 1 (1) | Modified TO-15 | 3/25/2010 | 0.60 psi | $225.00 |
| 02A | DW AMS 1 (2) | Modified TO-15 | 3/25/2010 | 11.5 "Hg | $225.00 |
| 03A | Lab Blank | Modified TO-15 | NA | NA | $0.00 |
| 04A | CCV | Modified TO-15 | NA | NA | $0.00 |
| 05A | LCS | Modified TO-15 | NA | NA | $0.00 |

| | | |
|---|---|---|
| Misc. Charges | 6 Liter Summa Canister (1) @ $45.00 each., Shipment 71455 | $45.00 |
| | 6 Liter Summa Canister (1) @ $45.00 each., Shipment 71720 | $45.00 |
| | Blue Body Flow Controller (1) @ $25.00 each., Shipment 71455 | $25.00 |
| | Blue Body Flow Controller (1) @ $25.00 each., Shipment 71720 | $25.00 |
| | Sampling Cane-6 in (2) @ $3.00 each., Shipment 71455 | $6.00 |

**Note:** Samples received after 3 P.M. PST are considered to be received on the following work day.
Atlas Project Name/Profile#: BayShore OUI SL/KB/14046

**BILL TO:** Accounts Payable
GEI Consultants, Inc.
400 Unicorn Park Drive
Woburn, MA 01801

Analysis Code: TO-14A

**TERMS:**

Reporting Method: Modified TO-15 + Naph

# Sample Discrepancy Report

**Identification**

**Initiated By:** KM **Project ID:**14046 **PM**: BL **Date:** 3/31/2010 **Discrepancy Type:** ☒ **1.** ☐ **2.** ☐ **3.**

**Workorder(s) affected:1003666** **Sample(s) affected:** 01A

## 1. Sample Receipt Discrepancies

**Narration Not Required:**

1.1. ☐ Sample container (cartridge/tube/VOA vial) was received broken, however sample was intact.

1.2. ☐ No brass cap on canister.

1.3. ☐ Date of Collection noted on first sample, but no arrow down to indicate all samples.

**Notify Lab for further determination:**

1.4. ☐ Tedlar bag received with minimal volume.

Initials: _____ Date: _____

**Narration Required in Lab Narrative and Sample Confirmation:**

1.5. ☐ COC was not filled out in ink.

1.6. ☐ COC improperly relinquished / received.

1.7. ☒ Sample tags / can numbers do not match the COC.

1.8. ☐ Sample date ☐ error / ☐ missing on COC but noted on sample tag (check one).

1.9. ☐ Custody Seal on the outside of the container was ☐ broken / ☐ improperly placed (check one).

1.10. ☐ ID-none on the sample Tag/Blank

1.11. ☐ Other (describe below).

**Describe the Discrepancy:** 1.7 Sample DW AMS 1 (1) labeled as DW AMS 1 on sample tag.

## 2. Sample Receipt/Screening Discrepancies requiring PM notification

*Document on Cover Page of Sample Receipt Confirmation and in Receiving Notes of Lab Narrative*

**If Section II. is filled out PM must be notified within 24 hrs of initiation**

2.1. ☐ COC was not received with samples.

2.2. ☐ Analysis method(s) is ☐ not specified / ☐ incorrectly specified (check one) on the COC.

2.3. ☐ Incorrect sampling media / container for analysis requested.

2.4. ☐ Number of samples on the COC does not match the number of samples that were received.

2.5. ☐ Samples were received expired.

2.6. ☐ Sampling date (time for sulfur) is not documented for ☐ *some* / ☐ *any* samples (check one).

2.7. ☐ Sample received with amount of $H_2O$ in the Tedlar Bag.

2.8. ☐ Sample cannot be analyzed. Container was ☐ received broken / ☐ leaking / ☐ flat / ☐ defective.

2.9. ☐ Tedlar bag / canister received emitting a strong odor; Sample ☐ can / ☐ cannot (check one) be analyzed.

2.10. ☐ Tedlar Bag for Sulfur analysis has metal fitting.

2.11. ☐ Environmental Supply Company valves

2.12. ☐ Sorbent samples-sampling volume was not provided

2.13. ☐ Flow controller used – canister samples received at ambient or under pressure.

2.14. ☐ Canister was at ambient pressure at time of pressurization and (check all that apply):

- ☐ Canister failed leak check on two manifolds,
- ☐ Canister valve was open,
- ☐ Brass nut was loose/not present.
- ☐ Sample can be analyzed
- ☐ Cannot be analyzed

2.15. ☐ Canister sample received with a vacuum difference >5.0"Hg between the receipt vac. And the final vac. reported on the COC, indicating loss of vacuum.

2.16. ☐ Canister sample received at >15"Hg (*not* identified as a Trip/Field Blank).

2.17. ☐ Canister Trip Blank received at low vacuum (< 25"Hg).

2.18. ☐ Sorbent Sample received outside method required temperature of 2°C to 6°C; ☐ ice / ☐ blue ice (check one) was present. A temp. Blank ☐ was / ☐ was not present (check one).

2.19. ☐ Other (describe below)

**Initials:** _____ **Date:** _____ **Notify Receiving:** ☐ **Notify PM:** ☐

**Describe the Discrepancy:**

## *3.* Lab Discrepancies requiring Team Leader/PM notification

*Document in Analytical Notes of Lab Narrative*

**If Section III. is filled out PM must be notified within 24 hrs of initiation**

3.1. ☐ Tedlar Bag found to be leaking at the time of analysis; sample ☐ can / ☐ cannot (check one) be analyzed.

3.2. ☐ Tedlar Bag found to be flat/low volume; sample cannot be analyzed.

3.3. ☐ Sulfur samples received with insufficient time to analyze prior to expiration.

3.4. ☐ Canister found to be leaking at the time of analysis.

3.5. ☐ VOST tube saturated; bag dilution necessary.

3.6. ☐ Sample loss due to instrument malfunction / broken glassware.

3.7. ☐ Low/high surrogate recoveries noted in QC/sample(s) for extractable samples.

3.8. ☐ Reporting Limit was raised.

3.9. ☐ Post weight > Pre weight in field/lab Blank for PM10/TSP samples.

3.10. ☐ Other (describe below).

**Initials:** _____ **Date:** _____ **Notify Receiving:** ☐ **Notify PM:** ☐ _____

**Team Lead Initials:** _____ **Date:** _____

**Describe the Discrepancy:** _____

_____

_____

**How Does this Affect Client:** _____

_____

_____

**Project Manager Use Only**

**Project Manager Notification** ☐ **Section 2 Complete** ☐ **Section 3 Complete**

**Action:**

☐ It is not necessary to notify the client. Narrate the discrepancy in Receiving Notes/Analytical Notes of Lab Narrative.

PM Initials:_____ Date: _____

☐ Client notification required. See attached client contact / email, or comments below:

Client Notification:

PM Initials:_____ Person notified: _____ Date: _____

☐ Waiting for Client Reply

Comments: _____

_____

☐ Notify Lab Name: _____ Date: _____ **Notify Receiving:** ☐ _____

☐ **Additional notifications attached.**

**Additional Comments:**

_____

# Other Records

# DILUTION FACTORS

$$\text{Dilution Factor} = \frac{\text{Final Pressure}}{\text{Initial Vacuum}} = \frac{14.7 \text{ psi} + \text{Final Pressure (psi)}}{14.7 \text{ psi} - [(\text{Initial Pressure ("Hg)}) (14.7 \text{ psi} / 30 \text{ "Hg})]}$$

$$\text{Dilution Factor} = \frac{\text{Final Pressure}}{\text{Initial Pressure}} = \frac{14.7 \text{ psi} + \text{Final Pressure (psi)}}{14.7 \text{ psi} + \text{Initial Pressure (psi)}}$$

| Initial Vacuum ("Hg) | **5 psi** Final Press. Dil. Factor | **10 psi** Final Press. Dil. Factor | **15 psi** Final Press. Dil. Factor |
|---|---|---|---|
| 0.0 | 1.34 | 1.68 | 2.02 |
| 0.5 | 1.36 | 1.71 | 2.05 |
| 1.0 | 1.39 | 1.74 | 2.09 |
| 1.5 | 1.41 | 1.77 | 2.13 |
| 2.0 | 1.44 | 1.80 | 2.16 |
| 2.5 | 1.46 | 1.83 | 2.20 |
| 3.0 | 1.49 | 1.87 | 2.24 |
| 3.5 | 1.52 | 1.90 | 2.29 |
| 4.0 | 1.55 | 1.94 | 2.33 |
| 4.5 | 1.58 | 1.98 | 2.38 |
| 5.0 | 1.61 | 2.02 | 2.42 |
| 5.5 | 1.64 | 2.06 | 2.47 |
| 6.0 | 1.68 | 2.10 | 2.53 |
| 6.5 | 1.71 | 2.15 | 2.58 |
| 7.0 | 1.75 | 2.19 | 2.64 |
| 7.5 | 1.79 | 2.24 | 2.69 |
| 8.0 | 1.83 | 2.29 | 2.76 |
| 8.5 | 1.87 | 2.34 | 2.82 |
| 9.0 | 1.91 | 2.40 | 2.89 |
| 9.5 | 1.96 | 2.46 | 2.96 |
| 10.0 | 2.01 | 2.52 | 3.03 |
| 10.5 | 2.06 | 2.59 | 3.11 |
| 11.0 | 2.12 | 2.65 | 3.19 |
| 11.5 | 2.17 | 2.72 | 3.28 |
| 12.0 | 2.23 | 2.80 | 3.37 |
| 12.5 | 2.30 | 2.88 | 3.46 |
| 13.0 | 2.36 | 2.97 | 3.57 |
| 13.5 | 2.44 | 3.06 | 3.67 |
| 14.0 | 2.51 | 3.15 | 3.79 |
| 14.5 | 2.59 | 3.25 | 3.91 |
| 15.0 | 2.68 | 3.36 | 4.04 |
| 15.5 | 2.77 | 3.48 | 4.18 |
| 16.0 | 2.87 | 3.60 | 4.33 |
| 16.5 | 2.98 | 3.73 | 4.49 |
| 17.0 | 3.09 | 3.88 | 4.66 |
| 17.5 | 3.22 | 4.03 | 4.85 |
| 18.0 | 3.35 | 4.20 | 5.05 |
| 18.5 | 3.50 | 4.38 | 5.27 |
| 19.0 | 3.65 | 4.58 | 5.51 |
| 19.5 | 3.83 | 4.80 | 5.77 |
| 20.0 | 4.02 | 5.04 | 6.06 |
| 20.5 | 4.23 | 5.31 | 6.38 |

| Initial Vacuum ("Hg) | **5 psi** Final Press. Dil. Factor | **10 psi** Final Press. Dil. Factor | **15 psi** Final Press. Dil. Factor |
|---|---|---|---|
| 21.0 | 4.47 | 5.60 | 6.73 |
| 21.5 | 4.73 | 5.93 | 7.13 |
| 22.0 | 5.03 | 6.30 | 7.58 |
| 22.5 | 5.36 | 6.72 | 8.08 |
| 23.0 | 5.74 | 7.20 | 8.66 |
| 23.5 | 6.19 | 7.76 | 9.32 |
| 24.0 | 6.70 | 8.40 | 10.10 |
| 24.5 | 7.31 | 9.17 | 11.02 |
| 25.0 | 8.04 | 10.08 | 12.12 |
| 25.5 | 8.93 | 11.20 | 13.47 |
| 26.0 | 10.05 | 12.60 | 15.15 |
| 26.5 | 11.49 | 14.40 | 17.32 |
| 27.0 | 13.40 | 16.80 | 20.20 |
| 27.5 | 16.08 | 20.16 | 24.24 |
| 28.0 | 20.10 | 25.20 | 30.31 |
| 28.5 | 26.80 | 33.61 | 40.41 |
| 29.0 | 40.20 | 50.41 | 60.61 |

| Initial Pressure (psi) | **5 psi** Final Press. Dil. Factor | **10 psi** Final Press. Dil. Factor | **15 psi** Final Press. Dil. Factor |
|---|---|---|---|
| 0.0 | 1.34 | 1.68 | 2.02 |
| 0.2 | 1.32 | 1.66 | 1.99 |
| 0.4 | 1.30 | 1.64 | 1.97 |
| 0.6 | 1.29 | 1.61 | 1.94 |
| 0.8 | 1.27 | 1.59 | 1.92 |
| 1.0 | 1.25 | 1.57 | 1.89 |
| 1.2 | 1.24 | 1.55 | 1.87 |
| 1.4 | 1.22 | 1.53 | 1.84 |
| 1.6 | 1.21 | 1.52 | 1.82 |
| 1.8 | 1.19 | 1.50 | 1.80 |
| 2.0 | 1.18 | 1.48 | 1.78 |
| 2.2 | 1.17 | 1.46 | 1.76 |
| 2.4 | 1.15 | 1.44 | 1.74 |
| 2.6 | 1.14 | 1.43 | 1.72 |
| 2.8 | 1.13 | 1.41 | 1.70 |
| 3.0 | 1.11 | 1.40 | 1.68 |
| 3.2 | 1.10 | 1.38 | 1.66 |
| 3.4 | 1.09 | 1.36 | 1.64 |
| 3.6 | 1.08 | 1.35 | 1.62 |
| 3.8 | 1.06 | 1.34 | 1.61 |
| 4.0 | 1.05 | 1.32 | 1.59 |

# DILUTION FACTORS

$$\text{Dilution Factor} = \frac{\text{Final Pressure}}{\text{Initial Pressure}} = \frac{\text{14.7 psi + Final Pressure (psi)}}{\text{14.7 psi + Initial Pressure (psi)}}$$

| Initial Pressure (psi) | **5 psi** Final Press. Dil. Factor | **10 psi** Final Press. Dil. Factor | **15 psi** Final Press. Dil. Factor |
|---|---|---|---|
| 0.0 | 1.34 | 1.68 | 2.02 |
| 0.2 | 1.32 | 1.66 | 1.99 |
| 0.4 | 1.30 | 1.64 | 1.97 |
| 0.6 | 1.29 | 1.61 | 1.94 |
| 0.8 | 1.27 | 1.59 | 1.92 |
| 1.0 | 1.25 | 1.57 | 1.89 |
| 1.2 | 1.24 | 1.55 | 1.87 |
| 1.4 | 1.22 | 1.53 | 1.84 |
| 1.6 | 1.21 | 1.52 | 1.82 |
| 1.8 | 1.19 | 1.50 | 1.80 |
| 2.0 | 1.18 | 1.48 | 1.78 |
| 2.2 | 1.17 | 1.46 | 1.76 |
| 2.4 | 1.15 | 1.44 | 1.74 |
| 2.6 | 1.14 | 1.43 | 1.72 |
| 2.8 | 1.13 | 1.41 | 1.70 |
| 3.0 | 1.11 | 1.40 | 1.68 |
| 3.2 | 1.10 | 1.38 | 1.66 |
| 3.4 | 1.09 | 1.36 | 1.64 |
| 3.6 | 1.08 | 1.35 | 1.62 |
| 3.8 | 1.06 | 1.34 | 1.61 |
| 4.0 | 1.05 | 1.32 | 1.59 |
| 4.2 | 1.04 | 1.31 | 1.57 |
| 4.4 | 1.03 | 1.29 | 1.55 |
| 4.6 | 1.02 | 1.28 | 1.54 |
| 4.8 | 1.01 | 1.27 | 1.52 |
| 5.0 | 1.00 | 1.25 | 1.51 |
| 5.2 | NA | 1.24 | 1.49 |
| 5.4 | NA | 1.23 | 1.48 |
| 5.6 | NA | 1.22 | 1.46 |
| 5.8 | NA | 1.20 | 1.45 |
| 6.0 | NA | 1.19 | 1.43 |
| 6.2 | NA | 1.18 | 1.42 |
| 6.4 | NA | 1.17 | 1.41 |
| 6.6 | NA | 1.16 | 1.39 |
| 6.8 | NA | 1.15 | 1.38 |
| 7.0 | NA | 1.14 | 1.37 |
| 7.2 | NA | 1.13 | 1.36 |
| 7.4 | NA | 1.12 | 1.34 |

| Initial Pressure (psi) | **5 psi** Final Press. Dil. Factor | **10 psi** Final Press. Dil. Factor | **15 psi** Final Press. Dil. Factor |
|---|---|---|---|
| 7.6 | NA | 1.11 | 1.33 |
| 7.8 | NA | 1.10 | 1.32 |
| 8.0 | NA | 1.09 | 1.31 |
| 8.2 | NA | 1.08 | 1.30 |
| 8.4 | NA | 1.07 | 1.29 |
| 8.6 | NA | 1.06 | 1.27 |
| 8.8 | NA | 1.05 | 1.26 |
| 9.0 | NA | 1.04 | 1.25 |
| 9.2 | NA | 1.03 | 1.24 |
| 9.4 | NA | 1.02 | 1.23 |
| 9.6 | NA | 1.02 | 1.22 |
| 9.8 | NA | 1.01 | 1.21 |
| 10.0 | NA | 1.00 | 1.20 |
| 10.2 | NA | NA | 1.19 |
| 10.4 | NA | NA | 1.18 |
| 10.6 | NA | NA | 1.17 |
| 10.8 | NA | NA | 1.16 |
| 11.0 | NA | NA | 1.16 |
| 11.2 | NA | NA | 1.15 |
| 11.4 | NA | NA | 1.14 |
| 11.6 | NA | NA | 1.13 |
| 11.8 | NA | NA | 1.12 |
| 12.0 | NA | NA | 1.11 |
| 12.2 | NA | NA | 1.10 |
| 12.4 | NA | NA | 1.10 |
| 12.6 | NA | NA | 1.09 |
| 12.8 | NA | NA | 1.08 |
| 13.0 | NA | NA | 1.07 |
| 13.2 | NA | NA | 1.06 |
| 13.4 | NA | NA | 1.06 |
| 13.6 | NA | NA | 1.05 |
| 13.8 | NA | NA | 1.04 |
| 14.0 | NA | NA | 1.03 |
| 14.2 | NA | NA | 1.03 |
| 14.4 | NA | NA | 1.02 |
| 14.6 | NA | NA | 1.01 |
| 14.8 | NA | NA | 1.01 |

# Compound Listing

**Modified TO-15 + Naph**

| CAS Number | Compound | Detection Limit ppbv | Type |
|---|---|---|---|
| 75-71-8 | Freon 12 | 0.50 | |
| 76-14-2 | Freon 114 | 0.50 | |
| 75-35-4 | 1,1-Dichloroethene | 0.50 | |
| 67-64-1 | Acetone | 2.0 | |
| 67-63-0 | 2-Propanol | 2.0 | |
| 75-15-0 | Carbon Disulfide | 0.50 | |
| 107-05-1 | 3-Chloropropene | 2.0 | |
| 75-09-2 | Methylene Chloride | 0.50 | |
| 1634-04-4 | Methyl tert-butyl ether | 0.50 | |
| 156-60-5 | trans-1,2-Dichloroethene | 0.50 | |
| 110-54-3 | Hexane | 0.50 | |
| 75-34-3 | 1,1-Dichloroethane | 0.50 | |
| 78-93-3 | 2-Butanone (Methyl Ethyl Ketone) | 0.50 | |
| 156-59-2 | cis-1,2-Dichloroethene | 0.50 | |
| 109-99-9 | Tetrahydrofuran | 0.50 | |
| 67-66-3 | Chloroform | 0.50 | |
| 71-55-6 | 1,1,1-Trichloroethane | 0.50 | |
| 110-82-7 | Cyclohexane | 0.50 | |
| 56-23-5 | Carbon Tetrachloride | 0.50 | |
| 540-84-1 | 2,2,4-Trimethylpentane | 0.50 | |
| 71-43-2 | Benzene | 0.50 | |
| 107-06-2 | 1,2-Dichloroethane | 0.50 | |
| 142-82-5 | Heptane | 0.50 | |
| 79-01-6 | Trichloroethene | 0.50 | |
| 78-87-5 | 1,2-Dichloropropane | 0.50 | |
| 123-91-1 | 1,4-Dioxane | 2.0 | |
| 75-27-4 | Bromodichloromethane | 0.50 | |
| 10061-01-5 | cis-1,3-Dichloropropene | 0.50 | |
| 108-10-1 | 4-Methyl-2-pentanone | 0.50 | |
| 108-88-3 | Toluene | 0.50 | |
| 10061-02-6 | trans-1,3-Dichloropropene | 0.50 | |
| 79-00-5 | 1,1,2-Trichloroethane | 0.50 | |
| 127-18-4 | Tetrachloroethene | 0.50 | |
| 591-78-6 | 2-Hexanone | 2.0 | |
| 124-48-1 | Dibromochloromethane | 0.50 | |
| 106-93-4 | 1,2-Dibromoethane (EDB) | 0.50 | |
| 108-90-7 | Chlorobenzene | 0.50 | |
| 100-41-4 | Ethyl Benzene | 0.50 | |
| 108-38-3 | m,p-Xylene | 0.50 | |
| 95-47-6 | o-Xylene | 0.50 | |
| 100-42-5 | Styrene | 0.50 | |
| 75-25-2 | Bromoform | 0.50 | |
| 98-82-8 | Cumene | 0.50 | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 0.50 | |
| 103-65-1 | Propylbenzene | 0.50 | |
| 622-96-8 | 4-Ethyltoluene | 0.50 | |

# Compound Listing

**Modified TO-15 + Naph**

| CAS Number | Compound | Detection Limit ppbv | Type |
|---|---|---|---|
| 108-67-8 | 1,3,5-Trimethylbenzene | 0.50 | |
| 95-63-6 | 1,2,4-Trimethylbenzene | 0.50 | |
| 541-73-1 | 1,3-Dichlorobenzene | 0.50 | |
| 106-46-7 | 1,4-Dichlorobenzene | 0.50 | |
| 100-44-7 | alpha-Chlorotoluene | 0.50 | |
| 95-50-1 | 1,2-Dichlorobenzene | 0.50 | |
| 120-82-1 | 1,2,4-Trichlorobenzene | 2.0 | |
| 87-68-3 | Hexachlorobutadiene | 2.0 | |
| 2037-26-5 | Toluene-d8 | | |
| 17060-07-0 | 1,2-Dichloroethane-d4 | | |
| 460-00-4 | 4-Bromofluorobenzene | | |
| 91-20-3 | Naphthalene | 2.0 | |
| 74-87-3 | Chloromethane | 2.0 | |
| 75-01-4 | Vinyl Chloride | 0.50 | |
| 106-99-0 | 1,3-Butadiene | 0.50 | |
| 74-83-9 | Bromomethane | 0.50 | |
| 75-00-3 | Chloroethane | 0.50 | |
| 75-69-4 | Freon 11 | 0.50 | |
| 64-17-5 | Ethanol | 2.0 | |
| 76-13-1 | Freon 113 | 0.50 | |

# DATA REVIEW CHECKLIST

**Work Order #:** 1003C066

| $A_1$ | $A_2$ | R | T | M | Q | |
|---|---|---|---|---|---|---|
| ☑ | ☐ | ☑ | ☑ | ☐ | ☐ | Analysis/Reporting vs. Project Profile/SOP requirements checked (i.e. 100% Dups, J-Flag to MDL, etc) |
| | | ☑ | ☐ | ☐ | ☐ | The final report has the correct reporting list, special units, and header info. |
| N/A | ☐ | | | NA | | Non-Standard sublist printed/verified, LOQ and LOD verified |
| | ☐ | ☑ | ☐ | ☐ | | Lab Narrative is correct (proper method & description/Receiving & Analytical notes correct) |
| | | ☑ | ☐ | ☐ | ☐ | Sample Discrepancy Report (SDR) is completed |
| N/A | | | | | | |
| ☐ | ☐ | ☐ | ☐ | NA | ☐ | Corrective Action issued - # |
| ☐ | ☐ | ☐ | ☐ | NA | ☐ | Unusual circumstances have been documented in the notes section below |

**LUMEN** *validation report present and initialed* ***CIRCLE ( YES / NO )***

| | | | | | | |
|---|---|---|---|---|---|---|
| ☑ | ☐ | ☐ | ☐ | ☐ | ☐ | Lab Blank, CCV, LCS and DUP met QC criteria |
| ☑ | ☐ | ☐ | ☐ | ☐ | ☐ | Hold time is met for all samples |
| | | ☐ | ☐ | ☐ | ☐ | Appropriate data qualifier flags are applied |
| | | ☐ | ☐ | ☐ | ☐ | Manual integrations for samples and QC are properly documented |
| ☑ | ☐ | ☐ | ☐ | | ☐ | Samples analyzed within the project or method specific clock |
| | | ☐ | ☐ | | | Retention times have been verified |
| ☑ | ☐ | ☐ | ☐ | | ☐ | Appropriate ICAL(s) included |
| | | ☑ | ☐ | ☑ | ☐ | At least one result per sample is verified against the target quant sheets/raw data |
| ☑ | ☐ | ☑ | ☐ | | ☐ | Dilution factor correctly calculated (sample load volume, syringe and bag dilutions, can pressurization(s)) |
| ☑ | ☐ | ☑ | ☐ | | | Correct amount of sample analyzed (i.e. sample not over-diluted) |
| | | ☑ | ☐ | | | Spectra verified - documentation of spectral defense included (Section 5A of eCVP pkg) |
| | | NA | ☐ | | | TICs resemble reference spectra |
| | | ☐ | ☐ | | | TICs between duplicate samples are consistent |
| N/A | | | | | | |
| ☐ | ☐ | ☐ | ☐ | ☑ | ☐ | Checked samples for trends (i.e. Influent vs. Effluent, Field Dups, Field/Trip Blank, etc.) |
| ☐ | ☐ | ☐ | ☐ | | | Data for multiple analyses of sample(s) has been evaluated for comparability of results |
| | | ☐ | | NA | | Special units for all samples in the final report are correctly calculated |
| | | ☐ | ☐ | NA | | Manually entered results checked (i.e. TPH/NMOC) |
| ☑ | ☐ | ☑ | | | | Chain of Custody verified for any special comments (i.e. different compounds/RLs, action levels) |
| | | ☑ | | | | Chain of Custody scanned correctly |
| | | | | | ☐ | Verify sample id's vs. chain of custody |
| ☑ | | ☑ | | | | Date MDL(s) performed per instrument(s) 12/11/09 |
| ☑ | ☐ | ☑ | | | | Samples pressurized w/ appropriate gas ($N_2$ or He) ☐ Other (i.e. Tedlar bag, cartridge, sorbent) |
| ☑ | ☐ | ☑ | | | | Final pressure consistent with canister size (6L vs. 1L) |
| ☑ | ☐ | ☑ | | | | Verify receipt pressures |
| ☑ | ☐ | ☑ | | | | Verify canister ID #'s |
| | | NA | | ☐ | | Final invoice amount correct (adjusted for TAT, Penalties, Re-issue Charges etc.) |
| | | ☐ | ☐ | ☑ | ☐ | Client LUMEN report reviewed for accuracy and completeness |
| | | | | ☑ | | Final PDF report reviewed for correctness |

***Notes:*** *(to include: noting samples with QA/QC problems, Blanks with positive hits, narratives, etc.)*

A/R: Ø Out in CCV

M/Q:

| $A_1/A_2$ (Analytical Review/Date) | R/T (Reporting Review/Date) | M (Management Review/Date) | Q (QA Review/Date) |
|---|---|---|---|
| $A_1$: [illegible] 4/5/10 | R: TJS 4-12-10 | 4/12/10 | |

$A_2$: T:

**Note (1): Please check all the appropriate boxes. Indicate "NA" for any statement that does not apply.**
**Note (2): Management reviewer and reporting reviewer must be separate individuals.**

# Not Applicable


Air
Toxics LTD.
Laboratory Services Since 1989
Electronic Comprehensive Validation Package (eCVP)

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# COMPREHENSIVE VALIDATION PACKAGE

Modified TO-15

INVENTORY SHEET

Work Order #: 1004128

| | Page Nos. | |
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| -Surrogate Recovery Summary (If Applicable) | | |
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| j. Extraction Logs | -- | -- |
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| 4. Shipping/Receiving Documents | | |
| a. Login Receipt Summary Sheet | 187 | 188 |
| b. Chain-of-Custody Records | 189 | 189 |
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| Sample Receipt Discrepancy Report | -- | -- |
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| a. Manual Spectral Defense | -- | -- |
| b. Manual Integrations | -- | -- |
| c. Manual Calculations | -- | -- |
| d. Canister Dilution Factors | 191 | 193 |
| e. Laboratory Corrective Action Request | -- | -- |
| f. CAS Number Reference | 194 | 195 |
| g. Variance Table | -- | -- |
| h. Canister Certification | -- | -- |
| i. Data Review Check Sheet | 196 | 196 |

Comments:

Completed by:

| Kara McKiernan | Kara McKiernan / Document Control | 4/20/10 |
|---|---|---|
| (Signature) | ( Print Name & Title) | (Date) |

Air Toxics LTD.
Laboratory Services Since 1989

# WORK ORDER #: 1004128

Work Order Summary

| | | | |
|---|---|---|---|
| **CLIENT:** | Ms. Theresa Landgraff<br>GEI Consultants, Inc.<br>110 Walt Whitman Road<br>Suite 204<br>Huntington Station, NY 11746 | **BILL TO:** | Accounts Payable<br>GEI Consultants, Inc.<br>400 Unicorn Park Drive<br>Woburn, MA 01801 |
| **PHONE:** | 631-760-9300 | **P.O. #** | |
| **FAX:** | | **PROJECT #** | 093180-1-1114 BayShore OUI SL/KB |
| **DATE RECEIVED:** | 04/06/2010 | **CONTACT:** | Bryanna Langley |
| **DATE COMPLETED:** | 04/19/2010 | | |

| FRACTION # | NAME | TEST | RECEIPT VAC./PRES. | FINAL PRESSURE |
|---|---|---|---|---|
| 01A | UW AMS 4 | Modified TO-15 | 6.0 "Hg | 5 psi |
| 02A | DW AMS 2 | Modified TO-15 | 6.4 "Hg | 5 psi |
| 03A | Lab Blank | Modified TO-15 | NA | NA |
| 04A | CCV | Modified TO-15 | NA | NA |
| 05A | LCS | Modified TO-15 | NA | NA |

CERTIFIED BY: Linda D. Fruman DATE: 04/19/10

Laboratory Director

Certfication numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763,
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/09, Expiration date: 06/30/10
Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

**LABORATORY NARRATIVE**
**Modified TO-15**
**GEI Consultants, Inc.**
**Workorder# 1004128**

Two 6 Liter Summa Canister samples were received on April 06, 2010. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

| *Requirement* | *TO-15* | *ATL Modifications* |
|---|---|---|
| Daily CCV | </= 30% Difference | </= 30% Difference; Compounds exceeding this criterion and associated data are flagged and narrated. |
| Sample collection media | Summa canister | ATL recommends use of summa canisters to insure data defensibility, but will report results from Tedlar bags at client request |
| Method Detection Limit | Follow 40CFR Pt.136 App. B | The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases |

## Receiving Notes

There were no receiving discrepancies.

## Analytical Notes

Carbon Disulfide was detected in the laboratory blank analyzed on 4/13/10 at less than 5X the reporting limit. Associated samples had no detections for Carbon Disulfide.

## Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction no performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified
b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

## Table 1

| Client Sample ID | Lab Sample ID | Date Collected | Date Received | Date Extracted | Sample Holding Time (Days) | Sample Extract Date Analyzed | Sample Extract Holding Time (Days) | Sample Condition |
|---|---|---|---|---|---|---|---|---|
| UW AMS 4 | 1004128-01A | 4/ 1/2010 | 4/ 6/2010 | NA | 12 | 4/13/2010 | NA | Good |
| DW AMS 2 | 1004128-02A | 4/ 1/2010 | 4/ 6/2010 | NA | 12 | 4/13/2010 | NA | Good |
| Lab Blank | 1004128-03A | NA | NA | NA | NA | 4/13/2010 | NA | Good |
| CCV | 1004128-04A | NA | NA | NA | NA | 4/13/2010 | NA | Good |
| LCS | 1004128-05A | NA | NA | NA | NA | 4/13/2010 | NA | Good |

# Sample Results and Raw Data

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# Summary of Detected Compounds
# MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: UW AMS 4**

**Lab ID#: 1004128-01A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (ug/m3) | Amount (ug/m3) |
|---|---|---|---|---|
| Ethanol | 3.4 | 52 | 6.3 | 99 |
| Acetone | 3.4 | 7.0 | 8.0 | 16 |
| 2-Butanone (Methyl Ethyl Ketone) | 0.84 | 1.4 | 2.5 | 4.0 |

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**Client Sample ID: UW AMS 4**

**Lab ID#: 1004128-01A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **d041324** | **Date of Collection:** | **4/1/10 2:40:00 PM** |
| **Dil. Factor:** | **1.68** | **Date of Analysis:** | **4/13/10 06:58 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (ug/m3) | Amount (ug/m3) |
|---|---|---|---|---|
| Freon 12 | 0.84 | Not Detected | 4.2 | Not Detected |
| Freon 114 | 0.84 | Not Detected | 5.9 | Not Detected |
| Chloromethane | 3.4 | Not Detected | 6.9 | Not Detected |
| Vinyl Chloride | 0.84 | Not Detected | 2.1 | Not Detected |
| 1,3-Butadiene | 0.84 | Not Detected | 1.8 | Not Detected |
| Bromomethane | 0.84 | Not Detected | 3.3 | Not Detected |
| Chloroethane | 0.84 | Not Detected | 2.2 | Not Detected |
| Freon 11 | 0.84 | Not Detected | 4.7 | Not Detected |
| Ethanol | 3.4 | 52 | 6.3 | 99 |
| Freon 113 | 0.84 | Not Detected | 6.4 | Not Detected |
| 1,1-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |
| Acetone | 3.4 | 7.0 | 8.0 | 16 |
| 2-Propanol | 3.4 | Not Detected | 8.2 | Not Detected |
| Carbon Disulfide | 0.84 | Not Detected | 2.6 | Not Detected |
| 3-Chloropropene | 3.4 | Not Detected | 10 | Not Detected |
| Methylene Chloride | 0.84 | Not Detected | 2.9 | Not Detected |
| Methyl tert-butyl ether | 0.84 | Not Detected | 3.0 | Not Detected |
| trans-1,2-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |
| Hexane | 0.84 | Not Detected | 3.0 | Not Detected |
| 1,1-Dichloroethane | 0.84 | Not Detected | 3.4 | Not Detected |
| 2-Butanone (Methyl Ethyl Ketone) | 0.84 | 1.4 | 2.5 | 4.0 |
| cis-1,2-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |
| Tetrahydrofuran | 0.84 | Not Detected | 2.5 | Not Detected |
| Chloroform | 0.84 | Not Detected | 4.1 | Not Detected |
| 1,1,1-Trichloroethane | 0.84 | Not Detected | 4.6 | Not Detected |
| Cyclohexane | 0.84 | Not Detected | 2.9 | Not Detected |
| Carbon Tetrachloride | 0.84 | Not Detected | 5.3 | Not Detected |
| 2,2,4-Trimethylpentane | 0.84 | Not Detected | 3.9 | Not Detected |
| Benzene | 0.84 | Not Detected | 2.7 | Not Detected |
| 1,2-Dichloroethane | 0.84 | Not Detected | 3.4 | Not Detected |
| Heptane | 0.84 | Not Detected | 3.4 | Not Detected |
| Trichloroethene | 0.84 | Not Detected | 4.5 | Not Detected |
| 1,2-Dichloropropane | 0.84 | Not Detected | 3.9 | Not Detected |
| 1,4-Dioxane | 3.4 | Not Detected | 12 | Not Detected |
| Bromodichloromethane | 0.84 | Not Detected | 5.6 | Not Detected |
| cis-1,3-Dichloropropene | 0.84 | Not Detected | 3.8 | Not Detected |
| 4-Methyl-2-pentanone | 0.84 | Not Detected | 3.4 | Not Detected |
| Toluene | 0.84 | Not Detected | 3.2 | Not Detected |
| trans-1,3-Dichloropropene | 0.84 | Not Detected | 3.8 | Not Detected |

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**Client Sample ID: UW AMS 4**

**Lab ID#: 1004128-01A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **d041324** | **Date of Collection:** | **4/1/10 2:40:00 PM** |
| **Dil. Factor:** | **1.68** | **Date of Analysis:** | **4/13/10 06:58 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (ug/m3) | Amount (ug/m3) |
|---|---|---|---|---|
| 1,1,2-Trichloroethane | 0.84 | Not Detected | 4.6 | Not Detected |
| Tetrachloroethene | 0.84 | Not Detected | 5.7 | Not Detected |
| 2-Hexanone | 3.4 | Not Detected | 14 | Not Detected |
| Dibromochloromethane | 0.84 | Not Detected | 7.2 | Not Detected |
| 1,2-Dibromoethane (EDB) | 0.84 | Not Detected | 6.4 | Not Detected |
| Chlorobenzene | 0.84 | Not Detected | 3.9 | Not Detected |
| Ethyl Benzene | 0.84 | Not Detected | 3.6 | Not Detected |
| m,p-Xylene | 0.84 | Not Detected | 3.6 | Not Detected |
| o-Xylene | 0.84 | Not Detected | 3.6 | Not Detected |
| Styrene | 0.84 | Not Detected | 3.6 | Not Detected |
| Bromoform | 0.84 | Not Detected | 8.7 | Not Detected |
| Cumene | 0.84 | Not Detected | 4.1 | Not Detected |
| 1,1,2,2-Tetrachloroethane | 0.84 | Not Detected | 5.8 | Not Detected |
| Propylbenzene | 0.84 | Not Detected | 4.1 | Not Detected |
| 4-Ethyltoluene | 0.84 | Not Detected | 4.1 | Not Detected |
| 1,3,5-Trimethylbenzene | 0.84 | Not Detected | 4.1 | Not Detected |
| 1,2,4-Trimethylbenzene | 0.84 | Not Detected | 4.1 | Not Detected |
| 1,3-Dichlorobenzene | 0.84 | Not Detected | 5.0 | Not Detected |
| 1,4-Dichlorobenzene | 0.84 | Not Detected | 5.0 | Not Detected |
| alpha-Chlorotoluene | 0.84 | Not Detected | 4.3 | Not Detected |
| 1,2-Dichlorobenzene | 0.84 | Not Detected | 5.0 | Not Detected |
| 1,2,4-Trichlorobenzene | 3.4 | Not Detected | 25 | Not Detected |
| Hexachlorobutadiene | 3.4 | Not Detected | 36 | Not Detected |
| Naphthalene | 3.4 | Not Detected | 18 | Not Detected |

**Container Type: 6 Liter Summa Canister**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| Toluene-d8 | 104 | 70-130 |
| 1,2-Dichloroethane-d4 | 118 | 70-130 |
| 4-Bromofluorobenzene | 97 | 70-130 |

Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msdd.i/13apr10.b/d041324.d
Lab Smp Id: 1004128-01A
Inj Date : 13-APR-2010 18:58
Operator : ra Inst ID: msdd.i
Smp Info : 200ml #1521
Misc Info : 6.0"Hg-5psi
Comment :
Method : /chem/msdd.i/13apr10.b/d10q0331a.m
Meth Date : 13-Apr-2010 08:33 dmendoza Quant Type: ISTD
Cal Date : 31-MAR-2010 15:58 Cal File: d033117.d
Als bottle: 1
Dil Factor: 1.68000
Integrator: HP RTE Compound Sublist: TO15N.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| | | | | CONCENTRATIONS ON-COL | CONCENTRATIONS FINAL | | |
|---|---|---|---|---|---|---|---|
| RT | EXP RT (REL RT) | MASS | RESPONSE | ( PPBV) | ( PPBV) | TARGET RANGE | RATIO |
| * 79 Bromochloromethane | | | | | CAS #: 74-97-5 | | |
| 4.591 | 4.591 (1.000) | 130 | 74292 | 25.0000 | | 80.00- 120.00 | 100.00 |
| 4.584 | 4.591 (1.000) | 128 | 57997 | | | 28.36- 128.36 | 78.07 |
| 4.584 | 4.591 (1.000) | 49 | 145302 | | | 141.90- 241.90 | 195.58 |
| * 100 1,4-Difluorobenzene | | | | | CAS #: 540-36-3 | | |
| 5.523 | 5.523 (1.000) | 114 | 290249 | 25.0000 | | 80.00- 120.00 | 100.00 |
| 5.515 | 5.523 (1.000) | 88 | 54529 | | | 0.00- 68.61 | 18.79 |
| * 134 Chlorobenzene-d5 | | | | | CAS #: 3114-55-4 | | |
| 7.965 | 7.965 (1.000) | 117 | 350754 | 25.0000 | | 80.00- 120.00 | 100.00 |
| 7.965 | 7.965 (1.000) | 82 | 224320 | | | 12.92- 112.92 | 63.95 |
| $ 91 1,2-Dichloroethane-d4 | | | | | CAS #: 17060-07-0 | | |
| 5.143 | 5.143 (1.120) | 65 | 177412 | 29.4495 | 29.449 | 80.00- 120.00 | 100.00 |
| 5.143 | 5.143 (1.120) | 67 | 82886 | | | 2.15- 102.15 | 46.72 |
| $ 114 Toluene-d8 | | | | | CAS #: 2037-26-5 | | |
| 6.747 | 6.747 (1.222) | 98 | 373156 | 25.9194 | 25.919 | 80.00- 120.00 | 100.00 |
| 6.747 | 6.747 (1.222) | 70 | 48400 | | | 0.00- 62.20 | 12.97 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 114 Toluene-d8 (continued) | | | | | | | |
| 6.747 | 6.747 (1.222) | 100 | 239396 | | | 15.58- 115.58 | 64.15 |
| $ 149 Bromofluorobenzene | | | | | CAS #: 460-00-4 | | |
| 8.946 | 8.947 (1.123) | 174 | 174667 | 24.3557 | 24.356 | 80.00- 120.00 | 100.00 |
| 8.946 | 8.939 (1.123) | 95 | 295395 | | | 114.89- 214.89 | 169.12 |
| 8.946 | 8.947 (1.123) | 176 | 166378 | | | 45.24- 145.24 | 95.25 |
| 29 Ethanol | | | | | CAS #: 64-17-5 | | |
| 2.199 | 2.163 (0.479) | 45 | 38514 | 31.2292 | 52.465 | 80.00- 120.00 | 100.00 |
| 2.199 | 2.163 (0.479) | 43 | 10050 | | | 0.00- 76.61 | 26.09 |
| 2.199 | 2.163 (0.479) | 46 | 14869 | | | 0.00- 88.16 | 38.61 |
| 38 Acetone | | | | | CAS #: 67-64-1 | | |
| 2.564 | 2.543 (0.558) | 58 | 6567 | 4.15210 | 6.976 | 80.00- 120.00 | 100.00 |
| 2.557 | 2.543 (0.557) | 43 | 27849 | | | 327.54- 427.54 | 424.07 |
| 75 2-Butanone | | | | | CAS #: 78-93-3 | | |
| 4.412 | 4.391 (0.961) | 72 | 1457 | 0.81550 | 1.370 | 80.00- 120.00 | 100.00 |
| 4.405 | 4.391 (0.959) | 43 | 7761 | | | 466.90- 566.90 | 532.67 |
| 4.405 | 4.391 (0.959) | 57 | 431 | | | 29.81- 129.81 | 29.58 |

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdd.i
Lab File ID: d041324.d
Lab Smp Id: 1004128-01A
Analysis Type: VOA
Quant Type: ISTD
Operator: ra
Method File: /chem/msdd.i/13apr10.b/d10q0331a.m
Misc Info: 6.0"Hg-5psi

Calibration Date: 13-APR-2010
Calibration Time: 07:41
Level: LOW
Sample Type: AIR

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 5

| | | AREA LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 79 Bromochloromethan | 78422 | 47053 | 109791 | 74292 | -5.27 |
| 100 1,4-Difluorobenze | 332647 | 199588 | 465706 | 290249 | -12.75 |
| 134 Chlorobenzene-d5 | 374720 | 224832 | 524608 | 350754 | -6.40 |

| | | RT LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 79 Bromochloromethan | 4.59 | 4.26 | 4.92 | 4.59 | 0.00 |
| 100 1,4-Difluorobenze | 5.52 | 5.19 | 5.85 | 5.52 | 0.00 |
| 134 Chlorobenzene-d5 | 7.97 | 7.64 | 8.30 | 7.97 | 0.00 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: 13apr10
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1004128-01A
Level: LOW Operator: ra
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: 2926spectra.spk Quant Type: ISTD
Sublist File: TO15N.sub
Method File: /chem/msdd.i/13apr10.b/d10q0331a.m
Misc Info: 6.0"Hg-5psi

| SURROGATE COMPOUND | CONC ADDED PPBV | CONC RECOVERED PPBV | % RECOVERED | LIMITS |
|---|---|---|---|---|
| $ 91 1,2-Dichloroethane | 25.000 | 29.449 | 117.80 | 70-130 |
| $ 114 Toluene-d8 | 25.000 | 25.919 | 103.68 | 70-130 |
| $ 149 Bromofluorobenzene | 25.000 | 24.356 | 97.42 | 70-130 |

Data File: /chem/msdd.i/13apr10.b/d041324.d



Date : 13-APR-2010 18:58

Client ID:

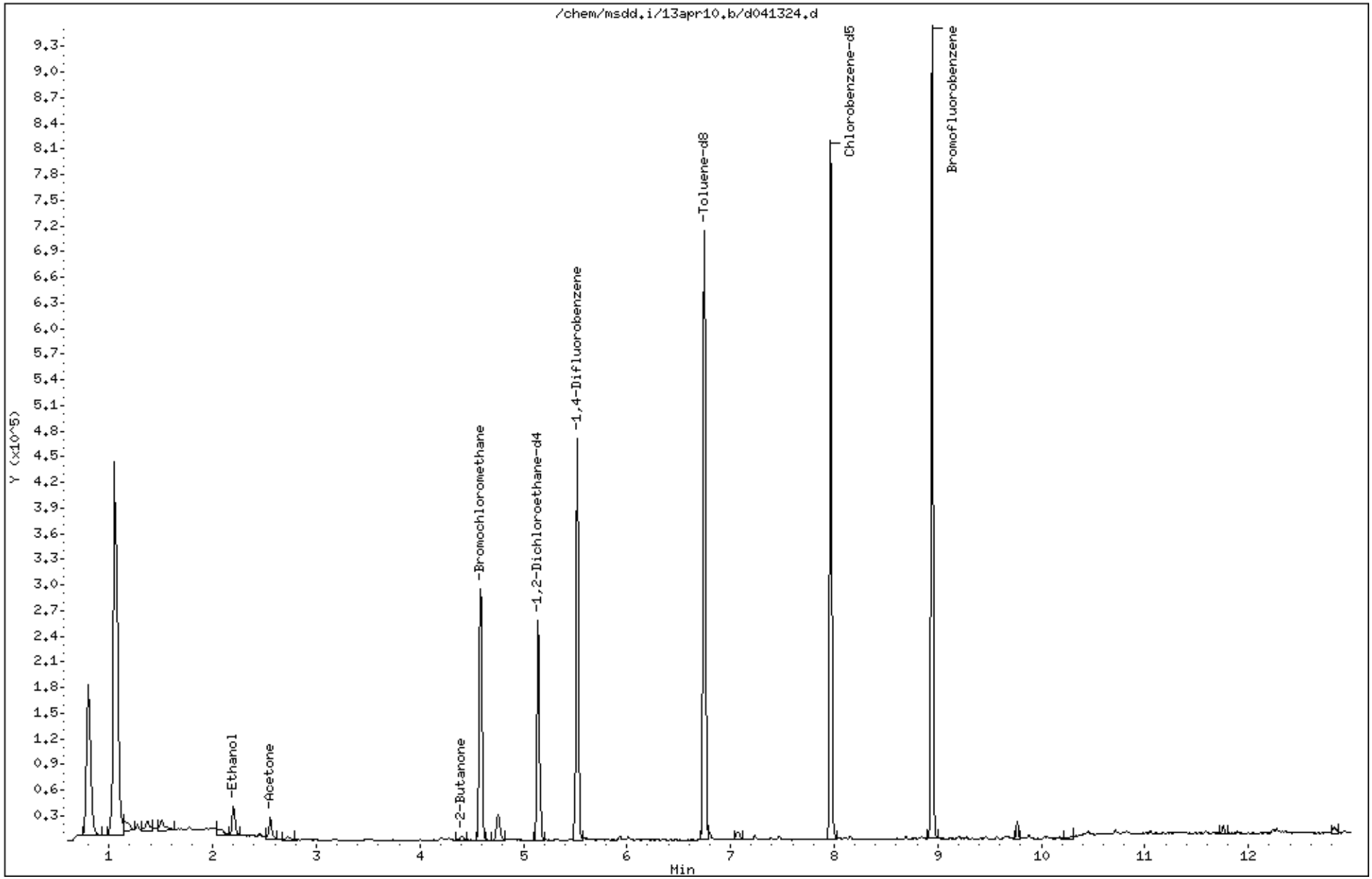
Instrument: msdd.i

Sample Info: 200ml #1521

Operator: ra

Column phase: RTx-624

Column diameter: 0.53



Data File: /chem/msdd.i/13apr10.b/d041324.d

Date : 13-APR-2010 18:58

Client ID:

Instrument: msdd.i

Sample Info: 200ml #1521

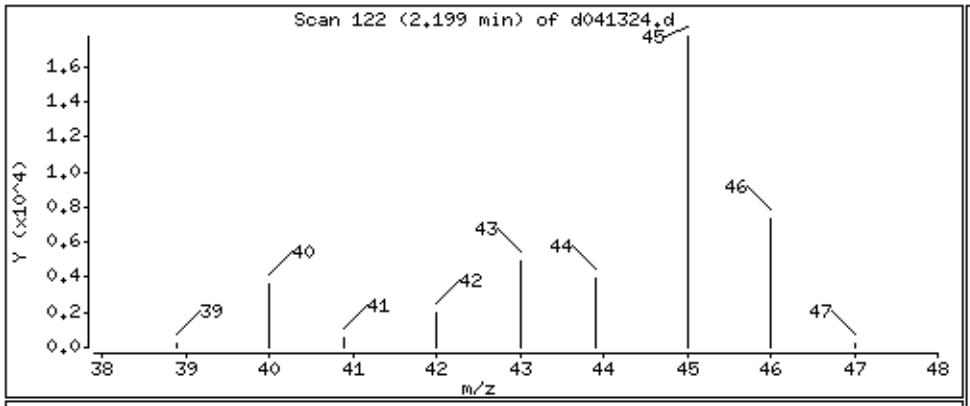
Operator: ra

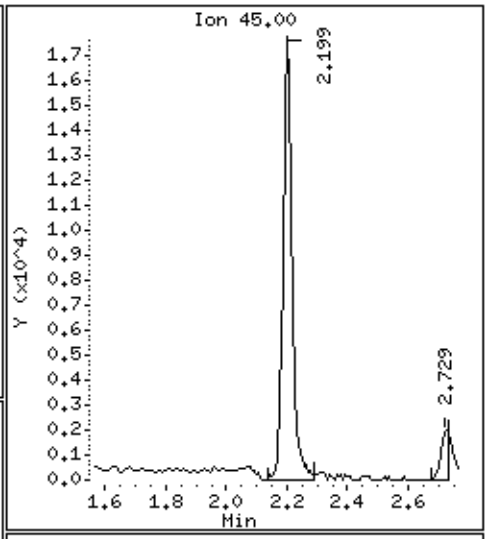
Column phase: RTx-624

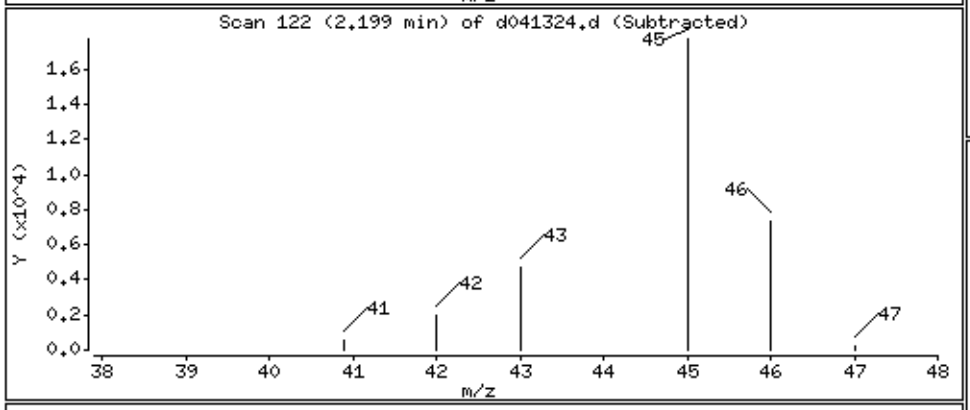
Column diameter: 0.53

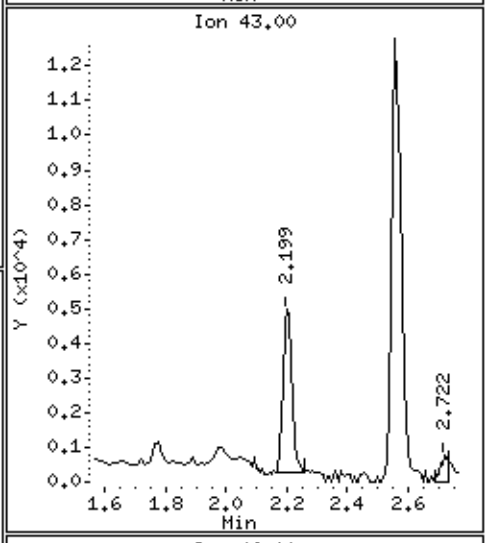
29 Ethanol

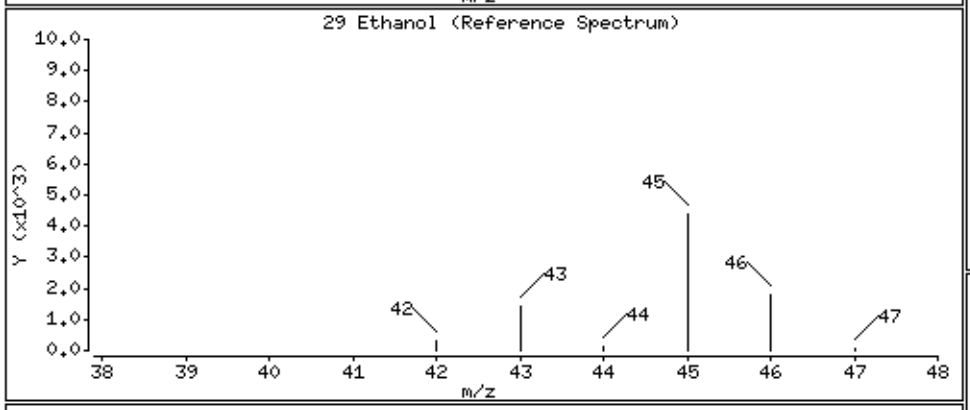
Concentration: 52.465 PPBV

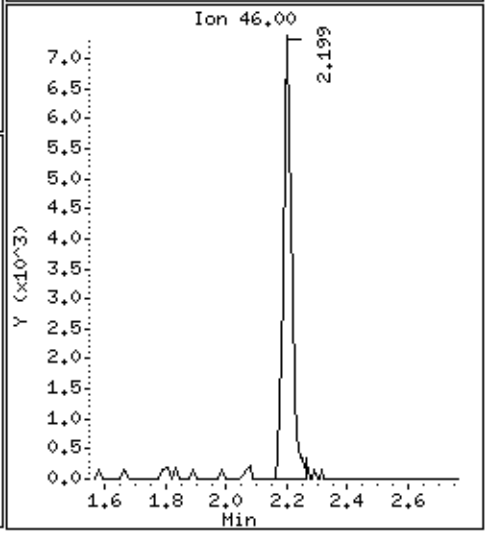


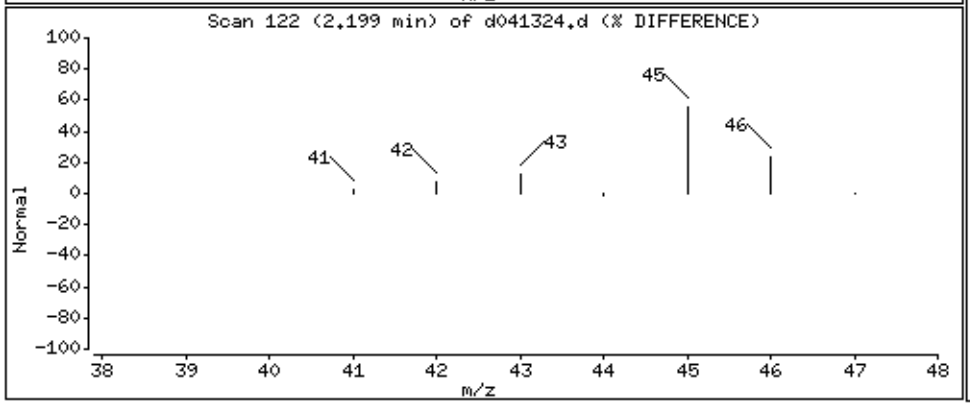



Data File: /chem/msdd.i/13apr10.b/d041324.d

Date : 13-APR-2010 18:58

Client ID:

Instrument: msdd.i

Sample Info: 200ml #1521

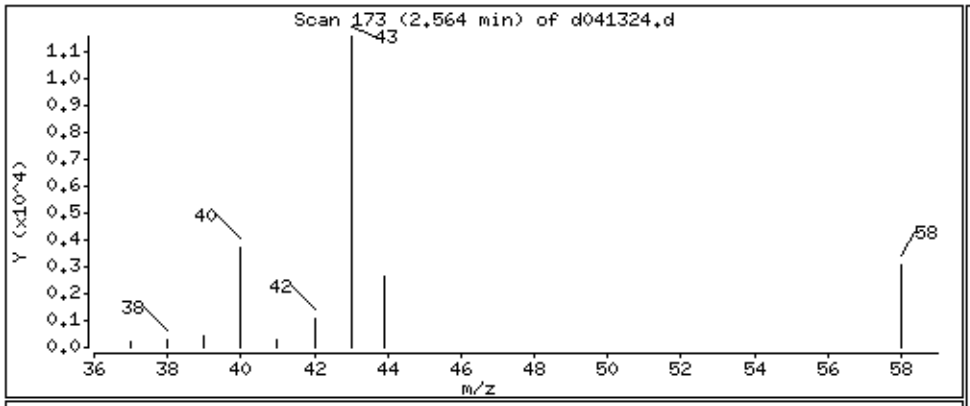
Operator: ra

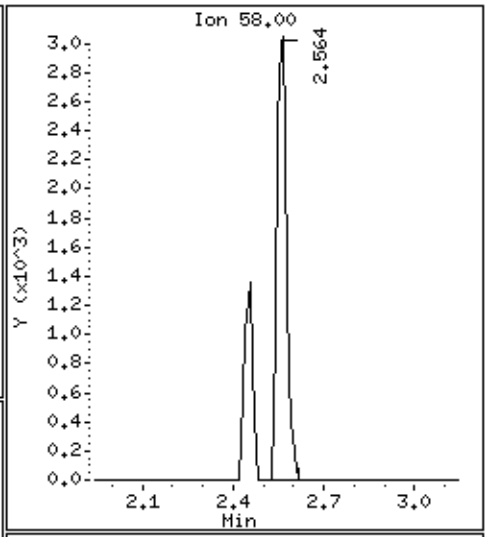
Column phase: RTx-624

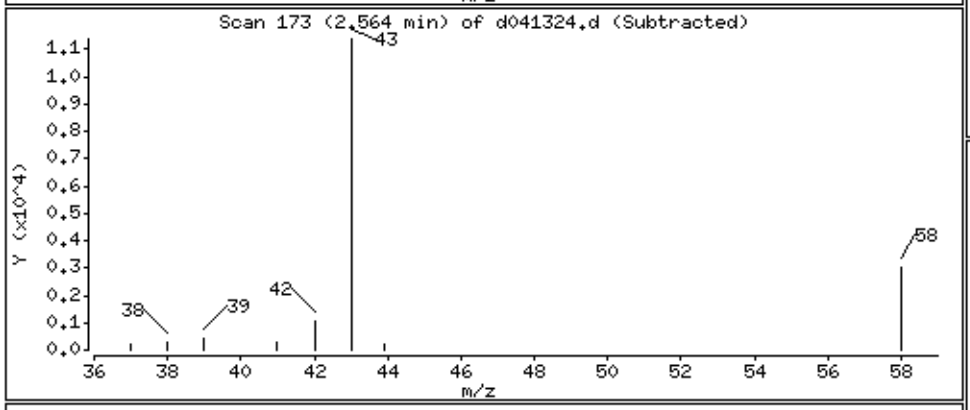
Column diameter: 0.53

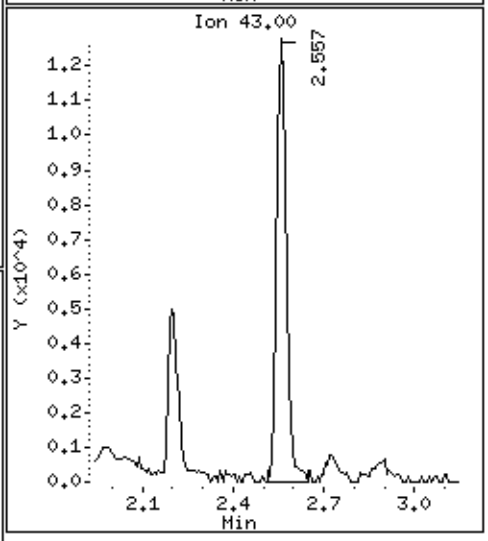
38 Acetone

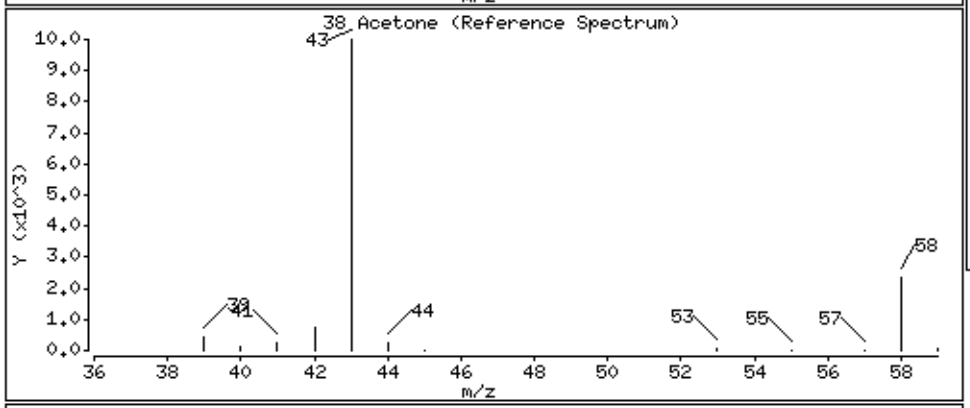
Concentration: 6.976 PPBV

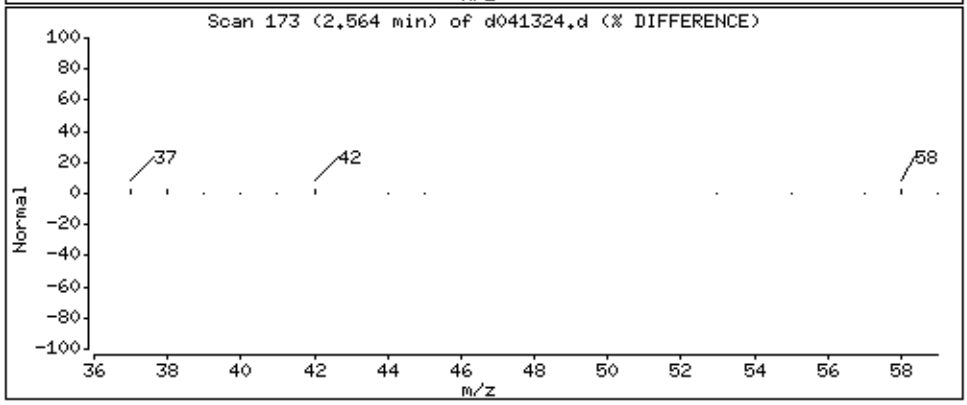


Data File: /chem/msdd.i/13apr10.b/d041324.d

Date : 13-APR-2010 18:58

Client ID:

Instrument: msdd.i

Sample Info: 200ml #1521

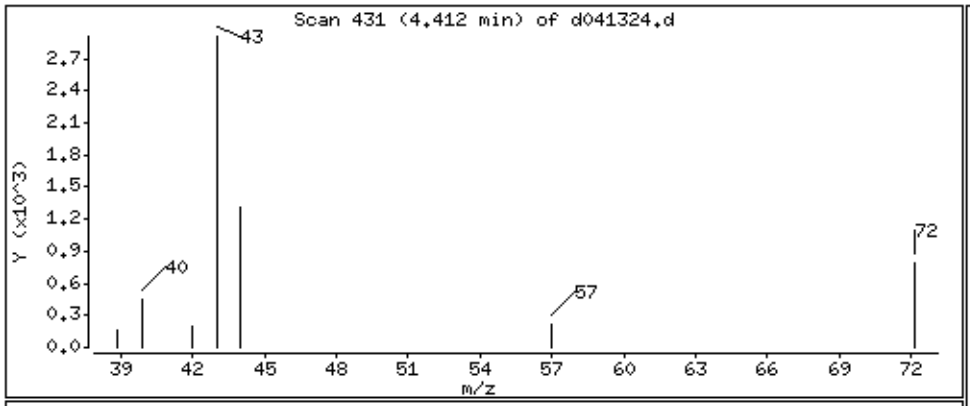
Operator: ra

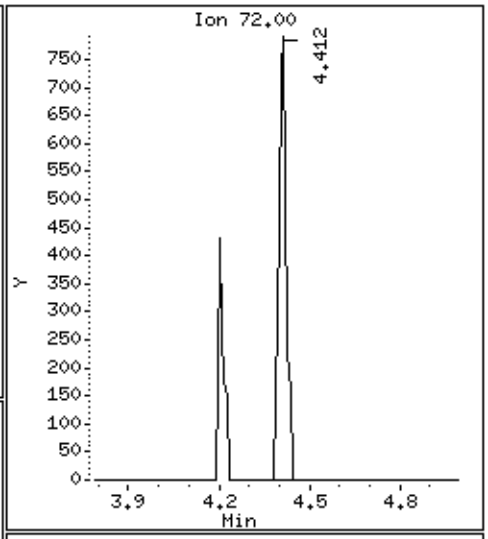
Column phase: RTx-624

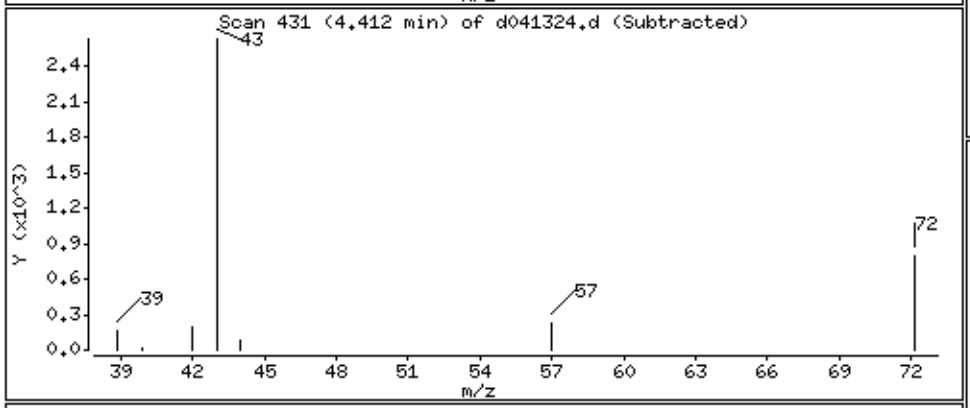
Column diameter: 0.53

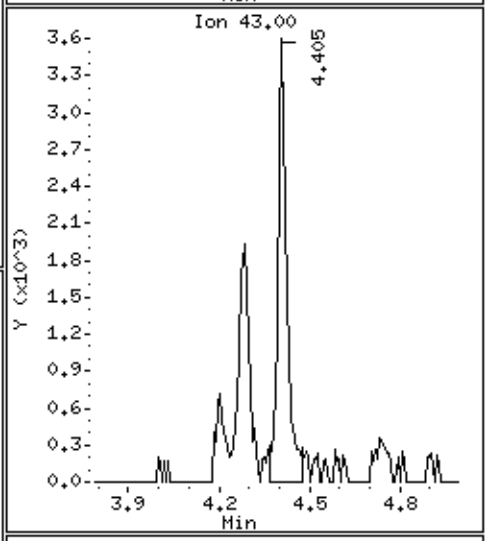
75 2-Butanone

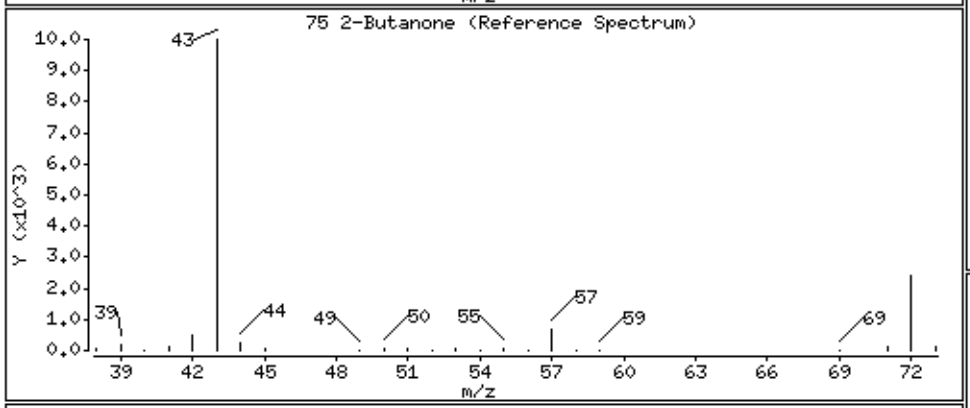
Concentration: 1.370 PPBV

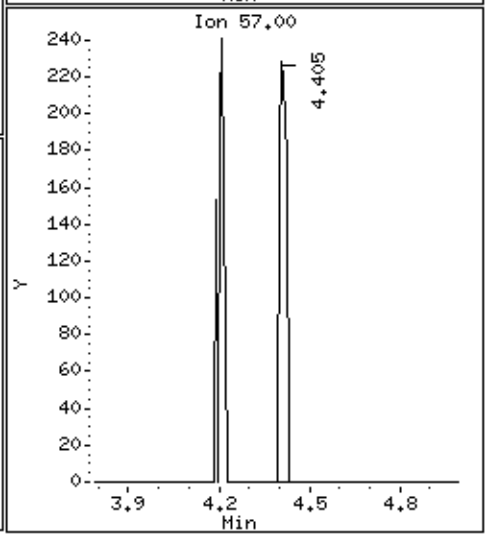


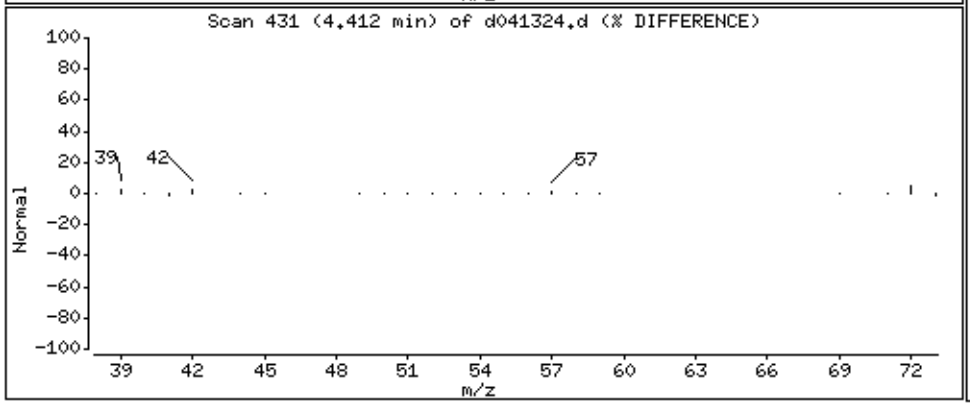



Air Toxics LTD.
Laboratory Services Since 1989

# Summary of Detected Compounds
# MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: DW AMS 2**

**Lab ID#: 1004128-02A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (ug/m3) | Amount (ug/m3) |
|---|---|---|---|---|
| Ethanol | 3.4 | 9.6 | 6.4 | 18 |
| Acetone | 3.4 | 6.3 | 8.1 | 15 |

Air Toxics LTD.
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**Client Sample ID: DW AMS 2**

**Lab ID#: 1004128-02A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **d041325** | **Date of Collection:** | **4/1/10 2:35:00 PM** |
| **Dil. Factor:** | **1.70** | **Date of Analysis:** | **4/13/10 07:20 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (ug/m3) | Amount (ug/m3) |
|---|---|---|---|---|
| Freon 12 | 0.85 | Not Detected | 4.2 | Not Detected |
| Freon 114 | 0.85 | Not Detected | 5.9 | Not Detected |
| Chloromethane | 3.4 | Not Detected | 7.0 | Not Detected |
| Vinyl Chloride | 0.85 | Not Detected | 2.2 | Not Detected |
| 1,3-Butadiene | 0.85 | Not Detected | 1.9 | Not Detected |
| Bromomethane | 0.85 | Not Detected | 3.3 | Not Detected |
| Chloroethane | 0.85 | Not Detected | 2.2 | Not Detected |
| Freon 11 | 0.85 | Not Detected | 4.8 | Not Detected |
| Ethanol | 3.4 | 9.6 | 6.4 | 18 |
| Freon 113 | 0.85 | Not Detected | 6.5 | Not Detected |
| 1,1-Dichloroethene | 0.85 | Not Detected | 3.4 | Not Detected |
| Acetone | 3.4 | 6.3 | 8.1 | 15 |
| 2-Propanol | 3.4 | Not Detected | 8.4 | Not Detected |
| Carbon Disulfide | 0.85 | Not Detected | 2.6 | Not Detected |
| 3-Chloropropene | 3.4 | Not Detected | 11 | Not Detected |
| Methylene Chloride | 0.85 | Not Detected | 3.0 | Not Detected |
| Methyl tert-butyl ether | 0.85 | Not Detected | 3.1 | Not Detected |
| trans-1,2-Dichloroethene | 0.85 | Not Detected | 3.4 | Not Detected |
| Hexane | 0.85 | Not Detected | 3.0 | Not Detected |
| 1,1-Dichloroethane | 0.85 | Not Detected | 3.4 | Not Detected |
| 2-Butanone (Methyl Ethyl Ketone) | 0.85 | Not Detected | 2.5 | Not Detected |
| cis-1,2-Dichloroethene | 0.85 | Not Detected | 3.4 | Not Detected |
| Tetrahydrofuran | 0.85 | Not Detected | 2.5 | Not Detected |
| Chloroform | 0.85 | Not Detected | 4.2 | Not Detected |
| 1,1,1-Trichloroethane | 0.85 | Not Detected | 4.6 | Not Detected |
| Cyclohexane | 0.85 | Not Detected | 2.9 | Not Detected |
| Carbon Tetrachloride | 0.85 | Not Detected | 5.3 | Not Detected |
| 2,2,4-Trimethylpentane | 0.85 | Not Detected | 4.0 | Not Detected |
| Benzene | 0.85 | Not Detected | 2.7 | Not Detected |
| 1,2-Dichloroethane | 0.85 | Not Detected | 3.4 | Not Detected |
| Heptane | 0.85 | Not Detected | 3.5 | Not Detected |
| Trichloroethene | 0.85 | Not Detected | 4.6 | Not Detected |
| 1,2-Dichloropropane | 0.85 | Not Detected | 3.9 | Not Detected |
| 1,4-Dioxane | 3.4 | Not Detected | 12 | Not Detected |
| Bromodichloromethane | 0.85 | Not Detected | 5.7 | Not Detected |
| cis-1,3-Dichloropropene | 0.85 | Not Detected | 3.8 | Not Detected |
| 4-Methyl-2-pentanone | 0.85 | Not Detected | 3.5 | Not Detected |
| Toluene | 0.85 | Not Detected | 3.2 | Not Detected |
| trans-1,3-Dichloropropene | 0.85 | Not Detected | 3.8 | Not Detected |

Air Toxics LTD.
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**Client Sample ID: DW AMS 2**

**Lab ID#: 1004128-02A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **d041325** | **Date of Collection:** | **4/1/10 2:35:00 PM** |
| **Dil. Factor:** | **1.70** | **Date of Analysis:** | **4/13/10 07:20 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (ug/m3) | Amount (ug/m3) |
|---|---|---|---|---|
| 1,1,2-Trichloroethane | 0.85 | Not Detected | 4.6 | Not Detected |
| Tetrachloroethene | 0.85 | Not Detected | 5.8 | Not Detected |
| 2-Hexanone | 3.4 | Not Detected | 14 | Not Detected |
| Dibromochloromethane | 0.85 | Not Detected | 7.2 | Not Detected |
| 1,2-Dibromoethane (EDB) | 0.85 | Not Detected | 6.5 | Not Detected |
| Chlorobenzene | 0.85 | Not Detected | 3.9 | Not Detected |
| Ethyl Benzene | 0.85 | Not Detected | 3.7 | Not Detected |
| m,p-Xylene | 0.85 | Not Detected | 3.7 | Not Detected |
| o-Xylene | 0.85 | Not Detected | 3.7 | Not Detected |
| Styrene | 0.85 | Not Detected | 3.6 | Not Detected |
| Bromoform | 0.85 | Not Detected | 8.8 | Not Detected |
| Cumene | 0.85 | Not Detected | 4.2 | Not Detected |
| 1,1,2,2-Tetrachloroethane | 0.85 | Not Detected | 5.8 | Not Detected |
| Propylbenzene | 0.85 | Not Detected | 4.2 | Not Detected |
| 4-Ethyltoluene | 0.85 | Not Detected | 4.2 | Not Detected |
| 1,3,5-Trimethylbenzene | 0.85 | Not Detected | 4.2 | Not Detected |
| 1,2,4-Trimethylbenzene | 0.85 | Not Detected | 4.2 | Not Detected |
| 1,3-Dichlorobenzene | 0.85 | Not Detected | 5.1 | Not Detected |
| 1,4-Dichlorobenzene | 0.85 | Not Detected | 5.1 | Not Detected |
| alpha-Chlorotoluene | 0.85 | Not Detected | 4.4 | Not Detected |
| 1,2-Dichlorobenzene | 0.85 | Not Detected | 5.1 | Not Detected |
| 1,2,4-Trichlorobenzene | 3.4 | Not Detected | 25 | Not Detected |
| Hexachlorobutadiene | 3.4 | Not Detected | 36 | Not Detected |
| Naphthalene | 3.4 | Not Detected | 18 | Not Detected |

**Container Type: 6 Liter Summa Canister**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| Toluene-d8 | 106 | 70-130 |
| 1,2-Dichloroethane-d4 | 115 | 70-130 |
| 4-Bromofluorobenzene | 97 | 70-130 |

Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msdd.i/13apr10.b/d041325.d
Lab Smp Id: 1004128-02A
Inj Date : 13-APR-2010 19:20
Operator : ra Inst ID: msdd.i
Smp Info : 200ml #34259
Misc Info : 6.4"Hg-5psi
Comment :
Method : /chem/msdd.i/13apr10.b/d10q0331a.m
Meth Date : 13-Apr-2010 08:33 dmendoza Quant Type: ISTD
Cal Date : 31-MAR-2010 15:58 Cal File: d033117.d
Als bottle: 1
Dil Factor: 1.70000
Integrator: HP RTE Compound Sublist: TO15N.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| | | | | CONCENTRATIONS ON-COL | FINAL | | |
|---|---|---|---|---|---|---|---|
| RT | EXP RT (REL RT) | MASS | RESPONSE | ( PPBV) | ( PPBV) | TARGET RANGE | RATIO |
| * 79 Bromochloromethane | | | | | CAS #: 74-97-5 | | |
| 4.591 | 4.591 (1.000) | 130 | 71087 | 25.0000 | | 80.00- 120.00 | 100.00 |
| 4.591 | 4.591 (1.000) | 128 | 54387 | | | 28.36- 128.36 | 76.51 |
| 4.591 | 4.591 (1.000) | 49 | 135224 | | | 141.90- 241.90 | 190.22 |
| * 100 1,4-Difluorobenzene | | | | | CAS #: 540-36-3 | | |
| 5.523 | 5.523 (1.000) | 114 | 278632 | 25.0000 | | 80.00- 120.00 | 100.00 |
| 5.523 | 5.523 (1.000) | 88 | 51845 | | | 0.00- 68.61 | 18.61 |
| * 134 Chlorobenzene-d5 | | | | | CAS #: 3114-55-4 | | |
| 7.972 | 7.965 (1.000) | 117 | 341630 | 25.0000 | | 80.00- 120.00 | 100.00 |
| 7.965 | 7.965 (1.000) | 82 | 219548 | | | 12.92- 112.92 | 64.26 |
| $ 91 1,2-Dichloroethane-d4 | | | | | CAS #: 17060-07-0 | | |
| 5.143 | 5.143 (1.120) | 65 | 166160 | 28.8253 | 28.825 | 80.00- 120.00 | 100.00 |
| 5.143 | 5.143 (1.120) | 67 | 77849 | | | 2.15- 102.15 | 46.85 |
| $ 114 Toluene-d8 | | | | | CAS #: 2037-26-5 | | |
| 6.747 | 6.747 (1.222) | 98 | 367372 | 26.5816 | 26.582 | 80.00- 120.00 | 100.00 |
| 6.747 | 6.747 (1.222) | 70 | 47624 | | | 0.00- 62.20 | 12.96 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 114 Toluene-d8 (continued) | | | | | | | |
| 6.747 | 6.747 (1.222) | 100 | 238590 | | | 15.58- 115.58 | 64.95 |
| $ 149 Bromofluorobenzene | | | | | CAS #: 460-00-4 | | |
| 8.946 | 8.947 (1.122) | 174 | 169210 | 24.2250 | 24.225 | 80.00- 120.00 | 100.00 |
| 8.946 | 8.939 (1.122) | 95 | 282865 | | | 114.89- 214.89 | 167.17 |
| 8.946 | 8.947 (1.122) | 176 | 162974 | | | 45.24- 145.24 | 96.31 |
| 29 Ethanol | | | | | CAS #: 64-17-5 | | |
| 2.192 | 2.163 (0.477) | 45 | 6674 | 5.65563 | 9.614 | 80.00- 120.00 | 100.00 |
| 2.199 | 2.163 (0.479) | 43 | 2335 | | | 0.00- 76.61 | 34.99 |
| 2.199 | 2.163 (0.479) | 46 | 2337 | | | 0.00- 88.16 | 35.02 |
| 38 Acetone | | | | | CAS #: 67-64-1 | | |
| 2.557 | 2.543 (0.557) | 58 | 5634 | 3.72280 | 6.329 | 80.00- 120.00 | 100.00 |
| 2.557 | 2.543 (0.557) | 43 | 25851 | | | 327.54- 427.54 | 458.84 |

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdd.i
Lab File ID: d041325.d
Lab Smp Id: 1004128-02A
Analysis Type: VOA
Quant Type: ISTD
Operator: ra
Method File: /chem/msdd.i/13apr10.b/d10q0331a.m
Misc Info: 6.4"Hg-5psi

Calibration Date: 13-APR-2010
Calibration Time: 07:41
Level: LOW
Sample Type: AIR

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 5

| | | AREA LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 79 Bromochloromethan | 78422 | 47053 | 109791 | 71087 | -9.35 |
| 100 1,4-Difluorobenze | 332647 | 199588 | 465706 | 278632 | -16.24 |
| 134 Chlorobenzene-d5 | 374720 | 224832 | 524608 | 341630 | -8.83 |

| | | RT LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 79 Bromochloromethan | 4.59 | 4.26 | 4.92 | 4.59 | 0.00 |
| 100 1,4-Difluorobenze | 5.52 | 5.19 | 5.85 | 5.52 | 0.00 |
| 134 Chlorobenzene-d5 | 7.97 | 7.64 | 8.30 | 7.97 | 0.09 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: 13apr10
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1004128-02A
Level: LOW Operator: ra
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: 2926spectra.spk Quant Type: ISTD
Sublist File: TO15N.sub
Method File: /chem/msdd.i/13apr10.b/d10q0331a.m
Misc Info: 6.4"Hg-5psi

| SURROGATE COMPOUND | CONC ADDED PPBV | CONC RECOVERED PPBV | % RECOVERED | LIMITS |
|---|---|---|---|---|
| $ 91 1,2-Dichloroethane | 25.000 | 28.825 | 115.30 | 70-130 |
| $ 114 Toluene-d8 | 25.000 | 26.582 | 106.33 | 70-130 |
| $ 149 Bromofluorobenzene | 25.000 | 24.225 | 96.90 | 70-130 |

Data File: /chem/msdd.i/13apr10.b/d041325.d

Page 1

Date : 13-APR-2010 19:20

Client ID:

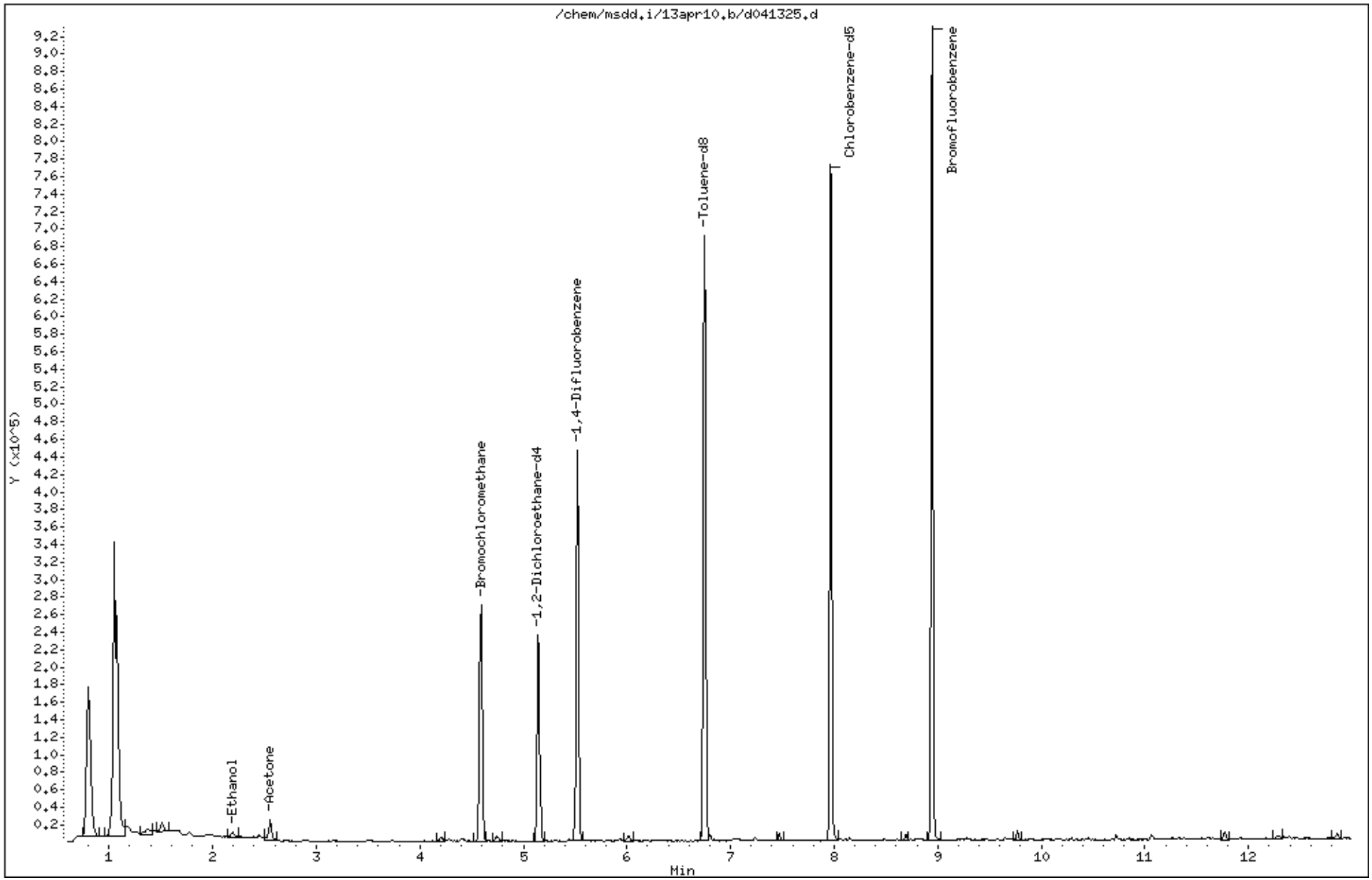
Instrument: msdd.i

Sample Info: 200ml #34259

Operator: ra

Column phase: RTx-624

Column diameter: 0.53



Data File: /chem/msdd.i/13apr10.b/d041325.d

Date : 13-APR-2010 19:20

Client ID:

Instrument: msdd.i

Sample Info: 200ml #34259

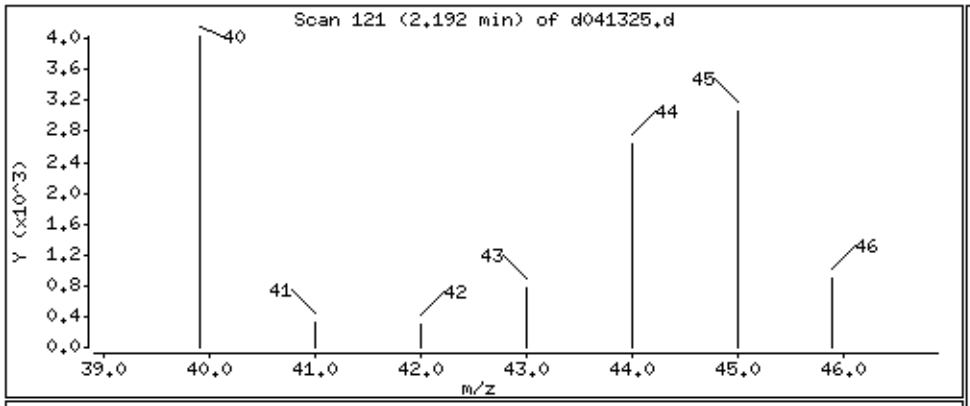
Operator: ra

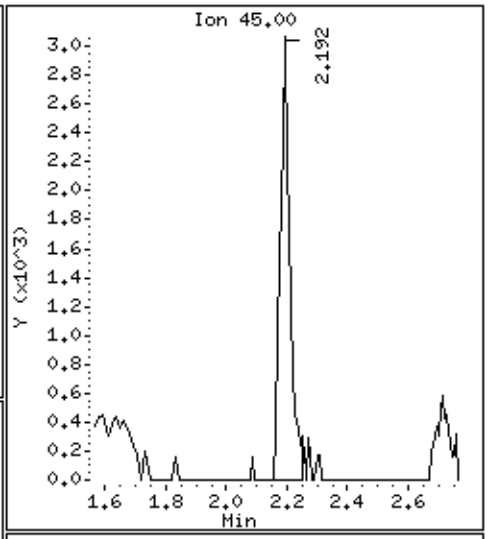
Column phase: RTx-624

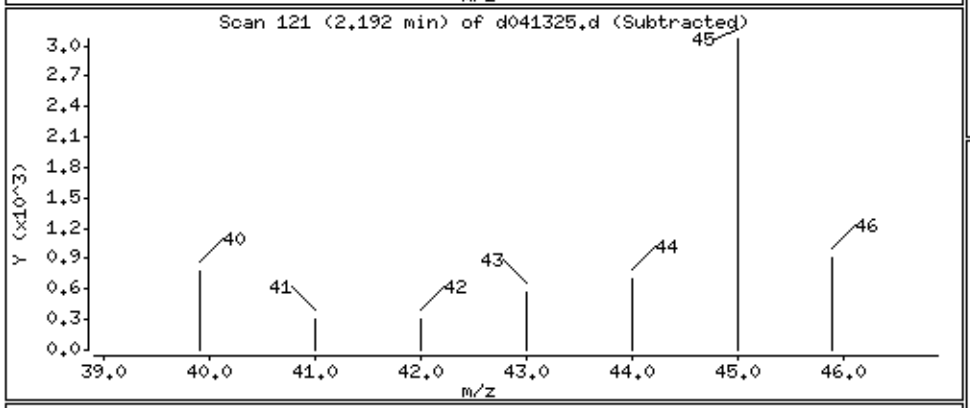
Column diameter: 0.53

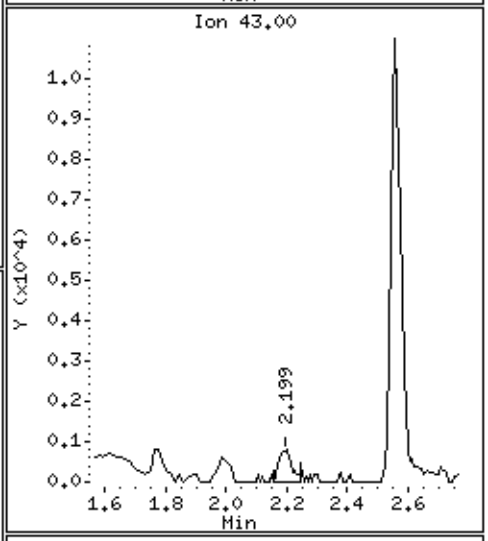
29 Ethanol

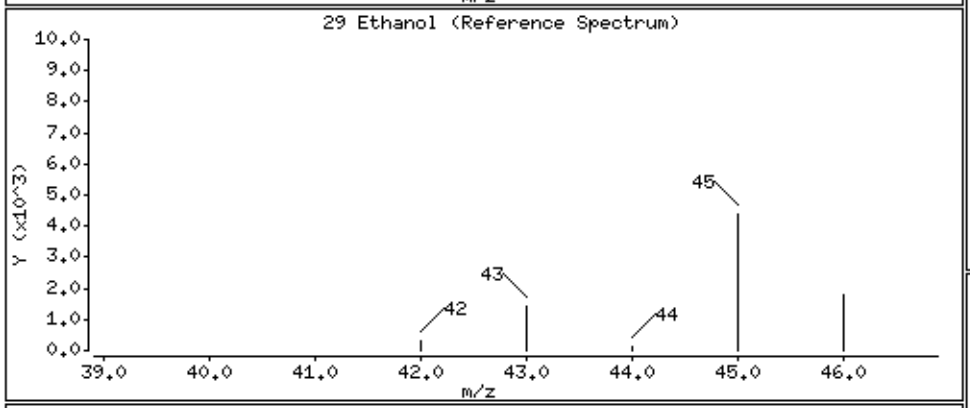
Concentration: 9.614 PPBV

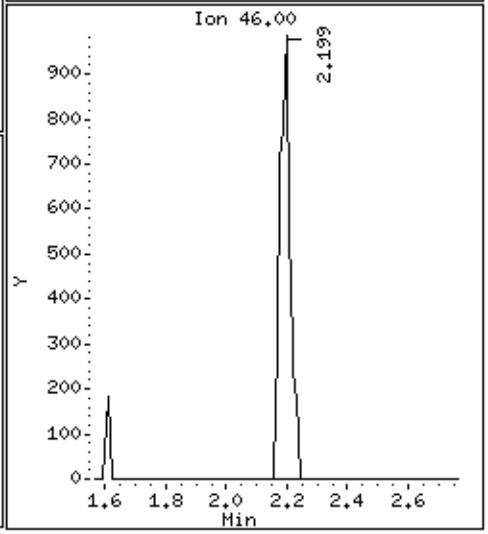


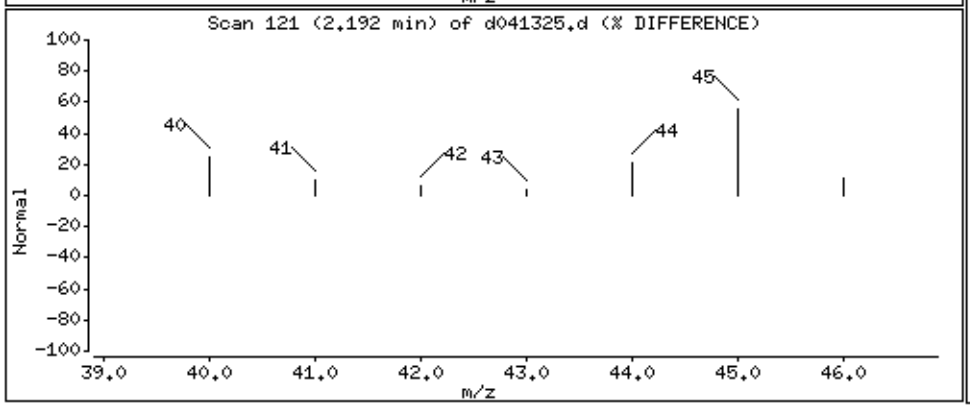



Data File: /chem/msdd.i/13apr10.b/d041325.d

Date : 13-APR-2010 19:20

Client ID:

Instrument: msdd.i

Sample Info: 200ml #34259

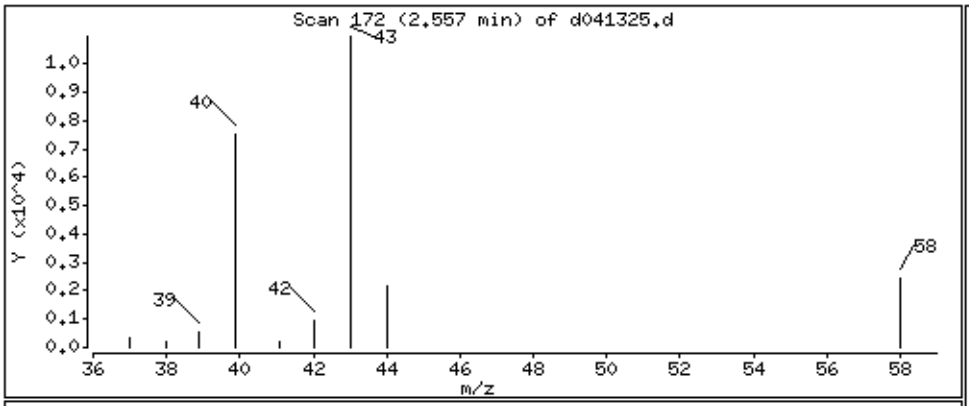
Operator: ra

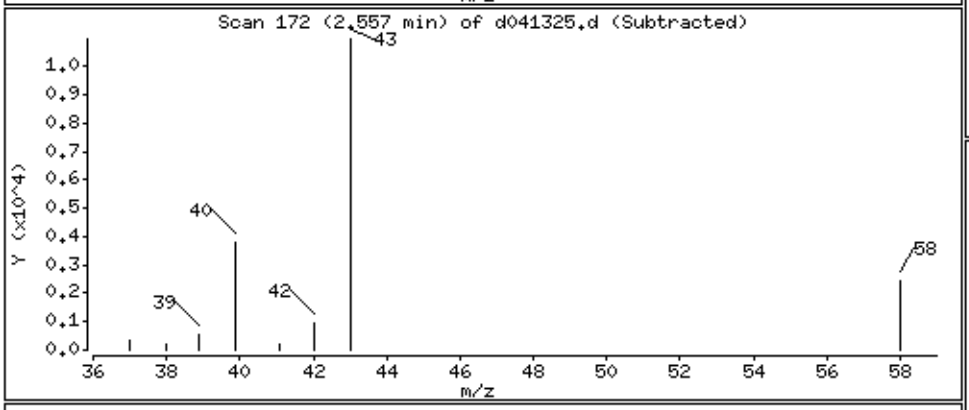
Column phase: RTx-624

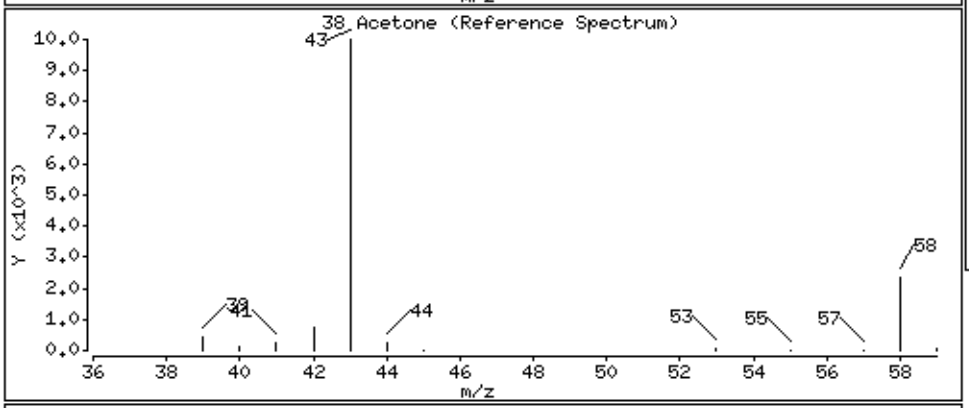
Column diameter: 0.53

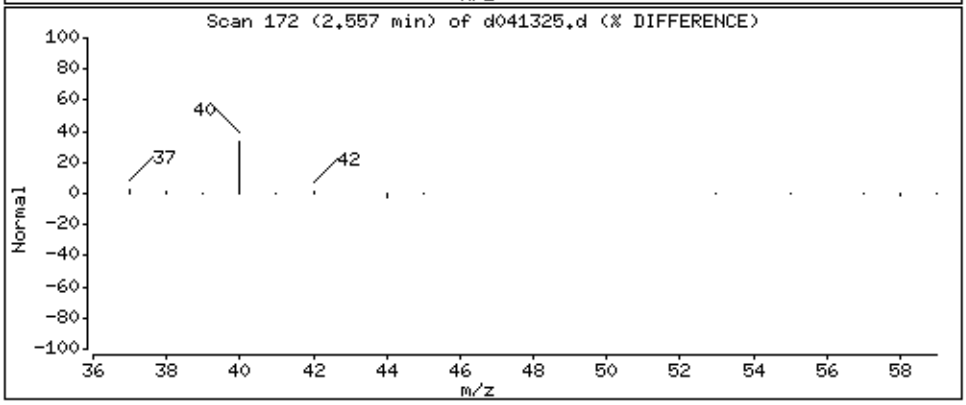
38 Acetone

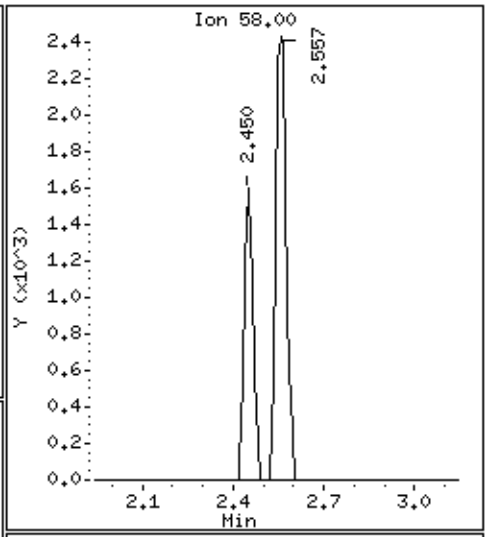
Concentration: 6.329 PPBV

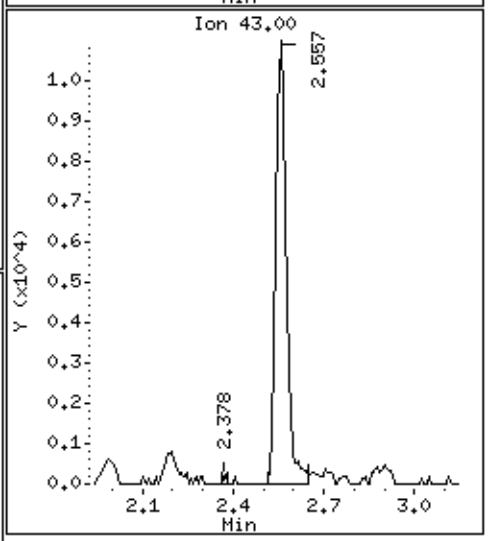


# QC Results and Raw Data

Air Toxics LTD.
Laboratory Services Since 1989

**Client Sample ID: Lab Blank**

**Lab ID#: 1004128-03A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **d041306** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 4/13/10 10:54 AM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (ug/m3) | Amount (ug/m3) |
|---|---|---|---|---|
| Freon 12 | 0.50 | Not Detected | 2.5 | Not Detected |
| Freon 114 | 0.50 | Not Detected | 3.5 | Not Detected |
| Chloromethane | 2.0 | Not Detected | 4.1 | Not Detected |
| Vinyl Chloride | 0.50 | Not Detected | 1.3 | Not Detected |
| 1,3-Butadiene | 0.50 | Not Detected | 1.1 | Not Detected |
| Bromomethane | 0.50 | Not Detected | 1.9 | Not Detected |
| Chloroethane | 0.50 | Not Detected | 1.3 | Not Detected |
| Freon 11 | 0.50 | Not Detected | 2.8 | Not Detected |
| Ethanol | 2.0 | Not Detected | 3.8 | Not Detected |
| Freon 113 | 0.50 | Not Detected | 3.8 | Not Detected |
| 1,1-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| Acetone | 2.0 | Not Detected | 4.8 | Not Detected |
| 2-Propanol | 2.0 | Not Detected | 4.9 | Not Detected |
| Carbon Disulfide | 0.50 | 0.53 | 1.6 | 1.7 |
| 3-Chloropropene | 2.0 | Not Detected | 6.3 | Not Detected |
| Methylene Chloride | 0.50 | Not Detected | 1.7 | Not Detected |
| Methyl tert-butyl ether | 0.50 | Not Detected | 1.8 | Not Detected |
| trans-1,2-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| Hexane | 0.50 | Not Detected | 1.8 | Not Detected |
| 1,1-Dichloroethane | 0.50 | Not Detected | 2.0 | Not Detected |
| 2-Butanone (Methyl Ethyl Ketone) | 0.50 | Not Detected | 1.5 | Not Detected |
| cis-1,2-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| Tetrahydrofuran | 0.50 | Not Detected | 1.5 | Not Detected |
| Chloroform | 0.50 | Not Detected | 2.4 | Not Detected |
| 1,1,1-Trichloroethane | 0.50 | Not Detected | 2.7 | Not Detected |
| Cyclohexane | 0.50 | Not Detected | 1.7 | Not Detected |
| Carbon Tetrachloride | 0.50 | Not Detected | 3.1 | Not Detected |
| 2,2,4-Trimethylpentane | 0.50 | Not Detected | 2.3 | Not Detected |
| Benzene | 0.50 | Not Detected | 1.6 | Not Detected |
| 1,2-Dichloroethane | 0.50 | Not Detected | 2.0 | Not Detected |
| Heptane | 0.50 | Not Detected | 2.0 | Not Detected |
| Trichloroethene | 0.50 | Not Detected | 2.7 | Not Detected |
| 1,2-Dichloropropane | 0.50 | Not Detected | 2.3 | Not Detected |
| 1,4-Dioxane | 2.0 | Not Detected | 7.2 | Not Detected |
| Bromodichloromethane | 0.50 | Not Detected | 3.4 | Not Detected |
| cis-1,3-Dichloropropene | 0.50 | Not Detected | 2.3 | Not Detected |
| 4-Methyl-2-pentanone | 0.50 | Not Detected | 2.0 | Not Detected |
| Toluene | 0.50 | Not Detected | 1.9 | Not Detected |
| trans-1,3-Dichloropropene | 0.50 | Not Detected | 2.3 | Not Detected |

Air Toxics LTD.
Laboratory Services Since 1989

**Client Sample ID: Lab Blank**

**Lab ID#: 1004128-03A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **d041306** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 4/13/10 10:54 AM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (ug/m3) | Amount (ug/m3) |
|---|---|---|---|---|
| 1,1,2-Trichloroethane | 0.50 | Not Detected | 2.7 | Not Detected |
| Tetrachloroethene | 0.50 | Not Detected | 3.4 | Not Detected |
| 2-Hexanone | 2.0 | Not Detected | 8.2 | Not Detected |
| Dibromochloromethane | 0.50 | Not Detected | 4.2 | Not Detected |
| 1,2-Dibromoethane (EDB) | 0.50 | Not Detected | 3.8 | Not Detected |
| Chlorobenzene | 0.50 | Not Detected | 2.3 | Not Detected |
| Ethyl Benzene | 0.50 | Not Detected | 2.2 | Not Detected |
| m,p-Xylene | 0.50 | Not Detected | 2.2 | Not Detected |
| o-Xylene | 0.50 | Not Detected | 2.2 | Not Detected |
| Styrene | 0.50 | Not Detected | 2.1 | Not Detected |
| Bromoform | 0.50 | Not Detected | 5.2 | Not Detected |
| Cumene | 0.50 | Not Detected | 2.4 | Not Detected |
| 1,1,2,2-Tetrachloroethane | 0.50 | Not Detected | 3.4 | Not Detected |
| Propylbenzene | 0.50 | Not Detected | 2.4 | Not Detected |
| 4-Ethyltoluene | 0.50 | Not Detected | 2.4 | Not Detected |
| 1,3,5-Trimethylbenzene | 0.50 | Not Detected | 2.4 | Not Detected |
| 1,2,4-Trimethylbenzene | 0.50 | Not Detected | 2.4 | Not Detected |
| 1,3-Dichlorobenzene | 0.50 | Not Detected | 3.0 | Not Detected |
| 1,4-Dichlorobenzene | 0.50 | Not Detected | 3.0 | Not Detected |
| alpha-Chlorotoluene | 0.50 | Not Detected | 2.6 | Not Detected |
| 1,2-Dichlorobenzene | 0.50 | Not Detected | 3.0 | Not Detected |
| 1,2,4-Trichlorobenzene | 2.0 | Not Detected | 15 | Not Detected |
| Hexachlorobutadiene | 2.0 | Not Detected | 21 | Not Detected |
| Naphthalene | 2.0 | Not Detected | 10 | Not Detected |

**Container Type: NA - Not Applicable**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| Toluene-d8 | 105 | 70-130 |
| 1,2-Dichloroethane-d4 | 113 | 70-130 |
| 4-Bromofluorobenzene | 97 | 70-130 |

Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msdd.i/13apr10.b/d041306.d
Lab Smp Id: Lab Blank
Inj Date : 13-APR-2010 10:54
Operator : ll Inst ID: msdd.i
Smp Info : 200ml #24217
Misc Info :
Comment :
Method : /chem/msdd.i/13apr10.b/d10q0331a.m
Meth Date : 13-Apr-2010 08:33 dmendoza Quant Type: ISTD
Cal Date : 31-MAR-2010 15:58 Cal File: d033117.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT09.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| | | | | CONCENTRATIONS ON-COL | CONCENTRATIONS FINAL | | |
|---|---|---|---|---|---|---|---|
| RT | EXP RT (REL RT) | MASS | RESPONSE | ( PPBV) | ( PPBV) | TARGET RANGE | RATIO |
| * 79 Bromochloromethane | | | | | CAS #: 74-97-5 | | |
| 4.591 | 4.591 (1.000) | 130 | 76092 | 25.0000 | | 80.00- 120.00 | 100.00 |
| 4.591 | 4.591 (1.000) | 128 | 58841 | | | 28.36- 128.36 | 77.33 |
| 4.591 | 4.591 (1.000) | 49 | 144288 | | | 141.90- 241.90 | 189.62 |
| * 100 1,4-Difluorobenzene | | | | | CAS #: 540-36-3 | | |
| 5.523 | 5.523 (1.000) | 114 | 319508 | 25.0000 | | 80.00- 120.00 | 100.00 |
| 5.523 | 5.523 (1.000) | 88 | 59775 | | | 0.00- 68.61 | 18.71 |
| * 134 Chlorobenzene-d5 | | | | | CAS #: 3114-55-4 | | |
| 7.965 | 7.965 (1.000) | 117 | 388685 | 25.0000 | | 80.00- 120.00 | 100.00 |
| 7.965 | 7.965 (1.000) | 82 | 245351 | | | 12.92- 112.92 | 63.12 |
| $ 91 1,2-Dichloroethane-d4 | | | | | CAS #: 17060-07-0 | | |
| 5.150 | 5.143 (1.122) | 65 | 174634 | 28.3026 | 28.303 | 80.00- 120.00 | 100.00 |
| 5.150 | 5.143 (1.122) | 67 | 83561 | | | 2.15- 102.15 | 47.85 |
| $ 114 Toluene-d8 | | | | | CAS #: 2037-26-5 | | |
| 6.747 | 6.747 (1.222) | 98 | 415488 | 26.2170 | 26.217 | 80.00- 120.00 | 100.00 |
| 6.747 | 6.747 (1.222) | 70 | 53052 | | | 0.00- 62.20 | 12.77 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 114 Toluene-d8 (continued) | | | | | | | |
| 6.747 | 6.747 (1.222) | 100 | 267040 | | | 15.58- 115.58 | 64.27 |
| $ 149 Bromofluorobenzene | | | | | CAS #: 460-00-4 | | |
| 8.946 | 8.947 (1.123) | 174 | 192673 | 24.2447 | 24.245 | 80.00- 120.00 | 100.00 |
| 8.946 | 8.939 (1.123) | 95 | 319597 | | | 114.89- 214.89 | 165.88 |
| 8.946 | 8.947 (1.123) | 176 | 183019 | | | 45.24- 145.24 | 94.99 |
| 40 Carbon Disulfide | | | | | CAS #: 75-15-0 | | |
| 2.629 | 2.622 (0.573) | 76 | 5253 | 0.53343 | 0.5334 | 80.00- 120.00 | 100.00 |

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdd.i
Lab File ID: d041306.d
Lab Smp Id: Lab Blank
Analysis Type: VOA
Quant Type: ISTD
Operator: ll
Method File: /chem/msdd.i/13apr10.b/d10q0331a.m
Misc Info:

Calibration Date: 13-APR-2010
Calibration Time: 07:41
Level: LOW
Sample Type: AIR

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 5

| | | AREA LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 79 Bromochloromethan | 78422 | 47053 | 109791 | 76092 | -2.97 |
| 100 1,4-Difluorobenze | 332647 | 199588 | 465706 | 319508 | -3.95 |
| 134 Chlorobenzene-d5 | 374720 | 224832 | 524608 | 388685 | 3.73 |

| | | RT LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 79 Bromochloromethan | 4.59 | 4.26 | 4.92 | 4.59 | 0.00 |
| 100 1,4-Difluorobenze | 5.52 | 5.19 | 5.85 | 5.52 | 0.00 |
| 134 Chlorobenzene-d5 | 7.97 | 7.64 | 8.30 | 7.97 | 0.00 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Report Date: 13-Apr-2010 11:14

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: 13apr10
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: Lab Blank
Level: LOW Operator: ll
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: 2926spectra.spk Quant Type: ISTD
Sublist File: AT09.sub
Method File: /chem/msdd.i/13apr10.b/d10q0331a.m
Misc Info:

| SURROGATE COMPOUND | CONC ADDED PPBV | CONC RECOVERED PPBV | % RECOVERED | LIMITS |
|---|---|---|---|---|
| $ 91 1,2-Dichloroethane | 25.000 | 28.303 | 113.21 | 70-130 |
| $ 114 Toluene-d8 | 25.000 | 26.217 | 104.87 | 70-130 |
| $ 149 Bromofluorobenzene | 25.000 | 24.245 | 96.98 | 70-130 |

Data File: /chem/msdd.i/13apr10.b/d041306.d

Date : 13-APR-2010 10:54

Client ID:

Sample Info: 200ml #24217

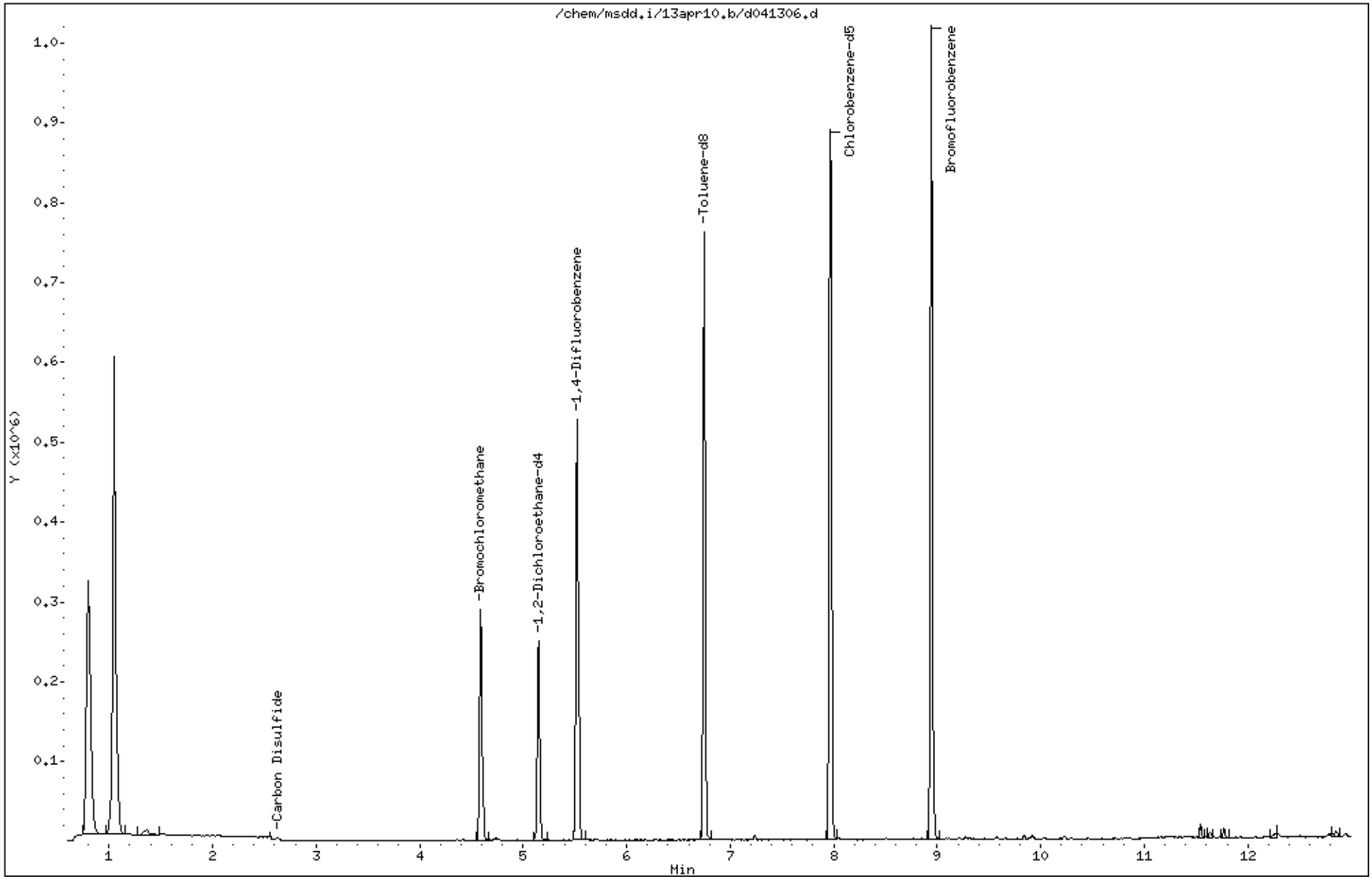
Column phase: RTx-624

Instrument: msdd.i

Operator: ll

Column diameter: 0.53





Data File: /chem/msdd.i/13apr10.b/d041306.d

Date : 13-APR-2010 10:54

Client ID:

Instrument: msdd.i

Sample Info: 200ml #24217

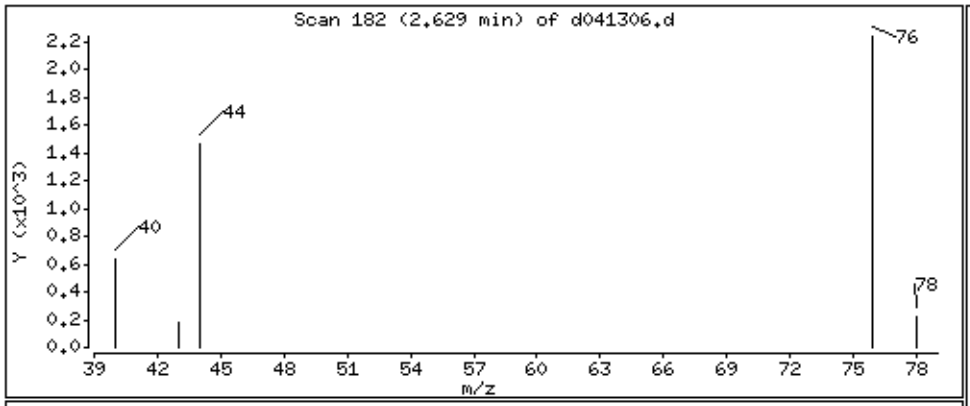
Operator: 11

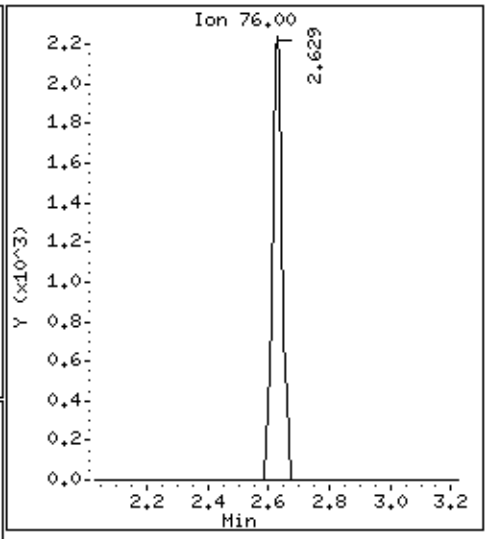
Column phase: RTx-624

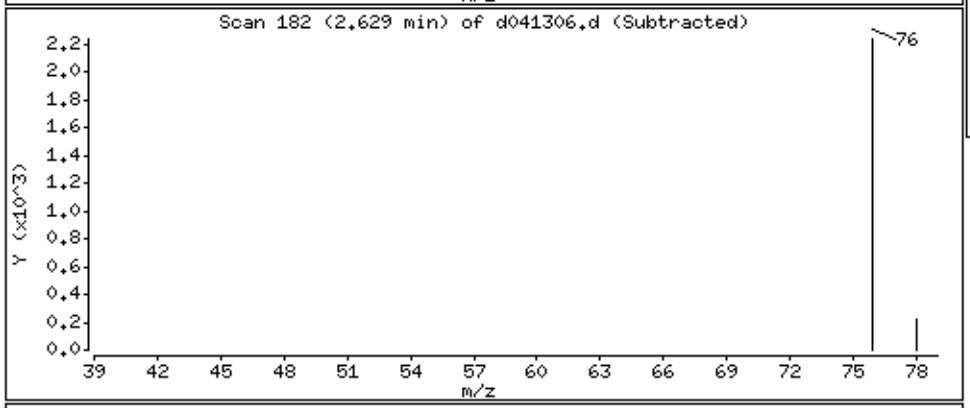
Column diameter: 0.53

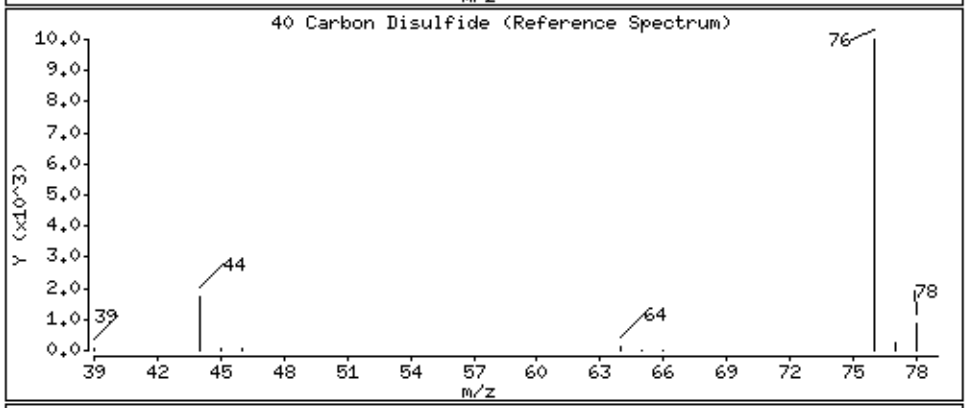
40 Carbon Disulfide

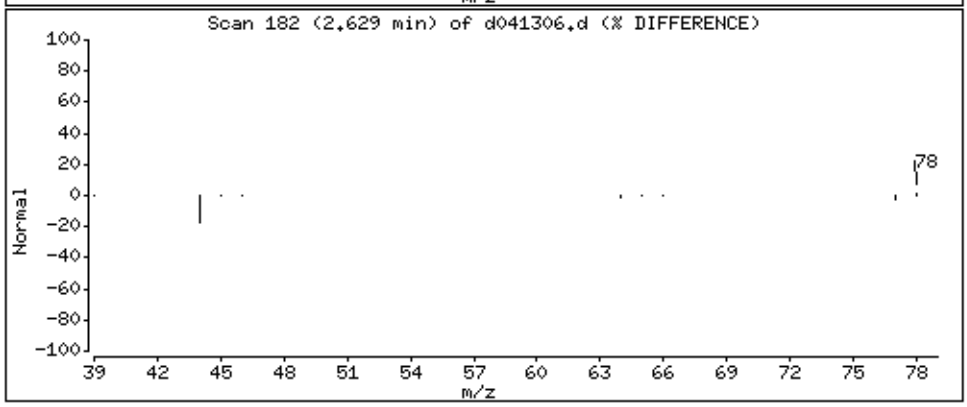
Concentration: 0.5334 PPBV



# LEVEL-IV VALIDATABLE

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

SURROGATE RECOVERY FORM

Lab Name: AIR TOXICS LIMITED. SDG No.: 1004128

| | CLIENT SAMPLE NO. | SURROGATE % RECOVERY | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 1,2-Dichloroethane-d4 | # | Toluene-d8 | # | 4-Bromofluorobenzene | # | | # | TOTAL OUT |
| 01 | UW AMS 4 | 118 | | 104 | | 97 | | | | 0 |
| 02 | DW AMS 2 | 115 | | 106 | | 97 | | | | 0 |
| 03 | Lab Blank | 113 | | 105 | | 97 | | | | 0 |
| 04 | CCV | 116 | | 105 | | 96 | | | | 0 |
| 05 | LCS | 115 | | 103 | | 96 | | | | 0 |
| 06 | | | | | | | | | | 0 |
| 07 | | | | | | | | | | 0 |
| 08 | | | | | | | | | | 0 |
| 09 | | | | | | | | | | 0 |
| 10 | | | | | | | | | | 0 |
| 11 | | | | | | | | | | 0 |
| 12 | | | | | | | | | | 0 |
| 13 | | | | | | | | | | 0 |
| 14 | | | | | | | | | | 0 |
| 15 | | | | | | | | | | 0 |
| 16 | | | | | | | | | | 0 |
| 17 | | | | | | | | | | 0 |
| 18 | | | | | | | | | | 0 |
| 19 | | | | | | | | | | 0 |
| 20 | | | | | | | | | | 0 |
| 21 | | | | | | | | | | 0 |
| 22 | | | | | | | | | | 0 |
| 23 | | | | | | | | | | 0 |
| 24 | | | | | | | | | | 0 |

Surrogate Recovery Limits

1,2-Dichloroethane-d4 70 - 130
Toluene-d8 70 - 130
4-Bromofluorobenzene 70 - 130

* Designates values outside of QC limits

# LEVEL-IV VALIDATABLE

Modified EPA Method TO-15 GC/MS Full Scan

INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: AIR TOXICS, LTD
SDG No: 1004128
Lab File ID: d041302.d
Date Analyzed: 04/13/2010
Instrument ID: msdd.i
Time Analyzed: 07:41 AM

| | | Chlorobenzene-d5 Area | # | RT | # | 1,4-Difluorobenzene Area | # | RT | # | Bromochloromethane Area | # | RT | # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 24-HOUR STD | 374720 | | 7.97 | | 332647 | | 5.52 | | 78422 | | 4.59 | |
| | UPPER LIMIT | 524608 | | 08.30 | | 465706 | | 05.85 | | 109791 | | 04.92 | |
| | LOWER LIMIT | 224832 | | 07.64 | | 199588 | | 05.19 | | 47053 | | 04.26 | |
| | CLIENT SAMPLE NO | | | | | | | | | | | | |
| 01 | UW AMS 4 | 350754 | | 7.97 | | 290249 | | 5.52 | | 74292 | | 4.59 | |
| 02 | DW AMS 2 | 341630 | | 7.97 | | 278632 | | 5.52 | | 71087 | | 4.59 | |
| 03 | Lab Blank | 388685 | | 7.97 | | 319508 | | 5.52 | | 76092 | | 4.59 | |
| 04 | CCV | 374720 | | 7.97 | | 332647 | | 5.52 | | 78422 | | 4.59 | |
| 05 | LCS | 398656 | | 7.97 | | 352919 | | 5.52 | | 82128 | | 4.59 | |
| 06 | | | | | | | | | | | | | |
| 07 | | | | | | | | | | | | | |
| 08 | | | | | | | | | | | | | |
| 09 | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | |
| 13 | | | | | | | | | | | | | |
| 14 | | | | | | | | | | | | | |
| 15 | | | | | | | | | | | | | |
| 16 | | | | | | | | | | | | | |
| 17 | | | | | | | | | | | | | |
| 18 | | | | | | | | | | | | | |
| 19 | | | | | | | | | | | | | |
| 20 | | | | | | | | | | | | | |
| 21 | | | | | | | | | | | | | |
| 22 | | | | | | | | | | | | | |

'Area Upper Limit=+40% of internal standard area'
'Area Lower Limit=-40% of internal standard area'

RT Upper Limit=+0.33 minutes of internal standard RT
RT Lower Limit=-0.33 minutes of internal standard RT

* Designates values outside of QC limits

# Air Toxics Ltd.

## INITIAL CALIBRATION DATA

Start Cal Date : 31-MAR-2010 13:49
End Cal Date : 31-MAR-2010 15:58
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msdd.i/31mar10a.b/d10q0331a.m
Cal Date : 01-Apr-2010 07:15 abarton
Curve Type : Average

Calibration File Names:
Level 1: /chem/msdd.i/31mar10a.b/d033111.d
Level 2: /chem/msdd.i/31mar10a.b/d033112.d
Level 3: /chem/msdd.i/31mar10a.b/d033113.d
Level 4: /chem/msdd.i/31mar10a.b/d033114.d
Level 5: /chem/msdd.i/31mar10a.b/d033115.d
Level 6: /chem/msdd.i/31mar10a.b/d033116.d
Level 7: /chem/msdd.i/31mar10a.b/d033117.d

| Compound | 0.30000 Level 1 | 0.50000 Level 2 | 2.000 Level 3 | 25.000 Level 4 | 50.000 Level 5 | 100.000 Level 6 | 200.000 Level 7 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 1 Dimethyl Ether | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 2 Acetaldehyde | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 3 Freon 13 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 4 2-Methyl-1-Butene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 5 Freon 134a | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 6 Propylene | +++++ | +++++ | 0.84394 | 0.82806 | 0.77338 | 0.79752 | 0.77652 | 0.80388 | 3.889 |
| 7 Dichlorodifluoromethane/Fr12 | +++++ | 3.04338 | 3.07592 | 3.38328 | 3.15906 | 3.20485 | 3.11189 | 3.16306 | 3.867 |

Air Toxics Ltd.

INITIAL CALIBRATION DATA

Start Cal Date : 31-MAR-2010 13:49
End Cal Date : 31-MAR-2010 15:58
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msdd.i/31mar10a.b/d10q0331a.m
Cal Date : 01-Apr-2010 07:15 abarton
Curve Type : Average

| Compound | 0.30000 Level 1 | 0.50000 Level 2 | 2.000 Level 3 | 25.000 Level 4 | 50.000 Level 5 | 100.000 Level 6 | 200.000 Level 7 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 8 Freon 152a | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 9 Freon 22 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 10 Freon 114 | +++++ | 1.70425 | 1.78303 | 1.86773 | 1.68152 | 1.72848 | 1.66630 | 1.73855 | 4.336 |
| 11 Isobutane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 12 Freon142b | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 13 Chloromethane | +++++ | +++++ | 0.77281 | 0.75164 | 0.68953 | 0.67448 | 0.62382 | 0.70246 | 8.572 |
| 14 Butane | +++++ | +++++ | 0.18922 | 0.19584 | 0.20857 | 0.21465 | 0.21131 | 0.20392 | 5.332 |
| 15 Vinyl Chloride | +++++ | 0.82415 | 0.67814 | 1.10675 | 1.09718 | 1.11105 | 1.08358 | 0.98347 | 18.915 |
| 16 Freon 143a | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 17 Propanal | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |

Air Toxics Ltd.

INITIAL CALIBRATION DATA

Start Cal Date : 31-MAR-2010 13:49
End Cal Date : 31-MAR-2010 15:58
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msdd.i/31mar10a.b/d10q0331a.m
Cal Date : 01-Apr-2010 07:15 abarton
Curve Type : Average

| Compound | 0.30000 Level 1 | 0.50000 Level 2 | 2.000 Level 3 | 25.000 Level 4 | 50.000 Level 5 | 100.000 Level 6 | 200.000 Level 7 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 18 1,3-Butadiene | +++++ | 0.94033 | 0.63301 | 0.87713 | 0.85005 | 0.87202 | 0.84874 | 0.83688 | 12.581 |
| 19 Freon 14 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 20 Vinyl Fluoride | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 21 Bromoethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 22 Isobutylene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 23 2,3-Dimethylbutane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 24 Bromomethane | +++++ | 0.93321 | 0.94437 | 0.97182 | 0.91163 | 0.92305 | 0.88614 | 0.92837 | 3.144 |
| 25 Chloroethane | +++++ | 0.72315 | 0.62933 | 0.63307 | 0.60618 | 0.61930 | 0.59066 | 0.63362 | 7.348 |
| 26 Isopentane | +++++ | +++++ | 1.28136 | 1.40265 | 1.30210 | 1.31822 | 1.28119 | 1.31710 | 3.818 |
| 27 Freon143a | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |

Air Toxics Ltd.

INITIAL CALIBRATION DATA

Start Cal Date : 31-MAR-2010 13:49
End Cal Date : 31-MAR-2010 15:58
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msdd.i/31mar10a.b/d10q0331a.m
Cal Date : 01-Apr-2010 07:15 abarton
Curve Type : Average

| Compound | 0.30000 Level 1 | 0.50000 Level 2 | 2.000 Level 3 | 25.000 Level 4 | 50.000 Level 5 | 100.000 Level 6 | 200.000 Level 7 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 28 Trichlorofluoromethane/Fr11 | +++++ | 3.26815 | 3.20186 | 3.40765 | 3.16339 | 3.53766 | 3.46832 | 3.34117 | 4.550 |
| 29 Ethanol | +++++ | +++++ | 0.40149 | 0.41886 | 0.41961 | 0.41701 | 0.41807 | 0.41501 | 1.836 |
| 30 Methanol | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 31 Dichlorofluoromethane/Fr21 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 32 2,4-Dimethylpentane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 33 Freon 113 | +++++ | 1.46905 | 1.47916 | 1.62843 | 1.51309 | 1.51000 | 1.48662 | 1.51439 | 3.861 |
| 34 1,1-Dichloroethene | +++++ | 0.59322 | 0.68170 | 0.70335 | 0.66896 | 0.67240 | 0.66802 | 0.66461 | 5.622 |
| 35 2-Butanol | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 36 3-Methyl-1-Hexene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 37 Vinyl Bromide | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |

Air Toxics Ltd.

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Method file : /chem/msdd.i/31mar10a.b/d10q0331a.m
Cal Date : 01-Apr-2010 07:15 abarton
Curve Type : Average

| Compound | 0.30000 Level 1 | 0.50000 Level 2 | 2.000 Level 3 | 25.000 Level 4 | 50.000 Level 5 | 100.000 Level 6 | 200.000 Level 7 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 38 Acetone | +++++ | +++++ | 0.56471 | 0.52233 | 0.52308 | 0.52792 | 0.52310 | 0.53223 | 3.437 |
| 39 Methacrylonitrile | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 40 Carbon Disulfide | +++++ | 3.68402 | 3.22871 | 3.15026 | 3.07267 | 3.13811 | 3.13866 | 3.23541 | 6.964 |
| 41 2-Propanol | +++++ | +++++ | 1.56500 | 1.75990 | 1.84344 | 1.95636 | 2.03104 | 1.83115 | 9.909 |
| 42 Pentane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 43 1-Pentene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 44 3-Chloropropene | +++++ | +++++ | 0.48610 | 0.50284 | 0.50604 | 0.51581 | 0.51696 | 0.50555 | 2.465 |
| 45 Cyclopentene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 46 Methylene Chloride | +++++ | 1.31921 | 1.40828 | 1.38549 | 1.34460 | 1.36378 | 1.35746 | 1.36314 | 2.283 |
| 47 Acrolein | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |

# Air Toxics Ltd.

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Cal Date : 01-Apr-2010 07:15 abarton
Curve Type : Average

| Compound | 0.30000 Level 1 | 0.50000 Level 2 | 2.000 Level 3 | 25.000 Level 4 | 50.000 Level 5 | 100.000 Level 6 | 200.000 Level 7 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 48 tert-Butyl-Alcohol | +++++ | +++++ | 2.01247 | 2.19866 | 2.21469 | 2.36793 | 2.42178 | 2.24311 | 7.170 |
| 49 Ethyl Ether | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 50 MTBE | +++++ | 2.98553 | 3.16826 | 3.34736 | 3.27770 | 3.37712 | 3.39063 | 3.25777 | 4.804 |
| 51 2-Methylpentane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 52 trans-1,2-Dichloroethene | +++++ | 0.60981 | 0.68991 | 0.72340 | 0.70153 | 0.70996 | 0.70264 | 0.68954 | 5.886 |
| 53 Freon123a | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 54 Freon123 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 55 Iodomethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 56 2,3,4-Trimethylpentane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 57 Methyl acetate | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |

# Air Toxics Ltd.

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Curve Type : Average

| Compound | 0.30000 Level 1 | 0.50000 Level 2 | 2.000 Level 3 | 25.000 Level 4 | 50.000 Level 5 | 100.000 Level 6 | 200.000 Level 7 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 58 Hexane | +++++ | 1.83229 | 1.91511 | 2.04640 | 1.91875 | 1.95790 | 1.91993 | 1.93173 | 3.609 |
| 59 Pentanal | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 60 2,4,4-Trimethyl-1-pentene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 61 Cyclopentane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 62 Acetonitrile | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 63 Isopropyl ether | +++++ | +++++ | 4.34575 | 4.68188 | 4.43007 | 4.50115 | 4.45849 | 4.48347 | 2.780 |
| 64 1,1-Dichloroethane | +++++ | 2.21876 | 2.38515 | 2.52052 | 2.39939 | 2.42846 | 2.38656 | 2.38981 | 4.098 |
| 65 Vinyl Acetate | +++++ | +++++ | 0.19743 | 0.29091 | 0.27637 | 0.30202 | 0.29882 | 0.27311 | 15.909 |
| 66 2,4,4-Trimethyl-2-pentene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 67 1-Propanol | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |

Air Toxics Ltd.

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Curve Type : Average

| Compound | 0.30000 Level 1 | 0.50000 Level 2 | 2.000 Level 3 | 25.000 Level 4 | 50.000 Level 5 | 100.000 Level 6 | 200.000 Level 7 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 68 Chloroprene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 69 Butanal | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 70 Acrylonitrile | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 71 1-Hexene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 72 t-Butylethyl Ether | +++++ | +++++ | 3.98227 | 4.33111 | 4.16556 | 4.29098 | 4.35971 | 4.22593 | 3.670 |
| 73 2,2-Dichloropropane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 74 cis-1,2-Dichloroethene | +++++ | 0.74306 | 0.78826 | 0.80418 | 0.77900 | 0.79175 | 0.78665 | 0.78215 | 2.665 |
| 75 2-Butanone | +++++ | 0.50217 | 0.56213 | 0.62517 | 0.62825 | 0.64772 | 0.64188 | 0.60122 | 9.543 |
| 76 2,3-Dimethylpentane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 77 1-Bromo-2-Chloroethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |

Air Toxics Ltd.

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Curve Type : Average

| Compound | 0.30000 Level 1 | 0.50000 Level 2 | 2.000 Level 3 | 25.000 Level 4 | 50.000 Level 5 | 100.000 Level 6 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|
| | 200.000 Level 7 | | | | | | | |
| 78 Tetrahydrofuran | +++++ | 1.51031 | 1.57604 | 1.53626 | 1.53100 | 1.57016 | | |
| | 1.57743 | | | | | | 1.55020 | 1.816 |
| 80 Chloroform | +++++ | 2.67209 | 2.86659 | 2.99161 | 2.84674 | 2.88627 | | |
| | 2.84263 | | | | | | 2.85099 | 3.623 |
| 81 Ethyl Acetate | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| 82 Methyl Acrylate | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| 83 Cyclohexane | +++++ | 1.78013 | 1.65219 | 1.80639 | 1.73297 | 1.76274 | | |
| | 1.73332 | | | | | | 1.74462 | 3.056 |
| 84 Thiophene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| 85 1,1,1-Trichloroethane | +++++ | 2.71429 | 2.81398 | 3.03191 | 2.90730 | 2.97517 | | |
| | 2.92928 | | | | | | 2.89532 | 3.960 |
| 86 Carbon Tetrachloride | +++++ | 2.16422 | 2.28410 | 2.77925 | 2.66646 | 2.76796 | | |
| | 2.76201 | | | | | | 2.57067 | 10.661 |
| 87 1,1-Dichloropropene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| 88 Isobutanol | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |

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Curve Type : Average

| Compound | 0.30000 Level 1 | 0.50000 Level 2 | 2.000 Level 3 | 25.000 Level 4 | 50.000 Level 5 | 100.000 Level 6 | 200.000 Level 7 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 89 2,2,4-Trimethylpentane | +++++ | 7.15275 | 7.07021 | 7.43212 | 7.16891 | 7.28845 | 7.19334 | 7.21763 | 1.752 |
| 90 Benzene | +++++ | 0.98737 | 0.93597 | 0.99253 | 0.94458 | 0.94922 | 0.92910 | 0.95646 | 2.813 |
| 92 2-Pentanone | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 93 tert-amyl-Methyl Ether | +++++ | +++++ | 3.61855 | 3.85785 | 3.81070 | 3.92696 | 3.97438 | 3.83769 | 3.587 |
| 94 1,2-Dichloroethane | +++++ | 0.48886 | 0.51295 | 0.53800 | 0.52418 | 0.52367 | 0.51190 | 0.51659 | 3.204 |
| 95 Heptane | +++++ | 0.31772 | 0.34903 | 0.36729 | 0.34727 | 0.35877 | 0.35442 | 0.34908 | 4.862 |
| 96 Ethyl acrylate | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 97 Methyl Methacrylate | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 98 Dibromomethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 99 Epichlorohydrin | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |

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| Compound | 0.30000 Level 1 | 0.50000 Level 2 | 2.000 Level 3 | 25.000 Level 4 | 50.000 Level 5 | 100.000 Level 6 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|
| | 200.000 Level 7 | | | | | | | |
| 101 2-Chloroethyl vinyl ether | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| 102 1-Butanol | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| 103 Octane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| 104 Trichloroethene | +++++ | 0.44567 | 0.42835 | 0.43388 | 0.42974 | 0.43289 | | |
| | 0.42487 | | | | | | 0.43257 | 1.662 |
| 105 Methyl Cyclohexane | +++++ | 2.54927 | 2.43211 | 2.74506 | 2.61145 | 2.63432 | | |
| | 2.60878 | | | | | | 2.59683 | 3.969 |
| 106 1,2-Dichloropropane | +++++ | 0.40083 | 0.38129 | 0.42565 | 0.39639 | 0.40311 | | |
| | 0.39579 | | | | | | 0.40051 | 3.614 |
| 107 1,4-Dioxane | +++++ | +++++ | 0.21567 | 0.22155 | 0.22689 | 0.23630 | | |
| | 0.23688 | | | | | | 0.22746 | 4.061 |
| 108 Bromodichloromethane | +++++ | 0.76810 | 0.70173 | 0.81194 | 0.78151 | 0.80616 | | |
| | 0.78889 | | | | | | 0.77639 | 5.144 |
| 109 Nonane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| 110 cis-1,3-Dichloropropene | +++++ | 0.57558 | 0.51465 | 0.63798 | 0.61851 | 0.64727 | | |
| | 0.63394 | | | | | | 0.60466 | 8.408 |

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| Compound | 0.30000 Level 1 | 0.50000 Level 2 | 2.000 Level 3 | 25.000 Level 4 | 50.000 Level 5 | 100.000 Level 6 | 200.000 Level 7 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 111 Cyclohexanone | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 112 4-Methyl-2-pentanone | +++++ | 0.32638 | 0.32968 | 0.36368 | 0.36319 | 0.37892 | 0.37714 | 0.35650 | 6.459 |
| 113 trans-1,4-dichloro-2-butene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 115 Toluene | +++++ | 1.22594 | 1.26356 | 1.33719 | 1.27363 | 1.28871 | 1.25897 | 1.27467 | 2.904 |
| 116 tert-Butylbenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 117 bis(2-chloroethyl)ether | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 118 trans-1,3-Dichloropropene | +++++ | 0.46912 | 0.44433 | 0.59450 | 0.58340 | 0.62005 | 0.61176 | 0.55386 | 13.853 |
| 119 alpha-Pinene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 120 1,1,2-Trichloroethane | +++++ | 0.35599 | 0.37669 | 0.41502 | 0.38869 | 0.39461 | 0.38832 | 0.38655 | 5.062 |
| 121 Decane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |

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| Compound | 0.30000 Level 1 | 0.50000 Level 2 | 2.000 Level 3 | 25.000 Level 4 | 50.000 Level 5 | 100.000 Level 6 | 200.000 Level 7 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 122 Tetrachloroethene | +++++ | 0.45270 | 0.41423 | 0.45126 | 0.42909 | 0.43143 | 0.42031 | 0.43317 | 3.654 |
| 123 1,3-Dichloropropane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 124 Alphamethylstyrene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 125 2-Hexanone | +++++ | 0.39038 | 0.41158 | 0.44898 | 0.45711 | 0.47796 | 0.48252 | 0.44476 | 8.266 |
| 126 Butyl Acetate | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 127 beta-Pinene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 128 Dibromochloromethane | +++++ | 0.56173 | 0.52836 | 0.65433 | 0.62620 | 0.64724 | 0.63595 | 0.60897 | 8.462 |
| 129 Dodecane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 130 1,2-Dibromoethane | +++++ | 0.58683 | 0.56614 | 0.63457 | 0.60555 | 0.61859 | 0.60596 | 0.60294 | 3.977 |
| 131 D-Limonene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |

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| Compound | 0.30000 Level 1 | 0.50000 Level 2 | 2.000 Level 3 | 25.000 Level 4 | 50.000 Level 5 | 100.000 Level 6 | 200.000 Level 7 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 132 Hexachloroethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 133 Undecane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 135 Chlorobenzene | +++++ | 1.02781 | 0.94880 | 0.92907 | 0.89300 | 0.90378 | 0.88232 | 0.93080 | 5.735 |
| 136 Indan | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 137 Ethyl Benzene | +++++ | 0.43707 | 0.44443 | 0.49927 | 0.48368 | 0.48776 | 0.47768 | 0.47165 | 5.313 |
| 138 1,1,1,2-Tetrachloroethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 139 Indene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 140 m,p-Xylene | +++++ | 0.59113 | 0.59877 | 0.61958 | 0.60757 | 0.61984 | 0.60969 | 0.60776 | 1.871 |
| 141 o-Xylene | +++++ | 0.54502 | 0.55073 | 0.59946 | 0.58302 | 0.59406 | 0.58228 | 0.57576 | 3.932 |
| 142 Styrene | +++++ | 0.85539 | 0.88184 | 0.98995 | 0.96839 | 0.99346 | 0.97426 | 0.94388 | 6.318 |

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| Compound | 0.30000 Level 1 | 0.50000 Level 2 | 2.000 Level 3 | 25.000 Level 4 | 50.000 Level 5 | 100.000 Level 6 | 200.000 Level 7 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 143 2-Heptanone | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 144 1,2,3-Trichlorobenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 145 Bromoform | +++++ | 0.42750 | 0.40361 | 0.53875 | 0.52829 | 0.54742 | 0.53976 | 0.49755 | 12.914 |
| 146 Aniline | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 147 Cumene | +++++ | 1.67737 | 1.67114 | 1.81039 | 1.76637 | 1.79735 | 1.77867 | 1.75021 | 3.473 |
| 148 Isooctyl Alcohol | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 150 2-Methylnaphthalene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 151 1,1,2,2-Tetrachloroethane | +++++ | 0.93354 | 0.93236 | 0.99536 | 0.96089 | 0.99198 | 0.97264 | 0.96446 | 2.850 |
| 152 Bromobenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 153 Propylbenzene | +++++ | 2.14052 | 2.14241 | 2.25870 | 2.23070 | 2.30067 | 2.26107 | 2.22235 | 2.992 |

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Integrator : HP RTE
Method file : /chem/msdd.i/31mar10a.b/d10q0331a.m
Cal Date : 01-Apr-2010 07:15 abarton
Curve Type : Average

| Compound | 0.30000 Level 1 | 0.50000 Level 2 | 2.000 Level 3 | 25.000 Level 4 | 50.000 Level 5 | 100.000 Level 6 | 200.000 Level 7 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 154 1,2,3-Trichloropropane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| 155 4-Ethyltoluene | +++++ | 0.49637 | 0.49755 | 0.53680 | 0.52942 | 0.54013 | 0.53835 | 0.52310 | 3.934 |
| 156 1,3,5-Trimethylbenzene | 0.66314 | 0.67349 | 0.68194 | 0.73498 | 0.71841 | 0.73777 | 0.71637 | 0.70373 | 4.321 |
| 157 2-Chlorotoluene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| 158 4-Chlorotoluene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| 159 Diisobutyl Ketone | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| 160 Quinoline | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| 161 p-Cymene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| 162 1,2,4-Trimethylbenzene | 0.66557 | 0.61897 | 0.61060 | 0.66522 | 0.66279 | 0.68666 | 0.67315 | 0.65471 | 4.355 |
| 163 Pentachloroethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |

Air Toxics Ltd.

INITIAL CALIBRATION DATA

Start Cal Date : 31-MAR-2010 13:49
End Cal Date : 31-MAR-2010 15:58
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msdd.i/31mar10a.b/d10q0331a.m
Cal Date : 01-Apr-2010 07:15 abarton
Curve Type : Average

| Compound | 0.30000 Level 1 | 0.50000 Level 2 | 2.000 Level 3 | 25.000 Level 4 | 50.000 Level 5 | 100.000 Level 6 | 200.000 Level 7 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 164 sec-Butylbenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 165 1,3-Dichlorobenzene | +++++ | 0.87883 | 0.87932 | 0.85863 | 0.85860 | 0.88648 | 0.87299 | 0.87247 | 1.325 |
| 166 1,4-Dichlorobenzene | +++++ | 0.89710 | 0.91859 | 0.86623 | 0.87248 | 0.89917 | 0.88769 | 0.89021 | 2.149 |
| 167 1,2,3-Trimethylbenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 168 alpha-Chlorotoluene | +++++ | 0.86721 | 0.76236 | 1.21103 | 1.33842 | 1.50304 | 1.53704 | 1.20318 | 26.981 |
| 169 1,3,5-Trichlorobenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 170 Butylbenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 171 1,2-Dichlorobenzene | +++++ | 0.76805 | 0.81011 | 0.79636 | 0.80177 | 0.82859 | 0.81818 | 0.80384 | 2.608 |
| 172 Isooctyl Acrylate | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 173 1,2-Dibromo-3-Chloropropane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |

# Air Toxics Ltd.

## INITIAL CALIBRATION DATA

Start Cal Date : 31-MAR-2010 13:49
End Cal Date : 31-MAR-2010 15:58
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msdd.i/31mar10a.b/d10q0331a.m
Cal Date : 01-Apr-2010 07:15 abarton
Curve Type : Average

| Compound | 0.30000 Level 1 | 0.50000 Level 2 | 2.000 Level 3 | 25.000 Level 4 | 50.000 Level 5 | 100.000 Level 6 | 200.000 Level 7 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 174 1,2,4-Trichlorobenzene | +++++ | +++++ | 0.66725 | 0.53658 | 0.60520 | 0.65186 | 0.65400 | 0.62298 | 8.621 |
| 175 Hexachlorobutadiene | +++++ | +++++ | 0.42191 | 0.39599 | 0.41335 | 0.43522 | 0.43258 | 0.41981 | 3.793 |
| 176 Naphthalene | +++++ | +++++ | 1.72325 | 1.39292 | 1.58564 | 1.73111 | 1.77431 | 1.64145 | 9.500 |
| $ 91 1,2-Dichloroethane-d4 | 1.95837 | 1.96555 | 1.97822 | 2.01572 | 2.03697 | 2.10454 | 2.13123 | 2.02723 | 3.368 |
| $ 114 Toluene-d8 | 1.23050 | 1.23253 | 1.23926 | 1.24679 | 1.24244 | 1.24128 | 1.24744 | 1.24004 | 0.526 |
| $ 149 Bromofluorobenzene | 0.50160 | 0.51036 | 0.50786 | 0.50642 | 0.51478 | 0.51787 | 0.51914 | 0.51115 | 1.256 |

Calibration History

Method : /chem/msdd.i/31mar10a.b/d10q0331a.m
Start Cal Date: 31-MAR-2010 13:49
End Cal Date : 31-MAR-2010 15:58

Initial Calibration

| Injection Date | Sublist | Calibration File |
|---|---|---|
| Cal Level: 1 , Cal Amount: 0.30000 | | |
| 31-MAR-2010 13:49 | AFCEElow | /chem/msdd.i/31mar10a.b/d033111.d |
| Cal Level: 2 , Cal Amount: 0.50000 | | |
| 31-MAR-2010 14:09 | AT09low | /chem/msdd.i/31mar10a.b/d033112.d |
| Cal Level: 3 , Cal Amount: 2.00000 | | |
| 31-MAR-2010 14:28 | AT09mdl | /chem/msdd.i/31mar10a.b/d033113.d |
| Cal Level: 4 , Cal Amount: 25.00000 | | |
| 31-MAR-2010 14:59 | AT09 | /chem/msdd.i/31mar10a.b/d033114.d |
| Cal Level: 5 , Cal Amount: 50.00000 | | |
| 31-MAR-2010 15:19 | AT09 | /chem/msdd.i/31mar10a.b/d033115.d |
| Cal Level: 6 , Cal Amount: 100.00000 | | |
| 31-MAR-2010 15:38 | AT09 | /chem/msdd.i/31mar10a.b/d033116.d |
| Cal Level: 7 , Cal Amount: 200.00000 | | |
| 31-MAR-2010 15:58 | AT09 | /chem/msdd.i/31mar10a.b/d033117.d |

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 5

| Ccal Level: 5 , Ccal Amount: 50.000 |
|---|
| 31-MAR-2010 15:19 \| AT09 \| /chem/msdd.i/31mar10a.b/d033115.d |
| Ccal Level: 5 , Ccal Amount: 50.000 |
| 31-MAR-2010 15:19 \| AT09 \| /chem/msdd.i/31mar10a.b/d033115a.d |

RA 3/31/10
JP 4/1/10

Air Toxics Ltd.

INITIAL CALIBRATION DATA

MDL: 12/11/09

1CAL: Ø out

Start Cal Date : 31-MAR-2010 13:49
End Cal Date : 31-MAR-2010 15:58
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msdd.i/31mar10a.b/d10q0331a.m
Cal Date : 31-Mar-2010 21:25 aburke
Curve Type : Average

1CAL LCS: Ø out
1911-277, 50ppbv (60ppbv)

Calibration File Names:
Level 1: /chem/msdd.i/31mar10a.b/d033111.d
Level 2: /chem/msdd.i/31mar10a.b/d033112.d
Level 3: /chem/msdd.i/31mar10a.b/d033113.d
Level 4: /chem/msdd.i/31mar10a.b/d033114.d
Level 5: /chem/msdd.i/31mar10a.b/d033115.d
Level 6: /chem/msdd.i/31mar10a.b/d033116.d
Level 7: /chem/msdd.i/31mar10a.b/d033117.d

OK for AFCEE

0.3ppbv: 1,2,4-TMB & 1,3,5-TMB

| Compound | 0.30000 Level 1 | 0.50000 Level 2 | 2.000 Level 3 | 25.000 Level 4 | 50.000 Level 5 | 100.000 Level 6 | 200.000 Level 7 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 1 Dimethyl Ether | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 2 Acetaldehyde | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 3 Freon 13 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 4 2-Methyl-1-Butene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 5 Freon 134a | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 6 Propylene | +++++ | +++++ | 0.84394 | 0.82806 | 0.77338 | 0.79752 | 0.77652 | 0.80388 | 3.889 |
| 7 Dichlorodifluoromethane/Fr12 | +++++ | 3.04338 | 3.07592 | 3.38328 | 3.15906 | 3.20485 | 3.11189 | 3.16306 | 3.867 |

## Initial Calibration Narrative

A 7 point initial calibration was analyzed on MSD-D on 03/31/10

The following compounds used 0.3 as the lowest calibration concentration:
1,3,5-Trimethylbenzene and 1,2,4-Trimethylbenzene.

@ Air Toxics Ltd.

# MSD-D

Logbook #: 1959

| m/z | ION ABUNDANCE CRITERIA | % REL. ABUNDANCE |
|---|---|---|
| 50 | 15.0 – 40.0% of mass 95 | 21.65 |
| 75 | 30.0 – 60.0% of mass 95 | 52.27 |
| 95 | Base peak, 100.00% relative abundance | 100.00 |
| 96 | 5.0 – 9.0% of mass 95 | 6.95 |
| 173 | Less than 2.0% of mass 174 | 0.42 ( 0.72 )[1] |
| 174 | 50.0 – 100% of mass 95 | 55.68 |
| 175 | 5.0 – 9.0% of mass 174 | 4.72 ( 8.05 )[1] |
| 176 | Greater than 95.0% but less than 101.0% of mass 174 | 56.34 96.00 )[1] |
| 177 | 5.0 – 9.0% of mass 176 | 3.81 6.76 )[2] |

[1] - value in parenthesis is % mass 174 [2] - value in parenthesis is % mass 176

BFB Injection Date: 3/31/10
BFB Injection Time: 1209
BFB File ID: D033108
Tekmar Purge Flow: 2
Vacuum: 25 3/31/10

| | |
|---|---|
| IS/S Std.#: | 1911-322 Exp. Date: 6/30/10 |
| BCM | 104005 |
| 1,4-DFB | 450386 |
| CB-d5 | 514163 |

*Verified CCV IS vs ICAL mid-point (- 40%D)* RA (initials)

**Verify 176/174 m/z Ratio:** (151552/157856)*100= 95.99% **NOAH Cart #:** N/A **File #:** N/A

**Calculation Check:**

ppbv of compound $= \frac{Area_{Sample}}{Area_{IS}} \times \frac{Conc._{IS}}{RRF} = \frac{(\quad)}{(\quad)} \times \frac{(\quad)}{(\quad)} =$

| | |
|---|---|
| File ID: | |
| Compound: | |
| Initials: | |

*Reported Result* _____

**Method:** ~~D10Q033L~~ 4/1/10

| | Use | File # | Sample / Client Name | Can # | Pressure | Amt Loaded | DF | Loaded by Init. | Date Analyzed | Time Analyzed | Reviewed by Init. | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ~~D033108~~ ~~3/31/10~~ | | | | | | | | | | |
| 1 | ✓ | ~~D033108~~ | BFB | 1911-322 | 36ng | 1.0mL | 1.00 | IS | 3/31/10 | 1209 | | |
| 2 | ✓ | D033109 | SYSTEM BLANK | 2427 | HUMID | 200mL | \| | \| | \| | 1246 | — | |
| 3 | ✓ | 10 | \| | \| | \| | \| | \| | \| | \| | 1306 | — | |
| 4 | ✓ | 11 | ICAL Level 1 | 1911-328 | 0.3ppbv | 30mL | \| | \| | \| | 1349 | | |
| 5 | ✓ | 12 | \| 2 | 1911-328 | 0.5 | 50mL | \| | \| | \| | 1409 | | |
| 6 | ✓ | 13 | \| 3 | \| | 2.0 | 200mL | \| | \| | \| | 1428 | | |
| 7 | ✓ | 14 | \| 4 | P136-87 | 25ppbv | 25mL | 1.00 | RA | \| | 1459 | | |
| 8 | ✓ | 15 | \| 5 | ↓ | 50ppbv | 50mL | ↓ | RA | ↓ | 1519 | RA | |

Laura Overman

4/1/10
Date

@ Air Toxics Ltd.

# MSD-D

Logbook #: 1959



| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9 | ✓ | DO33116 | ICAL level 6 | 1936-87 | 100ppbv | 100mL | 1.00 | RA | | 3/31/10 | 1538 | RA/ | | |
| 10 | ✓ | 17 | ↓ 7 | ↓ | 200ppbv | 200mL | ↓ | RA | | 3/31/10 | 1558 | RA/ | | |
| 11 | X | 18 | System Blank | 24217 | Humid | 200mL | 1.00 | RA | | | 1624 | RA/ | — | |
| 12 | X | 19 | ↓ | ↓ | ↓ | ↓ | ↓ | RA | | | 1644 | RA/ | — | |
| 13 | ✓ | 20 | ↓ | ↓ | ↓ | ↓ | ↓ | RA | | | 1714 | RA/ | | |
| 14 | ✓ | 21 | LCS (200ppbv) | 1911-277 | 50ppbv | 50mL | 1.00 | RA | | | 1734 | RA/ | | Ø OUT |
| 15 | X | 22 | Lab Blank | 24217 | Humid | 200mL | 1.00 | RA | | | 1756 | RA/ | — | |
| 16 | X | 23 | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | | | 1827 | RA/ | — | |
| 17 | ✓ | 24 | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | | | 1847 | RA/ | | |
| 18 | ✓ | 25 | 1003597-01A | 1474 | 4.6"Hg-15psi | 200mL | 2.39 | RA | | | 1943 | RA/ | | |
| 19 | ✓ | 26 | -02A | 2076 | 3.2"Hg-15psi | 200mL | 226 | RA | | | 2003 | RA/ | | |
| 20 | ✓ | 27 | -03A | 33597 | 2.4"Hg-15psi | 200mL | 220 | RA | | | 2023 | RA/ | | |
| 21 | ✓ | 28 | 1003570-01A ~~0911~~ RA 3/31/10 | 33594 | ↓ | ↓ | ↓ | RA | | | 2043 | RA/ | | |
| 22 | ✓ | 29 | -02A | 2042 | 3"Hg-15psi | 200mL | 224 | RA | | | 2108 | RA/ | | |
| 23 | ✓ | 30 | -03A | 3016 | 0.1psi-15psi | 200mL | 200 | RA | | | 2128 | RA/ | | |
| 24 | ✓ | 31 | -04A | 11438 | 4.4"Hg-15psi | 200mL | 2.37 | RA | | | 2148 | RA/ | | |
| 25 | ✓ | 32 | -05A | 2067 | 2"Hg-15psi | 200mL | 2.16 | RA | | | 2208 | RA/ | | |
| 26 | ✓ | 33 | -06A | 1350 | 3"Hg-15psi | 200mL | 2.24 | RA | | | 2227 | RA/ | | |
| 27 | ✓ | 34 | -07A | 34582 | 1"Hg-15psi | 200mL | 2.09 | RA | | | 2250 | RA/ | | |
| 28 | ✓ | 35 | -08A | 35673 | 0.2"Hg-15psi | 200mL | 2.03 | RA | | | 2314 | RA/ AER | | |
| 29 | ✓ | 36 | -09A | 34594 | 0.4"Hg-15psi | 200mL | 2.05 | RA | | | 2340 | AER | | |
| 30 | ✓ | 37 | -09AA | ↓ | ↓ | ↓ | 2.05 | RA | | ↓ | 0000 | AER | | |
| 31 | | | | | | | | | | | | | | |

4/1/10

**Comments:**

Signature

4/1/10
Date

Air Toxics Ltd.
Modified EPA Methods TO-14A/TO-15
Internal Standard and Associated Target Compounds and Surrogates

| Bromochloromethane |
|---|
| **Target Compounds:** |
| Freon 12 |
| Freon 114 |
| Chloromethane |
| Vinyl Chloride |
| 1,3-Butadiene |
| Bromomethane |
| Chloroethane |
| Freon 11 |
| Ethanol |
| Freon 113 |
| 1,1-Dichloroethene |
| Acetone |
| 2-Propanol |
| Carbon Disulfide |
| 3-Chloropropene |
| Methylene Chloride |
| Methyl tert-butyl ether |
| trans-1,2-Dichloroethene |
| Hexane |
| 1,1-Dichloroethane |
| 2-Butanone (Methyl Ethyl Ketone) |
| cis-1,2-Dichloroethene |
| Tetrahydrofuran |
| Chloroform |
| 1,1,1-Trichloroethane |
| Cyclohexane |
| Carbon Tetrachloride |
| 2,2,4-Trimethylpentane |
| **Surrogates:** |
| 1,2-Dichloroethane-d4 |

| 1,4-Difluorobenzene |
|---|
| **Target Compounds:** |
| Benzene |
| 1,2-Dichloroethane |
| Heptane |
| Trichloroethene |
| 1,2-Dichloropropane |
| 1,4-Dioxane |
| Bromodichloromethane |
| cis-1,3-Dichloropropene |
| 4-Methyl-2-pentanone |
| Toluene |
| **Surrogates:** |
| Toluene-d8 |

| Chlorobenzene-d5 |
|---|
| **Target Compounds:** |
| trans-1,3-Dichloropropene |
| 1,1,2-Trichloroethane |
| Tetrachloroethene |
| 2-Hexanone |
| Dibromochloromethane |
| 1,2-Dibromoethane (EDB) |
| Chlorobenzene |
| Ethyl Benzene |
| m,p-Xylene |
| o-Xylene |
| Styrene |
| Bromoform |
| Cumene |
| 1,1,2,2-Tetrachloroethane |
| Propylbenzene |
| 4-Ethyltoluene |
| 1,3,5-Trimethylbenzene |
| 1,2,4-Trimethylbenzene |
| 1,3-Dichlorobenzene |
| 1,4-Dichlorobenzene |
| alpha-Chlorotoluene |
| 1,2-Dichlorobenzene |
| 1,2,4-Trichlorobenzene |
| Hexachlorobutadiene |
| **Surrogates:** |
| Bromofluorobenzene |

Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msdd.i/31mar10a.b/d033121.d
Lab Smp Id: LCS Client Smp ID: LCS
Inj Date : 31-MAR-2010 17:34
Operator : ra Inst ID: msdd.i
Smp Info : 50ml #1911-277
Misc Info : 50ppbv(200ppbv)
Comment :
Method : /chem/msdd.i/31mar10a.b/d10q0331a.m
Meth Date : 31-Mar-2010 16:26 aburke Quant Type: ISTD
Cal Date : 31-MAR-2010 15:58 Cal File: d033117.d
Als bottle: 3 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT09.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| | | | | CONCENTRATIONS ON-COL | FINAL | | |
|---|---|---|---|---|---|---|---|
| RT | EXP RT (REL RT) | MASS | RESPONSE | ( PPBV) | ( PPBV) | TARGET RANGE | RATIO |
| * 79 Bromochloromethane | | | | | CAS #: 74-97-5 | | |
| 4.590 | 4.576 (1.000) | 130 | 103381 | 25.0000 | | 80.00- 120.00 | 100.00 |
| 4.590 | 4.576 (1.000) | 128 | 80959 | | | 27.50- 127.50 | 78.31 |
| 4.583 | 4.576 (1.000) | 49 | 184114 | | | 124.89- 224.89 | 178.09 |
| * 100 1,4-Difluorobenzene | | | | | CAS #: 540-36-3 | | |
| 5.514 | 5.507 (1.000) | 114 | 457985 | 25.0000 | | 80.00- 120.00 | 100.00 |
| 5.514 | 5.507 (1.000) | 88 | 82479 | | | 0.00- 68.55 | 18.01 |
| * 134 Chlorobenzene-d5 | | | | | CAS #: 3114-55-4 | | |
| 7.964 | 7.950 (1.000) | 117 | 512396 | 25.0000 | | 80.00- 120.00 | 100.00 |
| 7.964 | 7.950 (1.000) | 82 | 320299 | | | 12.92- 112.92 | 62.51 |
| $ 91 1,2-Dichloroethane-d4 | | | | | CAS #: 17060-07-0 | | |
| 5.141 | 5.127 (1.120) | 65 | 211752 | 25.2594 | 25.259 | 80.00- 120.00 | 100.00 |
| 5.141 | 5.127 (1.120) | 67 | 115865 | | | 2.15- 102.15 | 54.72 |
| $ 114 Toluene-d8 | | | | | CAS #: 2037-26-5 | | |
| 6.746 | 6.732 (1.223) | 98 | 559445 | 24.6270 | 24.627 | 80.00- 120.00 | 100.00 |
| 6.746 | 6.732 (1.223) | 70 | 68780 | | | 0.00- 62.20 | 12.29 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 114 Toluene-d8 (continued) | | | | | | | |
| 6.746 | 6.732 (1.223) | 100 | 369161 | | | 15.58- 115.58 | 65.99 |
| $ 149 Bromofluorobenzene | | | | | CAS #: 460-00-4 | | |
| 8.945 | 8.931 (1.123) | 174 | 260757 | 24.8899 | 24.890 | 80.00- 120.00 | 100.00 |
| 8.945 | 8.924 (1.123) | 95 | 448729 | | | 119.71- 219.71 | 172.09 |
| 8.945 | 8.931 (1.123) | 176 | 251674 | | | 45.58- 145.58 | 96.52 |
| 6 Propylene | | | | | CAS #: 115-07-1 | | |
| 1.153 | 1.153 (0.251) | 41 | 155057 | 46.6443 | 46.644 | 80.00- 120.00 | 100.00 |
| 1.153 | 1.153 (0.251) | 42 | 101053 | | | 14.09- 114.09 | 65.17 |
| 1.153 | 1.153 (0.251) | 39 | 121502 | | | 29.45- 129.45 | 78.36 |
| 7 Dichlorodifluoromethane/Fr12 | | | | | CAS #: 75-71-8 | | |
| 1.167 | 1.167 (0.254) | 85 | 669525 | 51.1868 | 51.187 | 80.00- 120.00 | 100.00 |
| 1.167 | 1.167 (0.254) | 87 | 217725 | | | 0.00- 82.88 | 32.52 |
| 10 Freon 114 | | | | | CAS #: 76-14-2 | | |
| 1.264 | 1.265 (0.275) | 135 | 354859 | 49.3591 | 49.359 | 80.00- 120.00 | 100.00 |
| 1.264 | 1.265 (0.275) | 137 | 114666 | | | 0.00- 82.54 | 32.31 |
| 13 Chloromethane | | | | | CAS #: 74-87-3 | | |
| 1.320 | 1.321 (0.288) | 50 | 146842 | 50.5511 | 50.551 | 80.00- 120.00 | 100.00 |
| 1.320 | 1.321 (0.288) | 52 | 47830 | | | 0.00- 83.02 | 32.57 |
| 14 Butane | | | | | CAS #: 106-97-8 | | |
| 1.376 | 1.377 (0.300) | 58 | 43025 | 51.0229 | 51.023 | 80.00- 120.00 | 100.00 |
| 1.376 | 1.377 (0.300) | 43 | 313008 | | | 701.77- 801.77 | 727.50 |
| 15 Vinyl Chloride | | | | | CAS #: 75-01-4 | | |
| 1.404 | 1.405 (0.306) | 62 | 231324 | 56.8797 | 56.880 | 80.00- 120.00 | 100.00 |
| 1.404 | 1.405 (0.306) | 64 | 75259 | | | 0.00- 97.20 | 32.53 |
| 18 1,3-Butadiene | | | | | CAS #: 106-99-0 | | |
| 1.432 | 1.433 (0.312) | 54 | 182192 | 52.6461 | 52.646 | 80.00- 120.00 | 100.00 |
| 1.418 | 1.433 (0.309) | 39 | 212023 | | | 75.63- 175.63 | 116.37 |
| 24 Bromomethane | | | | | CAS #: 74-83-9 | | |
| 1.670 | 1.684 (0.364) | 94 | 193451 | 50.3905 | 50.390 | 80.00- 120.00 | 100.00 |
| 1.670 | 1.684 (0.364) | 96 | 181158 | | | 44.64- 144.64 | 93.65 |
| 25 Chloroethane | | | | | CAS #: 75-00-3 | | |
| 1.754 | 1.754 (0.382) | 64 | 127064 | 48.4948 | 48.495 | 80.00- 120.00 | 100.00 |
| 1.754 | 1.754 (0.382) | 66 | 40980 | | | 0.00- 86.90 | 32.25 |
| 1.754 | 1.754 (0.382) | 49 | 35944 | | | 0.00- 78.42 | 28.29 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 26 Isopentane | | | | | CAS #: 78-78-4 | | |
| 1.782 | 1.782 (0.388) | 43 | 275357 | 50.5563 | 50.556 | 80.00- 120.00 | 100.00 |
| 1.782 | 1.782 (0.388) | 57 | 196862 | | | 20.70- 120.70 | 71.49 |
| 28 Trichlorofluoromethane/Fr11 | | | | | CAS #: 75-69-4 | | |
| 1.950 | 1.950 (0.425) | 101 | 733793 | 53.1098 | 53.110 | 80.00- 120.00 | 100.00 |
| 1.950 | 1.950 (0.425) | 103 | 432600 | | | 15.00- 115.00 | 58.95 |
| 29 Ethanol | | | | | CAS #: 64-17-5 | | |
| 2.162 | 2.162 (0.471) | 45 | 81377 | 47.4183 | 47.418 | 80.00- 120.00 | 100.00 |
| 2.162 | 2.162 (0.471) | 43 | 19227 | | | 0.00- 76.61 | 23.63 |
| 2.162 | 2.162 (0.471) | 46 | 30928 | | | 0.00- 88.16 | 38.01 |
| 33 Freon 113 | | | | | CAS #: 76-13-1 | | |
| 2.412 | 2.413 (0.526) | 151 | 280915 | 44.8576 | 44.858 | 80.00- 120.00 | 100.00 |
| 2.412 | 2.413 (0.526) | 153 | 178974 | | | 13.28- 113.28 | 63.71 |
| 2.412 | 2.413 (0.526) | 101 | 415793 | | | 96.44- 196.44 | 148.01 |
| 34 1,1-Dichloroethene | | | | | CAS #: 75-35-4 | | |
| 2.427 | 2.434 (0.529) | 98 | 123723 | 45.0179 | 45.018 | 80.00- 120.00 | 100.00 |
| 2.427 | 2.434 (0.529) | 96 | 192576 | | | 106.89- 206.89 | 155.65 |
| 2.427 | 2.427 (0.529) | 61 | 389438 | | | 263.25- 363.25 | 314.77 |
| 38 Acetone | | | | | CAS #: 67-64-1 | | |
| 2.541 | 2.541 (0.554) | 58 | 106584 | 48.4277 | 48.428 | 80.00- 120.00 | 100.00 |
| 2.541 | 2.541 (0.554) | 43 | 381553 | | | 327.54- 427.54 | 357.98 |
| 40 Carbon Disulfide | | | | | CAS #: 75-15-0 | | |
| 2.627 | 2.627 (0.572) | 76 | 633246 | 47.3307 | 47.331 | 80.00- 120.00 | 100.00 |
| 41 2-Propanol | | | | | CAS #: 67-63-0 | | |
| 2.685 | 2.685 (0.585) | 45 | 362618 | 47.8879 | 47.888 | 80.00- 120.00 | 100.00 |
| 2.677 | 2.685 (0.583) | 43 | 85057 | | | 0.00- 72.17 | 23.46 |
| 2.677 | 2.685 (0.583) | 59 | 14256 | | | 0.00- 85.00 | 3.93 |
| 44 3-Chloropropene | | | | | CAS #: 107-05-1 | | |
| 2.835 | 2.835 (0.618) | 76 | 102606 | 49.0804 | 49.080 | 80.00- 120.00 | 100.00 |
| 2.828 | 2.828 (0.616) | 41 | 300221 | | | 245.26- 345.26 | 292.60 |
| 46 Methylene Chloride | | | | | CAS #: 75-09-2 | | |
| 3.000 | 3.000 (0.654) | 49 | 262949 | 46.6478 | 46.648 | 80.00- 120.00 | 100.00 |
| 3.000 | 3.000 (0.654) | 84 | 177406 | | | 18.14- 118.14 | 67.47 |
| 3.000 | 3.000 (0.654) | 51 | 80051 | | | 0.00- 80.39 | 30.44 |
| 48 tert-Butyl-Alcohol | | | | | CAS #: 75-65-0 | | |
| 3.136 | 3.136 (0.683) | 59 | 464716 | 50.0999 | 50.100 | 80.00- 120.00 | 100.00 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 48 tert-Butyl-Alcohol (continued) | | | | | | | |
| 3.136 | 3.136 (0.683) | 41 | 127633 | | | 0.00- 83.59 | 27.46 |
| 3.136 | 3.136 (0.683) | 57 | 50765 | | | 0.00- 57.49 | 10.92 |
| 50 MTBE | | | | | CAS #: 1634-04-4 | | |
| 3.243 | 3.243 (0.707) | 73 | 679688 | 50.4532 | 50.453 | 80.00- 120.00 | 100.00 |
| 3.243 | 3.243 (0.707) | 57 | 158179 | | | 0.00- 72.69 | 23.27 |
| 3.243 | 3.243 (0.707) | 41 | 165280 | | | 0.00- 75.17 | 24.32 |
| 52 trans-1,2-Dichloroethene | | | | | CAS #: 156-60-5 | | |
| 3.258 | 3.258 (0.710) | 98 | 145428 | 51.0018 | 51.002 | 80.00- 120.00 | 100.00 |
| 3.258 | 3.258 (0.710) | 61 | 385203 | | | 215.31- 315.31 | 264.88 |
| 3.258 | 3.258 (0.710) | 96 | 227520 | | | 114.13- 214.13 | 156.45 |
| 58 Hexane | | | | | CAS #: 110-54-3 | | |
| 3.487 | 3.487 (0.760) | 57 | 407775 | 51.0474 | 51.047 | 80.00- 120.00 | 100.00 |
| 3.487 | 3.487 (0.760) | 43 | 256608 | | | 19.39- 119.39 | 62.93 |
| 3.487 | 3.480 (0.760) | 86 | 63459 | | | 0.00- 69.00 | 15.56 |
| 63 Isopropyl ether | | | | | CAS #: 108-20-3 | | |
| 3.773 | 3.766 (0.822) | 45 | 953476 | 51.4275 | 51.427 | 80.00- 120.00 | 100.00 |
| 3.773 | 3.766 (0.822) | 87 | 227150 | | | 0.00- 73.47 | 23.82 |
| 3.773 | 3.766 (0.822) | 59 | 104710 | | | 0.00- 60.91 | 10.98 |
| 64 1,1-Dichloroethane | | | | | CAS #: 75-34-3 | | |
| 3.759 | 3.752 (0.819) | 63 | 485359 | 49.1134 | 49.113 | 80.00- 120.00 | 100.00 |
| 3.759 | 3.752 (0.819) | 65 | 153704 | | | 0.00- 81.84 | 31.67 |
| 65 Vinyl Acetate | | | | | CAS #: 108-05-4 | | |
| 3.809 | 3.809 (0.830) | 86 | 58317 | 51.6366 | 51.637 | 80.00- 120.00 | 100.00 |
| 3.809 | 3.802 (0.830) | 43 | 1124875 | | | 1533.22-1633.22 | 1928.90 |
| 72 t-Butylethyl Ether | | | | | CAS #: 637-92-3 | | |
| 4.139 | 4.132 (0.902) | 59 | 897599 | 51.3641 | 51.364 | 80.00- 120.00 | 100.00 |
| 4.139 | 4.139 (0.902) | 87 | 339195 | | | 0.00- 87.49 | 37.79 |
| 4.139 | 4.132 (0.902) | 41 | 178520 | | | 0.00- 70.38 | 19.89 |
| 74 cis-1,2-Dichloroethene | | | | | CAS #: 156-59-2 | | |
| 4.354 | 4.347 (0.948) | 98 | 160227 | 49.5386 | 49.539 | 80.00- 120.00 | 100.00 |
| 4.354 | 4.347 (0.948) | 96 | 249793 | | | 105.04- 205.04 | 155.90 |
| 4.354 | 4.347 (0.948) | 61 | 396470 | | | 194.70- 294.70 | 247.44 |
| 75 2-Butanone | | | | | CAS #: 78-93-3 | | |
| 4.389 | 4.382 (0.956) | 72 | 131613 | 52.9375 | 52.938 | 80.00- 120.00 | 100.00 |
| 4.389 | 4.382 (0.956) | 43 | 600502 | | | 399.09- 499.09 | 456.26 |
| 4.389 | 4.382 (0.956) | 57 | 47009 | | | 29.81- 129.81 | 35.72 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 78 Tetrahydrofuran | | | | | CAS #: 109-99-9 | | |
| 4.590 | 4.583 (1.000) | 42 | 323356 | 50.4421 | 50.442 | 80.00- 120.00 | 100.00 |
| 4.590 | 4.583 (1.000) | 71 | 116633 | | | 0.00- 85.98 | 36.07 |
| 4.590 | 4.583 (1.000) | 72 | 123232 | | | 0.00- 86.75 | 38.11 |
| 80 Chloroform | | | | | CAS #: 67-66-3 | | |
| 4.662 | 4.655 (1.016) | 83 | 580915 | 49.2739 | 49.274 | 80.00- 120.00 | 100.00 |
| 4.662 | 4.655 (1.016) | 85 | 374960 | | | 14.07- 114.07 | 64.55 |
| 83 Cyclohexane | | | | | CAS #: 110-82-7 | | |
| 4.769 | 4.762 (1.039) | 84 | 362021 | 50.1801 | 50.180 | 80.00- 120.00 | 100.00 |
| 4.769 | 4.762 (1.039) | 56 | 461241 | | | 76.68- 176.68 | 127.41 |
| 4.769 | 4.762 (1.039) | 41 | 267861 | | | 23.44- 123.44 | 73.99 |
| 85 1,1,1-Trichloroethane | | | | | CAS #: 71-55-6 | | |
| 4.790 | 4.776 (1.044) | 97 | 594161 | 49.6257 | 49.626 | 80.00- 120.00 | 100.00 |
| 4.790 | 4.776 (1.044) | 99 | 383316 | | | 13.90- 113.90 | 64.51 |
| 86 Carbon Tetrachloride | | | | | CAS #: 56-23-5 | | |
| 4.905 | 4.891 (1.069) | 119 | 553080 | 52.0285 | 52.028 | 80.00- 120.00 | 100.00 |
| 4.905 | 4.891 (1.069) | 117 | 572004 | | | 53.91- 153.91 | 103.42 |
| 89 2,2,4-Trimethylpentane | | | | | CAS #: 540-84-1 | | |
| 5.134 | 5.120 (1.119) | 57 | 1512563 | 50.6778 | 50.678 | 80.00- 120.00 | 100.00 |
| 5.134 | 5.120 (1.119) | 56 | 472973 | | | 0.00- 81.50 | 31.27 |
| 5.134 | 5.120 (1.119) | 41 | 394726 | | | 0.00- 77.21 | 26.10 |
| 90 Benzene | | | | | CAS #: 71-43-2 | | |
| 5.120 | 5.113 (0.929) | 78 | 850798 | 48.5565 | 48.556 | 80.00- 120.00 | 100.00 |
| 5.120 | 5.113 (0.929) | 77 | 199184 | | | 0.00- 73.17 | 23.41 |
| 93 tert-amyl-Methyl Ether | | | | | CAS #: 994-05-8 | | |
| 5.220 | 5.206 (1.137) | 73 | 805799 | 50.7757 | 50.776 | 80.00- 120.00 | 100.00 |
| 5.220 | 5.206 (1.137) | 87 | 197901 | | | 0.00- 74.24 | 24.56 |
| 5.220 | 5.206 (1.137) | 55 | 273491 | | | 0.00- 83.70 | 33.94 |
| 94 1,2-Dichloroethane | | | | | CAS #: 107-06-2 | | |
| 5.213 | 5.199 (0.945) | 62 | 460233 | 48.6314 | 48.631 | 80.00- 120.00 | 100.00 |
| 5.213 | 5.199 (0.945) | 64 | 147366 | | | 0.00- 83.10 | 32.02 |
| 95 Heptane | | | | | CAS #: 142-82-5 | | |
| 5.306 | 5.299 (0.962) | 71 | 319999 | 50.0391 | 50.039 | 80.00- 120.00 | 100.00 |
| 5.306 | 5.299 (0.962) | 43 | 597359 | | | 146.63- 246.63 | 186.68 |
| 5.306 | 5.299 (0.962) | 57 | 327724 | | | 54.79- 154.79 | 102.41 |
| 104 Trichloroethene | | | | | CAS #: 79-01-6 | | |
| 5.707 | 5.693 (1.035) | 95 | 381273 | 48.1141 | 48.114 | 80.00- 120.00 | 100.00 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 104 Trichloroethene (continued) | | | | | | | |
| 5.707 | 5.693 (1.035) | 130 | 341166 | | | 37.87- 137.87 | 89.48 |
| 5.707 | 5.693 (1.035) | 97 | 252614 | | | 14.69- 114.69 | 66.26 |
| 105 Methyl Cyclohexane | | | | | CAS #: 108-87-2 | | |
| 5.815 | 5.801 (1.267) | 83 | 545553 | 50.8034 | 50.803 | 80.00- 120.00 | 100.00 |
| 5.815 | 5.801 (1.267) | 98 | 255134 | | | 0.00- 96.57 | 46.77 |
| 5.815 | 5.801 (1.267) | 55 | 481183 | | | 39.57- 139.57 | 88.20 |
| 106 1,2-Dichloropropane | | | | | CAS #: 78-87-5 | | |
| 5.944 | 5.930 (1.078) | 63 | 365994 | 49.8827 | 49.883 | 80.00- 120.00 | 100.00 |
| 5.944 | 5.930 (1.078) | 62 | 261228 | | | 21.89- 121.89 | 71.37 |
| 5.944 | 5.930 (1.078) | 41 | 225204 | | | 11.07- 111.07 | 61.53 |
| 107 1,4-Dioxane | | | | | CAS #: 123-91-1 | | |
| 6.044 | 6.030 (1.096) | 88 | 199125 | 47.7877 | 47.788 | 80.00- 120.00 | 100.00 |
| 6.044 | 6.023 (1.096) | 58 | 151056 | | | 26.63- 126.63 | 75.86 |
| 6.037 | 6.023 (1.095) | 57 | 50924 | | | 0.00- 76.30 | 25.57 |
| 108 Bromodichloromethane | | | | | CAS #: 75-27-4 | | |
| 6.180 | 6.166 (1.121) | 83 | 702915 | 49.4210 | 49.421 | 80.00- 120.00 | 100.00 |
| 6.180 | 6.166 (1.121) | 85 | 453935 | | | 14.18- 114.18 | 64.58 |
| 110 cis-1,3-Dichloropropene | | | | | CAS #: 10061-01-5 | | |
| 6.567 | 6.546 (1.191) | 75 | 563008 | 50.8271 | 50.827 | 80.00- 120.00 | 100.00 |
| 6.567 | 6.546 (1.191) | 77 | 174945 | | | 0.00- 81.33 | 31.07 |
| 6.560 | 6.546 (1.190) | 39 | 310941 | | | 5.35- 105.35 | 55.23 |
| 112 4-Methyl-2-pentanone | | | | | CAS #: 108-10-1 | | |
| 6.689 | 6.675 (1.213) | 58 | 317411 | 48.6021 | 48.602 | 80.00- 120.00 | 100.00 |
| 6.689 | 6.675 (1.213) | 43 | 871719 | | | 224.75- 324.75 | 274.63 |
| 6.689 | 6.675 (1.213) | 85 | 127631 | | | 0.00- 89.27 | 40.21 |
| 115 Toluene | | | | | CAS #: 108-88-3 | | |
| 6.803 | 6.789 (1.234) | 91 | 1098961 | 47.0625 | 47.062 | 80.00- 120.00 | 100.00 |
| 6.803 | 6.789 (1.234) | 92 | 653931 | | | 8.97- 108.97 | 59.50 |
| 118 trans-1,3-Dichloropropene | | | | | CAS #: 10061-02-6 | | |
| 7.047 | 7.033 (0.885) | 75 | 597618 | 52.6450 | 52.645 | 80.00- 120.00 | 100.00 |
| 7.047 | 7.033 (0.885) | 77 | 187784 | | | 0.00- 81.46 | 31.42 |
| 7.047 | 7.033 (0.885) | 39 | 305284 | | | 1.00- 101.00 | 51.08 |
| 120 1,1,2-Trichloroethane | | | | | CAS #: 79-00-5 | | |
| 7.197 | 7.183 (0.904) | 97 | 409689 | 51.7107 | 51.711 | 80.00- 120.00 | 100.00 |
| 7.197 | 7.183 (0.904) | 99 | 250536 | | | 12.13- 112.13 | 61.15 |
| 7.197 | 7.183 (0.904) | 83 | 364896 | | | 39.12- 139.12 | 89.07 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 122 Tetrachloroethene | | | | | CAS #: 127-18-4 | | |
| 7.233 | 7.219 (0.908) | 166 | 440742 | 49.6433 | 49.643 | 80.00- 120.00 | 100.00 |
| 7.233 | 7.219 (0.908) | 129 | 368674 | | | 33.74- 133.74 | 83.65 |
| 7.233 | 7.219 (0.908) | 131 | 348869 | | | 29.11- 129.11 | 79.15 |
| 125 2-Hexanone | | | | | CAS #: 591-78-6 | | |
| 7.384 | 7.369 (0.927) | 58 | 454163 | 49.8224 | 49.822 | 80.00- 120.00 | 100.00 |
| 7.384 | 7.369 (0.927) | 43 | 893178 | | | 144.27- 244.27 | 196.66 |
| 7.384 | 7.369 (0.927) | 100 | 85384 | | | 0.00- 68.42 | 18.80 |
| 128 Dibromochloromethane | | | | | CAS #: 124-48-1 | | |
| 7.498 | 7.484 (0.942) | 129 | 647924 | 51.9116 | 51.912 | 80.00- 120.00 | 100.00 |
| 7.498 | 7.484 (0.942) | 127 | 502837 | | | 27.80- 127.80 | 77.61 |
| 130 1,2-Dibromoethane | | | | | CAS #: 106-93-4 | | |
| 7.606 | 7.591 (0.955) | 107 | 649670 | 52.5717 | 52.572 | 80.00- 120.00 | 100.00 |
| 7.606 | 7.591 (0.955) | 109 | 613752 | | | 43.98- 143.98 | 94.47 |
| 135 Chlorobenzene | | | | | CAS #: 108-90-7 | | |
| 7.992 | 7.978 (1.004) | 112 | 927569 | 48.6212 | 48.621 | 80.00- 120.00 | 100.00 |
| 7.992 | 7.978 (1.004) | 114 | 298484 | | | 0.00- 82.17 | 32.18 |
| 7.992 | 7.971 (1.004) | 77 | 626958 | | | 17.19- 117.19 | 67.59 |
| 137 Ethyl Benzene | | | | | CAS #: 100-41-4 | | |
| 8.050 | 8.036 (1.011) | 106 | 505215 | 52.2627 | 52.263 | 80.00- 120.00 | 100.00 |
| 8.050 | 8.036 (1.011) | 91 | 1666312 | | | 290.13- 390.13 | 329.82 |
| 140 m,p-Xylene | | | | | CAS #: 108-38-3 | | |
| 8.150 | 8.136 (1.023) | 106 | 637417 | 51.1709 | 51.171 | 80.00- 120.00 | 100.00 |
| 8.150 | 8.136 (1.023) | 91 | 1318340 | | | 156.72- 256.72 | 206.83 |
| 141 o-Xylene | | | | | CAS #: 95-47-6 | | |
| 8.487 | 8.465 (1.066) | 106 | 597564 | 50.6377 | 50.638 | 80.00- 120.00 | 100.00 |
| 8.487 | 8.465 (1.066) | 91 | 1310762 | | | 167.04- 267.04 | 219.35 |
| 142 Styrene | | | | | CAS #: 100-42-5 | | |
| 8.501 | 8.487 (1.067) | 104 | 973072 | 50.2993 | 50.299 | 80.00- 120.00 | 100.00 |
| 8.501 | 8.487 (1.067) | 78 | 535484 | | | 5.01- 105.01 | 55.03 |
| 145 Bromoform | | | | | CAS #: 75-25-2 | | |
| 8.680 | 8.666 (1.090) | 173 | 527407 | 51.7177 | 51.718 | 80.00- 120.00 | 100.00 |
| 8.680 | 8.666 (1.090) | 171 | 275990 | | | 1.61- 101.61 | 52.33 |
| 147 Cumene | | | | | CAS #: 98-82-8 | | |
| 8.773 | 8.759 (1.102) | 105 | 1789468 | 49.8847 | 49.885 | 80.00- 120.00 | 100.00 |
| 8.773 | 8.759 (1.102) | 120 | 449630 | | | 0.00- 75.25 | 25.13 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 147 Cumene (continued) | | | | | | | |
| 8.773 | 8.759 (1.102) | 51 | 207346 | | | 0.00- 62.26 | 11.59 |
| 151 1,1,2,2-Tetrachloroethane | | | | | CAS #: 79-34-5 | | |
| 9.081 | 9.067 (1.140) | 83 | 1013133 | 51.2525 | 51.252 | 80.00- 120.00 | 100.00 |
| 9.081 | 9.067 (1.140) | 85 | 650975 | | | 14.71- 114.71 | 64.25 |
| 153 Propylbenzene | | | | | CAS #: 103-65-1 | | |
| 9.110 | 9.096 (1.144) | 91 | 2272127 | 49.8833 | 49.883 | 80.00- 120.00 | 100.00 |
| 9.117 | 9.096 (1.145) | 120 | 484899 | | | 0.00- 71.30 | 21.34 |
| 9.117 | 9.096 (1.145) | 105 | 79909 | | | 0.00- 68.74 | 3.52 |
| 155 4-Ethyltoluene | | | | | CAS #: 622-96-8 | | |
| 9.210 | 9.189 (1.157) | 120 | 543051 | 50.6509 | 50.651 | 80.00- 120.00 | 100.00 |
| 9.210 | 9.189 (1.157) | 105 | 1909119 | | | 302.71- 402.71 | 351.55 |
| 156 1,3,5-Trimethylbenzene | | | | | CAS #: 108-67-8 | | |
| 9.260 | 9.246 (1.163) | 120 | 754134 | 52.2852 | 52.285 | 80.00- 120.00 | 100.00 |
| 9.260 | 9.246 (1.163) | 105 | 1584790 | | | 160.53- 260.53 | 210.15 |
| 162 1,2,4-Trimethylbenzene | | | | | CAS #: 95-63-6 | | |
| 9.575 | 9.561 (1.202) | 120 | 678947 | 50.5968 | 50.597 | 80.00- 120.00 | 100.00 |
| 9.575 | 9.554 (1.202) | 105 | 1524995 | | | 174.98- 274.98 | 224.61 |
| 165 1,3-Dichlorobenzene | | | | | CAS #: 541-73-1 | | |
| 9.833 | 9.819 (1.235) | 146 | 885884 | 49.5403 | 49.540 | 80.00- 120.00 | 100.00 |
| 9.833 | 9.819 (1.235) | 148 | 564369 | | | 13.36- 113.36 | 63.71 |
| 9.833 | 9.819 (1.235) | 111 | 402988 | | | 0.00- 95.45 | 45.49 |
| 166 1,4-Dichlorobenzene | | | | | CAS #: 106-46-7 | | |
| 9.912 | 9.898 (1.245) | 146 | 913556 | 50.0699 | 50.070 | 80.00- 120.00 | 100.00 |
| 9.912 | 9.898 (1.245) | 148 | 578537 | | | 13.03- 113.03 | 63.33 |
| 9.912 | 9.898 (1.245) | 111 | 400397 | | | 0.00- 93.63 | 43.83 |
| 168 alpha-Chlorotoluene | | | | | CAS #: 100-44-7 | | |
| 10.027 | 10.020 (1.259) | 91 | 1163344 | 47.1748 | 47.175 | 80.00- 120.00 | 100.00 |
| 10.034 | 10.020 (1.260) | 126 | 209484 | | | 0.00- 67.76 | 18.01 |
| 171 1,2-Dichlorobenzene | | | | | CAS #: 95-50-1 | | |
| 10.227 | 10.213 (1.284) | 146 | 834175 | 50.6314 | 50.631 | 80.00- 120.00 | 100.00 |
| 10.227 | 10.213 (1.284) | 148 | 525530 | | | 13.23- 113.23 | 63.00 |
| 10.227 | 10.213 (1.284) | 111 | 393719 | | | 0.00- 97.35 | 47.20 |
| 174 1,2,4-Trichlorobenzene | | | | | CAS #: 120-82-1 | | |
| 11.531 | 11.524 (1.448) | 180 | 609628 | 47.7448 | 47.745 | 80.00- 120.00 | 100.00 |
| 11.531 | 11.524 (1.448) | 182 | 574362 | | | 44.30- 144.30 | 94.22 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 175 Hexachlorobutadiene | | | | | CAS #: 87-68-3 | | |
| 11.624 | 11.617 (1.460) | 225 | 433614 | 50.3949 | 50.395 | 80.00- 120.00 | 100.00 |
| 11.624 | 11.617 (1.460) | 223 | 274897 | | | 14.17- 114.17 | 63.40 |
| 176 Naphthalene | | | | | CAS #: 91-20-3 | | |
| 11.753 | 11.746 (1.476) | 128 | 1461956 | 43.4552 | 43.455 | 80.00- 120.00 | 100.00 |
| 11.753 | 11.746 (1.476) | 127 | 184855 | | | 0.00- 62.93 | 12.64 |

Report Date: 31-Mar-2010 17:56

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdd.i
Lab File ID: d033121.d
Lab Smp Id: LCS
Analysis Type: VOA
Quant Type: ISTD
Operator: ra
Method File: /chem/msdd.i/31mar10a.b/d10q0331a.m
Misc Info: 50ppbv(200ppbv)

Calibration Date: 31-MAR-2010
Calibration Time: 15:19
Client Smp ID: LCS
Level: LOW
Sample Type: AIR

| | | AREA LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 79 Bromochloromethan | 104005 | 62403 | 145607 | 103381 | -0.60 |
| 100 1,4-Difluorobenze | 450386 | 270232 | 630540 | 457985 | 1.69 |
| 134 Chlorobenzene-d5 | 514163 | 308498 | 719828 | 512396 | -0.34 |

| | | RT LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 79 Bromochloromethan | 4.58 | 4.25 | 4.91 | 4.59 | 0.31 |
| 100 1,4-Difluorobenze | 5.51 | 5.18 | 5.84 | 5.51 | 0.13 |
| 134 Chlorobenzene-d5 | 7.95 | 7.62 | 8.28 | 7.96 | 0.18 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Report Date: 31-Mar-2010 17:56

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: 31mar10a
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: LCS Client Smp ID: LCS
Level: LOW Operator: ra
Data Type: MS DATA SampleType: LCS
SpikeList File: 2926spectra.spk Quant Type: ISTD
Sublist File: AT09.sub
Method File: /chem/msdd.i/31mar10a.b/d10q0331a.m
Misc Info: 50ppbv(200ppbv)

| | SPIKE COMPOUND | CONC ADDED PPBV | CONC RECOVERED PPBV | % RECOVERED | LIMITS |
|---|---|---|---|---|---|
| 6 | Propylene | 50.000 | 46.644 | 93.29 | 60-140 |
| 7 | Dichlorodifluorome | 50.000 | 51.187 | 102.37 | 70-130 |
| 10 | Freon 114 | 50.000 | 49.359 | 98.72 | 70-130 |
| 13 | Chloromethane | 50.000 | 50.551 | 101.10 | 70-130 |
| 15 | Vinyl Chloride | 50.000 | 56.880 | 113.76 | 70-130 |
| 18 | 1,3-Butadiene | 50.000 | 52.646 | 105.29 | 60-140 |
| 24 | Bromomethane | 50.000 | 50.390 | 100.78 | 70-130 |
| 25 | Chloroethane | 50.000 | 48.495 | 96.99 | 70-130 |
| 28 | Trichlorofluoromet | 50.000 | 53.110 | 106.22 | 70-130 |
| 29 | Ethanol | 50.000 | 47.418 | 94.84 | 60-140 |
| 33 | Freon 113 | 50.000 | 44.858 | 89.72 | 70-130 |
| 34 | 1,1-Dichloroethene | 50.000 | 45.018 | 90.04 | 70-130 |
| 38 | Acetone | 50.000 | 48.428 | 96.86 | 60-140 |
| 40 | Carbon Disulfide | 50.000 | 47.331 | 94.66 | 60-140 |
| 41 | 2-Propanol | 50.000 | 47.888 | 95.78 | 60-140 |
| 46 | Methylene Chloride | 50.000 | 46.648 | 93.30 | 70-130 |
| 50 | MTBE | 50.000 | 50.453 | 100.91 | 60-140 |
| 52 | trans-1,2-Dichloro | 50.000 | 51.002 | 102.00 | 60-140 |
| 58 | Hexane | 50.000 | 51.047 | 102.09 | 60-140 |
| 65 | Vinyl Acetate | 50.000 | 51.637 | 103.27 | 60-140 |
| 64 | 1,1-Dichloroethane | 50.000 | 49.113 | 98.23 | 70-130 |
| 74 | cis-1,2-Dichloroet | 50.000 | 49.539 | 99.08 | 70-130 |
| 75 | 2-Butanone | 50.000 | 52.938 | 105.88 | 60-140 |
| 78 | Tetrahydrofuran | 50.000 | 50.442 | 100.88 | 60-140 |
| 80 | Chloroform | 50.000 | 49.274 | 98.55 | 70-130 |
| 83 | Cyclohexane | 50.000 | 50.180 | 100.36 | 60-140 |
| 85 | 1,1,1-Trichloroeth | 50.000 | 49.626 | 99.25 | 70-130 |
| 86 | Carbon Tetrachlori | 50.000 | 52.028 | 104.06 | 70-130 |
| 90 | Benzene | 50.000 | 48.556 | 97.11 | 70-130 |
| 94 | 1,2-Dichloroethane | 50.000 | 48.631 | 97.26 | 70-130 |
| 95 | Heptane | 50.000 | 50.039 | 100.08 | 60-140 |
| 104 | Trichloroethene | 50.000 | 48.114 | 96.23 | 70-130 |
| 106 | 1,2-Dichloropropan | 50.000 | 49.883 | 99.77 | 70-130 |

| SPIKE COMPOUND | CONC ADDED PPBV | CONC RECOVERED PPBV | % RECOVERED | LIMITS |
|---|---|---|---|---|
| 107 1,4-Dioxane | 50.000 | 47.788 | 95.58 | 60-140 |
| 108 Bromodichlorometha | 50.000 | 49.421 | 98.84 | 60-140 |
| 110 cis-1,3-Dichloropr | 50.000 | 50.827 | 101.65 | 70-130 |
| 112 4-Methyl-2-pentano | 50.000 | 48.602 | 97.20 | 60-140 |
| 115 Toluene | 50.000 | 47.062 | 94.12 | 70-130 |
| 118 trans-1,3-Dichloro | 50.000 | 52.645 | 105.29 | 70-130 |
| 120 1,1,2-Trichloroeth | 50.000 | 51.711 | 103.42 | 70-130 |
| 122 Tetrachloroethene | 50.000 | 49.643 | 99.29 | 70-130 |
| 125 2-Hexanone | 50.000 | 49.822 | 99.64 | 60-140 |
| 128 Dibromochlorometha | 50.000 | 51.912 | 103.82 | 60-140 |
| 130 1,2-Dibromoethane | 50.000 | 52.572 | 105.14 | 70-130 |
| 135 Chlorobenzene | 50.000 | 48.621 | 97.24 | 70-130 |
| 137 Ethyl Benzene | 50.000 | 52.263 | 104.53 | 70-130 |
| 140 m,p-Xylene | 50.000 | 51.171 | 102.34 | 70-130 |
| 141 o-Xylene | 50.000 | 50.638 | 101.28 | 70-130 |
| 142 Styrene | 50.000 | 50.299 | 100.60 | 70-130 |
| 145 Bromoform | 50.000 | 51.718 | 103.44 | 60-140 |
| 151 1,1,2,2-Tetrachlor | 50.000 | 51.252 | 102.51 | 70-130 |
| 155 4-Ethyltoluene | 50.000 | 50.651 | 101.30 | 60-140 |
| 156 1,3,5-Trimethylben | 50.000 | 52.285 | 104.57 | 70-130 |
| 162 1,2,4-Trimethylben | 50.000 | 50.597 | 101.19 | 70-130 |
| 165 1,3-Dichlorobenzen | 50.000 | 49.540 | 99.08 | 70-130 |
| 166 1,4-Dichlorobenzen | 50.000 | 50.070 | 100.14 | 70-130 |
| 168 alpha-Chlorotoluen | 50.000 | 47.175 | 94.35 | 70-130 |
| 171 1,2-Dichlorobenzen | 50.000 | 50.631 | 101.26 | 70-130 |
| 174 1,2,4-Trichloroben | 50.000 | 47.745 | 95.49 | 70-130 |
| 175 Hexachlorobutadien | 50.000 | 50.395 | 100.79 | 70-130 |
| 153 Propylbenzene | 50.000 | 49.883 | 99.77 | 60-140 |
| 147 Cumene | 50.000 | 49.885 | 99.77 | 60-140 |
| 44 3-Chloropropene | 50.000 | 49.080 | 98.16 | 60-140 |
| 89 2,2,4-Trimethylpen | 50.000 | 50.678 | 101.36 | 60-140 |
| 26 Isopentane | 50.000 | 50.556 | 101.11 | 70-130 |
| 14 Butane | 50.000 | 51.023 | 102.05 | 70-130 |
| 105 Methyl Cyclohexane | 50.000 | 50.803 | 101.61 | 70-130 |
| 48 tert-Butyl-Alcohol | 50.000 | 50.100 | 100.20 | 60-140 |
| 176 Naphthalene | 50.000 | 43.455 | 86.91 | 60-140 |
| 63 Isopropyl ether | 50.000 | 51.427 | 102.85 | 60-140 |
| 72 t-Butylethyl Ether | 50.000 | 51.364 | 102.73 | 60-140 |
| 93 tert-amyl-Methyl E | 50.000 | 50.776 | 101.55 | 60-140 |

| SURROGATE COMPOUND | CONC ADDED PPBV | CONC RECOVERED PPBV | % RECOVERED | LIMITS |
|---|---|---|---|---|
| $ 91 1,2-Dichloroethane | 25.000 | 25.259 | 101.04 | 70-130 |

| SURROGATE COMPOUND | CONC ADDED PPBV | CONC RECOVERED PPBV | % RECOVERED | LIMITS |
|---|---|---|---|---|
| $ 114 Toluene-d8 | 25.000 | 24.627 | 98.51 | 70-130 |
| $ 149 Bromofluorobenzene | 25.000 | 24.890 | 99.56 | 70-130 |

Data File: /chem/msdd.i/31mar10a.b/d033121.d

Date : 31-MAR-2010 17:34

Client ID: LCS

Sample Info: 50ml #1911-277

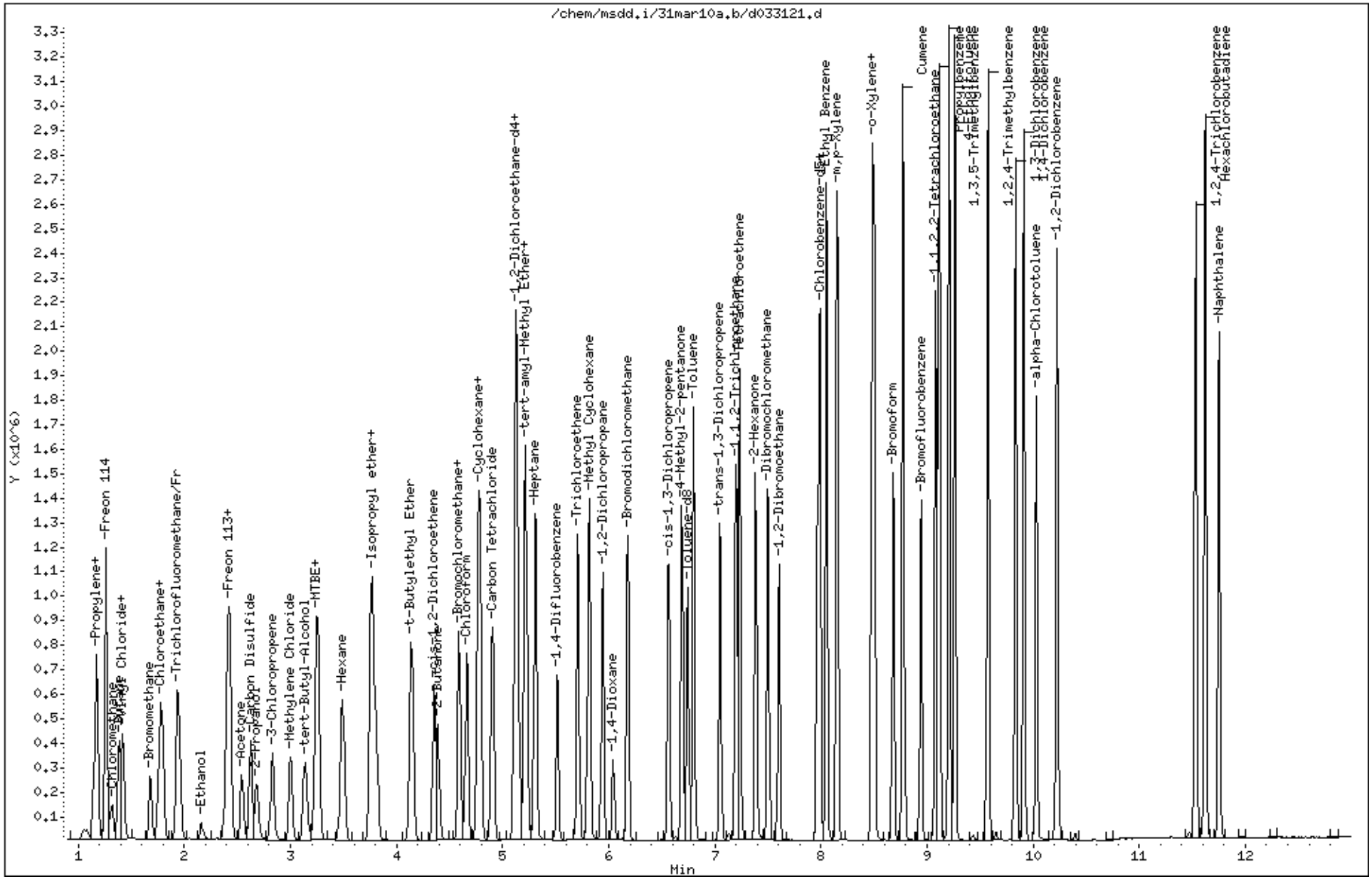
Column phase: RTx-624

Instrument: msdd.i

Operator: ra

Column diameter: 0.53





Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msdd.i/31mar10a.b/d033111.d
Lab Smp Id: ICAL Level 1 Client Smp ID: ICAL level 1
Inj Date : 31-MAR-2010 13:49
Operator : kjj Inst ID: msdd.i
Smp Info : 30ml #1911-328
Misc Info : 2.0ppbv->0.3ppbv
Comment :
Method : /chem/msdd.i/31mar10a.b/d10q0331a.m
Meth Date : 31-Mar-2010 16:10 aburke Quant Type: ISTD
Cal Date : 31-MAR-2010 13:49 Cal File: d033111.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AFCEElow.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| | | | | AMOUNTS | | | |
|---|---|---|---|---|---|---|---|
| | | | | CAL-AMT | ON-COL | | |
| RT | EXP RT (REL RT) | MASS | RESPONSE | ( PPBV) | ( PPBV) | TARGET RANGE | RATIO |
| == | ====== ======== | ==== | ======== | ======= | ======= | ========== | ===== |
| * 79 Bromochloromethane | | | | | CAS #: 74-97-5 | | |
| 4.576 | 4.576 (1.000) | 130 | 107022 | 25.0000 | | 50.00- 150.00 | 100.00 |
| 4.576 | 4.576 (1.000) | 128 | 82790 | | | 27.33- 127.33 | 77.36 |
| 4.576 | 4.576 (1.000) | 49 | 182429 | | | 123.46- 223.46 | 170.46 |
| * 100 1,4-Difluorobenzene | | | | | CAS #: 540-36-3 | | |
| 5.500 | 5.500 (1.000) | 114 | 458673 | 25.0000 | | 50.00- 150.00 | 100.00 |
| 5.500 | 5.500 (1.000) | 88 | 84612 | | | 0.00- 68.33 | 18.45 |
| * 134 Chlorobenzene-d5 | | | | | CAS #: 3114-55-4 | | |
| 7.949 | 7.949 (1.000) | 117 | 514723 | 25.0000 | | 50.00- 150.00 | 100.00 |
| 7.949 | 7.949 (1.000) | 82 | 321772 | | | 12.92- 112.92 | 62.51 |
| $ 91 1,2-Dichloroethane-d4 | | | | | CAS #: 17060-07-0 | | |
| 5.127 | 5.127 (1.121) | 65 | 209589 | 25.0000 | 24.359 | 50.00- 150.00 | 100.00 |
| 5.127 | 5.127 (1.121) | 67 | 102550 | | | 2.15- 102.15 | 48.93 |
| $ 114 Toluene-d8 | | | | | CAS #: 2037-26-5 | | |
| 6.732 | 6.732 (1.224) | 98 | 564399 | 25.0000 | 24.832 | 50.00- 150.00 | 100.00 |
| 6.732 | 6.732 (1.224) | 70 | 70138 | | | 0.00- 62.20 | 12.43 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 114 Toluene-d8 (continued) | | | | | | | |
| 6.732 | 6.732 (1.224) | 100 | 368241 | | | 15.58- 115.58 | 65.24 |
| $ 149 Bromofluorobenzene | | | | | | CAS #: 460-00-4 | |
| 8.931 | 8.931 (1.123) | 174 | 258185 | 25.0000 | 24.597 | 50.00- 150.00 | 100.00 |
| 8.924 | 8.924 (1.123) | 95 | 437828 | | | 120.42- 220.42 | 169.58 |
| 8.931 | 8.931 (1.123) | 176 | 250166 | | | 46.27- 146.27 | 96.89 |
| 162 1,2,4-Trimethylbenzene | | | | | | CAS #: 95-63-6 | |
| 9.554 | 9.554 (1.202) | 120 | 4111 | 0.30000 | 0.3064 | 50.00- 150.00 | 100.00(a) |
| 9.561 | 9.561 (1.203) | 105 | 8852 | | | 174.98- 274.98 | 215.32 |
| 156 1,3,5-Trimethylbenzene | | | | | | CAS #: 108-67-8 | |
| 9.246 | 9.246 (1.163) | 120 | 4096 | 0.30000 | 0.2835 | 50.00- 150.00 | 100.00(a) |
| 9.246 | 9.246 (1.163) | 105 | 9036 | | | 160.53- 260.53 | 220.61 |

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Report Date: 31-Mar-2010 16:10

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdd.i
Lab File ID: d033111.d
Lab Smp Id: ICAL Level 1
Analysis Type: VOA
Quant Type: ISTD
Operator: kjj
Method File: /chem/msdd.i/31mar10a.b/d10q0331a.m
Misc Info: 2.0ppbv->0.3ppbv

Calibration Date: 31-MAR-2010
Calibration Time: 15:19
Client Smp ID: ICAL level 1
Level: LOW
Sample Type: AIR

| | | AREA LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 79 Bromochloromethan | 104005 | 62403 | 145607 | 107022 | 2.90 |
| 100 1,4-Difluorobenze | 450386 | 270232 | 630540 | 458673 | 1.84 |
| 134 Chlorobenzene-d5 | 514163 | 308498 | 719828 | 514723 | 0.11 |

| | | RT LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 79 Bromochloromethan | 4.58 | 4.25 | 4.91 | 4.58 | 0.00 |
| 100 1,4-Difluorobenze | 5.51 | 5.18 | 5.84 | 5.50 | -0.13 |
| 134 Chlorobenzene-d5 | 7.95 | 7.62 | 8.28 | 7.95 | 0.00 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msdd.i/31mar10a.b/d033111.d

Date : 31-MAR-2010 13:49

Client ID: ICAL level 1

Sample Info: 30ml #1911-328

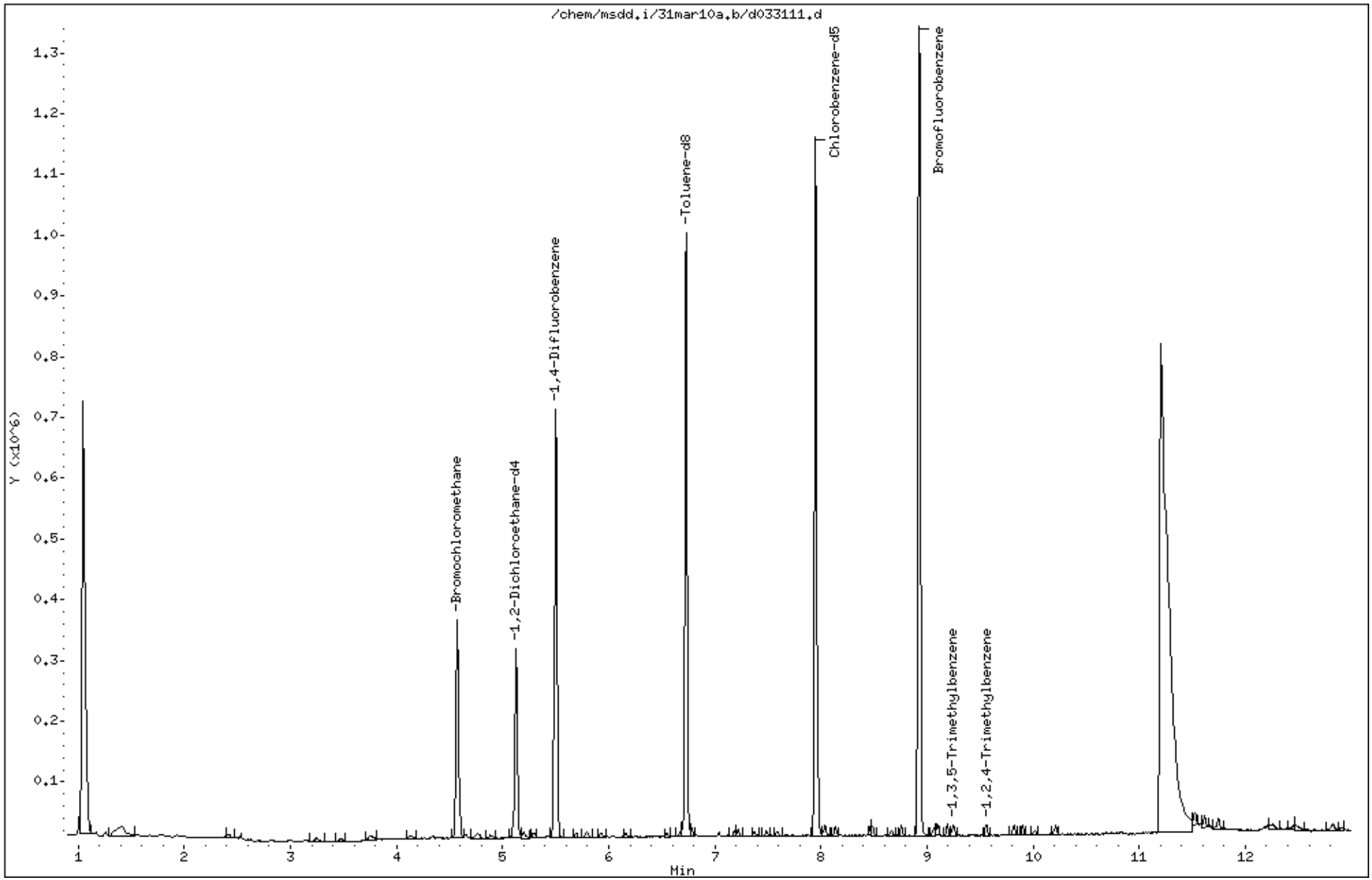
Column phase: RTx-624

Instrument: msdd.i

Operator: kjj

Column diameter: 0.53





Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msdd.i/31mar10a.b/d033112.d
Lab Smp Id: ICAL Level 2 Client Smp ID: ICAL level 2
Inj Date : 31-MAR-2010 14:09
Operator : kjj Inst ID: msdd.i
Smp Info : 50ml #1911-328
Misc Info : 2.0ppbv->0.5ppbv
Comment :
Method : /chem/msdd.i/31mar10a.b/d10q0331a.m
Meth Date : 31-Mar-2010 16:11 aburke Quant Type: ISTD
Cal Date : 31-MAR-2010 14:09 Cal File: d033112.d
Als bottle: 2 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT09low.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| | | | | AMOUNTS | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | CAL-AMT | ON-COL | | | |
| RT | EXP RT (REL RT) | MASS | RESPONSE | ( PPBV) | ( PPBV) | TARGET RANGE | | RATIO |
| == | ====== ======== | ==== | ======== | ======= | ======= | ========== | | ===== |
| * 79 Bromochloromethane | | | | | CAS #: 74-97-5 | | | |
| 4.576 | 4.576 (1.000) | 130 | 105442 | 25.0000 | | 50.00- 150.00 | | 100.00 |
| 4.576 | 4.576 (1.000) | 128 | 80732 | | | 27.33- 127.33 | | 76.57 |
| 4.576 | 4.576 (1.000) | 49 | 180376 | | | 123.46- 223.46 | | 171.07 |
| * 100 1,4-Difluorobenzene | | | | | CAS #: 540-36-3 | | | |
| 5.507 | 5.507 (1.000) | 114 | 456058 | 25.0000 | | 50.00- 150.00 | | 100.00 |
| 5.507 | 5.507 (1.000) | 88 | 83016 | | | 0.00- 68.33 | | 18.20 |
| * 134 Chlorobenzene-d5 | | | | | CAS #: 3114-55-4 | | | |
| 7.950 | 7.950 (1.000) | 117 | 511814 | 25.0000 | | 50.00- 150.00 | | 100.00 |
| 7.950 | 7.950 (1.000) | 82 | 323957 | | | 12.92- 112.92 | | 63.30 |
| $ 91 1,2-Dichloroethane-d4 | | | | | CAS #: 17060-07-0 | | | |
| 5.127 | 5.127 (1.121) | 65 | 207252 | 25.0000 | 24.448 | 50.00- 150.00 | | 100.00 |
| 5.134 | 5.134 (1.122) | 67 | 101506 | | | 2.15- 102.15 | | 48.98 |
| $ 114 Toluene-d8 | | | | | CAS #: 2037-26-5 | | | |
| 6.732 | 6.732 (1.222) | 98 | 562104 | 25.0000 | 24.873 | 50.00- 150.00 | | 100.00 |
| 6.732 | 6.732 (1.222) | 70 | 68665 | | | 0.00- 62.20 | | 12.22 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 114 Toluene-d8 (continued) | | | | | | | |
| 6.732 | 6.732 (1.222) | 100 | 370674 | | | 15.58- 115.58 | 65.94 |
| $ 149 Bromofluorobenzene | | | | | CAS #: 460-00-4 | | |
| 8.931 | 8.931 (1.123) | 174 | 261209 | 25.0000 | 25.027 | 50.00- 150.00 | 100.00 |
| 8.924 | 8.924 (1.123) | 95 | 443426 | | | 120.42- 220.42 | 169.76 |
| 8.931 | 8.931 (1.123) | 176 | 251732 | | | 46.27- 146.27 | 96.37 |
| 7 Dichlorodifluoromethane/Fr12 | | | | | CAS #: 75-71-8 | | |
| 1.167 | 1.167 (0.255) | 85 | 6418 | 0.50000 | 0.4795 | 50.00- 150.00 | 100.00(a) |
| 1.167 | 1.167 (0.255) | 87 | 2151 | | | 0.00- 82.88 | 33.52 |
| 10 Freon 114 | | | | | CAS #: 76-14-2 | | |
| 1.265 | 1.265 (0.276) | 135 | 3594 | 0.50000 | 0.4861 | 50.00- 150.00 | 100.00(a) |
| 1.265 | 1.265 (0.276) | 137 | 1333 | | | 0.00- 82.69 | 37.09 |
| 15 Vinyl Chloride | | | | | CAS #: 75-01-4 | | |
| 1.391 | 1.391 (0.304) | 62 | 1738 | 0.50000 | 0.4277 | 50.00- 150.00 | 100.00(a) |
| 1.391 | 1.391 (0.304) | 64 | 1650 | | | 0.00- 97.20 | 94.94 |
| 18 1,3-Butadiene | | | | | CAS #: 106-99-0 | | |
| 1.419 | 1.419 (0.310) | 54 | 1983 | 0.50000 | 0.5634 | 50.00- 150.00 | 100.00 |
| 1.419 | 1.419 (0.310) | 39 | 3404 | | | 75.63- 175.63 | 171.66 |
| 24 Bromomethane | | | | | CAS #: 74-83-9 | | |
| 1.670 | 1.670 (0.365) | 94 | 1968 | 0.50000 | 0.4981 | 50.00- 150.00 | 100.00(a) |
| 1.684 | 1.684 (0.368) | 96 | 1681 | | | 41.64- 141.64 | 85.42 |
| 25 Chloroethane | | | | | CAS #: 75-00-3 | | |
| 1.754 | 1.754 (0.383) | 64 | 1525 | 0.50000 | 0.5630 | 50.00- 150.00 | 100.00(T) |
| 1.936 | 1.936 (0.423) | 66 | 932 | | | 0.00- 86.90 | 61.11 |
| 0.000 | 1.000 (0.000) | 49 | 0 | | | 0.00- 78.35 | 0.00 |
| 28 Trichlorofluoromethane/Fr11 | | | | | CAS #: 75-69-4 | | |
| 1.950 | 1.950 (0.426) | 101 | 6892 | 0.50000 | 0.4928 | 50.00- 150.00 | 100.00(a) |
| 1.936 | 1.936 (0.423) | 103 | 4305 | | | 12.85- 112.85 | 62.46 |
| 33 Freon 113 | | | | | CAS #: 76-13-1 | | |
| 2.413 | 2.413 (0.527) | 151 | 3098 | 0.50000 | 0.4832 | 50.00- 150.00 | 100.00(a) |
| 2.405 | 2.405 (0.526) | 153 | 1867 | | | 13.56- 113.56 | 60.26 |
| 2.413 | 2.413 (0.527) | 101 | 4345 | | | 96.53- 196.53 | 140.25 |
| 34 1,1-Dichloroethene | | | | | CAS #: 75-35-4 | | |
| 2.427 | 2.427 (0.530) | 98 | 1251 | 0.50000 | 0.4468 | 50.00- 150.00 | 100.00(a) |
| 2.434 | 2.434 (0.532) | 96 | 2104 | | | 107.46- 207.46 | 168.19 |
| 2.427 | 2.427 (0.530) | 61 | 4422 | | | 270.84- 370.84 | 353.48 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 40 Carbon Disulfide | | | | | CAS #: 75-15-0 | | |
| 2.620 | 2.620 (0.573) | 76 | 7769 | 0.50000 | 0.5659 | 50.00- 150.00 | 100.00 |
| 46 Methylene Chloride | | | | | CAS #: 75-09-2 | | |
| 3.007 | 3.007 (0.657) | 49 | 2782 | 0.50000 | 0.4835 | 50.00- 150.00 | 100.00(Ta) |
| 3.007 | 3.007 (0.657) | 84 | 1908 | | | 18.20- 118.20 | 68.58 |
| 0.000 | 1.000 (0.000) | 51 | 0 | | | 0.00- 80.39 | 0.00 |
| 50 MTBE | | | | | CAS #: 1634-04-4 | | |
| 3.251 | 3.251 (0.710) | 73 | 6296 | 0.50000 | 0.4620 | 50.00- 150.00 | 100.00(a) |
| 3.251 | 3.251 (0.710) | 57 | 1482 | | | 0.00- 73.10 | 23.54 |
| 3.236 | 3.236 (0.707) | 41 | 1360 | | | 0.00- 75.17 | 21.60 |
| 52 trans-1,2-Dichloroethene | | | | | CAS #: 156-60-5 | | |
| 3.258 | 3.258 (0.712) | 98 | 1286 | 0.50000 | 0.4439 | 50.00- 150.00 | 100.00(a) |
| 3.258 | 3.258 (0.712) | 61 | 3891 | | | 222.42- 322.42 | 302.57 |
| 3.258 | 3.258 (0.712) | 96 | 2432 | | | 114.13- 214.13 | 189.11 |
| 58 Hexane | | | | | CAS #: 110-54-3 | | |
| 3.487 | 3.487 (0.762) | 57 | 3864 | 0.50000 | 0.4737 | 50.00- 150.00 | 100.00(a) |
| 3.480 | 3.480 (0.760) | 43 | 3351 | | | 19.39- 119.39 | 86.72 |
| 2.993 | 2.993 (0.654) | 86 | 1229 | | | 0.00- 69.00 | 31.81 |
| 64 1,1-Dichloroethane | | | | | CAS #: 75-34-3 | | |
| 3.752 | 3.752 (0.820) | 63 | 4679 | 0.50000 | 0.4641 | 50.00- 150.00 | 100.00(a) |
| 3.752 | 3.752 (0.820) | 65 | 1469 | | | 0.00- 81.96 | 31.40 |
| 75 2-Butanone | | | | | CAS #: 78-93-3 | | |
| 4.397 | 4.397 (0.961) | 72 | 1059 | 0.50000 | 0.4234 | 50.00- 150.00 | 100.00(a) |
| 4.404 | 4.404 (0.962) | 43 | 3458 | | | 391.89- 491.89 | 326.53 |
| 4.132 | 4.132 (0.903) | 57 | 2709 | | | 29.81- 129.81 | 255.81 |
| 74 cis-1,2-Dichloroethene | | | | | CAS #: 156-59-2 | | |
| 4.347 | 4.347 (0.950) | 98 | 1567 | 0.50000 | 0.4756 | 50.00- 150.00 | 100.00(a) |
| 4.347 | 4.347 (0.950) | 96 | 2638 | | | 108.90- 208.90 | 168.35 |
| 4.347 | 4.347 (0.950) | 61 | 3742 | | | 194.41- 294.41 | 238.80 |
| 78 Tetrahydrofuran | | | | | CAS #: 109-99-9 | | |
| 4.604 | 4.604 (1.006) | 42 | 3185 | 0.50000 | 0.4888 | 50.00- 150.00 | 100.00(a) |
| 4.604 | 4.604 (1.006) | 71 | 1161 | | | 0.00- 85.98 | 36.45 |
| 4.397 | 4.397 (0.961) | 72 | 1059 | | | 0.00- 86.75 | 33.25 |
| 80 Chloroform | | | | | CAS #: 67-66-3 | | |
| 4.655 | 4.655 (1.017) | 83 | 5635 | 0.50000 | 0.4683 | 50.00- 150.00 | 100.00(a) |
| 4.655 | 4.655 (1.017) | 85 | 3892 | | | 15.01- 115.01 | 69.07 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 85 1,1,1-Trichloroethane | | | | | | CAS #: 71-55-6 | |
| 4.769 | 4.769 (1.042) | 97 | 5724 | 0.50000 | 0.4698 | 50.00- 150.00 | 100.00(a) |
| 4.776 | 4.776 (1.044) | 99 | 3549 | | | 13.41- 113.41 | 62.00 |
| 83 Cyclohexane | | | | | | CAS #: 110-82-7 | |
| 4.755 | 4.755 (1.039) | 84 | 3754 | 0.50000 | 0.5095 | 50.00- 150.00 | 100.00 |
| 4.755 | 4.755 (1.039) | 56 | 4817 | | | 78.59- 178.59 | 128.32 |
| 4.762 | 4.762 (1.041) | 41 | 3210 | | | 26.74- 126.74 | 85.51 |
| 86 Carbon Tetrachloride | | | | | | CAS #: 56-23-5 | |
| 4.891 | 4.891 (1.069) | 119 | 4564 | 0.50000 | 0.4273 | 50.00- 150.00 | 100.00(a) |
| 4.891 | 4.891 (1.069) | 117 | 4915 | | | 53.70- 153.70 | 107.69 |
| 89 2,2,4-Trimethylpentane | | | | | | CAS #: 540-84-1 | |
| 5.113 | 5.113 (1.117) | 57 | 15084 | 0.50000 | 0.4952 | 50.00- 150.00 | 100.00(a) |
| 5.120 | 5.120 (1.119) | 56 | 4724 | | | 0.00- 81.50 | 31.32 |
| 5.106 | 5.106 (1.116) | 41 | 4469 | | | 0.00- 77.21 | 29.63 |
| 90 Benzene | | | | | | CAS #: 71-43-2 | |
| 5.113 | 5.113 (0.928) | 78 | 9006 | 0.50000 | 0.5132 | 50.00- 150.00 | 100.00 |
| 5.113 | 5.113 (0.928) | 77 | 1894 | | | 0.00- 73.17 | 21.03 |
| 94 1,2-Dichloroethane | | | | | | CAS #: 107-06-2 | |
| 5.206 | 5.206 (0.945) | 62 | 4459 | 0.50000 | 0.4723 | 50.00- 150.00 | 100.00(a) |
| 5.199 | 5.199 (0.944) | 64 | 1587 | | | 0.00- 83.10 | 35.59 |
| 95 Heptane | | | | | | CAS #: 142-82-5 | |
| 5.299 | 5.299 (0.962) | 71 | 2898 | 0.50000 | 0.4565 | 50.00- 150.00 | 100.00(a) |
| 5.292 | 5.292 (0.961) | 43 | 6890 | | | 146.63- 246.63 | 237.75 |
| 5.292 | 5.292 (0.961) | 57 | 3202 | | | 54.79- 154.79 | 110.49 |
| 104 Trichloroethene | | | | | | CAS #: 79-01-6 | |
| 5.693 | 5.693 (1.034) | 95 | 4065 | 0.50000 | 0.5133 | 50.00- 150.00 | 100.00 |
| 5.700 | 5.700 (1.035) | 130 | 3326 | | | 36.71- 136.71 | 81.82 |
| 5.693 | 5.693 (1.034) | 97 | 2493 | | | 14.60- 114.60 | 61.33 |
| 105 Methyl Cyclohexane | | | | | | CAS #: 108-87-2 | |
| 5.801 | 5.801 (1.268) | 83 | 5376 | 0.50000 | 0.4913 | 50.00- 150.00 | 100.00(a) |
| 5.808 | 5.808 (1.269) | 98 | 2399 | | | 0.00- 96.57 | 44.62 |
| 5.801 | 5.801 (1.268) | 55 | 4703 | | | 39.57- 139.57 | 87.48 |
| 106 1,2-Dichloropropane | | | | | | CAS #: 78-87-5 | |
| 5.930 | 5.930 (1.077) | 63 | 3656 | 0.50000 | 0.4992 | 50.00- 150.00 | 100.00(a) |
| 5.930 | 5.930 (1.077) | 62 | 2567 | | | 20.35- 120.35 | 70.21 |
| 5.922 | 5.922 (1.075) | 41 | 2497 | | | 13.49- 113.49 | 68.30 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 108 Bromodichloromethane | | | | | CAS #: 75-27-4 | | |
| 6.166 | 6.166 (1.120) | 83 | 7006 | 0.50000 | 0.4963 | 50.00- 150.00 | 100.00(a) |
| 6.159 | 6.159 (1.118) | 85 | 4334 | | | 13.44- 113.44 | 61.86 |
| 110 cis-1,3-Dichloropropene | | | | | CAS #: 10061-01-5 | | |
| 6.553 | 6.553 (1.190) | 75 | 5250 | 0.50000 | 0.4806 | 50.00- 150.00 | 100.00(a) |
| 6.553 | 6.553 (1.190) | 77 | 1652 | | | 0.00- 81.59 | 31.47 |
| 6.553 | 6.553 (1.190) | 39 | 3134 | | | 5.92- 105.92 | 59.70 |
| 112 4-Methyl-2-pentanone | | | | | CAS #: 108-10-1 | | |
| 6.682 | 6.682 (1.213) | 58 | 2977 | 0.50000 | 0.4631 | 50.00- 150.00 | 100.00(a) |
| 6.682 | 6.682 (1.213) | 43 | 8582 | | | 224.75- 324.75 | 288.28 |
| 6.682 | 6.682 (1.213) | 85 | 1076 | | | 0.00- 89.27 | 36.14 |
| 115 Toluene | | | | | CAS #: 108-88-3 | | |
| 6.782 | 6.782 (1.232) | 91 | 11182 | 0.50000 | 0.4797 | 50.00- 150.00 | 100.00(a) |
| 6.789 | 6.789 (1.233) | 92 | 6687 | | | 9.29- 109.29 | 59.80 |
| 118 trans-1,3-Dichloropropene | | | | | CAS #: 10061-02-6 | | |
| 7.040 | 7.040 (0.886) | 75 | 4802 | 0.50000 | 0.4325 | 50.00- 150.00 | 100.00(a) |
| 7.040 | 7.040 (0.886) | 77 | 1690 | | | 0.00- 83.09 | 35.19 |
| 7.040 | 7.040 (0.886) | 39 | 2978 | | | 4.25- 104.25 | 62.02 |
| 120 1,1,2-Trichloroethane | | | | | CAS #: 79-00-5 | | |
| 7.183 | 7.183 (0.904) | 97 | 3644 | 0.50000 | 0.4609 | 50.00- 150.00 | 100.00(a) |
| 7.183 | 7.183 (0.904) | 99 | 2297 | | | 12.25- 112.25 | 63.04 |
| 7.190 | 7.190 (0.904) | 83 | 3736 | | | 42.00- 142.00 | 102.52 |
| 122 Tetrachloroethene | | | | | CAS #: 127-18-4 | | |
| 7.219 | 7.219 (0.908) | 166 | 4634 | 0.50000 | 0.5195 | 50.00- 150.00 | 100.00 |
| 7.219 | 7.219 (0.908) | 129 | 3880 | | | 33.95- 133.95 | 83.73 |
| 7.219 | 7.219 (0.908) | 131 | 3242 | | | 27.31- 127.31 | 69.96 |
| 125 2-Hexanone | | | | | CAS #: 591-78-6 | | |
| 7.377 | 7.377 (0.928) | 58 | 3996 | 0.50000 | 0.4464 | 50.00- 150.00 | 100.00(Ta) |
| 7.377 | 7.377 (0.928) | 43 | 8326 | | | 146.90- 246.90 | 208.36 |
| 0.000 | 1.000 (0.000) | 100 | 0 | | | 0.00- 68.42 | 0.00 |
| 128 Dibromochloromethane | | | | | CAS #: 124-48-1 | | |
| 7.491 | 7.491 (0.942) | 129 | 5750 | 0.50000 | 0.4653 | 50.00- 150.00 | 100.00(a) |
| 7.484 | 7.484 (0.941) | 127 | 4514 | | | 27.80- 127.80 | 78.50 |
| 130 1,2-Dibromoethane | | | | | CAS #: 106-93-4 | | |
| 7.591 | 7.591 (0.955) | 107 | 6007 | 0.50000 | 0.4871 | 50.00- 150.00 | 100.00(a) |
| 7.591 | 7.591 (0.955) | 109 | 5831 | | | 44.92- 144.92 | 97.07 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 135 Chlorobenzene | | | | | CAS #: 108-90-7 | | |
| 7.978 | 7.978 (1.004) | 112 | 10521 | 0.50000 | 0.5464 | 50.00- 150.00 | 100.00 |
| 7.978 | 7.978 (1.004) | 114 | 3545 | | | 0.00- 82.27 | 33.69 |
| 7.971 | 7.971 (1.003) | 77 | 9077 | | | 23.60- 123.60 | 86.28 |
| 137 Ethyl Benzene | | | | | CAS #: 100-41-4 | | |
| 8.036 | 8.036 (1.011) | 106 | 4474 | 0.50000 | 0.4645 | 50.00- 150.00 | 100.00(a) |
| 8.036 | 8.036 (1.011) | 91 | 16276 | | | 290.13- 390.13 | 363.79 |
| 140 m,p-Xylene | | | | | CAS #: 108-38-3 | | |
| 8.136 | 8.136 (1.023) | 106 | 6051 | 0.50000 | 0.4866 | 50.00- 150.00 | 100.00(a) |
| 8.136 | 8.136 (1.023) | 91 | 12266 | | | 156.72- 256.72 | 202.71 |
| 141 o-Xylene | | | | | CAS #: 95-47-6 | | |
| 8.465 | 8.465 (1.065) | 106 | 5579 | 0.50000 | 0.4744 | 50.00- 150.00 | 100.00(a) |
| 8.465 | 8.465 (1.065) | 91 | 12059 | | | 167.29- 267.29 | 216.15 |
| 142 Styrene | | | | | CAS #: 100-42-5 | | |
| 8.494 | 8.494 (1.068) | 104 | 8756 | 0.50000 | 0.4560 | 50.00- 150.00 | 100.00(a) |
| 8.487 | 8.487 (1.068) | 78 | 4830 | | | 5.25- 105.25 | 55.16 |
| 145 Bromoform | | | | | CAS #: 75-25-2 | | |
| 8.666 | 8.666 (1.090) | 173 | 4376 | 0.50000 | 0.4370 | 50.00- 150.00 | 100.00(a) |
| 8.666 | 8.666 (1.090) | 171 | 2329 | | | 2.47- 102.47 | 53.22 |
| 147 Cumene | | | | | CAS #: 98-82-8 | | |
| 8.759 | 8.759 (1.102) | 105 | 17170 | 0.50000 | 0.4808 | 50.00- 150.00 | 100.00(a) |
| 8.759 | 8.759 (1.102) | 120 | 4257 | | | 0.00- 75.25 | 24.79 |
| 8.759 | 8.759 (1.102) | 51 | 2525 | | | 0.00- 62.26 | 14.71 |
| 151 1,1,2,2-Tetrachloroethane | | | | | CAS #: 79-34-5 | | |
| 9.060 | 9.060 (1.140) | 83 | 9556 | 0.50000 | 0.4848 | 50.00- 150.00 | 100.00(a) |
| 9.067 | 9.067 (1.141) | 85 | 6199 | | | 14.89- 114.89 | 64.87 |
| 153 Propylbenzene | | | | | CAS #: 103-65-1 | | |
| 9.096 | 9.096 (1.144) | 91 | 21911 | 0.50000 | 0.4833 | 50.00- 150.00 | 100.00(a) |
| 9.096 | 9.096 (1.144) | 120 | 4661 | | | 0.00- 71.30 | 21.27 |
| 9.189 | 9.189 (1.156) | 105 | 17388 | | | 0.00- 68.74 | 79.36 |
| 155 4-Ethyltoluene | | | | | CAS #: 622-96-8 | | |
| 9.189 | 9.189 (1.156) | 120 | 5081 | 0.50000 | 0.4772 | 50.00- 150.00 | 100.00(a) |
| 9.189 | 9.189 (1.156) | 105 | 17388 | | | 299.99- 399.99 | 342.22 |
| 156 1,3,5-Trimethylbenzene | | | | | CAS #: 108-67-8 | | |
| 9.246 | 9.246 (1.163) | 120 | 6894 | 0.50000 | 0.4800 | 50.00- 150.00 | 100.00(a) |
| 9.246 | 9.246 (1.163) | 105 | 14090 | | | 160.53- 260.53 | 204.38 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 162 1,2,4-Trimethylbenzene | | | | | CAS #: 95-63-6 | | |
| 9.561 | 9.561 (1.203) | 120 | 6336 | 0.50000 | 0.4749 | 50.00- 150.00 | 100.00(a) |
| 9.554 | 9.554 (1.202) | 105 | 14777 | | | 174.98- 274.98 | 233.22 |
| 165 1,3-Dichlorobenzene | | | | | CAS #: 541-73-1 | | |
| 9.819 | 9.819 (1.235) | 146 | 8996 | 0.50000 | 0.5037 | 50.00- 150.00 | 100.00 |
| 9.819 | 9.819 (1.235) | 148 | 5665 | | | 13.36- 113.36 | 62.97 |
| 9.819 | 9.819 (1.235) | 111 | 4112 | | | 0.00- 95.45 | 45.71 |
| 166 1,4-Dichlorobenzene | | | | | CAS #: 106-46-7 | | |
| 9.898 | 9.898 (1.245) | 146 | 9183 | 0.50000 | 0.5036 | 50.00- 150.00 | 100.00 |
| 9.898 | 9.898 (1.245) | 148 | 5653 | | | 13.03- 113.03 | 61.56 |
| 9.898 | 9.898 (1.245) | 111 | 3978 | | | 0.00- 93.63 | 43.32 |
| 168 alpha-Chlorotoluene | | | | | CAS #: 100-44-7 | | |
| 10.012 | 10.012 (1.260) | 91 | 8877 | 0.50000 | 0.3816 | 50.00- 150.00 | 100.00(a) |
| 10.020 | 10.020 (1.260) | 126 | 1430 | | | 0.00- 67.76 | 16.11 |
| 171 1,2-Dichlorobenzene | | | | | CAS #: 95-50-1 | | |
| 10.213 | 10.213 (1.285) | 146 | 7862 | 0.50000 | 0.4794 | 50.00- 150.00 | 100.00(a) |
| 10.213 | 10.213 (1.285) | 148 | 5398 | | | 13.96- 113.96 | 68.66 |
| 10.213 | 10.213 (1.285) | 111 | 4124 | | | 0.00- 98.36 | 52.45 |

QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Report Date: 31-Mar-2010 16:11

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdd.i
Lab File ID: d033112.d
Lab Smp Id: ICAL Level 2
Analysis Type: VOA
Quant Type: ISTD
Operator: kjj
Method File: /chem/msdd.i/31mar10a.b/d10q0331a.m
Misc Info: 2.0ppbv->0.5ppbv

Calibration Date: 31-MAR-2010
Calibration Time: 15:19
Client Smp ID: ICAL level 2
Level: LOW
Sample Type: AIR

| | | AREA LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 79 Bromochloromethan | 104005 | 62403 | 145607 | 105442 | 1.38 |
| 100 1,4-Difluorobenze | 450386 | 270232 | 630540 | 456058 | 1.26 |
| 134 Chlorobenzene-d5 | 514163 | 308498 | 719828 | 511814 | -0.46 |

| | | RT LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 79 Bromochloromethan | 4.58 | 4.25 | 4.91 | 4.58 | 0.00 |
| 100 1,4-Difluorobenze | 5.51 | 5.18 | 5.84 | 5.51 | 0.00 |
| 134 Chlorobenzene-d5 | 7.95 | 7.62 | 8.28 | 7.95 | 0.00 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msdd.i/31mar10a.b/d033112.d

Date : 31-MAR-2010 14:09

Client ID: ICAL level 2

Sample Info: 50ml #1911-328

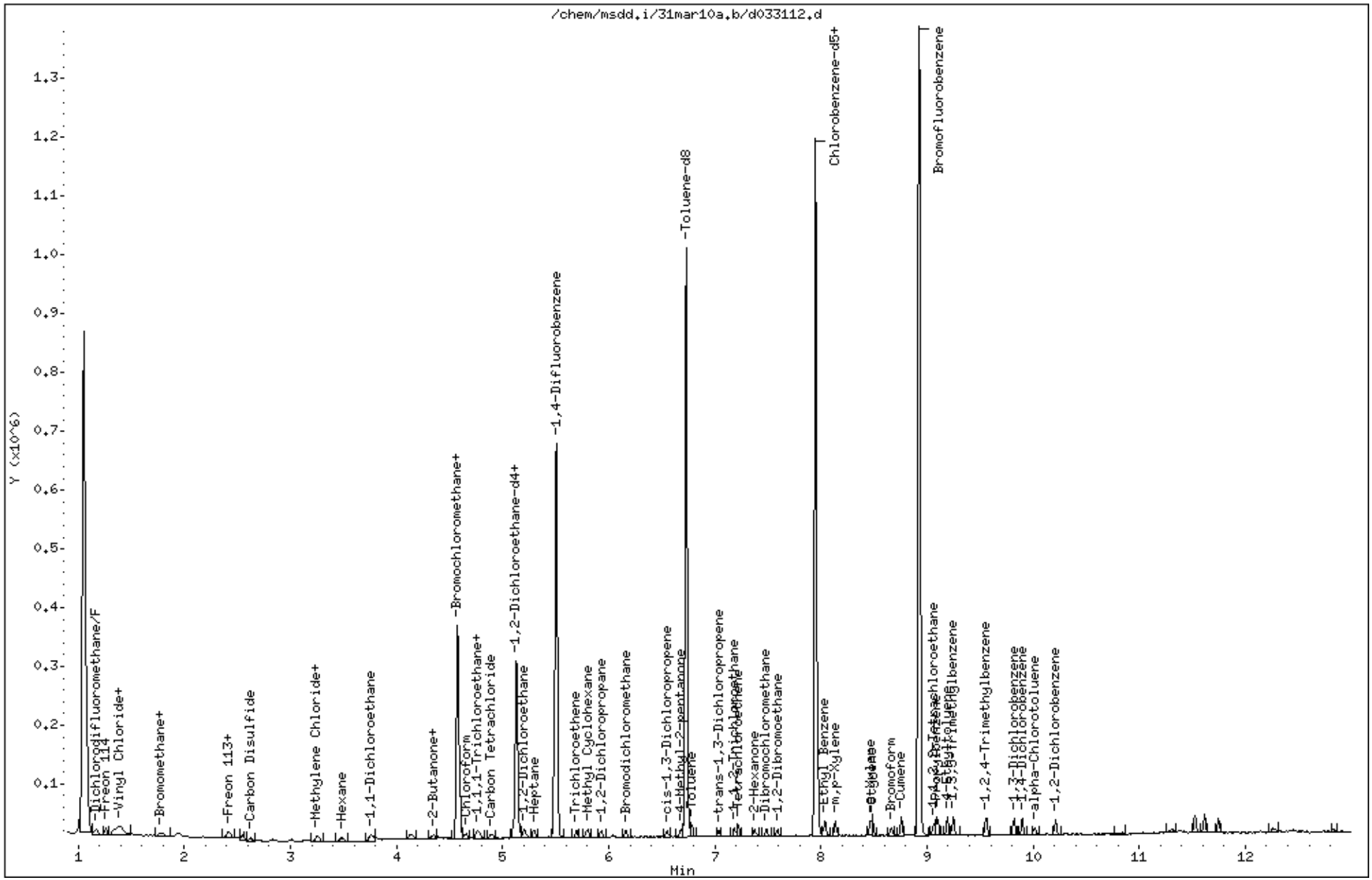
Column phase: RTx-624

Instrument: msdd.i

Operator: kjj

Column diameter: 0.53





Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msdd.i/31mar10a.b/d033113.d
Lab Smp Id: ICAL Level 3 Client Smp ID: ICAL level 3
Inj Date : 31-MAR-2010 14:28
Operator : kjj Inst ID: msdd.i
Smp Info : 200ml #1911-328
Misc Info : 2.0ppbv->2.0ppbv
Comment :
Method : /chem/msdd.i/31mar10a.b/d10q0331a.m
Meth Date : 31-Mar-2010 16:11 aburke Quant Type: ISTD
Cal Date : 31-MAR-2010 14:28 Cal File: d033113.d
Als bottle: 3 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT09mdl.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| | | | | AMOUNTS | | | |
|---|---|---|---|---|---|---|---|
| | | | | CAL-AMT | ON-COL | | |
| RT | EXP RT (REL RT) | MASS | RESPONSE | ( PPBV) | ( PPBV) | TARGET RANGE | RATIO |
| == | ====== ======== | ==== | ======== | ======= | ======= | ========== | ===== |
| * 79 Bromochloromethane | | | | | CAS #: 74-97-5 | | |
| 4.590 | 4.590 (1.000) | 130 | 101933 | 25.0000 | | 50.00- 150.00 | 100.00 |
| 4.590 | 4.590 (1.000) | 128 | 79886 | | | 27.33- 127.33 | 78.37 |
| 4.590 | 4.590 (1.000) | 49 | 178403 | | | 123.46- 223.46 | 175.02 |
| * 100 1,4-Difluorobenzene | | | | | CAS #: 540-36-3 | | |
| 5.514 | 5.514 (1.000) | 114 | 448318 | 25.0000 | | 50.00- 150.00 | 100.00 |
| 5.514 | 5.514 (1.000) | 88 | 82470 | | | 0.00- 68.33 | 18.40 |
| * 134 Chlorobenzene-d5 | | | | | CAS #: 3114-55-4 | | |
| 7.964 | 7.964 (1.000) | 117 | 509501 | 25.0000 | | 50.00- 150.00 | 100.00 |
| 7.964 | 7.964 (1.000) | 82 | 319143 | | | 12.92- 112.92 | 62.64 |
| $ 91 1,2-Dichloroethane-d4 | | | | | CAS #: 17060-07-0 | | |
| 5.142 | 5.142 (1.120) | 65 | 201646 | 25.0000 | 24.606 | 50.00- 150.00 | 100.00 |
| 5.142 | 5.142 (1.120) | 67 | 99525 | | | 2.15- 102.15 | 49.36 |
| $ 114 Toluene-d8 | | | | | CAS #: 2037-26-5 | | |
| 6.746 | 6.746 (1.223) | 98 | 555581 | 25.0000 | 25.009 | 50.00- 150.00 | 100.00 |
| 6.746 | 6.746 (1.223) | 70 | 67652 | | | 0.00- 62.20 | 12.18 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 114 Toluene-d8 (continued) | | | | | | | |
| 6.746 | 6.746 (1.223) | 100 | 362572 | | | 15.58- 115.58 | 65.26 |
| $ 149 Bromofluorobenzene | | | | | CAS #: 460-00-4 | | |
| 8.945 | 8.945 (1.123) | 174 | 258756 | 25.0000 | 24.904 | 50.00- 150.00 | 100.00 |
| 8.945 | 8.945 (1.123) | 95 | 440418 | | | 120.42- 220.42 | 170.21 |
| 8.945 | 8.945 (1.123) | 176 | 247651 | | | 46.27- 146.27 | 95.71 |
| 6 Propylene | | | | | CAS #: 115-07-1 | | |
| 1.153 | 1.153 (0.251) | 41 | 6882 | 2.00000 | 2.082 | 50.00- 150.00 | 100.00 |
| 1.153 | 1.153 (0.251) | 42 | 4177 | | | 14.09- 114.09 | 60.69 |
| 1.153 | 1.153 (0.251) | 39 | 5394 | | | 29.45- 129.45 | 78.38 |
| 7 Dichlorodifluoromethane/Fr12 | | | | | CAS #: 75-71-8 | | |
| 1.181 | 1.181 (0.257) | 85 | 25083 | 2.00000 | 1.939 | 50.00- 150.00 | 100.00 |
| 1.181 | 1.181 (0.257) | 87 | 8380 | | | 0.00- 82.88 | 33.41 |
| 10 Freon 114 | | | | | CAS #: 76-14-2 | | |
| 1.265 | 1.265 (0.276) | 135 | 14540 | 2.00000 | 2.034 | 50.00- 150.00 | 100.00 |
| 1.265 | 1.265 (0.276) | 137 | 4527 | | | 0.00- 82.69 | 31.13 |
| 13 Chloromethane | | | | | CAS #: 74-87-3 | | |
| 1.321 | 1.321 (0.288) | 50 | 6302 | 2.00000 | 2.140 | 50.00- 150.00 | 100.00 |
| 1.321 | 1.321 (0.288) | 52 | 2035 | | | 0.00- 83.02 | 32.29 |
| 14 Butane | | | | | CAS #: 106-97-8 | | |
| 1.377 | 1.377 (0.300) | 58 | 1543 | 2.00000 | 1.873 | 50.00- 150.00 | 100.00(a) |
| 1.377 | 1.377 (0.300) | 43 | 13128 | | | 701.77- 801.77 | 850.81 |
| 15 Vinyl Chloride | | | | | CAS #: 75-01-4 | | |
| 1.405 | 1.405 (0.306) | 62 | 5530 | 2.00000 | 1.408 | 50.00- 150.00 | 100.00 |
| 1.405 | 1.405 (0.306) | 64 | 2424 | | | 0.00- 97.20 | 43.83 |
| 18 1,3-Butadiene | | | | | CAS #: 106-99-0 | | |
| 1.419 | 1.419 (0.309) | 54 | 5162 | 2.00000 | 1.517 | 50.00- 150.00 | 100.00 |
| 1.419 | 1.419 (0.309) | 39 | 6001 | | | 75.63- 175.63 | 116.25 |
| 24 Bromomethane | | | | | CAS #: 74-83-9 | | |
| 1.684 | 1.684 (0.367) | 94 | 7701 | 2.00000 | 2.016 | 50.00- 150.00 | 100.00 |
| 1.684 | 1.684 (0.367) | 96 | 6917 | | | 41.64- 141.64 | 89.82 |
| 25 Chloroethane | | | | | CAS #: 75-00-3 | | |
| 1.754 | 1.754 (0.382) | 64 | 5132 | 2.00000 | 1.960 | 50.00- 150.00 | 100.00 |
| 1.754 | 1.754 (0.382) | 66 | 1455 | | | 0.00- 86.90 | 28.35 |
| 1.754 | 1.754 (0.382) | 49 | 1378 | | | 0.00- 78.35 | 26.85 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 26 Isopentane | | | | | CAS #: 78-78-4 | | |
| 1.782 | 1.782 (0.388) | 43 | 10449 | 2.00000 | 1.932 | 50.00- 150.00 | 100.00(a) |
| 1.782 | 1.782 (0.388) | 57 | 7443 | | | 20.70- 120.70 | 71.23 |
| 28 Trichlorofluoromethane/Fr11 | | | | | CAS #: 75-69-4 | | |
| 1.936 | 1.936 (0.422) | 101 | 26110 | 2.00000 | 1.931 | 50.00- 150.00 | 100.00 |
| 1.936 | 1.936 (0.422) | 103 | 16634 | | | 12.85- 112.85 | 63.71 |
| 29 Ethanol | | | | | CAS #: 64-17-5 | | |
| 2.176 | 2.176 (0.474) | 45 | 3274 | 2.00000 | 1.938 | 50.00- 150.00 | 100.00(Ta) |
| 2.190 | 2.190 (0.477) | 43 | 1136 | | | 0.00- 76.61 | 34.70 |
| 0.000 | 1.000 (0.000) | 46 | 0 | | | 0.00- 88.16 | 0.00 |
| 33 Freon 113 | | | | | CAS #: 76-13-1 | | |
| 2.398 | 2.398 (0.522) | 151 | 12062 | 2.00000 | 1.946 | 50.00- 150.00 | 100.00 |
| 2.405 | 2.405 (0.524) | 153 | 8030 | | | 13.56- 113.56 | 66.57 |
| 2.412 | 2.412 (0.526) | 101 | 18330 | | | 96.53- 196.53 | 151.96 |
| 34 1,1-Dichloroethene | | | | | CAS #: 75-35-4 | | |
| 2.427 | 2.427 (0.529) | 98 | 5559 | 2.00000 | 2.054 | 50.00- 150.00 | 100.00 |
| 2.434 | 2.434 (0.530) | 96 | 8453 | | | 107.46- 207.46 | 152.06 |
| 2.427 | 2.427 (0.529) | 61 | 17190 | | | 270.84- 370.84 | 309.23 |
| 38 Acetone | | | | | CAS #: 67-64-1 | | |
| 2.556 | 2.556 (0.557) | 58 | 4605 | 2.00000 | 2.113 | 50.00- 150.00 | 100.00 |
| 2.556 | 2.556 (0.557) | 43 | 18547 | | | 327.54- 427.54 | 402.76 |
| 41 2-Propanol | | | | | CAS #: 67-63-0 | | |
| 2.706 | 2.706 (0.590) | 45 | 12762 | 2.00000 | 1.757 | 50.00- 150.00 | 100.00(a) |
| 2.706 | 2.706 (0.590) | 43 | 2689 | | | 0.00- 72.17 | 21.07 |
| 3.150 | 3.150 (0.686) | 59 | 16411 | | | 0.00- 85.00 | 128.59 |
| 40 Carbon Disulfide | | | | | CAS #: 75-15-0 | | |
| 2.627 | 2.627 (0.572) | 76 | 26329 | 2.00000 | 1.984 | 50.00- 150.00 | 100.00 |
| 44 3-Chloropropene | | | | | CAS #: 107-05-1 | | |
| 2.828 | 2.828 (0.616) | 76 | 3964 | 2.00000 | 1.934 | 50.00- 150.00 | 100.00(a) |
| 2.835 | 2.835 (0.618) | 41 | 12077 | | | 245.26- 345.26 | 304.67 |
| 46 Methylene Chloride | | | | | CAS #: 75-09-2 | | |
| 3.000 | 3.000 (0.654) | 49 | 11484 | 2.00000 | 2.064 | 50.00- 150.00 | 100.00 |
| 3.007 | 3.007 (0.655) | 84 | 7730 | | | 18.20- 118.20 | 67.31 |
| 3.007 | 3.007 (0.655) | 51 | 3617 | | | 0.00- 80.39 | 31.50 |
| 48 tert-Butyl-Alcohol | | | | | CAS #: 75-65-0 | | |
| 3.150 | 3.150 (0.686) | 59 | 16411 | 2.00000 | 1.831 | 50.00- 150.00 | 100.00(a) |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 48 tert-Butyl-Alcohol (continued) | | | | | | | |
| 3.150 | 3.150 (0.686) | 41 | 5513 | | | 0.00- 83.59 | 33.59 |
| 3.150 | 3.150 (0.686) | 57 | 1229 | | | 0.00- 57.49 | 7.49 |
| 50 MTBE | | | | | CAS #: 1634-04-4 | | |
| 3.251 | 3.251 (0.708) | 73 | 25836 | 2.00000 | 1.961 | 50.00- 150.00 | 100.00 |
| 3.258 | 3.258 (0.710) | 57 | 5960 | | | 0.00- 73.10 | 23.07 |
| 3.258 | 3.258 (0.710) | 41 | 7792 | | | 0.00- 75.17 | 30.16 |
| 52 trans-1,2-Dichloroethene | | | | | CAS #: 156-60-5 | | |
| 3.265 | 3.265 (0.711) | 98 | 5626 | 2.00000 | 2.009 | 50.00- 150.00 | 100.00 |
| 3.258 | 3.258 (0.710) | 61 | 15169 | | | 222.42- 322.42 | 269.62 |
| 3.265 | 3.265 (0.711) | 96 | 9458 | | | 114.13- 214.13 | 168.11 |
| 58 Hexane | | | | | CAS #: 110-54-3 | | |
| 3.494 | 3.494 (0.761) | 57 | 15617 | 2.00000 | 1.980 | 50.00- 150.00 | 100.00 |
| 3.487 | 3.487 (0.760) | 43 | 11010 | | | 19.39- 119.39 | 70.50 |
| 3.494 | 3.494 (0.761) | 86 | 2351 | | | 0.00- 69.00 | 15.05 |
| 64 1,1-Dichloroethane | | | | | CAS #: 75-34-3 | | |
| 3.759 | 3.759 (0.819) | 63 | 19450 | 2.00000 | 1.996 | 50.00- 150.00 | 100.00 |
| 3.759 | 3.759 (0.819) | 65 | 6244 | | | 0.00- 81.96 | 32.10 |
| 63 Isopropyl ether | | | | | CAS #: 108-20-3 | | |
| 3.773 | 3.773 (0.822) | 45 | 35438 | 2.00000 | 1.936 | 50.00- 150.00 | 100.00(a) |
| 3.773 | 3.773 (0.822) | 87 | 7741 | | | 0.00- 73.47 | 21.84 |
| 3.773 | 3.773 (0.822) | 59 | 3779 | | | 0.00- 60.91 | 10.66 |
| 65 Vinyl Acetate | | | | | CAS #: 108-05-4 | | |
| 3.816 | 3.816 (0.831) | 86 | 1610 | 2.00000 | 1.481 | 50.00- 150.00 | 100.00(a) |
| 3.816 | 3.816 (0.831) | 43 | 25979 | | | 1533.22-1633.22 | 1613.60 |
| 72 t-Butylethyl Ether | | | | | CAS #: 637-92-3 | | |
| 4.146 | 4.146 (0.903) | 59 | 32474 | 2.00000 | 1.900 | 50.00- 150.00 | 100.00(a) |
| 4.139 | 4.139 (0.902) | 87 | 11992 | | | 0.00- 87.49 | 36.93 |
| 4.146 | 4.146 (0.903) | 41 | 7366 | | | 0.00- 70.38 | 22.68 |
| 74 cis-1,2-Dichloroethene | | | | | CAS #: 156-59-2 | | |
| 4.354 | 4.354 (0.948) | 98 | 6428 | 2.00000 | 2.018 | 50.00- 150.00 | 100.00 |
| 4.354 | 4.354 (0.948) | 96 | 10218 | | | 108.90- 208.90 | 158.96 |
| 4.354 | 4.354 (0.948) | 61 | 15672 | | | 194.41- 294.41 | 243.81 |
| 75 2-Butanone | | | | | CAS #: 78-93-3 | | |
| 4.404 | 4.404 (0.959) | 72 | 4584 | 2.00000 | 1.896 | 50.00- 150.00 | 100.00 |
| 4.404 | 4.404 (0.959) | 43 | 23410 | | | 391.89- 491.89 | 510.69 |
| 4.404 | 4.404 (0.959) | 57 | 1582 | | | 29.81- 129.81 | 34.51 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 78 Tetrahydrofuran | | | | | CAS #: 109-99-9 | | |
| 4.604 | 4.604 (1.003) | 42 | 12852 | 2.00000 | 2.040 | 50.00- 150.00 | 100.00 |
| 4.604 | 4.604 (1.003) | 71 | 4150 | | | 0.00- 85.98 | 32.29 |
| 4.604 | 4.604 (1.003) | 72 | 4519 | | | 0.00- 86.75 | 35.16 |
| 80 Chloroform | | | | | CAS #: 67-66-3 | | |
| 4.662 | 4.662 (1.016) | 83 | 23376 | 2.00000 | 2.010 | 50.00- 150.00 | 100.00 |
| 4.662 | 4.662 (1.016) | 85 | 14840 | | | 15.01- 115.01 | 63.48 |
| 85 1,1,1-Trichloroethane | | | | | CAS #: 71-55-6 | | |
| 4.783 | 4.783 (1.042) | 97 | 22947 | 2.00000 | 1.948 | 50.00- 150.00 | 100.00 |
| 4.783 | 4.783 (1.042) | 99 | 14528 | | | 13.41- 113.41 | 63.31 |
| 83 Cyclohexane | | | | | CAS #: 110-82-7 | | |
| 4.769 | 4.769 (1.039) | 84 | 13473 | 2.00000 | 1.892 | 50.00- 150.00 | 100.00 |
| 4.769 | 4.769 (1.039) | 56 | 18220 | | | 78.59- 178.59 | 135.23 |
| 4.769 | 4.769 (1.039) | 41 | 10609 | | | 26.74- 126.74 | 78.74 |
| 86 Carbon Tetrachloride | | | | | CAS #: 56-23-5 | | |
| 4.905 | 4.905 (1.069) | 119 | 18626 | 2.00000 | 1.804 | 50.00- 150.00 | 100.00 |
| 4.905 | 4.905 (1.069) | 117 | 18524 | | | 53.70- 153.70 | 99.45 |
| 90 Benzene | | | | | CAS #: 71-43-2 | | |
| 5.120 | 5.120 (0.929) | 78 | 33569 | 2.00000 | 1.946 | 50.00- 150.00 | 100.00 |
| 5.120 | 5.120 (0.929) | 77 | 8072 | | | 0.00- 73.17 | 24.05 |
| 89 2,2,4-Trimethylpentane | | | | | CAS #: 540-84-1 | | |
| 5.127 | 5.127 (1.117) | 57 | 57655 | 2.00000 | 1.958 | 50.00- 150.00 | 100.00 |
| 5.127 | 5.127 (1.117) | 56 | 18836 | | | 0.00- 81.50 | 32.67 |
| 5.127 | 5.127 (1.117) | 41 | 15773 | | | 0.00- 77.21 | 27.36 |
| 94 1,2-Dichloroethane | | | | | CAS #: 107-06-2 | | |
| 5.213 | 5.213 (0.945) | 62 | 18397 | 2.00000 | 1.982 | 50.00- 150.00 | 100.00 |
| 5.213 | 5.213 (0.945) | 64 | 5981 | | | 0.00- 83.10 | 32.51 |
| 93 tert-amyl-Methyl Ether | | | | | CAS #: 994-05-8 | | |
| 5.220 | 5.220 (1.137) | 73 | 29508 | 2.00000 | 1.903 | 50.00- 150.00 | 100.00(a) |
| 5.213 | 5.213 (1.136) | 87 | 6883 | | | 0.00- 74.24 | 23.33 |
| 5.213 | 5.213 (1.136) | 55 | 10681 | | | 0.00- 83.70 | 36.20 |
| 95 Heptane | | | | | CAS #: 142-82-5 | | |
| 5.306 | 5.306 (0.962) | 71 | 12518 | 2.00000 | 2.006 | 50.00- 150.00 | 100.00 |
| 5.306 | 5.306 (0.962) | 43 | 23029 | | | 146.63- 246.63 | 183.97 |
| 5.306 | 5.306 (0.962) | 57 | 13148 | | | 54.79- 154.79 | 105.03 |
| 104 Trichloroethene | | | | | CAS #: 79-01-6 | | |
| 5.707 | 5.707 (1.035) | 95 | 15363 | 2.00000 | 1.973 | 50.00- 150.00 | 100.00 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 104 Trichloroethene (continued) | | | | | | | |
| 5.707 | 5.707 (1.035) | 130 | 12885 | | | 36.71- 136.71 | 83.87 |
| 5.707 | 5.707 (1.035) | 97 | 10156 | | | 14.60- 114.60 | 66.11 |
| 105 Methyl Cyclohexane | | | | | CAS #: 108-87-2 | | |
| 5.815 | 5.815 (1.267) | 83 | 19833 | 2.00000 | 1.875 | 50.00- 150.00 | 100.00 |
| 5.815 | 5.815 (1.267) | 98 | 9541 | | | 0.00- 96.57 | 48.11 |
| 5.815 | 5.815 (1.267) | 55 | 18479 | | | 39.57- 139.57 | 93.17 |
| 106 1,2-Dichloropropane | | | | | CAS #: 78-87-5 | | |
| 5.944 | 5.944 (1.078) | 63 | 13675 | 2.00000 | 1.900 | 50.00- 150.00 | 100.00 |
| 5.944 | 5.944 (1.078) | 62 | 9696 | | | 20.35- 120.35 | 70.90 |
| 5.937 | 5.937 (1.077) | 41 | 9191 | | | 13.49- 113.49 | 67.21 |
| 107 1,4-Dioxane | | | | | CAS #: 123-91-1 | | |
| 6.051 | 6.051 (1.097) | 88 | 7735 | 2.00000 | 1.916 | 50.00- 150.00 | 100.00(a) |
| 6.044 | 6.044 (1.096) | 58 | 6312 | | | 27.58- 127.58 | 81.60 |
| 6.044 | 6.044 (1.096) | 57 | 2196 | | | 0.00- 76.30 | 28.39 |
| 108 Bromodichloromethane | | | | | CAS #: 75-27-4 | | |
| 6.180 | 6.180 (1.121) | 83 | 25168 | 2.00000 | 1.814 | 50.00- 150.00 | 100.00 |
| 6.180 | 6.180 (1.121) | 85 | 15595 | | | 13.44- 113.44 | 61.96 |
| 110 cis-1,3-Dichloropropene | | | | | CAS #: 10061-01-5 | | |
| 6.560 | 6.560 (1.190) | 75 | 18458 | 2.00000 | 1.719 | 50.00- 150.00 | 100.00 |
| 6.560 | 6.560 (1.190) | 77 | 6034 | | | 0.00- 81.59 | 32.69 |
| 6.567 | 6.567 (1.191) | 39 | 10673 | | | 5.92- 105.92 | 57.82 |
| 112 4-Methyl-2-pentanone | | | | | CAS #: 108-10-1 | | |
| 6.696 | 6.696 (1.214) | 58 | 11824 | 2.00000 | 1.871 | 50.00- 150.00 | 100.00 |
| 6.696 | 6.696 (1.214) | 43 | 31618 | | | 224.75- 324.75 | 267.41 |
| 6.696 | 6.696 (1.214) | 85 | 4712 | | | 0.00- 89.27 | 39.85 |
| 115 Toluene | | | | | CAS #: 108-88-3 | | |
| 6.796 | 6.796 (1.233) | 91 | 45318 | 2.00000 | 1.978 | 50.00- 150.00 | 100.00 |
| 6.803 | 6.803 (1.234) | 92 | 26362 | | | 9.29- 109.29 | 58.17 |
| 118 trans-1,3-Dichloropropene | | | | | CAS #: 10061-02-6 | | |
| 7.054 | 7.054 (0.886) | 75 | 18111 | 2.00000 | 1.639 | 50.00- 150.00 | 100.00 |
| 7.047 | 7.047 (0.885) | 77 | 6452 | | | 0.00- 83.09 | 35.62 |
| 7.047 | 7.047 (0.885) | 39 | 10274 | | | 4.25- 104.25 | 56.73 |
| 120 1,1,2-Trichloroethane | | | | | CAS #: 79-00-5 | | |
| 7.197 | 7.197 (0.904) | 97 | 15354 | 2.00000 | 1.951 | 50.00- 150.00 | 100.00 |
| 7.197 | 7.197 (0.904) | 99 | 9580 | | | 12.25- 112.25 | 62.39 |
| 7.197 | 7.197 (0.904) | 83 | 13958 | | | 42.00- 142.00 | 90.91 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 122 Tetrachloroethene | | | | | CAS #: 127-18-4 | | |
| 7.240 | 7.240 (0.909) | 166 | 16884 | 2.00000 | 1.901 | 50.00- 150.00 | 100.00 |
| 7.233 | 7.233 (0.908) | 129 | 14349 | | | 33.95- 133.95 | 84.99 |
| 7.233 | 7.233 (0.908) | 131 | 13359 | | | 27.31- 127.31 | 79.12 |
| 125 2-Hexanone | | | | | CAS #: 591-78-6 | | |
| 7.391 | 7.391 (0.928) | 58 | 16776 | 2.00000 | 1.883 | 50.00- 150.00 | 100.00(a) |
| 7.391 | 7.391 (0.928) | 43 | 32376 | | | 146.90- 246.90 | 192.99 |
| 7.391 | 7.391 (0.928) | 100 | 3063 | | | 0.00- 68.42 | 18.26 |
| 128 Dibromochloromethane | | | | | CAS #: 124-48-1 | | |
| 7.505 | 7.505 (0.942) | 129 | 21536 | 2.00000 | 1.751 | 50.00- 150.00 | 100.00 |
| 7.498 | 7.498 (0.942) | 127 | 16815 | | | 27.80- 127.80 | 78.08 |
| 130 1,2-Dibromoethane | | | | | CAS #: 106-93-4 | | |
| 7.606 | 7.606 (0.955) | 107 | 23076 | 2.00000 | 1.880 | 50.00- 150.00 | 100.00 |
| 7.606 | 7.606 (0.955) | 109 | 22130 | | | 44.92- 144.92 | 95.90 |
| 135 Chlorobenzene | | | | | CAS #: 108-90-7 | | |
| 7.992 | 7.992 (1.004) | 112 | 38673 | 2.00000 | 2.018 | 50.00- 150.00 | 100.00 |
| 7.992 | 7.992 (1.004) | 114 | 12049 | | | 0.00- 82.27 | 31.16 |
| 7.992 | 7.992 (1.004) | 77 | 30880 | | | 23.60- 123.60 | 79.85 |
| 137 Ethyl Benzene | | | | | CAS #: 100-41-4 | | |
| 8.050 | 8.050 (1.011) | 106 | 18115 | 2.00000 | 1.889 | 50.00- 150.00 | 100.00 |
| 8.050 | 8.050 (1.011) | 91 | 62363 | | | 290.13- 390.13 | 344.26 |
| 140 m,p-Xylene | | | | | CAS #: 108-38-3 | | |
| 8.150 | 8.150 (1.023) | 106 | 24406 | 2.00000 | 1.972 | 50.00- 150.00 | 100.00 |
| 8.150 | 8.150 (1.023) | 91 | 50377 | | | 156.72- 256.72 | 206.41 |
| 141 o-Xylene | | | | | CAS #: 95-47-6 | | |
| 8.487 | 8.487 (1.066) | 106 | 22448 | 2.00000 | 1.917 | 50.00- 150.00 | 100.00 |
| 8.487 | 8.487 (1.066) | 91 | 48849 | | | 167.29- 267.29 | 217.61 |
| 142 Styrene | | | | | CAS #: 100-42-5 | | |
| 8.508 | 8.508 (1.068) | 104 | 35944 | 2.00000 | 1.881 | 50.00- 150.00 | 100.00 |
| 8.508 | 8.508 (1.068) | 78 | 19776 | | | 5.25- 105.25 | 55.02 |
| 145 Bromoform | | | | | CAS #: 75-25-2 | | |
| 8.680 | 8.680 (1.090) | 173 | 16451 | 2.00000 | 1.650 | 50.00- 150.00 | 100.00 |
| 8.680 | 8.680 (1.090) | 171 | 8774 | | | 2.47- 102.47 | 53.33 |
| 147 Cumene | | | | | CAS #: 98-82-8 | | |
| 8.773 | 8.773 (1.102) | 105 | 68116 | 2.00000 | 1.916 | 50.00- 150.00 | 100.00 |
| 8.773 | 8.773 (1.102) | 120 | 17325 | | | 0.00- 75.25 | 25.43 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 147 Cumene (continued) | | | | | | | |
| 8.773 | 8.773 (1.102) | 51 | 7809 | | | 0.00- 62.26 | 11.46 |
| 151 1,1,2,2-Tetrachloroethane | | | | | CAS #: 79-34-5 | | |
| 9.081 | 9.081 (1.140) | 83 | 38003 | 2.00000 | 1.937 | 50.00- 150.00 | 100.00 |
| 9.081 | 9.081 (1.140) | 85 | 25232 | | | 14.89- 114.89 | 66.39 |
| 153 Propylbenzene | | | | | CAS #: 103-65-1 | | |
| 9.110 | 9.110 (1.144) | 91 | 87325 | 2.00000 | 1.935 | 50.00- 150.00 | 100.00 |
| 9.117 | 9.117 (1.145) | 120 | 19091 | | | 0.00- 71.30 | 21.86 |
| 9.117 | 9.117 (1.145) | 105 | 3125 | | | 0.00- 68.74 | 3.58 |
| 155 4-Ethyltoluene | | | | | CAS #: 622-96-8 | | |
| 9.210 | 9.210 (1.157) | 120 | 20280 | 2.00000 | 1.913 | 50.00- 150.00 | 100.00 |
| 9.210 | 9.210 (1.157) | 105 | 70834 | | | 299.99- 399.99 | 349.28 |
| 156 1,3,5-Trimethylbenzene | | | | | CAS #: 108-67-8 | | |
| 9.260 | 9.260 (1.163) | 120 | 27796 | 2.00000 | 1.944 | 50.00- 150.00 | 100.00 |
| 9.260 | 9.260 (1.163) | 105 | 57495 | | | 160.53- 260.53 | 206.85 |
| 162 1,2,4-Trimethylbenzene | | | | | CAS #: 95-63-6 | | |
| 9.576 | 9.576 (1.202) | 120 | 24888 | 2.00000 | 1.874 | 50.00- 150.00 | 100.00 |
| 9.576 | 9.576 (1.202) | 105 | 56094 | | | 174.98- 274.98 | 225.39 |
| 165 1,3-Dichlorobenzene | | | | | CAS #: 541-73-1 | | |
| 9.833 | 9.833 (1.235) | 146 | 35841 | 2.00000 | 2.016 | 50.00- 150.00 | 100.00 |
| 9.833 | 9.833 (1.235) | 148 | 22900 | | | 13.36- 113.36 | 63.89 |
| 9.833 | 9.833 (1.235) | 111 | 16069 | | | 0.00- 95.45 | 44.83 |
| 166 1,4-Dichlorobenzene | | | | | CAS #: 106-46-7 | | |
| 9.919 | 9.919 (1.246) | 146 | 37442 | 2.00000 | 2.063 | 50.00- 150.00 | 100.00 |
| 9.919 | 9.919 (1.246) | 148 | 23660 | | | 13.03- 113.03 | 63.19 |
| 9.919 | 9.919 (1.246) | 111 | 16387 | | | 0.00- 93.63 | 43.77 |
| 168 alpha-Chlorotoluene | | | | | CAS #: 100-44-7 | | |
| 10.034 | 10.034 (1.260) | 91 | 31074 | 2.00000 | 1.342 | 50.00- 150.00 | 100.00 |
| 10.034 | 10.034 (1.260) | 126 | 5477 | | | 0.00- 67.76 | 17.63 |
| 171 1,2-Dichlorobenzene | | | | | CAS #: 95-50-1 | | |
| 10.227 | 10.227 (1.284) | 146 | 33020 | 2.00000 | 2.023 | 50.00- 150.00 | 100.00 |
| 10.227 | 10.227 (1.284) | 148 | 20425 | | | 13.96- 113.96 | 61.86 |
| 10.227 | 10.227 (1.284) | 111 | 15667 | | | 0.00- 98.36 | 47.45 |
| 174 1,2,4-Trichlorobenzene | | | | | CAS #: 120-82-1 | | |
| 11.545 | 11.545 (1.450) | 180 | 27197 | 2.00000 | 2.169 | 50.00- 150.00 | 100.00 |
| 11.545 | 11.545 (1.450) | 182 | 25810 | | | 44.68- 144.68 | 94.90 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 175 Hexachlorobutadiene | | | | | CAS #: 87-68-3 | | |
| 11.631 | 11.631 (1.461) | 225 | 17197 | 2.00000 | 2.025 | 50.00- 150.00 | 100.00 |
| 11.638 | 11.638 (1.461) | 223 | 11194 | | | 14.17- 114.17 | 65.09 |
| 176 Naphthalene | | | | | CAS #: 91-20-3 | | |
| 11.767 | 11.767 (1.478) | 128 | 70240 | 2.00000 | 2.143 | 50.00- 150.00 | 100.00 |
| 11.767 | 11.767 (1.478) | 127 | 9106 | | | 0.00- 62.93 | 12.96 |

QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Report Date: 31-Mar-2010 16:11

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdd.i
Lab File ID: d033113.d
Lab Smp Id: ICAL Level 3
Analysis Type: VOA
Quant Type: ISTD
Operator: kjj
Method File: /chem/msdd.i/31mar10a.b/d10q0331a.m
Misc Info: 2.0ppbv->2.0ppbv

Calibration Date: 31-MAR-2010
Calibration Time: 15:19
Client Smp ID: ICAL level 3
Level: LOW
Sample Type: AIR

| | | AREA LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 79 Bromochloromethan | 104005 | 62403 | 145607 | 101933 | -1.99 |
| 100 1,4-Difluorobenze | 450386 | 270232 | 630540 | 448318 | -0.46 |
| 134 Chlorobenzene-d5 | 514163 | 308498 | 719828 | 509501 | -0.91 |

| | | RT LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 79 Bromochloromethan | 4.58 | 4.25 | 4.91 | 4.59 | 0.31 |
| 100 1,4-Difluorobenze | 5.51 | 5.18 | 5.84 | 5.51 | 0.13 |
| 134 Chlorobenzene-d5 | 7.95 | 7.62 | 8.28 | 7.96 | 0.18 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msdd.i/31mar10a.b/d033113.d

Date : 31-MAR-2010 14:28

Client ID: ICAL level 3

Sample Info: 200ml #1911-328

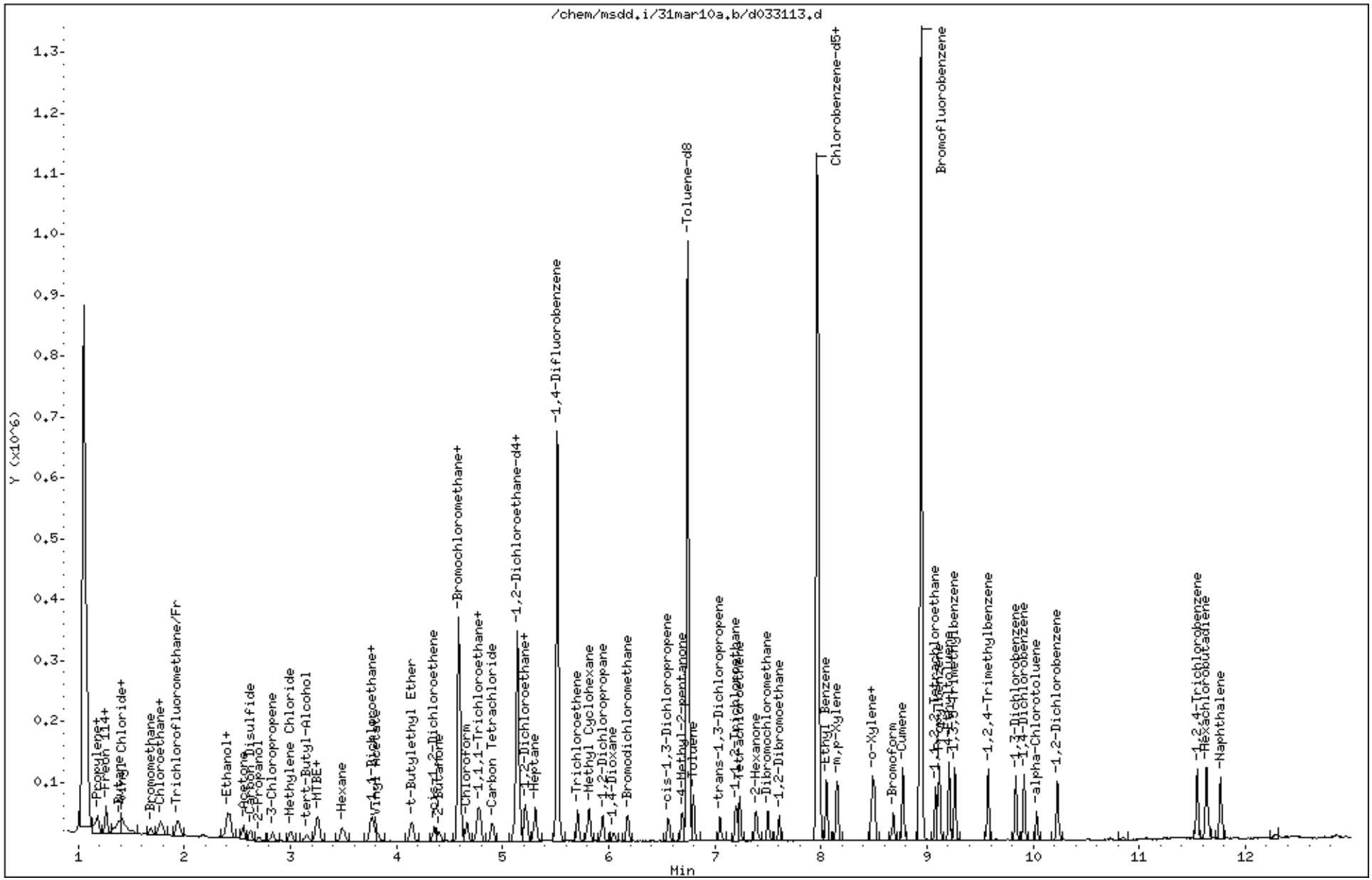
Column phase: RTx-624

Instrument: msdd.i

Operator: kjj

Column diameter: 0.53





Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msdd.i/31mar10a.b/d033114.d
Lab Smp Id: ICAL Level 4 Client Smp ID: ICAL level 4
Inj Date : 31-MAR-2010 14:59
Operator : ra Inst ID: msdd.i
Smp Info : 25ml #1936-87
Misc Info : 25ppbv->200ppbv
Comment :
Method : /chem/msdd.i/31mar10a.b/d10q0331a.m
Meth Date : 31-Mar-2010 16:11 aburke Quant Type: ISTD
Cal Date : 31-MAR-2010 14:59 Cal File: d033114.d
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT09.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| | | | | AMOUNTS | | | |
|---|---|---|---|---|---|---|---|
| | | | | CAL-AMT | ON-COL | | |
| RT | EXP RT (REL RT) | MASS | RESPONSE | ( PPBV) | ( PPBV) | TARGET RANGE | RATIO |
| == | ====== ======== | ==== | ======== | ======= | ======= | ========== | ===== |
| * 79 Bromochloromethane | | | | | CAS #: 74-97-5 | | |
| 4.576 | 4.576 (1.000) | 130 | 100796 | 25.0000 | | 50.00- 150.00 | 100.00 |
| 4.576 | 4.576 (1.000) | 128 | 78402 | | | 27.33- 127.33 | 77.78 |
| 4.569 | 4.569 (1.000) | 49 | 175008 | | | 123.46- 223.46 | 173.63 |
| * 100 1,4-Difluorobenzene | | | | | CAS #: 540-36-3 | | |
| 5.500 | 5.500 (1.000) | 114 | 444740 | 25.0000 | | 50.00- 150.00 | 100.00 |
| 5.500 | 5.500 (1.000) | 88 | 81008 | | | 0.00- 68.33 | 18.21 |
| * 134 Chlorobenzene-d5 | | | | | CAS #: 3114-55-4 | | |
| 7.949 | 7.949 (1.000) | 117 | 503732 | 25.0000 | | 50.00- 150.00 | 100.00 |
| 7.949 | 7.949 (1.000) | 82 | 317935 | | | 12.92- 112.92 | 63.12 |
| $ 91 1,2-Dichloroethane-d4 | | | | | CAS #: 17060-07-0 | | |
| 5.127 | 5.127 (1.121) | 65 | 203177 | 25.0000 | 25.072 | 50.00- 150.00 | 100.00 |
| 5.127 | 5.127 (1.121) | 67 | 106113 | | | 2.15- 102.15 | 52.23 |
| $ 114 Toluene-d8 | | | | | CAS #: 2037-26-5 | | |
| 6.732 | 6.732 (1.224) | 98 | 554498 | 25.0000 | 25.161 | 50.00- 150.00 | 100.00 |
| 6.725 | 6.725 (1.223) | 70 | 66651 | | | 0.00- 62.20 | 12.02 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 114 Toluene-d8 (continued) | | | | | | | |
| 6.732 | 6.732 (1.224) | 100 | 358177 | | | 15.58- 115.58 | 64.59 |
| $ 149 Bromofluorobenzene | | | | | CAS #: 460-00-4 | | |
| 8.924 | 8.924 (1.123) | 174 | 255101 | 25.0000 | 24.834 | 50.00- 150.00 | 100.00 |
| 8.924 | 8.924 (1.123) | 95 | 440694 | | | 120.42- 220.42 | 172.75 |
| 8.924 | 8.924 (1.123) | 176 | 247954 | | | 46.27- 146.27 | 97.20 |
| 6 Propylene | | | | | CAS #: 115-07-1 | | |
| 1.139 | 1.139 (0.249) | 41 | 83465 | 25.0000 | 25.534 | 50.00- 150.00 | 100.00 |
| 1.139 | 1.139 (0.249) | 42 | 54526 | | | 14.09- 114.09 | 65.33 |
| 1.139 | 1.139 (0.249) | 39 | 67992 | | | 29.45- 129.45 | 81.46 |
| 7 Dichlorodifluoromethane/Fr12 | | | | | CAS #: 75-71-8 | | |
| 1.167 | 1.167 (0.255) | 85 | 341021 | 25.0000 | 26.654 | 50.00- 150.00 | 100.00 |
| 1.167 | 1.167 (0.255) | 87 | 111973 | | | 0.00- 82.88 | 32.83 |
| 10 Freon 114 | | | | | CAS #: 76-14-2 | | |
| 1.265 | 1.265 (0.276) | 135 | 188260 | 25.0000 | 26.636 | 50.00- 150.00 | 100.00 |
| 1.265 | 1.265 (0.276) | 137 | 59000 | | | 0.00- 82.69 | 31.34 |
| 13 Chloromethane | | | | | CAS #: 74-87-3 | | |
| 1.307 | 1.307 (0.286) | 50 | 75762 | 25.0000 | 26.022 | 50.00- 150.00 | 100.00 |
| 1.307 | 1.307 (0.286) | 52 | 25717 | | | 0.00- 83.02 | 33.94 |
| 14 Butane | | | | | CAS #: 106-97-8 | | |
| 1.377 | 1.377 (0.301) | 58 | 19740 | 25.0000 | 24.230 | 50.00- 150.00 | 100.00 |
| 1.377 | 1.377 (0.301) | 43 | 140170 | | | 701.77- 801.77 | 710.08 |
| 15 Vinyl Chloride | | | | | CAS #: 75-01-4 | | |
| 1.391 | 1.391 (0.304) | 62 | 111556 | 25.0000 | 28.718 | 50.00- 150.00 | 100.00 |
| 1.391 | 1.391 (0.304) | 64 | 36497 | | | 0.00- 97.20 | 32.72 |
| 18 1,3-Butadiene | | | | | CAS #: 106-99-0 | | |
| 1.419 | 1.419 (0.310) | 54 | 88411 | 25.0000 | 26.277 | 50.00- 150.00 | 100.00 |
| 1.419 | 1.419 (0.310) | 39 | 101337 | | | 75.63- 175.63 | 114.62 |
| 24 Bromomethane | | | | | CAS #: 74-83-9 | | |
| 1.670 | 1.670 (0.365) | 94 | 97956 | 25.0000 | 25.934 | 50.00- 150.00 | 100.00 |
| 1.670 | 1.670 (0.365) | 96 | 92608 | | | 41.64- 141.64 | 94.54 |
| 25 Chloroethane | | | | | CAS #: 75-00-3 | | |
| 1.754 | 1.754 (0.383) | 64 | 63811 | 25.0000 | 24.644 | 50.00- 150.00 | 100.00 |
| 1.754 | 1.754 (0.383) | 66 | 20280 | | | 0.00- 86.90 | 31.78 |
| 1.754 | 1.754 (0.383) | 49 | 18408 | | | 0.00- 78.35 | 28.85 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 26 Isopentane | | | | | CAS #: 78-78-4 | | |
| 1.782 | 1.782 (0.390) | 43 | 141382 | 25.0000 | 26.444 | 50.00- 150.00 | 100.00 |
| 1.782 | 1.782 (0.390) | 57 | 98130 | | | 20.70- 120.70 | 69.41 |
| 28 Trichlorofluoromethane/Fr11 | | | | | CAS #: 75-69-4 | | |
| 1.936 | 1.936 (0.423) | 101 | 343477 | 25.0000 | 25.693 | 50.00- 150.00 | 100.00 |
| 1.936 | 1.936 (0.423) | 103 | 220541 | | | 12.85- 112.85 | 64.21 |
| 29 Ethanol | | | | | CAS #: 64-17-5 | | |
| 2.162 | 2.162 (0.472) | 45 | 42219 | 25.0000 | 25.278 | 50.00- 150.00 | 100.00 |
| 2.162 | 2.162 (0.472) | 43 | 10431 | | | 0.00- 76.61 | 24.71 |
| 2.162 | 2.162 (0.472) | 46 | 16023 | | | 0.00- 88.16 | 37.95 |
| 33 Freon 113 | | | | | CAS #: 76-13-1 | | |
| 2.405 | 2.405 (0.526) | 151 | 164139 | 25.0000 | 26.784 | 50.00- 150.00 | 100.00 |
| 2.405 | 2.405 (0.526) | 153 | 104350 | | | 13.56- 113.56 | 63.57 |
| 2.405 | 2.405 (0.526) | 101 | 239761 | | | 96.53- 196.53 | 146.07 |
| 34 1,1-Dichloroethene | | | | | CAS #: 75-35-4 | | |
| 2.427 | 2.427 (0.530) | 98 | 70895 | 25.0000 | 26.485 | 50.00- 150.00 | 100.00 |
| 2.427 | 2.427 (0.530) | 96 | 109071 | | | 107.46- 207.46 | 153.85 |
| 2.427 | 2.427 (0.530) | 61 | 221367 | | | 270.84- 370.84 | 312.25 |
| 38 Acetone | | | | | CAS #: 67-64-1 | | |
| 2.541 | 2.541 (0.555) | 58 | 52649 | 25.0000 | 24.430 | 50.00- 150.00 | 100.00 |
| 2.541 | 2.541 (0.555) | 43 | 195515 | | | 327.54- 427.54 | 371.36 |
| 40 Carbon Disulfide | | | | | CAS #: 75-15-0 | | |
| 2.620 | 2.620 (0.573) | 76 | 317534 | 25.0000 | 24.197 | 50.00- 150.00 | 100.00 |
| 41 2-Propanol | | | | | CAS #: 67-63-0 | | |
| 2.677 | 2.677 (0.585) | 45 | 177391 | 25.0000 | 24.701 | 50.00- 150.00 | 100.00 |
| 2.677 | 2.677 (0.585) | 43 | 39464 | | | 0.00- 72.17 | 22.25 |
| 2.685 | 2.685 (0.587) | 59 | 6770 | | | 0.00- 85.00 | 3.82 |
| 44 3-Chloropropene | | | | | CAS #: 107-05-1 | | |
| 2.828 | 2.828 (0.618) | 76 | 50684 | 25.0000 | 25.007 | 50.00- 150.00 | 100.00 |
| 2.821 | 2.821 (0.616) | 41 | 149467 | | | 245.26- 345.26 | 294.90 |
| 46 Methylene Chloride | | | | | CAS #: 75-09-2 | | |
| 2.993 | 2.993 (0.654) | 49 | 139652 | 25.0000 | 25.389 | 50.00- 150.00 | 100.00 |
| 2.993 | 2.993 (0.654) | 84 | 95654 | | | 18.20- 118.20 | 68.49 |
| 2.993 | 2.993 (0.654) | 51 | 41329 | | | 0.00- 80.39 | 29.59 |
| 48 tert-Butyl-Alcohol | | | | | CAS #: 75-65-0 | | |
| 3.136 | 3.136 (0.685) | 59 | 221616 | 25.0000 | 25.002 | 50.00- 150.00 | 100.00 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 48 tert-Butyl-Alcohol (continued) | | | | | | | |
| 3.136 | 3.136 (0.685) | 41 | 61758 | | | 0.00- 83.59 | 27.87 |
| 3.136 | 3.136 (0.685) | 57 | 24581 | | | 0.00- 57.49 | 11.09 |
| 50 MTBE | | | | | CAS #: 1634-04-4 | | |
| 3.243 | 3.243 (0.709) | 73 | 337401 | 25.0000 | 25.899 | 50.00- 150.00 | 100.00 |
| 3.236 | 3.236 (0.707) | 57 | 78119 | | | 0.00- 73.10 | 23.15 |
| 3.243 | 3.243 (0.709) | 41 | 87729 | | | 0.00- 75.17 | 26.00 |
| 52 trans-1,2-Dichloroethene | | | | | CAS #: 156-60-5 | | |
| 3.251 | 3.251 (0.710) | 98 | 72916 | 25.0000 | 26.328 | 50.00- 150.00 | 100.00 |
| 3.251 | 3.251 (0.710) | 61 | 189721 | | | 222.42- 322.42 | 260.19 |
| 3.251 | 3.251 (0.710) | 96 | 112197 | | | 114.13- 214.13 | 153.87 |
| 58 Hexane | | | | | CAS #: 110-54-3 | | |
| 3.480 | 3.480 (0.760) | 57 | 206269 | 25.0000 | 26.452 | 50.00- 150.00 | 100.00 |
| 3.480 | 3.480 (0.760) | 43 | 129953 | | | 19.39- 119.39 | 63.00 |
| 3.480 | 3.480 (0.760) | 86 | 33132 | | | 0.00- 69.00 | 16.06 |
| 63 Isopropyl ether | | | | | CAS #: 108-20-3 | | |
| 3.759 | 3.759 (0.822) | 45 | 471915 | 25.0000 | 26.070 | 50.00- 150.00 | 100.00 |
| 3.759 | 3.759 (0.822) | 87 | 111572 | | | 0.00- 73.47 | 23.64 |
| 3.759 | 3.759 (0.822) | 59 | 51327 | | | 0.00- 60.91 | 10.88 |
| 64 1,1-Dichloroethane | | | | | CAS #: 75-34-3 | | |
| 3.745 | 3.745 (0.818) | 63 | 254058 | 25.0000 | 26.360 | 50.00- 150.00 | 100.00 |
| 3.745 | 3.745 (0.818) | 65 | 81891 | | | 0.00- 81.96 | 32.23 |
| 65 Vinyl Acetate | | | | | CAS #: 108-05-4 | | |
| 3.802 | 3.802 (0.831) | 86 | 29323 | 25.0000 | 27.272 | 50.00- 150.00 | 100.00 |
| 3.802 | 3.802 (0.831) | 43 | 390796 | | | 1533.22-1633.22 | 1332.73 |
| 72 t-Butylethyl Ether | | | | | CAS #: 637-92-3 | | |
| 4.132 | 4.132 (0.903) | 59 | 436559 | 25.0000 | 25.827 | 50.00- 150.00 | 100.00 |
| 4.132 | 4.132 (0.903) | 87 | 163633 | | | 0.00- 87.49 | 37.48 |
| 4.124 | 4.124 (0.901) | 41 | 88263 | | | 0.00- 70.38 | 20.22 |
| 74 cis-1,2-Dichloroethene | | | | | CAS #: 156-59-2 | | |
| 4.339 | 4.339 (0.948) | 98 | 81058 | 25.0000 | 25.734 | 50.00- 150.00 | 100.00 |
| 4.339 | 4.339 (0.948) | 96 | 125959 | | | 108.90- 208.90 | 155.39 |
| 4.339 | 4.339 (0.948) | 61 | 202041 | | | 194.41- 294.41 | 249.25 |
| 75 2-Butanone | | | | | CAS #: 78-93-3 | | |
| 4.382 | 4.382 (0.958) | 72 | 63015 | 25.0000 | 26.352 | 50.00- 150.00 | 100.00 |
| 4.375 | 4.375 (0.956) | 43 | 297880 | | | 391.89- 491.89 | 472.71 |
| 4.375 | 4.375 (0.956) | 57 | 22950 | | | 29.81- 129.81 | 36.42 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 78 Tetrahydrofuran | | | | | CAS #: 109-99-9 | | |
| 4.576 | 4.576 (1.000) | 42 | 154849 | 25.0000 | 24.862 | 50.00- 150.00 | 100.00 |
| 4.583 | 4.583 (1.002) | 71 | 59209 | | | 0.00- 85.98 | 38.24 |
| 4.583 | 4.583 (1.002) | 72 | 60588 | | | 0.00- 86.75 | 39.13 |
| 80 Chloroform | | | | | CAS #: 67-66-3 | | |
| 4.647 | 4.647 (1.016) | 83 | 301542 | 25.0000 | 26.218 | 50.00- 150.00 | 100.00 |
| 4.647 | 4.647 (1.016) | 85 | 192546 | | | 15.01- 115.01 | 63.85 |
| 83 Cyclohexane | | | | | CAS #: 110-82-7 | | |
| 4.755 | 4.755 (1.039) | 84 | 182077 | 25.0000 | 25.852 | 50.00- 150.00 | 100.00 |
| 4.755 | 4.755 (1.039) | 56 | 230617 | | | 78.59- 178.59 | 126.66 |
| 4.755 | 4.755 (1.039) | 41 | 134461 | | | 26.74- 126.74 | 73.85 |
| 85 1,1,1-Trichloroethane | | | | | CAS #: 71-55-6 | | |
| 4.769 | 4.769 (1.042) | 97 | 305604 | 25.0000 | 26.241 | 50.00- 150.00 | 100.00 |
| 4.769 | 4.769 (1.042) | 99 | 195855 | | | 13.41- 113.41 | 64.09 |
| 86 Carbon Tetrachloride | | | | | CAS #: 56-23-5 | | |
| 4.891 | 4.891 (1.069) | 119 | 280137 | 25.0000 | 27.437 | 50.00- 150.00 | 100.00 |
| 4.891 | 4.891 (1.069) | 117 | 290924 | | | 53.70- 153.70 | 103.85 |
| 89 2,2,4-Trimethylpentane | | | | | CAS #: 540-84-1 | | |
| 5.113 | 5.113 (1.117) | 57 | 749128 | 25.0000 | 25.726 | 50.00- 150.00 | 100.00 |
| 5.113 | 5.113 (1.117) | 56 | 234905 | | | 0.00- 81.50 | 31.36 |
| 5.113 | 5.113 (1.117) | 41 | 203047 | | | 0.00- 77.21 | 27.10 |
| 90 Benzene | | | | | CAS #: 71-43-2 | | |
| 5.106 | 5.106 (0.928) | 78 | 441419 | 25.0000 | 25.795 | 50.00- 150.00 | 100.00 |
| 5.106 | 5.106 (0.928) | 77 | 104392 | | | 0.00- 73.17 | 23.65 |
| 93 tert-amyl-Methyl Ether | | | | | CAS #: 994-05-8 | | |
| 5.199 | 5.199 (1.136) | 73 | 388856 | 25.0000 | 25.357 | 50.00- 150.00 | 100.00 |
| 5.199 | 5.199 (1.136) | 87 | 95652 | | | 0.00- 74.24 | 24.60 |
| 5.206 | 5.206 (1.138) | 55 | 133868 | | | 0.00- 83.70 | 34.43 |
| 94 1,2-Dichloroethane | | | | | CAS #: 107-06-2 | | |
| 5.199 | 5.199 (0.945) | 62 | 239269 | 25.0000 | 25.989 | 50.00- 150.00 | 100.00 |
| 5.199 | 5.199 (0.945) | 64 | 79106 | | | 0.00- 83.10 | 33.06 |
| 95 Heptane | | | | | CAS #: 142-82-5 | | |
| 5.292 | 5.292 (0.962) | 71 | 163347 | 25.0000 | 26.384 | 50.00- 150.00 | 100.00 |
| 5.292 | 5.292 (0.962) | 43 | 302626 | | | 146.63- 246.63 | 185.27 |
| 5.292 | 5.292 (0.962) | 57 | 161600 | | | 54.79- 154.79 | 98.93 |
| 104 Trichloroethene | | | | | CAS #: 79-01-6 | | |
| 5.693 | 5.693 (1.035) | 95 | 192963 | 25.0000 | 24.987 | 50.00- 150.00 | 100.00 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 104 Trichloroethene (continued) | | | | | | | |
| 5.693 | 5.693 (1.035) | 130 | 177045 | | | 36.71- 136.71 | 91.75 |
| 5.693 | 5.693 (1.035) | 97 | 127884 | | | 14.60- 114.60 | 66.27 |
| 105 Methyl Cyclohexane | | | | | CAS #: 108-87-2 | | |
| 5.801 | 5.801 (1.268) | 83 | 276691 | 25.0000 | 26.451 | 50.00- 150.00 | 100.00 |
| 5.801 | 5.801 (1.268) | 98 | 129022 | | | 0.00- 96.57 | 46.63 |
| 5.793 | 5.793 (1.266) | 55 | 246964 | | | 39.57- 139.57 | 89.26 |
| 106 1,2-Dichloropropane | | | | | CAS #: 78-87-5 | | |
| 5.930 | 5.930 (1.078) | 63 | 189304 | 25.0000 | 26.507 | 50.00- 150.00 | 100.00 |
| 5.930 | 5.930 (1.078) | 62 | 129330 | | | 20.35- 120.35 | 68.32 |
| 5.922 | 5.922 (1.077) | 41 | 113186 | | | 13.49- 113.49 | 59.79 |
| 107 1,4-Dioxane | | | | | CAS #: 123-91-1 | | |
| 6.030 | 6.030 (1.096) | 88 | 98531 | 25.0000 | 24.605 | 50.00- 150.00 | 100.00 |
| 6.023 | 6.023 (1.095) | 58 | 74622 | | | 27.58- 127.58 | 75.73 |
| 6.023 | 6.023 (1.095) | 57 | 25564 | | | 0.00- 76.30 | 25.95 |
| 108 Bromodichloromethane | | | | | CAS #: 75-27-4 | | |
| 6.159 | 6.159 (1.120) | 83 | 361101 | 25.0000 | 26.229 | 50.00- 150.00 | 100.00 |
| 6.159 | 6.159 (1.120) | 85 | 236335 | | | 13.44- 113.44 | 65.45 |
| 110 cis-1,3-Dichloropropene | | | | | CAS #: 10061-01-5 | | |
| 6.546 | 6.546 (1.190) | 75 | 283735 | 25.0000 | 26.636 | 50.00- 150.00 | 100.00 |
| 6.546 | 6.546 (1.190) | 77 | 88572 | | | 0.00- 81.59 | 31.22 |
| 6.546 | 6.546 (1.190) | 39 | 151182 | | | 5.92- 105.92 | 53.28 |
| 112 4-Methyl-2-pentanone | | | | | CAS #: 108-10-1 | | |
| 6.674 | 6.674 (1.214) | 58 | 161741 | 25.0000 | 25.802 | 50.00- 150.00 | 100.00 |
| 6.674 | 6.674 (1.214) | 43 | 444250 | | | 224.75- 324.75 | 274.67 |
| 6.674 | 6.674 (1.214) | 85 | 65768 | | | 0.00- 89.27 | 40.66 |
| 115 Toluene | | | | | CAS #: 108-88-3 | | |
| 6.782 | 6.782 (1.233) | 91 | 594701 | 25.0000 | 26.162 | 50.00- 150.00 | 100.00 |
| 6.782 | 6.782 (1.233) | 92 | 355140 | | | 9.29- 109.29 | 59.72 |
| 118 trans-1,3-Dichloropropene | | | | | CAS #: 10061-02-6 | | |
| 7.033 | 7.033 (0.885) | 75 | 299470 | 25.0000 | 27.408 | 50.00- 150.00 | 100.00 |
| 7.033 | 7.033 (0.885) | 77 | 95023 | | | 0.00- 83.09 | 31.73 |
| 7.033 | 7.033 (0.885) | 39 | 153000 | | | 4.25- 104.25 | 51.09 |
| 120 1,1,2-Trichloroethane | | | | | CAS #: 79-00-5 | | |
| 7.183 | 7.183 (0.904) | 97 | 209057 | 25.0000 | 26.865 | 50.00- 150.00 | 100.00 |
| 7.183 | 7.183 (0.904) | 99 | 129586 | | | 12.25- 112.25 | 61.99 |
| 7.183 | 7.183 (0.904) | 83 | 184593 | | | 42.00- 142.00 | 88.30 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 122 Tetrachloroethene | | | | | CAS #: 127-18-4 | | |
| 7.219 | 7.219 (0.908) | 166 | 227314 | 25.0000 | 25.890 | 50.00- 150.00 | 100.00 |
| 7.219 | 7.219 (0.908) | 129 | 189449 | | | 33.95- 133.95 | 83.34 |
| 7.219 | 7.219 (0.908) | 131 | 178122 | | | 27.31- 127.31 | 78.36 |
| 125 2-Hexanone | | | | | CAS #: 591-78-6 | | |
| 7.369 | 7.369 (0.927) | 58 | 226167 | 25.0000 | 25.674 | 50.00- 150.00 | 100.00 |
| 7.369 | 7.369 (0.927) | 43 | 438011 | | | 146.90- 246.90 | 193.67 |
| 7.369 | 7.369 (0.927) | 100 | 41508 | | | 0.00- 68.42 | 18.35 |
| 128 Dibromochloromethane | | | | | CAS #: 124-48-1 | | |
| 7.484 | 7.484 (0.941) | 129 | 329605 | 25.0000 | 27.102 | 50.00- 150.00 | 100.00 |
| 7.484 | 7.484 (0.941) | 127 | 253981 | | | 27.80- 127.80 | 77.06 |
| 130 1,2-Dibromoethane | | | | | CAS #: 106-93-4 | | |
| 7.591 | 7.591 (0.955) | 107 | 319652 | 25.0000 | 26.338 | 50.00- 150.00 | 100.00 |
| 7.591 | 7.591 (0.955) | 109 | 299039 | | | 44.92- 144.92 | 93.55 |
| 135 Chlorobenzene | | | | | CAS #: 108-90-7 | | |
| 7.971 | 7.971 (1.003) | 112 | 468000 | 25.0000 | 24.696 | 50.00- 150.00 | 100.00 |
| 7.971 | 7.971 (1.003) | 114 | 150877 | | | 0.00- 82.27 | 32.24 |
| 7.971 | 7.971 (1.003) | 77 | 316500 | | | 23.60- 123.60 | 67.63 |
| 137 Ethyl Benzene | | | | | CAS #: 100-41-4 | | |
| 8.035 | 8.035 (1.011) | 106 | 251496 | 25.0000 | 26.532 | 50.00- 150.00 | 100.00 |
| 8.035 | 8.035 (1.011) | 91 | 833804 | | | 290.13- 390.13 | 331.54 |
| 140 m,p-Xylene | | | | | CAS #: 108-38-3 | | |
| 8.136 | 8.136 (1.023) | 106 | 312101 | 25.0000 | 25.502 | 50.00- 150.00 | 100.00 |
| 8.136 | 8.136 (1.023) | 91 | 650997 | | | 156.72- 256.72 | 208.59 |
| 141 o-Xylene | | | | | CAS #: 95-47-6 | | |
| 8.465 | 8.465 (1.065) | 106 | 301969 | 25.0000 | 26.088 | 50.00- 150.00 | 100.00 |
| 8.465 | 8.465 (1.065) | 91 | 657410 | | | 167.29- 267.29 | 217.71 |
| 142 Styrene | | | | | CAS #: 100-42-5 | | |
| 8.487 | 8.487 (1.068) | 104 | 498669 | 25.0000 | 26.390 | 50.00- 150.00 | 100.00 |
| 8.487 | 8.487 (1.068) | 78 | 277535 | | | 5.25- 105.25 | 55.66 |
| 145 Bromoform | | | | | CAS #: 75-25-2 | | |
| 8.666 | 8.666 (1.090) | 173 | 271387 | 25.0000 | 27.537 | 50.00- 150.00 | 100.00 |
| 8.666 | 8.666 (1.090) | 171 | 141615 | | | 2.47- 102.47 | 52.18 |
| 147 Cumene | | | | | CAS #: 98-82-8 | | |
| 8.759 | 8.759 (1.102) | 105 | 911953 | 25.0000 | 25.944 | 50.00- 150.00 | 100.00 |
| 8.759 | 8.759 (1.102) | 120 | 232066 | | | 0.00- 75.25 | 25.45 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 147 Cumene (continued) | | | | | | | |
| 8.759 | 8.759 (1.102) | 51 | 107021 | | | 0.00- 62.26 | 11.74 |
| 151 1,1,2,2-Tetrachloroethane | | | | | CAS #: 79-34-5 | | |
| 9.060 | 9.060 (1.140) | 83 | 501394 | 25.0000 | 25.845 | 50.00- 150.00 | 100.00 |
| 9.060 | 9.060 (1.140) | 85 | 320330 | | | 14.89- 114.89 | 63.89 |
| 153 Propylbenzene | | | | | CAS #: 103-65-1 | | |
| 9.096 | 9.096 (1.144) | 91 | 1137780 | 25.0000 | 25.498 | 50.00- 150.00 | 100.00 |
| 9.096 | 9.096 (1.144) | 120 | 241659 | | | 0.00- 71.30 | 21.24 |
| 9.096 | 9.096 (1.144) | 105 | 40826 | | | 0.00- 68.74 | 3.59 |
| 155 4-Ethyltoluene | | | | | CAS #: 622-96-8 | | |
| 9.189 | 9.189 (1.156) | 120 | 270405 | 25.0000 | 25.805 | 50.00- 150.00 | 100.00 |
| 9.189 | 9.189 (1.156) | 105 | 951185 | | | 299.99- 399.99 | 351.76 |
| 156 1,3,5-Trimethylbenzene | | | | | CAS #: 108-67-8 | | |
| 9.246 | 9.246 (1.163) | 120 | 370231 | 25.0000 | 26.188 | 50.00- 150.00 | 100.00 |
| 9.246 | 9.246 (1.163) | 105 | 777732 | | | 160.53- 260.53 | 210.07 |
| 162 1,2,4-Trimethylbenzene | | | | | CAS #: 95-63-6 | | |
| 9.554 | 9.554 (1.202) | 120 | 335091 | 25.0000 | 25.521 | 50.00- 150.00 | 100.00 |
| 9.554 | 9.554 (1.202) | 105 | 753189 | | | 174.98- 274.98 | 224.77 |
| 165 1,3-Dichlorobenzene | | | | | CAS #: 541-73-1 | | |
| 9.819 | 9.819 (1.235) | 146 | 432519 | 25.0000 | 24.606 | 50.00- 150.00 | 100.00 |
| 9.819 | 9.819 (1.235) | 148 | 275363 | | | 13.36- 113.36 | 63.66 |
| 9.819 | 9.819 (1.235) | 111 | 197086 | | | 0.00- 95.45 | 45.57 |
| 166 1,4-Dichlorobenzene | | | | | CAS #: 106-46-7 | | |
| 9.898 | 9.898 (1.245) | 146 | 436347 | 25.0000 | 24.313 | 50.00- 150.00 | 100.00 |
| 9.898 | 9.898 (1.245) | 148 | 278753 | | | 13.03- 113.03 | 63.88 |
| 9.898 | 9.898 (1.245) | 111 | 189843 | | | 0.00- 93.63 | 43.51 |
| 168 alpha-Chlorotoluene | | | | | CAS #: 100-44-7 | | |
| 10.012 | 10.012 (1.260) | 91 | 610033 | 25.0000 | 26.641 | 50.00- 150.00 | 100.00 |
| 10.020 | 10.020 (1.260) | 126 | 113022 | | | 0.00- 67.76 | 18.53 |
| 171 1,2-Dichlorobenzene | | | | | CAS #: 95-50-1 | | |
| 10.213 | 10.213 (1.285) | 146 | 401153 | 25.0000 | 24.856 | 50.00- 150.00 | 100.00 |
| 10.213 | 10.213 (1.285) | 148 | 252009 | | | 13.96- 113.96 | 62.82 |
| 10.213 | 10.213 (1.285) | 111 | 189099 | | | 0.00- 98.36 | 47.14 |
| 174 1,2,4-Trichlorobenzene | | | | | CAS #: 120-82-1 | | |
| 11.524 | 11.524 (1.450) | 180 | 270294 | 25.0000 | 21.804 | 50.00- 150.00 | 100.00 |
| 11.524 | 11.524 (1.450) | 182 | 256645 | | | 44.68- 144.68 | 94.95 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 175 Hexachlorobutadiene | | | | | CAS #: 87-68-3 | | |
| 11.617 | 11.617 (1.461) | 225 | 199471 | 25.0000 | 23.762 | 50.00- 150.00 | 100.00 |
| 11.617 | 11.617 (1.461) | 223 | 127460 | | | 14.17- 114.17 | 63.90 |
| 176 Naphthalene | | | | | CAS #: 91-20-3 | | |
| 11.746 | 11.746 (1.478) | 128 | 701660 | 25.0000 | 21.653 | 50.00- 150.00 | 100.00 |
| 11.746 | 11.746 (1.478) | 127 | 90869 | | | 0.00- 62.93 | 12.95 |

Report Date: 31-Mar-2010 16:11

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdd.i
Lab File ID: d033114.d
Lab Smp Id: ICAL Level 4
Analysis Type: VOA
Quant Type: ISTD
Operator: ra
Method File: /chem/msdd.i/31mar10a.b/d10q0331a.m
Misc Info: 25ppbv->200ppbv

Calibration Date: 31-MAR-2010
Calibration Time: 15:19
Client Smp ID: ICAL level 4
Level: LOW
Sample Type: AIR

| | | AREA LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 79 Bromochloromethan | 104005 | 62403 | 145607 | 100796 | -3.09 |
| 100 1,4-Difluorobenze | 450386 | 270232 | 630540 | 444740 | -1.25 |
| 134 Chlorobenzene-d5 | 514163 | 308498 | 719828 | 503732 | -2.03 |

| | | RT LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 79 Bromochloromethan | 4.58 | 4.25 | 4.91 | 4.58 | 0.00 |
| 100 1,4-Difluorobenze | 5.51 | 5.18 | 5.84 | 5.50 | -0.13 |
| 134 Chlorobenzene-d5 | 7.95 | 7.62 | 8.28 | 7.95 | 0.00 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msdd.i/31mar10a.b/d033114.d

Date : 31-MAR-2010 14:59

Client ID: ICAL level 4

Sample Info: 25ml #1936-87

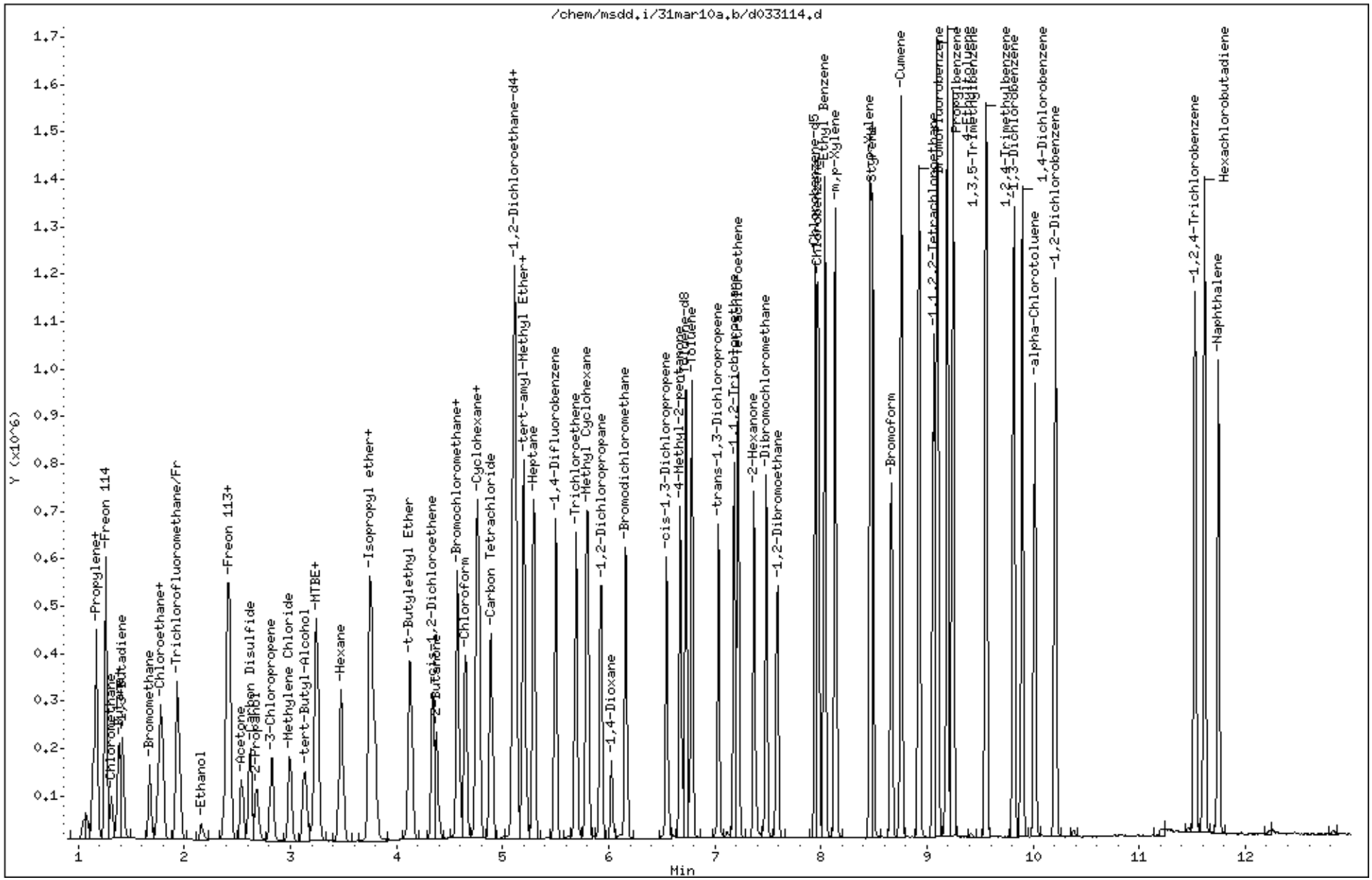
Column phase: RTx-624

Instrument: msdd.i

Operator: ra

Column diameter: 0.53





Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msdd.i/31mar10a.b/d033115.d
Lab Smp Id: ICAL Level 5 Client Smp ID: ICAL level 5
Inj Date : 31-MAR-2010 15:19
Operator : ra Inst ID: msdd.i
Smp Info : 50ml #1936-87
Misc Info : 50ppbv->200ppbv
Comment :
Method : /chem/msdd.i/31mar10a.b/d10q0331a.m
Meth Date : 31-Mar-2010 16:11 aburke Quant Type: ISTD
Cal Date : 31-MAR-2010 15:19 Cal File: d033115.d
Als bottle: 2 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT09.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| | | | | AMOUNTS | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | CAL-AMT | ON-COL | | | |
| RT | EXP RT (REL RT) | MASS | RESPONSE | ( PPBV) | ( PPBV) | TARGET RANGE | | RATIO |
| == | ====== ======== | ==== | ======== | ======= | ======= | ========== | | ===== |
| * 79 Bromochloromethane | | | | | CAS #: 74-97-5 | | | |
| 4.576 | 4.576 (1.000) | 130 | 104005 | 25.0000 | | 80.00- 120.00 | | 100.00 |
| 4.576 | 4.576 (1.000) | 128 | 80602 | | | 27.50- 127.50 | | 77.50 |
| 4.576 | 4.576 (1.000) | 49 | 181894 | | | 124.89- 224.89 | | 174.89 |
| * 100 1,4-Difluorobenzene | | | | | CAS #: 540-36-3 | | | |
| 5.507 | 5.507 (1.000) | 114 | 450381 | 25.0000 | | 80.00- 120.00 | | 100.00 |
| 5.507 | 5.507 (1.000) | 88 | 83566 | | | 0.00- 68.55 | | 18.55 |
| * 134 Chlorobenzene-d5 | | | | | CAS #: 3114-55-4 | | | |
| 7.950 | 7.950 (1.000) | 117 | 514163 | 25.0000 | | 80.00- 120.00 | | 100.00 |
| 7.950 | 7.950 (1.000) | 82 | 323128 | | | 12.92- 112.92 | | 62.85 |
| $ 91 1,2-Dichloroethane-d4 | | | | | CAS #: 17060-07-0 | | | |
| 5.127 | 5.127 (1.121) | 65 | 211855 | 25.0000 | 25.337 | 80.00- 120.00 | | 100.00 |
| 5.127 | 5.127 (1.121) | 67 | 116070 | | | 2.15- 102.15 | | 54.79 |
| $ 114 Toluene-d8 | | | | | CAS #: 2037-26-5 | | | |
| 6.732 | 6.732 (1.222) | 98 | 559573 | 25.0000 | 25.074 | 80.00- 120.00 | | 100.00 |
| 6.732 | 6.732 (1.222) | 70 | 68324 | | | 0.00- 62.20 | | 12.21 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 114 Toluene-d8 (continued) | | | | | | | |
| 6.732 | 6.732 (1.222) | 100 | 368183 | | | 15.58- 115.58 | 65.80 |
| $ 149 Bromofluorobenzene | | | | | CAS #: 460-00-4 | | |
| 8.931 | 8.931 (1.123) | 174 | 264681 | 25.0000 | 25.243 | 80.00- 120.00 | 100.00 |
| 8.924 | 8.924 (1.123) | 95 | 449186 | | | 119.71- 219.71 | 169.71 |
| 8.931 | 8.931 (1.123) | 176 | 252988 | | | 45.58- 145.58 | 95.58 |
| 6 Propylene | | | | | CAS #: 115-07-1 | | |
| 1.153 | 1.153 (0.252) | 41 | 160870 | 50.0000 | 47.697 | 80.00- 120.00 | 100.00 |
| 1.153 | 1.153 (0.252) | 42 | 106023 | | | 14.09- 114.09 | 65.91 |
| 1.153 | 1.153 (0.252) | 39 | 127943 | | | 29.45- 129.45 | 79.53 |
| 7 Dichlorodifluoromethane/Fr12 | | | | | CAS #: 75-71-8 | | |
| 1.167 | 1.167 (0.255) | 85 | 657116 | 50.0000 | 49.776 | 80.00- 120.00 | 100.00 |
| 1.167 | 1.167 (0.255) | 87 | 212307 | | | 0.00- 82.88 | 32.31 |
| 10 Freon 114 | | | | | CAS #: 76-14-2 | | |
| 1.265 | 1.265 (0.276) | 135 | 349774 | 50.0000 | 47.961 | 80.00- 120.00 | 100.00 |
| 1.265 | 1.265 (0.276) | 137 | 113799 | | | 0.00- 82.54 | 32.54 |
| 13 Chloromethane | | | | | CAS #: 74-87-3 | | |
| 1.321 | 1.321 (0.289) | 50 | 143429 | 50.0000 | 47.744 | 80.00- 120.00 | 100.00 |
| 1.321 | 1.321 (0.289) | 52 | 47453 | | | 0.00- 83.02 | 33.08 |
| 14 Butane | | | | | CAS #: 106-97-8 | | |
| 1.377 | 1.377 (0.301) | 58 | 43384 | 50.0000 | 51.608 | 80.00- 120.00 | 100.00 |
| 1.377 | 1.377 (0.301) | 43 | 313056 | | | 701.77- 801.77 | 721.59 |
| 15 Vinyl Chloride | | | | | CAS #: 75-01-4 | | |
| 1.405 | 1.405 (0.307) | 62 | 228224 | 50.0000 | 56.940 | 80.00- 120.00 | 100.00 |
| 1.405 | 1.405 (0.307) | 64 | 74603 | | | 0.00- 97.20 | 32.69 |
| 18 1,3-Butadiene | | | | | CAS #: 106-99-0 | | |
| 1.433 | 1.433 (0.313) | 54 | 176819 | 50.0000 | 50.931 | 80.00- 120.00 | 100.00 |
| 1.433 | 1.433 (0.313) | 39 | 207372 | | | 75.63- 175.63 | 117.28 |
| 24 Bromomethane | | | | | CAS #: 74-83-9 | | |
| 1.684 | 1.684 (0.368) | 94 | 189628 | 50.0000 | 48.656 | 80.00- 120.00 | 100.00 |
| 1.684 | 1.684 (0.368) | 96 | 179470 | | | 44.64- 144.64 | 94.64 |
| 25 Chloroethane | | | | | CAS #: 75-00-3 | | |
| 1.754 | 1.754 (0.383) | 64 | 126092 | 50.0000 | 47.195 | 80.00- 120.00 | 100.00 |
| 1.754 | 1.754 (0.383) | 66 | 40212 | | | 0.00- 86.90 | 31.89 |
| 1.754 | 1.754 (0.383) | 49 | 36541 | | | 0.00- 78.35 | 28.98 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 26 Isopentane | | | | | CAS #: 78-78-4 | | |
| 1.782 | 1.782 (0.390) | 43 | 270850 | 50.0000 | 49.096 | 80.00- 120.00 | 100.00 |
| 1.782 | 1.782 (0.390) | 57 | 191361 | | | 20.70- 120.70 | 70.65 |
| 28 Trichlorofluoromethane/Fr11 | | | | | CAS #: 75-69-4 | | |
| 1.950 | 1.950 (0.426) | 101 | 658017 | 50.0000 | 47.703 | 80.00- 120.00 | 100.00 |
| 1.950 | 1.950 (0.426) | 103 | 427716 | | | 15.00- 115.00 | 65.00 |
| 29 Ethanol | | | | | CAS #: 64-17-5 | | |
| 2.162 | 2.162 (0.472) | 45 | 87283 | 50.0000 | 50.648 | 80.00- 120.00 | 100.00 |
| 2.162 | 2.162 (0.472) | 43 | 20741 | | | 0.00- 76.61 | 23.76 |
| 2.162 | 2.162 (0.472) | 46 | 32685 | | | 0.00- 88.16 | 37.45 |
| 33 Freon 113 | | | | | CAS #: 76-13-1 | | |
| 2.413 | 2.413 (0.527) | 151 | 314738 | 50.0000 | 49.774 | 80.00- 120.00 | 100.00 |
| 2.413 | 2.413 (0.527) | 153 | 199181 | | | 13.28- 113.28 | 63.28 |
| 2.413 | 2.413 (0.527) | 101 | 460910 | | | 96.44- 196.44 | 146.44 |
| 34 1,1-Dichloroethene | | | | | CAS #: 75-35-4 | | |
| 2.434 | 2.434 (0.532) | 98 | 139150 | 50.0000 | 50.379 | 80.00- 120.00 | 100.00 |
| 2.434 | 2.434 (0.532) | 96 | 218309 | | | 106.89- 206.89 | 156.89 |
| 2.427 | 2.427 (0.530) | 61 | 435894 | | | 263.25- 363.25 | 313.25 |
| 38 Acetone | | | | | CAS #: 67-64-1 | | |
| 2.541 | 2.541 (0.555) | 58 | 108805 | 50.0000 | 48.930 | 80.00- 120.00 | 100.00 |
| 2.541 | 2.541 (0.555) | 43 | 396975 | | | 327.54- 427.54 | 364.85 |
| 40 Carbon Disulfide | | | | | CAS #: 75-15-0 | | |
| 2.627 | 2.627 (0.574) | 76 | 639147 | 50.0000 | 47.203 | 80.00- 120.00 | 100.00 |
| 41 2-Propanol | | | | | CAS #: 67-63-0 | | |
| 2.685 | 2.685 (0.587) | 45 | 383454 | 50.0000 | 51.748 | 80.00- 120.00 | 100.00 |
| 2.685 | 2.685 (0.587) | 43 | 90937 | | | 0.00- 72.17 | 23.72 |
| 2.685 | 2.685 (0.587) | 59 | 14504 | | | 0.00- 85.00 | 3.78 |
| 44 3-Chloropropene | | | | | CAS #: 107-05-1 | | |
| 2.835 | 2.835 (0.620) | 76 | 105262 | 50.0000 | 50.333 | 80.00- 120.00 | 100.00 |
| 2.828 | 2.828 (0.618) | 41 | 306525 | | | 245.26- 345.26 | 291.20 |
| 46 Methylene Chloride | | | | | CAS #: 75-09-2 | | |
| 3.000 | 3.000 (0.656) | 49 | 279690 | 50.0000 | 49.279 | 80.00- 120.00 | 100.00 |
| 3.000 | 3.000 (0.656) | 84 | 190569 | | | 18.14- 118.14 | 68.14 |
| 3.000 | 3.000 (0.656) | 51 | 84246 | | | 0.00- 80.39 | 30.12 |
| 48 tert-Butyl-Alcohol | | | | | CAS #: 75-65-0 | | |
| 3.136 | 3.136 (0.685) | 59 | 460678 | 50.0000 | 50.370 | 80.00- 120.00 | 100.00 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 48 tert-Butyl-Alcohol (continued) | | | | | | | |
| 3.136 | 3.136 (0.685) | 41 | 122915 | | | 0.00- 83.59 | 26.68 |
| 3.136 | 3.136 (0.685) | 57 | 50439 | | | 0.00- 57.49 | 10.95 |
| 50 MTBE | | | | | CAS #: 1634-04-4 | | |
| 3.243 | 3.243 (0.709) | 73 | 681794 | 50.0000 | 50.720 | 80.00- 120.00 | 100.00 |
| 3.243 | 3.243 (0.709) | 57 | 154733 | | | 0.00- 72.69 | 22.69 |
| 3.243 | 3.243 (0.709) | 41 | 169237 | | | 0.00- 75.17 | 24.82 |
| 52 trans-1,2-Dichloroethene | | | | | CAS #: 156-60-5 | | |
| 3.258 | 3.258 (0.712) | 98 | 145925 | 50.0000 | 51.063 | 80.00- 120.00 | 100.00 |
| 3.258 | 3.258 (0.712) | 61 | 387154 | | | 215.31- 315.31 | 265.31 |
| 3.258 | 3.258 (0.712) | 96 | 224830 | | | 114.13- 214.13 | 154.07 |
| 58 Hexane | | | | | CAS #: 110-54-3 | | |
| 3.487 | 3.487 (0.762) | 57 | 399120 | 50.0000 | 49.604 | 80.00- 120.00 | 100.00 |
| 3.487 | 3.487 (0.762) | 43 | 253842 | | | 19.39- 119.39 | 63.60 |
| 3.480 | 3.480 (0.760) | 86 | 63999 | | | 0.00- 69.00 | 16.04 |
| 63 Isopropyl ether | | | | | CAS #: 108-20-3 | | |
| 3.766 | 3.766 (0.823) | 45 | 921499 | 50.0000 | 49.336 | 80.00- 120.00 | 100.00 |
| 3.766 | 3.766 (0.823) | 87 | 221951 | | | 0.00- 73.47 | 24.09 |
| 3.766 | 3.766 (0.823) | 59 | 101905 | | | 0.00- 60.91 | 11.06 |
| 64 1,1-Dichloroethane | | | | | CAS #: 75-34-3 | | |
| 3.752 | 3.752 (0.820) | 63 | 499098 | 50.0000 | 50.187 | 80.00- 120.00 | 100.00 |
| 3.752 | 3.752 (0.820) | 65 | 158933 | | | 0.00- 81.84 | 31.84 |
| 65 Vinyl Acetate | | | | | CAS #: 108-05-4 | | |
| 3.809 | 3.809 (0.832) | 86 | 57487 | 50.0000 | 51.816 | 80.00- 120.00 | 100.00 |
| 3.802 | 3.802 (0.831) | 43 | 1115220 | | | 1533.22-1633.22 | 1939.95 |
| 72 t-Butylethyl Ether | | | | | CAS #: 637-92-3 | | |
| 4.132 | 4.132 (0.903) | 59 | 866479 | 50.0000 | 49.679 | 80.00- 120.00 | 100.00 |
| 4.139 | 4.139 (0.904) | 87 | 326258 | | | 0.00- 87.49 | 37.65 |
| 4.132 | 4.132 (0.903) | 41 | 170014 | | | 0.00- 70.38 | 19.62 |
| 74 cis-1,2-Dichloroethene | | | | | CAS #: 156-59-2 | | |
| 4.347 | 4.347 (0.950) | 98 | 162040 | 50.0000 | 49.856 | 80.00- 120.00 | 100.00 |
| 4.347 | 4.347 (0.950) | 96 | 251228 | | | 105.04- 205.04 | 155.04 |
| 4.347 | 4.347 (0.950) | 61 | 396519 | | | 194.70- 294.70 | 244.70 |
| 75 2-Butanone | | | | | CAS #: 78-93-3 | | |
| 4.382 | 4.382 (0.958) | 72 | 130683 | 50.0000 | 52.964 | 80.00- 120.00 | 100.00 |
| 4.382 | 4.382 (0.958) | 43 | 586890 | | | 399.09- 499.09 | 449.09 |
| 4.382 | 4.382 (0.958) | 57 | 47040 | | | 29.81- 129.81 | 36.00 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 78 Tetrahydrofuran | | | | | CAS #: 109-99-9 | | |
| 4.583 | 4.583 (1.002) | 42 | 318463 | 50.0000 | 49.555 | 80.00- 120.00 | 100.00 |
| 4.583 | 4.583 (1.002) | 71 | 115716 | | | 0.00- 85.98 | 36.34 |
| 4.583 | 4.583 (1.002) | 72 | 121347 | | | 0.00- 86.75 | 38.10 |
| 80 Chloroform | | | | | CAS #: 67-66-3 | | |
| 4.655 | 4.655 (1.017) | 83 | 592151 | 50.0000 | 49.896 | 80.00- 120.00 | 100.00 |
| 4.655 | 4.655 (1.017) | 85 | 379407 | | | 14.07- 114.07 | 64.07 |
| 83 Cyclohexane | | | | | CAS #: 110-82-7 | | |
| 4.762 | 4.762 (1.041) | 84 | 360476 | 50.0000 | 49.602 | 80.00- 120.00 | 100.00 |
| 4.762 | 4.762 (1.041) | 56 | 456655 | | | 76.68- 176.68 | 126.68 |
| 4.762 | 4.762 (1.041) | 41 | 264732 | | | 23.44- 123.44 | 73.44 |
| 85 1,1,1-Trichloroethane | | | | | CAS #: 71-55-6 | | |
| 4.776 | 4.776 (1.044) | 97 | 604747 | 50.0000 | 50.325 | 80.00- 120.00 | 100.00 |
| 4.776 | 4.776 (1.044) | 99 | 386413 | | | 13.90- 113.90 | 63.90 |
| 86 Carbon Tetrachloride | | | | | CAS #: 56-23-5 | | |
| 4.891 | 4.891 (1.069) | 119 | 554651 | 50.0000 | 52.647 | 80.00- 120.00 | 100.00 |
| 4.891 | 4.891 (1.069) | 117 | 576348 | | | 53.91- 153.91 | 103.91 |
| 89 2,2,4-Trimethylpentane | | | | | CAS #: 540-84-1 | | |
| 5.120 | 5.120 (1.119) | 57 | 1491205 | 50.0000 | 49.629 | 80.00- 120.00 | 100.00 |
| 5.120 | 5.120 (1.119) | 56 | 464162 | | | 0.00- 81.50 | 31.13 |
| 5.120 | 5.120 (1.119) | 41 | 389698 | | | 0.00- 77.21 | 26.13 |
| 90 Benzene | | | | | CAS #: 71-43-2 | | |
| 5.113 | 5.113 (0.928) | 78 | 850841 | 50.0000 | 49.098 | 80.00- 120.00 | 100.00 |
| 5.113 | 5.113 (0.928) | 77 | 201696 | | | 0.00- 73.17 | 23.71 |
| 93 tert-amyl-Methyl Ether | | | | | CAS #: 994-05-8 | | |
| 5.206 | 5.206 (1.138) | 73 | 792664 | 50.0000 | 50.094 | 80.00- 120.00 | 100.00 |
| 5.206 | 5.206 (1.138) | 87 | 193000 | | | 0.00- 74.24 | 24.35 |
| 5.206 | 5.206 (1.138) | 55 | 258589 | | | 0.00- 83.70 | 32.62 |
| 94 1,2-Dichloroethane | | | | | CAS #: 107-06-2 | | |
| 5.199 | 5.199 (0.944) | 62 | 472161 | 50.0000 | 50.642 | 80.00- 120.00 | 100.00 |
| 5.199 | 5.199 (0.944) | 64 | 151171 | | | 0.00- 83.10 | 32.02 |
| 95 Heptane | | | | | CAS #: 142-82-5 | | |
| 5.299 | 5.299 (0.962) | 71 | 312809 | 50.0000 | 49.893 | 80.00- 120.00 | 100.00 |
| 5.299 | 5.299 (0.962) | 43 | 593207 | | | 146.63- 246.63 | 189.64 |
| 5.299 | 5.299 (0.962) | 57 | 328158 | | | 54.79- 154.79 | 104.91 |
| 104 Trichloroethene | | | | | CAS #: 79-01-6 | | |
| 5.693 | 5.693 (1.034) | 95 | 387090 | 50.0000 | 49.497 | 80.00- 120.00 | 100.00 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 104 Trichloroethene (continued) | | | | | | | |
| 5.693 | 5.693 (1.034) | 130 | 340144 | | | 37.87- 137.87 | 87.87 |
| 5.693 | 5.693 (1.034) | 97 | 250412 | | | 14.69- 114.69 | 64.69 |
| 105 Methyl Cyclohexane | | | | | CAS #: 108-87-2 | | |
| 5.801 | 5.801 (1.268) | 83 | 543207 | 50.0000 | 50.328 | 80.00- 120.00 | 100.00 |
| 5.801 | 5.801 (1.268) | 98 | 251963 | | | 0.00- 96.57 | 46.38 |
| 5.801 | 5.801 (1.268) | 55 | 481964 | | | 39.57- 139.57 | 88.73 |
| 106 1,2-Dichloropropane | | | | | CAS #: 78-87-5 | | |
| 5.930 | 5.930 (1.077) | 63 | 357053 | 50.0000 | 49.370 | 80.00- 120.00 | 100.00 |
| 5.930 | 5.930 (1.077) | 62 | 256686 | | | 21.89- 121.89 | 71.89 |
| 5.930 | 5.930 (1.077) | 41 | 218055 | | | 11.07- 111.07 | 61.07 |
| 107 1,4-Dioxane | | | | | CAS #: 123-91-1 | | |
| 6.030 | 6.030 (1.095) | 88 | 204372 | 50.0000 | 50.397 | 80.00- 120.00 | 100.00 |
| 6.023 | 6.023 (1.094) | 58 | 156611 | | | 26.63- 126.63 | 76.63 |
| 6.023 | 6.023 (1.094) | 57 | 51420 | | | 0.00- 76.30 | 25.16 |
| 108 Bromodichloromethane | | | | | CAS #: 75-27-4 | | |
| 6.166 | 6.166 (1.120) | 83 | 703959 | 50.0000 | 50.493 | 80.00- 120.00 | 100.00 |
| 6.166 | 6.166 (1.120) | 85 | 451769 | | | 14.18- 114.18 | 64.18 |
| 110 cis-1,3-Dichloropropene | | | | | CAS #: 10061-01-5 | | |
| 6.546 | 6.546 (1.189) | 75 | 557134 | 50.0000 | 51.646 | 80.00- 120.00 | 100.00 |
| 6.546 | 6.546 (1.189) | 77 | 174558 | | | 0.00- 81.33 | 31.33 |
| 6.546 | 6.546 (1.189) | 39 | 308392 | | | 5.35- 105.35 | 55.35 |
| 112 4-Methyl-2-pentanone | | | | | CAS #: 108-10-1 | | |
| 6.675 | 6.675 (1.212) | 58 | 327149 | 50.0000 | 51.536 | 80.00- 120.00 | 100.00 |
| 6.675 | 6.675 (1.212) | 43 | 893772 | | | 224.75- 324.75 | 273.20 |
| 6.675 | 6.675 (1.212) | 85 | 130733 | | | 0.00- 89.27 | 39.96 |
| 115 Toluene | | | | | CAS #: 108-88-3 | | |
| 6.789 | 6.789 (1.233) | 91 | 1147239 | 50.0000 | 49.837 | 80.00- 120.00 | 100.00 |
| 6.789 | 6.789 (1.233) | 92 | 676566 | | | 8.97- 108.97 | 58.97 |
| 118 trans-1,3-Dichloropropene | | | | | CAS #: 10061-02-6 | | |
| 7.033 | 7.033 (0.885) | 75 | 599928 | 50.0000 | 53.792 | 80.00- 120.00 | 100.00 |
| 7.033 | 7.033 (0.885) | 77 | 188753 | | | 0.00- 81.46 | 31.46 |
| 7.033 | 7.033 (0.885) | 39 | 305935 | | | 1.00- 101.00 | 51.00 |
| 120 1,1,2-Trichloroethane | | | | | CAS #: 79-00-5 | | |
| 7.183 | 7.183 (0.904) | 97 | 399702 | 50.0000 | 50.323 | 80.00- 120.00 | 100.00 |
| 7.183 | 7.183 (0.904) | 99 | 248351 | | | 12.13- 112.13 | 62.13 |
| 7.183 | 7.183 (0.904) | 83 | 356224 | | | 39.12- 139.12 | 89.12 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 122 Tetrachloroethene | | | | | CAS #: 127-18-4 | | |
| 7.219 | 7.219 (0.908) | 166 | 441240 | 50.0000 | 49.236 | 80.00- 120.00 | 100.00 |
| 7.219 | 7.219 (0.908) | 129 | 369502 | | | 33.74- 133.74 | 83.74 |
| 7.219 | 7.219 (0.908) | 131 | 349082 | | | 29.11- 129.11 | 79.11 |
| 125 2-Hexanone | | | | | CAS #: 591-78-6 | | |
| 7.369 | 7.369 (0.927) | 58 | 470062 | 50.0000 | 52.277 | 80.00- 120.00 | 100.00 |
| 7.369 | 7.369 (0.927) | 43 | 913170 | | | 144.27- 244.27 | 194.27 |
| 7.369 | 7.369 (0.927) | 100 | 87187 | | | 0.00- 68.42 | 18.55 |
| 128 Dibromochloromethane | | | | | CAS #: 124-48-1 | | |
| 7.484 | 7.484 (0.941) | 129 | 643933 | 50.0000 | 51.874 | 80.00- 120.00 | 100.00 |
| 7.484 | 7.484 (0.941) | 127 | 501574 | | | 27.80- 127.80 | 77.89 |
| 130 1,2-Dibromoethane | | | | | CAS #: 106-93-4 | | |
| 7.591 | 7.591 (0.955) | 107 | 622700 | 50.0000 | 50.266 | 80.00- 120.00 | 100.00 |
| 7.591 | 7.591 (0.955) | 109 | 585228 | | | 43.98- 143.98 | 93.98 |
| 135 Chlorobenzene | | | | | CAS #: 108-90-7 | | |
| 7.978 | 7.978 (1.004) | 112 | 918299 | 50.0000 | 47.475 | 80.00- 120.00 | 100.00 |
| 7.978 | 7.978 (1.004) | 114 | 295395 | | | 0.00- 82.17 | 32.17 |
| 7.971 | 7.971 (1.003) | 77 | 616978 | | | 17.19- 117.19 | 67.19 |
| 137 Ethyl Benzene | | | | | CAS #: 100-41-4 | | |
| 8.036 | 8.036 (1.011) | 106 | 497385 | 50.0000 | 51.407 | 80.00- 120.00 | 100.00 |
| 8.036 | 8.036 (1.011) | 91 | 1635268 | | | 290.13- 390.13 | 328.77 |
| 140 m,p-Xylene | | | | | CAS #: 108-38-3 | | |
| 8.136 | 8.136 (1.023) | 106 | 624778 | 50.0000 | 50.016 | 80.00- 120.00 | 100.00 |
| 8.136 | 8.136 (1.023) | 91 | 1296583 | | | 156.72- 256.72 | 207.53 |
| 141 o-Xylene | | | | | CAS #: 95-47-6 | | |
| 8.465 | 8.465 (1.065) | 106 | 599537 | 50.0000 | 50.745 | 80.00- 120.00 | 100.00 |
| 8.465 | 8.465 (1.065) | 91 | 1301225 | | | 167.04- 267.04 | 217.04 |
| 142 Styrene | | | | | CAS #: 100-42-5 | | |
| 8.487 | 8.487 (1.068) | 104 | 995821 | 50.0000 | 51.631 | 80.00- 120.00 | 100.00 |
| 8.487 | 8.487 (1.068) | 78 | 547838 | | | 5.01- 105.01 | 55.01 |
| 145 Bromoform | | | | | CAS #: 75-25-2 | | |
| 8.666 | 8.666 (1.090) | 173 | 543254 | 50.0000 | 54.005 | 80.00- 120.00 | 100.00 |
| 8.666 | 8.666 (1.090) | 171 | 280387 | | | 1.61- 101.61 | 51.61 |
| 147 Cumene | | | | | CAS #: 98-82-8 | | |
| 8.759 | 8.759 (1.102) | 105 | 1816402 | 50.0000 | 50.626 | 80.00- 120.00 | 100.00 |
| 8.759 | 8.759 (1.102) | 120 | 458947 | | | 0.00- 75.25 | 25.27 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 147 Cumene (continued) | | | | | | | |
| 8.759 | 8.759 (1.102) | 51 | 212743 | | | 0.00- 62.26 | 11.71 |
| 151 1,1,2,2-Tetrachloroethane | | | | | CAS #: 79-34-5 | | |
| 9.067 | 9.067 (1.141) | 83 | 988113 | 50.0000 | 49.900 | 80.00- 120.00 | 100.00 |
| 9.067 | 9.067 (1.141) | 85 | 639391 | | | 14.71- 114.71 | 64.71 |
| 153 Propylbenzene | | | | | CAS #: 103-65-1 | | |
| 9.096 | 9.096 (1.144) | 91 | 2293888 | 50.0000 | 50.363 | 80.00- 120.00 | 100.00 |
| 9.096 | 9.096 (1.144) | 120 | 486712 | | | 0.00- 71.30 | 21.22 |
| 9.096 | 9.096 (1.144) | 105 | 83589 | | | 0.00- 68.74 | 3.64 |
| 155 4-Ethyltoluene | | | | | CAS #: 622-96-8 | | |
| 9.189 | 9.189 (1.156) | 120 | 544412 | 50.0000 | 50.900 | 80.00- 120.00 | 100.00 |
| 9.189 | 9.189 (1.156) | 105 | 1920199 | | | 302.71- 402.71 | 352.71 |
| 156 1,3,5-Trimethylbenzene | | | | | CAS #: 108-67-8 | | |
| 9.246 | 9.246 (1.163) | 120 | 738755 | 50.0000 | 51.196 | 80.00- 120.00 | 100.00 |
| 9.246 | 9.246 (1.163) | 105 | 1547864 | | | 160.53- 260.53 | 209.52 |
| 162 1,2,4-Trimethylbenzene | | | | | CAS #: 95-63-6 | | |
| 9.561 | 9.561 (1.203) | 120 | 681560 | 50.0000 | 50.856 | 80.00- 120.00 | 100.00 |
| 9.554 | 9.554 (1.202) | 105 | 1535845 | | | 174.98- 274.98 | 225.34 |
| 165 1,3-Dichlorobenzene | | | | | CAS #: 541-73-1 | | |
| 9.819 | 9.819 (1.235) | 146 | 882919 | 50.0000 | 49.211 | 80.00- 120.00 | 100.00 |
| 9.819 | 9.819 (1.235) | 148 | 557941 | | | 13.36- 113.36 | 63.19 |
| 9.819 | 9.819 (1.235) | 111 | 401570 | | | 0.00- 95.45 | 45.48 |
| 166 1,4-Dichlorobenzene | | | | | CAS #: 106-46-7 | | |
| 9.898 | 9.898 (1.245) | 146 | 897193 | 50.0000 | 48.976 | 80.00- 120.00 | 100.00 |
| 9.898 | 9.898 (1.245) | 148 | 565124 | | | 13.03- 113.03 | 62.99 |
| 9.898 | 9.898 (1.245) | 111 | 390249 | | | 0.00- 93.63 | 43.50 |
| 168 alpha-Chlorotoluene | | | | | CAS #: 100-44-7 | | |
| 10.020 | 10.020 (1.260) | 91 | 1376327 | 50.0000 | 58.888 | 80.00- 120.00 | 100.00 |
| 10.020 | 10.020 (1.260) | 126 | 252161 | | | 0.00- 67.76 | 18.32 |
| 171 1,2-Dichlorobenzene | | | | | CAS #: 95-50-1 | | |
| 10.213 | 10.213 (1.285) | 146 | 824483 | 50.0000 | 50.050 | 80.00- 120.00 | 100.00 |
| 10.213 | 10.213 (1.285) | 148 | 521347 | | | 13.23- 113.23 | 63.23 |
| 10.213 | 10.213 (1.285) | 111 | 390381 | | | 0.00- 97.35 | 47.35 |
| 174 1,2,4-Trichlorobenzene | | | | | CAS #: 120-82-1 | | |
| 11.524 | 11.524 (1.450) | 180 | 622339 | 50.0000 | 49.185 | 80.00- 120.00 | 100.00 |
| 11.524 | 11.524 (1.450) | 182 | 586874 | | | 44.30- 144.30 | 94.30 |

| | | | | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| RT | EXP RT (REL RT) | MASS | RESPONSE | | | | |
| 175 Hexachlorobutadiene | | | | | CAS #: 87-68-3 | | |
| 11.617 | 11.617 (1.461) | 225 | 425060 | 50.0000 | 49.608 | 80.00- 120.00 | 100.00 |
| 11.617 | 11.617 (1.461) | 223 | 272604 | | | 14.17- 114.17 | 64.13 |
| 176 Naphthalene | | | | | CAS #: 91-20-3 | | |
| 11.746 | 11.746 (1.478) | 128 | 1630553 | 50.0000 | 49.298 | 80.00- 120.00 | 100.00 |
| 11.746 | 11.746 (1.478) | 127 | 211301 | | | 0.00- 62.93 | 12.96 |

Report Date: 31-Mar-2010 16:11

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdd.i
Lab File ID: d033115.d
Lab Smp Id: ICAL Level 5
Analysis Type: VOA
Quant Type: ISTD
Operator: ra
Method File: /chem/msdd.i/31mar10a.b/d10q0331a.m
Misc Info: 50ppbv->200ppbv

Calibration Date: 31-MAR-2010
Calibration Time: 15:19
Client Smp ID: ICAL level 5
Level: LOW
Sample Type: AIR

| | | AREA LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 79 Bromochloromethan | 104005 | 62403 | 145607 | 104005 | 0.00 |
| 100 1,4-Difluorobenze | 450381 | 270229 | 630533 | 450381 | 0.00 |
| 134 Chlorobenzene-d5 | 514163 | 308498 | 719828 | 514163 | 0.00 |

| | | RT LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 79 Bromochloromethan | 4.58 | 4.25 | 4.91 | 4.58 | 0.00 |
| 100 1,4-Difluorobenze | 5.51 | 5.18 | 5.84 | 5.51 | 0.00 |
| 134 Chlorobenzene-d5 | 7.95 | 7.62 | 8.28 | 7.95 | 0.00 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msdd.i/31mar10a.b/d033115.d

Date : 31-MAR-2010 15:19

Client ID: ICAL level 5

Sample Info: 50ml #1936-87

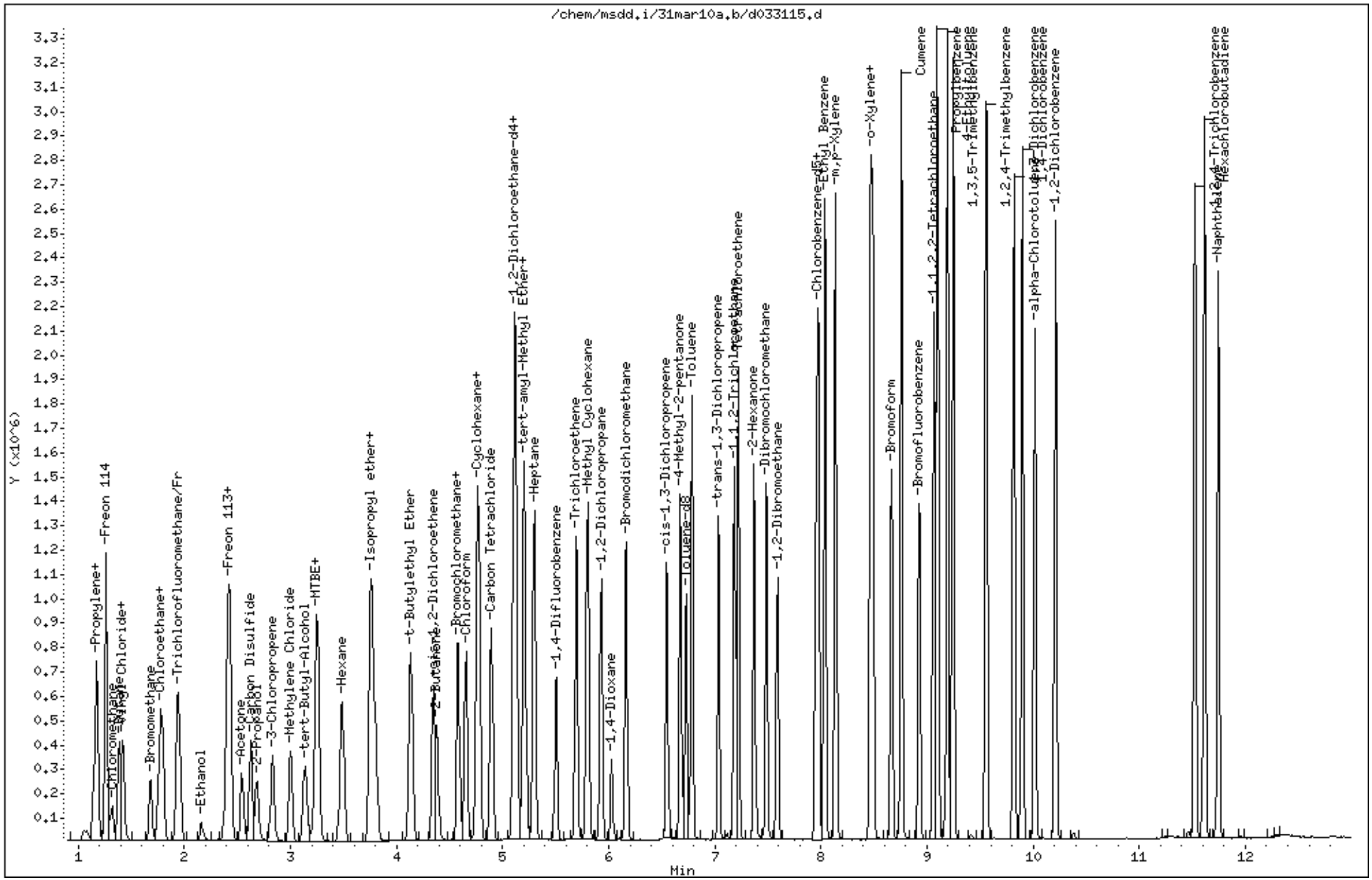
Column phase: RTx-624

Instrument: msdd.i

Operator: ra

Column diameter: 0.53





Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msdd.i/31mar10a.b/d033116.d
Lab Smp Id: ICAL Level 6 Client Smp ID: ICAL level 6
Inj Date : 31-MAR-2010 15:38
Operator : ra Inst ID: msdd.i
Smp Info : 100ml #1936-87
Misc Info : 100ppbv->200ppbv
Comment :
Method : /chem/msdd.i/31mar10a.b/d10q0331a.m
Meth Date : 31-Mar-2010 16:11 aburke Quant Type: ISTD
Cal Date : 31-MAR-2010 15:38 Cal File: d033116.d
Als bottle: 3 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT09.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| | | | | AMOUNTS | | | |
|---|---|---|---|---|---|---|---|
| | | | | CAL-AMT | ON-COL | | |
| RT | EXP RT (REL RT) | MASS | RESPONSE | ( PPBV) | ( PPBV) | TARGET RANGE | RATIO |
| == | ====== ======== | ==== | ======== | ======= | ======= | ========== | ===== |
| * 79 Bromochloromethane | | | | | CAS #: 74-97-5 | | |
| 4.576 | 4.576 (1.000) | 130 | 101977 | 25.0000 | | 50.00- 150.00 | 100.00 |
| 4.576 | 4.576 (1.000) | 128 | 77907 | | | 27.33- 127.33 | 76.40 |
| 4.576 | 4.576 (1.000) | 49 | 179171 | | | 123.46- 223.46 | 175.70 |
| * 100 1,4-Difluorobenzene | | | | | CAS #: 540-36-3 | | |
| 5.507 | 5.507 (1.000) | 114 | 442820 | 25.0000 | | 50.00- 150.00 | 100.00 |
| 5.507 | 5.507 (1.000) | 88 | 80505 | | | 0.00- 68.33 | 18.18 |
| * 134 Chlorobenzene-d5 | | | | | CAS #: 3114-55-4 | | |
| 7.950 | 7.950 (1.000) | 117 | 501525 | 25.0000 | | 50.00- 150.00 | 100.00 |
| 7.950 | 7.950 (1.000) | 82 | 316395 | | | 12.92- 112.92 | 63.09 |
| $ 91 1,2-Dichloroethane-d4 | | | | | CAS #: 17060-07-0 | | |
| 5.127 | 5.127 (1.121) | 65 | 214615 | 25.0000 | 26.177 | 50.00- 150.00 | 100.00 |
| 5.127 | 5.127 (1.121) | 67 | 125875 | | | 2.15- 102.15 | 58.65 |
| $ 114 Toluene-d8 | | | | | CAS #: 2037-26-5 | | |
| 6.732 | 6.732 (1.222) | 98 | 549665 | 25.0000 | 25.050 | 50.00- 150.00 | 100.00 |
| 6.732 | 6.732 (1.222) | 70 | 66927 | | | 0.00- 62.20 | 12.18 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 114 Toluene-d8 (continued) | | | | | | | |
| 6.732 | 6.732 (1.222) | 100 | 366429 | | | 15.58- 115.58 | 66.66 |
| $ 149 Bromofluorobenzene | | | | | CAS #: 460-00-4 | | |
| 8.931 | 8.931 (1.123) | 174 | 259726 | 25.0000 | 25.395 | 50.00- 150.00 | 100.00 |
| 8.931 | 8.931 (1.123) | 95 | 442856 | | | 120.42- 220.42 | 170.51 |
| 8.931 | 8.931 (1.123) | 176 | 248973 | | | 46.27- 146.27 | 95.86 |
| 6 Propylene | | | | | CAS #: 115-07-1 | | |
| 1.153 | 1.153 (0.252) | 41 | 325314 | 100.000 | 98.371 | 50.00- 150.00 | 100.00 |
| 1.153 | 1.153 (0.252) | 42 | 209628 | | | 14.09- 114.09 | 64.44 |
| 1.153 | 1.153 (0.252) | 39 | 255202 | | | 29.45- 129.45 | 78.45 |
| 7 Dichlorodifluoromethane/Fr12 | | | | | CAS #: 75-71-8 | | |
| 1.181 | 1.181 (0.258) | 85 | 1307284 | 100.000 | 100.99 | 50.00- 150.00 | 100.00 |
| 1.181 | 1.181 (0.258) | 87 | 422873 | | | 0.00- 82.88 | 32.35 |
| 10 Freon 114 | | | | | CAS #: 76-14-2 | | |
| 1.265 | 1.265 (0.276) | 135 | 705060 | 100.000 | 98.601 | 50.00- 150.00 | 100.00 |
| 1.265 | 1.265 (0.276) | 137 | 221200 | | | 0.00- 82.69 | 31.37 |
| 13 Chloromethane | | | | | CAS #: 74-87-3 | | |
| 1.321 | 1.321 (0.289) | 50 | 275125 | 100.000 | 93.403 | 50.00- 150.00 | 100.00 |
| 1.321 | 1.321 (0.289) | 52 | 90084 | | | 0.00- 83.02 | 32.74 |
| 14 Butane | | | | | CAS #: 106-97-8 | | |
| 1.377 | 1.377 (0.301) | 58 | 87557 | 100.000 | 106.22 | 50.00- 150.00 | 100.00 |
| 1.377 | 1.377 (0.301) | 43 | 634450 | | | 701.77- 801.77 | 724.61 |
| 15 Vinyl Chloride | | | | | CAS #: 75-01-4 | | |
| 1.405 | 1.405 (0.307) | 62 | 453205 | 100.000 | 115.32 | 50.00- 150.00 | 100.00 |
| 1.405 | 1.405 (0.307) | 64 | 144198 | | | 0.00- 97.20 | 31.82 |
| 18 1,3-Butadiene | | | | | CAS #: 106-99-0 | | |
| 1.433 | 1.433 (0.313) | 54 | 355702 | 100.000 | 104.49 | 50.00- 150.00 | 100.00 |
| 1.433 | 1.433 (0.313) | 39 | 385304 | | | 75.63- 175.63 | 108.32 |
| 24 Bromomethane | | | | | CAS #: 74-83-9 | | |
| 1.684 | 1.684 (0.368) | 94 | 376521 | 100.000 | 98.531 | 50.00- 150.00 | 100.00 |
| 1.684 | 1.684 (0.368) | 96 | 353146 | | | 41.64- 141.64 | 93.79 |
| 25 Chloroethane | | | | | CAS #: 75-00-3 | | |
| 1.754 | 1.754 (0.383) | 64 | 252619 | 100.000 | 96.434 | 50.00- 150.00 | 100.00 |
| 1.754 | 1.754 (0.383) | 66 | 79225 | | | 0.00- 86.90 | 31.36 |
| 1.754 | 1.754 (0.383) | 49 | 72546 | | | 0.00- 78.35 | 28.72 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 26 Isopentane | | | | | CAS #: 78-78-4 | | |
| 1.782 | 1.782 (0.390) | 43 | 537714 | 100.000 | 99.407 | 50.00- 150.00 | 100.00 |
| 1.782 | 1.782 (0.390) | 57 | 384413 | | | 20.70- 120.70 | 71.49 |
| 28 Trichlorofluoromethane/Fr11 | | | | | CAS #: 75-69-4 | | |
| 1.950 | 1.950 (0.426) | 101 | 1443039 | 100.000 | 106.69 | 50.00- 150.00 | 100.00 |
| 1.950 | 1.950 (0.426) | 103 | 849483 | | | 12.85- 112.85 | 58.87 |
| 29 Ethanol | | | | | CAS #: 64-17-5 | | |
| 2.162 | 2.162 (0.472) | 45 | 170102 | 100.000 | 100.67 | 50.00- 150.00 | 100.00 |
| 2.162 | 2.162 (0.472) | 43 | 39619 | | | 0.00- 76.61 | 23.29 |
| 2.162 | 2.162 (0.472) | 46 | 66456 | | | 0.00- 88.16 | 39.07 |
| 33 Freon 113 | | | | | CAS #: 76-13-1 | | |
| 2.405 | 2.405 (0.526) | 151 | 615942 | 100.000 | 99.346 | 50.00- 150.00 | 100.00 |
| 2.405 | 2.405 (0.526) | 153 | 394797 | | | 13.56- 113.56 | 64.10 |
| 2.405 | 2.405 (0.526) | 101 | 911122 | | | 96.53- 196.53 | 147.92 |
| 34 1,1-Dichloroethene | | | | | CAS #: 75-35-4 | | |
| 2.427 | 2.427 (0.530) | 98 | 274276 | 100.000 | 101.28 | 50.00- 150.00 | 100.00 |
| 2.427 | 2.427 (0.530) | 96 | 428731 | | | 107.46- 207.46 | 156.31 |
| 2.427 | 2.427 (0.530) | 61 | 866746 | | | 270.84- 370.84 | 316.01 |
| 38 Acetone | | | | | CAS #: 67-64-1 | | |
| 2.534 | 2.534 (0.554) | 58 | 215342 | 100.000 | 98.767 | 50.00- 150.00 | 100.00 |
| 2.534 | 2.534 (0.554) | 43 | 799360 | | | 327.54- 427.54 | 371.20 |
| 40 Carbon Disulfide | | | | | CAS #: 75-15-0 | | |
| 2.620 | 2.620 (0.573) | 76 | 1280059 | 100.000 | 96.416 | 50.00- 150.00 | 100.00 |
| 41 2-Propanol | | | | | CAS #: 67-63-0 | | |
| 2.670 | 2.670 (0.584) | 45 | 798014 | 100.000 | 109.84 | 50.00- 150.00 | 100.00 |
| 2.670 | 2.670 (0.584) | 43 | 172905 | | | 0.00- 72.17 | 21.67 |
| 2.670 | 2.670 (0.584) | 59 | 30434 | | | 0.00- 85.00 | 3.81 |
| 44 3-Chloropropene | | | | | CAS #: 107-05-1 | | |
| 2.828 | 2.828 (0.618) | 76 | 210402 | 100.000 | 102.61 | 50.00- 150.00 | 100.00 |
| 2.821 | 2.821 (0.616) | 41 | 610754 | | | 245.26- 345.26 | 290.28 |
| 46 Methylene Chloride | | | | | CAS #: 75-09-2 | | |
| 2.993 | 2.993 (0.654) | 49 | 556295 | 100.000 | 99.964 | 50.00- 150.00 | 100.00 |
| 2.993 | 2.993 (0.654) | 84 | 380866 | | | 18.20- 118.20 | 68.46 |
| 2.993 | 2.993 (0.654) | 51 | 168717 | | | 0.00- 80.39 | 30.33 |
| 48 tert-Butyl-Alcohol | | | | | CAS #: 75-65-0 | | |
| 3.129 | 3.129 (0.684) | 59 | 965898 | 100.000 | 107.71 | 50.00- 150.00 | 100.00 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 48 tert-Butyl-Alcohol (continued) | | | | | | | |
| 3.129 | 3.129 (0.684) | 41 | 242479 | | | 0.00- 83.59 | 25.10 |
| 3.129 | 3.129 (0.684) | 57 | 105476 | | | 0.00- 57.49 | 10.92 |
| 50 MTBE | | | | | CAS #: 1634-04-4 | | |
| 3.236 | 3.236 (0.707) | 73 | 1377553 | 100.000 | 104.52 | 50.00- 150.00 | 100.00 |
| 3.236 | 3.236 (0.707) | 57 | 317547 | | | 0.00- 73.10 | 23.05 |
| 3.236 | 3.236 (0.707) | 41 | 320420 | | | 0.00- 75.17 | 23.26 |
| 52 trans-1,2-Dichloroethene | | | | | CAS #: 156-60-5 | | |
| 3.251 | 3.251 (0.710) | 98 | 289599 | 100.000 | 103.35 | 50.00- 150.00 | 100.00 |
| 3.251 | 3.251 (0.710) | 61 | 765743 | | | 222.42- 322.42 | 264.41 |
| 3.251 | 3.251 (0.710) | 96 | 450288 | | | 114.13- 214.13 | 155.49 |
| 58 Hexane | | | | | CAS #: 110-54-3 | | |
| 3.480 | 3.480 (0.760) | 57 | 798644 | 100.000 | 101.23 | 50.00- 150.00 | 100.00 |
| 3.480 | 3.480 (0.760) | 43 | 503949 | | | 19.39- 119.39 | 63.10 |
| 3.487 | 3.487 (0.762) | 86 | 128200 | | | 0.00- 69.00 | 16.05 |
| 63 Isopropyl ether | | | | | CAS #: 108-20-3 | | |
| 3.759 | 3.759 (0.822) | 45 | 1836054 | 100.000 | 100.25 | 50.00- 150.00 | 100.00 |
| 3.759 | 3.759 (0.822) | 87 | 446000 | | | 0.00- 73.47 | 24.29 |
| 3.759 | 3.759 (0.822) | 59 | 202535 | | | 0.00- 60.91 | 11.03 |
| 64 1,1-Dichloroethane | | | | | CAS #: 75-34-3 | | |
| 3.745 | 3.745 (0.818) | 63 | 990590 | 100.000 | 101.59 | 50.00- 150.00 | 100.00 |
| 3.745 | 3.745 (0.818) | 65 | 319214 | | | 0.00- 81.96 | 32.22 |
| 65 Vinyl Acetate | | | | | CAS #: 108-05-4 | | |
| 3.802 | 3.802 (0.831) | 86 | 123195 | 100.000 | 113.25 | 50.00- 150.00 | 100.00 |
| 3.802 | 3.802 (0.831) | 43 | 1782136 | | | 1533.22-1633.22 | 1446.60 |
| 72 t-Butylethyl Ether | | | | | CAS #: 637-92-3 | | |
| 4.125 | 4.125 (0.901) | 59 | 1750326 | 100.000 | 102.35 | 50.00- 150.00 | 100.00 |
| 4.132 | 4.132 (0.903) | 87 | 663033 | | | 0.00- 87.49 | 37.88 |
| 4.125 | 4.125 (0.901) | 41 | 332496 | | | 0.00- 70.38 | 19.00 |
| 74 cis-1,2-Dichloroethene | | | | | CAS #: 156-59-2 | | |
| 4.347 | 4.347 (0.950) | 98 | 322962 | 100.000 | 101.34 | 50.00- 150.00 | 100.00 |
| 4.347 | 4.347 (0.950) | 96 | 506195 | | | 108.90- 208.90 | 156.74 |
| 4.339 | 4.339 (0.948) | 61 | 792800 | | | 194.41- 294.41 | 245.48 |
| 75 2-Butanone | | | | | CAS #: 78-93-3 | | |
| 4.375 | 4.375 (0.956) | 72 | 264210 | 100.000 | 109.21 | 50.00- 150.00 | 100.00 |
| 4.375 | 4.375 (0.956) | 43 | 1190076 | | | 391.89- 491.89 | 450.43 |
| 4.375 | 4.375 (0.956) | 57 | 95981 | | | 29.81- 129.81 | 36.33 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 78 Tetrahydrofuran | | | | | CAS #: 109-99-9 | | |
| 4.576 | 4.576 (1.000) | 42 | 640481 | 100.000 | 101.64 | 50.00- 150.00 | 100.00 |
| 4.576 | 4.576 (1.000) | 71 | 234372 | | | 0.00- 85.98 | 36.59 |
| 4.576 | 4.576 (1.000) | 72 | 244074 | | | 0.00- 86.75 | 38.11 |
| 80 Chloroform | | | | | CAS #: 67-66-3 | | |
| 4.655 | 4.655 (1.017) | 83 | 1177333 | 100.000 | 101.18 | 50.00- 150.00 | 100.00 |
| 4.655 | 4.655 (1.017) | 85 | 760513 | | | 15.01- 115.01 | 64.60 |
| 83 Cyclohexane | | | | | CAS #: 110-82-7 | | |
| 4.755 | 4.755 (1.039) | 84 | 719037 | 100.000 | 100.91 | 50.00- 150.00 | 100.00 |
| 4.755 | 4.755 (1.039) | 56 | 906279 | | | 78.59- 178.59 | 126.04 |
| 4.755 | 4.755 (1.039) | 41 | 518965 | | | 26.74- 126.74 | 72.18 |
| 85 1,1,1-Trichloroethane | | | | | CAS #: 71-55-6 | | |
| 4.776 | 4.776 (1.044) | 97 | 1213597 | 100.000 | 103.00 | 50.00- 150.00 | 100.00 |
| 4.776 | 4.776 (1.044) | 99 | 773753 | | | 13.41- 113.41 | 63.76 |
| 86 Carbon Tetrachloride | | | | | CAS #: 56-23-5 | | |
| 4.891 | 4.891 (1.069) | 119 | 1129074 | 100.000 | 109.30 | 50.00- 150.00 | 100.00 |
| 4.891 | 4.891 (1.069) | 117 | 1169701 | | | 53.70- 153.70 | 103.60 |
| 89 2,2,4-Trimethylpentane | | | | | CAS #: 540-84-1 | | |
| 5.120 | 5.120 (1.119) | 57 | 2973019 | 100.000 | 100.91 | 50.00- 150.00 | 100.00 |
| 5.120 | 5.120 (1.119) | 56 | 921839 | | | 0.00- 81.50 | 31.01 |
| 5.120 | 5.120 (1.119) | 41 | 768356 | | | 0.00- 77.21 | 25.84 |
| 90 Benzene | | | | | CAS #: 71-43-2 | | |
| 5.106 | 5.106 (0.927) | 78 | 1681334 | 100.000 | 98.678 | 50.00- 150.00 | 100.00 |
| 5.106 | 5.106 (0.927) | 77 | 394166 | | | 0.00- 73.17 | 23.44 |
| 93 tert-amyl-Methyl Ether | | | | | CAS #: 994-05-8 | | |
| 5.206 | 5.206 (1.138) | 73 | 1601838 | 100.000 | 103.24 | 50.00- 150.00 | 100.00 |
| 5.206 | 5.206 (1.138) | 87 | 395410 | | | 0.00- 74.24 | 24.68 |
| 5.199 | 5.199 (1.136) | 55 | 505544 | | | 0.00- 83.70 | 31.56 |
| 94 1,2-Dichloroethane | | | | | CAS #: 107-06-2 | | |
| 5.199 | 5.199 (0.944) | 62 | 927575 | 100.000 | 101.19 | 50.00- 150.00 | 100.00 |
| 5.199 | 5.199 (0.944) | 64 | 300023 | | | 0.00- 83.10 | 32.34 |
| 95 Heptane | | | | | CAS #: 142-82-5 | | |
| 5.299 | 5.299 (0.962) | 71 | 635476 | 100.000 | 103.09 | 50.00- 150.00 | 100.00 |
| 5.299 | 5.299 (0.962) | 43 | 1185306 | | | 146.63- 246.63 | 186.52 |
| 5.299 | 5.299 (0.962) | 57 | 664486 | | | 54.79- 154.79 | 104.57 |
| 104 Trichloroethene | | | | | CAS #: 79-01-6 | | |
| 5.693 | 5.693 (1.034) | 95 | 766772 | 100.000 | 99.720 | 50.00- 150.00 | 100.00 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 104 Trichloroethene (continued) | | | | | | | |
| 5.693 | 5.693 (1.034) | 130 | 676636 | | | 36.71- 136.71 | 88.24 |
| 5.693 | 5.693 (1.034) | 97 | 495403 | | | 14.60- 114.60 | 64.61 |
| 105 Methyl Cyclohexane | | | | | CAS #: 108-87-2 | | |
| 5.801 | 5.801 (1.268) | 83 | 1074560 | 100.000 | 101.54 | 50.00- 150.00 | 100.00 |
| 5.801 | 5.801 (1.268) | 98 | 506125 | | | 0.00- 96.57 | 47.10 |
| 5.801 | 5.801 (1.268) | 55 | 958805 | | | 39.57- 139.57 | 89.23 |
| 106 1,2-Dichloropropane | | | | | CAS #: 78-87-5 | | |
| 5.930 | 5.930 (1.077) | 63 | 714015 | 100.000 | 100.41 | 50.00- 150.00 | 100.00 |
| 5.930 | 5.930 (1.077) | 62 | 502897 | | | 20.35- 120.35 | 70.43 |
| 5.930 | 5.930 (1.077) | 41 | 436173 | | | 13.49- 113.49 | 61.09 |
| 107 1,4-Dioxane | | | | | CAS #: 123-91-1 | | |
| 6.023 | 6.023 (1.094) | 88 | 418558 | 100.000 | 104.98 | 50.00- 150.00 | 100.00 |
| 6.023 | 6.023 (1.094) | 58 | 319516 | | | 27.58- 127.58 | 76.34 |
| 6.023 | 6.023 (1.094) | 57 | 107578 | | | 0.00- 76.30 | 25.70 |
| 108 Bromodichloromethane | | | | | CAS #: 75-27-4 | | |
| 6.166 | 6.166 (1.120) | 83 | 1427936 | 100.000 | 104.17 | 50.00- 150.00 | 100.00 |
| 6.166 | 6.166 (1.120) | 85 | 910499 | | | 13.44- 113.44 | 63.76 |
| 110 cis-1,3-Dichloropropene | | | | | CAS #: 10061-01-5 | | |
| 6.546 | 6.546 (1.189) | 75 | 1146504 | 100.000 | 108.10 | 50.00- 150.00 | 100.00 |
| 6.546 | 6.546 (1.189) | 77 | 358068 | | | 0.00- 81.59 | 31.23 |
| 6.546 | 6.546 (1.189) | 39 | 612651 | | | 5.92- 105.92 | 53.44 |
| 112 4-Methyl-2-pentanone | | | | | CAS #: 108-10-1 | | |
| 6.675 | 6.675 (1.212) | 58 | 671167 | 100.000 | 107.53 | 50.00- 150.00 | 100.00 |
| 6.675 | 6.675 (1.212) | 43 | 1813572 | | | 224.75- 324.75 | 270.21 |
| 6.675 | 6.675 (1.212) | 85 | 266791 | | | 0.00- 89.27 | 39.75 |
| 115 Toluene | | | | | CAS #: 108-88-3 | | |
| 6.782 | 6.782 (1.232) | 91 | 2282659 | 100.000 | 100.85 | 50.00- 150.00 | 100.00 |
| 6.782 | 6.782 (1.232) | 92 | 1364789 | | | 9.29- 109.29 | 59.79 |
| 118 trans-1,3-Dichloropropene | | | | | CAS #: 10061-02-6 | | |
| 7.033 | 7.033 (0.885) | 75 | 1243883 | 100.000 | 114.34 | 50.00- 150.00 | 100.00 |
| 7.033 | 7.033 (0.885) | 77 | 391049 | | | 0.00- 83.09 | 31.44 |
| 7.033 | 7.033 (0.885) | 39 | 626917 | | | 4.25- 104.25 | 50.40 |
| 120 1,1,2-Trichloroethane | | | | | CAS #: 79-00-5 | | |
| 7.183 | 7.183 (0.904) | 97 | 791625 | 100.000 | 102.18 | 50.00- 150.00 | 100.00 |
| 7.183 | 7.183 (0.904) | 99 | 488347 | | | 12.25- 112.25 | 61.69 |
| 7.183 | 7.183 (0.904) | 83 | 705530 | | | 42.00- 142.00 | 89.12 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 122 Tetrachloroethene | | | | | CAS #: 127-18-4 | | |
| 7.219 | 7.219 (0.908) | 166 | 865495 | 100.000 | 99.011 | 50.00- 150.00 | 100.00 |
| 7.219 | 7.219 (0.908) | 129 | 726650 | | | 33.95- 133.95 | 83.96 |
| 7.219 | 7.219 (0.908) | 131 | 692240 | | | 27.31- 127.31 | 79.98 |
| 125 2-Hexanone | | | | | CAS #: 591-78-6 | | |
| 7.369 | 7.369 (0.927) | 58 | 958840 | 100.000 | 109.32 | 50.00- 150.00 | 100.00 |
| 7.369 | 7.369 (0.927) | 43 | 1871624 | | | 146.90- 246.90 | 195.20 |
| 7.369 | 7.369 (0.927) | 100 | 177711 | | | 0.00- 68.42 | 18.53 |
| 128 Dibromochloromethane | | | | | CAS #: 124-48-1 | | |
| 7.491 | 7.491 (0.942) | 129 | 1298425 | 100.000 | 107.24 | 50.00- 150.00 | 100.00 |
| 7.491 | 7.491 (0.942) | 127 | 1005762 | | | 27.80- 127.80 | 77.46 |
| 130 1,2-Dibromoethane | | | | | CAS #: 106-93-4 | | |
| 7.591 | 7.591 (0.955) | 107 | 1240957 | 100.000 | 102.70 | 50.00- 150.00 | 100.00 |
| 7.591 | 7.591 (0.955) | 109 | 1167798 | | | 44.92- 144.92 | 94.10 |
| 135 Chlorobenzene | | | | | CAS #: 108-90-7 | | |
| 7.978 | 7.978 (1.004) | 112 | 1813075 | 100.000 | 96.096 | 50.00- 150.00 | 100.00 |
| 7.978 | 7.978 (1.004) | 114 | 582313 | | | 0.00- 82.27 | 32.12 |
| 7.978 | 7.978 (1.004) | 77 | 1215988 | | | 23.60- 123.60 | 67.07 |
| 137 Ethyl Benzene | | | | | CAS #: 100-41-4 | | |
| 8.036 | 8.036 (1.011) | 106 | 978493 | 100.000 | 103.68 | 50.00- 150.00 | 100.00 |
| 8.036 | 8.036 (1.011) | 91 | 3251260 | | | 290.13- 390.13 | 332.27 |
| 140 m,p-Xylene | | | | | CAS #: 108-38-3 | | |
| 8.136 | 8.136 (1.023) | 106 | 1243459 | 100.000 | 102.05 | 50.00- 150.00 | 100.00 |
| 8.136 | 8.136 (1.023) | 91 | 2590756 | | | 156.72- 256.72 | 208.35 |
| 141 o-Xylene | | | | | CAS #: 95-47-6 | | |
| 8.473 | 8.473 (1.066) | 106 | 1191746 | 100.000 | 103.41 | 50.00- 150.00 | 100.00 |
| 8.473 | 8.473 (1.066) | 91 | 2597123 | | | 167.29- 267.29 | 217.93 |
| 142 Styrene | | | | | CAS #: 100-42-5 | | |
| 8.494 | 8.494 (1.068) | 104 | 1992978 | 100.000 | 105.93 | 50.00- 150.00 | 100.00 |
| 8.487 | 8.487 (1.068) | 78 | 1103660 | | | 5.25- 105.25 | 55.38 |
| 145 Bromoform | | | | | CAS #: 75-25-2 | | |
| 8.666 | 8.666 (1.090) | 173 | 1098179 | 100.000 | 111.92 | 50.00- 150.00 | 100.00 |
| 8.666 | 8.666 (1.090) | 171 | 571256 | | | 2.47- 102.47 | 52.02 |
| 147 Cumene | | | | | CAS #: 98-82-8 | | |
| 8.759 | 8.759 (1.102) | 105 | 3605658 | 100.000 | 103.03 | 50.00- 150.00 | 100.00(A) |
| 8.759 | 8.759 (1.102) | 120 | 911855 | | | 0.00- 75.25 | 25.29 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 147 Cumene (continued) | | | | | | | |
| 8.759 | 8.759 (1.102) | 51 | 420893 | | | 0.00- 62.26 | 11.67 |
| 151 1,1,2,2-Tetrachloroethane | | | | | CAS #: 79-34-5 | | |
| 9.067 | 9.067 (1.141) | 83 | 1990010 | 100.000 | 103.03 | 50.00- 150.00 | 100.00 |
| 9.067 | 9.067 (1.141) | 85 | 1285670 | | | 14.89- 114.89 | 64.61 |
| 153 Propylbenzene | | | | | CAS #: 103-65-1 | | |
| 9.096 | 9.096 (1.144) | 91 | 4615375 | 100.000 | 103.89 | 50.00- 150.00 | 100.00(A) |
| 9.096 | 9.096 (1.144) | 120 | 964080 | | | 0.00- 71.30 | 20.89 |
| 9.096 | 9.096 (1.144) | 105 | 162323 | | | 0.00- 68.74 | 3.52 |
| 155 4-Ethyltoluene | | | | | CAS #: 622-96-8 | | |
| 9.196 | 9.196 (1.157) | 120 | 1083558 | 100.000 | 103.86 | 50.00- 150.00 | 100.00 |
| 9.196 | 9.196 (1.157) | 105 | 3835555 | | | 299.99- 399.99 | 353.98 |
| 156 1,3,5-Trimethylbenzene | | | | | CAS #: 108-67-8 | | |
| 9.246 | 9.246 (1.163) | 120 | 1480036 | 100.000 | 105.15 | 50.00- 150.00 | 100.00 |
| 9.246 | 9.246 (1.163) | 105 | 3134514 | | | 160.53- 260.53 | 211.79 |
| 162 1,2,4-Trimethylbenzene | | | | | CAS #: 95-63-6 | | |
| 9.561 | 9.561 (1.203) | 120 | 1377505 | 100.000 | 105.37 | 50.00- 150.00 | 100.00(A) |
| 9.561 | 9.561 (1.203) | 105 | 3111216 | | | 174.98- 274.98 | 225.86 |
| 165 1,3-Dichlorobenzene | | | | | CAS #: 541-73-1 | | |
| 9.819 | 9.819 (1.235) | 146 | 1778363 | 100.000 | 101.62 | 50.00- 150.00 | 100.00 |
| 9.819 | 9.819 (1.235) | 148 | 1121347 | | | 13.36- 113.36 | 63.06 |
| 9.819 | 9.819 (1.235) | 111 | 812346 | | | 0.00- 95.45 | 45.68 |
| 166 1,4-Dichlorobenzene | | | | | CAS #: 106-46-7 | | |
| 9.898 | 9.898 (1.245) | 146 | 1803821 | 100.000 | 100.95 | 50.00- 150.00 | 100.00 |
| 9.898 | 9.898 (1.245) | 148 | 1146167 | | | 13.03- 113.03 | 63.54 |
| 9.898 | 9.898 (1.245) | 111 | 794333 | | | 0.00- 93.63 | 44.04 |
| 168 alpha-Chlorotoluene | | | | | CAS #: 100-44-7 | | |
| 10.020 | 10.020 (1.260) | 91 | 3015255 | 100.000 | 132.26 | 50.00- 150.00 | 100.00 |
| 10.020 | 10.020 (1.260) | 126 | 548956 | | | 0.00- 67.76 | 18.21 |
| 171 1,2-Dichlorobenzene | | | | | CAS #: 95-50-1 | | |
| 10.213 | 10.213 (1.285) | 146 | 1662228 | 100.000 | 103.45 | 50.00- 150.00 | 100.00 |
| 10.213 | 10.213 (1.285) | 148 | 1051357 | | | 13.96- 113.96 | 63.25 |
| 10.213 | 10.213 (1.285) | 111 | 788180 | | | 0.00- 98.36 | 47.42 |
| 174 1,2,4-Trichlorobenzene | | | | | CAS #: 120-82-1 | | |
| 11.524 | 11.524 (1.450) | 180 | 1307704 | 100.000 | 105.96 | 50.00- 150.00 | 100.00 |
| 11.531 | 11.531 (1.451) | 182 | 1236553 | | | 44.68- 144.68 | 94.56 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 175 Hexachlorobutadiene | | | | | CAS #: 87-68-3 | | |
| 11.617 | 11.617 (1.461) | 225 | 873093 | 100.000 | 104.46 | 50.00- 150.00 | 100.00 |
| 11.617 | 11.617 (1.461) | 223 | 554807 | | | 14.17- 114.17 | 63.55 |
| 176 Naphthalene | | | | | CAS #: 91-20-3 | | |
| 11.746 | 11.746 (1.478) | 128 | 3472787 | 100.000 | 107.64 | 50.00- 150.00 | 100.00(A) |
| 11.746 | 11.746 (1.478) | 127 | 445734 | | | 0.00- 62.93 | 12.84 |

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Report Date: 31-Mar-2010 16:11

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdd.i
Lab File ID: d033116.d
Lab Smp Id: ICAL Level 6
Analysis Type: VOA
Quant Type: ISTD
Operator: ra
Method File: /chem/msdd.i/31mar10a.b/d10q0331a.m
Misc Info: 100ppbv->200ppbv

Calibration Date: 31-MAR-2010
Calibration Time: 15:19
Client Smp ID: ICAL level 6
Level: LOW
Sample Type: AIR

| | | AREA LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 79 Bromochloromethan | 104005 | 62403 | 145607 | 101977 | -1.95 |
| 100 1,4-Difluorobenze | 450381 | 270229 | 630533 | 442820 | -1.68 |
| 134 Chlorobenzene-d5 | 514163 | 308498 | 719828 | 501525 | -2.46 |

| | | RT LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 79 Bromochloromethan | 4.58 | 4.25 | 4.91 | 4.58 | 0.00 |
| 100 1,4-Difluorobenze | 5.51 | 5.18 | 5.84 | 5.51 | 0.00 |
| 134 Chlorobenzene-d5 | 7.95 | 7.62 | 8.28 | 7.95 | 0.00 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msdd.i/31mar10a.b/d033116.d

Date : 31-MAR-2010 15:38

Client ID: ICAL level 6

Sample Info: 100ml #1936-87

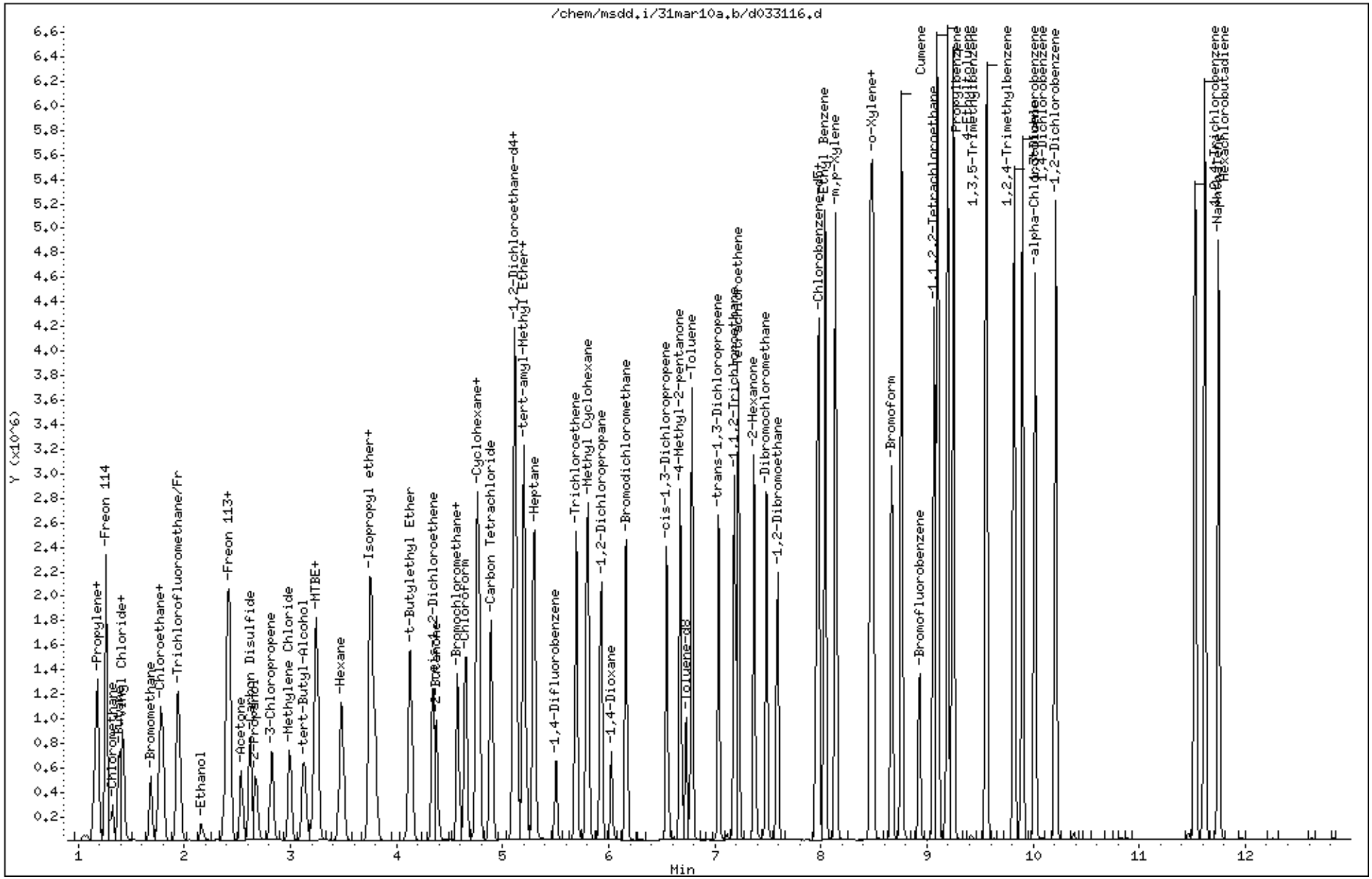
Column phase: RTx-624

Instrument: msdd.i

Operator: ra

Column diameter: 0.53





Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msdd.i/31mar10a.b/d033117.d
Lab Smp Id: ICAL Level 7 Client Smp ID: ICAL level 7
Inj Date : 31-MAR-2010 15:58
Operator : ra Inst ID: msdd.i
Smp Info : 200ml #1936-87
Misc Info : 200ppbv->200ppbv
Comment :
Method : /chem/msdd.i/31mar10a.b/d10q0331a.m
Meth Date : 31-Mar-2010 16:11 aburke Quant Type: ISTD
Cal Date : 31-MAR-2010 15:58 Cal File: d033117.d
Als bottle: 3 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT09.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| | | | | AMOUNTS | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | CAL-AMT | ON-COL | | | |
| RT | EXP RT (REL RT) | MASS | RESPONSE | ( PPBV) | ( PPBV) | TARGET RANGE | | RATIO |
| == | ====== ======== | ==== | ======== | ======= | ======= | ========== | | ===== |
| * 79 Bromochloromethane | | | | | CAS #: 74-97-5 | | | |
| 4.590 | 4.590 (1.000) | 130 | 104612 | 25.0000 | | 50.00- | 150.00 | 100.00 |
| 4.590 | 4.590 (1.000) | 128 | 80382 | | | 27.33- | 127.33 | 76.84 |
| 4.590 | 4.590 (1.000) | 49 | 183062 | | | 123.46- | 223.46 | 174.99 |
| * 100 1,4-Difluorobenzene | | | | | CAS #: 540-36-3 | | | |
| 5.521 | 5.521 (1.000) | 114 | 453362 | 25.0000 | | 50.00- | 150.00 | 100.00 |
| 5.521 | 5.521 (1.000) | 88 | 82522 | | | 0.00- | 68.33 | 18.20 |
| * 134 Chlorobenzene-d5 | | | | | CAS #: 3114-55-4 | | | |
| 7.971 | 7.971 (1.000) | 117 | 513615 | 25.0000 | | 50.00- | 150.00 | 100.00 |
| 7.964 | 7.964 (1.000) | 82 | 326296 | | | 12.92- | 112.92 | 63.53 |
| $ 91 1,2-Dichloroethane-d4 | | | | | CAS #: 17060-07-0 | | | |
| 5.141 | 5.141 (1.120) | 65 | 222952 | 25.0000 | 26.282 | 50.00- | 150.00 | 100.00 |
| 5.141 | 5.141 (1.120) | 67 | 149453 | | | 2.15- | 102.15 | 67.03 |
| $ 114 Toluene-d8 | | | | | CAS #: 2037-26-5 | | | |
| 6.746 | 6.746 (1.222) | 98 | 565543 | 25.0000 | 25.149 | 50.00- | 150.00 | 100.00 |
| 6.746 | 6.746 (1.222) | 70 | 68845 | | | 0.00- | 62.20 | 12.17 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 114 Toluene-d8 (continued) | | | | | | | |
| 6.746 | 6.746 (1.222) | 100 | 381275 | | | 15.58- 115.58 | 67.42 |
| $ 149 Bromofluorobenzene | | | | | CAS #: 460-00-4 | | |
| 8.945 | 8.945 (1.122) | 174 | 266640 | 25.0000 | 25.391 | 50.00- 150.00 | 100.00 |
| 8.945 | 8.945 (1.122) | 95 | 455805 | | | 120.42- 220.42 | 170.94 |
| 8.945 | 8.945 (1.122) | 176 | 255725 | | | 46.27- 146.27 | 95.91 |
| 6 Propylene | | | | | CAS #: 115-07-1 | | |
| 1.153 | 1.153 (0.251) | 41 | 649866 | 200.000 | 193.19 | 50.00- 150.00 | 100.00 |
| 1.153 | 1.153 (0.251) | 42 | 421867 | | | 14.09- 114.09 | 64.92 |
| 1.153 | 1.153 (0.251) | 39 | 509178 | | | 29.45- 129.45 | 78.35 |
| 7 Dichlorodifluoromethane/Fr12 | | | | | CAS #: 75-71-8 | | |
| 1.181 | 1.181 (0.257) | 85 | 2604326 | 200.000 | 196.76 | 50.00- 150.00 | 100.00 |
| 1.181 | 1.181 (0.257) | 87 | 839457 | | | 0.00- 82.88 | 32.23 |
| 10 Freon 114 | | | | | CAS #: 76-14-2 | | |
| 1.264 | 1.264 (0.275) | 135 | 1394518 | 200.000 | 191.69 | 50.00- 150.00 | 100.00 |
| 1.264 | 1.264 (0.275) | 137 | 440705 | | | 0.00- 82.69 | 31.60 |
| 13 Chloromethane | | | | | CAS #: 74-87-3 | | |
| 1.320 | 1.320 (0.288) | 50 | 522072 | 200.000 | 177.61 | 50.00- 150.00 | 100.00 |
| 1.320 | 1.320 (0.288) | 52 | 166738 | | | 0.00- 83.02 | 31.94 |
| 14 Butane | | | | | CAS #: 106-97-8 | | |
| 1.390 | 1.390 (0.303) | 58 | 176848 | 200.000 | 207.25 | 50.00- 150.00 | 100.00(A) |
| 1.390 | 1.390 (0.303) | 43 | 1296434 | | | 701.77- 801.77 | 733.08 |
| 15 Vinyl Chloride | | | | | CAS #: 75-01-4 | | |
| 1.404 | 1.404 (0.306) | 62 | 906841 | 200.000 | 220.36 | 50.00- 150.00 | 100.00(A) |
| 1.404 | 1.404 (0.306) | 64 | 287672 | | | 0.00- 97.20 | 31.72 |
| 18 1,3-Butadiene | | | | | CAS #: 106-99-0 | | |
| 1.432 | 1.432 (0.312) | 54 | 710304 | 200.000 | 202.83 | 50.00- 150.00 | 100.00(A) |
| 1.432 | 1.432 (0.312) | 39 | 778950 | | | 75.63- 175.63 | 109.66 |
| 24 Bromomethane | | | | | CAS #: 74-83-9 | | |
| 1.684 | 1.684 (0.367) | 94 | 741605 | 200.000 | 190.90 | 50.00- 150.00 | 100.00 |
| 1.684 | 1.684 (0.367) | 96 | 696627 | | | 41.64- 141.64 | 93.94 |
| 25 Chloroethane | | | | | CAS #: 75-00-3 | | |
| 1.768 | 1.768 (0.385) | 64 | 494321 | 200.000 | 186.44 | 50.00- 150.00 | 100.00 |
| 1.768 | 1.768 (0.385) | 66 | 154444 | | | 0.00- 86.90 | 31.24 |
| 1.768 | 1.768 (0.385) | 49 | 141916 | | | 0.00- 78.42 | 28.71 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 26 Isopentane | | | | | CAS #: 78-78-4 | | |
| 1.782 | 1.782 (0.388) | 43 | 1072219 | 200.000 | 194.54 | 50.00- 150.00 | 100.00 |
| 1.782 | 1.782 (0.388) | 57 | 765693 | | | 20.70- 120.70 | 71.41 |
| 28 Trichlorofluoromethane/Fr11 | | | | | CAS #: 75-69-4 | | |
| 1.950 | 1.950 (0.425) | 101 | 2902621 | 200.000 | 207.61 | 50.00- 150.00 | 100.00(A) |
| 1.950 | 1.950 (0.425) | 103 | 1693936 | | | 12.85- 112.85 | 58.36 |
| 29 Ethanol | | | | | CAS #: 64-17-5 | | |
| 2.162 | 2.162 (0.471) | 45 | 349880 | 200.000 | 201.48 | 50.00- 150.00 | 100.00(A) |
| 2.169 | 2.169 (0.472) | 43 | 78645 | | | 0.00- 76.61 | 22.48 |
| 2.162 | 2.162 (0.471) | 46 | 137584 | | | 0.00- 88.16 | 39.32 |
| 33 Freon 113 | | | | | CAS #: 76-13-1 | | |
| 2.412 | 2.412 (0.526) | 151 | 1244147 | 200.000 | 196.33 | 50.00- 150.00 | 100.00 |
| 2.412 | 2.412 (0.526) | 153 | 790444 | | | 13.56- 113.56 | 63.53 |
| 2.412 | 2.412 (0.526) | 101 | 1838614 | | | 96.53- 196.53 | 147.78 |
| 34 1,1-Dichloroethene | | | | | CAS #: 75-35-4 | | |
| 2.434 | 2.434 (0.530) | 98 | 559064 | 200.000 | 201.03 | 50.00- 150.00 | 100.00(A) |
| 2.434 | 2.434 (0.530) | 96 | 868763 | | | 107.46- 207.46 | 155.40 |
| 2.434 | 2.434 (0.530) | 61 | 1752292 | | | 270.84- 370.84 | 313.43 |
| 38 Acetone | | | | | CAS #: 67-64-1 | | |
| 2.541 | 2.541 (0.554) | 58 | 437782 | 200.000 | 196.57 | 50.00- 150.00 | 100.00 |
| 2.541 | 2.541 (0.554) | 43 | 1619211 | | | 327.54- 427.54 | 369.87 |
| 40 Carbon Disulfide | | | | | CAS #: 75-15-0 | | |
| 2.627 | 2.627 (0.572) | 76 | 2626729 | 200.000 | 194.02 | 50.00- 150.00 | 100.00 |
| 41 2-Propanol | | | | | CAS #: 67-63-0 | | |
| 2.677 | 2.677 (0.583) | 45 | 1699768 | 200.000 | 221.83 | 50.00- 150.00 | 100.00(A) |
| 2.677 | 2.677 (0.583) | 43 | 361834 | | | 0.00- 72.17 | 21.29 |
| 2.677 | 2.677 (0.583) | 59 | 65185 | | | 0.00- 85.00 | 3.83 |
| 44 3-Chloropropene | | | | | CAS #: 107-05-1 | | |
| 2.835 | 2.835 (0.618) | 76 | 432638 | 200.000 | 204.51 | 50.00- 150.00 | 100.00(A) |
| 2.835 | 2.835 (0.618) | 41 | 1253373 | | | 245.26- 345.26 | 289.70 |
| 46 Methylene Chloride | | | | | CAS #: 75-09-2 | | |
| 3.007 | 3.007 (0.655) | 49 | 1136056 | 200.000 | 199.17 | 50.00- 150.00 | 100.00 |
| 3.007 | 3.007 (0.655) | 84 | 772067 | | | 18.20- 118.20 | 67.96 |
| 3.007 | 3.007 (0.655) | 51 | 341028 | | | 0.00- 80.39 | 30.02 |
| 48 tert-Butyl-Alcohol | | | | | CAS #: 75-65-0 | | |
| 3.136 | 3.136 (0.683) | 59 | 2026774 | 200.000 | 215.93 | 50.00- 150.00 | 100.00(A) |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 48 tert-Butyl-Alcohol (continued) | | | | | | | |
| 3.136 | 3.136 (0.683) | 41 | 508164 | | | 0.00- 83.59 | 25.07 |
| 3.136 | 3.136 (0.683) | 57 | 220997 | | | 0.00- 57.49 | 10.90 |
| 50 MTBE | | | | | CAS #: 1634-04-4 | | |
| 3.243 | 3.243 (0.707) | 73 | 2837606 | 200.000 | 208.16 | 50.00- 150.00 | 100.00(A) |
| 3.243 | 3.243 (0.707) | 57 | 640185 | | | 0.00- 73.10 | 22.56 |
| 3.243 | 3.243 (0.707) | 41 | 651423 | | | 0.00- 75.17 | 22.96 |
| 52 trans-1,2-Dichloroethene | | | | | CAS #: 156-60-5 | | |
| 3.265 | 3.265 (0.711) | 98 | 588038 | 200.000 | 203.80 | 50.00- 150.00 | 100.00(A) |
| 3.265 | 3.265 (0.711) | 61 | 1555312 | | | 222.42- 322.42 | 264.49 |
| 3.265 | 3.265 (0.711) | 96 | 914202 | | | 114.13- 214.13 | 155.47 |
| 58 Hexane | | | | | CAS #: 110-54-3 | | |
| 3.494 | 3.494 (0.761) | 57 | 1606778 | 200.000 | 198.78 | 50.00- 150.00 | 100.00 |
| 3.494 | 3.494 (0.761) | 43 | 1021414 | | | 19.39- 119.39 | 63.57 |
| 3.494 | 3.494 (0.761) | 86 | 257504 | | | 0.00- 69.00 | 16.03 |
| 63 Isopropyl ether | | | | | CAS #: 108-20-3 | | |
| 3.773 | 3.773 (0.822) | 45 | 3731289 | 200.000 | 198.88 | 50.00- 150.00 | 100.00 |
| 3.773 | 3.773 (0.822) | 87 | 899211 | | | 0.00- 73.47 | 24.10 |
| 3.773 | 3.773 (0.822) | 59 | 405303 | | | 0.00- 60.91 | 10.86 |
| 64 1,1-Dichloroethane | | | | | CAS #: 75-34-3 | | |
| 3.759 | 3.759 (0.819) | 63 | 1997305 | 200.000 | 199.73 | 50.00- 150.00 | 100.00 |
| 3.759 | 3.759 (0.819) | 65 | 637391 | | | 0.00- 81.96 | 31.91 |
| 65 Vinyl Acetate | | | | | CAS #: 108-05-4 | | |
| 3.816 | 3.816 (0.831) | 86 | 250078 | 200.000 | 218.82 | 50.00- 150.00 | 100.00(A) |
| 3.816 | 3.816 (0.831) | 43 | 3597782 | | | 1533.22-1633.22 | 1438.66 |
| 72 t-Butylethyl Ether | | | | | CAS #: 637-92-3 | | |
| 4.139 | 4.139 (0.902) | 59 | 3648623 | 200.000 | 206.33 | 50.00- 150.00 | 100.00(A) |
| 4.139 | 4.139 (0.902) | 87 | 1383856 | | | 0.00- 87.49 | 37.93 |
| 4.139 | 4.139 (0.902) | 41 | 677953 | | | 0.00- 70.38 | 18.58 |
| 74 cis-1,2-Dichloroethene | | | | | CAS #: 156-59-2 | | |
| 4.361 | 4.361 (0.950) | 98 | 658347 | 200.000 | 201.15 | 50.00- 150.00 | 100.00(A) |
| 4.361 | 4.361 (0.950) | 96 | 1027793 | | | 108.90- 208.90 | 156.12 |
| 4.361 | 4.361 (0.950) | 61 | 1619793 | | | 194.41- 294.41 | 246.04 |
| 75 2-Butanone | | | | | CAS #: 78-93-3 | | |
| 4.389 | 4.389 (0.956) | 72 | 537184 | 200.000 | 213.52 | 50.00- 150.00 | 100.00(A) |
| 4.389 | 4.389 (0.956) | 43 | 2430708 | | | 391.89- 491.89 | 452.49 |
| 4.389 | 4.389 (0.956) | 57 | 189885 | | | 29.81- 129.81 | 35.35 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 78 Tetrahydrofuran | | | | | CAS #: 109-99-9 | | |
| 4.590 | 4.590 (1.000) | 42 | 1320141 | 200.000 | 203.51 | 50.00- 150.00 | 100.00(A) |
| 4.590 | 4.590 (1.000) | 71 | 482187 | | | 0.00- 85.98 | 36.53 |
| 4.590 | 4.590 (1.000) | 72 | 509127 | | | 0.00- 86.75 | 38.57 |
| 80 Chloroform | | | | | CAS #: 67-66-3 | | |
| 4.669 | 4.669 (1.017) | 83 | 2378982 | 200.000 | 199.41 | 50.00- 150.00 | 100.00 |
| 4.669 | 4.669 (1.017) | 85 | 1542187 | | | 15.01- 115.01 | 64.83 |
| 83 Cyclohexane | | | | | CAS #: 110-82-7 | | |
| 4.769 | 4.769 (1.039) | 84 | 1450607 | 200.000 | 198.70 | 50.00- 150.00 | 100.00 |
| 4.769 | 4.769 (1.039) | 56 | 1834636 | | | 78.59- 178.59 | 126.47 |
| 4.769 | 4.769 (1.039) | 41 | 1049808 | | | 26.74- 126.74 | 72.37 |
| 85 1,1,1-Trichloroethane | | | | | CAS #: 71-55-6 | | |
| 4.790 | 4.790 (1.044) | 97 | 2451502 | 200.000 | 202.34 | 50.00- 150.00 | 100.00(A) |
| 4.790 | 4.790 (1.044) | 99 | 1570353 | | | 13.41- 113.41 | 64.06 |
| 86 Carbon Tetrachloride | | | | | CAS #: 56-23-5 | | |
| 4.905 | 4.905 (1.069) | 119 | 2311516 | 200.000 | 214.89 | 50.00- 150.00 | 100.00(A) |
| 4.905 | 4.905 (1.069) | 117 | 2392813 | | | 53.70- 153.70 | 103.52 |
| 89 2,2,4-Trimethylpentane | | | | | CAS #: 540-84-1 | | |
| 5.134 | 5.134 (1.119) | 57 | 6020074 | 200.000 | 199.33 | 50.00- 150.00 | 100.00 |
| 5.134 | 5.134 (1.119) | 56 | 1860763 | | | 0.00- 81.50 | 30.91 |
| 5.134 | 5.134 (1.119) | 41 | 1549776 | | | 0.00- 77.21 | 25.74 |
| 90 Benzene | | | | | CAS #: 71-43-2 | | |
| 5.127 | 5.127 (0.929) | 78 | 3369757 | 200.000 | 194.28 | 50.00- 150.00 | 100.00 |
| 5.127 | 5.127 (0.929) | 77 | 790338 | | | 0.00- 73.17 | 23.45 |
| 93 tert-amyl-Methyl Ether | | | | | CAS #: 994-05-8 | | |
| 5.220 | 5.220 (1.137) | 73 | 3326146 | 200.000 | 207.12 | 50.00- 150.00 | 100.00(A) |
| 5.220 | 5.220 (1.137) | 87 | 810638 | | | 0.00- 74.24 | 24.37 |
| 5.220 | 5.220 (1.137) | 55 | 1024208 | | | 0.00- 83.70 | 30.79 |
| 94 1,2-Dichloroethane | | | | | CAS #: 107-06-2 | | |
| 5.213 | 5.213 (0.944) | 62 | 1856624 | 200.000 | 198.18 | 50.00- 150.00 | 100.00 |
| 5.213 | 5.213 (0.944) | 64 | 600369 | | | 0.00- 83.10 | 32.34 |
| 95 Heptane | | | | | CAS #: 142-82-5 | | |
| 5.313 | 5.313 (0.962) | 71 | 1285443 | 200.000 | 203.06 | 50.00- 150.00 | 100.00(A) |
| 5.313 | 5.313 (0.962) | 43 | 2399975 | | | 146.63- 246.63 | 186.70 |
| 5.313 | 5.313 (0.962) | 57 | 1337128 | | | 54.79- 154.79 | 104.02 |
| 104 Trichloroethene | | | | | CAS #: 79-01-6 | | |
| 5.707 | 5.707 (1.034) | 95 | 1540966 | 200.000 | 196.44 | 50.00- 150.00 | 100.00 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 104 Trichloroethene (continued) | | | | | | | |
| 5.707 | 5.707 (1.034) | 130 | 1364258 | | | 36.71- 136.71 | 88.53 |
| 5.707 | 5.707 (1.034) | 97 | 998299 | | | 14.60- 114.60 | 64.78 |
| 105 Methyl Cyclohexane | | | | | CAS #: 108-87-2 | | |
| 5.815 | 5.815 (1.267) | 83 | 2183274 | 200.000 | 200.92 | 50.00- 150.00 | 100.00(A) |
| 5.815 | 5.815 (1.267) | 98 | 1018692 | | | 0.00- 96.57 | 46.66 |
| 5.815 | 5.815 (1.267) | 55 | 1946091 | | | 39.57- 139.57 | 89.14 |
| 106 1,2-Dichloropropane | | | | | CAS #: 78-87-5 | | |
| 5.944 | 5.944 (1.077) | 63 | 1435506 | 200.000 | 197.64 | 50.00- 150.00 | 100.00 |
| 5.944 | 5.944 (1.077) | 62 | 1025156 | | | 20.35- 120.35 | 71.41 |
| 5.944 | 5.944 (1.077) | 41 | 874730 | | | 13.49- 113.49 | 60.94 |
| 107 1,4-Dioxane | | | | | CAS #: 123-91-1 | | |
| 6.037 | 6.037 (1.093) | 88 | 859130 | 200.000 | 208.28 | 50.00- 150.00 | 100.00(A) |
| 6.037 | 6.037 (1.093) | 58 | 659809 | | | 27.58- 127.58 | 76.80 |
| 6.037 | 6.037 (1.093) | 57 | 220004 | | | 0.00- 76.30 | 25.61 |
| 108 Bromodichloromethane | | | | | CAS #: 75-27-4 | | |
| 6.180 | 6.180 (1.119) | 83 | 2861223 | 200.000 | 203.22 | 50.00- 150.00 | 100.00(A) |
| 6.180 | 6.180 (1.119) | 85 | 1830769 | | | 13.44- 113.44 | 63.99 |
| 110 cis-1,3-Dichloropropene | | | | | CAS #: 10061-01-5 | | |
| 6.567 | 6.567 (1.189) | 75 | 2299217 | 200.000 | 209.68 | 50.00- 150.00 | 100.00(A) |
| 6.567 | 6.567 (1.189) | 77 | 713602 | | | 0.00- 81.59 | 31.04 |
| 6.560 | 6.560 (1.188) | 39 | 1230477 | | | 5.92- 105.92 | 53.52 |
| 112 4-Methyl-2-pentanone | | | | | CAS #: 108-10-1 | | |
| 6.689 | 6.689 (1.211) | 58 | 1367839 | 200.000 | 211.58 | 50.00- 150.00 | 100.00(A) |
| 6.689 | 6.689 (1.211) | 43 | 3679127 | | | 224.75- 324.75 | 268.97 |
| 6.689 | 6.689 (1.211) | 85 | 545316 | | | 0.00- 89.27 | 39.87 |
| 115 Toluene | | | | | CAS #: 108-88-3 | | |
| 6.803 | 6.803 (1.232) | 91 | 4566161 | 200.000 | 197.54 | 50.00- 150.00 | 100.00 |
| 6.803 | 6.803 (1.232) | 92 | 2715536 | | | 9.29- 109.29 | 59.47 |
| 118 trans-1,3-Dichloropropene | | | | | CAS #: 10061-02-6 | | |
| 7.054 | 7.054 (0.885) | 75 | 2513681 | 200.000 | 220.91 | 50.00- 150.00 | 100.00(A) |
| 7.054 | 7.054 (0.885) | 77 | 793749 | | | 0.00- 83.09 | 31.58 |
| 7.047 | 7.047 (0.884) | 39 | 1265269 | | | 4.25- 104.25 | 50.34 |
| 120 1,1,2-Trichloroethane | | | | | CAS #: 79-00-5 | | |
| 7.197 | 7.197 (0.903) | 97 | 1595558 | 200.000 | 200.91 | 50.00- 150.00 | 100.00(A) |
| 7.197 | 7.197 (0.903) | 99 | 986973 | | | 12.25- 112.25 | 61.86 |
| 7.197 | 7.197 (0.903) | 83 | 1420777 | | | 42.00- 142.00 | 89.05 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 122 Tetrachloroethene | | | | | CAS #: 127-18-4 | | |
| 7.240 | 7.240 (0.908) | 166 | 1727016 | 200.000 | 194.06 | 50.00- 150.00 | 100.00 |
| 7.233 | 7.233 (0.907) | 129 | 1451498 | | | 33.95- 133.95 | 84.05 |
| 7.240 | 7.240 (0.908) | 131 | 1368487 | | | 27.31- 127.31 | 79.24 |
| 125 2-Hexanone | | | | | CAS #: 591-78-6 | | |
| 7.383 | 7.383 (0.926) | 58 | 1982627 | 200.000 | 216.98 | 50.00- 150.00 | 100.00(A) |
| 7.383 | 7.383 (0.926) | 43 | 3854169 | | | 146.90- 246.90 | 194.40 |
| 7.383 | 7.383 (0.926) | 100 | 366581 | | | 0.00- 68.42 | 18.49 |
| 128 Dibromochloromethane | | | | | CAS #: 124-48-1 | | |
| 7.505 | 7.505 (0.942) | 129 | 2613088 | 200.000 | 208.86 | 50.00- 150.00 | 100.00(A) |
| 7.505 | 7.505 (0.942) | 127 | 2017249 | | | 27.80- 127.80 | 77.20 |
| 130 1,2-Dibromoethane | | | | | CAS #: 106-93-4 | | |
| 7.606 | 7.606 (0.954) | 107 | 2489852 | 200.000 | 201.00 | 50.00- 150.00 | 100.00(A) |
| 7.606 | 7.606 (0.954) | 109 | 2339706 | | | 44.92- 144.92 | 93.97 |
| 135 Chlorobenzene | | | | | CAS #: 108-90-7 | | |
| 7.992 | 7.992 (1.003) | 112 | 3625386 | 200.000 | 189.58 | 50.00- 150.00 | 100.00 |
| 7.992 | 7.992 (1.003) | 114 | 1160303 | | | 0.00- 82.27 | 32.00 |
| 7.992 | 7.992 (1.003) | 77 | 2456088 | | | 23.60- 123.60 | 67.75 |
| 137 Ethyl Benzene | | | | | CAS #: 100-41-4 | | |
| 8.057 | 8.057 (1.011) | 106 | 1962753 | 200.000 | 202.56 | 50.00- 150.00 | 100.00(A) |
| 8.050 | 8.050 (1.010) | 91 | 6553056 | | | 290.13- 390.13 | 333.87 |
| 140 m,p-Xylene | | | | | CAS #: 108-38-3 | | |
| 8.150 | 8.150 (1.022) | 106 | 2505178 | 200.000 | 200.63 | 50.00- 150.00 | 100.00(A) |
| 8.150 | 8.150 (1.022) | 91 | 5247899 | | | 156.72- 256.72 | 209.48 |
| 141 o-Xylene | | | | | CAS #: 95-47-6 | | |
| 8.487 | 8.487 (1.065) | 106 | 2392542 | 200.000 | 202.26 | 50.00- 150.00 | 100.00(A) |
| 8.487 | 8.487 (1.065) | 91 | 5256579 | | | 167.29- 267.29 | 219.71 |
| 142 Styrene | | | | | CAS #: 100-42-5 | | |
| 8.508 | 8.508 (1.067) | 104 | 4003151 | 200.000 | 206.44 | 50.00- 150.00 | 100.00(A) |
| 8.508 | 8.508 (1.067) | 78 | 2214394 | | | 5.25- 105.25 | 55.32 |
| 145 Bromoform | | | | | CAS #: 75-25-2 | | |
| 8.680 | 8.680 (1.089) | 173 | 2217832 | 200.000 | 216.96 | 50.00- 150.00 | 100.00(A) |
| 8.680 | 8.680 (1.089) | 171 | 1145578 | | | 2.47- 102.47 | 51.65 |
| 147 Cumene | | | | | CAS #: 98-82-8 | | |
| 8.773 | 8.773 (1.101) | 105 | 7308396 | 200.000 | 203.25 | 50.00- 150.00 | 100.00(A) |
| 8.773 | 8.773 (1.101) | 120 | 1826802 | | | 0.00- 75.25 | 25.00 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 147 Cumene (continued) | | | | | | | |
| 8.773 | 8.773 (1.101) | 51 | 850635 | | | 0.00- 62.26 | 11.64 |
| 151 1,1,2,2-Tetrachloroethane | | | | | CAS #: 79-34-5 | | |
| 9.081 | 9.081 (1.139) | 83 | 3996509 | 200.000 | 201.70 | 50.00- 150.00 | 100.00(A) |
| 9.081 | 9.081 (1.139) | 85 | 2578876 | | | 14.89- 114.89 | 64.53 |
| 153 Propylbenzene | | | | | CAS #: 103-65-1 | | |
| 9.117 | 9.117 (1.144) | 91 | 9290536 | 200.000 | 203.48 | 50.00- 150.00 | 100.00(A) |
| 9.117 | 9.117 (1.144) | 120 | 1948467 | | | 0.00- 71.30 | 20.97 |
| 9.117 | 9.117 (1.144) | 105 | 329620 | | | 0.00- 68.74 | 3.55 |
| 155 4-Ethyltoluene | | | | | CAS #: 622-96-8 | | |
| 9.210 | 9.210 (1.155) | 120 | 2212047 | 200.000 | 205.83 | 50.00- 150.00 | 100.00(A) |
| 9.210 | 9.210 (1.155) | 105 | 7836547 | | | 299.99- 399.99 | 354.27 |
| 156 1,3,5-Trimethylbenzene | | | | | CAS #: 108-67-8 | | |
| 9.260 | 9.260 (1.162) | 120 | 2943509 | 200.000 | 203.59 | 50.00- 150.00 | 100.00(A) |
| 9.260 | 9.260 (1.162) | 105 | 6248431 | | | 160.53- 260.53 | 212.28 |
| 162 1,2,4-Trimethylbenzene | | | | | CAS #: 95-63-6 | | |
| 9.575 | 9.575 (1.201) | 120 | 2765907 | 200.000 | 205.63 | 50.00- 150.00 | 100.00(A) |
| 9.575 | 9.575 (1.201) | 105 | 6273393 | | | 174.98- 274.98 | 226.81 |
| 165 1,3-Dichlorobenzene | | | | | CAS #: 541-73-1 | | |
| 9.840 | 9.840 (1.235) | 146 | 3587033 | 200.000 | 200.12 | 50.00- 150.00 | 100.00(A) |
| 9.840 | 9.840 (1.235) | 148 | 2268187 | | | 13.36- 113.36 | 63.23 |
| 9.833 | 9.833 (1.234) | 111 | 1641390 | | | 0.00- 95.45 | 45.76 |
| 166 1,4-Dichlorobenzene | | | | | CAS #: 106-46-7 | | |
| 9.919 | 9.919 (1.244) | 146 | 3647453 | 200.000 | 199.43 | 50.00- 150.00 | 100.00 |
| 9.919 | 9.919 (1.244) | 148 | 2313077 | | | 13.03- 113.03 | 63.42 |
| 9.912 | 9.912 (1.244) | 111 | 1601262 | | | 0.00- 93.63 | 43.90 |
| 168 alpha-Chlorotoluene | | | | | CAS #: 100-44-7 | | |
| 10.034 | 10.034 (1.259) | 91 | 6315590 | 200.000 | 255.50 | 50.00- 150.00 | 100.00(A) |
| 10.034 | 10.034 (1.259) | 126 | 1134177 | | | 0.00- 67.76 | 17.96 |
| 171 1,2-Dichlorobenzene | | | | | CAS #: 95-50-1 | | |
| 10.227 | 10.227 (1.283) | 146 | 3361832 | 200.000 | 203.57 | 50.00- 150.00 | 100.00(A) |
| 10.227 | 10.227 (1.283) | 148 | 2122797 | | | 13.96- 113.96 | 63.14 |
| 10.227 | 10.227 (1.283) | 111 | 1606761 | | | 0.00- 98.36 | 47.79 |
| 174 1,2,4-Trichlorobenzene | | | | | CAS #: 120-82-1 | | |
| 11.545 | 11.545 (1.448) | 180 | 2687250 | 200.000 | 209.96 | 50.00- 150.00 | 100.00(A) |
| 11.545 | 11.545 (1.448) | 182 | 2551679 | | | 44.68- 144.68 | 94.96 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 175 Hexachlorobutadiene | | | | | CAS #: 87-68-3 | | |
| 11.638 | 11.638 (1.460) | 225 | 1777417 | 200.000 | 206.08 | 50.00- 150.00 | 100.00(A) |
| 11.638 | 11.638 (1.460) | 223 | 1128185 | | | 14.17- 114.17 | 63.47 |
| 176 Naphthalene | | | | | CAS #: 91-20-3 | | |
| 11.767 | 11.767 (1.476) | 128 | 7290496 | 200.000 | 216.19 | 50.00- 150.00 | 100.00(A) |
| 11.767 | 11.767 (1.476) | 127 | 928784 | | | 0.00- 62.93 | 12.74 |

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Report Date: 31-Mar-2010 16:11

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdd.i
Lab File ID: d033117.d
Lab Smp Id: ICAL Level 7
Analysis Type: VOA
Quant Type: ISTD
Operator: ra
Method File: /chem/msdd.i/31mar10a.b/d10q0331a.m
Misc Info: 200ppbv->200ppbv

Calibration Date: 31-MAR-2010
Calibration Time: 15:19
Client Smp ID: ICAL level 7
Level: LOW
Sample Type: AIR

| | | AREA LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 79 Bromochloromethan | 104005 | 62403 | 145607 | 104612 | 0.58 |
| 100 1,4-Difluorobenze | 450381 | 270229 | 630533 | 453362 | 0.66 |
| 134 Chlorobenzene-d5 | 514163 | 308498 | 719828 | 513615 | -0.11 |

| | | RT LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 79 Bromochloromethan | 4.58 | 4.25 | 4.91 | 4.59 | 0.31 |
| 100 1,4-Difluorobenze | 5.51 | 5.18 | 5.84 | 5.52 | 0.26 |
| 134 Chlorobenzene-d5 | 7.95 | 7.62 | 8.28 | 7.97 | 0.27 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msdd.i/31mar10a.b/d033117.d

Date : 31-MAR-2010 15:58

Client ID: ICAL level 7

Sample Info: 200ml #1936-87

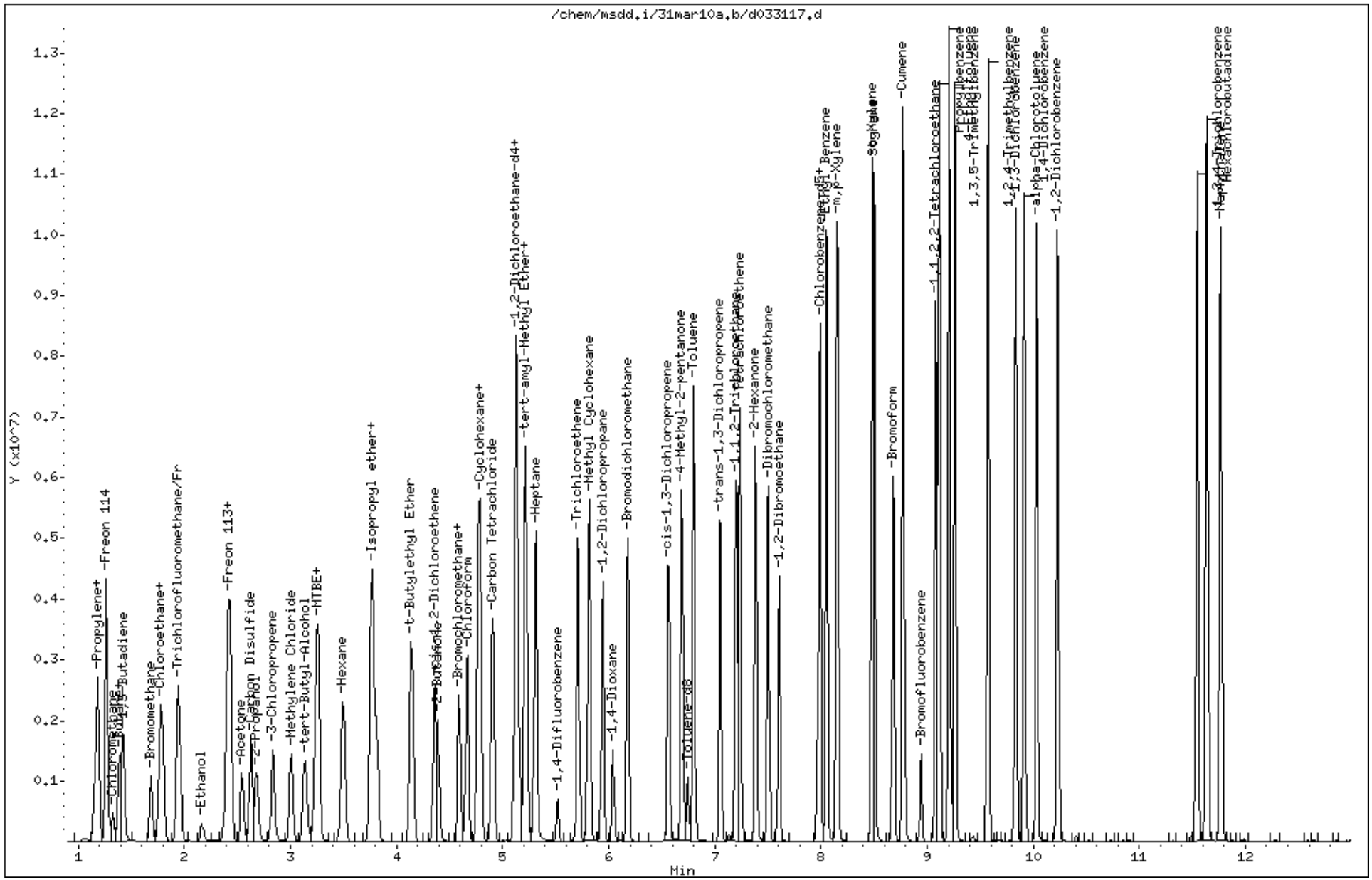
Column phase: RTx-624

Instrument: msdd.i

Operator: ra

Column diameter: 0.53





Air Toxics LTD.
Laboratory Services Since 1989

**Client Sample ID: CCV**

**Lab ID#: 1004128-04A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **d041302** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 4/13/10 07:41 AM** | |

| Compound | %Recovery |
|---|---|
| Freon 12 | 114 |
| Freon 114 | 100 |
| Chloromethane | 117 |
| Vinyl Chloride | 116 |
| 1,3-Butadiene | 106 |
| Bromomethane | 101 |
| Chloroethane | 97 |
| Freon 11 | 108 |
| Ethanol | 102 |
| Freon 113 | 99 |
| 1,1-Dichloroethene | 99 |
| Acetone | 100 |
| 2-Propanol | 104 |
| Carbon Disulfide | 96 |
| 3-Chloropropene | 95 |
| Methylene Chloride | 110 |
| Methyl tert-butyl ether | 100 |
| trans-1,2-Dichloroethene | 103 |
| Hexane | 102 |
| 1,1-Dichloroethane | 107 |
| 2-Butanone (Methyl Ethyl Ketone) | 104 |
| cis-1,2-Dichloroethene | 100 |
| Tetrahydrofuran | 106 |
| Chloroform | 109 |
| 1,1,1-Trichloroethane | 109 |
| Cyclohexane | 98 |
| Carbon Tetrachloride | 113 |
| 2,2,4-Trimethylpentane | 103 |
| Benzene | 100 |
| 1,2-Dichloroethane | 118 |
| Heptane | 104 |
| Trichloroethene | 106 |
| 1,2-Dichloropropane | 104 |
| 1,4-Dioxane | 99 |
| Bromodichloromethane | 113 |
| cis-1,3-Dichloropropene | 105 |
| 4-Methyl-2-pentanone | 104 |
| Toluene | 106 |
| trans-1,3-Dichloropropene | 112 |

Air Toxics LTD.
Laboratory Services Since 1989

**Client Sample ID: CCV**

**Lab ID#: 1004128-04A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **d041302** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 4/13/10 07:41 AM** | |

| Compound | %Recovery |
|---|---|
| 1,1,2-Trichloroethane | 111 |
| Tetrachloroethene | 106 |
| 2-Hexanone | 107 |
| Dibromochloromethane | 115 |
| 1,2-Dibromoethane (EDB) | 111 |
| Chlorobenzene | 104 |
| Ethyl Benzene | 109 |
| m,p-Xylene | 106 |
| o-Xylene | 108 |
| Styrene | 111 |
| Bromoform | 116 |
| Cumene | 109 |
| 1,1,2,2-Tetrachloroethane | 110 |
| Propylbenzene | 110 |
| 4-Ethyltoluene | 109 |
| 1,3,5-Trimethylbenzene | 111 |
| 1,2,4-Trimethylbenzene | 108 |
| 1,3-Dichlorobenzene | 109 |
| 1,4-Dichlorobenzene | 108 |
| alpha-Chlorotoluene | 103 |
| 1,2-Dichlorobenzene | 110 |
| 1,2,4-Trichlorobenzene | 101 |
| Hexachlorobutadiene | 107 |
| Naphthalene | 98 |

**Container Type: NA - Not Applicable**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| Toluene-d8 | 105 | 70-130 |
| 1,2-Dichloroethane-d4 | 116 | 70-130 |
| 4-Bromofluorobenzene | 96 | 70-130 |

Air Toxics Ltd.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msdd.i Injection Date: 13-APR-2010 07:41
Lab File ID: d041302.d Init. Cal. Date(s): 31-MAR-2010 31-MAR-2010
Analysis Type: AIR Init. Cal. Times: 13:49 15:58
Lab Sample ID: CCV Quant Type: ISTD
Method: /chem/msdd.i/13apr10.b/d10q0331a.m

| COMPOUND | RRF / AMOUNT | RF50 | MIN RRF | %D / %DRIFT | MAX %D / %DRIFT | CURVE TYPE |
|---|---|---|---|---|---|---|
|$ 91 1,2-Dichloroethane-d4 | 2.02723 | 2.35825 | 0.010 | 16.32847 | 30.00000 | Averaged |
|$ 114 Toluene-d8 | 1.24004 | 1.30697 | 0.010 | 5.39759 | 30.00000 | Averaged |
|$ 149 Bromofluorobenzene | 0.51115 | 0.48933 | 0.010 | -4.26846 | 30.00000 | Averaged |
| 6 Propylene | 0.80388 | 0.85840 | 0.010 | 6.78232 | 30.00000 | Averaged |
| 7 Dichlorodifluoromethane/Fr1 | 3.16306 | 3.61312 | 0.010 | 14.22867 | 30.00000 | Averaged |
| 10 Freon 114 | 1.73855 | 1.73972 | 0.010 | 0.06696 | 30.00000 | Averaged |
| 13 Chloromethane | 0.70246 | 0.82137 | 0.010 | 16.92873 | 30.00000 | Averaged |
| 14 Butane | 0.20392 | 0.21353 | 0.010 | 4.71600 | 30.00000 | Averaged |
| 15 Vinyl Chloride | 0.98347 | 1.14548 | 0.010 | 16.47332 | 30.00000 | Averaged |
| 18 1,3-Butadiene | 0.83688 | 0.88844 | 0.010 | 6.16133 | 30.00000 | Averaged |
| 24 Bromomethane | 0.92837 | 0.93602 | 0.010 | 0.82399 | 30.00000 | Averaged |
| 25 Chloroethane | 0.63362 | 0.61460 | 0.010 | -3.00138 | 30.00000 | Averaged |
| 26 Isopentane | 1.31710 | 1.41458 | 0.010 | 7.40062 | 30.00000 | Averaged |
| 28 Trichlorofluoromethane/Fr11 | 3.34117 | 3.61563 | 0.010 | 8.21458 | 30.00000 | Averaged |
| 29 Ethanol | 0.41501 | 0.42416 | 0.010 | 2.20573 | 30.00000 | Averaged |
| 33 Freon 113 | 1.51439 | 1.49773 | 0.010 | -1.10021 | 30.00000 | Averaged |
| 34 1,1-Dichloroethene | 0.66461 | 0.65903 | 0.010 | -0.83899 | 30.00000 | Averaged |
| 38 Acetone | 0.53223 | 0.52970 | 0.010 | -0.47529 | 30.00000 | Averaged |
| 40 Carbon Disulfide | 3.23541 | 3.11778 | 0.010 | -3.63559 | 30.00000 | Averaged |
| 41 2-Propanol | 1.83115 | 1.90629 | 0.010 | 4.10332 | 30.00000 | Averaged |
| 44 3-Chloropropene | 0.50555 | 0.48086 | 0.010 | -4.88352 | 30.00000 | Averaged |
| 46 Methylene Chloride | 1.36314 | 1.49434 | 0.010 | 9.62545 | 30.00000 | Averaged |
| 48 tert-Butyl-Alcohol | 2.24311 | 2.10448 | 0.010 | -6.18003 | 30.00000 | Averaged |
| 50 MTBE | 3.25777 | 3.24677 | 0.010 | -0.33768 | 30.00000 | Averaged |
| 52 trans-1,2-Dichloroethene | 0.68954 | 0.71225 | 0.010 | 3.29314 | 30.00000 | Averaged |
| 58 Hexane | 1.93173 | 1.97957 | 0.010 | 2.47654 | 30.00000 | Averaged |
| 63 Isopropyl ether | 4.48347 | 4.75355 | 0.010 | 6.02391 | 30.00000 | Averaged |
| 64 1,1-Dichloroethane | 2.38981 | 2.56698 | 0.010 | 7.41370 | 30.00000 | Averaged |
| 65 Vinyl Acetate | 0.27311 | 0.26870 | 0.010 | -1.61621 | 30.00000 | Averaged |
| 72 t-Butylethyl Ether | 4.22593 | 4.09629 | 0.010 | -3.06765 | 30.00000 | Averaged |
| 74 cis-1,2-Dichloroethene | 0.78215 | 0.78370 | 0.010 | 0.19830 | 30.00000 | Averaged |
| 75 2-Butanone | 0.60122 | 0.62720 | 0.010 | 4.32132 | 30.00000 | Averaged |
| 78 Tetrahydrofuran | 1.55020 | 1.64707 | 0.010 | 6.24899 | 30.00000 | Averaged |
| 80 Chloroform | 2.85099 | 3.10281 | 0.010 | 8.83284 | 30.00000 | Averaged |
| 83 Cyclohexane | 1.74462 | 1.71043 | 0.010 | -1.96015 | 30.00000 | Averaged |
| 85 1,1,1-Trichloroethane | 2.89532 | 3.15078 | 0.010 | 8.82321 | 30.00000 | Averaged |

Air Toxics Ltd.

## CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msdd.i Injection Date: 13-APR-2010 07:41
Lab File ID: d041302.d Init. Cal. Date(s): 31-MAR-2010 31-MAR-2010
Analysis Type: AIR Init. Cal. Times: 13:49 15:58
Lab Sample ID: CCV Quant Type: ISTD
Method: /chem/msdd.i/13apr10.b/d10q0331a.m

| COMPOUND | RRF / AMOUNT | RF50 | MIN RRF | %D / %DRIFT | MAX %D / %DRIFT | CURVE TYPE |
|---|---|---|---|---|---|---|
| 86 Carbon Tetrachloride | 2.57067 | 2.90286 | 0.010 | 12.92252 | 30.00000 | Averaged |
| 89 2,2,4-Trimethylpentane | 7.21763 | 7.43875 | 0.010 | 3.06365 | 30.00000 | Averaged |
| 90 Benzene | 0.95646 | 0.96162 | 0.010 | 0.53933 | 30.00000 | Averaged |
| 93 tert-amyl-Methyl Ether | 3.83769 | 3.59000 | 0.010 | -6.45417 | 30.00000 | Averaged |
| 94 1,2-Dichloroethane | 0.51659 | 0.61047 | 0.010 | 18.17168 | 30.00000 | Averaged |
| 95 Heptane | 0.34908 | 0.36142 | 0.010 | 3.53406 | 30.00000 | Averaged |
| 104 Trichloroethene | 0.43257 | 0.45722 | 0.010 | 5.69863 | 30.00000 | Averaged |
| 105 Methyl Cyclohexane | 2.59683 | 2.61725 | 0.010 | 0.78648 | 30.00000 | Averaged |
| 106 1,2-Dichloropropane | 0.40051 | 0.41660 | 0.010 | 4.01650 | 30.00000 | Averaged |
| 107 1,4-Dioxane | 0.22746 | 0.22466 | 0.010 | -1.22852 | 30.00000 | Averaged |
| 108 Bromodichloromethane | 0.77639 | 0.87720 | 0.010 | 12.98457 | 30.00000 | Averaged |
| 110 cis-1,3-Dichloropropene | 0.60466 | 0.63508 | 0.010 | 5.03118 | 30.00000 | Averaged |
| 112 4-Methyl-2-pentanone | 0.35650 | 0.37159 | 0.010 | 4.23466 | 30.00000 | Averaged |
| 115 Toluene | 1.27467 | 1.35174 | 0.010 | 6.04698 | 30.00000 | Averaged |
| 118 trans-1,3-Dichloropropene | 0.55386 | 0.61790 | 0.010 | 11.56319 | 30.00000 | Averaged |
| 120 1,1,2-Trichloroethane | 0.38655 | 0.43035 | 0.010 | 11.33136 | 30.00000 | Averaged |
| 122 Tetrachloroethene | 0.43317 | 0.46124 | 0.010 | 6.48077 | 30.00000 | Averaged |
| 125 2-Hexanone | 0.44476 | 0.47562 | 0.010 | 6.93994 | 30.00000 | Averaged |
| 128 Dibromochloromethane | 0.60897 | 0.69936 | 0.010 | 14.84391 | 30.00000 | Averaged |
| 130 1,2-Dibromoethane | 0.60294 | 0.66926 | 0.010 | 10.99869 | 30.00000 | Averaged |
| 135 Chlorobenzene | 0.93080 | 0.96845 | 0.010 | 4.04574 | 30.00000 | Averaged |
| 137 Ethyl Benzene | 0.47165 | 0.51581 | 0.010 | 9.36213 | 30.00000 | Averaged |
| 140 m,p-Xylene | 0.60776 | 0.64588 | 0.010 | 6.27155 | 30.00000 | Averaged |
| 141 o-Xylene | 0.57576 | 0.62037 | 0.010 | 7.74795 | 30.00000 | Averaged |
| 142 Styrene | 0.94388 | 1.05002 | 0.010 | 11.24469 | 30.00000 | Averaged |
| 145 Bromoform | 0.49755 | 0.57685 | 0.010 | 15.93606 | 30.00000 | Averaged |
| 147 Cumene | 1.75021 | 1.90901 | 0.010 | 9.07271 | 30.00000 | Averaged |
| 151 1,1,2,2-Tetrachloroethane | 0.96446 | 1.06186 | 0.010 | 10.09862 | 30.00000 | Averaged |
| 153 Propylbenzene | 2.22235 | 2.44661 | 0.010 | 10.09129 | 30.00000 | Averaged |
| 155 4-Ethyltoluene | 0.52310 | 0.57197 | 0.010 | 9.34154 | 30.00000 | Averaged |
| 156 1,3,5-Trimethylbenzene | 0.70373 | 0.78281 | 0.010 | 11.23787 | 30.00000 | Averaged |
| 162 1,2,4-Trimethylbenzene | 0.65471 | 0.70780 | 0.010 | 8.10962 | 30.00000 | Averaged |
| 165 1,3-Dichlorobenzene | 0.87247 | 0.94756 | 0.010 | 8.60666 | 30.00000 | Averaged |
| 166 1,4-Dichlorobenzene | 0.89021 | 0.96270 | 0.010 | 8.14267 | 30.00000 | Averaged |
| 168 alpha-Chlorotoluene | 1.20318 | 1.24441 | 0.010 | 3.42658 | 30.00000 | Averaged |

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msdd.i Injection Date: 13-APR-2010 07:41
Lab File ID: d041302.d Init. Cal. Date(s): 31-MAR-2010 31-MAR-2010
Analysis Type: AIR Init. Cal. Times: 13:49 15:58
Lab Sample ID: CCV Quant Type: ISTD
Method: /chem/msdd.i/13apr10.b/d10q0331a.m

| COMPOUND | RRF / AMOUNT | RF50 | MIN RRF | %D / %DRIFT | MAX %D / %DRIFT | CURVE TYPE |
|---|---|---|---|---|---|---|
| 171 1,2-Dichlorobenzene | 0.80384 | 0.88176 | 0.010 | 9.69365 | 30.00000 | Averaged |
| 174 1,2,4-Trichlorobenzene | 0.62298 | 0.62725 | 0.010 | 0.68601 | 30.00000 | Averaged |
| 175 Hexachlorobutadiene | 0.41981 | 0.44755 | 0.010 | 6.60755 | 30.00000 | Averaged |
| 176 Naphthalene | 1.64145 | 1.61664 | 0.010 | -1.51123 | 40.00000 | Averaged |

Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msdd.i/13apr10.b/d041302.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 13-APR-2010 07:41
Operator : LL Inst ID: msdd.i
Smp Info : 50ml #1936-87
Misc Info : 50ppbv(200ppbv)
Comment :
Method : /chem/msdd.i/13apr10.b/d10q0331a.m
Meth Date : 13-Apr-2010 08:33 dmendoza Quant Type: ISTD
Cal Date : 31-MAR-2010 15:58 Cal File: d033117.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT09.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| | | | | AMOUNTS | | | |
|---|---|---|---|---|---|---|---|
| | | | | CAL-AMT | ON-COL | | |
| RT | EXP RT (REL RT) | MASS | RESPONSE | ( PPBV) | ( PPBV) | TARGET RANGE | RATIO |
| == | ====== ======== | ==== | ======== | ======= | ======= | ========== | ===== |
| * 79 Bromochloromethane | | | | | CAS #: 74-97-5 | | |
| 4.591 | 4.591 (1.000) | 130 | 78422 | 25.0000 | | 80.00- 120.00 | 100.00 |
| 4.591 | 4.591 (1.000) | 128 | 61635 | | | 28.36- 128.36 | 78.59 |
| 4.591 | 4.591 (1.000) | 49 | 149240 | | | 141.90- 241.90 | 190.30 |
| * 100 1,4-Difluorobenzene | | | | | CAS #: 540-36-3 | | |
| 5.523 | 5.523 (1.000) | 114 | 332647 | 25.0000 | | 80.00- 120.00 | 100.00 |
| 5.523 | 5.523 (1.000) | 88 | 60801 | | | 0.00- 68.61 | 18.28 |
| * 134 Chlorobenzene-d5 | | | | | CAS #: 3114-55-4 | | |
| 7.965 | 7.965 (1.000) | 117 | 374720 | 25.0000 | | 80.00- 120.00 | 100.00 |
| 7.965 | 7.965 (1.000) | 82 | 241569 | | | 12.92- 112.92 | 64.47 |
| $ 91 1,2-Dichloroethane-d4 | | | | | CAS #: 17060-07-0 | | |
| 5.143 | 5.143 (1.120) | 65 | 184939 | 25.0000 | 29.082 | 80.00- 120.00 | 100.00 |
| 5.143 | 5.143 (1.120) | 67 | 97047 | | | 2.15- 102.15 | 52.48 |
| $ 114 Toluene-d8 | | | | | CAS #: 2037-26-5 | | |
| 6.747 | 6.747 (1.222) | 98 | 434759 | 25.0000 | 26.349 | 80.00- 120.00 | 100.00 |
| 6.747 | 6.747 (1.222) | 70 | 55182 | | | 0.00- 62.20 | 12.69 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 114 Toluene-d8 (continued) | | | | | | | |
| 6.747 | 6.747 (1.222) | 100 | 283483 | | | 15.58- 115.58 | 65.20 |
| $ 149 Bromofluorobenzene | | | | | CAS #: 460-00-4 | | |
| 8.947 | 8.947 (1.123) | 174 | 183362 | 25.0000 | 23.933 | 80.00- 120.00 | 100.00 |
| 8.939 | 8.939 (1.122) | 95 | 310402 | | | 114.89- 214.89 | 169.28 |
| 8.947 | 8.947 (1.123) | 176 | 177098 | | | 45.24- 145.24 | 96.58 |
| 6 Propylene | | | | | CAS #: 115-07-1 | | |
| 1.147 | 1.147 (0.250) | 41 | 134636 | 50.0000 | 53.391 | 80.00- 120.00 | 100.00 |
| 1.147 | 1.147 (0.250) | 42 | 87327 | | | 14.09- 114.09 | 64.86 |
| 1.147 | 1.147 (0.250) | 39 | 110875 | | | 29.45- 129.45 | 82.35 |
| 7 Dichlorodifluoromethane/Fr12 | | | | | CAS #: 75-71-8 | | |
| 1.175 | 1.175 (0.256) | 85 | 566701 | 50.0000 | 57.114 | 80.00- 120.00 | 100.00 |
| 1.175 | 1.175 (0.256) | 87 | 182027 | | | 0.00- 82.88 | 32.12 |
| 10 Freon 114 | | | | | CAS #: 76-14-2 | | |
| 1.272 | 1.272 (0.277) | 135 | 272866 | 50.0000 | 50.033 | 80.00- 120.00 | 100.00 |
| 1.272 | 1.272 (0.277) | 137 | 88268 | | | 0.00- 81.67 | 32.35 |
| 13 Chloromethane | | | | | CAS #: 74-87-3 | | |
| 1.314 | 1.314 (0.286) | 50 | 128828 | 50.0000 | 58.464 | 80.00- 120.00 | 100.00 |
| 1.314 | 1.314 (0.286) | 52 | 40340 | | | 0.00- 83.02 | 31.31 |
| 14 Butane | | | | | CAS #: 106-97-8 | | |
| 1.384 | 1.384 (0.302) | 58 | 33491 | 50.0000 | 52.358 | 80.00- 120.00 | 100.00 |
| 1.384 | 1.384 (0.302) | 43 | 253246 | | | 701.77- 801.77 | 756.14 |
| 15 Vinyl Chloride | | | | | CAS #: 75-01-4 | | |
| 1.398 | 1.398 (0.305) | 62 | 179663 | 50.0000 | 58.237 | 80.00- 120.00 | 100.00 |
| 1.398 | 1.398 (0.305) | 64 | 57334 | | | 0.00- 97.20 | 31.91 |
| 18 1,3-Butadiene | | | | | CAS #: 106-99-0 | | |
| 1.426 | 1.426 (0.311) | 54 | 139347 | 50.0000 | 53.081 | 80.00- 120.00 | 100.00 |
| 1.426 | 1.426 (0.311) | 39 | 168655 | | | 75.63- 175.63 | 121.03 |
| 24 Bromomethane | | | | | CAS #: 74-83-9 | | |
| 1.678 | 1.678 (0.366) | 94 | 146810 | 50.0000 | 50.412 | 80.00- 120.00 | 100.00 |
| 1.678 | 1.678 (0.366) | 96 | 138309 | | | 43.76- 143.76 | 94.21 |
| 25 Chloroethane | | | | | CAS #: 75-00-3 | | |
| 1.748 | 1.748 (0.381) | 64 | 96396 | 50.0000 | 48.499 | 80.00- 120.00 | 100.00 |
| 1.748 | 1.748 (0.381) | 66 | 30754 | | | 0.00- 86.90 | 31.90 |
| 1.748 | 1.748 (0.381) | 49 | 31368 | | | 0.00- 78.42 | 32.54 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 26 Isopentane | | | | | CAS #: 78-78-4 | | |
| 1.790 | 1.790 (0.390) | 43 | 221869 | 50.0000 | 53.700 | 80.00- 120.00 | 100.00 |
| 1.790 | 1.790 (0.390) | 57 | 149521 | | | 20.70- 120.70 | 67.39 |
| 28 Trichlorofluoromethane/Fr11 | | | | | CAS #: 75-69-4 | | |
| 1.944 | 1.944 (0.423) | 101 | 567094 | 50.0000 | 54.107 | 80.00- 120.00 | 100.00 |
| 1.944 | 1.944 (0.423) | 103 | 367769 | | | 14.60- 114.60 | 64.85 |
| 29 Ethanol | | | | | CAS #: 64-17-5 | | |
| 2.163 | 2.163 (0.471) | 45 | 66527 | 50.0000 | 51.103 | 80.00- 120.00 | 100.00 |
| 2.163 | 2.163 (0.471) | 43 | 17280 | | | 0.00- 76.61 | 25.98 |
| 2.163 | 2.163 (0.471) | 46 | 25390 | | | 0.00- 88.16 | 38.16 |
| 33 Freon 113 | | | | | CAS #: 76-13-1 | | |
| 2.407 | 2.407 (0.524) | 151 | 234911 | 50.0000 | 49.450 | 80.00- 120.00 | 100.00 |
| 2.407 | 2.407 (0.524) | 153 | 149422 | | | 13.71- 113.71 | 63.61 |
| 2.407 | 2.407 (0.524) | 101 | 364030 | | | 107.50- 207.50 | 154.96 |
| 34 1,1-Dichloroethene | | | | | CAS #: 75-35-4 | | |
| 2.428 | 2.428 (0.529) | 98 | 103365 | 50.0000 | 49.580 | 80.00- 120.00 | 100.00 |
| 2.428 | 2.428 (0.529) | 96 | 161189 | | | 107.50- 207.50 | 155.94 |
| 2.428 | 2.428 (0.529) | 61 | 358767 | | | 307.50- 407.50 | 347.09 |
| 38 Acetone | | | | | CAS #: 67-64-1 | | |
| 2.543 | 2.543 (0.554) | 58 | 83080 | 50.0000 | 49.762 | 80.00- 120.00 | 100.00 |
| 2.543 | 2.543 (0.554) | 43 | 344641 | | | 327.54- 427.54 | 414.83 |
| 40 Carbon Disulfide | | | | | CAS #: 75-15-0 | | |
| 2.622 | 2.622 (0.571) | 76 | 489008 | 50.0000 | 48.182 | 80.00- 120.00 | 100.00 |
| 41 2-Propanol | | | | | CAS #: 67-63-0 | | |
| 2.679 | 2.679 (0.583) | 45 | 298991 | 50.0000 | 52.052 | 80.00- 120.00 | 100.00 |
| 2.679 | 2.679 (0.583) | 43 | 73517 | | | 0.00- 72.17 | 24.59 |
| 2.679 | 2.679 (0.583) | 59 | 10757 | | | 0.00- 85.00 | 3.60 |
| 44 3-Chloropropene | | | | | CAS #: 107-05-1 | | |
| 2.836 | 2.836 (0.618) | 76 | 75420 | 50.0000 | 47.558 | 80.00- 120.00 | 100.00 |
| 2.829 | 2.829 (0.616) | 41 | 249847 | | | 245.26- 345.26 | 331.27 |
| 46 Methylene Chloride | | | | | CAS #: 75-09-2 | | |
| 3.001 | 3.001 (0.654) | 49 | 234380 | 50.0000 | 54.813 | 80.00- 120.00 | 100.00 |
| 3.001 | 3.001 (0.654) | 84 | 147227 | | | 10.93- 110.93 | 62.82 |
| 3.001 | 3.001 (0.654) | 51 | 70298 | | | 0.00- 80.39 | 29.99 |
| 48 tert-Butyl-Alcohol | | | | | CAS #: 75-65-0 | | |
| 3.137 | 3.137 (0.683) | 59 | 330077 | 50.0000 | 46.910 | 80.00- 120.00 | 100.00 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 48 tert-Butyl-Alcohol (continued) | | | | | | | |
| 3.137 | 3.137 (0.683) | 41 | 121243 | | | 0.00- 83.59 | 36.73 |
| 3.144 | 3.144 (0.685) | 57 | 37560 | | | 0.00- 57.49 | 11.38 |
| 50 MTBE | | | | | CAS #: 1634-04-4 | | |
| 3.245 | 3.245 (0.707) | 73 | 509239 | 50.0000 | 49.831 | 80.00- 120.00 | 100.00 |
| 3.245 | 3.245 (0.707) | 57 | 119936 | | | 0.00- 73.42 | 23.55 |
| 3.245 | 3.245 (0.707) | 41 | 150491 | | | 0.00- 75.17 | 29.55 |
| 52 trans-1,2-Dichloroethene | | | | | CAS #: 156-60-5 | | |
| 3.259 | 3.259 (0.710) | 98 | 111713 | 50.0000 | 51.646 | 80.00- 120.00 | 100.00 |
| 3.259 | 3.259 (0.710) | 61 | 316956 | | | 243.71- 343.71 | 283.72 |
| 3.259 | 3.259 (0.710) | 96 | 172110 | | | 114.13- 214.13 | 154.06 |
| 58 Hexane | | | | | CAS #: 110-54-3 | | |
| 3.488 | 3.488 (0.760) | 57 | 310485 | 50.0000 | 51.238 | 80.00- 120.00 | 100.00 |
| 3.488 | 3.488 (0.760) | 43 | 208310 | | | 19.39- 119.39 | 67.09 |
| 3.488 | 3.488 (0.760) | 86 | 47086 | | | 0.00- 69.00 | 15.17 |
| 63 Isopropyl ether | | | | | CAS #: 108-20-3 | | |
| 3.775 | 3.775 (0.822) | 45 | 745570 | 50.0000 | 53.012 | 80.00- 120.00 | 100.00 |
| 3.775 | 3.775 (0.822) | 87 | 161159 | | | 0.00- 73.47 | 21.62 |
| 3.775 | 3.775 (0.822) | 59 | 76764 | | | 0.00- 60.91 | 10.30 |
| 64 1,1-Dichloroethane | | | | | CAS #: 75-34-3 | | |
| 3.760 | 3.760 (0.819) | 63 | 402618 | 50.0000 | 53.707 | 80.00- 120.00 | 100.00 |
| 3.760 | 3.760 (0.819) | 65 | 126782 | | | 0.00- 81.72 | 31.49 |
| 65 Vinyl Acetate | | | | | CAS #: 108-05-4 | | |
| 3.811 | 3.811 (0.830) | 86 | 42143 | 50.0000 | 49.192 | 80.00- 120.00 | 100.00 |
| 3.811 | 3.811 (0.830) | 43 | 934447 | | | 1533.22-1633.22 | 2217.30 |
| 72 t-Butylethyl Ether | | | | | CAS #: 637-92-3 | | |
| 4.140 | 4.140 (0.902) | 59 | 642483 | 50.0000 | 48.466 | 80.00- 120.00 | 100.00 |
| 4.140 | 4.140 (0.902) | 87 | 234596 | | | 0.00- 87.49 | 36.51 |
| 4.140 | 4.140 (0.902) | 41 | 154414 | | | 0.00- 70.38 | 24.03 |
| 74 cis-1,2-Dichloroethene | | | | | CAS #: 156-59-2 | | |
| 4.355 | 4.355 (0.948) | 98 | 122920 | 50.0000 | 50.099 | 80.00- 120.00 | 100.00 |
| 4.355 | 4.355 (0.948) | 96 | 190144 | | | 104.11- 204.11 | 154.69 |
| 4.355 | 4.355 (0.948) | 61 | 325628 | | | 218.72- 318.72 | 264.91 |
| 75 2-Butanone | | | | | CAS #: 78-93-3 | | |
| 4.391 | 4.391 (0.956) | 72 | 98373 | 50.0000 | 52.161 | 80.00- 120.00 | 100.00 |
| 4.391 | 4.391 (0.956) | 43 | 498753 | | | 466.90- 566.90 | 507.00 |
| 4.391 | 4.391 (0.956) | 57 | 38381 | | | 29.81- 129.81 | 39.02 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 78 Tetrahydrofuran | | | | | CAS #: 109-99-9 | | |
| 4.591 | 4.591 (1.000) | 42 | 258335 | 50.0000 | 53.124 | 80.00- 120.00 | 100.00 |
| 4.591 | 4.591 (1.000) | 71 | 88379 | | | 0.00- 85.98 | 34.21 |
| 4.591 | 4.591 (1.000) | 72 | 90780 | | | 0.00- 86.75 | 35.14 |
| 80 Chloroform | | | | | CAS #: 67-66-3 | | |
| 4.663 | 4.663 (1.016) | 83 | 486660 | 50.0000 | 54.416 | 80.00- 120.00 | 100.00 |
| 4.663 | 4.663 (1.016) | 85 | 315974 | | | 14.76- 114.76 | 64.93 |
| 83 Cyclohexane | | | | | CAS #: 110-82-7 | | |
| 4.770 | 4.770 (1.039) | 84 | 268272 | 50.0000 | 49.020 | 80.00- 120.00 | 100.00 |
| 4.770 | 4.770 (1.039) | 56 | 353159 | | | 80.40- 180.40 | 131.64 |
| 4.770 | 4.770 (1.039) | 41 | 223652 | | | 35.84- 135.84 | 83.37 |
| 85 1,1,1-Trichloroethane | | | | | CAS #: 71-55-6 | | |
| 4.792 | 4.792 (1.044) | 97 | 494184 | 50.0000 | 54.412 | 80.00- 120.00 | 100.00 |
| 4.792 | 4.792 (1.044) | 99 | 316778 | | | 13.76- 113.76 | 64.10 |
| 86 Carbon Tetrachloride | | | | | CAS #: 56-23-5 | | |
| 4.907 | 4.907 (1.069) | 119 | 455300 | 50.0000 | 56.461 | 80.00- 120.00 | 100.00 |
| 4.907 | 4.907 (1.069) | 117 | 473214 | | | 54.03- 154.03 | 103.93 |
| 89 2,2,4-Trimethylpentane | | | | | CAS #: 540-84-1 | | |
| 5.136 | 5.136 (1.119) | 57 | 1166732 | 50.0000 | 51.532 | 80.00- 120.00 | 100.00 |
| 5.129 | 5.129 (1.117) | 56 | 365201 | | | 0.00- 81.50 | 31.30 |
| 5.129 | 5.129 (1.117) | 41 | 337871 | | | 0.00- 77.21 | 28.96 |
| 90 Benzene | | | | | CAS #: 71-43-2 | | |
| 5.121 | 5.121 (0.927) | 78 | 639761 | 50.0000 | 50.270 | 80.00- 120.00 | 100.00 |
| 5.121 | 5.121 (0.927) | 77 | 152521 | | | 0.00- 73.17 | 23.84 |
| 93 tert-amyl-Methyl Ether | | | | | CAS #: 994-05-8 | | |
| 5.222 | 5.222 (1.137) | 73 | 563074 | 50.0000 | 46.773 | 80.00- 120.00 | 100.00 |
| 5.222 | 5.222 (1.137) | 87 | 137168 | | | 0.00- 74.24 | 24.36 |
| 5.222 | 5.222 (1.137) | 55 | 231471 | | | 0.00- 83.70 | 41.11 |
| 94 1,2-Dichloroethane | | | | | CAS #: 107-06-2 | | |
| 5.215 | 5.215 (0.944) | 62 | 406140 | 50.0000 | 59.086 | 80.00- 120.00 | 100.00 |
| 5.215 | 5.215 (0.944) | 64 | 133485 | | | 0.00- 83.10 | 32.87 |
| 95 Heptane | | | | | CAS #: 142-82-5 | | |
| 5.315 | 5.315 (0.962) | 71 | 240450 | 50.0000 | 51.767 | 80.00- 120.00 | 100.00 |
| 5.315 | 5.315 (0.962) | 43 | 486293 | | | 146.63- 246.63 | 202.24 |
| 5.315 | 5.315 (0.962) | 57 | 254280 | | | 54.79- 154.79 | 105.75 |
| 104 Trichloroethene | | | | | CAS #: 79-01-6 | | |
| 5.709 | 5.709 (1.034) | 95 | 304183 | 50.0000 | 52.849 | 80.00- 120.00 | 100.00 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 104 Trichloroethene (continued) | | | | | | | |
| 5.709 | 5.709 (1.034) | 130 | 263170 | | | 35.57- 135.57 | 86.52 |
| 5.709 | 5.709 (1.034) | 97 | 195915 | | | 14.32- 114.32 | 64.41 |
| 105 Methyl Cyclohexane | | | | | CAS #: 108-87-2 | | |
| 5.816 | 5.816 (1.267) | 83 | 410503 | 50.0000 | 50.393 | 80.00- 120.00 | 100.00 |
| 5.816 | 5.816 (1.267) | 98 | 190314 | | | 0.00- 96.57 | 46.36 |
| 5.816 | 5.816 (1.267) | 55 | 386811 | | | 39.57- 139.57 | 94.23 |
| 106 1,2-Dichloropropane | | | | | CAS #: 78-87-5 | | |
| 5.945 | 5.945 (1.077) | 63 | 277158 | 50.0000 | 52.008 | 80.00- 120.00 | 100.00 |
| 5.945 | 5.945 (1.077) | 62 | 197073 | | | 21.61- 121.61 | 71.10 |
| 5.945 | 5.945 (1.077) | 41 | 197994 | | | 23.81- 123.81 | 71.44 |
| 107 1,4-Dioxane | | | | | CAS #: 123-91-1 | | |
| 6.045 | 6.045 (1.095) | 88 | 149466 | 50.0000 | 49.386 | 80.00- 120.00 | 100.00 |
| 6.045 | 6.045 (1.095) | 58 | 120174 | | | 29.09- 129.09 | 80.40 |
| 6.045 | 6.045 (1.095) | 57 | 41902 | | | 0.00- 76.30 | 28.03 |
| 108 Bromodichloromethane | | | | | CAS #: 75-27-4 | | |
| 6.182 | 6.182 (1.119) | 83 | 583596 | 50.0000 | 56.492 | 80.00- 120.00 | 100.00 |
| 6.182 | 6.182 (1.119) | 85 | 369458 | | | 13.66- 113.66 | 63.31 |
| 110 cis-1,3-Dichloropropene | | | | | CAS #: 10061-01-5 | | |
| 6.568 | 6.568 (1.189) | 75 | 422513 | 50.0000 | 52.516 | 80.00- 120.00 | 100.00 |
| 6.568 | 6.568 (1.189) | 77 | 134164 | | | 0.00- 81.49 | 31.75 |
| 6.568 | 6.568 (1.189) | 39 | 254120 | | | 11.85- 111.85 | 60.14 |
| 112 4-Methyl-2-pentanone | | | | | CAS #: 108-10-1 | | |
| 6.690 | 6.690 (1.211) | 58 | 247218 | 50.0000 | 52.117 | 80.00- 120.00 | 100.00 |
| 6.690 | 6.690 (1.211) | 43 | 730059 | | | 224.75- 324.75 | 295.31 |
| 6.697 | 6.697 (1.213) | 85 | 98739 | | | 0.00- 89.27 | 39.94 |
| 115 Toluene | | | | | CAS #: 108-88-3 | | |
| 6.805 | 6.805 (1.232) | 91 | 899308 | 50.0000 | 53.023 | 80.00- 120.00 | 100.00 |
| 6.805 | 6.805 (1.232) | 92 | 529345 | | | 9.03- 109.03 | 58.86 |
| 118 trans-1,3-Dichloropropene | | | | | CAS #: 10061-02-6 | | |
| 7.048 | 7.048 (0.885) | 75 | 463083 | 50.0000 | 55.782 | 80.00- 120.00 | 100.00 |
| 7.055 | 7.055 (0.886) | 77 | 145373 | | | 0.00- 81.20 | 31.39 |
| 7.048 | 7.048 (0.885) | 39 | 258737 | | | 5.76- 105.76 | 55.87 |
| 120 1,1,2-Trichloroethane | | | | | CAS #: 79-00-5 | | |
| 7.199 | 7.199 (0.904) | 97 | 322524 | 50.0000 | 55.666 | 80.00- 120.00 | 100.00 |
| 7.199 | 7.199 (0.904) | 99 | 198480 | | | 11.59- 111.59 | 61.54 |
| 7.199 | 7.199 (0.904) | 83 | 282453 | | | 39.15- 139.15 | 87.58 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 122 Tetrachloroethene | | | | | CAS #: 127-18-4 | | |
| 7.235 | 7.235 (0.908) | 166 | 345673 | 50.0000 | 53.240 | 80.00- 120.00 | 100.00 |
| 7.235 | 7.235 (0.908) | 129 | 294935 | | | 34.21- 134.21 | 85.32 |
| 7.235 | 7.235 (0.908) | 131 | 278071 | | | 29.77- 129.77 | 80.44 |
| 125 2-Hexanone | | | | | CAS #: 591-78-6 | | |
| 7.385 | 7.385 (0.927) | 58 | 356449 | 50.0000 | 53.470 | 80.00- 120.00 | 100.00 |
| 7.385 | 7.385 (0.927) | 43 | 751056 | | | 162.36- 262.36 | 210.70 |
| 7.385 | 7.385 (0.927) | 100 | 64311 | | | 0.00- 68.42 | 18.04 |
| 128 Dibromochloromethane | | | | | CAS #: 124-48-1 | | |
| 7.500 | 7.500 (0.942) | 129 | 524130 | 50.0000 | 57.422 | 80.00- 120.00 | 100.00 |
| 7.500 | 7.500 (0.942) | 127 | 407689 | | | 27.80- 127.80 | 77.78 |
| 130 1,2-Dibromoethane | | | | | CAS #: 106-93-4 | | |
| 7.607 | 7.607 (0.955) | 107 | 501568 | 50.0000 | 55.499 | 80.00- 120.00 | 100.00 |
| 7.607 | 7.607 (0.955) | 109 | 474353 | | | 43.87- 143.87 | 94.57 |
| 135 Chlorobenzene | | | | | CAS #: 108-90-7 | | |
| 7.994 | 7.994 (1.004) | 112 | 725799 | 50.0000 | 52.023 | 80.00- 120.00 | 100.00 |
| 7.994 | 7.994 (1.004) | 114 | 231180 | | | 0.00- 82.35 | 31.85 |
| 7.987 | 7.987 (1.003) | 77 | 490077 | | | 17.71- 117.71 | 67.52 |
| 137 Ethyl Benzene | | | | | CAS #: 100-41-4 | | |
| 8.051 | 8.051 (1.011) | 106 | 386565 | 50.0000 | 54.681 | 80.00- 120.00 | 100.00 |
| 8.051 | 8.051 (1.011) | 91 | 1292518 | | | 290.13- 390.13 | 334.36 |
| 140 m,p-Xylene | | | | | CAS #: 108-38-3 | | |
| 8.151 | 8.151 (1.023) | 106 | 484048 | 50.0000 | 53.136 | 80.00- 120.00 | 100.00 |
| 8.151 | 8.151 (1.023) | 91 | 1028461 | | | 156.72- 256.72 | 212.47 |
| 141 o-Xylene | | | | | CAS #: 95-47-6 | | |
| 8.481 | 8.481 (1.065) | 106 | 464933 | 50.0000 | 53.874 | 80.00- 120.00 | 100.00 |
| 8.481 | 8.481 (1.065) | 91 | 1028363 | | | 173.09- 273.09 | 221.19 |
| 142 Styrene | | | | | CAS #: 100-42-5 | | |
| 8.502 | 8.502 (1.067) | 104 | 786926 | 50.0000 | 55.622 | 80.00- 120.00 | 100.00 |
| 8.502 | 8.502 (1.067) | 78 | 436306 | | | 5.77- 105.77 | 55.44 |
| 145 Bromoform | | | | | CAS #: 75-25-2 | | |
| 8.681 | 8.681 (1.090) | 173 | 432311 | 50.0000 | 57.968 | 80.00- 120.00 | 100.00 |
| 8.681 | 8.681 (1.090) | 171 | 226769 | | | 1.63- 101.63 | 52.46 |
| 147 Cumene | | | | | CAS #: 98-82-8 | | |
| 8.775 | 8.775 (1.102) | 105 | 1430687 | 50.0000 | 54.536 | 80.00- 120.00 | 100.00 |
| 8.775 | 8.775 (1.102) | 120 | 361283 | | | 0.00- 75.25 | 25.25 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 147 Cumene (continued) | | | | | | | |
| 8.775 | 8.775 (1.102) | 51 | 177294 | | | 0.00- 62.26 | 12.39 |
| 151 1,1,2,2-Tetrachloroethane | | | | | CAS #: 79-34-5 | | |
| 9.083 | 9.083 (1.140) | 83 | 795801 | 50.0000 | 55.049 | 80.00- 120.00 | 100.00 |
| 9.083 | 9.083 (1.140) | 85 | 508275 | | | 13.89- 113.89 | 63.87 |
| 153 Propylbenzene | | | | | CAS #: 103-65-1 | | |
| 9.111 | 9.111 (1.144) | 91 | 1833588 | 50.0000 | 55.046 | 80.00- 120.00 | 100.00 |
| 9.111 | 9.111 (1.144) | 120 | 388030 | | | 0.00- 71.30 | 21.16 |
| 9.111 | 9.111 (1.144) | 105 | 64916 | | | 0.00- 68.74 | 3.54 |
| 155 4-Ethyltoluene | | | | | CAS #: 622-96-8 | | |
| 9.212 | 9.212 (1.156) | 120 | 428657 | 50.0000 | 54.671 | 80.00- 120.00 | 100.00 |
| 9.212 | 9.212 (1.156) | 105 | 1505166 | | | 303.26- 403.26 | 351.14 |
| 156 1,3,5-Trimethylbenzene | | | | | CAS #: 108-67-8 | | |
| 9.262 | 9.262 (1.163) | 120 | 586670 | 50.0000 | 55.619 | 80.00- 120.00 | 100.00 |
| 9.262 | 9.262 (1.163) | 105 | 1245437 | | | 160.53- 260.53 | 212.29 |
| 162 1,2,4-Trimethylbenzene | | | | | CAS #: 95-63-6 | | |
| 9.577 | 9.577 (1.202) | 120 | 530455 | 50.0000 | 54.055 | 80.00- 120.00 | 100.00 |
| 9.577 | 9.577 (1.202) | 105 | 1210513 | | | 174.98- 274.98 | 228.20 |
| 165 1,3-Dichlorobenzene | | | | | CAS #: 541-73-1 | | |
| 9.835 | 9.835 (1.235) | 146 | 710143 | 50.0000 | 54.303 | 80.00- 120.00 | 100.00 |
| 9.835 | 9.835 (1.235) | 148 | 451185 | | | 13.36- 113.36 | 63.53 |
| 9.835 | 9.835 (1.235) | 111 | 323037 | | | 0.00- 95.45 | 45.49 |
| 166 1,4-Dichlorobenzene | | | | | CAS #: 106-46-7 | | |
| 9.921 | 9.921 (1.246) | 146 | 721485 | 50.0000 | 54.071 | 80.00- 120.00 | 100.00 |
| 9.921 | 9.921 (1.246) | 148 | 458788 | | | 13.03- 113.03 | 63.59 |
| 9.914 | 9.914 (1.245) | 111 | 313079 | | | 0.00- 93.63 | 43.39 |
| 168 alpha-Chlorotoluene | | | | | CAS #: 100-44-7 | | |
| 10.035 | 10.035 (1.260) | 91 | 932612 | 50.0000 | 51.713 | 80.00- 120.00 | 100.00 |
| 10.035 | 10.035 (1.260) | 126 | 168810 | | | 0.00- 67.76 | 18.10 |
| 171 1,2-Dichlorobenzene | | | | | CAS #: 95-50-1 | | |
| 10.229 | 10.229 (1.284) | 146 | 660830 | 50.0000 | 54.847 | 80.00- 120.00 | 100.00 |
| 10.229 | 10.229 (1.284) | 148 | 420803 | | | 13.36- 113.36 | 63.68 |
| 10.229 | 10.229 (1.284) | 111 | 311970 | | | 0.00- 96.24 | 47.21 |
| 174 1,2,4-Trichlorobenzene | | | | | CAS #: 120-82-1 | | |
| 11.547 | 11.547 (1.450) | 180 | 470088 | 50.0000 | 50.343 | 80.00- 120.00 | 100.00 |
| 11.547 | 11.547 (1.450) | 182 | 440852 | | | 44.33- 144.33 | 93.78 |

| | | | | AMOUNTS CAL-AMT ( PPBV) | AMOUNTS ON-COL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 175 Hexachlorobutadiene | | | | | CAS #: 87-68-3 | | |
| 11.640 | 11.640 (1.461) | 225 | 335409 | 50.0000 | 53.304 | 80.00- 120.00 | 100.00 |
| 11.640 | 11.640 (1.461) | 223 | 212037 | | | 14.17- 114.17 | 63.22 |
| 176 Naphthalene | | | | | CAS #: 91-20-3 | | |
| 11.769 | 11.769 (1.478) | 128 | 1211577 | 50.0000 | 49.244 | 80.00- 120.00 | 100.00 |
| 11.769 | 11.769 (1.478) | 127 | 156298 | | | 0.00- 62.93 | 12.90 |

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdd.i
Lab File ID: d041302.d
Lab Smp Id: CCV
Analysis Type: VOA
Quant Type: ISTD
Operator: LL
Method File: /chem/msdd.i/13apr10.b/d10q0331a.m
Misc Info: 50ppbv(200ppbv)

Calibration Date: 13-APR-2010
Calibration Time: 07:41
Client Smp ID: CCV
Level: LOW
Sample Type: AIR

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 5

| | | AREA LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 79 Bromochloromethan | 104005 | 62403 | 145607 | 78422 | -24.60 |
| 100 1,4-Difluorobenze | 450381 | 270229 | 630533 | 332647 | -26.14 |
| 134 Chlorobenzene-d5 | 514163 | 308498 | 719828 | 374720 | -27.12 |

| | | RT LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 79 Bromochloromethan | 4.58 | 4.25 | 4.91 | 4.59 | 0.34 |
| 100 1,4-Difluorobenze | 5.51 | 5.18 | 5.84 | 5.52 | 0.28 |
| 134 Chlorobenzene-d5 | 7.95 | 7.62 | 8.28 | 7.97 | 0.20 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msdd.i/13apr10.b/d041302.d

Date : 13-APR-2010 07:41

Client ID: CCV

Instrument: msdd.i

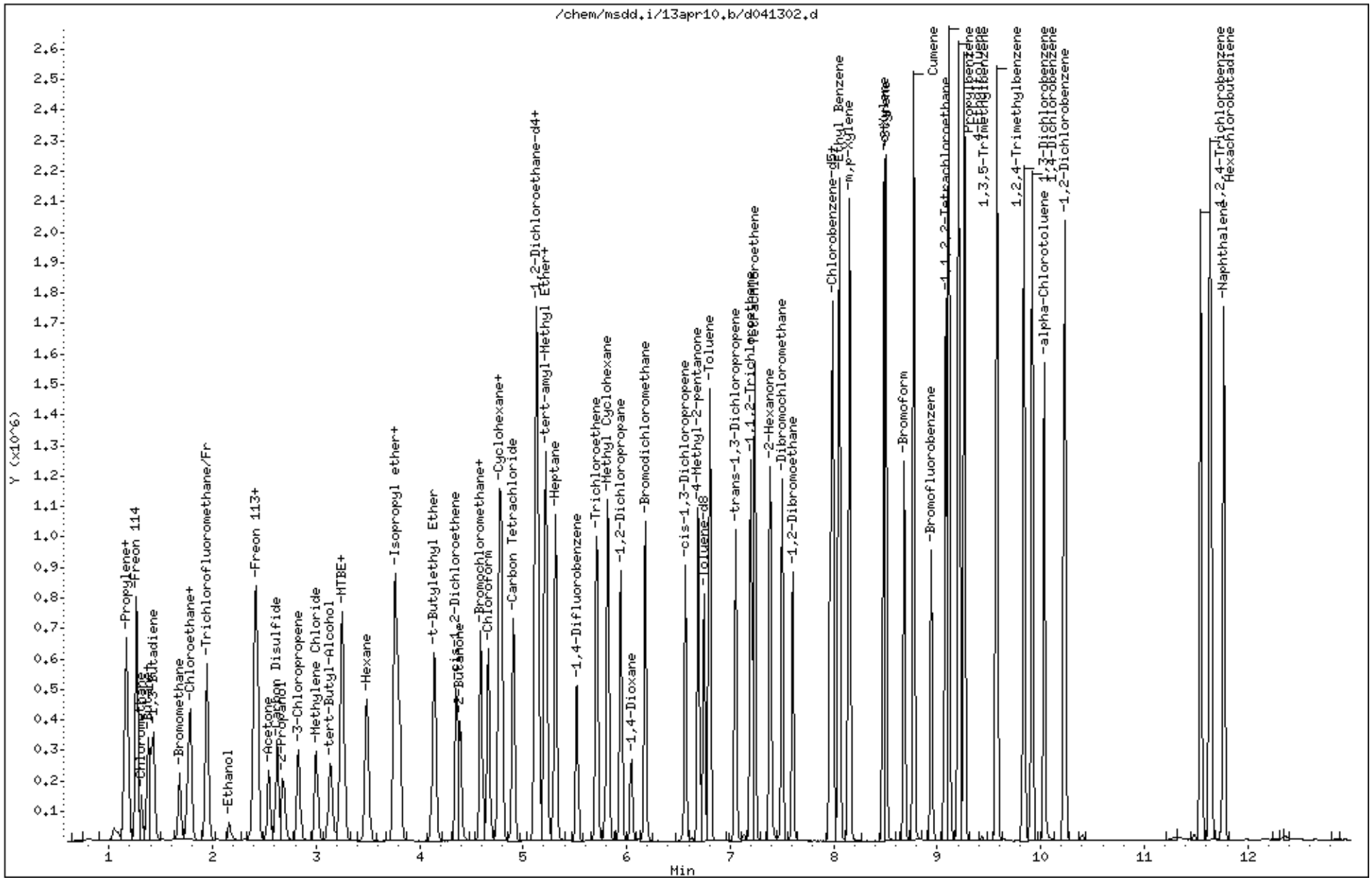
Sample Info: 50ml #1936-87

Operator: LL

Column phase: RTx-624

Column diameter: 0.53





Air Toxics LTD.
Laboratory Services Since 1989

**Client Sample ID: LCS**

**Lab ID#: 1004128-05A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **d041303** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 4/13/10 08:48 AM** | |

| Compound | %Recovery |
|---|---|
| Freon 12 | 117 |
| Freon 114 | 105 |
| Chloromethane | 119 |
| Vinyl Chloride | 120 |
| 1,3-Butadiene | 114 |
| Bromomethane | 105 |
| Chloroethane | 102 |
| Freon 11 | 112 |
| Ethanol | 96 |
| Freon 113 | 92 |
| 1,1-Dichloroethene | 92 |
| Acetone | 97 |
| 2-Propanol | 99 |
| Carbon Disulfide | 97 |
| 3-Chloropropene | 96 |
| Methylene Chloride | 102 |
| Methyl tert-butyl ether | 99 |
| trans-1,2-Dichloroethene | 103 |
| Hexane | 101 |
| 1,1-Dichloroethane | 102 |
| 2-Butanone (Methyl Ethyl Ketone) | 103 |
| cis-1,2-Dichloroethene | 96 |
| Tetrahydrofuran | 104 |
| Chloroform | 105 |
| 1,1,1-Trichloroethane | 106 |
| Cyclohexane | 97 |
| Carbon Tetrachloride | 113 |
| 2,2,4-Trimethylpentane | 101 |
| Benzene | 96 |
| 1,2-Dichloroethane | 112 |
| Heptane | 100 |
| Trichloroethene | 102 |
| 1,2-Dichloropropane | 100 |
| 1,4-Dioxane | 93 |
| Bromodichloromethane | 108 |
| cis-1,3-Dichloropropene | 102 |
| 4-Methyl-2-pentanone | 100 |
| Toluene | 97 |
| trans-1,3-Dichloropropene | 109 |

Air Toxics LTD.
Laboratory Services Since 1989

**Client Sample ID: LCS**

**Lab ID#: 1004128-05A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **d041303** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 4/13/10 08:48 AM** | |

| Compound | %Recovery |
|---|---|
| 1,1,2-Trichloroethane | 106 |
| Tetrachloroethene | 103 |
| 2-Hexanone | 101 |
| Dibromochloromethane | 111 |
| 1,2-Dibromoethane (EDB) | 111 |
| Chlorobenzene | 101 |
| Ethyl Benzene | 108 |
| m,p-Xylene | 106 |
| o-Xylene | 105 |
| Styrene | 103 |
| Bromoform | 112 |
| Cumene | 104 |
| 1,1,2,2-Tetrachloroethane | 109 |
| Propylbenzene | 105 |
| 4-Ethyltoluene | 107 |
| 1,3,5-Trimethylbenzene | 108 |
| 1,2,4-Trimethylbenzene | 106 |
| 1,3-Dichlorobenzene | 108 |
| 1,4-Dichlorobenzene | 108 |
| alpha-Chlorotoluene | 81 |
| 1,2-Dichlorobenzene | 110 |
| 1,2,4-Trichlorobenzene | 102 |
| Hexachlorobutadiene | 108 |
| Naphthalene | 92 |

**Container Type: NA - Not Applicable**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| Toluene-d8 | 103 | 70-130 |
| 1,2-Dichloroethane-d4 | 115 | 70-130 |
| 4-Bromofluorobenzene | 96 | 70-130 |

Report Date: 14-Apr-2010 08:31

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: 13apr10
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: LCS Client Smp ID: LCS
Level: LOW Operator: ll
Data Type: MS DATA SampleType: LCS
SpikeList File: 2926spectra.spk Quant Type: ISTD
Sublist File: AT09.sub
Method File: /chem/msdd.i/13apr10.b/d10q0331a.m
Misc Info: 50ppbv(200ppbv)

| SPIKE | COMPOUND | CONC ADDED PPBV | CONC RECOVERED PPBV | % RECOVERED | LIMITS |
|---|---|---|---|---|---|
| 6 | Propylene | 50.000 | 52.750 | 105.50 | 60-140 |
| 7 | Dichlorodifluorome | 50.000 | 58.419 | 116.84 | 70-130 |
| 10 | Freon 114 | 50.000 | 52.379 | 104.76 | 70-130 |
| 13 | Chloromethane | 50.000 | 59.440 | 118.88 | 70-130 |
| 15 | Vinyl Chloride | 50.000 | 59.854 | 119.71 | 70-130 |
| 18 | 1,3-Butadiene | 50.000 | 57.144 | 114.29 | 60-140 |
| 24 | Bromomethane | 50.000 | 52.327 | 104.65 | 70-130 |
| 25 | Chloroethane | 50.000 | 50.755 | 101.51 | 70-130 |
| 28 | Trichlorofluoromet | 50.000 | 55.992 | 111.98 | 70-130 |
| 29 | Ethanol | 50.000 | 47.837 | 95.67 | 60-140 |
| 33 | Freon 113 | 50.000 | 46.246 | 92.49 | 70-130 |
| 34 | 1,1-Dichloroethene | 50.000 | 45.876 | 91.75 | 70-130 |
| 38 | Acetone | 50.000 | 48.327 | 96.65 | 60-140 |
| 40 | Carbon Disulfide | 50.000 | 48.694 | 97.39 | 60-140 |
| 41 | 2-Propanol | 50.000 | 49.668 | 99.34 | 60-140 |
| 46 | Methylene Chloride | 50.000 | 51.074 | 102.15 | 70-130 |
| 50 | MTBE | 50.000 | 49.738 | 99.48 | 60-140 |
| 52 | trans-1,2-Dichloro | 50.000 | 51.501 | 103.00 | 60-140 |
| 58 | Hexane | 50.000 | 50.584 | 101.17 | 60-140 |
| 65 | Vinyl Acetate | 50.000 | 51.216 | 102.43 | 60-140 |
| 64 | 1,1-Dichloroethane | 50.000 | 51.038 | 102.08 | 70-130 |
| 74 | cis-1,2-Dichloroet | 50.000 | 48.158 | 96.32 | 70-130 |
| 75 | 2-Butanone | 50.000 | 51.465 | 102.93 | 60-140 |
| 78 | Tetrahydrofuran | 50.000 | 52.200 | 104.40 | 60-140 |
| 80 | Chloroform | 50.000 | 52.368 | 104.74 | 70-130 |
| 83 | Cyclohexane | 50.000 | 48.375 | 96.75 | 60-140 |
| 85 | 1,1,1-Trichloroeth | 50.000 | 53.072 | 106.14 | 70-130 |
| 86 | Carbon Tetrachlori | 50.000 | 56.514 | 113.03 | 70-130 |
| 90 | Benzene | 50.000 | 48.216 | 96.43 | 70-130 |
| 94 | 1,2-Dichloroethane | 50.000 | 55.947 | 111.89 | 70-130 |
| 95 | Heptane | 50.000 | 49.789 | 99.58 | 60-140 |
| 104 | Trichloroethene | 50.000 | 51.226 | 102.45 | 70-130 |
| 106 | 1,2-Dichloropropan | 50.000 | 50.019 | 100.04 | 70-130 |

| SPIKE COMPOUND | CONC ADDED PPBV | CONC RECOVERED PPBV | % RECOVERED | LIMITS |
|---|---|---|---|---|
| 107 1,4-Dioxane | 50.000 | 46.720 | 93.44 | 60-140 |
| 108 Bromodichlorometha | 50.000 | 54.287 | 108.57 | 60-140 |
| 110 cis-1,3-Dichloropr | 50.000 | 50.770 | 101.54 | 70-130 |
| 112 4-Methyl-2-pentano | 50.000 | 50.204 | 100.41 | 60-140 |
| 115 Toluene | 50.000 | 48.656 | 97.31 | 70-130 |
| 118 trans-1,3-Dichloro | 50.000 | 54.599 | 109.20 | 70-130 |
| 120 1,1,2-Trichloroeth | 50.000 | 52.798 | 105.60 | 70-130 |
| 122 Tetrachloroethene | 50.000 | 51.360 | 102.72 | 70-130 |
| 125 2-Hexanone | 50.000 | 50.482 | 100.96 | 60-140 |
| 128 Dibromochlorometha | 50.000 | 55.594 | 111.19 | 60-140 |
| 130 1,2-Dibromoethane | 50.000 | 55.376 | 110.75 | 70-130 |
| 135 Chlorobenzene | 50.000 | 50.727 | 101.45 | 70-130 |
| 137 Ethyl Benzene | 50.000 | 53.757 | 107.51 | 70-130 |
| 140 m,p-Xylene | 50.000 | 53.193 | 106.39 | 70-130 |
| 141 o-Xylene | 50.000 | 52.311 | 104.62 | 70-130 |
| 142 Styrene | 50.000 | 51.535 | 103.07 | 70-130 |
| 145 Bromoform | 50.000 | 56.248 | 112.50 | 60-140 |
| 151 1,1,2,2-Tetrachlor | 50.000 | 54.562 | 109.12 | 70-130 |
| 155 4-Ethyltoluene | 50.000 | 53.641 | 107.28 | 60-140 |
| 156 1,3,5-Trimethylben | 50.000 | 54.284 | 108.57 | 70-130 |
| 162 1,2,4-Trimethylben | 50.000 | 53.077 | 106.15 | 70-130 |
| 165 1,3-Dichlorobenzen | 50.000 | 54.042 | 108.08 | 70-130 |
| 166 1,4-Dichlorobenzen | 50.000 | 54.105 | 108.21 | 70-130 |
| 168 alpha-Chlorotoluen | 50.000 | 40.696 | 81.39 | 70-130 |
| 171 1,2-Dichlorobenzen | 50.000 | 55.292 | 110.58 | 70-130 |
| 174 1,2,4-Trichloroben | 50.000 | 50.997 | 101.99 | 70-130 |
| 175 Hexachlorobutadien | 50.000 | 53.952 | 107.90 | 70-130 |
| 153 Propylbenzene | 50.000 | 52.346 | 104.69 | 60-140 |
| 147 Cumene | 50.000 | 51.933 | 103.87 | 60-140 |
| 44 3-Chloropropene | 50.000 | 47.889 | 95.78 | 60-140 |
| 89 2,2,4-Trimethylpen | 50.000 | 50.508 | 101.02 | 60-140 |
| 26 Isopentane | 50.000 | 55.486 | 110.97 | 70-130 |
| 14 Butane | 50.000 | 53.919 | 107.84 | 70-130 |
| 105 Methyl Cyclohexane | 50.000 | 48.917 | 97.83 | 70-130 |
| 48 tert-Butyl-Alcohol | 50.000 | 48.861 | 97.72 | 60-140 |
| 176 Naphthalene | 50.000 | 45.888 | 91.78 | 60-140 |
| 63 Isopropyl ether | 50.000 | 54.025 | 108.05 | 60-140 |
| 72 t-Butylethyl Ether | 50.000 | 50.793 | 101.59 | 60-140 |
| 93 tert-amyl-Methyl E | 50.000 | 48.332 | 96.67 | 60-140 |

| SURROGATE COMPOUND | CONC ADDED PPBV | CONC RECOVERED PPBV | % RECOVERED | LIMITS |
|---|---|---|---|---|
| $ 91 1,2-Dichloroethane | 25.000 | 28.873 | 115.49 | 70-130 |

| SURROGATE COMPOUND | CONC ADDED PPBV | CONC RECOVERED PPBV | % RECOVERED | LIMITS |
|---|---|---|---|---|
| $ 114 Toluene-d8 | 25.000 | 25.752 | 103.01 | 70-130 |
| $ 149 Bromofluorobenzene | 25.000 | 24.053 | 96.21 | 70-130 |

Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msdd.i/13apr10.b/d041303.d
Lab Smp Id: LCS Client Smp ID: LCS
Inj Date : 13-APR-2010 08:48
Operator : ll Inst ID: msdd.i
Smp Info : 50ml #1911-277
Misc Info : 50ppbv(200ppbv)
Comment :
Method : /chem/msdd.i/13apr10.b/d10q0331a.m
Meth Date : 13-Apr-2010 08:33 dmendoza Quant Type: ISTD
Cal Date : 31-MAR-2010 15:58 Cal File: d033117.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT09.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| | | | | CONCENTRATIONS ON-COL | FINAL | | |
|---|---|---|---|---|---|---|---|
| RT | EXP RT (REL RT) | MASS | RESPONSE | ( PPBV) | ( PPBV) | TARGET RANGE | RATIO |
| * 79 Bromochloromethane | | | | | CAS #: 74-97-5 | | |
| 4.591 | 4.591 (1.000) | 130 | 82128 | 25.0000 | | 80.00- 120.00 | 100.00 |
| 4.591 | 4.591 (1.000) | 128 | 63961 | | | 28.36- 128.36 | 77.88 |
| 4.584 | 4.591 (1.000) | 49 | 156562 | | | 141.90- 241.90 | 190.63 |
| * 100 1,4-Difluorobenzene | | | | | CAS #: 540-36-3 | | |
| 5.522 | 5.523 (1.000) | 114 | 352919 | 25.0000 | | 80.00- 120.00 | 100.00 |
| 5.522 | 5.523 (1.000) | 88 | 64422 | | | 0.00- 68.61 | 18.25 |
| * 134 Chlorobenzene-d5 | | | | | CAS #: 3114-55-4 | | |
| 7.965 | 7.965 (1.000) | 117 | 398656 | 25.0000 | | 80.00- 120.00 | 100.00 |
| 7.965 | 7.965 (1.000) | 82 | 257277 | | | 12.92- 112.92 | 64.54 |
| $ 91 1,2-Dichloroethane-d4 | | | | | CAS #: 17060-07-0 | | |
| 5.143 | 5.143 (1.120) | 65 | 192283 | 28.8726 | 28.873 | 80.00- 120.00 | 100.00 |
| 5.143 | 5.143 (1.120) | 67 | 100871 | | | 2.15- 102.15 | 52.46 |
| $ 114 Toluene-d8 | | | | | CAS #: 2037-26-5 | | |
| 6.747 | 6.747 (1.222) | 98 | 450805 | 25.7525 | 25.752 | 80.00- 120.00 | 100.00 |
| 6.747 | 6.747 (1.222) | 70 | 57416 | | | 0.00- 62.20 | 12.74 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 114 Toluene-d8 (continued) | | | | | | | |
| 6.747 | 6.747 (1.222) | 100 | 298049 | | | 15.58- 115.58 | 66.11 |
| $ 149 Bromofluorobenzene | | | | | CAS #: 460-00-4 | | |
| 8.946 | 8.947 (1.123) | 174 | 196053 | 24.0529 | 24.053 | 80.00- 120.00 | 100.00 |
| 8.946 | 8.939 (1.123) | 95 | 325652 | | | 114.89- 214.89 | 166.10 |
| 8.946 | 8.947 (1.123) | 176 | 187327 | | | 45.24- 145.24 | 95.55 |
| 6 Propylene | | | | | CAS #: 115-07-1 | | |
| 1.146 | 1.147 (0.250) | 41 | 139304 | 52.7497 | 52.750 | 80.00- 120.00 | 100.00 |
| 1.146 | 1.147 (0.250) | 42 | 90498 | | | 14.09- 114.09 | 64.96 |
| 1.146 | 1.147 (0.250) | 39 | 113978 | | | 29.45- 129.45 | 81.82 |
| 7 Dichlorodifluoromethane/Fr12 | | | | | CAS #: 75-71-8 | | |
| 1.174 | 1.175 (0.256) | 85 | 607032 | 58.4188 | 58.419 | 80.00- 120.00 | 100.00 |
| 1.174 | 1.175 (0.256) | 87 | 197588 | | | 0.00- 82.88 | 32.55 |
| 10 Freon 114 | | | | | CAS #: 76-14-2 | | |
| 1.272 | 1.272 (0.277) | 135 | 299156 | 52.3791 | 52.379 | 80.00- 120.00 | 100.00 |
| 1.272 | 1.272 (0.277) | 137 | 95718 | | | 0.00- 81.67 | 32.00 |
| 13 Chloromethane | | | | | CAS #: 74-87-3 | | |
| 1.314 | 1.314 (0.286) | 50 | 137168 | 59.4406 | 59.440 | 80.00- 120.00 | 100.00 |
| 1.314 | 1.314 (0.286) | 52 | 42314 | | | 0.00- 83.02 | 30.85 |
| 14 Butane | | | | | CAS #: 106-97-8 | | |
| 1.384 | 1.384 (0.302) | 58 | 36120 | 53.9190 | 53.919 | 80.00- 120.00 | 100.00 |
| 1.384 | 1.384 (0.302) | 43 | 285124 | | | 701.77- 801.77 | 789.38 |
| 15 Vinyl Chloride | | | | | CAS #: 75-01-4 | | |
| 1.398 | 1.398 (0.305) | 62 | 193378 | 59.8540 | 59.854 | 80.00- 120.00 | 100.00 |
| 1.398 | 1.398 (0.305) | 64 | 61719 | | | 0.00- 97.20 | 31.92 |
| 18 1,3-Butadiene | | | | | CAS #: 106-99-0 | | |
| 1.426 | 1.426 (0.311) | 54 | 157102 | 57.1437 | 57.144 | 80.00- 120.00 | 100.00 |
| 1.426 | 1.426 (0.311) | 39 | 190398 | | | 75.63- 175.63 | 121.19 |
| 24 Bromomethane | | | | | CAS #: 74-83-9 | | |
| 1.678 | 1.678 (0.365) | 94 | 159589 | 52.3275 | 52.327 | 80.00- 120.00 | 100.00 |
| 1.678 | 1.678 (0.365) | 96 | 149738 | | | 43.76- 143.76 | 93.83 |
| 25 Chloroethane | | | | | CAS #: 75-00-3 | | |
| 1.748 | 1.748 (0.381) | 64 | 105647 | 50.7551 | 50.755 | 80.00- 120.00 | 100.00 |
| 1.748 | 1.748 (0.381) | 66 | 32932 | | | 0.00- 86.90 | 31.17 |
| 1.748 | 1.748 (0.381) | 49 | 32719 | | | 0.00- 78.42 | 30.97 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | CONCENTRATIONS FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 26 Isopentane | | | | | CAS #: 78-78-4 | | |
| 1.790 | 1.790 (0.390) | 43 | 240079 | 55.4859 | 55.486 | 80.00- 120.00 | 100.00 |
| 1.790 | 1.790 (0.390) | 57 | 160634 | | | 20.70- 120.70 | 66.91 |
| 28 Trichlorofluoromethane/Fr11 | | | | | CAS #: 75-69-4 | | |
| 1.944 | 1.944 (0.423) | 101 | 614572 | 55.9916 | 55.992 | 80.00- 120.00 | 100.00 |
| 1.944 | 1.944 (0.423) | 103 | 395521 | | | 14.60- 114.60 | 64.36 |
| 29 Ethanol | | | | | CAS #: 64-17-5 | | |
| 2.163 | 2.163 (0.471) | 45 | 65219 | 47.8374 | 47.837 | 80.00- 120.00 | 100.00 |
| 2.163 | 2.163 (0.471) | 43 | 17587 | | | 0.00- 76.61 | 26.97 |
| 2.156 | 2.163 (0.470) | 46 | 25433 | | | 0.00- 88.16 | 39.00 |
| 33 Freon 113 | | | | | CAS #: 76-13-1 | | |
| 2.407 | 2.407 (0.524) | 151 | 230073 | 46.2462 | 46.246 | 80.00- 120.00 | 100.00 |
| 2.407 | 2.407 (0.524) | 153 | 145330 | | | 13.71- 113.71 | 63.17 |
| 2.407 | 2.407 (0.524) | 101 | 349118 | | | 107.50- 207.50 | 151.74 |
| 34 1,1-Dichloroethene | | | | | CAS #: 75-35-4 | | |
| 2.428 | 2.428 (0.529) | 98 | 100163 | 45.8766 | 45.876 | 80.00- 120.00 | 100.00 |
| 2.428 | 2.428 (0.529) | 96 | 154843 | | | 107.50- 207.50 | 154.59 |
| 2.428 | 2.428 (0.529) | 61 | 339835 | | | 307.50- 407.50 | 339.28 |
| 38 Acetone | | | | | CAS #: 67-64-1 | | |
| 2.543 | 2.543 (0.554) | 58 | 84497 | 48.3273 | 48.327 | 80.00- 120.00 | 100.00 |
| 2.543 | 2.543 (0.554) | 43 | 348435 | | | 327.54- 427.54 | 412.36 |
| 40 Carbon Disulfide | | | | | CAS #: 75-15-0 | | |
| 2.621 | 2.622 (0.571) | 76 | 517554 | 48.6940 | 48.694 | 80.00- 120.00 | 100.00 |
| 41 2-Propanol | | | | | CAS #: 67-63-0 | | |
| 2.679 | 2.679 (0.583) | 45 | 298778 | 49.6677 | 49.668 | 80.00- 120.00 | 100.00 |
| 2.679 | 2.679 (0.583) | 43 | 73775 | | | 0.00- 72.17 | 24.69 |
| 2.686 | 2.679 (0.585) | 59 | 10742 | | | 0.00- 85.00 | 3.60 |
| 44 3-Chloropropene | | | | | CAS #: 107-05-1 | | |
| 2.829 | 2.836 (0.616) | 76 | 79533 | 47.8886 | 47.889 | 80.00- 120.00 | 100.00 |
| 2.829 | 2.829 (0.616) | 41 | 256158 | | | 245.26- 345.26 | 322.08 |
| 46 Methylene Chloride | | | | | CAS #: 75-09-2 | | |
| 3.001 | 3.001 (0.654) | 49 | 228714 | 51.0743 | 51.074 | 80.00- 120.00 | 100.00 |
| 3.001 | 3.001 (0.654) | 84 | 141847 | | | 10.93- 110.93 | 62.02 |
| 3.001 | 3.001 (0.654) | 51 | 67538 | | | 0.00- 80.39 | 29.53 |
| 48 tert-Butyl-Alcohol | | | | | CAS #: 75-65-0 | | |
| 3.137 | 3.137 (0.683) | 59 | 360053 | 48.8613 | 48.861 | 80.00- 120.00 | 100.00 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | CONCENTRATIONS FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 48 tert-Butyl-Alcohol (continued) | | | | | | | |
| 3.137 | 3.137 (0.683) | 41 | 128503 | | | 0.00- 83.59 | 35.69 |
| 3.137 | 3.144 (0.683) | 57 | 39268 | | | 0.00- 57.49 | 10.91 |
| 50 MTBE | | | | | CAS #: 1634-04-4 | | |
| 3.245 | 3.245 (0.707) | 73 | 532301 | 49.7378 | 49.738 | 80.00- 120.00 | 100.00 |
| 3.245 | 3.245 (0.707) | 57 | 124603 | | | 0.00- 73.42 | 23.41 |
| 3.245 | 3.245 (0.707) | 41 | 156623 | | | 0.00- 75.17 | 29.42 |
| 52 trans-1,2-Dichloroethene | | | | | CAS #: 156-60-5 | | |
| 3.259 | 3.259 (0.710) | 98 | 116661 | 51.5007 | 51.501 | 80.00- 120.00 | 100.00 |
| 3.259 | 3.259 (0.710) | 61 | 331530 | | | 243.71- 343.71 | 284.18 |
| 3.259 | 3.259 (0.710) | 96 | 180791 | | | 114.13- 214.13 | 154.97 |
| 58 Hexane | | | | | CAS #: 110-54-3 | | |
| 3.488 | 3.488 (0.760) | 57 | 321006 | 50.5843 | 50.584 | 80.00- 120.00 | 100.00 |
| 3.488 | 3.488 (0.760) | 43 | 216730 | | | 19.39- 119.39 | 67.52 |
| 3.488 | 3.488 (0.760) | 86 | 47950 | | | 0.00- 69.00 | 14.94 |
| 63 Isopropyl ether | | | | | CAS #: 108-20-3 | | |
| 3.775 | 3.775 (0.822) | 45 | 795720 | 54.0250 | 54.025 | 80.00- 120.00 | 100.00 |
| 3.775 | 3.775 (0.822) | 87 | 171236 | | | 0.00- 73.47 | 21.52 |
| 3.775 | 3.775 (0.822) | 59 | 82398 | | | 0.00- 60.91 | 10.36 |
| 64 1,1-Dichloroethane | | | | | CAS #: 75-34-3 | | |
| 3.760 | 3.760 (0.819) | 63 | 400688 | 51.0378 | 51.038 | 80.00- 120.00 | 100.00 |
| 3.760 | 3.760 (0.819) | 65 | 126485 | | | 0.00- 81.72 | 31.57 |
| 65 Vinyl Acetate | | | | | CAS #: 108-05-4 | | |
| 3.810 | 3.811 (0.830) | 86 | 45951 | 51.2162 | 51.216 | 80.00- 120.00 | 100.00 |
| 3.810 | 3.811 (0.830) | 43 | 966520 | | | 1533.22-1633.22 | 2103.37 |
| 72 t-Butylethyl Ether | | | | | CAS #: 637-92-3 | | |
| 4.140 | 4.140 (0.902) | 59 | 705143 | 50.7930 | 50.793 | 80.00- 120.00 | 100.00 |
| 4.140 | 4.140 (0.902) | 87 | 255243 | | | 0.00- 87.49 | 36.20 |
| 4.140 | 4.140 (0.902) | 41 | 166388 | | | 0.00- 70.38 | 23.60 |
| 74 cis-1,2-Dichloroethene | | | | | CAS #: 156-59-2 | | |
| 4.355 | 4.355 (0.948) | 98 | 123739 | 48.1575 | 48.158 | 80.00- 120.00 | 100.00 |
| 4.355 | 4.355 (0.948) | 96 | 194430 | | | 104.11- 204.11 | 157.13 |
| 4.355 | 4.355 (0.948) | 61 | 326390 | | | 218.72- 318.72 | 263.77 |
| 75 2-Butanone | | | | | CAS #: 78-93-3 | | |
| 4.391 | 4.391 (0.956) | 72 | 101648 | 51.4651 | 51.465 | 80.00- 120.00 | 100.00 |
| 4.391 | 4.391 (0.956) | 43 | 500273 | | | 466.90- 566.90 | 492.16 |
| 4.391 | 4.391 (0.956) | 57 | 38327 | | | 29.81- 129.81 | 37.71 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 78 Tetrahydrofuran | | | | | CAS #: 109-99-9 | | |
| 4.591 | 4.591 (1.000) | 42 | 265832 | 52.1998 | 52.200 | 80.00- 120.00 | 100.00 |
| 4.591 | 4.591 (1.000) | 71 | 91106 | | | 0.00- 85.98 | 34.27 |
| 4.591 | 4.591 (1.000) | 72 | 95490 | | | 0.00- 86.75 | 35.92 |
| 80 Chloroform | | | | | CAS #: 67-66-3 | | |
| 4.663 | 4.663 (1.016) | 83 | 490473 | 52.3683 | 52.368 | 80.00- 120.00 | 100.00 |
| 4.663 | 4.663 (1.016) | 85 | 320241 | | | 14.76- 114.76 | 65.29 |
| 83 Cyclohexane | | | | | CAS #: 110-82-7 | | |
| 4.770 | 4.770 (1.039) | 84 | 277254 | 48.3754 | 48.375 | 80.00- 120.00 | 100.00 |
| 4.770 | 4.770 (1.039) | 56 | 363031 | | | 80.40- 180.40 | 130.94 |
| 4.770 | 4.770 (1.039) | 41 | 228543 | | | 35.84- 135.84 | 82.43 |
| 85 1,1,1-Trichloroethane | | | | | CAS #: 71-55-6 | | |
| 4.785 | 4.792 (1.042) | 97 | 504789 | 53.0716 | 53.072 | 80.00- 120.00 | 100.00 |
| 4.785 | 4.792 (1.042) | 99 | 321758 | | | 13.76- 113.76 | 63.74 |
| 86 Carbon Tetrachloride | | | | | CAS #: 56-23-5 | | |
| 4.906 | 4.907 (1.069) | 119 | 477262 | 56.5145 | 56.514 | 80.00- 120.00 | 100.00 |
| 4.906 | 4.907 (1.069) | 117 | 491456 | | | 54.03- 154.03 | 102.97 |
| 89 2,2,4-Trimethylpentane | | | | | CAS #: 540-84-1 | | |
| 5.128 | 5.136 (1.117) | 57 | 1197592 | 50.5083 | 50.508 | 80.00- 120.00 | 100.00 |
| 5.128 | 5.129 (1.117) | 56 | 366773 | | | 0.00- 81.50 | 30.63 |
| 5.128 | 5.129 (1.117) | 41 | 351225 | | | 0.00- 77.21 | 29.33 |
| 90 Benzene | | | | | CAS #: 71-43-2 | | |
| 5.121 | 5.121 (0.927) | 78 | 651018 | 48.2158 | 48.216 | 80.00- 120.00 | 100.00 |
| 5.121 | 5.121 (0.927) | 77 | 155401 | | | 0.00- 73.17 | 23.87 |
| 93 tert-amyl-Methyl Ether | | | | | CAS #: 994-05-8 | | |
| 5.222 | 5.222 (1.137) | 73 | 609341 | 48.3325 | 48.332 | 80.00- 120.00 | 100.00 |
| 5.222 | 5.222 (1.137) | 87 | 145513 | | | 0.00- 74.24 | 23.88 |
| 5.222 | 5.222 (1.137) | 55 | 245711 | | | 0.00- 83.70 | 40.32 |
| 94 1,2-Dichloroethane | | | | | CAS #: 107-06-2 | | |
| 5.214 | 5.215 (0.944) | 62 | 408002 | 55.9471 | 55.947 | 80.00- 120.00 | 100.00 |
| 5.214 | 5.215 (0.944) | 64 | 133492 | | | 0.00- 83.10 | 32.72 |
| 95 Heptane | | | | | CAS #: 142-82-5 | | |
| 5.315 | 5.315 (0.962) | 71 | 245356 | 49.7890 | 49.789 | 80.00- 120.00 | 100.00 |
| 5.315 | 5.315 (0.962) | 43 | 499513 | | | 146.63- 246.63 | 203.59 |
| 5.315 | 5.315 (0.962) | 57 | 264748 | | | 54.79- 154.79 | 107.90 |
| 104 Trichloroethene | | | | | CAS #: 79-01-6 | | |
| 5.709 | 5.709 (1.034) | 95 | 312807 | 51.2258 | 51.226 | 80.00- 120.00 | 100.00 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 104 Trichloroethene (continued) | | | | | | | |
| 5.709 | 5.709 (1.034) | 130 | 270094 | | | 35.57- 135.57 | 86.35 |
| 5.709 | 5.709 (1.034) | 97 | 202936 | | | 14.32- 114.32 | 64.88 |
| 105 Methyl Cyclohexane | | | | | CAS #: 108-87-2 | | |
| 5.816 | 5.816 (1.267) | 83 | 417303 | 48.9166 | 48.917 | 80.00- 120.00 | 100.00 |
| 5.816 | 5.816 (1.267) | 98 | 196117 | | | 0.00- 96.57 | 47.00 |
| 5.816 | 5.816 (1.267) | 55 | 396283 | | | 39.57- 139.57 | 94.96 |
| 106 1,2-Dichloropropane | | | | | CAS #: 78-87-5 | | |
| 5.945 | 5.945 (1.077) | 63 | 282800 | 50.0186 | 50.019 | 80.00- 120.00 | 100.00 |
| 5.945 | 5.945 (1.077) | 62 | 201876 | | | 21.61- 121.61 | 71.38 |
| 5.945 | 5.945 (1.077) | 41 | 202116 | | | 23.81- 123.81 | 71.47 |
| 107 1,4-Dioxane | | | | | CAS #: 123-91-1 | | |
| 6.045 | 6.045 (1.095) | 88 | 150015 | 46.7198 | 46.720 | 80.00- 120.00 | 100.00 |
| 6.045 | 6.045 (1.095) | 58 | 116369 | | | 29.09- 129.09 | 77.57 |
| 6.045 | 6.045 (1.095) | 57 | 39329 | | | 0.00- 76.30 | 26.22 |
| 108 Bromodichloromethane | | | | | CAS #: 75-27-4 | | |
| 6.181 | 6.182 (1.119) | 83 | 594996 | 54.2874 | 54.287 | 80.00- 120.00 | 100.00 |
| 6.181 | 6.182 (1.119) | 85 | 379945 | | | 13.66- 113.66 | 63.86 |
| 110 cis-1,3-Dichloropropene | | | | | CAS #: 10061-01-5 | | |
| 6.568 | 6.568 (1.189) | 75 | 433363 | 50.7702 | 50.770 | 80.00- 120.00 | 100.00 |
| 6.568 | 6.568 (1.189) | 77 | 135297 | | | 0.00- 81.49 | 31.22 |
| 6.568 | 6.568 (1.189) | 39 | 260959 | | | 11.85- 111.85 | 60.22 |
| 112 4-Methyl-2-pentanone | | | | | CAS #: 108-10-1 | | |
| 6.690 | 6.690 (1.211) | 58 | 252656 | 50.2041 | 50.204 | 80.00- 120.00 | 100.00 |
| 6.690 | 6.690 (1.211) | 43 | 713726 | | | 224.75- 324.75 | 282.49 |
| 6.690 | 6.697 (1.211) | 85 | 98881 | | | 0.00- 89.27 | 39.14 |
| 115 Toluene | | | | | CAS #: 108-88-3 | | |
| 6.805 | 6.805 (1.232) | 91 | 875515 | 48.6555 | 48.656 | 80.00- 120.00 | 100.00 |
| 6.805 | 6.805 (1.232) | 92 | 517226 | | | 9.03- 109.03 | 59.08 |
| 118 trans-1,3-Dichloropropene | | | | | CAS #: 10061-02-6 | | |
| 7.055 | 7.048 (0.886) | 75 | 482219 | 54.5991 | 54.599 | 80.00- 120.00 | 100.00 |
| 7.055 | 7.055 (0.886) | 77 | 151213 | | | 0.00- 81.20 | 31.36 |
| 7.048 | 7.048 (0.885) | 39 | 267562 | | | 5.76- 105.76 | 55.49 |
| 120 1,1,2-Trichloroethane | | | | | CAS #: 79-00-5 | | |
| 7.199 | 7.199 (0.904) | 97 | 325450 | 52.7980 | 52.798 | 80.00- 120.00 | 100.00 |
| 7.199 | 7.199 (0.904) | 99 | 202555 | | | 11.59- 111.59 | 62.24 |
| 7.199 | 7.199 (0.904) | 83 | 290232 | | | 39.15- 139.15 | 89.18 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 122 Tetrachloroethene | | | | | CAS #: 127-18-4 | | |
| 7.242 | 7.235 (0.909) | 166 | 354769 | 51.3605 | 51.360 | 80.00- 120.00 | 100.00 |
| 7.242 | 7.235 (0.909) | 129 | 300550 | | | 34.21- 134.21 | 84.72 |
| 7.242 | 7.235 (0.909) | 131 | 285530 | | | 29.77- 129.77 | 80.48 |
| 125 2-Hexanone | | | | | CAS #: 591-78-6 | | |
| 7.385 | 7.385 (0.927) | 58 | 358026 | 50.4818 | 50.482 | 80.00- 120.00 | 100.00 |
| 7.385 | 7.385 (0.927) | 43 | 738920 | | | 162.36- 262.36 | 206.39 |
| 7.385 | 7.385 (0.927) | 100 | 64587 | | | 0.00- 68.42 | 18.04 |
| 128 Dibromochloromethane | | | | | CAS #: 124-48-1 | | |
| 7.507 | 7.500 (0.942) | 129 | 539855 | 55.5936 | 55.594 | 80.00- 120.00 | 100.00 |
| 7.507 | 7.500 (0.942) | 127 | 417031 | | | 27.80- 127.80 | 77.25 |
| 130 1,2-Dibromoethane | | | | | CAS #: 106-93-4 | | |
| 7.607 | 7.607 (0.955) | 107 | 532422 | 55.3762 | 55.376 | 80.00- 120.00 | 100.00 |
| 7.607 | 7.607 (0.955) | 109 | 498444 | | | 43.87- 143.87 | 93.62 |
| 135 Chlorobenzene | | | | | CAS #: 108-90-7 | | |
| 7.994 | 7.994 (1.004) | 112 | 752929 | 50.7272 | 50.727 | 80.00- 120.00 | 100.00 |
| 7.994 | 7.994 (1.004) | 114 | 239861 | | | 0.00- 82.35 | 31.86 |
| 7.994 | 7.987 (1.004) | 77 | 507726 | | | 17.71- 117.71 | 67.43 |
| 137 Ethyl Benzene | | | | | CAS #: 100-41-4 | | |
| 8.058 | 8.051 (1.012) | 106 | 404307 | 53.7569 | 53.757 | 80.00- 120.00 | 100.00 |
| 8.051 | 8.051 (1.011) | 91 | 1355551 | | | 290.13- 390.13 | 335.28 |
| 140 m,p-Xylene | | | | | CAS #: 108-38-3 | | |
| 8.151 | 8.151 (1.023) | 106 | 515519 | 53.1927 | 53.193 | 80.00- 120.00 | 100.00 |
| 8.151 | 8.151 (1.023) | 91 | 1075842 | | | 156.72- 256.72 | 208.69 |
| 141 o-Xylene | | | | | CAS #: 95-47-6 | | |
| 8.488 | 8.481 (1.066) | 106 | 480286 | 52.3115 | 52.311 | 80.00- 120.00 | 100.00 |
| 8.488 | 8.481 (1.066) | 91 | 1061171 | | | 173.09- 273.09 | 220.95 |
| 142 Styrene | | | | | CAS #: 100-42-5 | | |
| 8.509 | 8.502 (1.068) | 104 | 775672 | 51.5350 | 51.535 | 80.00- 120.00 | 100.00 |
| 8.509 | 8.502 (1.068) | 78 | 437637 | | | 5.77- 105.77 | 56.42 |
| 145 Bromoform | | | | | CAS #: 75-25-2 | | |
| 8.681 | 8.681 (1.090) | 173 | 446280 | 56.2482 | 56.248 | 80.00- 120.00 | 100.00 |
| 8.681 | 8.681 (1.090) | 171 | 232315 | | | 1.63- 101.63 | 52.06 |
| 147 Cumene | | | | | CAS #: 98-82-8 | | |
| 8.774 | 8.775 (1.102) | 105 | 1449415 | 51.9330 | 51.933 | 80.00- 120.00 | 100.00 |
| 8.774 | 8.775 (1.102) | 120 | 365711 | | | 0.00- 75.25 | 25.23 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 147 Cumene (continued) | | | | | | | |
| 8.774 | 8.775 (1.102) | 51 | 175971 | | | 0.00- 62.26 | 12.14 |
| 151 1,1,2,2-Tetrachloroethane | | | | | CAS #: 79-34-5 | | |
| 9.082 | 9.083 (1.140) | 83 | 839142 | 54.5622 | 54.562 | 80.00- 120.00 | 100.00 |
| 9.082 | 9.083 (1.140) | 85 | 537049 | | | 13.89- 113.89 | 64.00 |
| 153 Propylbenzene | | | | | CAS #: 103-65-1 | | |
| 9.118 | 9.111 (1.145) | 91 | 1855049 | 52.3462 | 52.346 | 80.00- 120.00 | 100.00 |
| 9.118 | 9.111 (1.145) | 120 | 390086 | | | 0.00- 71.30 | 21.03 |
| 9.118 | 9.111 (1.145) | 105 | 64921 | | | 0.00- 68.74 | 3.50 |
| 155 4-Ethyltoluene | | | | | CAS #: 622-96-8 | | |
| 9.211 | 9.212 (1.156) | 120 | 447451 | 53.6413 | 53.641 | 80.00- 120.00 | 100.00 |
| 9.211 | 9.212 (1.156) | 105 | 1570119 | | | 303.26- 403.26 | 350.90 |
| 156 1,3,5-Trimethylbenzene | | | | | CAS #: 108-67-8 | | |
| 9.262 | 9.262 (1.163) | 120 | 609168 | 54.2843 | 54.284 | 80.00- 120.00 | 100.00 |
| 9.262 | 9.262 (1.163) | 105 | 1276470 | | | 160.53- 260.53 | 209.54 |
| 162 1,2,4-Trimethylbenzene | | | | | CAS #: 95-63-6 | | |
| 9.577 | 9.577 (1.202) | 120 | 554128 | 53.0768 | 53.077 | 80.00- 120.00 | 100.00 |
| 9.577 | 9.577 (1.202) | 105 | 1263292 | | | 174.98- 274.98 | 227.98 |
| 165 1,3-Dichlorobenzene | | | | | CAS #: 541-73-1 | | |
| 9.842 | 9.835 (1.236) | 146 | 751864 | 54.0416 | 54.042 | 80.00- 120.00 | 100.00 |
| 9.842 | 9.835 (1.236) | 148 | 473112 | | | 13.36- 113.36 | 62.93 |
| 9.842 | 9.835 (1.236) | 111 | 337962 | | | 0.00- 95.45 | 44.95 |
| 166 1,4-Dichlorobenzene | | | | | CAS #: 106-46-7 | | |
| 9.921 | 9.921 (1.246) | 146 | 768044 | 54.1047 | 54.105 | 80.00- 120.00 | 100.00 |
| 9.921 | 9.921 (1.246) | 148 | 488964 | | | 13.03- 113.03 | 63.66 |
| 9.921 | 9.914 (1.246) | 111 | 329676 | | | 0.00- 93.63 | 42.92 |
| 168 alpha-Chlorotoluene | | | | | CAS #: 100-44-7 | | |
| 10.035 | 10.035 (1.260) | 91 | 780804 | 40.6960 | 40.696 | 80.00- 120.00 | 100.00 |
| 10.035 | 10.035 (1.260) | 126 | 140155 | | | 0.00- 67.76 | 17.95 |
| 171 1,2-Dichlorobenzene | | | | | CAS #: 95-50-1 | | |
| 10.236 | 10.229 (1.285) | 146 | 708742 | 55.2915 | 55.292 | 80.00- 120.00 | 100.00 |
| 10.236 | 10.229 (1.285) | 148 | 446728 | | | 13.36- 113.36 | 63.03 |
| 10.229 | 10.229 (1.284) | 111 | 330355 | | | 0.00- 96.24 | 46.61 |
| 174 1,2,4-Trichlorobenzene | | | | | CAS #: 120-82-1 | | |
| 11.547 | 11.547 (1.450) | 180 | 506617 | 50.9974 | 50.997 | 80.00- 120.00 | 100.00 |
| 11.547 | 11.547 (1.450) | 182 | 479911 | | | 44.33- 144.33 | 94.73 |

| RT | EXP RT (REL RT) | MASS | RESPONSE | CONCENTRATIONS ON-COL ( PPBV) | FINAL ( PPBV) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 175 Hexachlorobutadiene | | | | | CAS #: 87-68-3 | | |
| 11.640 | 11.640 (1.461) | 225 | 361174 | 53.9520 | 53.952 | 80.00- 120.00 | 100.00 |
| 11.640 | 11.640 (1.461) | 223 | 229687 | | | 14.17- 114.17 | 63.59 |
| 176 Naphthalene | | | | | CAS #: 91-20-3 | | |
| 11.769 | 11.769 (1.478) | 128 | 1201129 | 45.8885 | 45.888 | 80.00- 120.00 | 100.00 |
| 11.769 | 11.769 (1.478) | 127 | 154870 | | | 0.00- 62.93 | 12.89 |

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdd.i
Lab File ID: d041303.d
Lab Smp Id: LCS
Analysis Type: VOA
Quant Type: ISTD
Operator: ll
Method File: /chem/msdd.i/13apr10.b/d10q0331a.m
Misc Info: 50ppbv(200ppbv)

Calibration Date: 13-APR-2010
Calibration Time: 07:41
Client Smp ID: LCS
Level: LOW
Sample Type: AIR

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 5

| | | AREA LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 79 Bromochloromethan | 78422 | 47053 | 109791 | 82128 | 4.73 |
| 100 1,4-Difluorobenze | 332647 | 199588 | 465706 | 352919 | 6.09 |
| 134 Chlorobenzene-d5 | 374720 | 224832 | 524608 | 398656 | 6.39 |

| | | RT LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 79 Bromochloromethan | 4.59 | 4.26 | 4.92 | 4.59 | 0.00 |
| 100 1,4-Difluorobenze | 5.52 | 5.19 | 5.85 | 5.52 | 0.00 |
| 134 Chlorobenzene-d5 | 7.97 | 7.64 | 8.30 | 7.97 | 0.00 |

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msdd.i/13apr10.b/d041303.d

Date : 13-APR-2010 08:48

Client ID: LCS

Sample Info: 50ml #1911-277

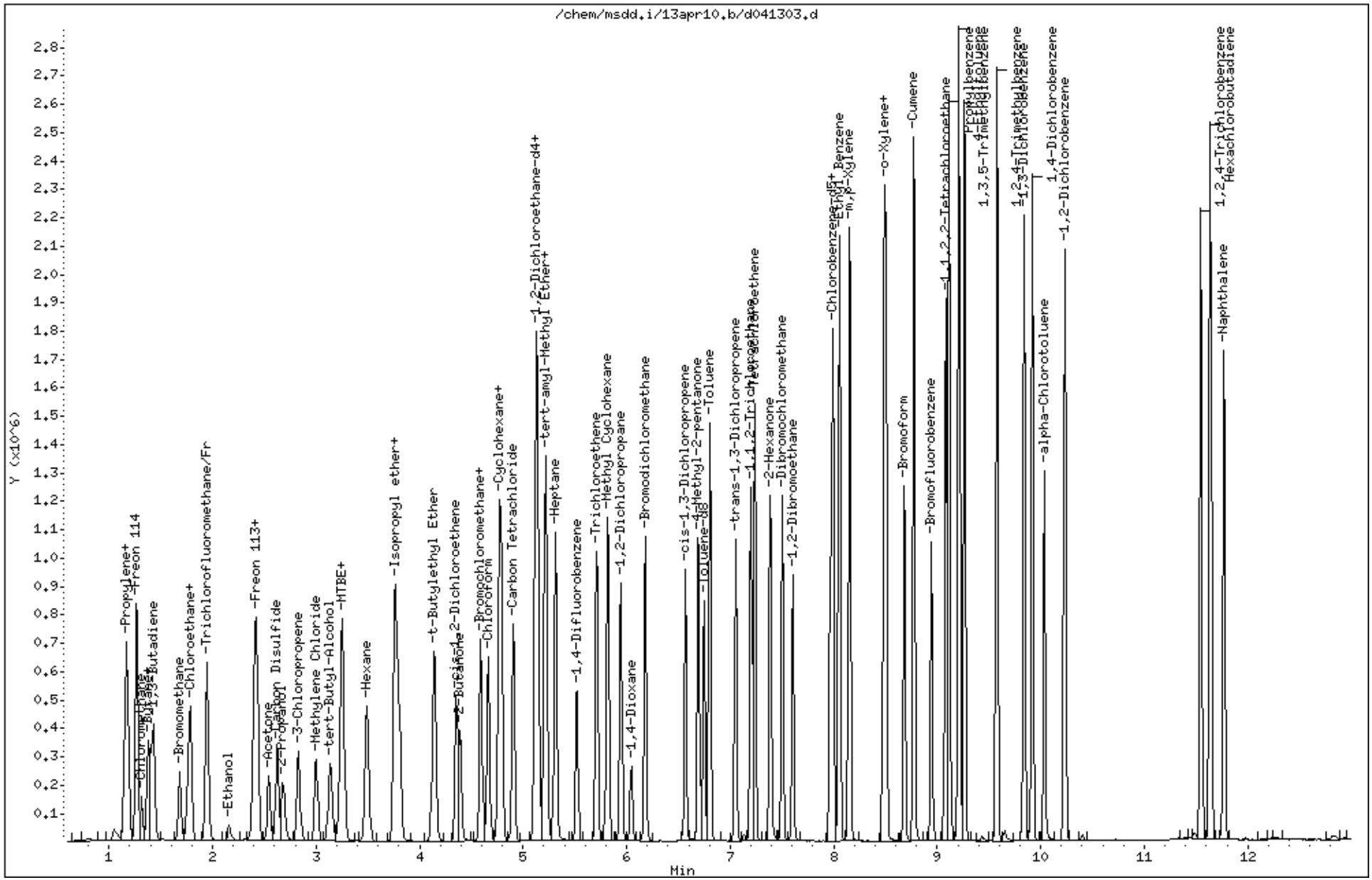
Column phase: RTx-624

Instrument: msdd.i

Operator: 11

Column diameter: 0.53





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# MSD-D

**Logbook #:** 1959

| m/z | ION ABUNDANCE CRITERIA | % REL. ABUNDANCE |
|---|---|---|
| 50 | 15.0 – 40.0% of mass 95 | 22.26 |
| 75 | 30.0 – 60.0% of mass 95 | 53.39 |
| 95 | Base peak, 100.00% relative abundance | 100.00 |
| 96 | 5.0 – 9.0% of mass 95 | 6.53 |
| 173 | Less than 2.0% of mass 174 | 0.47 ( 0.75 )[1] |
| 174 | 50.0 – 100% of mass 95 | 62.31 |
| 175 | 5.0 – 9.0% of mass 174 | 4.66 ( 7.47 )[1] |
| 176 | Greater than 95.0% but less than 101.0% of mass 174 | 59.29 ( 95.16 )[1] |
| 177 | 5.0 – 9.0% of mass 176 | 3.82 ( 6.44 )[2] |

[1] - value in parenthesis is % mass 174 [2] - value in parenthesis is % mass 176

BFB Injection Date: 4/13/10
BFB Injection Time: 0716
BFB File ID: D041301
Tekmar Purge Flow: ——
Vacuum: 4/13/10

| | | |
|---|---|---|
| IS/S Std.#: | 1911-322 | Exp. Date: 6/30/10 |
| BCM | 78422 | |
| 1,4-DFB | 332647 | |
| CB-d5 | 374720 | |

*Verified CCV IS vs ICAL mid-point (- 40%D)* LL (initials)

**Verify 176/174 m/z Ratio:** 98408/103410x100 = 95.16%

**NOAH Cart #:** NA **File #:** NA

**Calculation Check:**

$$\text{ppbv of compound} = \frac{\text{Area}_{\text{Sample}}}{\text{Area}_{\text{IS}}} \times \frac{\text{Conc.}_{\text{IS}}}{\text{RRF}} = \frac{(\ 434759\ )}{(\ 332647\ )} \times \frac{(\ 25.00\ )}{(\ 1.24004\ )} = 26.349$$

| | |
|---|---|
| File ID: | D041302 |
| Compound: | Toluene d8 |
| Initials: | LL |

*Reported Result* 26.349

**Method:** D100331A.m

| | Use | File # | Sample / Client Name | Can # | Pressure | Amt Loaded | DF | Loaded by Init. | Date Analyzed | Time Analyzed | Reviewed by Init. | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | ✓ | D041301 | BFB Tune check | 1911-322 | 36ng | 1.0mL | 1.00 | LL | 4/13/10 | 0716 | LL / [illegible] | BFB Tune check |
| 2 | ✓ | 02 | CCV-1 (200ppbv) | 1911-87 | 50ppbv | 50mL | | | | 0741 | [illegible] | CCV exp 6/29/10 (out of cal) |
| 3 | ✓ | 03 | LCS-1 (200ppbv) | 1911-277 | ↓ | ↓ | | | | 0848 | [illegible] | LCS exp 6/10/10 (out of cal) |
| 4 | X | 04 | System Blank | 24217 | NA | 200mL | | | | 1005 | [illegible] | System Blank |
| 5 | X | 05 | System Blank | ↓ | ↓ | ↓ | | | | 1024 | [illegible] | System Blank |
| 6 | ✓ | 06 | Lab Blank | ↓ | ↓ | ↓ | ↓ | | | 1054 | [illegible] | Lab Blank is2T 2i |
| 7 | ✓ | 07 | 1004138A-01A | 31752 | 40"Hg>15PSI | ↓ | 2.33 | | | 1142 | [illegible] | |
| 8 | ✓ | 08 | ↓ -02A | 23534 | ↓ | 200mL | ↓ | ↓ | ↓ | 1201 | [illegible] | |

Heidi Forn
Signature

4/13/10
Date

@ Air Toxics Ltd.

# MSD-D

Logbook #: 1959

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9 | ✓ | D04\|309 | 100413BA-03A | 20774 | 3.5"Hg-5psi | 200mL | 2.31 | LL | 4\|13\|10 | 1225 | LL/ | | | |
| 10 | ✓ | 10 | ↓ -04A | 36549 | 3.0"Hg-5psi | ↓ | 2.24 | ↓ | ↓ | 1254 | ↓ | | | |
| 11 | ✓ | 11 | 100413BA-06A | 4241 | 9.5"Hg-5psi | | 1.96 | | | 1316 | | | | |
| 12 | ✓ | 12 | -07A | 12715 | 6.5"Hg-5psi | | 1.71 | | | 1338 | | | | |
| 13 | ✓ | 13 | -07AA | ↓ | ↓ | | ↓ | | | 1350 | | | | Dup-07A |
| 14 | ✓ | 14 | ↓ -08A | 5685 | 9.0"Hg-5psi | ↓ | 1.91 | ↓ | | 1422 | ↓ | | | |
| 15 | ✓ | 15 | 100412A-08A | 12716 | 5"Hg-5psi | 200mL | 1.61 | RA | | 1503 | RA/ | | | |
| 16 | ✓ | 16 | 100411BB-21A | 35641 | 3.6"Hg-5psi | 10mL | 96.0 | RA | | 1521 | RA/ | | | |
| 17 | X | 17 | System Blank | 24217 | Humid | 200mL | 1.00 | RA | | 1541 | RA - | | | |
| 18 | ✓ | 18 | ↓ | ↓ | ↓ | ↓ | ↓ | RA | | 1601 | RA/ | | | CS2+RL |
| 19 | ✓ | 19 | 100418SA-10A | 9470 | 1.5"Hg-5psi 14"Hg-5psi | 200mL | 8.07 | RA | | 1640 | RA/ | | | |
| 20 | ✓ | 20 | 100411BB-22A | 26525 | 2"Hg-5psi | 15mL | 28.5 | RA | | 1700 | RA/ | | | DF=28.5 |
| 21 | X | 21 | System Blank | 24217 | Humid | 200mL | 1.00 | RA | | 1728 | RA/ - | | | |
| 22 | X | 22 | ↓ | ↓ | ↓ | ↓ | ↓ | RA | | 1748 | RA - | | | |
| 23 | ✓ | 23 | ↓ | ↓ | ↓ | ↓ | ↓ | RA | | 1832 | RA/ | | | |
| 24 | ✓ | 24 | 100412B-01A | 1521 | 6"Hg-5psi | 200mL | 1.68 | RA | | 1858 | RA/ | | | |
| 25 | ✓ | 25 | ↓ -02A | 34259 | 6.4"Hg-5psi | 200mL | 1.70 | RA | | 1920 | RA/ | | | |
| 26 | ✓ | 26 | 100406A1-01A | 34875 | 4.5"Hg-5psi | 200mL | 1.58 | RA | | 1949 | RA/ | | | |
| 27 | ✓ | 27 | -02A | 34883 | ↓ | ↓ | ↓ | RA | | 2055 | RA/ | | | |
| 28 | ✓ | 28 | -03AA | 34885 | ↓ | ↓ | ↓ | RA | | 2115 | RA/ | | | re @ 150mL |
| 29 | X | 29 | -04A | 34869 | ↓ | ↓ | ↓ | RA | | 2135 | RA - | | | re 150mL |
| 30 | ✓ | 30 | -05A | 25673 | 6"Hg-5psi | 200mL | 1.68 | RA | | 2155 | RA/ | | | |
| 31 | ✓ | 31 | ↓ -05A | 34885 | 4.5"Hg-5psi | 150mL | 2.11 | RA | ↓ | 2212 | RA/ | | | |

**Comments:**

Signature

4\|13\|10
Date

Air Toxics Ltd.

Data file : /var/chem/msdd.i/31mar10a.b/d033108.d
Lab Smp Id: BFB Client Smp ID: BFB
Inj Date : 31-MAR-2010 12:09
Operator : kjj Inst ID: msdd.i
Smp Info : 1.0ml #1911-322;BFB;BFB
Misc Info : 36ng
Comment :
Method : /var/chem/msdd.i/31mar10a.b/bfb30.m
Meth Date : 31-Mar-2010 12:20 Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 1 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: WATER
Processing Host: eeyore

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.00000 | Dilution Factor |
| Uf | 1.00000 | ng unit correction factor |
| Vf | 1.00000 | Volumetric correction factor |
| Vi | 1.00000 | Injection Volume |

Cpnd Variable Local Compound Variable

| | | | | | CONCENTRATIONS ON-COL | FINAL | | |
|---|---|---|---|---|---|---|---|---|
| RT | EXP RT | DLT RT | MASS | RESPONSE | ( ug/L) | ( ug/L) | TARGET RANGE | RATIO |
| 1 bfb | | | | | | CAS #: 460-00-4 | | |
| 8.945 | 9.235 | -0.290 | 95 | 269056 | | | 100.00- 100.00 | 100.00 |
| 8.945 | 9.235 | -0.290 | 50 | 58240 | | | 15.00- 40.00 | 21.65 |
| 8.945 | 9.235 | -0.290 | 75 | 140648 | | | 30.00- 60.00 | 52.27 |
| 8.945 | 9.235 | -0.290 | 96 | 18704 | | | 5.00- 9.00 | 6.95 |
| 8.945 | 9.235 | -0.290 | 173 | 1136 | | | 0.00- 1.99 | 0.72 |
| 8.945 | 9.235 | -0.290 | 174 | 157893 | | | 50.01- 100.00 | 58.68 |
| 8.945 | 9.235 | -0.290 | 175 | 12708 | | | 5.00- 9.00 | 8.05 |
| 8.945 | 9.235 | -0.290 | 176 | 151578 | | | 95.01- 100.99 | 96.00 |
| 8.945 | 9.235 | -0.290 | 177 | 10242 | | | 5.00- 9.00 | 6.76 |

Data File: /var/chem/msdd.i/31mar10a.b/d033108.d



Date : 31-MAR-2010 12:09

Client ID: BFB

Instrument: msdd.i

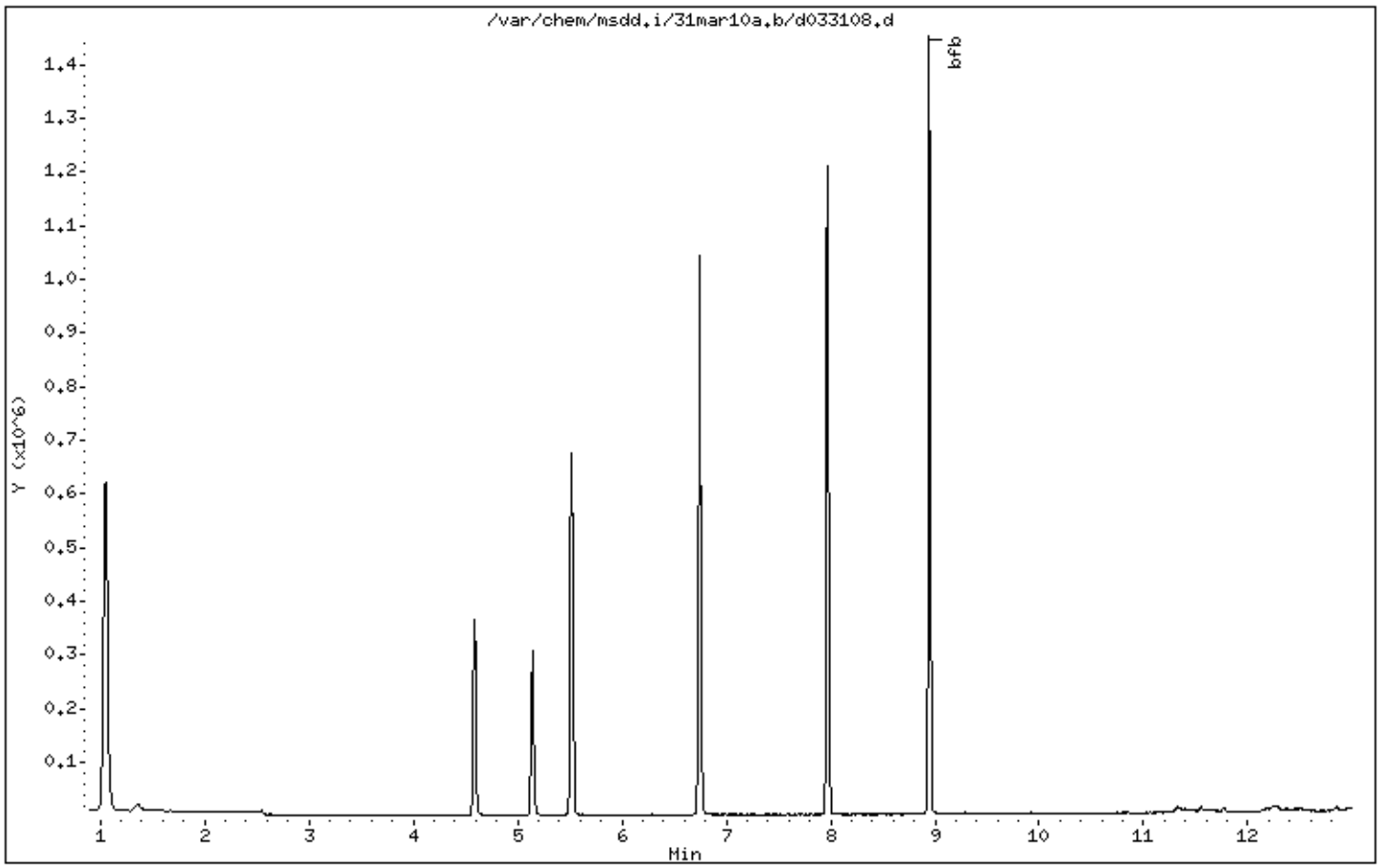
Sample Info: 1.0ml #1911-322;BFB;BFB

Volume Injected (uL): 1.0

Operator: kjj

Column phase:

Column diameter: 2.00



Data File: /var/chem/msdd.i/31mar10a.b/d033108.d

Date : 31-MAR-2010 12:09

Client ID: BFB

Instrument: msdd.i

Sample Info: 1.0ml #1911-322;BFB;BFB

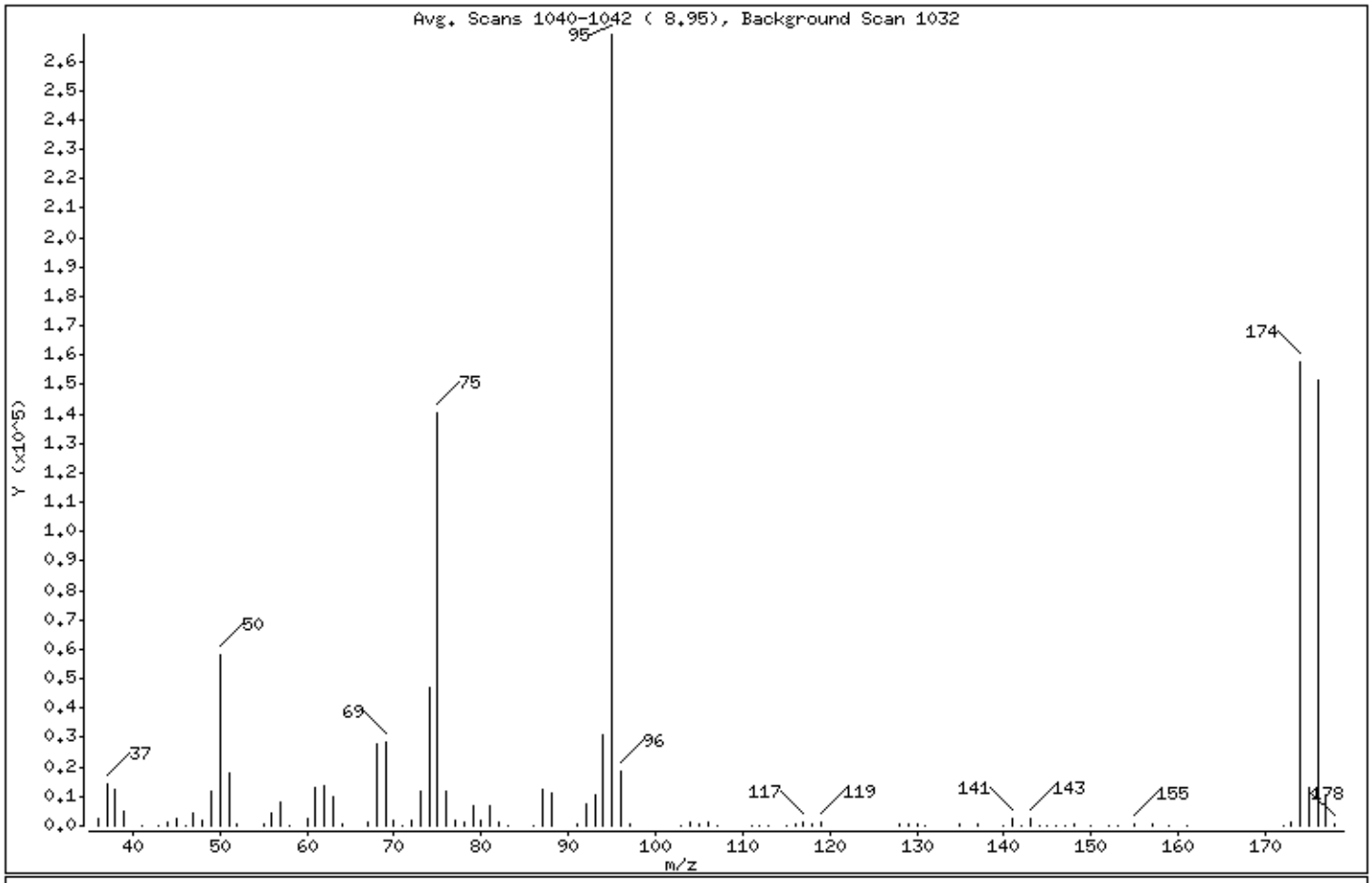
Volume Injected (uL): 1.0

Operator: kjj

Column phase:

Column diameter: 2.00

1 bfb




| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 95 | Base Peak, 100% relative abundance | 100.00 |
| 50 | 15.00 - 40.00% of mass 95 | 21.65 |
| 75 | 30.00 - 60.00% of mass 95 | 52.27 |
| 96 | 5.00 - 9.00% of mass 95 | 6.95 |
| 173 | Less than 1.99% of mass 174 | 0.42 ( 0.72) |
| 174 | 50.01 - 100.00% of mass 95 | 58.68 |
| 175 | 5.00 - 9.00% of mass 174 | 4.72 ( 8.05) |
| 176 | 95.01 - 100.99% of mass 174 | 56.34 ( 96.00) |
| 177 | 5.00 - 9.00% of mass 176 | 3.81 ( 6.76) |

Data File: /var/chem/msdd.i/31mar10a.b/d033108.d

Date : 31-MAR-2010 12:09

Client ID: BFB

Instrument: msdd.i

Sample Info: 1.0ml #1911-322;BFB;BFB

Volume Injected (uL): 1.0

Operator: kjj

Column phase:

Column diameter: 2.00

Data File: d033108.d
Spectrum: Avg. Scans 1040-1042 ( 8.95), Background Scan 1032
Location of Maximum: 95.00
Number of points: 93

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 36.00 | 2519 | 67.00 | 932 | 95.00 | 269056 | 142.00 | 73 |
| 37.00 | 14188 | 68.00 | 27832 | 96.00 | 18704 | 143.00 | 2460 |
| 38.00 | 12370 | 69.00 | 28408 | 97.00 | 548 | 144.00 | 157 |
| 39.00 | 4815 | 70.00 | 2089 | 103.00 | 66 | 145.00 | 196 |
| 41.00 | 9 | 71.00 | 62 | 104.00 | 1007 | 146.00 | 240 |
| 43.00 | 20 | 72.00 | 1594 | 105.00 | 376 | 147.00 | 105 |
| 44.00 | 1427 | 73.00 | 11601 | 106.00 | 985 | 148.00 | 535 |
| 45.00 | 2607 | 74.00 | 47120 | 107.00 | 223 | 150.00 | 224 |
| 46.00 | 70 | 75.00 | 140608 | 111.00 | 112 | 152.00 | 51 |
| 47.00 | 4031 | 76.00 | 12023 | 112.00 | 116 | 153.00 | 50 |
| 48.00 | 1842 | 77.00 | 1611 | 113.00 | 249 | 155.00 | 460 |
| 49.00 | 11992 | 78.00 | 1102 | 115.00 | 282 | 157.00 | 355 |
| 50.00 | 58240 | 79.00 | 6943 | 116.00 | 836 | 159.00 | 258 |
| 51.00 | 18080 | 80.00 | 1636 | 117.00 | 1501 | 161.00 | 228 |
| 52.00 | 846 | 81.00 | 6960 | 118.00 | 892 | 172.00 | 52 |
| 55.00 | 798 | 82.00 | 1348 | 119.00 | 1171 | 173.00 | 1136 |
| 56.00 | 4279 | 83.00 | 52 | 128.00 | 801 | 174.00 | 157888 |
| 57.00 | 7854 | 86.00 | 262 | 129.00 | 403 | 175.00 | 12708 |
| 58.00 | 301 | 87.00 | 12086 | 130.00 | 763 | 176.00 | 151552 |
| 60.00 | 2560 | 88.00 | 11007 | 131.00 | 230 | 177.00 | 10242 |
| 61.00 | 13237 | 91.00 | 871 | 135.00 | 416 | 178.00 | 318 |
| 62.00 | 13303 | 92.00 | 7409 | 137.00 | 404 | | |
| 63.00 | 9812 | 93.00 | 10764 | 140.00 | 150 | | |
| 64.00 | 903 | 94.00 | 31208 | 141.00 | 2519 | | |

Air Toxics Ltd.

Data file : /var/chem/msdd.i/13apr10.b/d041301.d
Lab Smp Id: BFB Client Smp ID: BFB
Inj Date : 13-APR-2010 07:16
Operator : ll Inst ID: msdd.i
Smp Info : 50ml #1911-322; BFB Tune Check; BFB Tune Chec
Misc Info : 36ng
Comment :
Method : /var/chem/msdd.i/13apr10.b/bfb30.m
Meth Date : 13-Apr-2010 07:27 Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 1 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: WATER
Processing Host: eeyore

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.00000 | Dilution Factor |
| Uf | 1.00000 | ng unit correction factor |
| Vf | 1.00000 | Volumetric correction factor |
| Vi | 1.00000 | Injection Volume |

Cpnd Variable Local Compound Variable

| | | | | | CONCENTRATIONS ON-COL | CONCENTRATIONS FINAL | | |
|---|---|---|---|---|---|---|---|---|
| RT | EXP RT | DLT RT | MASS | RESPONSE | ( ug/L) | ( ug/L) | TARGET RANGE | RATIO |
| 1 bfb | | | | | | CAS #: 460-00-4 | | |
| 8.945 | 9.235 | -0.290 | 95 | 165965 | | | 100.00- 100.00 | 100.00 |
| 8.945 | 9.235 | -0.290 | 50 | 36944 | | | 15.00- 40.00 | 22.26 |
| 8.945 | 9.235 | -0.290 | 75 | 88613 | | | 30.00- 60.00 | 53.39 |
| 8.945 | 9.235 | -0.290 | 96 | 10844 | | | 5.00- 9.00 | 6.53 |
| 8.945 | 9.235 | -0.290 | 173 | 779 | | | 0.00- 1.99 | 0.75 |
| 8.945 | 9.235 | -0.290 | 174 | 103410 | | | 50.01- 100.00 | 62.31 |
| 8.945 | 9.235 | -0.290 | 175 | 7726 | | | 5.00- 9.00 | 7.47 |
| 8.945 | 9.235 | -0.290 | 176 | 98408 | | | 95.01- 100.99 | 95.16 |
| 8.945 | 9.235 | -0.290 | 177 | 6338 | | | 5.00- 9.00 | 6.44 |

Data File: /var/chem/msdd.i/13apr10.b/d041301.d

Page 1

Date : 13-APR-2010 07:16

Client ID: BFB

Instrument: msdd.i

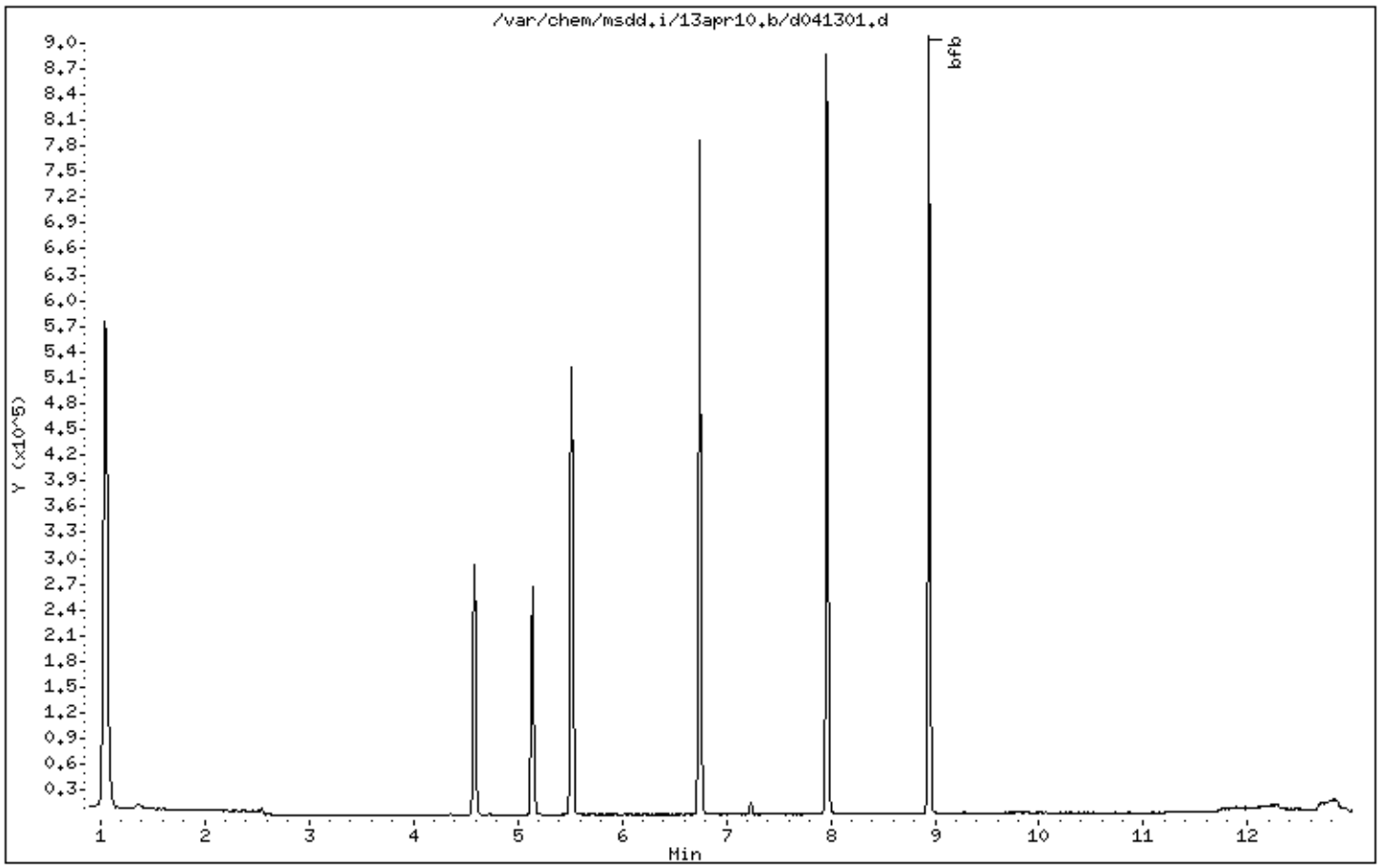
Sample Info: 50ml #1911-322; BFB Tune Check; BFB Tune Chec

Volume Injected (uL): 1.0

Operator: ll

Column phase:

Column diameter: 2.00



Data File: /var/chem/msdd.i/13apr10.b/d041301.d

Date : 13-APR-2010 07:16

Client ID: BFB

Instrument: msdd.i

Sample Info: 50ml #1911-322; BFB Tune Check; BFB Tune Chec

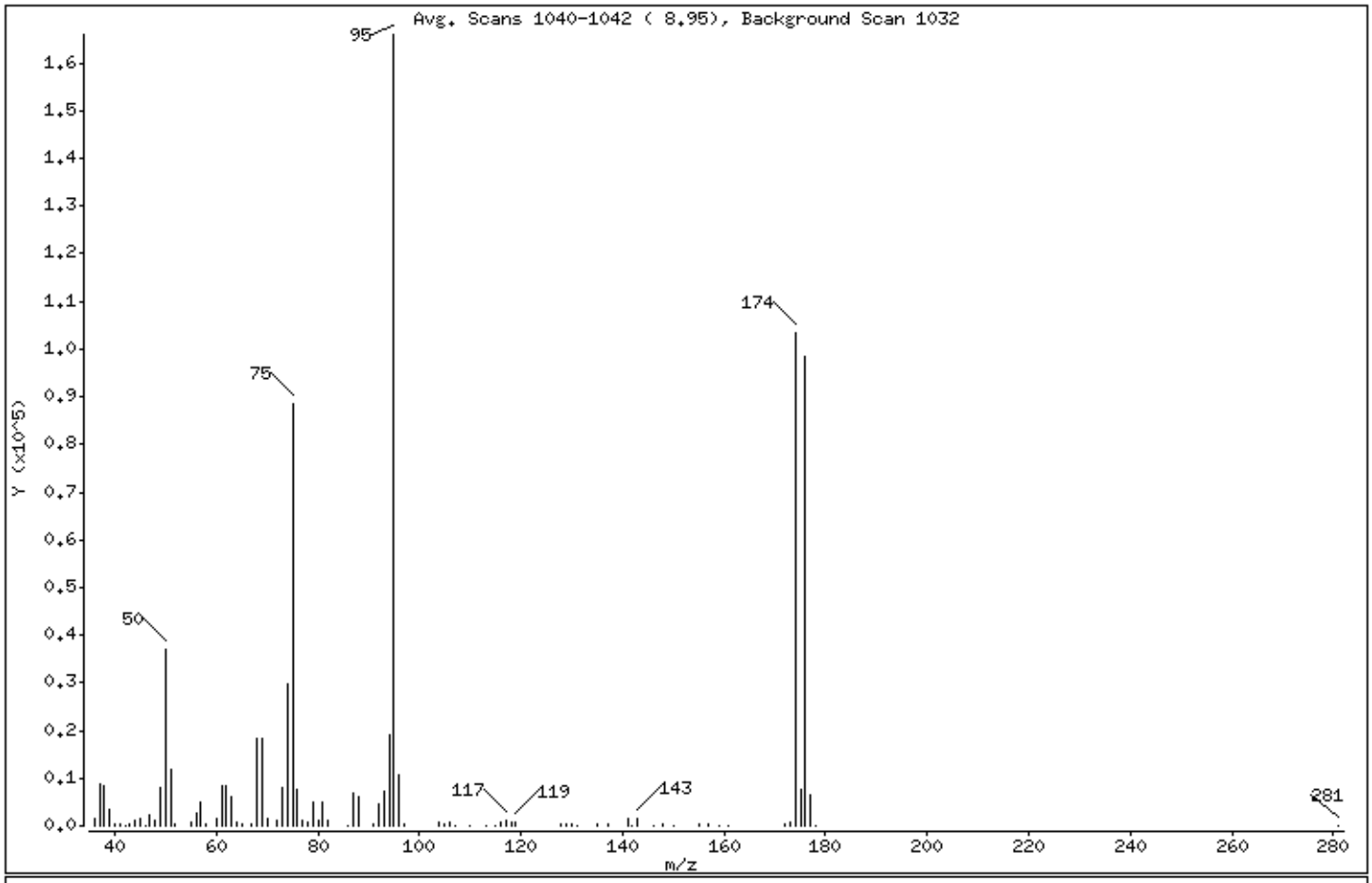
Volume Injected (uL): 1.0

Operator: ll

Column phase:

Column diameter: 2.00

1 bfb




| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 95 | Base Peak, 100% relative abundance | 100.00 |
| 50 | 15.00 - 40.00% of mass 95 | 22.26 |
| 75 | 30.00 - 60.00% of mass 95 | 53.39 |
| 96 | 5.00 - 9.00% of mass 95 | 6.53 |
| 173 | Less than 1.99% of mass 174 | 0.47 ( 0.75) |
| 174 | 50.01 - 100.00% of mass 95 | 62.31 |
| 175 | 5.00 - 9.00% of mass 174 | 4.66 ( 7.47) |
| 176 | 95.01 - 100.99% of mass 174 | 59.29 ( 95.16) |
| 177 | 5.00 - 9.00% of mass 176 | 3.82 ( 6.44) |

Date : 13-APR-2010 07:16

Client ID: BFB Instrument: msdd.i

Sample Info: 50ml #1911-322; BFB Tune Check; BFB Tune Chec

Volume Injected (uL): 1.0 Operator: ll

Column phase: Column diameter: 2.00

Data File: d041301.d
Spectrum: Avg. Scans 1040-1042 ( 8.95), Background Scan 1032
Location of Maximum: 95.00
Number of points: 87

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 36.00 | 1634 | 61.00 | 8496 | 88.00 | 6271 | 131.00 | 125 |
| 37.00 | 8771 | 62.00 | 8204 | 91.00 | 536 | 135.00 | 307 |
| 38.00 | 8468 | 63.00 | 6240 | 92.00 | 4588 | 137.00 | 269 |
| 39.00 | 3528 | 64.00 | 637 | 93.00 | 7172 | 141.00 | 1389 |
| 40.00 | 223 | 65.00 | 214 | 94.00 | 18920 | 142.00 | 152 |
| 41.00 | 242 | 67.00 | 512 | 95.00 | 165952 | 143.00 | 1441 |
| 42.00 | 189 | 68.00 | 18264 | 96.00 | 10844 | 146.00 | 151 |
| 43.00 | 317 | 69.00 | 18472 | 97.00 | 391 | 148.00 | 318 |
| 44.00 | 1111 | 70.00 | 1409 | 104.00 | 680 | 150.00 | 116 |
| 45.00 | 1681 | 72.00 | 988 | 105.00 | 243 | 155.00 | 400 |
| 46.00 | 58 | 73.00 | 7826 | 106.00 | 621 | 157.00 | 264 |
| 47.00 | 2363 | 74.00 | 29824 | 107.00 | 81 | 159.00 | 113 |
| 48.00 | 1189 | 75.00 | 88608 | 110.00 | 60 | 161.00 | 55 |
| 49.00 | 7908 | 76.00 | 7706 | 113.00 | 133 | 172.00 | 236 |
| 50.00 | 36944 | 77.00 | 1104 | 115.00 | 121 | 173.00 | 779 |
| 51.00 | 11643 | 78.00 | 753 | 116.00 | 596 | 174.00 | 103408 |
| 52.00 | 564 | 79.00 | 4824 | 117.00 | 1118 | 175.00 | 7726 |
| 55.00 | 633 | 80.00 | 1261 | 118.00 | 670 | 176.00 | 98408 |
| 56.00 | 2753 | 81.00 | 4799 | 119.00 | 756 | 177.00 | 6338 |
| 57.00 | 4944 | 82.00 | 1045 | 128.00 | 507 | 178.00 | 136 |
| 58.00 | 197 | 86.00 | 167 | 129.00 | 293 | 281.00 | 64 |
| 60.00 | 1626 | 87.00 | 6985 | 130.00 | 519 | | |

# Shipping/ Receiving Documents

# Air Toxics Ltd. Sample Receipt Confirmation Cover Page

Thank you for choosing Air Toxics Ltd. We have received your samples and have listed any Sample Receipt Descrepancies below.

In order to expedite analysis and reporting, please review the attached information for accuracy.

For corrections call: **Bryanna Langley at 916-985-1000**

ATL will proceed with the analysis as specified on the Chain of Custody and Sample Receipt Summary page.

**Please note** : The Sample Receipt Confirmation, including the total workorder charge, is subject to change upon secondary review. Our aim is to provide a confirmation to you in a timely manner. Sample Receipt Discrepancies, if any, may not include discrepancies regarding sample receipt pressure(s). Additionally, the Chain of Custody (COC) will be provided with the final report.

**180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630**

**(916) 985-1000 .FAX (916) 985-1020**
**Hours 6:30 A.M to 5:30 P.M. PST**

# Air Toxics LTD.

## CHAIN-OF-CUSTODY RECORD

**Sample Transportation Notice**
Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

Page ____ of ____

Project Manager: Tim Olsen
Collected by: (Print and Sign) Sachin Oa Sachin Oa
Company: GEI Consultants Email:
Address: 1 Grimes Dr City: Brightwaters State: NY Zip: 11718
Phone: 860-682-3939 Fax:

**Project Info:**
P.O. #:
Project #: 093180-1-1114
Project Name: Bay Shore DUI SE/KB

**Turn Around Time:**
☐ Normal
☐ Rush
_____ specify

Lab Use Only
Pressurized by:
Date:
Pressurization Gas: N2 He

| Lab I.D. | Field Sample I.D. (Location) | Can # | Date of Collection | Time of Collection | Analyses Requested | Canister Pressure/Vacuum: Initial | Final | Receipt | Final (psig) |
|---|---|---|---|---|---|---|---|---|---|
| 01A | UW AMS 4 | 1521 | 4/1/10 | 0650-1440 | TO+15 Naphthalene | -29 | -7 | | |
| 02A | DW AMS 2 | 2607 | 4/1/10 | 0648-1435 | TO-15 Naphthalene | -25.5 | -8 | | |

| Relinquished by: (signature) | Date/Time | Received by: (signature) | Date/Time |
|---|---|---|---|
| Sachin Oa | 4/1/10 / 1500 | Monica Gregsen | 4/6/10 900 |
| Relinquished by: (signature) | Date/Time | Received by: (signature) | Date/Time |
| Relinquished by: (signature) | Date/Time | Received by: (signature) | Date/Time |

Notes:

Lab Use Only: Shipper Name: Fed Ex | Air Bill #: | Temp (°C): NA | Condition: Good | Custody Seals Intact? Yes No None | Work Order #: 1004128

Form 1233 (rev.11)

Air Toxics LTD.
Laboratory Services Since 1989

# SAMPLE RECEIPT SUMMARY

## WORKORDER 1004128

**Client**

Ms. Theresa Landgraff
GEI Consultants, Inc.
110 Walt Whitman Road
Suite 204
Huntington Station, NY 11746

**Sales Rep:** TL

**Phone**

631-760-9300

**Fax**

**Date Promised:** 04/20/10
**Date Completed:** 4/19/10
**Date Received:** 4/6/10
**PO#:**
**Project#:** 093180-1-1114 BayShore OUI SL/KB

**Total $:** $ 596.00
**Logged By:** KM

| Fraction | Sample # | Analysis | Collected | Receipt Vac./Pres. | Amount$ |
|---|---|---|---|---|---|
| 01A | UW AMS 4 | Modified TO-15 | 4/1/2010 | 6.0 "Hg | $225.00 |
| 02A | DW AMS 2 | Modified TO-15 | 4/1/2010 | 6.4 "Hg | $225.00 |
| 03A | Lab Blank | Modified TO-15 | NA | NA | $0.00 |
| 04A | CCV | Modified TO-15 | NA | NA | $0.00 |
| 05A | LCS | Modified TO-15 | NA | NA | $0.00 |

| | | |
|---|---|---|
| Misc. Charges | 6 Liter Summa Canister (2) @ $45.00 each., Shipment 71731 | $90.00 |
| | Blue Body Flow Controller (2) @ $25.00 each., Shipment 71731 | $50.00 |
| | Sampling Cane-6 in (2) @ $3.00 each., Shipment 71731 | $6.00 |

**Note:** Samples received after 3 P.M. PST are considered to be received on the following work day.
Atlas Project Name/Profile#: BayShore OUI SL/KB/14046

**BILL TO:** Accounts Payable
GEI Consultants, Inc.
400 Unicorn Park Drive
Woburn, MA 01801

Analysis Code: TO-14A

**TERMS:**

Reporting Method: Modified TO-15 + Naph

# Other Records

# DILUTION FACTORS

$$\text{Dilution Factor} = \frac{\text{Final Pressure}}{\text{Initial Vacuum}} = \frac{14.7 \text{ psi} + \text{Final Pressure (psi)}}{14.7 \text{ psi} - [(\text{Initial Pressure ("Hg)}) (14.7 \text{ psi} / 30 \text{ "Hg})]}$$

$$\text{Dilution Factor} = \frac{\text{Final Pressure}}{\text{Initial Pressure}} = \frac{14.7 \text{ psi} + \text{Final Pressure (psi)}}{14.7 \text{ psi} + \text{Initial Pressure (psi)}}$$

| Initial Vacuum ("Hg) | **5 psi** Final Press. Dil. Factor | **10 psi** Final Press. Dil. Factor | **15 psi** Final Press. Dil. Factor |
|---|---|---|---|
| 0.0 | 1.34 | 1.68 | 2.02 |
| 0.5 | 1.36 | 1.71 | 2.05 |
| 1.0 | 1.39 | 1.74 | 2.09 |
| 1.5 | 1.41 | 1.77 | 2.13 |
| 2.0 | 1.44 | 1.80 | 2.16 |
| 2.5 | 1.46 | 1.83 | 2.20 |
| 3.0 | 1.49 | 1.87 | 2.24 |
| 3.5 | 1.52 | 1.90 | 2.29 |
| 4.0 | 1.55 | 1.94 | 2.33 |
| 4.5 | 1.58 | 1.98 | 2.38 |
| 5.0 | 1.61 | 2.02 | 2.42 |
| 5.5 | 1.64 | 2.06 | 2.47 |
| 6.0 | 1.68 | 2.10 | 2.53 |
| 6.5 | 1.71 | 2.15 | 2.58 |
| 7.0 | 1.75 | 2.19 | 2.64 |
| 7.5 | 1.79 | 2.24 | 2.69 |
| 8.0 | 1.83 | 2.29 | 2.76 |
| 8.5 | 1.87 | 2.34 | 2.82 |
| 9.0 | 1.91 | 2.40 | 2.89 |
| 9.5 | 1.96 | 2.46 | 2.96 |
| 10.0 | 2.01 | 2.52 | 3.03 |
| 10.5 | 2.06 | 2.59 | 3.11 |
| 11.0 | 2.12 | 2.65 | 3.19 |
| 11.5 | 2.17 | 2.72 | 3.28 |
| 12.0 | 2.23 | 2.80 | 3.37 |
| 12.5 | 2.30 | 2.88 | 3.46 |
| 13.0 | 2.36 | 2.97 | 3.57 |
| 13.5 | 2.44 | 3.06 | 3.67 |
| 14.0 | 2.51 | 3.15 | 3.79 |
| 14.5 | 2.59 | 3.25 | 3.91 |
| 15.0 | 2.68 | 3.36 | 4.04 |
| 15.5 | 2.77 | 3.48 | 4.18 |
| 16.0 | 2.87 | 3.60 | 4.33 |
| 16.5 | 2.98 | 3.73 | 4.49 |
| 17.0 | 3.09 | 3.88 | 4.66 |
| 17.5 | 3.22 | 4.03 | 4.85 |
| 18.0 | 3.35 | 4.20 | 5.05 |
| 18.5 | 3.50 | 4.38 | 5.27 |
| 19.0 | 3.65 | 4.58 | 5.51 |
| 19.5 | 3.83 | 4.80 | 5.77 |
| 20.0 | 4.02 | 5.04 | 6.06 |
| 20.5 | 4.23 | 5.31 | 6.38 |

| Initial Vacuum ("Hg) | **5 psi** Final Press. Dil. Factor | **10 psi** Final Press. Dil. Factor | **15 psi** Final Press. Dil. Factor |
|---|---|---|---|
| 21.0 | 4.47 | 5.60 | 6.73 |
| 21.5 | 4.73 | 5.93 | 7.13 |
| 22.0 | 5.03 | 6.30 | 7.58 |
| 22.5 | 5.36 | 6.72 | 8.08 |
| 23.0 | 5.74 | 7.20 | 8.66 |
| 23.5 | 6.19 | 7.76 | 9.32 |
| 24.0 | 6.70 | 8.40 | 10.10 |
| 24.5 | 7.31 | 9.17 | 11.02 |
| 25.0 | 8.04 | 10.08 | 12.12 |
| 25.5 | 8.93 | 11.20 | 13.47 |
| 26.0 | 10.05 | 12.60 | 15.15 |
| 26.5 | 11.49 | 14.40 | 17.32 |
| 27.0 | 13.40 | 16.80 | 20.20 |
| 27.5 | 16.08 | 20.16 | 24.24 |
| 28.0 | 20.10 | 25.20 | 30.31 |
| 28.5 | 26.80 | 33.61 | 40.41 |
| 29.0 | 40.20 | 50.41 | 60.61 |

| Initial Pressure (psi) | **5 psi** Final Press. Dil. Factor | **10 psi** Final Press. Dil. Factor | **15 psi** Final Press. Dil. Factor |
|---|---|---|---|
| 0.0 | 1.34 | 1.68 | 2.02 |
| 0.2 | 1.32 | 1.66 | 1.99 |
| 0.4 | 1.30 | 1.64 | 1.97 |
| 0.6 | 1.29 | 1.61 | 1.94 |
| 0.8 | 1.27 | 1.59 | 1.92 |
| 1.0 | 1.25 | 1.57 | 1.89 |
| 1.2 | 1.24 | 1.55 | 1.87 |
| 1.4 | 1.22 | 1.53 | 1.84 |
| 1.6 | 1.21 | 1.52 | 1.82 |
| 1.8 | 1.19 | 1.50 | 1.80 |
| 2.0 | 1.18 | 1.48 | 1.78 |
| 2.2 | 1.17 | 1.46 | 1.76 |
| 2.4 | 1.15 | 1.44 | 1.74 |
| 2.6 | 1.14 | 1.43 | 1.72 |
| 2.8 | 1.13 | 1.41 | 1.70 |
| 3.0 | 1.11 | 1.40 | 1.68 |
| 3.2 | 1.10 | 1.38 | 1.66 |
| 3.4 | 1.09 | 1.36 | 1.64 |
| 3.6 | 1.08 | 1.35 | 1.62 |
| 3.8 | 1.06 | 1.34 | 1.61 |
| 4.0 | 1.05 | 1.32 | 1.59 |

# DILUTION FACTORS

$$\text{Dilution Factor} = \frac{\text{Final Pressure}}{\text{Initial Pressure}} = \frac{\text{14.7 psi + Final Pressure (psi)}}{\text{14.7 psi + Initial Pressure (psi)}}$$

| Initial Pressure (psi) | **5 psi** Final Press. Dil. Factor | **10 psi** Final Press. Dil. Factor | **15 psi** Final Press. Dil. Factor |
|---|---|---|---|
| 0.0 | 1.34 | 1.68 | 2.02 |
| 0.2 | 1.32 | 1.66 | 1.99 |
| 0.4 | 1.30 | 1.64 | 1.97 |
| 0.6 | 1.29 | 1.61 | 1.94 |
| 0.8 | 1.27 | 1.59 | 1.92 |
| 1.0 | 1.25 | 1.57 | 1.89 |
| 1.2 | 1.24 | 1.55 | 1.87 |
| 1.4 | 1.22 | 1.53 | 1.84 |
| 1.6 | 1.21 | 1.52 | 1.82 |
| 1.8 | 1.19 | 1.50 | 1.80 |
| 2.0 | 1.18 | 1.48 | 1.78 |
| 2.2 | 1.17 | 1.46 | 1.76 |
| 2.4 | 1.15 | 1.44 | 1.74 |
| 2.6 | 1.14 | 1.43 | 1.72 |
| 2.8 | 1.13 | 1.41 | 1.70 |
| 3.0 | 1.11 | 1.40 | 1.68 |
| 3.2 | 1.10 | 1.38 | 1.66 |
| 3.4 | 1.09 | 1.36 | 1.64 |
| 3.6 | 1.08 | 1.35 | 1.62 |
| 3.8 | 1.06 | 1.34 | 1.61 |
| 4.0 | 1.05 | 1.32 | 1.59 |
| 4.2 | 1.04 | 1.31 | 1.57 |
| 4.4 | 1.03 | 1.29 | 1.55 |
| 4.6 | 1.02 | 1.28 | 1.54 |
| 4.8 | 1.01 | 1.27 | 1.52 |
| 5.0 | 1.00 | 1.25 | 1.51 |
| 5.2 | NA | 1.24 | 1.49 |
| 5.4 | NA | 1.23 | 1.48 |
| 5.6 | NA | 1.22 | 1.46 |
| 5.8 | NA | 1.20 | 1.45 |
| 6.0 | NA | 1.19 | 1.43 |
| 6.2 | NA | 1.18 | 1.42 |
| 6.4 | NA | 1.17 | 1.41 |
| 6.6 | NA | 1.16 | 1.39 |
| 6.8 | NA | 1.15 | 1.38 |
| 7.0 | NA | 1.14 | 1.37 |
| 7.2 | NA | 1.13 | 1.36 |
| 7.4 | NA | 1.12 | 1.34 |

| Initial Pressure (psi) | **5 psi** Final Press. Dil. Factor | **10 psi** Final Press. Dil. Factor | **15 psi** Final Press. Dil. Factor |
|---|---|---|---|
| 7.6 | NA | 1.11 | 1.33 |
| 7.8 | NA | 1.10 | 1.32 |
| 8.0 | NA | 1.09 | 1.31 |
| 8.2 | NA | 1.08 | 1.30 |
| 8.4 | NA | 1.07 | 1.29 |
| 8.6 | NA | 1.06 | 1.27 |
| 8.8 | NA | 1.05 | 1.26 |
| 9.0 | NA | 1.04 | 1.25 |
| 9.2 | NA | 1.03 | 1.24 |
| 9.4 | NA | 1.02 | 1.23 |
| 9.6 | NA | 1.02 | 1.22 |
| 9.8 | NA | 1.01 | 1.21 |
| 10.0 | NA | 1.00 | 1.20 |
| 10.2 | NA | NA | 1.19 |
| 10.4 | NA | NA | 1.18 |
| 10.6 | NA | NA | 1.17 |
| 10.8 | NA | NA | 1.16 |
| 11.0 | NA | NA | 1.16 |
| 11.2 | NA | NA | 1.15 |
| 11.4 | NA | NA | 1.14 |
| 11.6 | NA | NA | 1.13 |
| 11.8 | NA | NA | 1.12 |
| 12.0 | NA | NA | 1.11 |
| 12.2 | NA | NA | 1.10 |
| 12.4 | NA | NA | 1.10 |
| 12.6 | NA | NA | 1.09 |
| 12.8 | NA | NA | 1.08 |
| 13.0 | NA | NA | 1.07 |
| 13.2 | NA | NA | 1.06 |
| 13.4 | NA | NA | 1.06 |
| 13.6 | NA | NA | 1.05 |
| 13.8 | NA | NA | 1.04 |
| 14.0 | NA | NA | 1.03 |
| 14.2 | NA | NA | 1.03 |
| 14.4 | NA | NA | 1.02 |
| 14.6 | NA | NA | 1.01 |
| 14.8 | NA | NA | 1.01 |

# Compound Listing

**Modified TO-15 + Naph**

| CAS Number | Compound | Detection Limit ppbv | Type |
|---|---|---|---|
| 75-71-8 | Freon 12 | 0.50 | |
| 76-14-2 | Freon 114 | 0.50 | |
| 75-35-4 | 1,1-Dichloroethene | 0.50 | |
| 67-64-1 | Acetone | 2.0 | |
| 67-63-0 | 2-Propanol | 2.0 | |
| 75-15-0 | Carbon Disulfide | 0.50 | |
| 107-05-1 | 3-Chloropropene | 2.0 | |
| 75-09-2 | Methylene Chloride | 0.50 | |
| 1634-04-4 | Methyl tert-butyl ether | 0.50 | |
| 156-60-5 | trans-1,2-Dichloroethene | 0.50 | |
| 110-54-3 | Hexane | 0.50 | |
| 75-34-3 | 1,1-Dichloroethane | 0.50 | |
| 78-93-3 | 2-Butanone (Methyl Ethyl Ketone) | 0.50 | |
| 156-59-2 | cis-1,2-Dichloroethene | 0.50 | |
| 109-99-9 | Tetrahydrofuran | 0.50 | |
| 67-66-3 | Chloroform | 0.50 | |
| 71-55-6 | 1,1,1-Trichloroethane | 0.50 | |
| 110-82-7 | Cyclohexane | 0.50 | |
| 56-23-5 | Carbon Tetrachloride | 0.50 | |
| 540-84-1 | 2,2,4-Trimethylpentane | 0.50 | |
| 71-43-2 | Benzene | 0.50 | |
| 107-06-2 | 1,2-Dichloroethane | 0.50 | |
| 142-82-5 | Heptane | 0.50 | |
| 79-01-6 | Trichloroethene | 0.50 | |
| 78-87-5 | 1,2-Dichloropropane | 0.50 | |
| 123-91-1 | 1,4-Dioxane | 2.0 | |
| 75-27-4 | Bromodichloromethane | 0.50 | |
| 10061-01-5 | cis-1,3-Dichloropropene | 0.50 | |
| 108-10-1 | 4-Methyl-2-pentanone | 0.50 | |
| 108-88-3 | Toluene | 0.50 | |
| 10061-02-6 | trans-1,3-Dichloropropene | 0.50 | |
| 79-00-5 | 1,1,2-Trichloroethane | 0.50 | |
| 127-18-4 | Tetrachloroethene | 0.50 | |
| 591-78-6 | 2-Hexanone | 2.0 | |
| 124-48-1 | Dibromochloromethane | 0.50 | |
| 106-93-4 | 1,2-Dibromoethane (EDB) | 0.50 | |
| 108-90-7 | Chlorobenzene | 0.50 | |
| 100-41-4 | Ethyl Benzene | 0.50 | |
| 108-38-3 | m,p-Xylene | 0.50 | |
| 95-47-6 | o-Xylene | 0.50 | |
| 100-42-5 | Styrene | 0.50 | |
| 75-25-2 | Bromoform | 0.50 | |
| 98-82-8 | Cumene | 0.50 | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 0.50 | |
| 103-65-1 | Propylbenzene | 0.50 | |
| 622-96-8 | 4-Ethyltoluene | 0.50 | |

# Compound Listing

**Modified TO-15 + Naph**

| CAS Number | Compound | Detection Limit ppbv | Type |
|---|---|---|---|
| 108-67-8 | 1,3,5-Trimethylbenzene | 0.50 | |
| 95-63-6 | 1,2,4-Trimethylbenzene | 0.50 | |
| 541-73-1 | 1,3-Dichlorobenzene | 0.50 | |
| 106-46-7 | 1,4-Dichlorobenzene | 0.50 | |
| 100-44-7 | alpha-Chlorotoluene | 0.50 | |
| 95-50-1 | 1,2-Dichlorobenzene | 0.50 | |
| 120-82-1 | 1,2,4-Trichlorobenzene | 2.0 | |
| 87-68-3 | Hexachlorobutadiene | 2.0 | |
| 2037-26-5 | Toluene-d8 | | |
| 17060-07-0 | 1,2-Dichloroethane-d4 | | |
| 460-00-4 | 4-Bromofluorobenzene | | |
| 91-20-3 | Naphthalene | 2.0 | |
| 74-87-3 | Chloromethane | 2.0 | |
| 75-01-4 | Vinyl Chloride | 0.50 | |
| 106-99-0 | 1,3-Butadiene | 0.50 | |
| 74-83-9 | Bromomethane | 0.50 | |
| 75-00-3 | Chloroethane | 0.50 | |
| 75-69-4 | Freon 11 | 0.50 | |
| 64-17-5 | Ethanol | 2.0 | |
| 76-13-1 | Freon 113 | 0.50 | |

# DATA REVIEW CHECKLIST

**Work Order #:** 1004128

| $A_1$ | $A_2$ | R | T | M | Q | |
|---|---|---|---|---|---|---|
| ☑ | ☐ | ☑ | ☐ | ☑ | ☐ | Analysis/Reporting vs. Project Profile/SOP requirements checked (i.e. 100% Dups, J-Flag to MDL, etc) |
| | | ☑ | ☐ | ☑ | ☐ | The final report has the correct reporting list, special units, and header info. |
| NA | ☐ | | | NA | | Non-Standard sublist printed/verified, LOQ and LOD verified |
| | ☐ | ☑ | ☐ | ☑ | | Lab Narrative is correct (proper method & description/Receiving & Analytical notes correct) |
| | | NA | ☐ | NA | ☐ | Sample Discrepancy Report (SDR) is completed |
| N/A | ☐ | ☐ | ☐ | NA | ☐ | Corrective Action issued - # _____ |
| | ☐ | ☑ | ☐ | ☑ | ☐ | Unusual circumstances have been documented in the notes section below |

**LUMEN** *validation report present and initialed* ***CIRCLE (YES / NO)***

| | | | | | | |
|---|---|---|---|---|---|---|
| ☑ | ☐ | ☐ | ☐ | ☐ | ☐ | Lab Blank, CCV, LCS and DUP met QC criteria |
| ☑ | ☐ | ☐ | ☐ | ☐ | ☐ | Hold time is met for all samples |
| | | ☐ | ☐ | ☐ | ☐ | Appropriate data qualifier flags are applied |
| | | ☐ | ☐ | ☐ | ☐ | Manual integrations for samples and QC are properly documented |
| ☑ | ☐ | ☐ | ☐ | | ☐ | Samples analyzed within the project or method specific clock |
| | | ☐ | ☐ | | | Retention times have been verified |
| ☑ | ☐ | ☐ | ☐ | | ☐ | Appropriate ICAL(s) included |
| | | ☑ | ☐ | ☑ | ☐ | At least one result per sample is verified against the target quant sheets/raw data |
| ☑ | ☐ | ☑ | ☐ | | ☐ | Dilution factor correctly calculated (sample load volume, syringe and bag dilutions, can pressurization(s)) |
| ☑ | ☐ | ☑ | ☐ | | | Correct amount of sample analyzed (i.e. sample not over-diluted) |
| | | ☑ | ☐ | | | Spectra verified - documentation of spectral defense included (Section 5A of eCVP pkg) |
| | | NA | ☐ | | | TICs resemble reference spectra |
| N/A | | ☐ | ☐ | | | TICs between duplicate samples are consistent |
| ☐ | ☐ | ☐ | ☐ | ☑ | ☐ | Checked samples for trends (i.e. Influent vs. Effluent, Field Dups, Field/Trip Blank, etc.) |
| ☐ | ☐ | ☐ | ☐ | | | Data for multiple analyses of sample(s) has been evaluated for comparability of results |
| | | ☐ | | NA | | Special units for all samples in the final report are correctly calculated |
| | | ☑ | ☐ | NA | | Manually entered results checked (i.e. TPH/NMOC) |
| ☑ | ☐ | ☑ | | | | Chain of Custody verified for any special comments (i.e. different compounds/RLs, action levels) |
| | | ☑ | | | | Chain of Custody scanned correctly |
| | | | | | ☐ | Verify sample id's vs. chain of custody |
| ☑ | | ☑ | | | | Date MDL(s) performed per instrument(s) 12/11/09 |
| ☑ | ☐ | ☑ | | | | Samples pressurized w/ appropriate gas ($N_2$ or He) ☐ Other (i.e. Tedlar bag, cartridge, sorbent) |
| ☑ | ☐ | ☑ | | | | Final pressure consistent with canister size (6L vs. 1L) |
| ☑ | ☐ | ☑ | | | | Verify receipt pressures |
| ☑ | ☐ | ☑ | | | | Verify canister ID #'s |
| | | ☑ | | ☑ | | Final invoice amount correct (adjusted for TAT, Penalties, Re-issue Charges etc.) |
| | | ☑ | ☐ | ☑ | ☐ | Client LUMEN report reviewed for accuracy and completeness |
| | | | | ☑ | | Final PDF report reviewed for correctness |

***Notes:*** *(to include: noting samples with QA/QC problems, Blanks with positive hits, narratives, etc.)*

A/R: B Flag CS2

Ø out in CCV

M/Q:

| $A_1/A_2$ (Analytical Review/Date) | R/T (Reporting Review/Date) | M (Management Review/Date) | Q (QA Review/Date) |
|---|---|---|---|
| $A_1$: RCu 4/13/10 | R: RCu 4/19/10 | 4/19/10 | |

$A_2$: T:

**Note (1): Please check all the appropriate boxes. Indicate "NA" for any statement that does not apply.**
**Note (2): Management reviewer and reporting reviewer must be separate individuals.**

# Not Applicable

# Appendix C

## Data Usability Summary Reports and Validated Form 1s (Electronic)

**Site:** Bayshore OU-1 Summer Lumber/King Bear
**Laboratory:** Air Toxics, LTD., Folsom, CA
**Report No.:** 1003364
**Reviewer:** Lisa McDonagh/GEI Consultants
**Date:** May 20, 2010

## Samples Reviewed and Evaluation Summary

| FIELD ID | LAB ID | FRACTIONS VALIDATED |
|---|---|---|
| UW AMS1 | 1003364-01A | Modified TO-15 |
| DW AMS4 | 1003364-02A | Modified TO-15 |

Associated QC Samples(s): Field Blanks: None associated
Field Duplicate pair: None associated

The above-listed samples were collected on March 11, 2010 were analyzed for volatile organic compounds (VOCs) by modified EPA Method TO-15. The data validation was performed in accordance with the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review, October 1999 and the USEPA Region II Standard Operating Procedure (SOP) for the Validation of Organic Data, September 2006, modified as necessary to accommodate the EPA Method TO-15.

The organic data were evaluated based on the following parameters:

| | | |
|---|---|---|
| * | • | Data Completeness |
| * | • | Holding Times and Sample Preservation |
| * | • | Gas Chromatography/Mass Spectrometry (GC/MS) Tunes |
| | • | Initial and Continuing Calibrations |
| * | • | Blanks |
| * | • | Surrogate Recoveries |
| NA | • | Matrix Spike/Matrix Spike Duplicate (MS/MSD) Results |
| * | • | Internal Standards |
| | • | Laboratory Control Sample (LCS) Results |
| * | • | Laboratory Duplicate Results |
| NA | • | Field Duplicate Results |
| | • | Quantitation Limits and Data Assessment |
| * | • | Sample Quantitation and Compound Identification |

* - All criteria were met.

NA – Not applicable.

All results are usable for project objectives.

Qualifications were not applied to the data as a result of sampling error.
Qualifications applied to the data as a result of analytical error are discussed below.

- The TO-15 nondetect results for chloromethane in all samples 1003364 were qualified as estimated (UJ) due to continuing calibration nonconformances. The results can be used for project objectives as estimated quantitation limits, which may have a minor impact on the data usability.

## Data Completeness

The data package was complete as defined under the requirements for the NYASP category B deliverables for the EPA Method TO-15 analyses.

## Holding Times and Sample Preservation

All holding time and sample preservation criteria were met in the EPA Method TO-15 analyses.

## GC/MS Tunes

All criteria were met in the modified EPA Method TO-15 analyses.

## Initial and Continuing Calibrations

Compounds that did not meet criteria in the TO-15 calibrations are summarized in the following table.

| Instrument ID<br>msdp<br>Compound | IC<br>03/11/10 | CC<br>03/19/10 11:03 |
|---|---|---|
| Chloromethane | | XX(138%) |
| Samples Affected | All samples listed. | All samples 1003364. |

X = Initial calibration (IC) relative standard deviation (%RSD) > 30; estimate (J) positive and blank-qualified (UJ) results only.
XX = Continuing calibration (CC) percent recovery (%rec) >70-130%; estimate (J/UJ) positive and nondetect results.
XXX = Continuing calibration (CC) percent recovery (%rec) >90; estimate (J/R) positive and reject nondetect results.

The TO-15 nondetect results for chloromethane in all samples 1003364 were qualified as estimated (UJ) due to continuing calibration nonconformances.

## Blanks

All criteria were met in the modified EPA Method TO-15 analyses.

## Surrogate Recoveries

All criteria were met in the modified EPA Method TO-15 analyses.

## MS/MSD Results

Matrix spike samples were not submitted with this job number.

## Internal Standards

All criteria were met in the modified EPA Method TO-15 analyses.

## LCS Results

The following table lists the recoveries, which were outside of control limits in the LCS analyses and the resulting validation actions.

| Compound | Recovery (%) | Control Limits | Associated Samples | Validation Actions |
|---|---|---|---|---|
| Chloromethane | 143 | 70-130 | All samples 1003364. | The results for chloromethane were previously qualified as (UJ) due to calibration deficiencies. |

## Lab Duplicate Results

Sample DW AMS4 was submitted as the lab duplicate pair with this sample group. All criteria were met in the TO-15 analyses.

## Field Duplicate Results

Field duplicate samples were not submitted.

## Quantitation Limits and Data Assessment

The following table lists the sample dilutions, which were performed and reported. Quantitation limits were elevated accordingly.

| Sample | TO-15 Analysis/Dilution Factor |
|---|---|
| UW AMS1 | 1.62 |
| DW AMS4 | 1.61 |

## Sample Quantitation and Compound Identification

Calculations were spot-checked; no discrepancies were noted in the EPA Method TO-15 analyses.

**Site:** Bayshore OU-1 Summer Lumber/King Bear
**Laboratory:** Air Toxics, LTD., Folsom, CA
**Report No.:** 1003514
**Reviewer:** Lisa McDonagh/GEI Consultants
**Date:** May 20, 2010

## Samples Reviewed and Evaluation Summary

| FIELD ID | LAB ID | FRACTIONS VALIDATED |
|---|---|---|
| UW AMS4 | 1003514-01A | Modified TO-15 |
| DW AMS2 | 1003514-02A | Modified TO-15 |

Associated QC Samples(s): Field Blanks: None associated
Field Duplicate pair: None associated

The above-listed samples were collected on March 18, 2010 were analyzed for volatile organic compounds (VOCs) by modified EPA Method TO-15. The data validation was performed in accordance with the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review, October 1999 and the USEPA Region II Standard Operating Procedure (SOP) for the Validation of Organic Data, September 2006, modified as necessary to accommodate the EPA Method TO-15.

The organic data were evaluated based on the following parameters:

| | | |
|---|---|---|
| * | • | Data Completeness |
| | • | Holding Times and Sample Preservation |
| * | • | Gas Chromatography/Mass Spectrometry (GC/MS) Tunes |
| * | • | Initial and Continuing Calibrations |
| * | • | Blanks |
| * | • | Surrogate Recoveries |
| NA | • | Matrix Spike/Matrix Spike Duplicate (MS/MSD) Results |
| * | • | Internal Standards |
| * | • | Laboratory Control Sample (LCS) Results |
| NA | • | Laboratory Duplicate Results |
| NA | • | Field Duplicate Results |
| | • | Quantitation Limits and Data Assessment |
| * | • | Sample Quantitation and Compound Identification |

* - All criteria were met.

NA – Not applicable.

All results are usable for project objectives.

Qualifications were not applied to the data as a result of sampling error.
Qualifications were not applied to the data as a result of analytical error.

**Data Completeness**

The data package was complete as defined under the requirements for the NYASP category B deliverables for the EPA Method TO-15 analyses.

**Holding Times and Sample Preservation**

Please note the sample DUPLICATE was received with significant vacuum remaining in the canister. GEI was notified and requested the sample be cancelled.

All other holding time and sample preservation criteria were met in the EPA Method TO-15 analyses.

**GC/MS Tunes**

All criteria were met in the modified EPA Method TO-15 analyses.

**Initial and Continuing Calibrations**

All criteria were met in the modified EPA Method TO-15 analyses.

\

**Blanks**

All criteria were met in the modified EPA Method TO-15 analyses.

**Surrogate Recoveries**

All criteria were met in the modified EPA Method TO-15 analyses.

**MS/MSD Results**

Matrix spike samples were not submitted with this job number.

**Internal Standards**

All criteria were met in the modified EPA Method TO-15 analyses.

**LCS Results**

All criteria were met in the modified EPA Method TO-15 analyses.

## Lab Duplicate Results

Lab duplicate samples were not submitted with the data package.

## Field Duplicate Results

Field duplicate samples were not submitted.

## Quantitation Limits and Data Assessment

The following table lists the sample dilutions, which were performed and reported. Quantitation limits were elevated accordingly.

| Sample | TO-15 Analysis/Dilution Factor |
|---|---|
| UW AMS4 | 1.61 |
| DW AMS2 | 1.79 |

## Sample Quantitation and Compound Identification

Calculations were spot-checked; no discrepancies were noted in the EPA Method TO-15 analyses.

**Site:** Bayshore OU-1 Summer Lumber/King Bear
**Laboratory:** Air Toxics, LTD., Folsom, CA
**Report No.:** 1003666
**Reviewer:** Lisa McDonagh/GEI Consultants
**Date:** May 20, 2010

## Samples Reviewed and Evaluation Summary

| FIELD ID | LAB ID | FRACTIONS VALIDATED |
|---|---|---|
| DW AMS1(1) | 1003666-01A | Modified TO-15 |
| DW AMS1(2) | 1003666-02A | Modified TO-15 |

Associated QC Samples(s): Field Blanks: None associated
Field Duplicate pair: None associated

The above-listed samples were collected on March 25, 2010 were analyzed for volatile organic compounds (VOCs) by modified EPA Method TO-15. The data validation was performed in accordance with the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review, October 1999 and the USEPA Region II Standard Operating Procedure (SOP) for the Validation of Organic Data, September 2006, modified as necessary to accommodate the EPA Method TO-15.

The organic data were evaluated based on the following parameters:

| | | |
|---|---|---|
| * | • | Data Completeness |
| * | • | Holding Times and Sample Preservation |
| * | • | Gas Chromatography/Mass Spectrometry (GC/MS) Tunes |
| * | • | Initial and Continuing Calibrations |
| * | • | Blanks |
| * | • | Surrogate Recoveries |
| NA | • | Matrix Spike/Matrix Spike Duplicate (MS/MSD) Results |
| * | • | Internal Standards |
| * | • | Laboratory Control Sample (LCS) Results |
| NA | • | Laboratory Duplicate Results |
| NA | • | Field Duplicate Results |
| | • | Quantitation Limits and Data Assessment |
| * | • | Sample Quantitation and Compound Identification |

* - All criteria were met.

NA – Not applicable.

All results are usable for project objectives.

Qualifications were not applied to the data as a result of sampling error.
Qualifications were not applied to the data as a result of analytical error.

**Data Completeness**

The data package was complete as defined under the requirements for the NYASP category B deliverables for the EPA Method TO-15 analyses.

**Holding Times and Sample Preservation**

All holding time and sample preservation criteria were met in the EPA Method TO-15 analyses.

**GC/MS Tunes**

All criteria were met in the modified EPA Method TO-15 analyses.

**Initial and Continuing Calibrations**

All criteria were met in the modified EPA Method TO-15 analyses.

\
**Blanks**

All criteria were met in the modified EPA Method TO-15 analyses.

**Surrogate Recoveries**

All criteria were met in the modified EPA Method TO-15 analyses.

**MS/MSD Results**

Matrix spike samples were not submitted with this job number.

**Internal Standards**

All criteria were met in the modified EPA Method TO-15 analyses.

**LCS Results**

All criteria were met in the modified EPA Method TO-15 analyses.

## Lab Duplicate Results

Lab duplicate samples were not submitted with the data package.

## Field Duplicate Results

Field duplicate samples were not submitted.

## Quantitation Limits and Data Assessment

The following table lists the sample dilutions, which were performed and reported. Quantitation limits were elevated accordingly.

| Sample | TO-15 Analysis/Dilution Factor |
|---|---|
| DW AMS1(1) | 1.29 |
| DW AMS1(2) | 2.17 |

## Sample Quantitation and Compound Identification

Calculations were spot-checked; no discrepancies were noted in the EPA Method TO-15 analyses.

**Site:** Bayshore OU-1 Summer Lumber/King Bear
**Laboratory:** Air Toxics, LTD., Folsom, CA
**Report No.:** 1004128
**Reviewer:** Lisa McDonagh/GEI Consultants
**Date:** May 20, 2010

## Samples Reviewed and Evaluation Summary

| FIELD ID | LAB ID | FRACTIONS VALIDATED |
|---|---|---|
| UW AMS4 | 1004128-01A | Modified TO-15 |
| DW AMS2 | 1004128-02A | Modified TO-15 |

Associated QC Samples(s): Field Blanks: None associated
Field Duplicate pair: None associated

The above-listed samples were collected on April 1, 2010 were analyzed for volatile organic compounds (VOCs) by modified EPA Method TO-15. The data validation was performed in accordance with the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review, October 1999 and the USEPA Region II Standard Operating Procedure (SOP) for the Validation of Organic Data, September 2006, modified as necessary to accommodate the EPA Method TO-15.

The organic data were evaluated based on the following parameters:

| | | |
|---|---|---|
| * | • | Data Completeness |
| * | • | Holding Times and Sample Preservation |
| * | • | Gas Chromatography/Mass Spectrometry (GC/MS) Tunes |
| * | • | Initial and Continuing Calibrations |
| | • | Blanks |
| * | • | Surrogate Recoveries |
| NA | • | Matrix Spike/Matrix Spike Duplicate (MS/MSD) Results |
| * | • | Internal Standards |
| * | • | Laboratory Control Sample (LCS) Results |
| NA | • | Laboratory Duplicate Results |
| NA | • | Field Duplicate Results |
| | • | Quantitation Limits and Data Assessment |
| * | • | Sample Quantitation and Compound Identification |

* - All criteria were met.

NA – Not applicable.

All results are usable for project objectives.

Qualifications were not applied to the data as a result of sampling error.
Qualifications were not applied to the data as a result of analytical error.

## Data Completeness

The data package was complete as defined under the requirements for the NYASP category B deliverables for the EPA Method TO-15 analyses.

## Holding Times and Sample Preservation

All holding time and sample preservation criteria were met in the EPA Method TO-15 analyses.

## GC/MS Tunes

All criteria were met in the modified EPA Method TO-15 analyses.

## Initial and Continuing Calibrations

All criteria were met in the modified EPA Method TO-15 analyses.

\

## Blanks

Carbon disulfide was detected in the TO-15 method blank sample. The presence of blank contamination indicates that false positives may exist for this compound in the associated samples. Action Levels (ALs) were established at 10x (for common contaminants) and 5x (for other compounds) the concentrations detected. The following table summarizes the contamination.

| Compound | Type of Blank | Associated Samples | Maximum Concentration | Action Level |
|---|---|---|---|---|
| Carbon disulfide | Method blank | All samples 1004128. | 0.53 ppbv | 2.6 ppbv |

Sample results were qualified as follows:

- If sample concentration was < the quantitation limit (QL) and the Action Level, qualify the result as a nondetect (U) at the QL.
- If sample concentration was > the QL and the Action Level, qualify the result as not detected (U) at the reported concentration.
- If the sample concentration was > the QL and > the Action Level, qualification of the data was not required.

Qualifications were not required.

## Surrogate Recoveries

All criteria were met in the modified EPA Method TO-15 analyses.

## MS/MSD Results

Matrix spike samples were not submitted with this job number.

## Internal Standards

All criteria were met in the modified EPA Method TO-15 analyses.

## LCS Results

All criteria were met in the modified EPA Method TO-15 analyses.

## Lab Duplicate Results

Lab duplicate samples were not submitted with the data package.

## Field Duplicate Results

Field duplicate samples were not submitted.

## Quantitation Limits and Data Assessment

The following table lists the sample dilutions, which were performed and reported. Quantitation limits were elevated accordingly.

| Sample | TO-15 Analysis/Dilution Factor |
|---|---|
| UW AMS4 | 1.68 |
| DW AMS2 | 1.70 |

## Sample Quantitation and Compound Identification

Calculations were spot-checked; no discrepancies were noted in the EPA Method TO-15 analyses.

Air Toxics LTD.
Laboratory Services Since 1989

**Client Sample ID: UW AMS 1**

**Lab ID#: 1003364-01A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **p032012** | **Date of Collection: 3/11/10 2:45:00 PM** | |
| **Dil. Factor:** | **1.62** | **Date of Analysis: 3/20/10 10:33 AM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | | Rpt. Limit (ug/m3) | Amount (ug/m3) | |
|---|---|---|---|---|---|---|
| Freon 12 | 0.81 | Not Detected | | 4.0 | Not Detected | |
| Freon 114 | 0.81 | Not Detected | | 5.7 | Not Detected | |
| Chloromethane | 3.2 | Not Detected | UJ | 6.7 | Not Detected | UJ ✓ |
| Vinyl Chloride | 0.81 | Not Detected | | 2.1 | Not Detected | |
| 1,3-Butadiene | 0.81 | Not Detected | | 1.8 | Not Detected | |
| Bromomethane | 0.81 | Not Detected | | 3.1 | Not Detected | |
| Chloroethane | 0.81 | Not Detected | | 2.1 | Not Detected | |
| Freon 11 | 0.81 | Not Detected | | 4.6 | Not Detected | |
| Ethanol | 3.2 | 5.0 | | 6.1 | 9.4 | |
| Freon 113 | 0.81 | Not Detected | | 6.2 | Not Detected | |
| 1,1-Dichloroethene | 0.81 | Not Detected | | 3.2 | Not Detected | |
| Acetone | 3.2 | 5.4 | | 7.7 | 13 | |
| 2-Propanol | 3.2 | Not Detected | | 8.0 | Not Detected | |
| Carbon Disulfide | 0.81 | Not Detected | | 2.5 | Not Detected | |
| 3-Chloropropene | 3.2 | Not Detected | | 10 | Not Detected | |
| Methylene Chloride | 0.81 | Not Detected | | 2.8 | Not Detected | |
| Methyl tert-butyl ether | 0.81 | Not Detected | | 2.9 | Not Detected | |
| trans-1,2-Dichloroethene | 0.81 | Not Detected | | 3.2 | Not Detected | |
| Hexane | 0.81 | Not Detected | | 2.8 | Not Detected | |
| 1,1-Dichloroethane | 0.81 | Not Detected | | 3.3 | Not Detected | |
| 2-Butanone (Methyl Ethyl Ketone) | 0.81 | Not Detected | | 2.4 | Not Detected | |
| cis-1,2-Dichloroethene | 0.81 | Not Detected | | 3.2 | Not Detected | |
| Tetrahydrofuran | 0.81 | Not Detected | | 2.4 | Not Detected | |
| Chloroform | 0.81 | Not Detected | | 4.0 | Not Detected | |
| 1,1,1-Trichloroethane | 0.81 | Not Detected | | 4.4 | Not Detected | |
| Cyclohexane | 0.81 | Not Detected | | 2.8 | Not Detected | |
| Carbon Tetrachloride | 0.81 | Not Detected | | 5.1 | Not Detected | |
| 2,2,4-Trimethylpentane | 0.81 | Not Detected | | 3.8 | Not Detected | |
| Benzene | 0.81 | Not Detected | | 2.6 | Not Detected | |
| 1,2-Dichloroethane | 0.81 | Not Detected | | 3.3 | Not Detected | |
| Heptane | 0.81 | Not Detected | | 3.3 | Not Detected | |
| Trichloroethene | 0.81 | Not Detected | | 4.4 | Not Detected | |
| 1,2-Dichloropropane | 0.81 | Not Detected | | 3.7 | Not Detected | |
| 1,4-Dioxane | 3.2 | Not Detected | | 12 | Not Detected | |
| Bromodichloromethane | 0.81 | Not Detected | | 5.4 | Not Detected | |
| cis-1,3-Dichloropropene | 0.81 | Not Detected | | 3.7 | Not Detected | |
| 4-Methyl-2-pentanone | 0.81 | Not Detected | | 3.3 | Not Detected | |
| Toluene | 0.81 | Not Detected | | 3.0 | Not Detected | |
| trans-1,3-Dichloropropene | 0.81 | Not Detected | | 3.7 | Not Detected | |

5/19/10 EHM 4/23/10

Air Toxics LTD.
Laboratory Services Since 1989

**Client Sample ID: UW AMS 1**

**Lab ID#: 1003364-01A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **p032012** | **Date of Collection: 3/11/10 2:45:00 PM** | |
| **Dil. Factor:** | **1.62** | **Date of Analysis: 3/20/10 10:33 AM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (ug/m3) | Amount (ug/m3) |
|---|---|---|---|---|
| 1,1,2-Trichloroethane | 0.81 | Not Detected | 4.4 | Not Detected |
| Tetrachloroethene | 0.81 | Not Detected | 5.5 | Not Detected |
| 2-Hexanone | 3.2 | Not Detected | 13 | Not Detected |
| Dibromochloromethane | 0.81 | Not Detected | 6.9 | Not Detected |
| 1,2-Dibromoethane (EDB) | 0.81 | Not Detected | 6.2 | Not Detected |
| Chlorobenzene | 0.81 | Not Detected | 3.7 | Not Detected |
| Ethyl Benzene | 0.81 | 4.5 | 3.5 | 20 |
| m,p-Xylene | 0.81 | 5.2 | 3.5 | 23 |
| o-Xylene | 0.81 | 1.9 | 3.5 | 8.1 |
| Styrene | 0.81 | Not Detected | 3.4 | Not Detected |
| Bromoform | 0.81 | Not Detected | 8.4 | Not Detected |
| Cumene | 0.81 | Not Detected | 4.0 | Not Detected |
| 1,1,2,2-Tetrachloroethane | 0.81 | Not Detected | 5.6 | Not Detected |
| Propylbenzene | 0.81 | Not Detected | 4.0 | Not Detected |
| 4-Ethyltoluene | 0.81 | 1.6 | 4.0 | 7.7 |
| 1,3,5-Trimethylbenzene | 0.81 | Not Detected | 4.0 | Not Detected |
| 1,2,4-Trimethylbenzene | 0.81 | Not Detected | 4.0 | Not Detected |
| 1,3-Dichlorobenzene | 0.81 | Not Detected | 4.9 | Not Detected |
| 1,4-Dichlorobenzene | 0.81 | Not Detected | 4.9 | Not Detected |
| alpha-Chlorotoluene | 0.81 | Not Detected | 4.2 | Not Detected |
| 1,2-Dichlorobenzene | 0.81 | Not Detected | 4.9 | Not Detected |
| 1,2,4-Trichlorobenzene | 3.2 | Not Detected | 24 | Not Detected |
| Hexachlorobutadiene | 3.2 | Not Detected | 34 | Not Detected |
| Naphthalene | 3.2 | Not Detected | 17 | Not Detected |

**Container Type: 6 Liter Summa Canister**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| Toluene-d8 | 98 | 70-130 |
| 1,2-Dichloroethane-d4 | 100 | 70-130 |
| 4-Bromofluorobenzene | 103 | 70-130 |

5/19/10 Erm 4/23/10

Air Toxics LTD.
Laboratory Services Since 1989

**Client Sample ID: DW AMS 4**

**Lab ID#: 1003364-02A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **p032013** | **Date of Collection: 3/11/10 2:48:00 PM** | |
| **Dil. Factor:** | **1.61** | **Date of Analysis: 3/20/10 11:33 AM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (ug/m3) | Amount (ug/m3) |
|---|---|---|---|---|
| Freon 12 | 0.80 | Not Detected | 4.0 | Not Detected |
| Freon 114 | 0.80 | Not Detected | 5.6 | Not Detected |
| Chloromethane | 3.2 | Not Detected UJ | 6.6 | Not Detected UJ ✓ |
| Vinyl Chloride | 0.80 | Not Detected | 2.0 | Not Detected |
| 1,3-Butadiene | 0.80 | Not Detected | 1.8 | Not Detected |
| Bromomethane | 0.80 | Not Detected | 3.1 | Not Detected |
| Chloroethane | 0.80 | Not Detected | 2.1 | Not Detected |
| Freon 11 | 0.80 | Not Detected | 4.5 | Not Detected |
| Ethanol | 3.2 | 6.0 | 6.1 | 11 |
| Freon 113 | 0.80 | Not Detected | 6.2 | Not Detected |
| 1,1-Dichloroethene | 0.80 | Not Detected | 3.2 | Not Detected |
| Acetone | 3.2 | 11 | 7.6 | 26 |
| 2-Propanol | 3.2 | Not Detected | 7.9 | Not Detected |
| Carbon Disulfide | 0.80 | 1.2 | 2.5 | 3.8 |
| 3-Chloropropene | 3.2 | Not Detected | 10 | Not Detected |
| Methylene Chloride | 0.80 | Not Detected | 2.8 | Not Detected |
| Methyl tert-butyl ether | 0.80 | Not Detected | 2.9 | Not Detected |
| trans-1,2-Dichloroethene | 0.80 | Not Detected | 3.2 | Not Detected |
| Hexane | 0.80 | Not Detected | 2.8 | Not Detected |
| 1,1-Dichloroethane | 0.80 | Not Detected | 3.2 | Not Detected |
| 2-Butanone (Methyl Ethyl Ketone) | 0.80 | 1.3 | 2.4 | 3.9 |
| cis-1,2-Dichloroethene | 0.80 | Not Detected | 3.2 | Not Detected |
| Tetrahydrofuran | 0.80 | Not Detected | 2.4 | Not Detected |
| Chloroform | 0.80 | Not Detected | 3.9 | Not Detected |
| 1,1,1-Trichloroethane | 0.80 | Not Detected | 4.4 | Not Detected |
| Cyclohexane | 0.80 | Not Detected | 2.8 | Not Detected |
| Carbon Tetrachloride | 0.80 | Not Detected | 5.1 | Not Detected |
| 2,2,4-Trimethylpentane | 0.80 | Not Detected | 3.8 | Not Detected |
| Benzene | 0.80 | Not Detected | 2.6 | Not Detected |
| 1,2-Dichloroethane | 0.80 | Not Detected | 3.2 | Not Detected |
| Heptane | 0.80 | Not Detected | 3.3 | Not Detected |
| Trichloroethene | 0.80 | Not Detected | 4.3 | Not Detected |
| 1,2-Dichloropropane | 0.80 | Not Detected | 3.7 | Not Detected |
| 1,4-Dioxane | 3.2 | Not Detected | 12 | Not Detected |
| Bromodichloromethane | 0.80 | Not Detected | 5.4 | Not Detected |
| cis-1,3-Dichloropropene | 0.80 | Not Detected | 3.6 | Not Detected |
| 4-Methyl-2-pentanone | 0.80 | Not Detected | 3.3 | Not Detected |
| Toluene | 0.80 | Not Detected | 3.0 | Not Detected |
| trans-1,3-Dichloropropene | 0.80 | Not Detected | 3.6 | Not Detected |

5/19/10 Emm 4/23/10

Air Toxics LTD.
Laboratory Services Since 1989

**Client Sample ID: DW AMS 4**

**Lab ID#: 1003364-02A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **p032013** | **Date of Collection: 3/11/10 2:48:00 PM** | |
| **Dil. Factor:** | **1.61** | **Date of Analysis: 3/20/10 11:33 AM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (ug/m3) | Amount (ug/m3) |
|---|---|---|---|---|
| 1,1,2-Trichloroethane | 0.80 | Not Detected | 4.4 | Not Detected |
| Tetrachloroethene | 0.80 | Not Detected | 5.5 | Not Detected |
| 2-Hexanone | 3.2 | Not Detected | 13 | Not Detected |
| Dibromochloromethane | 0.80 | Not Detected | 6.8 | Not Detected |
| 1,2-Dibromoethane (EDB) | 0.80 | Not Detected | 6.2 | Not Detected |
| Chlorobenzene | 0.80 | Not Detected | 3.7 | Not Detected |
| Ethyl Benzene | 0.80 | Not Detected | 3.5 | Not Detected |
| m,p-Xylene | 0.80 | Not Detected | 3.5 | Not Detected |
| o-Xylene | 0.80 | Not Detected | 3.5 | Not Detected |
| Styrene | 0.80 | Not Detected | 3.4 | Not Detected |
| Bromoform | 0.80 | Not Detected | 8.3 | Not Detected |
| Cumene | 0.80 | Not Detected | 4.0 | Not Detected |
| 1,1,2,2-Tetrachloroethane | 0.80 | Not Detected | 5.5 | Not Detected |
| Propylbenzene | 0.80 | Not Detected | 4.0 | Not Detected |
| 4-Ethyltoluene | 0.80 | Not Detected | 4.0 | Not Detected |
| 1,3,5-Trimethylbenzene | 0.80 | Not Detected | 4.0 | Not Detected |
| 1,2,4-Trimethylbenzene | 0.80 | Not Detected | 4.0 | Not Detected |
| 1,3-Dichlorobenzene | 0.80 | Not Detected | 4.8 | Not Detected |
| 1,4-Dichlorobenzene | 0.80 | Not Detected | 4.8 | Not Detected |
| alpha-Chlorotoluene | 0.80 | Not Detected | 4.2 | Not Detected |
| 1,2-Dichlorobenzene | 0.80 | Not Detected | 4.8 | Not Detected |
| 1,2,4-Trichlorobenzene | 3.2 | Not Detected | 24 | Not Detected |
| Hexachlorobutadiene | 3.2 | Not Detected | 34 | Not Detected |
| Naphthalene | 3.2 | Not Detected | 17 | Not Detected |

**Container Type: 6 Liter Summa Canister**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| Toluene-d8 | 98 | 70-130 |
| 1,2-Dichloroethane-d4 | 103 | 70-130 |
| 4-Bromofluorobenzene | 106 | 70-130 |

5/19/10 Em 4/23/10

Air Toxics LTD.
Laboratory Services Since 1989

**Client Sample ID: UW AMS 4**

**Lab ID#: 1003514-01A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | x032719 | **Date of Collection:** | 3/18/10 2:34:00 PM |
| **Dil. Factor:** | 1.61 | **Date of Analysis:** | 3/27/10 08:31 PM |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (ug/m3) | Amount (ug/m3) |
|---|---|---|---|---|
| Freon 12 | 0.80 | Not Detected | 4.0 | Not Detected |
| Freon 114 | 0.80 | Not Detected | 5.6 | Not Detected |
| Chloromethane | 3.2 | Not Detected | 6.6 | Not Detected |
| Vinyl Chloride | 0.80 | Not Detected | 2.0 | Not Detected |
| 1,3-Butadiene | 0.80 | Not Detected | 1.8 | Not Detected |
| Bromomethane | 0.80 | Not Detected | 3.1 | Not Detected |
| Chloroethane | 0.80 | Not Detected | 2.1 | Not Detected |
| Freon 11 | 0.80 | Not Detected | 4.5 | Not Detected |
| Ethanol | 3.2 | 5.9 | 6.1 | 11 |
| Freon 113 | 0.80 | Not Detected | 6.2 | Not Detected |
| 1,1-Dichloroethene | 0.80 | Not Detected | 3.2 | Not Detected |
| Acetone | 3.2 | 5.8 | 7.6 | 14 |
| 2-Propanol | 3.2 | Not Detected | 7.9 | Not Detected |
| Carbon Disulfide | 0.80 | Not Detected | 2.5 | Not Detected |
| 3-Chloropropene | 3.2 | Not Detected | 10 | Not Detected |
| Methylene Chloride | 0.80 | Not Detected | 2.8 | Not Detected |
| Methyl tert-butyl ether | 0.80 | Not Detected | 2.9 | Not Detected |
| trans-1,2-Dichloroethene | 0.80 | Not Detected | 3.2 | Not Detected |
| Hexane | 0.80 | Not Detected | 2.8 | Not Detected |
| 1,1-Dichloroethane | 0.80 | Not Detected | 3.2 | Not Detected |
| 2-Butanone (Methyl Ethyl Ketone) | 0.80 | 0.89 | 2.4 | 2.6 |
| cis-1,2-Dichloroethene | 0.80 | Not Detected | 3.2 | Not Detected |
| Tetrahydrofuran | 0.80 | Not Detected | 2.4 | Not Detected |
| Chloroform | 0.80 | Not Detected | 3.9 | Not Detected |
| 1,1,1-Trichloroethane | 0.80 | Not Detected | 4.4 | Not Detected |
| Cyclohexane | 0.80 | Not Detected | 2,8 | Not Detected |
| Carbon Tetrachloride | 0.80 | Not Detected | 5.1 | Not Detected |
| 2,2,4-Trimethylpentane | 0.80 | Not Detected | 3.8 | Not Detected |
| Benzene | 0.80 | Not Detected | 2.6 | Not Detected |
| 1,2-Dichloroethane | 0.80 | Not Detected | 3.2 | Not Detected |
| Heptane | 0.80 | Not Detected | 3.3 | Not Detected |
| Trichloroethene | 0.80 | Not Detected | 4.3 | Not Detected |
| 1,2-Dichloropropane | 0.80 | Not Detected | 3.7 | Not Detected |
| 1,4-Dioxane | 3.2 | Not Detected | 12 | Not Detected |
| Bromodichloromethane | 0.80 | Not Detected | 5.4 | Not Detected |
| cis-1,3-Dichloropropene | 0.80 | Not Detected | 3.6 | Not Detected |
| 4-Methyl-2-pentanone | 0.80 | Not Detected | 3.3 | Not Detected |
| Toluene | 0.80 | 1.7 | 3.0 | 6.3 |
| trans-1,3-Dichloropropene | 0.80 | Not Detected | 3.6 | Not Detected |

4/5/10 EMM 4/30/10

Air Toxics LTD.
Laboratory Services Since 1989

**Client Sample ID: UW AMS 4**

**Lab ID#: 1003514-01A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **x032719** | **Date of Collection: 3/18/10 2:34:00 PM** | |
| **Dil. Factor:** | **1.61** | **Date of Analysis: 3/27/10 08:31 PM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (ug/m3) | Amount (ug/m3) |
|---|---|---|---|---|
| 1,1,2-Trichloroethane | 0.80 | Not Detected | 4.4 | Not Detected |
| Tetrachloroethene | 0.80 | Not Detected | 5.5 | Not Detected |
| 2-Hexanone | 3.2 | Not Detected | 13 | Not Detected |
| Dibromochloromethane | 0.80 | Not Detected | 6.8 | Not Detected |
| 1,2-Dibromoethane (EDB) | 0.80 | Not Detected | 6.2 | Not Detected |
| Chlorobenzene | 0.80 | Not Detected | 3.7 | Not Detected |
| Ethyl Benzene | 0.80 | Not Detected | 3.5 | Not Detected |
| m,p-Xylene | 0.80 | 1.1 | 3.5 | 4.8 |
| o-Xylene | 0.80 | Not Detected | 3.5 | Not Detected |
| Styrene | 0.80 | Not Detected | 3.4 | Not Detected |
| Bromoform | 0.80 | Not Detected | 8.3 | Not Detected |
| Cumene | 0.80 | Not Detected | 4.0 | Not Detected |
| 1,1,2,2-Tetrachloroethane | 0.80 | Not Detected | 5.5 | Not Detected |
| Propylbenzene | 0.80 | Not Detected | 4.0 | Not Detected |
| 4-Ethyltoluene | 0.80 | Not Detected | 4.0 | Not Detected |
| 1,3,5-Trimethylbenzene | 0.80 | Not Detected | 4.0 | Not Detected |
| 1,2,4-Trimethylbenzene | 0.80 | Not Detected | 4.0 | Not Detected |
| 1,3-Dichlorobenzene | 0.80 | Not Detected | 4.8 | Not Detected |
| 1,4-Dichlorobenzene | 0.80 | Not Detected | 4.8 | Not Detected |
| alpha-Chlorotoluene | 0.80 | Not Detected | 4.2 | Not Detected |
| 1,2-Dichlorobenzene | 0.80 | Not Detected | 4.8 | Not Detected |
| 1,2,4-Trichlorobenzene | 3.2 | Not Detected | 24 | Not Detected |
| Hexachlorobutadiene | 3.2 | Not Detected | 34 | Not Detected |
| Naphthalene | 3.2 | Not Detected | 17 | Not Detected |

**Container Type: 6 Liter Summa Canister**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| Toluene-d8 | 98 | 70-130 |
| 1,2-Dichloroethane-d4 | 95 | 70-130 |
| 4-Bromofluorobenzene | 85 | 70-130 |

5/19/10 EMN 4/23/10

Air Toxics LTD.
Laboratory Services Since 1989

**Client Sample ID: DW AMS 2**

**Lab ID#: 1003514-02A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **x032720** | **Date of Collection: 3/18/10 2:30:00 PM** | |
| **Dil. Factor:** | **1.79** | **Date of Analysis: 3/27/10 09:13 PM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (ug/m3) | Amount (ug/m3) |
|---|---|---|---|---|
| Freon 12 | 0.90 | Not Detected | 4.4 | Not Detected |
| Freon 114 | 0.90 | Not Detected | 6.2 | Not Detected |
| Chloromethane | 3.6 | Not Detected | 7.4 | Not Detected |
| Vinyl Chloride | 0.90 | Not Detected | 2.3 | Not Detected |
| 1,3-Butadiene | 0.90 | Not Detected | 2.0 | Not Detected |
| Bromomethane | 0.90 | Not Detected | 3.5 | Not Detected |
| Chloroethane | 0.90 | Not Detected | 2.4 | Not Detected |
| Freon 11 | 0.90 | Not Detected | 5.0 | Not Detected |
| Ethanol | 3.6 | 6.6 | 6.7 | 12 |
| Freon 113 | 0.90 | Not Detected | 6.8 | Not Detected |
| 1,1-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |
| Acetone | 3.6 | 7.8 | 8.5 | 18 |
| 2-Propanol | 3.6 | Not Detected | 8.8 | Not Detected |
| Carbon Disulfide | 0.90 | Not Detected | 2.8 | Not Detected |
| 3-Chloropropene | 3.6 | Not Detected | 11 | Not Detected |
| Methylene Chloride | 0.90 | Not Detected | 3.1 | Not Detected |
| Methyl tert-butyl ether | 0.90 | Not Detected | 3.2 | Not Detected |
| trans-1,2-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |
| Hexane | 0.90 | Not Detected | 3.2 | Not Detected |
| 1,1-Dichloroethane | 0.90 | Not Detected | 3.6 | Not Detected |
| 2-Butanone (Methyl Ethyl Ketone) | 0.90 | 1.2 | 2.6 | 3.4 |
| cis-1,2-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |
| Tetrahydrofuran | 0.90 | Not Detected | 2.6 | Not Detected |
| Chloroform | 0.90 | Not Detected | 4.4 | Not Detected |
| 1,1,1-Trichloroethane | 0.90 | Not Detected | 4.9 | Not Detected |
| Cyclohexane | 0.90 | Not Detected | 3.1 | Not Detected |
| Carbon Tetrachloride | 0.90 | Not Detected | 5.6 | Not Detected |
| 2,2,4-Trimethylpentane | 0.90 | Not Detected | 4.2 | Not Detected |
| Benzene | 0.90 | Not Detected | 2.8 | Not Detected |
| 1,2-Dichloroethane | 0.90 | Not Detected | 3.6 | Not Detected |
| Heptane | 0.90 | Not Detected | 3.7 | Not Detected |
| Trichloroethene | 0.90 | Not Detected | 4.8 | Not Detected |
| 1,2-Dichloropropane | 0.90 | Not Detected | 4.1 | Not Detected |
| 1,4-Dioxane | 3.6 | Not Detected | 13 | Not Detected |
| Bromodichloromethane | 0.90 | Not Detected | 6.0 | Not Detected |
| cis-1,3-Dichloropropene | 0.90 | Not Detected | 4.1 | Not Detected |
| 4-Methyl-2-pentanone | 0.90 | Not Detected | 3.7 | Not Detected |
| Toluene | 0.90 | 1.8 | 3.4 | 6.7 |
| trans-1,3-Dichloropropene | 0.90 | Not Detected | 4.1 | Not Detected |

4/5/9/10 EHM 4/23/10

Air Toxics LTD.
Laboratory Services Since 1989

**Client Sample ID: DW AMS 2**

**Lab ID#: 1003514-02A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **x032720** | **Date of Collection: 3/18/10 2:30:00 PM** | |
| **Dil. Factor:** | **1.79** | **Date of Analysis: 3/27/10 09:13 PM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (ug/m3) | Amount (ug/m3) |
|---|---|---|---|---|
| 1,1,2-Trichloroethane | 0.90 | Not Detected | 4.9 | Not Detected |
| Tetrachloroethene | 0.90 | Not Detected | 6.1 | Not Detected |
| 2-Hexanone | 3.6 | Not Detected | 15 | Not Detected |
| Dibromochloromethane | 0.90 | Not Detected | 7.6 | Not Detected |
| 1,2-Dibromoethane (EDB) | 0.90 | Not Detected | 6.9 | Not Detected |
| Chlorobenzene | 0.90 | Not Detected | 4.1 | Not Detected |
| Ethyl Benzene | 0.90 | 0.99 | 3.9 | 4.3 |
| m,p-Xylene | 0.90 | 1.6 | 3.9 | 7.0 |
| o-Xylene | 0.90 | Not Detected | 3.9 | Not Detected |
| Styrene | 0.90 | Not Detected | 3.8 | Not Detected |
| Bromoform | 0.90 | Not Detected | 9.2 | Not Detected |
| Cumene | 0.90 | Not Detected | 4.4 | Not Detected |
| 1,1,2,2-Tetrachloroethane | 0.90 | Not Detected | 6.1 | Not Detected |
| Propylbenzene | 0.90 | Not Detected | 4.4 | Not Detected |
| 4-Ethyltoluene | 0.90 | Not Detected | 4.4 | Not Detected |
| 1,3,5-Trimethylbenzene | 0.90 | Not Detected | 4.4 | Not Detected |
| 1,2,4-Trimethylbenzene | 0.90 | Not Detected | 4.4 | Not Detected |
| 1,3-Dichlorobenzene | 0.90 | Not Detected | 5.4 | Not Detected |
| 1,4-Dichlorobenzene | 0.90 | Not Detected | 5.4 | Not Detected |
| alpha-Chlorotoluene | 0.90 | Not Detected | 4.6 | Not Detected |
| 1,2-Dichlorobenzene | 0.90 | Not Detected | 5.4 | Not Detected |
| 1,2,4-Trichlorobenzene | 3.6 | Not Detected | 26 | Not Detected |
| Hexachlorobutadiene | 3.6 | Not Detected | 38 | Not Detected |
| Naphthalene | 3.6 | Not Detected | 19 | Not Detected |

**Container Type: 6 Liter Summa Canister**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| Toluene-d8 | 99 | 70-130 |
| 1,2-Dichloroethane-d4 | 95 | 70-130 |
| 4-Bromofluorobenzene | 86 | 70-130 |

5/19/10 EHM 4/23/10

Air Toxics LTD.
Laboratory Services Since 1989

**Client Sample ID: DW AMS 1 (1)**

**Lab ID#: 1003666-01A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **d040523** | **Date of Collection: 3/25/10 7:09:00 AM** | |
| **Dil. Factor:** | **1.29** | **Date of Analysis: 4/5/10 08:09 PM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (ug/m3) | Amount (ug/m3) |
|---|---|---|---|---|
| Freon 12 | 0.64 | Not Detected | 3.2 | Not Detected |
| Freon 114 | 0.64 | Not Detected | 4.5 | Not Detected |
| Chloromethane | 2.6 | Not Detected | 5.3 | Not Detected |
| Vinyl Chloride | 0.64 | Not Detected | 1.6 | Not Detected |
| 1,3-Butadiene | 0.64 | Not Detected | 1.4 | Not Detected |
| Bromomethane | 0.64 | Not Detected | 2.5 | Not Detected |
| Chloroethane | 0.64 | Not Detected | 1.7 | Not Detected |
| Freon 11 | 0.64 | Not Detected | 3.6 | Not Detected |
| Ethanol | 2.6 | 14 | 4.9 | 27 |
| Freon 113 | 0.64 | Not Detected | 4.9 | Not Detected |
| 1,1-Dichloroethene | 0.64 | Not Detected | 2.6 | Not Detected |
| Acetone | 2.6 | 5.6 | 6.1 | 13 |
| 2-Propanol | 2.6 | Not Detected | 6.3 | Not Detected |
| Carbon Disulfide | 0.64 | Not Detected | 2.0 | Not Detected |
| 3-Chloropropene | 2.6 | Not Detected | 8.1 | Not Detected |
| Methylene Chloride | 0.64 | Not Detected | 2.2 | Not Detected |
| Methyl tert-butyl ether | 0.64 | Not Detected | 2.3 | Not Detected |
| trans-1,2-Dichloroethene | 0.64 | Not Detected | 2.6 | Not Detected |
| Hexane | 0.64 | 0.90 | 2.3 | 3.2 |
| 1,1-Dichloroethane | 0.64 | Not Detected | 2.6 | Not Detected |
| 2-Butanone (Methyl Ethyl Ketone) | 0.64 | 0.71 | 1.9 | 2.1 |
| cis-1,2-Dichloroethene | 0.64 | Not Detected | 2.6 | Not Detected |
| Tetrahydrofuran | 0.64 | Not Detected | 1.9 | Not Detected |
| Chloroform | 0.64 | Not Detected | 3.1 | Not Detected |
| 1,1,1-Trichloroethane | 0.64 | Not Detected | 3.5 | Not Detected |
| Cyclohexane | 0.64 | Not Detected | 2.2 | Not Detected |
| Carbon Tetrachloride | 0.64 | Not Detected | 4.0 | Not Detected |
| 2,2,4-Trimethylpentane | 0.64 | Not Detected | 3.0 | Not Detected |
| Benzene | 0.64 | 1.2 | 2.1 | 3.7 |
| 1,2-Dichloroethane | 0.64 | Not Detected | 2.6 | Not Detected |
| Heptane | 0.64 | Not Detected | 2.6 | Not Detected |
| Trichloroethene | 0.64 | Not Detected | 3.5 | Not Detected |
| 1,2-Dichloropropane | 0.64 | Not Detected | 3.0 | Not Detected |
| 1,4-Dioxane | 2.6 | Not Detected | 9.3 | Not Detected |
| Bromodichloromethane | 0.64 | Not Detected | 4.3 | Not Detected |
| cis-1,3-Dichloropropene | 0.64 | Not Detected | 2.9 | Not Detected |
| 4-Methyl-2-pentanone | 0.64 | Not Detected | 2.6 | Not Detected |
| Toluene | 0.64 | 3.9 | 2.4 | 14 |
| trans-1,3-Dichloropropene | 0.64 | Not Detected | 2.9 | Not Detected |



4/5/10 Emm 4/23/10

Air Toxics LTD.
Laboratory Services Since 1989

**Client Sample ID: DW AMS 1 (1)**

**Lab ID#: 1003666-01A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **d040523** | **Date of Collection: 3/25/10 7:09:00 AM** | |
| **Dil. Factor:** | **1.29** | **Date of Analysis: 4/5/10 08:09 PM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (ug/m3) | Amount (ug/m3) |
|---|---|---|---|---|
| 1,1,2-Trichloroethane | 0.64 | Not Detected | 3.5 | Not Detected |
| Tetrachloroethene | 0.64 | Not Detected | 4.4 | Not Detected |
| 2-Hexanone | 2.6 | Not Detected | 10 | Not Detected |
| Dibromochloromethane | 0.64 | Not Detected | 5.5 | Not Detected |
| 1,2-Dibromoethane (EDB) | 0.64 | Not Detected | 5.0 | Not Detected |
| Chlorobenzene | 0.64 | Not Detected | 3.0 | Not Detected |
| Ethyl Benzene | 0.64 | 10 | 2.8 | 44 |
| m,p-Xylene | 0.64 | 12 | 2.8 | 51 |
| o-Xylene | 0.64 | 2.6 | 2.8 | 12 |
| Styrene | 0.64 | Not Detected | 2.7 | Not Detected |
| Bromoform | 0.64 | Not Detected | 6.7 | Not Detected |
| Cumene | 0.64 | 0.74 | 3.2 | 3.7 |
| 1,1,2,2-Tetrachloroethane | 0.64 | Not Detected | 4.4 | Not Detected |
| Propylbenzene | 0.64 | Not Detected | 3.2 | Not Detected |
| 4-Ethyltoluene | 0.64 | 4.1 | 3.2 | 20 |
| 1,3,5-Trimethylbenzene | 0.64 | 0.96 | 3.2 | 4.7 |
| 1,2,4-Trimethylbenzene | 0.64 | 2.6 | 3.2 | 13 |
| 1,3-Dichlorobenzene | 0.64 | Not Detected | 3.9 | Not Detected |
| 1,4-Dichlorobenzene | 0.64 | Not Detected | 3.9 | Not Detected |
| alpha-Chlorotoluene | 0.64 | Not Detected | 3.3 | Not Detected |
| 1,2-Dichlorobenzene | 0.64 | Not Detected | 3.9 | Not Detected |
| 1,2,4-Trichlorobenzene | 2.6 | Not Detected | 19 | Not Detected |
| Hexachlorobutadiene | 2.6 | Not Detected | 28 | Not Detected |
| Naphthalene | 2.6 | Not Detected | 14 | Not Detected |

**Container Type: 6 Liter Summa Canister**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| Toluene-d8 | 101 | 70-130 |
| 1,2-Dichloroethane-d4 | 103 | 70-130 |
| 4-Bromofluorobenzene | 98 | 70-130 |

QA 5/19/10 EHM 4/23/10

Air Toxics LTD.
Laboratory Services Since 1989

**Client Sample ID: DW AMS 1 (2)**

**Lab ID#: 1003666-02A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **d040524** | **Date of Collection: 3/25/10 2:46:00 PM** | |
| **Dil. Factor:** | **2.17** | **Date of Analysis: 4/5/10 08:58 PM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (ug/m3) | Amount (ug/m3) |
|---|---|---|---|---|
| Freon 12 | 1.1 | Not Detected | 5.4 | Not Detected |
| Freon 114 | 1.1 | Not Detected | 7.6 | Not Detected |
| Chloromethane | 4.3 | Not Detected | 9.0 | Not Detected |
| Vinyl Chloride | 1.1 | Not Detected | 2.8 | Not Detected |
| 1,3-Butadiene | 1.1 | Not Detected | 2.4 | Not Detected |
| Bromomethane | 1.1 | Not Detected | 4.2 | Not Detected |
| Chloroethane | 1.1 | Not Detected | 2.9 | Not Detected |
| Freon 11 | 1.1 | Not Detected | 6.1 | Not Detected |
| Ethanol | 4.3 | Not Detected | 8.2 | Not Detected |
| Freon 113 | 1.1 | Not Detected | 8.3 | Not Detected |
| 1,1-Dichloroethene | 1.1 | Not Detected | 4.3 | Not Detected |
| Acetone | 4.3 | 4.6 | 10 | 11 |
| 2-Propanol | 4.3 | Not Detected | 11 | Not Detected |
| Carbon Disulfide | 1.1 | Not Detected | 3.4 | Not Detected |
| 3-Chloropropene | 4.3 | Not Detected | 14 | Not Detected |
| Methylene Chloride | 1.1 | Not Detected | 3.8 | Not Detected |
| Methyl tert-butyl ether | 1.1 | Not Detected | 3.9 | Not Detected |
| trans-1,2-Dichloroethene | 1.1 | Not Detected | 4.3 | Not Detected |
| Hexane | 1.1 | Not Detected | 3.8 | Not Detected |
| 1,1-Dichloroethane | 1.1 | Not Detected | 4.4 | Not Detected |
| 2-Butanone (Methyl Ethyl Ketone) | 1.1 | Not Detected | 3.2 | Not Detected |
| cis-1,2-Dichloroethene | 1.1 | Not Detected | 4.3 | Not Detected |
| Tetrahydrofuran | 1.1 | Not Detected | 3.2 | Not Detected |
| Chloroform | 1.1 | Not Detected | 5.3 | Not Detected |
| 1,1,1-Trichloroethane | 1.1 | Not Detected | 5.9 | Not Detected |
| Cyclohexane | 1.1 | Not Detected | 3.7 | Not Detected |
| Carbon Tetrachloride | 1.1 | Not Detected | 6.8 | Not Detected |
| 2,2,4-Trimethylpentane | 1.1 | Not Detected | 5.1 | Not Detected |
| Benzene | 1.1 | Not Detected | 3.5 | Not Detected |
| 1,2-Dichloroethane | 1.1 | Not Detected | 4.4 | Not Detected |
| Heptane | 1.1 | Not Detected | 4.4 | Not Detected |
| Trichloroethene | 1.1 | Not Detected | 5.8 | Not Detected |
| 1,2-Dichloropropane | 1.1 | Not Detected | 5.0 | Not Detected |
| 1,4-Dioxane | 4.3 | Not Detected | 16 | Not Detected |
| Bromodichloromethane | 1.1 | Not Detected | 7.3 | Not Detected |
| cis-1,3-Dichloropropene | 1.1 | Not Detected | 4.9 | Not Detected |
| 4-Methyl-2-pentanone | 1.1 | Not Detected | 4.4 | Not Detected |
| Toluene | 1.1 | Not Detected | 4.1 | Not Detected |
| trans-1,3-Dichloropropene | 1.1 | Not Detected | 4.9 | Not Detected |



4/5/10
ETM
4/23/10

Air Toxics LTD.
Laboratory Services Since 1989

**Client Sample ID: DW AMS 1 (2)**

**Lab ID#: 1003666-02A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **d040524** | **Date of Collection: 3/25/10 2:46:00 PM** | |
| **Dil. Factor:** | **2.17** | **Date of Analysis: 4/5/10 08:58 PM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (ug/m3) | Amount (ug/m3) |
|---|---|---|---|---|
| 1,1,2-Trichloroethane | 1.1 | Not Detected | 5.9 | Not Detected |
| Tetrachloroethene | 1.1 | Not Detected | 7.4 | Not Detected |
| 2-Hexanone | 4.3 | Not Detected | 18 | Not Detected |
| Dibromochloromethane | 1.1 | Not Detected | 9.2 | Not Detected |
| 1,2-Dibromoethane (EDB) | 1.1 | Not Detected | 8.3 | Not Detected |
| Chlorobenzene | 1.1 | Not Detected | 5.0 | Not Detected |
| Ethyl Benzene | 1.1 | Not Detected | 4.7 | Not Detected |
| m,p-Xylene | 1.1 | Not Detected | 4.7 | Not Detected |
| o-Xylene | 1.1 | Not Detected | 4.7 | Not Detected |
| Styrene | 1.1 | Not Detected | 4.6 | Not Detected |
| Bromoform | 1.1 | Not Detected | 11 | Not Detected |
| Cumene | 1.1 | Not Detected | 5.3 | Not Detected |
| 1,1,2,2-Tetrachloroethane | 1.1 | Not Detected | 7.4 | Not Detected |
| Propylbenzene | 1.1 | Not Detected | 5.3 | Not Detected |
| 4-Ethyltoluene | 1.1 | Not Detected | 5.3 | Not Detected |
| 1,3,5-Trimethylbenzene | 1.1 | Not Detected | 5.3 | Not Detected |
| 1,2,4-Trimethylbenzene | 1.1 | Not Detected | 5.3 | Not Detected |
| 1,3-Dichlorobenzene | 1.1 | Not Detected | 6.5 | Not Detected |
| 1,4-Dichlorobenzene | 1.1 | Not Detected | 6.5 | Not Detected |
| alpha-Chlorotoluene | 1.1 | Not Detected | 5.6 | Not Detected |
| 1,2-Dichlorobenzene | 1.1 | Not Detected | 6.5 | Not Detected |
| 1,2,4-Trichlorobenzene | 4.3 | Not Detected | 32 | Not Detected |
| Hexachlorobutadiene | 4.3 | Not Detected | 46 | Not Detected |
| Naphthalene | 4.3 | Not Detected | 23 | Not Detected |

**Container Type: 6 Liter Summa Canister**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| Toluene-d8 | 100 | 70-130 |
| 1,2-Dichloroethane-d4 | 103 | 70-130 |
| 4-Bromofluorobenzene | 98 | 70-130 |

5/19/10 EHM 4/23/10

Air Toxics LTD.
Laboratory Services Since 1988

**Client Sample ID: UW AMS 4**

**Lab ID#: 1004128-01A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **d041324** | **Date of Collection: 4/1/10 2:40:00 PM** | |
| **Dil. Factor:** | **1.68** | **Date of Analysis: 4/13/10 06:58 PM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (ug/m3) | Amount (ug/m3) |
|---|---|---|---|---|
| Freon 12 | 0.84 | Not Detected | 4.2 | Not Detected |
| Freon 114 | 0.84 | Not Detected | 5.9 | Not Detected |
| Chloromethane | 3.4 | Not Detected | 6.9 | Not Detected |
| Vinyl Chloride | 0.84 | Not Detected | 2.1 | Not Detected |
| 1,3-Butadiene | 0.84 | Not Detected | 1.8 | Not Detected |
| Bromomethane | 0.84 | Not Detected | 3.3 | Not Detected |
| Chloroethane | 0.84 | Not Detected | 2.2 | Not Detected |
| Freon 11 | 0.84 | Not Detected | 4.7 | Not Detected |
| Ethanol | 3.4 | 52 | 6.3 | 99 |
| Freon 113 | 0.84 | Not Detected | 6.4 | Not Detected |
| 1,1-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |
| Acetone | 3.4 | 7.0 | 8.0 | 16 |
| 2-Propanol | 3.4 | Not Detected | 8.2 | Not Detected |
| Carbon Disulfide | 0.84 | Not Detected | 2.6 | Not Detected |
| 3-Chloropropene | 3.4 | Not Detected | 10 | Not Detected |
| Methylene Chloride | 0.84 | Not Detected | 2.9 | Not Detected |
| Methyl tert-butyl ether | 0.84 | Not Detected | 3.0 | Not Detected |
| trans-1,2-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |
| Hexane | 0.84 | Not Detected | 3.0 | Not Detected |
| 1,1-Dichloroethane | 0.84 | Not Detected | 3.4 | Not Detected |
| 2-Butanone (Methyl Ethyl Ketone) | 0.84 | 1.4 | 2.5 | 4.0 |
| cis-1,2-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |
| Tetrahydrofuran | 0.84 | Not Detected | 2.5 | Not Detected |
| Chloroform | 0.84 | Not Detected | 4.1 | Not Detected |
| 1,1,1-Trichloroethane | 0.84 | Not Detected | 4.6 | Not Detected |
| Cyclohexane | 0.84 | Not Detected | 2.9 | Not Detected |
| Carbon Tetrachloride | 0.84 | Not Detected | 5.3 | Not Detected |
| 2,2,4-Trimethylpentane | 0.84 | Not Detected | 3.9 | Not Detected |
| Benzene | 0.84 | Not Detected | 2.7 | Not Detected |
| 1,2-Dichloroethane | 0.84 | Not Detected | 3.4 | Not Detected |
| Heptane | 0.84 | Not Detected | 3.4 | Not Detected |
| Trichloroethene | 0.84 | Not Detected | 4.5 | Not Detected |
| 1,2-Dichloropropane | 0.84 | Not Detected | 3.9 | Not Detected |
| 1,4-Dioxane | 3.4 | Not Detected | 12 | Not Detected |
| Bromodichloromethane | 0.84 | Not Detected | 5.6 | Not Detected |
| cis-1,3-Dichloropropene | 0.84 | Not Detected | 3.8 | Not Detected |
| 4-Methyl-2-pentanone | 0.84 | Not Detected | 3.4 | Not Detected |
| Toluene | 0.84 | Not Detected | 3.2 | Not Detected |
| trans-1,3-Dichloropropene | 0.84 | Not Detected | 3.8 | Not Detected |



EHH 5/25/10 5/28/10

Air Toxics LTD.
Laboratory Services Since 1989

**Client Sample ID: UW AMS 4**

**Lab ID#: 1004128-01A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **d041324** | **Date of Collection: 4/1/10 2:40:00 PM** | |
| **Dil. Factor:** | **1.68** | **Date of Analysis: 4/13/10 06:58 PM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (ug/m3) | Amount (ug/m3) |
|---|---|---|---|---|
| 1,1,2-Trichloroethane | 0.84 | Not Detected | 4.6 | Not Detected |
| Tetrachloroethene | 0.84 | Not Detected | 5.7 | Not Detected |
| 2-Hexanone | 3.4 | Not Detected | 14 | Not Detected |
| Dibromochloromethane | 0.84 | Not Detected | 7.2 | Not Detected |
| 1,2-Dibromoethane (EDB) | 0.84 | Not Detected | 6.4 | Not Detected |
| Chlorobenzene | 0.84 | Not Detected | 3.9 | Not Detected |
| Ethyl Benzene | 0.84 | Not Detected | 3.6 | Not Detected |
| m,p-Xylene | 0.84 | Not Detected | 3.6 | Not Detected |
| o-Xylene | 0.84 | Not Detected | 3.6 | Not Detected |
| Styrene | 0.84 | Not Detected | 3.6 | Not Detected |
| Bromoform | 0.84 | Not Detected | 8.7 | Not Detected |
| Cumene | 0.84 | Not Detected | 4.1 | Not Detected |
| 1,1,2,2-Tetrachloroethane | 0.84 | Not Detected | 5.8 | Not Detected |
| Propylbenzene | 0.84 | Not Detected | 4.1 | Not Detected |
| 4-Ethyltoluene | 0.84 | Not Detected | 4.1 | Not Detected |
| 1,3,5-Trimethylbenzene | 0.84 | Not Detected | 4.1 | Not Detected |
| 1,2,4-Trimethylbenzene | 0.84 | Not Detected | 4.1 | Not Detected |
| 1,3-Dichlorobenzene | 0.84 | Not Detected | 5.0 | Not Detected |
| 1,4-Dichlorobenzene | 0.84 | Not Detected | 5.0 | Not Detected |
| alpha-Chlorotoluene | 0.84 | Not Detected | 4.3 | Not Detected |
| 1,2-Dichlorobenzene | 0.84 | Not Detected | 5.0 | Not Detected |
| 1,2,4-Trichlorobenzene | 3.4 | Not Detected | 25 | Not Detected |
| Hexachlorobutadiene | 3.4 | Not Detected | 36 | Not Detected |
| Naphthalene | 3.4 | Not Detected | 18 | Not Detected |

**Container Type: 6 Liter Summa Canister**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| Toluene-d8 | 104 | 70-130 |
| 1,2-Dichloroethane-d4 | 118 | 70-130 |
| 4-Bromofluorobenzene | 97 | 70-130 |

EMA 5/25/10
JW 5/26/10

Air Toxics LTD.
Laboratory Services Since 1989

**Client Sample ID: DW AMS 2**

**Lab ID#: 1004128-02A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **d041325** | **Date of Collection: 4/1/10 2:35:00 PM** | |
| **Dil. Factor:** | **1.70** | **Date of Analysis: 4/13/10 07:20 PM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (ug/m3) | Amount (ug/m3) |
|---|---|---|---|---|
| Freon 12 | 0.85 | Not Detected | 4.2 | Not Detected |
| Freon 114 | 0.85 | Not Detected | 5.9 | Not Detected |
| Chloromethane | 3.4 | Not Detected | 7.0 | Not Detected |
| Vinyl Chloride | 0.85 | Not Detected | 2.2 | Not Detected |
| 1,3-Butadiene | 0.85 | Not Detected | 1.9 | Not Detected |
| Bromomethane | 0.85 | Not Detected | 3.3 | Not Detected |
| Chloroethane | 0.85 | Not Detected | 2.2 | Not Detected |
| Freon 11 | 0.85 | Not Detected | 4.8 | Not Detected |
| Ethanol | 3.4 | 9.6 | 6.4 | 18 |
| Freon 113 | 0.85 | Not Detected | 6.5 | Not Detected |
| 1,1-Dichloroethene | 0.85 | Not Detected | 3.4 | Not Detected |
| Acetone | 3.4 | 6.3 | 8.1 | 15 |
| 2-Propanol | 3.4 | Not Detected | 8.4 | Not Detected |
| Carbon Disulfide | 0.85 | Not Detected | 2.6 | Not Detected |
| 3-Chloropropene | 3.4 | Not Detected | 11 | Not Detected |
| Methylene Chloride | 0.85 | Not Detected | 3.0 | Not Detected |
| Methyl tert-butyl ether | 0.85 | Not Detected | 3.1 | Not Detected |
| trans-1,2-Dichloroethene | 0.85 | Not Detected | 3.4 | Not Detected |
| Hexane | 0.85 | Not Detected | 3.0 | Not Detected |
| 1,1-Dichloroethane | 0.85 | Not Detected | 3.4 | Not Detected |
| 2-Butanone (Methyl Ethyl Ketone) | 0.85 | Not Detected | 2.5 | Not Detected |
| cis-1,2-Dichloroethene | 0.85 | Not Detected | 3.4 | Not Detected |
| Tetrahydrofuran | 0.85 | Not Detected | 2.5 | Not Detected |
| Chloroform | 0.85 | Not Detected | 4.2 | Not Detected |
| 1,1,1-Trichloroethane | 0.85 | Not Detected | 4.6 | Not Detected |
| Cyclohexane | 0.85 | Not Detected | 2.9 | Not Detected |
| Carbon Tetrachloride | 0.85 | Not Detected | 5.3 | Not Detected |
| 2,2,4-Trimethylpentane | 0.85 | Not Detected | 4.0 | Not Detected |
| Benzene | 0.85 | Not Detected | 2.7 | Not Detected |
| 1,2-Dichloroethane | 0.85 | Not Detected | 3.4 | Not Detected |
| Heptane | 0.85 | Not Detected | 3.5 | Not Detected |
| Trichloroethene | 0.85 | Not Detected | 4.6 | Not Detected |
| 1,2-Dichloropropane | 0.85 | Not Detected | 3.9 | Not Detected |
| 1,4-Dioxane | 3.4 | Not Detected | 12 | Not Detected |
| Bromodichloromethane | 0.85 | Not Detected | 5.7 | Not Detected |
| cis-1,3-Dichloropropene | 0.85 | Not Detected | 3.8 | Not Detected |
| 4-Methyl-2-pentanone | 0.85 | Not Detected | 3.5 | Not Detected |
| Toluene | 0.85 | Not Detected | 3.2 | Not Detected |
| trans-1,3-Dichloropropene | 0.85 | Not Detected | 3.8 | Not Detected |

EMM 5/25/10 JW 5/28/10

Air Toxics LTD.
Laboratory Services Since 1989

**Client Sample ID: DW AMS 2**

**Lab ID#: 1004128-02A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **d041325** | **Date of Collection: 4/1/10 2:35:00 PM** | |
| **Dil. Factor:** | **1.70** | **Date of Analysis: 4/13/10 07:20 PM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (ug/m3) | Amount (ug/m3) |
|---|---|---|---|---|
| 1,1,2-Trichloroethane | 0.85 | Not Detected | 4.6 | Not Detected |
| Tetrachloroethene | 0.85 | Not Detected | 5.8 | Not Detected |
| 2-Hexanone | 3.4 | Not Detected | 14 | Not Detected |
| Dibromochloromethane | 0.85 | Not Detected | 7.2 | Not Detected |
| 1,2-Dibromoethane (EDB) | 0.85 | Not Detected | 6.5 | Not Detected |
| Chlorobenzene | 0.85 | Not Detected | 3.9 | Not Detected |
| Ethyl Benzene | 0.85 | Not Detected | 3.7 | Not Detected |
| m,p-Xylene | 0.85 | Not Detected | 3.7 | Not Detected |
| o-Xylene | 0.85 | Not Detected | 3.7 | Not Detected |
| Styrene | 0.85 | Not Detected | 3.6 | Not Detected |
| Bromoform | 0.85 | Not Detected | 8.8 | Not Detected |
| Cumene | 0.85 | Not Detected | 4.2 | Not Detected |
| 1,1,2,2-Tetrachloroethane | 0.85 | Not Detected | 5.8 | Not Detected |
| Propylbenzene | 0.85 | Not Detected | 4.2 | Not Detected |
| 4-Ethyltoluene | 0.85 | Not Detected | 4.2 | Not Detected |
| 1,3,5-Trimethylbenzene | 0.85 | Not Detected | 4.2 | Not Detected |
| 1,2,4-Trimethylbenzene | 0.85 | Not Detected | 4.2 | Not Detected |
| 1,3-Dichlorobenzene | 0.85 | Not Detected | 5.1 | Not Detected |
| 1,4-Dichlorobenzene | 0.85 | Not Detected | 5.1 | Not Detected |
| alpha-Chlorotoluene | 0.85 | Not Detected | 4.4 | Not Detected |
| 1,2-Dichlorobenzene | 0.85 | Not Detected | 5.1 | Not Detected |
| 1,2,4-Trichlorobenzene | 3.4 | Not Detected | 25 | Not Detected |
| Hexachlorobutadiene | 3.4 | Not Detected | 36 | Not Detected |
| Naphthalene | 3.4 | Not Detected | 18 | Not Detected |

**Container Type: 6 Liter Summa Canister**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| Toluene-d8 | 106 | 70-130 |
| 1,2-Dichloroethane-d4 | 115 | 70-130 |
| 4-Bromofluorobenzene | 97 | 70-130 |

EHM 5/25/10 JW 5/26/10

# Appendix D

## Meteorological Monitoring Data (Electronic)

# Appendix E

## Weekly Community Air Monitoring Summary Reports (Electronic)

GEI Consultants

110 Walt Whitman Road
Suite 204
Huntington Station, NY 11746

Ph: (631) 760-9300
Fax: (631) 760-9301

# Memorandum

To: Bill Ryan and Christie Battenhouse (National Grid)

From: Tess Landgraff

Copy to: James Christman (National Grid)
Gary Kowalski (Creamer)
Harvey Hansen (Creamer)
Errol Kitt (GEI)
Tom Shock (GEI)
Brian Skelly (GEI)
Tim Olean (GEI)
Scott Deyette (DEC)
Amen Omorogbe (DEC)
Steve Karpinski (DOH)
Amy Juchatz (SCDEE)
Ron Paulsen (SCDHS)

Date: April 7, 2010

Regarding: Weekly Community Air Monitoring Report
Bay Shore Former MGP Site
Operable Unit 1 (OU-1) Remedial Action Plan (RAP)-Phase IV
March 06, 2010 through March 12, 2010

Dear Bill and Christie:

This report includes a summary of data collected during the Community Air Monitoring Program (CAMP) at the Bay Shore Former MGP Site in Bay Shore, New York during the period March 06, 2010 through March 12, 2010. Data collected are discussed in relation to intrusive and non-intrusive construction activities associated with Phase IV of the OU-1 RAP. The tables and figures accompanying this report summarize air monitoring results related to the action levels described by the CAMP Work Plan. Figure 1 illustrates the current locations of the CAMP units.

Fifteen-minute averages for Total Volatile Organic Compounds (TVOC) and Respirable Particulate Matter ($PM_{10}$) remained at a Site Condition 1 during this reporting period. A Site Condition 1 is defined as normal or ambient air conditions where all target concentrations are less than the Alert Limit.

The following target compounds and corresponding Alert Limits and Action Limits were developed in accordance with the NYSDOH Generic CAMP.

| Target Compounds | Alert Limit |
|---|---|
| TVOCs (15-minute average concentration) | 3.7 ppm greater than background* |
| Respirable Particulate Matter ($PM_{10}$) | 100 $\mu g/m^3$ greater than background* |

| Target Compounds | Action Limit |
|---|---|
| TVOCs (15-minute average concentration) | 5.0 ppm greater than background* |
| TVOCs (1-minute concentration) | 25 ppm greater than background* |
| Respirable Particulate Matter ($PM_{10}$) | 150 $\mu g/m^3$ greater than background* |

ppm - parts per million
$\mu g/m^3$ - micrograms per meter cubed
TVOCs – Total Volatile Organic Compounds
* Background is defined as the current upwind fifteen-minute average concentration.

The following information is summarized in this report:

- Site related construction activities,
- Daily maximum 15-minute average concentrations of TVOC and $PM_{10}$ at each fixed station,
- Elevated concentrations (if any) and,
- Meteorological data.

## Remedial Site Activities

Site activity (non-intrusive) conducted during this reporting period consisted of:

- Mobilization and setting up equipment for excavations
- Delivery of stone, kiln dust, and hay bales
- Saw cutting asphalt over excavation area
- Excavation and stockpiling impacted materials from the exclusion zone
- Removal of stockpiled impacted material from the temporary fabric structure via dump trucks
- Backfilling of the excavation area

Site activities are summarized on Table 1.

## Data Collection

Real-time fixed station monitoring for TVOC and $PM_{10}$ was performed on the OU-1 site perimeter at four locations (AMS-1 through AMS-4) during this time period. Fifteen-minute averages for TVOC and $PM_{10}$ remained at a Site Condition 1 during this reporting period.

Table 2 summarizes the target concentrations for action levels and Site Conditions described by the CAMP Work Plan (GEI, 2009). Table 3 provides a daily summary of maximum fifteen-minute average ambient air concentrations from each station. Table 4 depicts a more detailed and time-specific comparison of upwind and downwind measurements that is needed to determine the site condition.

On Monday, March 8, 15-minute average concentrations of $PM_{10}$ were recorded above the Alert Limit of 100 $\mu g/m^3$ at AMS-3 from 12:40 am to 12:51 am and at AMS-4 from 12:40 am to 12:48 am. There was no work onsite during this time period and a Site Condition 1 was maintained. Please see Table 3 and Table 4 for more details.

On Monday, March 8, 15-minute average concentrations of $PM_{10}$ were recorded above the Alert Limit of 100 $\mu g/m^3$ at AMS-3 in multiple instances between 7:07 am and 2:36 pm. There was no intrusive work being conducted onsite during this time and the elevated readings were due to vehicular surface dust from offsite truck traffic. A Site Condition 1 was maintained. Please see Table 3 and Table 4 for more details.

On Tuesday, March 9, 15-minute average concentrations of $PM_{10}$ were recorded above the Alert Limit of 100 $\mu g/m^3$ at AMS 3 in multiple instances between 7:33 am and 12:35 pm. The elevated readings were due to vehicular surface dust from offsite truck. A Site Condition 1 was maintained. Please see Table 4 for more details.

GEI collected upwind and downwind TO-15 verification samples on Thursday, March 11, 2010. If MGP-related compounds are detected in any of the samples, such detections will be discussed in a future memo. Meteorological data collected at the weather station on site are included in this report as Figures 2-5 which show a directional wind rose for the period, wind speed, temperature, and relative humidity time series for the period.

If you have any questions regarding the information in this report, please contact me at 631-760-9300.

**References**

GEI Consultants, Inc (2009). Community Air Monitoring Program Work Plan: Bay Shore/Brightwaters Former MGP Site, Operable Unit 1, Summers Lumber/ King Bear IRM Relocation, Interim Remedial Measure, Brightwaters, NY. February 18, 2010.

New York State Department of Environmental Conservation. Draft DER-10 Technical Guidance for Site Remediation and Investigation. Washington: Division of Environmental Remediation, November 2009. Appendix 1-A.

**Table 1. Site Related Construction Activities**
**Weekly Community Air Monitoring Report**
**Bay Shore Former MGP Site**
**OU-1 RAP-Phase IV**
**Bay Shore, New York**

| ***Summary of Observations*** | | |
|---|---|---|
| Saturday | 3/6/2010 | No site activity. GEI not on site. Air monitoring data collection. |
| Sunday | 3/7/2010 | No site activity. GEI not on site. Air monitoring data collection. |
| Monday | 3/8/2010 | Delivery of kiln dust, stone, and hay bales. Mobilization and set up of equipment for excavations Air monitoring data collection. |
| Tuesday | 3/9/2010 | Delivery of stone. Saw cutting asphalt over excavation area. Air monitoring data collection. |
| Wednesday | 3/10/2010 | Delivery of stone. Excavation and stockpiling of impacted material from exclusion zone. Backfilling excavation area. Air monitoring data collection. |
| Thursday | 3/11/2010 | Delivery of stone. Excavation and stockpiling of impacted material from exclusion zone. Backfilling excavation area. Removal of stockpiled impacted material from temporary fabric structure via dump truck. Air monitoring data collection. TO-15 sample collection. |
| Friday | 3/12/2010 | Delivery of stone. Excavation and stockpiling of impacted material from exclusion zone. Backfilling excavation area. Removal of stockpiled impacted material from temporary fabric structure via dump truck. Air monitoring data collection. |

**Table 2. Target Concentrations For Action Levels and Site Conditions**
**Weekly Community Air Monitoring Report**
**Bay Shore Former MGP Site**
**OU-1 RAP-Phase IV**
**Bay Shore, New York**

| Target Constituent | Action Limit | Site Condition 1 | Site Condition 2 | Site Condition 3 |
|---|---|---|---|---|
| TVOCs* | 5.0 ppmv | < 3.7 ppmv | ≥ 3.7 ppmv, <5.0 ppmv | ≥ 5.0 ppmv |
| $PM_{10}$* | 150 µg/$m^3$ | < 100 µg/$m^3$ | ≥ 100 µg/$m^3$, < 150 µg/$m^3$ | ≥ 150 µg/$m^3$ |
| Odor (n-butanol scale) | 3 | < 3 and No Odor Complaints | NA | ≥ 3 or Odor Complaints |
| Odor (nuisance) | Public Complaints | No Complaints | NA | Public Complaints |

* Values represent the difference in 15-minute average concentration between a given location and corresponding location upwind.

NA - not applicable, odor intensity will be either a Site Condition 1 or a Site Condition 3, there are no other alert conditions for odor.

$PM_{10}$ - respirable particulate matter

ppmv - parts per million by volume

TVOC - total volatile organic compound

µg/$m^3$ - micrograms per cubic meter

The action levels shown in this table are based on the Community Air Monitoring Program (CAMP) Work Plan (GEI, 2009) and the New York State Department of Environmental Conservation (NYSDEC) Draft DER-10 Technical Guidance for Site Remediation and Investigation (NYSDEC, 2009).

**Table 3. Daily Maximum 15-minute Average Concentrations of TVOC and $PM_{10}$**
**Weekly Community Air Monitoring Report**
**Bay Shore Former MGP Site**
**OU-1 RAP-Phase IV**
**Bay Shore, New York**

| Date | $PM_{10}$ Alert Limit ($\mu g/m^3$) | $PM_{10}$ Action Limit ($\mu g/m^3$) | AMS-1 | | AMS-2 | | AMS-3 | | AMS-4 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | $PM_{10}$ ($\mu g/m^3$) | TVOC (ppmv) | $PM_{10}$ ($\mu g/m^3$) | TVOC (ppmv) | $PM_{10}$ ($\mu g/m^3$) | TVOC (ppmv) | $PM_{10}$ ($\mu g/m^3$) | TVOC (ppmv) |
| 3/6/2010 | 100 | 150 | 26 | 0.4 | 24 | 0.2 | 32 | 0.1 | 30 | 0.2 |
| 3/7/2010 | 100 | 150 | 43 | 0.4 | 39 | 0.2 | 67 | 0.1 | 53 | 0.3 |
| 3/8/2010 | 100 | 150 | 94 | 0.3 | 88 | 0.2 | 152 | 0.1 | 141 | 0.2 |
| 3/9/2010 | 100 | 150 | 22 | 0.5 | 26 | 0.1 | 97 | 0.1 | 168 | 0.4 |
| 3/10/2010 | 100 | 150 | 33 | 0.5 | 29 | 0.2 | 45 | 0.1 | 32 | 0.0 |
| 3/11/2010 | 100 | 150 | 23 | 0.6 | 27 | 0.2 | 44 | 0.0 | 48 | 0.0 |
| 3/12/2010 | 100 | 150 | 18 | 0.5 | 23 | 0.2 | 33 | 0.0 | 43 | 0.1 |

All reported $PM_{10}$ and TVOC values represent fifteen-minute averages

AMS - air monitoring station

$PM_{10}$ - respirable particulate matter

ppmv - parts per million by volume

TVOC - total volatile organic compound

$\mu g/m^3$ - micrograms per cubic meter

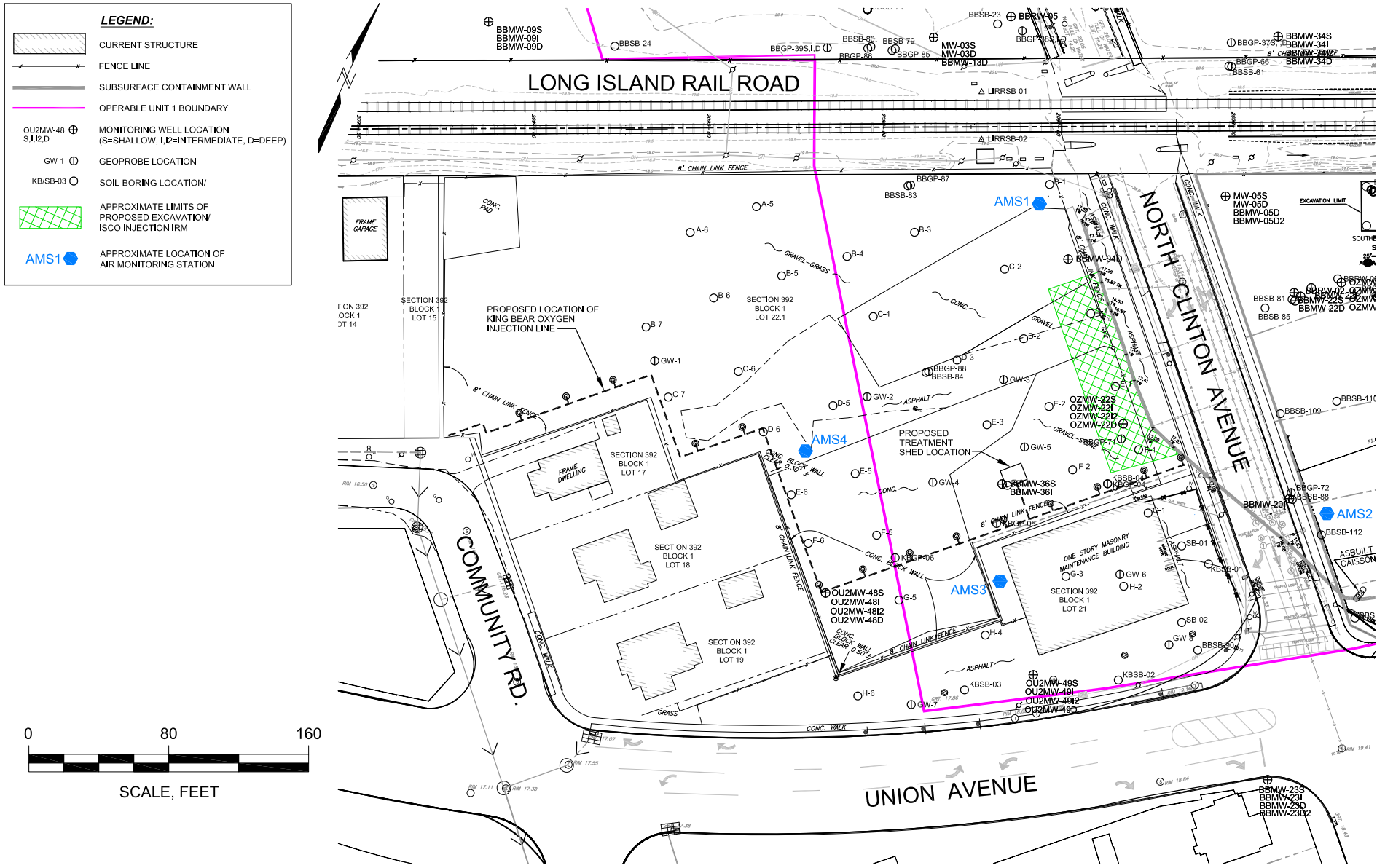
TVOC concentrations are rounded to the nearest 0.1 ppmv

Highlighted values indicate dates and locations that require further comparison to the action levels based on wind direction. (See Table 4)

**Table 4. Summary Of Elevated Concentrations**
**Weekly Community Air Monitoring Report**
**Bay Shore Former MGP Site OU-1 RAP-Phase IV**
**Bay Shore, New York**

| ***Summary of Elevated Concentrations*** | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | Station | Start Time (H:mm) | End Time (H:mm) | Duration (hrs) | Alert Trigger | Alert Limit ($\mu g/m^3$) | Action Limit ($\mu g/m^3$) | Approx. Start Dir* | Approx. End Dir* | Upwind/ Downwind | Upwind Station(s) | 15-Minute Upwind-Downwind Concentration Min** | 15-Minute Upwind-Downwind Concentration Max** | Site Condition | Site Activity During the Period (if applicable) | Actions Taken |
| ***Real-Time Fixed Station Monitoring*** | | | | | | | | | | | | | | | | |
| 3/8/2010 | AMS-4 | 0:40 | 0:48 | 0:08 | PM10 | 100 | 150 | SW | NW | NA | NA | NA | NA | 1 | After hours - no site activity. | Continued monitoring. |
| 3/8/2010 | AMS-3 | 0:40 | 0:51 | 0:11 | PM10 | 100 | 150 | SW | NW | NA | NA | NA | NA | 1 | After hours - no site activity. | Continue monitoring |
| 3/8/2010 | AMS-3 | 7:07 | 7:08 | 0:01 | PM10 | 100 | 150 | NW | NW | NA | NA | NA | NA | 1 | No activity onsite. Elevated readings due to vehicular surface dust from offsite activities. | Continued monitoring. |
| 3/8/2010 | AMS-3 | 8:42 | 8:43 | 0:01 | PM10 | 100 | 150 | NW | NW | NA | NA | NA | NA | 1 | No intrusive work. Elevated readings due to vehicular surface dust from offsite activities. | Continue monitoring |
| 3/8/2010 | AMS-3 | 9:14 | 9:17 | 0:04 | PM10 | 100 | 150 | NW | NW | NA | NA | NA | NA | 1 | No intrusive work. Elevated readings due to vehicular surface dust from offsite activities. | Continued monitoring. |
| 3/8/2010 | AMS-3 | 10:55 | 10:56 | 0:02 | PM10 | 100 | 150 | SW | SW | NA | NA | NA | NA | 1 | No intrusive work. Elevated readings due to vehicular surface dust from offsite activities. | Continued monitoring. |
| 3/8/2010 | AMS-3 | 11:33 | 11:34 | 0:02 | PM10 | 100 | 150 | W | W | NA | NA | NA | NA | 1 | No intrusive work. Elevated readings due to vehicular surface dust from offsite activities. | Continued monitoring. |
| 3/8/2010 | AMS-3 | 11:45 | 11:46 | 0:02 | PM10 | 100 | 150 | W | W | NA | NA | NA | NA | 1 | No intrusive work. Elevated readings due to vehicular surface dust from offsite activities. | Continued monitoring. |
| 3/8/2010 | AMS-3 | 11:52 | 11:54 | 0:03 | PM10 | 100 | 150 | W | W | NA | NA | NA | NA | 1 | No intrusive work. Elevated readings due to vehicular surface dust from offsite activities. | Continued monitoring. |
| 3/8/2010 | AMS-3 | 12:40 | 12:41 | 0:01 | PM10 | 100 | 150 | W | W | NA | NA | NA | NA | 1 | No intrusive work. Elevated readings due to vehicular surface dust from offsite activities. | Continued monitoring. |
| 3/8/2010 | AMS-3 | 14:35 | 14:36 | 0:01 | PM10 | 100 | 150 | NW | NW | NA | NA | NA | NA | 1 | No intrusive work. Elevated readings due to vehicular surface dust from offsite activities. | Continued monitoring. |
| 3/9/2010 | AMS-3 | 7:33 | 7:33 | 0:01 | PM10 | 100 | 150 | NW | NW | NA | NA | NA | NA | 1 | Elevated readings due to vehicular surface dust from offsite activities. | Continue monitoring |
| 3/9/2010 | AMS-3 | 7:40 | 7:42 | 0:02 | PM10 | 100 | 150 | W | W | NA | NA | NA | NA | 1 | Elevated readings due to vehicular surface dust from offsite activities. | Continue monitoring |
| 3/9/2010 | AMS-3 | 11:05 | 11:06 | 0:01 | PM10 | 100 | 150 | NW | NW | NA | NA | NA | NA | 1 | Elevated readings due to vehicular surface dust from offsite activities. | Continue monitoring |
| 3/9/2010 | AMS-3 | 12:34 | 12:35 | 0:01 | PM10 | 100 | 150 | NW | NW | NA | NA | NA | NA | 1 | Elevated readings due to vehicular surface dust from offsite activities. | Continue monitoring |

* Wind directions are presented by octant (i.e. N, NE, E, SE, S, SW, W, NW).
** Upwind minus downwind concentrations are a time specific comparison.
AMS - air monitoring station
NA - not applicable
$PM_{10}$ - respirable particulate matter (reported in micrograms per cubic meter)
TVOC - total volatile organic compound (reported in parts per million by volume)




**SOURCE:**

1. PLAN BASED ON MAP PREPARED BY KS ENGINEERS, P.C., 24 COMMERCE STREET, NEWARK, N.J. 07102, TITLED *BOUNDARY AND TOPOGRAPHIC SURVEY, PORTION OF SEC. 392, BLOCK 1 SUFFOLK COUNTY, NEW YORK,* SCALE 1"=30', DATED 7/09/09.

SUMMERS LUMBER/KING BEAR IRM
BAY SHORE/BRIGHTWATERS FORMER MGP SITE
BAY SHORE, NEW YORK

nationalgrid

PROJECT 093180-1-1114

GEI Consultants
110 WALT WHITMAN ROAD
SUITE 204
HUNTINGTON STATION, NY 11746

**AIR MONITORING STATION LOCATIONS**

March 2010 Figure 1

I:\GEI\National Grid\Bay Shore\OU-1\Summers Lumber-King Bear\IRM\ Bay Shore-Summers L-King B IRM CAMP.dwg \Mar 25, 2010

**Figures 2-5. Meteorological Data**
**Weekly Community Air Monitoring Report**
**Bay Shore Former MGP Site**
**OU-1 RAP-Phase IV**
**BayShore, New York**

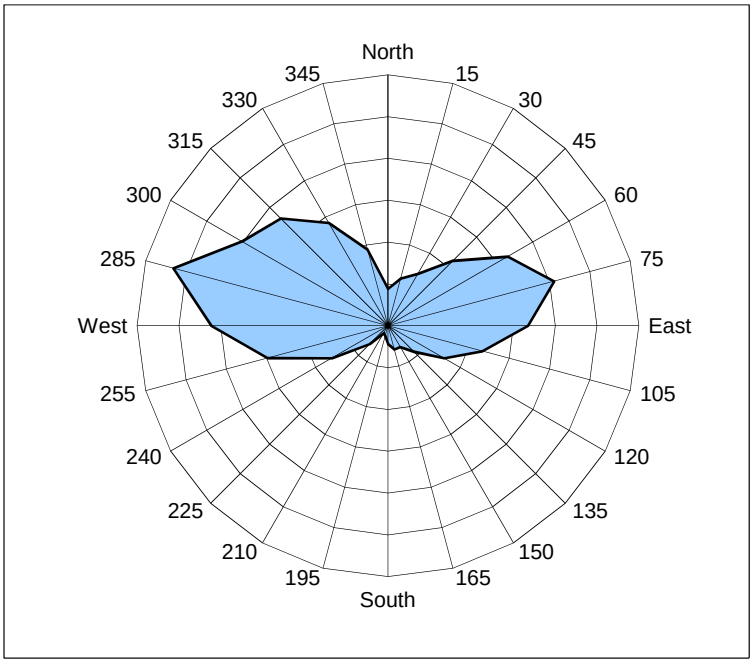



Figure 2. Wind rose for the period 03/06/10 through 03/12/10 collected at the Bayshore Former MGP Site in Bayshore, New York. Wind direction data used to create the wind rose were calculated from 15-minute averages.

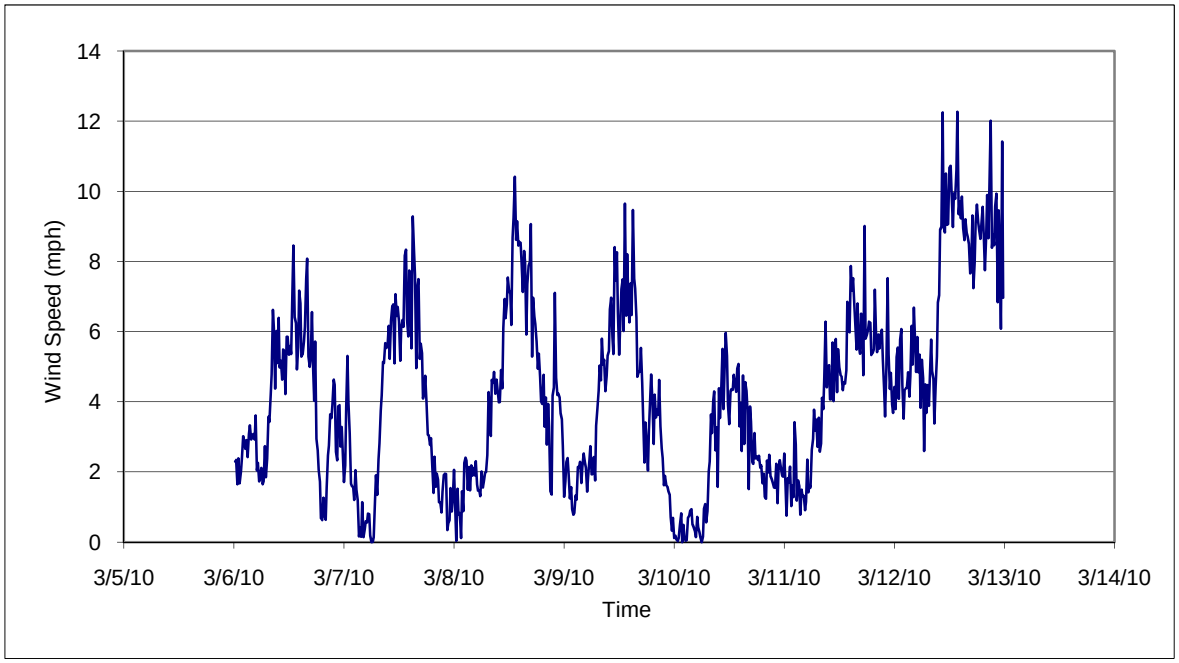



Figure 3. Wind speed for the period 03/06/10 through 03/12/10 collected at the Bayshore Former MGP Site in Bayshore, New York. Data are 15-minute averages.

**Figures 2-5. Meteorological Data**
**Weekly Community Air Monitoring Report**
**Bay Shore Former MGP Site**
**OU-1 RAP-Phase IV**
**BayShore, New York**

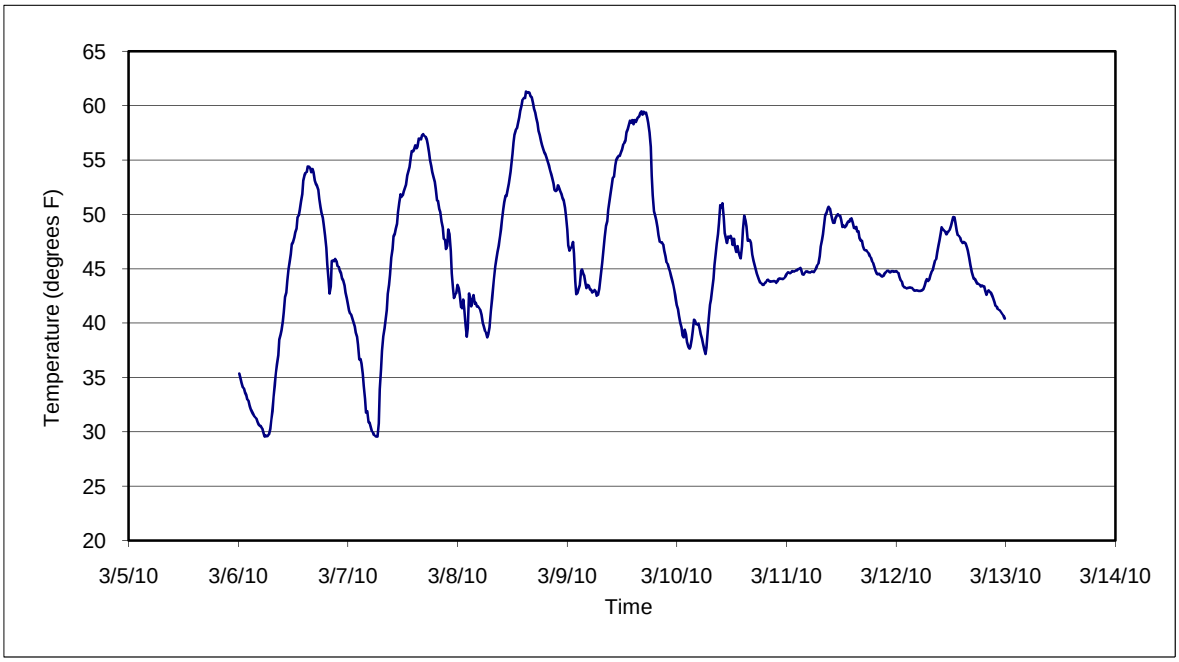



Figure 4. Temperature for the period 03/06/10 through 03/12/10 collected at the Bayshore Former MGP Site in Bayshore, New York. Data are 15-minute averages.

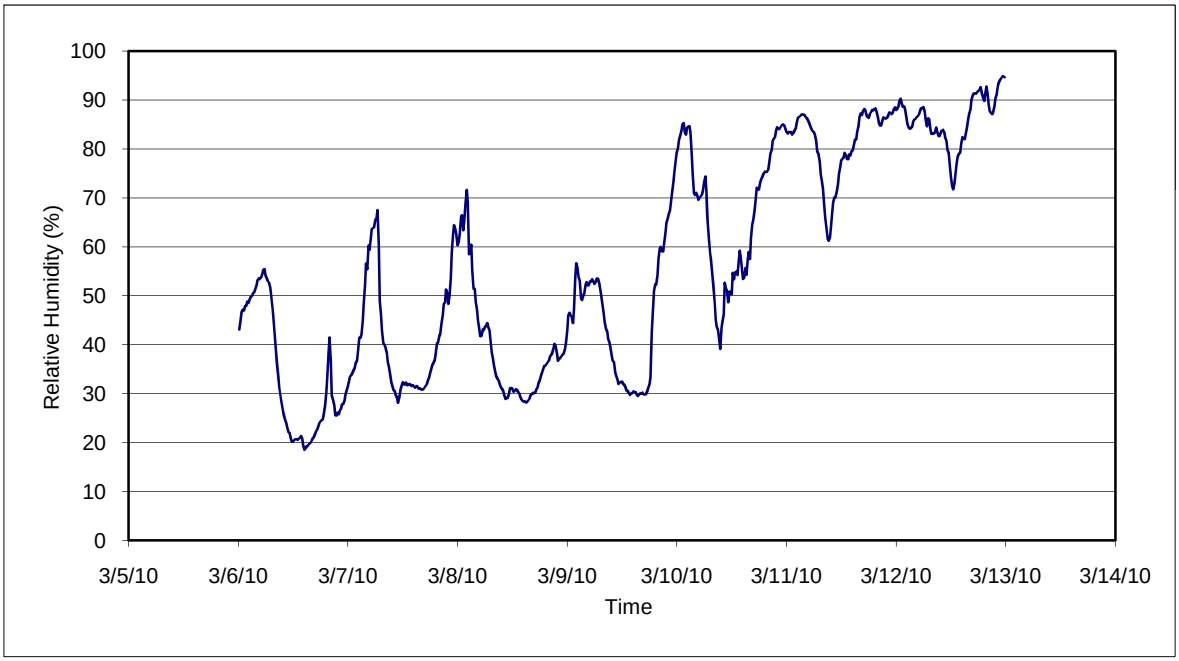



Figure 5. Relative humidity for the period 03/06/10 through 03/12/10 collected at the Bayshore Former MGP Site in Bayshore, New York. Data are 15-minute averages.

GEI Consultants

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# Memorandum

To: Bill Ryan and Christie Battenhouse (National Grid)

From: Tess Landgraff

Copy to: James Christman (National Grid)
Gary Kowalski (Creamer)
Harvey Hansen (Creamer)
Errol Kitt (GEI)
Tom Shock (GEI)
Brian Skelly (GEI)
Tim Olean (GEI)
Scott Deyette (DEC)
Amen Omorogbe (DEC)
Steve Karpinski (DOH)
Amy Juchatz (SCDEE)
Ron Paulsen (SCDHS)

Date: April 7, 2010

Regarding: Weekly Community Air Monitoring Report
Bay Shore Former MGP Site
Operable Unit 1 (OU-1) Remedial Action Plan (RAP)-Phase IV
March 13, 2010 through March 19, 2010

Dear Bill and Christie:

This report includes a summary of data collected during the Community Air Monitoring Program (CAMP) at the Bay Shore Former MGP Site in Bay Shore, New York during the period March 13, 2010 through March 19, 2010. Data collected are discussed in relation to intrusive and non-intrusive construction activities associated with Phase IV of the OU-1 RAP. The tables and figures accompanying this report summarize air monitoring results related to the action levels described by the CAMP Work Plan. Figure 1 illustrates the current locations of the CAMP units.

Fifteen-minute averages for Total Volatile Organic Compounds (TVOC) and Respirable Particulate Matter ($PM_{10}$) remained at a Site Condition 1 during this reporting period. A Site Condition 1 is defined as normal or ambient air conditions where all target concentrations are less than the Alert Limit.

The following target compounds and corresponding Alert Limits and Action Limits were developed in accordance with the NYSDOH Generic CAMP.

| Target Compounds | Alert Limit |
|---|---|
| TVOCs (15-minute average concentration) | 3.7 ppm greater than background* |
| Respirable Particulate Matter ($PM_{10}$) | 100 $\mu g/m^3$ greater than background* |

| Target Compounds | Action Limit |
|---|---|
| TVOCs (15-minute average concentration) | 5.0 ppm greater than background* |
| TVOCs (1-minute concentration) | 25 ppm greater than background* |
| Respirable Particulate Matter ($PM_{10}$) | 150 $\mu g/m^3$ greater than background* |

ppm - parts per million
$\mu g/m^3$ - micrograms per meter cubed
TVOCs – Total Volatile Organic Compounds
* Background is defined as the current upwind fifteen-minute average concentration.

The following information is summarized in this report:

- Site related construction activities,
- Daily maximum 15-minute average concentrations of TVOC and $PM_{10}$ at each fixed station,
- Elevated concentrations (if any) and,
- Meteorological data.

## Remedial Site Activities

Site activity (non-intrusive) conducted during this reporting period consisted of:

- Delivery of stone and backfill
- Excavation and stockpiling impacted materials from the exclusion zone
- Removal of stockpiled impacted material from the temporary fabric structure via dump trucks
- Backfilling of the excavation area
- Removal of dewatered contents from Frac tank via tanker trucks

Site activities are summarized on Table 1.

## Data Collection

Real-time fixed station monitoring for TVOC and $PM_{10}$ was performed on the OU-1 site perimeter at four locations (AMS-1 through AMS-4) during this time period. Fifteen-minute averages for TVOC and $PM_{10}$ remained at a Site Condition 1 during this reporting period.

Table 2 summarizes the target concentrations for action levels and Site Conditions described by the CAMP Work Plan (GEI, 2009). Table 3 provides a daily summary of maximum fifteen-minute average ambient air concentrations from each station. Table 4 depicts a more detailed and time-specific comparison of upwind and downwind measurements that is needed to determine the site condition.

Fifteen-minute average concentrations of $PM_{10}$ were recorded above the Alert of 100 $\mu g/m^3$ at AMS-3 on Saturday, March 13 and Sunday, March 14 due to weather related interference. These readings were not representative of actual dust and occurred during non-working hours, therefore a Site Condition 1 was maintained. Please see Table 3 and Table 4 for more details.

Due to the weather related interference of Saturday, March 13, AMS-2 was found leaning on the fence line adjacent to Clinton Avenue. The station and its components sustained no damage and was righted the next day by GEI personnel and sandbagged. On Monday, March 15, all the stations were checked for their condition after the storm and were functioning properly. The AirLogics air monitoring contractor relocated and anchored AMS-2 away from the fence line on Thursday March 18. Additionally, the air monitoring contractor checked all air monitoring stations to assure that they were properly anchored and sandbagged.

Due to the inclement weather on Saturday, March 13, the AirLogics paging system failed at 11:16 pm as a result of phone line disruption. On Monday, March 15, GEI contacted the phone service provider and schedule a repair visit. The paging system phone line was switched to an alternate line at 10:50 am on March 15, at which time the paging system resumed normal operation. However, this line failed at 1:56 pm on March 15. The phone service provider repaired both phone lines on Wednesday, March 17, and the paging system to resumed normal operation at 3:19 pm.

On Wednesday, March 17, 15-minute average concentrations of $PM_{10}$ were recorded above the Alert Limit of 100 $\mu g/m^3$ at AMS-3 at 7:28 am and from 7:30 am to 7:32 am. The elevated readings were due to dust generated from offsite activities and were not related to intrusive site activities. Water sprinklers are in continuous use onsite and close to the site perimeter for dust mitigation. A Site Condition 1 was maintained. Please see Table 3 and Table 4 for more details.

On Thursday, March 18, 15-minute average concentrations of $PM_{10}$ were recorded above the Alert Limit of 100 µg/$m^3$ at AMS-3 from 11:44 am to 11:58 am. The elevated readings were due to the transport of clean backfill materials and were not associated with intrusive site activities. Water sprinklers are in continuous use onsite and close to the site perimeter for dust mitigation. A Site Condition 1 was maintained. Please see Table 4 for more details.

On Friday, March 19, 15-minute average concentrations of $PM_{10}$ were recorded above the Alert Limit of 100 µg/$m^3$ at AMS-1 from 12:53 pm to 13:04 pm. The elevated readings were due to the transport of clean backfill materials and were not associated with intrusive site activities. Water sprinklers are in continuous use onsite and close to the site perimeter for dust mitigation. A Site Condition 1 was maintained. Please see Table 4 for more details.

On Friday, March 19, 15-minute average concentrations of $PM_{10}$ were recorded above the Alert Limit of 100 µg/$m^3$ at AMS-3 from 7:38 am to 7:56 am. The elevated readings were due to truck traffic passing through the Union Blvd. site gate and were not associated with intrusive site activities. Water sprinklers are in continuous use onsite and close to the site perimeter for dust mitigation. A Site Condition 1 was maintained. Please see Table 4 for more details.

GEI collected upwind and downwind TO-15 verification samples on Thursday, March 11, 2010. If MGP-related compounds are detected in any of the samples, such detections will be discussed in a future memo. Meteorological data collected at the weather station on site are included in this report as Figures 2-5 which show a directional wind rose for the period, wind speed, temperature, and relative humidity time series for the period.

If you have any questions regarding the information in this report, please contact me at 631-760-9300.

**References**

GEI Consultants, Inc (2009). Community Air Monitoring Program Work Plan: Bay Shore/Brightwaters Former MGP Site, Operable Unit 1, Summers Lumber/ King Bear IRM Relocation, Interim Remedial Measure, Brightwaters, NY. February 18, 2010.

New York State Department of Environmental Conservation. Draft DER-10 Technical Guidance for Site Remediation and Investigation. Washington: Division of Environmental Remediation, November 2009. Appendix 1-A.

**Table 1. Site Related Construction Activities**
**Weekly Community Air Monitoring Report**
**Bay Shore Former MGP Site**
**OU-1 RAP-Phase IV**
**Bay Shore, New York**

| ***Summary of Observations*** | | |
|---|---|---|
| Saturday | 3/13/2010 | No site activity. GEI not on site. Air monitoring data collection. |
| Sunday | 3/14/2010 | No site activity. GEI not on site. Air monitoring data collection. |
| Monday | 3/15/2010 | Clean up and removal of debris onsite from inclement weather. Maintainence of equipment and temporary fabric structure. Removal of stockpiled impacted material from temporary fabric structure via dump truck and debris from site. Air monitoring data collection. |
| Tuesday | 3/16/2010 | Delivery of stone. Excavation and stockpiling of impacted material from exclusion zone. Backfilling excavation area. Removal of dewatered contents from Frac tank via tanker trucks. Air monitoring data collection. |
| Wednesday | 3/17/2010 | Delivery of stone. Excavation and stockpiling of impacted material from exclusion zone. Backfilling excavation area. Air monitoring data collection. |
| Thursday | 3/18/2010 | Delivery of backfill and foam. Excavation and stockpiling of impacted material from exclusion zone. Backfilling excavation area. Removal of stockpiled impacted material from temporary fabric structure via dump truck. Air monitoring data collection. TO-15 sample collection. |
| Friday | 3/19/2010 | Delivery of stone. Backfilling over previous excavation area. Removal of stockpiled impacted material from temporary fabric structure via dump truck. Removal of dewatered contents from Frac tank via tanker trucks. Air monitoring data collection. |

**Table 2. Target Concentrations For Action Levels and Site Conditions**
**Weekly Community Air Monitoring Report**
**Bay Shore Former MGP Site**
**OU-1 RAP-Phase IV**
**Bay Shore, New York**

| Target Constituent | Action Limit | Site Condition 1 | Site Condition 2 | Site Condition 3 |
|---|---|---|---|---|
| TVOCs* | 5.0 ppmv | < 3.7 ppmv | ≥ 3.7 ppmv, <5.0 ppmv | ≥ 5.0 ppmv |
| $PM_{10}$* | 150 µg/$m^3$ | < 100 µg/$m^3$ | ≥ 100 µg/$m^3$, < 150 µg/$m^3$ | ≥ 150 µg/$m^3$ |
| Odor (n-butanol scale) | 3 | < 3 and No Odor Complaints | NA | ≥ 3 or Odor Complaints |
| Odor (nuisance) | Public Complaints | No Complaints | NA | Public Complaints |

* Values represent the difference in 15-minute average concentration between a given location and corresponding location upwind.

NA - not applicable, odor intensity will be either a Site Condition 1 or a Site Condition 3, there are no other alert conditions for odor.

$PM_{10}$ - respirable particulate matter

ppmv - parts per million by volume

TVOC - total volatile organic compound

µg/$m^3$ - micrograms per cubic meter

The action levels shown in this table are based on the Community Air Monitoring Program (CAMP) Work Plan (GEI, 2009) and the New York State Department of Environmental Conservation (NYSDEC) Draft DER-10 Technical Guidance for Site Remediation and Investigation (NYSDEC, 2009).

**Table 3. Daily Maximum 15-minute Average Concentrations of TVOC and $PM_{10}$**
**Weekly Community Air Monitoring Report**
**Bay Shore Former MGP Site**
**OU-1 RAP-Phase IV**
**Bay Shore, New York**

| Date | $PM_{10}$ Alert Limit ($\mu g/m^3$) | $PM_{10}$ Action Limit ($\mu g/m^3$) | AMS-1 | | AMS-2 | | AMS-3 | | AMS-4 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | $PM_{10}$ ($\mu g/m^3$) | TVOC (ppmv) | $PM_{10}$ ($\mu g/m^3$) | TVOC (ppmv) | $PM_{10}$ ($\mu g/m^3$) | TVOC (ppmv) | $PM_{10}$ ($\mu g/m^3$) | TVOC (ppmv) |
| 3/13/2010 | 100 | 150 | 8 | 0.5 | 18 | 0.3 | 26 | 0.1 | 13 | 0.0 |
| 3/14/2010 | 100 | 150 | 1 | 0.5 | 9 | 0.4 | 87 | 0.1 | 23 | 0.0 |
| 3/15/2010 | 100 | 150 | 5 | 0.3 | 4 | 0.3 | 7 | 0.1 | 6 | 0.0 |
| 3/16/2010 | 100 | 150 | 30 | 0.3 | 22 | 0.2 | 60 | 0.1 | 36 | 0.2 |
| 3/17/2010 | 100 | 150 | 83 | 0.3 | 67 | 0.2 | 101 | 0.1 | 42 | 0.3 |
| 3/18/2010 | 100 | 150 | 52 | 0.4 | 52 | 0.8 | 164 | 0.2 | 56 | 0.2 |
| 3/19/2010 | 100 | 150 | 121 | 0.3 | 58 | 0.2 | 203 | 0.4 | 79 | 0.2 |

All reported $PM_{10}$ and TVOC values represent fifteen-minute averages

AMS - air monitoring station

$PM_{10}$ - respirable particulate matter

ppmv - parts per million by volume

TVOC - total volatile organic compound

$\mu g/m^3$ - micrograms per cubic meter

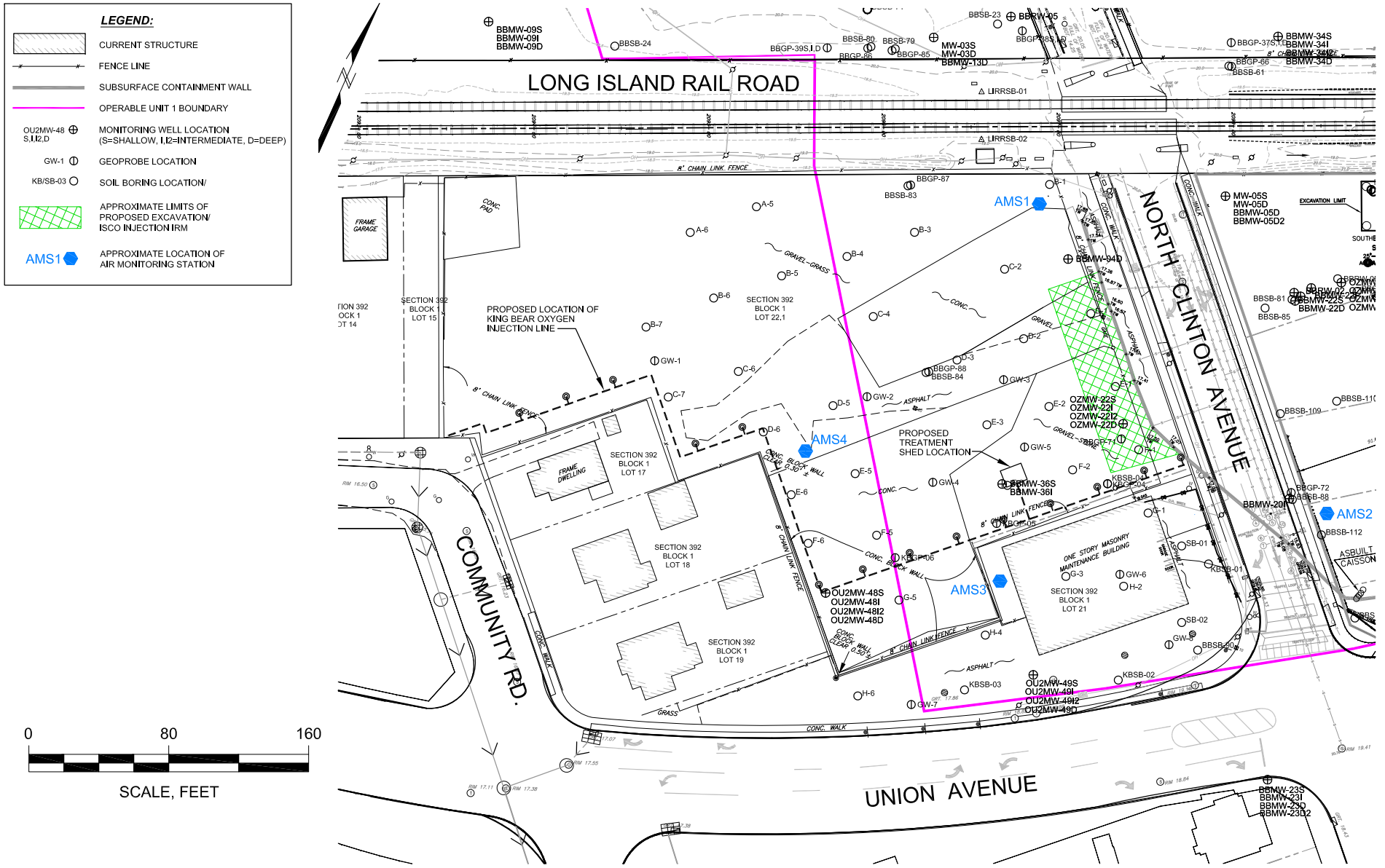
TVOC concentrations are rounded to the nearest 0.1 ppmv

Highlighted values indicate dates and locations that require further comparison to the action levels based on wind direction. (See Table 4)

**Table 4. Summary Of Elevated Concentrations**
**Weekly Community Air Monitoring Report**
**Bay Shore Former MGP Site OU-1 RAP-Phase IV**
**Bay Shore, New York**

| *Summary of Elevated Concentrations* | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | Station | Start Time (H:mm) | End Time (H:mm) | Duration (hrs) | Alert Trigger | Alert Limit ($\mu g/m^3$) | Action Limit ($\mu g/m^3$) | Approx. Start Dir* | Approx. End Dir* | Upwind/ Downwind | Upwind Station(s) | 15-Minute Upwind-Downwind Concentration Min** | 15-Minute Upwind-Downwind Concentration Max** | Site Condition | Site Activity During the Period (if applicable) | Actions Taken |
| ***Real-Time Fixed Station Monitoring*** | | | | | | | | | | | | | | | | |
| 3/17/2010 | AMS-3 | 7:28 | 7:28 | 0:00 | PM10 | 100 | 150 | NW | NW | NA | NA | NA | NA | 1 | Elevated readings due to dust generated from offsite activities. Not related to intrusive activities. | Water in continuous use for dust supression. Continued monitoring. |
| 3/17/2010 | AMS-3 | 7:30 | 7:32 | 0:02 | PM10 | 100 | 150 | NW | NW | NA | NA | NA | NA | 1 | Elevated readings due to dust generated from offsite activities. Not related to intrusive activities. | Water in continuous use for dust supression. Continued monitoring. |
| 3/18/2010 | AMS-3 | 11:44 | 11:58 | 0:14 | PM10 | 100 | 150 | S | NW | NA | NA | NA | NA | 1 | Elevated readings due to transport of clean backfill. Not related to intrusive activities. | Water in continuous use for dust supression. Continued monitoring. |
| 3/19/2010 | AMS-1 | 12:53 | 13:04 | 0:11 | PM10 | 100 | 150 | SW | S | NA | NA | NA | NA | 1 | Elevated readings due to transport of clean backfill. Not related to intrusive activities. | Water in continuous use for dust supression. Continued monitoring. |
| 3/19/2010 | AMS-3 | 7:38 | 7:56 | 0:18 | PM10 | 100 | 150 | W | W | NA | NA | NA | NA | 1 | Elevated readings due to truck traffic passing through Union Blvd site gate. Not related to intrusive activities. | Water in continuous use for dust supression. Continued monitoring. |

* Wind directions are presented by octant (i.e. N, NE, E, SE, S, SW, W, NW).
** Upwind minus downwind concentrations are a time specific comparison.
AMS - air monitoring station
ND - no data available
$PM_{10}$ - respirable particulate matter (reported in micrograms per cubic meter)
TVOC - total volatile organic compound (reported in parts per million by volume)




**SOURCE:**

1. PLAN BASED ON MAP PREPARED BY KS ENGINEERS, P.C., 24 COMMERCE STREET, NEWARK, N.J. 07102, TITLED *BOUNDARY AND TOPOGRAPHIC SURVEY, PORTION OF SEC. 392, BLOCK 1 SUFFOLK COUNTY, NEW YORK,* SCALE 1"=30', DATED 7/09/09.

SUMMERS LUMBER/KING BEAR IRM
BAY SHORE/BRIGHTWATERS FORMER MGP SITE
BAY SHORE, NEW YORK

nationalgrid

PROJECT 093180-1-1114

GEI Consultants
110 WALT WHITMAN ROAD
SUITE 204
HUNTINGTON STATION, NY 11746

**AIR MONITORING STATION LOCATIONS**

March 2010 Figure 1

I:\GEI\National Grid\Bay Shore\OU-1\Summers Lumber-King Bear\IRM\ Bay Shore-Summers L-King B IRM CAMP.dwg \Mar 25, 2010

**Figures 2-5. Meteorological Data**
**Weekly Community Air Monitoring Report**
**Bay Shore Former MGP Site**
**OU-1 RAP-Phase IV**
**Bay Shore, New York**

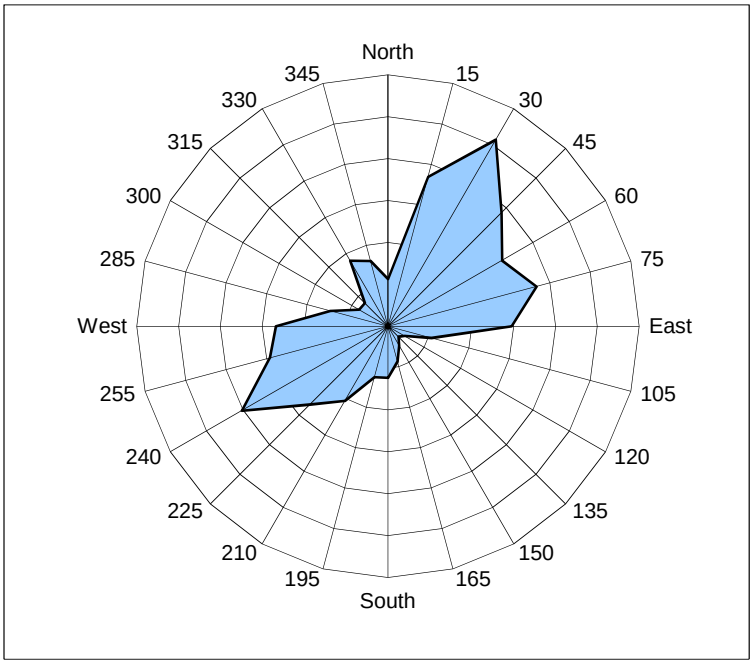



Figure 2. Wind rose for the period 03/13/10 through 03/19/10 collected at the Bayshore Former MGP Site in Bayshore, New York. Wind direction data used to create the wind rose were calculated from 15-minute averages.

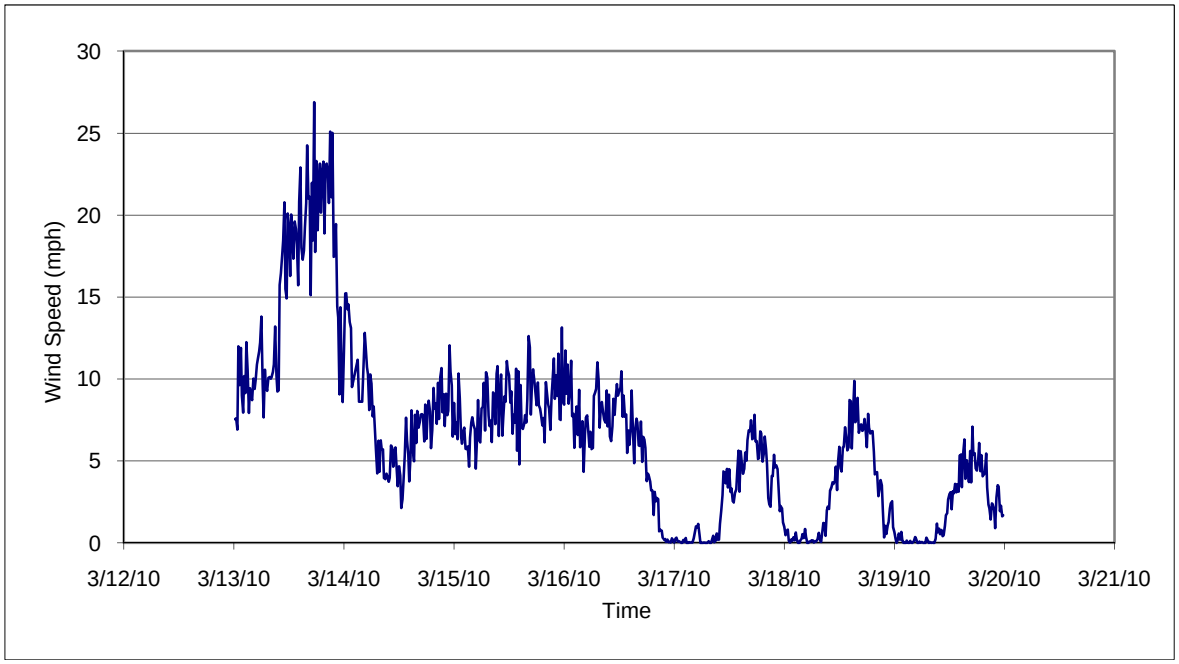



Figure 3. Wind speed for the period 03/13/10 through 03/19/10 collected at the Bayshore Former MGP Site in Bayshore, New York. Data are 15-minute averages.

**Figures 2-5. Meteorological Data**
**Weekly Community Air Monitoring Report**
**Bay Shore Former MGP Site**
**OU-1 RAP-Phase IV**
**Bay Shore, New York**

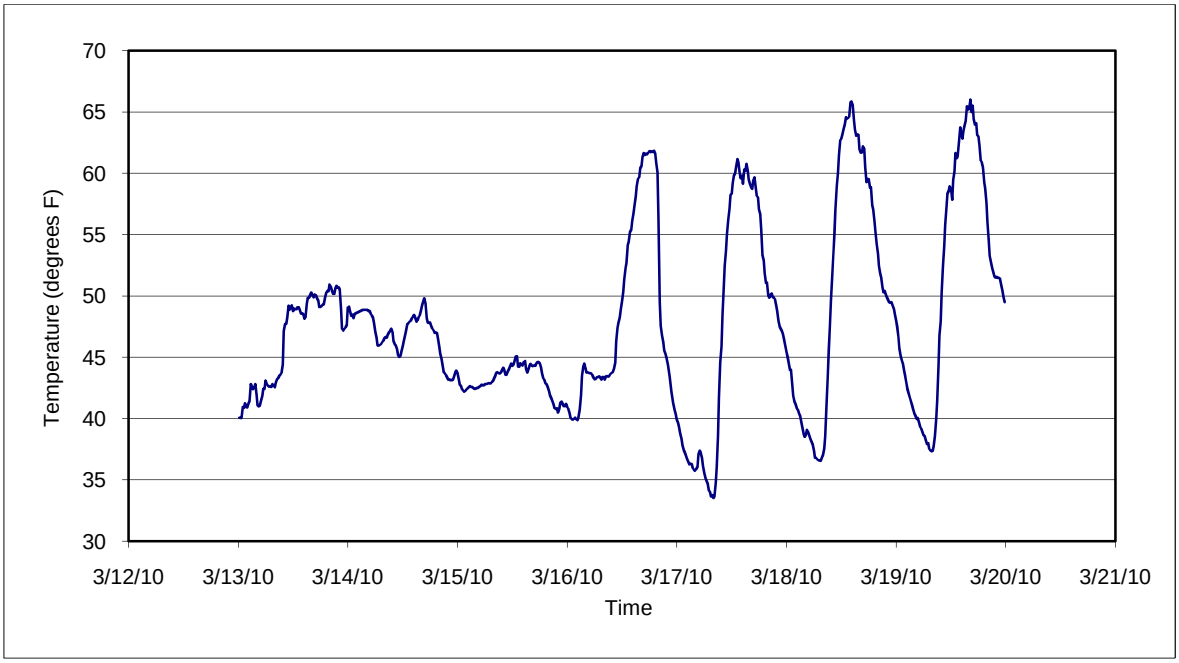



Figure 4. Temperature for the period 03/13/10 through 03/19/10 collected at the Bayshore Former MGP Site in Bayshore, New York. Data are 15-minute averages.

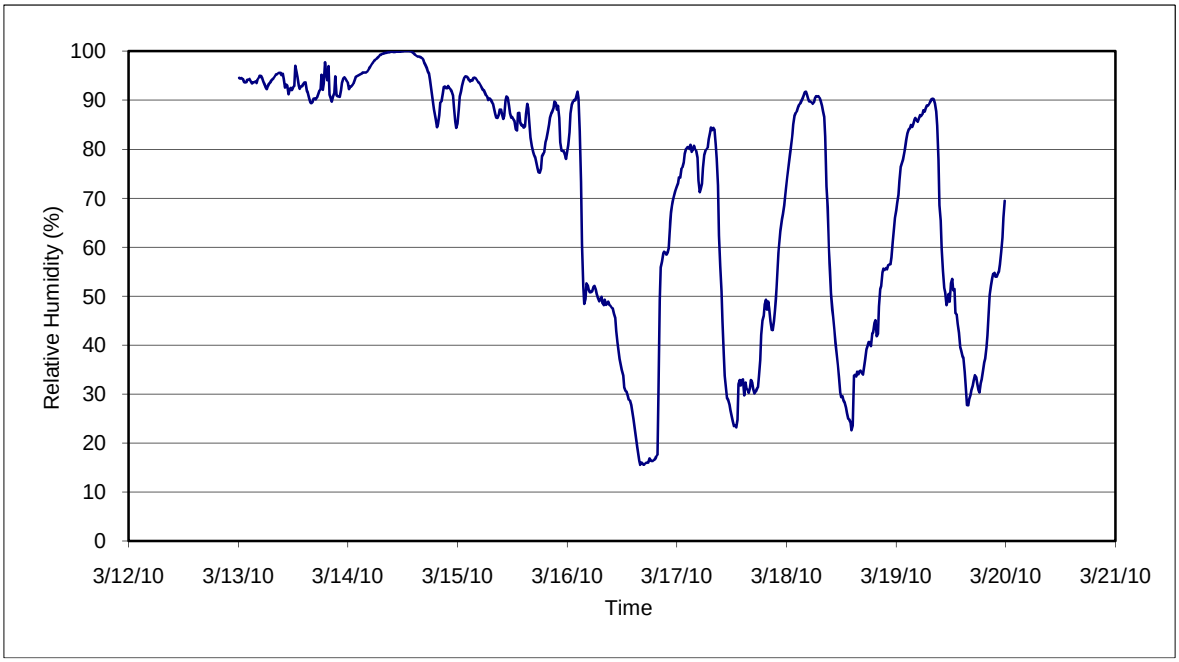



Figure 5. Relative humidity for the period 03/13/10 through 03/19/10 collected at the Bayshore Former MGP Site in Bayshore, New York. Data are 15-minute averages.

GEI Consultants

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Suite 204
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Fax: (631) 760-9301

# Memorandum

To: Bill Ryan and Christie Battenhouse (National Grid)

From: Tess Landgraff

Copy to: James Christman (National Grid)
Gary Kowalski (Creamer)
Harvey Hansen (Creamer)
Errol Kitt (GEI)
Tom Shock (GEI)
Brian Skelly (GEI)
Tim Olean (GEI)
Scott Deyette (DEC)
Amen Omorogbe (DEC)
Steve Karpinski (DOH)
Amy Juchatz (SCDEE)
Ron Paulsen (SCDHS)

Date: April 7, 2010

Regarding: Weekly Community Air Monitoring Report
Bay Shore Former MGP Site
Operable Unit 1 (OU-1) Remedial Action Plan (RAP)-Phase IV
March 20, 2010 through March 26, 2010

Dear Bill and Christie:

This report includes a summary of data collected during the Community Air Monitoring Program (CAMP) at the Bay Shore Former MGP Site in Bay Shore, New York during the period March 20, 2010 through March 26, 2010. Data collected are discussed in relation to intrusive and non-intrusive construction activities associated with Phase IV of the OU-1 RAP. The tables and figures accompanying this report summarize air monitoring results related to the action levels described by the CAMP Work Plan. Figure 1 illustrates the current locations of the CAMP units.

Fifteen-minute averages for Total Volatile Organic Compounds (TVOC) and Respirable Particulate Matter ($PM_{10}$) remained at a Site Condition 1 during this reporting period. A Site Condition 1 is defined as normal or ambient air conditions where all target concentrations are less than the Alert Limit.

The following target compounds and corresponding Alert Limits and Action Limits were developed in accordance with the NYSDOH Generic CAMP.

| Target Compounds | Alert Limit |
|---|---|
| TVOCs (15-minute average concentration) | 3.7 ppm greater than background* |
| Respirable Particulate Matter ($PM_{10}$) | 100 $\mu g/m^3$ greater than background* |

| Target Compounds | Action Limit |
|---|---|
| TVOCs (15-minute average concentration) | 5.0 ppm greater than background* |
| TVOCs (1-minute concentration) | 25 ppm greater than background* |
| Respirable Particulate Matter ($PM_{10}$) | 150 $\mu g/m^3$ greater than background* |

ppm - parts per million
$\mu g/m^3$ - micrograms per meter cubed
TVOCs – Total Volatile Organic Compounds
* Background is defined as the current upwind fifteen-minute average concentration.

The following information is summarized in this report:

- Site related construction activities,
- Daily maximum 15-minute average concentrations of TVOC and $PM_{10}$ at each fixed station,
- Elevated concentrations (if any) and,
- Meteorological data.

## Remedial Site Activities

Site activity (non-intrusive) conducted during this reporting period consisted of:

- Delivery of stone, soil, and backfill
- Excavation and stockpiling of impacted materials from the exclusion zone
- Removal of stockpiled impacted material from the temporary fabric structure via dump trucks
- Backfilling of the excavation area
- Removal of dewatered contents from Frac tank via tanker trucks

Site activities are summarized on Table 1.

## Data Collection

Real-time fixed station monitoring for TVOC and $PM_{10}$ was performed on the OU-1 site perimeter at four locations (AMS-1 through AMS-4) during this time period. Fifteen-minute averages for TVOC and $PM_{10}$ remained at a Site Condition 1 during this reporting period.

Table 2 summarizes the target concentrations for action levels and Site Conditions described by the CAMP Work Plan (GEI, 2009). Table 3 provides a daily summary of maximum fifteen-minute average ambient air concentrations from each station.

GEI collected upwind and downwind TO-15 verification samples on Thursday, March 25, 2010. If MGP-related compounds are detected in any of the samples, such detections will be discussed in a future memo. Meteorological data collected at the weather station on site are included in this report as Figures 2-5 which show a directional wind rose for the period, wind speed, temperature, and relative humidity time series for the period.

If you have any questions regarding the information in this report, please contact me at 631-760-9300.

**References**

GEI Consultants, Inc (2009). Community Air Monitoring Program Work Plan: Bay Shore/Brightwaters Former MGP Site, Operable Unit 1, Summers Lumber/ King Bear IRM Relocation, Interim Remedial Measure, Brightwaters, NY. February 18, 2010.

New York State Department of Environmental Conservation. Draft DER-10 Technical Guidance for Site Remediation and Investigation. Washington: Division of Environmental Remediation, November 2009. Appendix 1-A.

**Table 1. Site Related Construction Activities**
**Weekly Community Air Monitoring Report**
**Bay Shore Former MGP Site**
**OU-1 RAP-Phase IV**
**Bay Shore, New York**

| ***Summary of Observations*** | | |
|---|---|---|
| Saturday | 3/20/2010 | No site activity. GEI not on site. Air monitoring data collection. |
| Sunday | 3/21/2010 | No site activity. GEI not on site. Air monitoring data collection. |
| Monday | 3/22/2010 | Excavation and stockpiling of impacted material from exclusion zone. Backfilling excavation area. Removal of dewatered contents from Frac tank via tanker trucks. Air monitoring data collection. |
| Tuesday | 3/23/2010 | Delivery of soil. Excavation and stockpiling of impacted material from exclusion zone. Removal of stockpiled impacted material from temporary fabric structure via dump truck. Air monitoring data collection. |
| Wednesday | 3/24/2010 | Delivery of backfill. Excavation and stockpiling of impacted material from exclusion zone. Backfilling excavation area. Removal of stockpiled impacted material from temporary fabric structure via dump truck. Air monitoring data collection. |
| Thursday | 3/25/2010 | Excavation and stockpiling of impacted material from exclusion zone. Backfilling excavation area. Removal of dewatered contents from Frac tank via tanker trucks. Removal of stockpiled impacted material from temporary fabric structure via dump truck. Air monitoring data collection. TO-15 sample collection. |
| Friday | 3/26/2010 | Delivery of stone. Excavation and stockpiling of impacted material from exclusion zone. Backfilling excavation area. Air monitoring data collection. |

**Table 2. Target Concentrations For Action Levels and Site Conditions**
**Weekly Community Air Monitoring Report**
**Bay Shore Former MGP Site**
**OU-1 RAP-Phase IV**
**Bay Shore, New York**

| Target Constituent | Action Limit | Site Condition 1 | Site Condition 2 | Site Condition 3 |
|---|---|---|---|---|
| TVOCs* | 5.0 ppmv | < 3.7 ppmv | ≥ 3.7 ppmv, <5.0 ppmv | ≥ 5.0 ppmv |
| $PM_{10}$* | 150 µg/$m^3$ | < 100 µg/$m^3$ | ≥ 100 µg/$m^3$, < 150 µg/$m^3$ | ≥ 150 µg/$m^3$ |
| Odor (n-butanol scale) | 3 | < 3 and No Odor Complaints | NA | ≥ 3 or Odor Complaints |
| Odor (nuisance) | Public Complaints | No Complaints | NA | Public Complaints |

* Values represent the difference in 15-minute average concentration between a given location and corresponding location upwind.

NA - not applicable, odor intensity will be either a Site Condition 1 or a Site Condition 3, there are no other alert conditions for odor.

$PM_{10}$ - respirable particulate matter

ppmv - parts per million by volume

TVOC - total volatile organic compound

µg/$m^3$ - micrograms per cubic meter

The action levels shown in this table are based on the Community Air Monitoring Program (CAMP) Work Plan (GEI, 2009) and the New York State Department of Environmental Conservation (NYSDEC) Draft DER-10 Technical Guidance for Site Remediation and Investigation (NYSDEC, 2009).

**Table 3. Daily Maximum 15-minute Average Concentrations of TVOC and $PM_{10}$**
**Weekly Community Air Monitoring Report**
**Bay Shore Former MGP Site**
**OU-1 RAP-Phase IV**
**Bay Shore, New York**

| Date | $PM_{10}$ Alert Limit ($\mu g/m^3$) | $PM_{10}$ Action Limit ($\mu g/m^3$) | AMS-1 | | AMS-2 | | AMS-3 | | AMS-4 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | $PM_{10}$ ($\mu g/m^3$) | TVOC (ppmv) | $PM_{10}$ ($\mu g/m^3$) | TVOC (ppmv) | $PM_{10}$ ($\mu g/m^3$) | TVOC (ppmv) | $PM_{10}$ ($\mu g/m^3$) | TVOC (ppmv) |
| 3/20/2010 | 100 | 150 | 33 | 0.4 | 31 | 0.2 | 57 | 0.1 | 44 | 0.2 |
| 3/21/2010 | 100 | 150 | 65 | 0.6 | 59 | 0.2 | 87 | 0.1 | 71 | 0.1 |
| 3/22/2010 | 100 | 150 | 29 | 0.2 | 27 | 0.2 | 47 | 0.0 | 36 | 0.1 |
| 3/23/2010 | 100 | 150 | 39 | 0.6 | 38 | 0.2 | 56 | 0.1 | 44 | 0.2 |
| 3/24/2010 | 100 | 150 | 14 | 0.4 | 13 | 0.1 | 75 | 0.1 | 16 | 0.3 |
| 3/25/2010 | 100 | 150 | 37 | 0.2 | 37 | 0.2 | 54 | 0.1 | 36 | 0.4 |
| 3/26/2010 | 100 | 150 | 37 | 0.1 | 33 | 0.2 | 53 | 0.1 | 42 | 0.0 |

All reported $PM_{10}$ and TVOC values represent fifteen-minute averages

AMS - air monitoring station

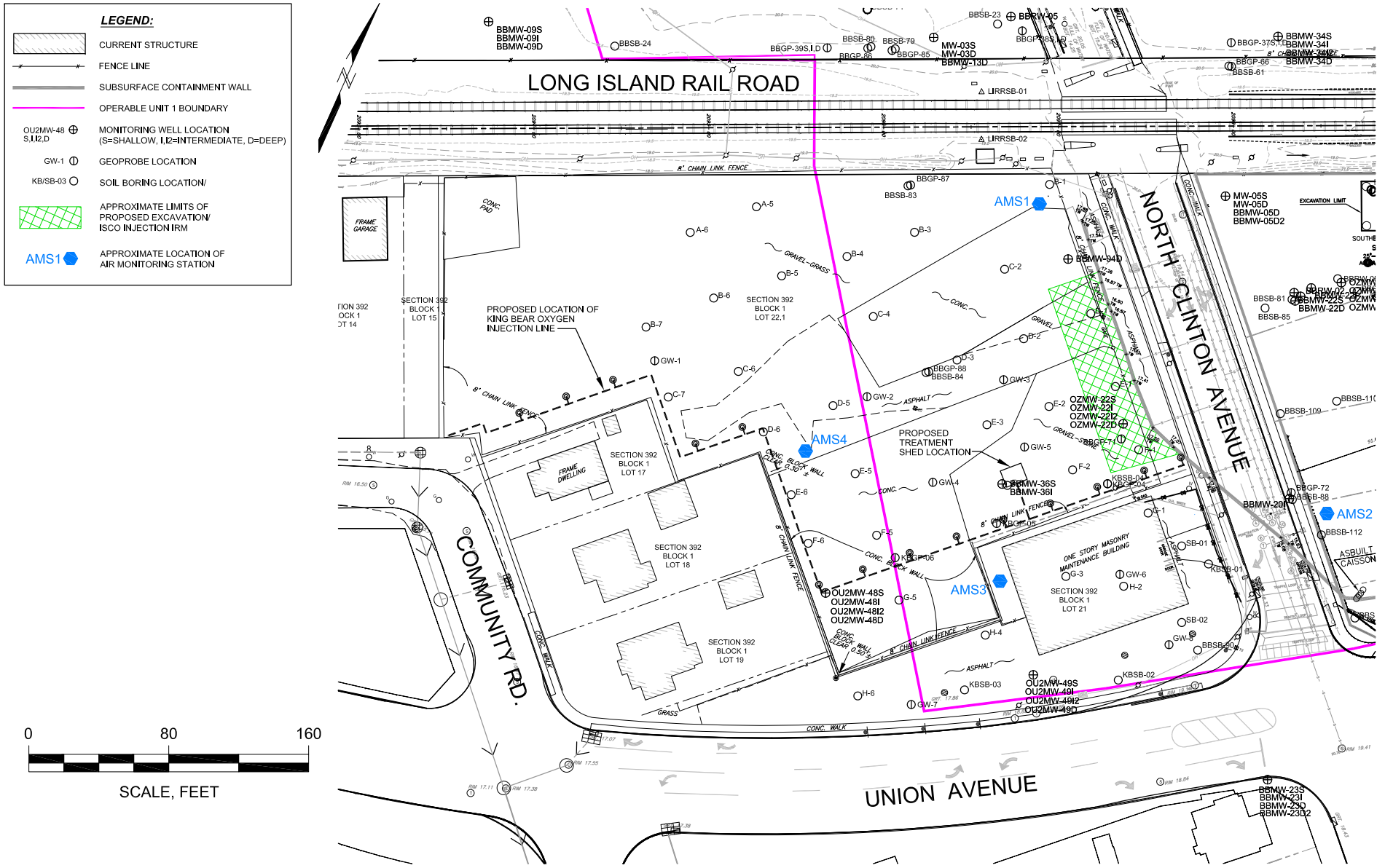
$PM_{10}$ - respirable particulate matter

ppmv - parts per million by volume

TVOC - total volatile organic compound

$\mu g/m^3$ - micrograms per cubic meter

TVOC concentrations are rounded to the nearest 0.1 ppmv




**SOURCE:**

1. PLAN BASED ON MAP PREPARED BY KS ENGINEERS, P.C., 24 COMMERCE STREET, NEWARK, N.J. 07102, TITLED *BOUNDARY AND TOPOGRAPHIC SURVEY, PORTION OF SEC. 392, BLOCK 1 SUFFOLK COUNTY, NEW YORK,* SCALE 1"=30', DATED 7/09/09.

SUMMERS LUMBER/KING BEAR IRM
BAY SHORE/BRIGHTWATERS FORMER MGP SITE
BAY SHORE, NEW YORK

nationalgrid

PROJECT 093180-1-1114

GEI Consultants
110 WALT WHITMAN ROAD
SUITE 204
HUNTINGTON STATION, NY 11746

**AIR MONITORING STATION LOCATIONS**

March 2010 Figure 1

I:\GEI\National Grid\Bay Shore\OU-1\Summers Lumber-King Bear\IRM\ Bay Shore-Summers L-King B IRM CAMP.dwg \Mar 25, 2010

**Figures 2-5. Meteorological Data**
**Weekly Community Air Monitoring Report**
**Bayshore Former MGP Site**
**OU-1 RAP-Phase IV**
**Bayshore, New York**

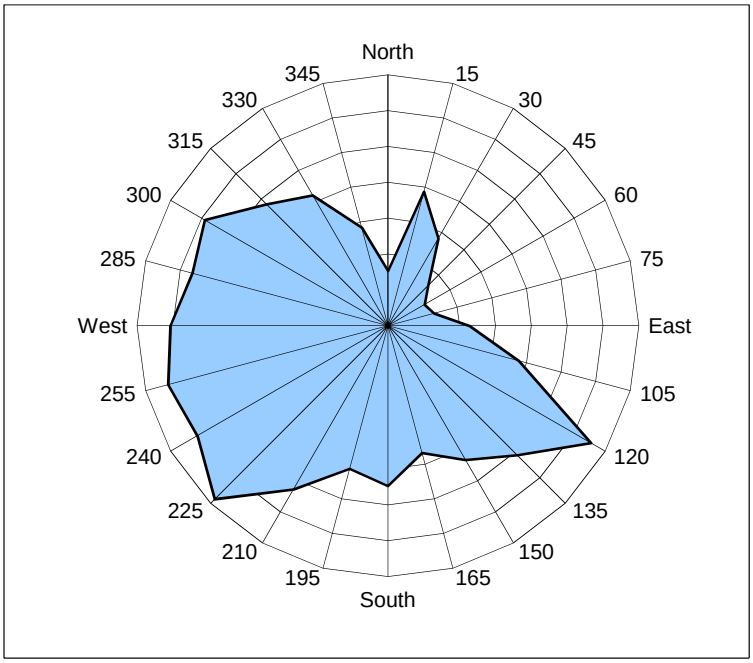



Figure 2. Wind rose for the period 03/20/10 through 03/26/10 collected at the Bayshore Former MGP Site in Bayshore, New York. Wind direction data used to create the wind rose were calculated from 15-minute averages.

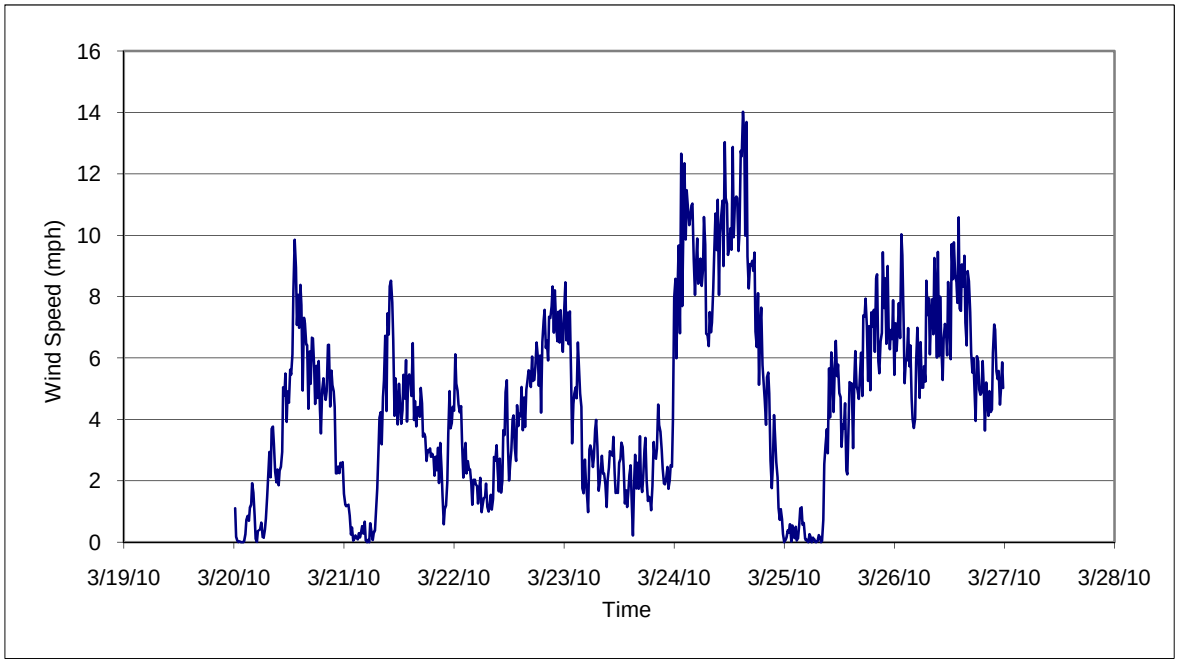



Figure 3. Wind speed for the period 03/20/10 through 03/26/10 collected at the Bayshore Former MGP Site in Bayshore, New York. Data are 15-minute averages.

**Figures 2-5. Meteorological Data**
**Weekly Community Air Monitoring Report**
**Bayshore Former MGP Site**
**OU-1 RAP-Phase IV**
**Bayshore, New York**

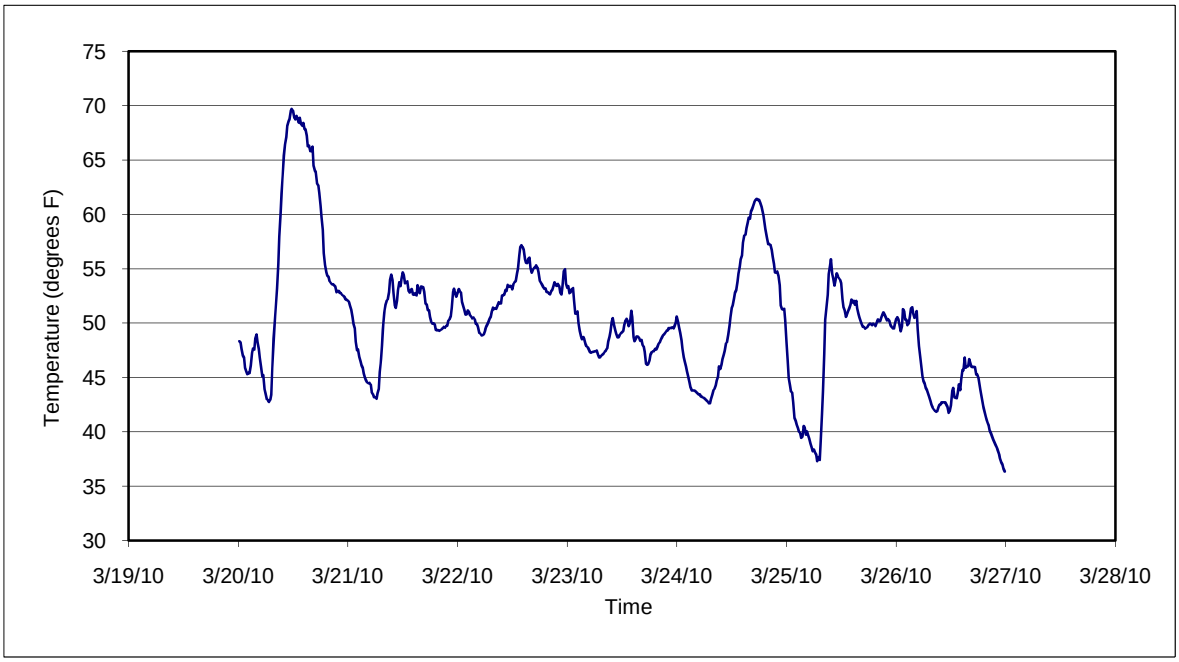



Figure 4. Temperature for the period 03/20/10 through 03/26/10 collected at the Bayshore Former MGP Site in Bayshore, New York. Data are 15-minute averages.

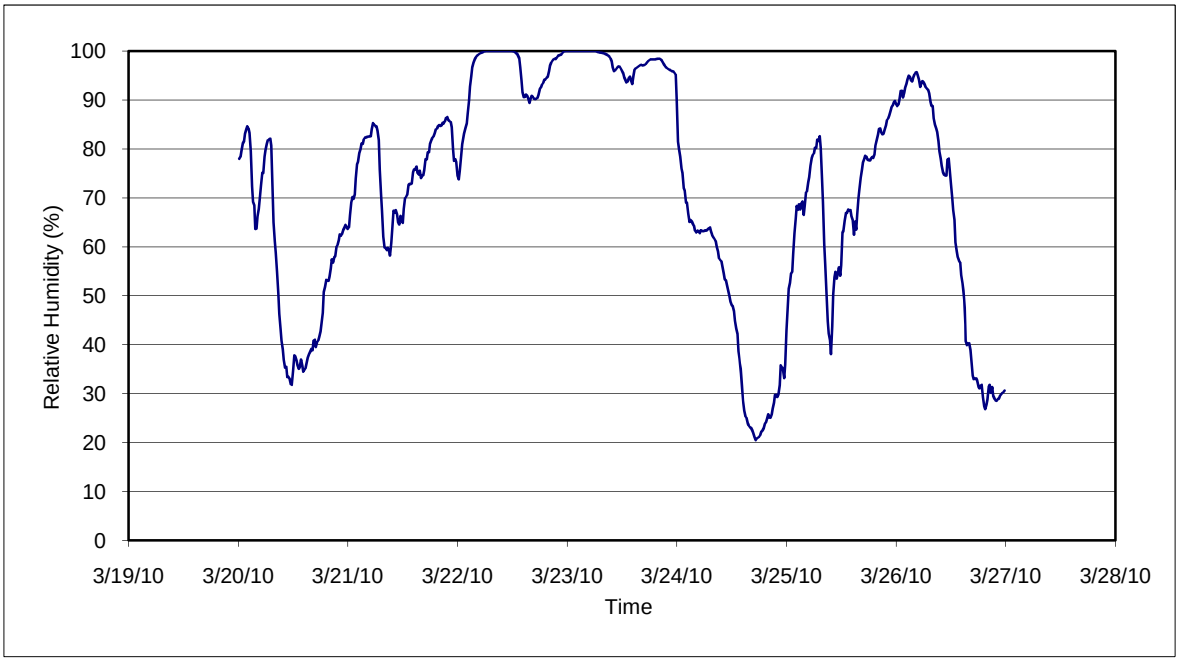



Figure 5. Relative humidity for the period 03/20/10 through 03/26/10 collected at the Bayshore Former MGP Site in Bayshore, New York. Data are 15-minute averages.

GEI Consultants

110 Walt Whitman Road
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Huntington Station, NY 11746

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# Memorandum

To: Bill Ryan and Christie Battenhouse (National Grid)

From: Tess Landgraff

Copy to: James Christman (National Grid)
Gary Kowalski (Creamer)
Harvey Hansen (Creamer)
Errol Kitt (GEI)
Tom Shock (GEI)
Brian Skelly (GEI)
Tim Olean (GEI)
Scott Deyette (DEC)
Amen Omorogbe (DEC)
Steve Karpinski (DOH)
Amy Juchatz (SCDEE)
Ron Paulsen (SCDHS)

Date: April 7, 2010

Regarding: Weekly Community Air Monitoring Report
Bay Shore Former MGP Site
Operable Unit 1 (OU-1) Remedial Action Plan (RAP)-Phase IV
March 27, 2010 through April 2, 2010

Dear Bill and Christie:

This report includes a summary of data collected during the Community Air Monitoring Program (CAMP) at the Bay Shore Former MGP Site in Bay Shore, New York during the period March 27, 2010 through April 2, 2010. Data collected are discussed in relation to intrusive and non-intrusive construction activities associated with Phase IV of the OU-1 RAP. The tables and figures accompanying this report summarize air monitoring results related to the action levels described by the CAMP Work Plan. Figure 1 illustrates the current locations of the CAMP units.

Fifteen-minute averages for Total Volatile Organic Compounds (TVOC) and Respirable Particulate Matter ($PM_{10}$) remained at a Site Condition 1 during this reporting period. A Site Condition 1 is defined as normal or ambient air conditions where all target concentrations are less than the Alert Limit.

The following target compounds and corresponding Alert Limits and Action Limits were developed in accordance with the NYSDOH Generic CAMP.

| Target Compounds | Alert Limit |
|---|---|
| TVOCs (15-minute average concentration) | 3.7 ppm greater than background* |
| Respirable Particulate Matter ($PM_{10}$) | 100 $\mu g/m^3$ greater than background* |

| Target Compounds | Action Limit |
|---|---|
| TVOCs (15-minute average concentration) | 5.0 ppm greater than background* |
| TVOCs (1-minute concentration) | 25 ppm greater than background* |
| Respirable Particulate Matter ($PM_{10}$) | 150 $\mu g/m^3$ greater than background* |

ppm - parts per million
$\mu g/m^3$ - micrograms per meter cubed
TVOCs – Total Volatile Organic Compounds
* Background is defined as the current upwind fifteen-minute average concentration.

The following information is summarized in this report:

- Site related construction activities,
- Daily maximum 15-minute average concentrations of TVOC and $PM_{10}$ at each fixed station,
- Elevated concentrations (if any) and,
- Meteorological data.

## Remedial Site Activities

Site activity (non-intrusive) conducted during this reporting period consisted of:

- Demobilization of site equipment and materials
- Removal of stockpiled impacted material from the temporary fabric structure via dump trucks
- Backfilling of the excavation area

Site activities are summarized on Table 1.

## Data Collection

Real-time fixed station monitoring for TVOC and $PM_{10}$ was performed on the OU-1 site perimeter at four locations (AMS-1 through AMS-4) during this time period. Fifteen-minute averages for TVOC and $PM_{10}$ remained at a Site Condition 1 during this reporting period.

Table 2 summarizes the target concentrations for action levels and Site Conditions described by the CAMP Work Plan (GEI, 2009). Table 3 provides a daily summary of maximum fifteen-minute average ambient air concentrations from each station**.**

GEI collected upwind and downwind TO-15 verification samples on Thursday, April 1, 2010. If MGP-related compounds are detected in any of the samples, such detections will be discussed in a future memo. Meteorological data collected at the weather station on site are included in this report as Figures 2-5 which show a directional wind rose for the period, wind speed, temperature, and relative humidity time series for the period.

If you have any questions regarding the information in this report, please contact me at 631-760-9300.

**References**

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New York State Department of Environmental Conservation. Draft DER-10 Technical Guidance for Site Remediation and Investigation. Washington: Division of Environmental Remediation, November 2009. Appendix 1-A.

**Table 1. Site Related Construction Activities**
**Weekly Community Air Monitoring Report**
**Bay Shore Former MGP Site**
**OU-1 RAP-Phase IV**
**Bay Shore, New York**

| ***Summary of Observations*** | | |
|---|---|---|
| Saturday | 3/27/2010 | No site activity. GEI not on site. Air monitoring data collection. |
| Sunday | 3/28/2010 | No site activity. GEI not on site. Air monitoring data collection. |
| Monday | 3/29/2010 | Removal of stockpiled impacted material from temporary fabric structure via dump truck. Demobilization of site equipment and materials. Air monitoring data collection. |
| Tuesday | 3/30/2010 | Removal of stockpiled impacted material from temporary fabric structure via dump truck. Demobilization of site equipment and materials. Air monitoring data collection. |
| Wednesday | 3/31/2010 | Removal of stockpiled impacted material from temporary fabric structure via dump truck. Demobilization of site equipment and materials. Air monitoring data collection. |
| Thursday | 4/1/2010 | Delivery of backfill. Backfilling of excavation area. Removal of stockpiled impacted material from temporary fabric structure via dump truck. Demobilization of site equipment and materials. Air monitoring data collection. TO-15 sample collection. |
| Friday | 4/2/2010 | Delivery of backfill. Surface grading of excavation area. Removal of stockpiled impacted material from temporary fabric structure via dump truck. Demobilization of site equipment and materials. Air monitoring data collection. |

**Table 2. Target Concentrations For Action Levels and Site Conditions**
**Weekly Community Air Monitoring Report**
**Bay Shore Former MGP Site**
**OU-1 RAP-Phase IV**

| Target Constituent | Action Limit | Site Condition 1 | Site Condition 2 | Site Condition 3 |
|---|---|---|---|---|
| TVOCs* | 5.0 ppmv | < 3.7 ppmv | ≥ 3.7 ppmv, <5.0 ppmv | ≥ 5.0 ppmv |
| $PM_{10}$* | 150 µg/$m^3$ | < 100 µg/$m^3$ | ≥ 100 µg/$m^3$, < 150 µg/$m^3$ | ≥ 150 µg/$m^3$ |
| Odor (n-butanol scale) | 3 | < 3 and No Odor Complaints | NA | ≥ 3 or Odor Complaints |
| Odor (nuisance) | Public Complaints | No Complaints | NA | Public Complaints |

* Values represent the difference in 15-minute average concentration between a given location and corresponding location upwind.

NA - not applicable, odor intensity will be either a Site Condition 1 or a Site Condition 3, there are no other alert conditions for odor.

$PM_{10}$ - respirable particulate matter

ppmv - parts per million by volume

TVOC - total volatile organic compound

µg/$m^3$ - micrograms per cubic meter

The action levels shown in this table are based on the Community Air Monitoring Program (CAMP) Work Plan (GEI, 2009) and the New York State Department of Environmental Conservation (NYSDEC) Draft DER-10 Technical Guidance for Site Remediation and Investigation (NYSDEC, 2009).

**Table 3. Daily Maximum 15-minute Average Concentrations of TVOC and $PM_{10}$**
**Weekly Community Air Monitoring Report**
**Bay Shore Former MGP Site**
**OU-1 RAP-Phase IV**
**Bay Shore, New York**

| Date | $PM_{10}$ Alert Limit ($\mu g/m^3$) | $PM_{10}$ Action Limit ($\mu g/m^3$) | AMS-1 | | AMS-2 | | AMS-3 | | AMS-4 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | $PM_{10}$ ($\mu g/m^3$) | TVOC (ppmv) | $PM_{10}$ ($\mu g/m^3$) | TVOC (ppmv) | $PM_{10}$ ($\mu g/m^3$) | TVOC (ppmv) | $PM_{10}$ ($\mu g/m^3$) | TVOC (ppmv) |
| 3/27/2010 | 100 | 150 | 12 | 0.1 | 9 | 0.1 | 25 | 0.1 | 10 | 0.0 |
| 3/28/2010 | 100 | 150 | 24 | 0.4 | 19 | 0.1 | 34 | 0.1 | 24 | 0.0 |
| 3/29/2010 | 100 | 150 | 42 | 0.1 | 45 | 0.1 | 53 | 0.0 | 28 | 0.1 |
| 3/30/2010 | 100 | 150 | 16 | 0.1 | 9 | 0.2 | 25 | 0.0 | 1 | 0.0 |
| 3/31/2010 | 100 | 150 | 11 | 0.2 | 14 | 0.3 | 15 | 0.0 | 2 | 0.1 |
| 4/1/2010 | 100 | 150 | 22 | 0.3 | 22 | 0.4 | 57 | 0.1 | 36 | 0.1 |
| 4/2/2010 | 100 | 150 | 38 | 0.3 | 28 | 0.2 | 87 | 0.1 | 47 | 0.1 |

All reported $PM_{10}$ and TVOC values represent fifteen-minute averages

AMS - air monitoring station

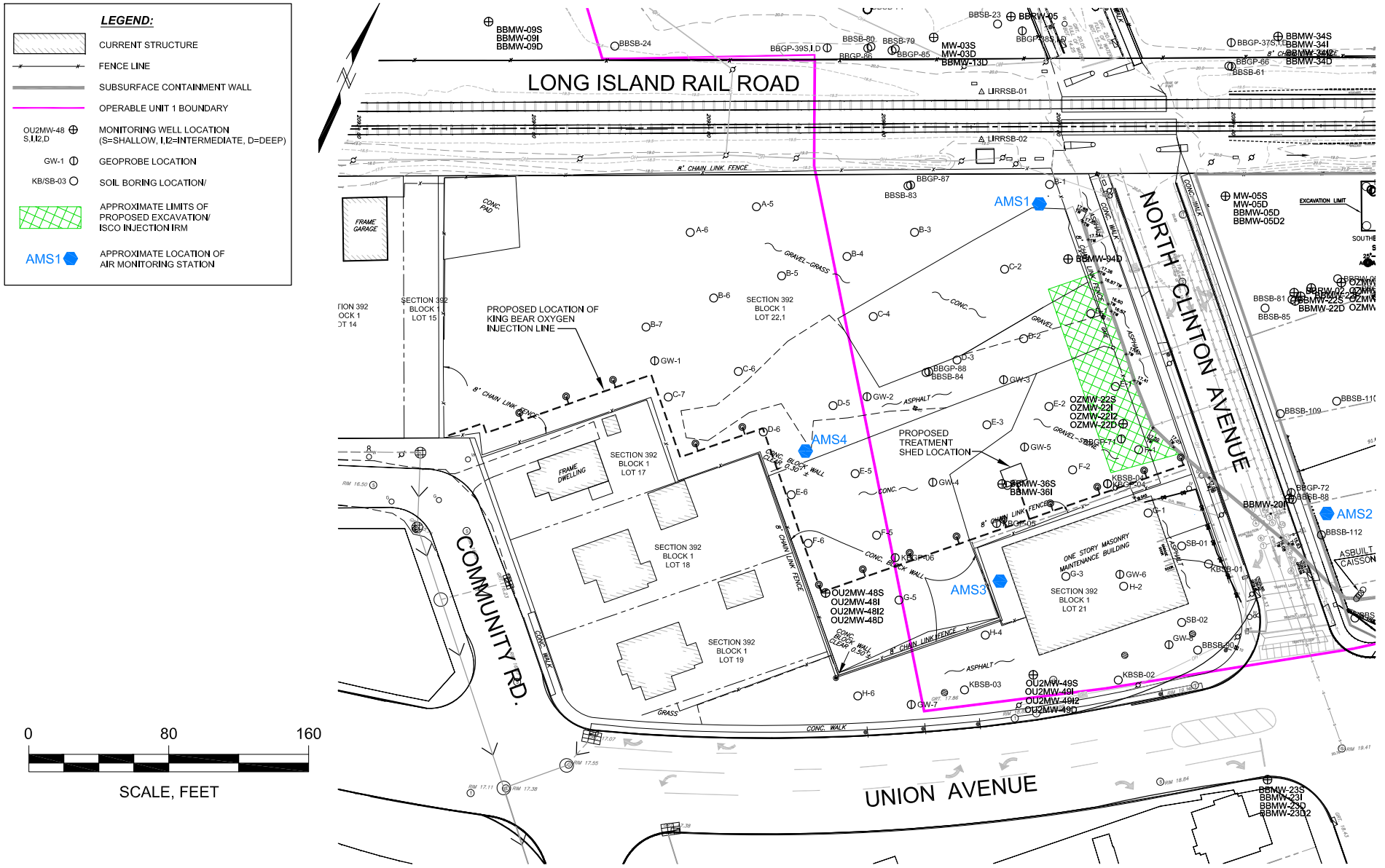
$PM_{10}$ - respirable particulate matter

ppmv - parts per million by volume

TVOC - total volatile organic compound

$\mu g/m^3$ - micrograms per cubic meter

TVOC concentrations are rounded to the nearest 0.1 ppmv




**SOURCE:**

1. PLAN BASED ON MAP PREPARED BY KS ENGINEERS, P.C., 24 COMMERCE STREET, NEWARK, N.J. 07102, TITLED *BOUNDARY AND TOPOGRAPHIC SURVEY, PORTION OF SEC. 392, BLOCK 1 SUFFOLK COUNTY, NEW YORK,* SCALE 1"=30', DATED 7/09/09.

SUMMERS LUMBER/KING BEAR IRM
BAY SHORE/BRIGHTWATERS FORMER MGP SITE
BAY SHORE, NEW YORK

nationalgrid

PROJECT 093180-1-1114

GEI Consultants
110 WALT WHITMAN ROAD
SUITE 204
HUNTINGTON STATION, NY 11746

**AIR MONITORING STATION LOCATIONS**

March 2010 Figure 1

I:\GEI\National Grid\Bay Shore\OU-1\Summers Lumber-King Bear\IRM\ Bay Shore-Summers L-King B IRM CAMP.dwg \Mar 25, 2010

**Figures 2-5. Meteorological Data**
**Weekly Community Air Monitoring Report**
**Bayshore Former MGP Site**
**OU-1 RAP-Phase IV**
**Bayshore, New York**

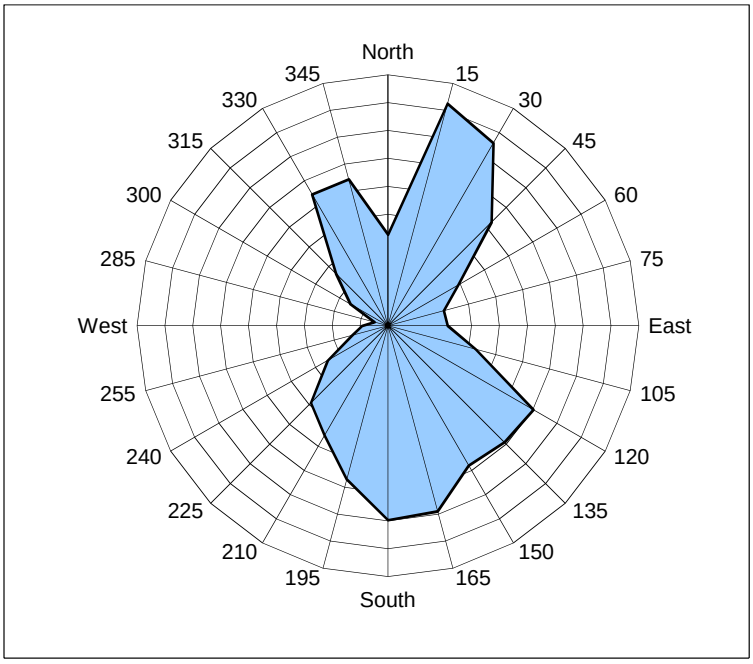



Figure 2. Wind rose for the period 03/27/10 through 04/02/10 collected at the Bayshore Former MGP Site in Bayshore, New York. Wind direction data used to create the wind rose were calculated from 15-minute averages.

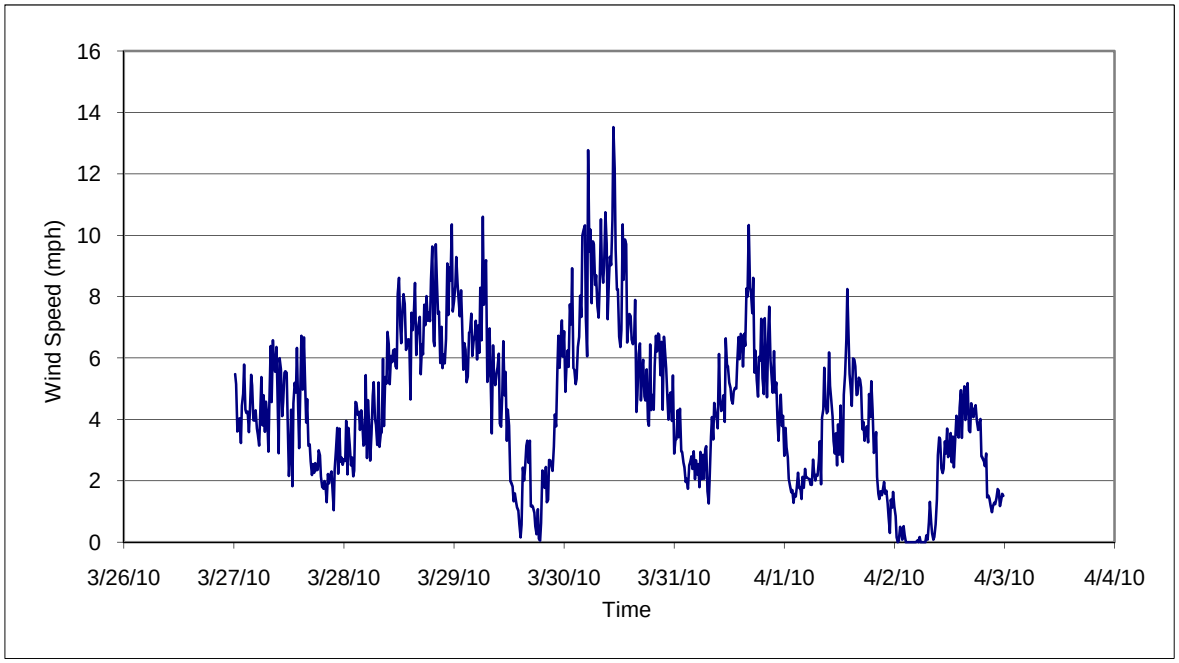



Figure 3. Wind speed for the period 03/27/10 through 04/02/10 collected at the Bayshore Former MGP Site in Bayshore, New York. Data are 15-minute averages.

**Figures 2-5. Meteorological Data**
**Weekly Community Air Monitoring Report**
**Bayshore Former MGP Site**
**OU-1 RAP-Phase IV**
**Bayshore, New York**

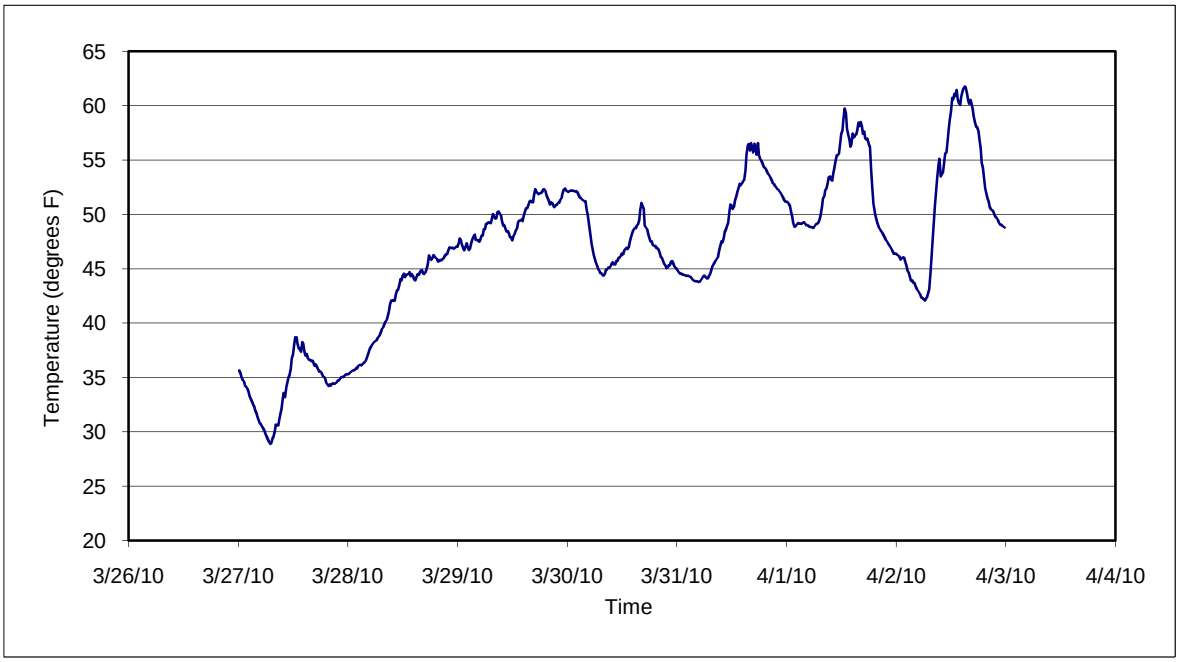



Figure 4. Temperature for the period 03/27/10 through 04/02/10 collected at the Bayshore Former MGP Site in Bayshore, New York. Data are 15-minute averages.

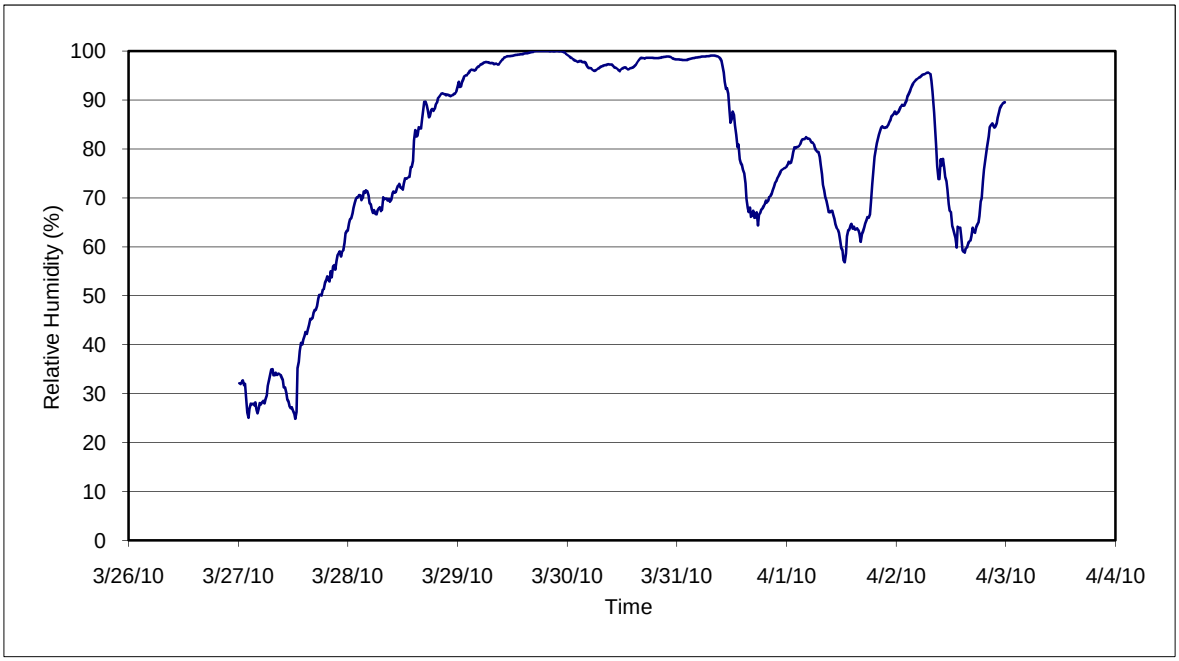



Figure 5. Relative humidity for the period 03/27/10 through 04/02/10 collected at the Bayshore Former MGP Site in Bayshore, New York. Data are 15-minute averages.

GEI Consultants

110 Walt Whitman Road
Suite 204
Huntington Station, NY 11746

Ph: (631) 760-9300
Fax: (631) 760-9301

# Memorandum

To: Bill Ryan and Christie Battenhouse (National Grid)

From: Tess Landgraff

Copy to: James Christman (National Grid)
Gary Kowalski (Creamer)
Harvey Hansen (Creamer)
Errol Kitt (GEI)
Tom Shock (GEI)
Brian Skelly (GEI)
Tim Olean (GEI)
Scott Deyette (DEC)
Amen Omorogbe (DEC)
Steve Karpinski (DOH)
Amy Juchatz (SCDEE)
Ron Paulsen (SCDHS)

Date: April 19, 2010

Regarding: Weekly Community Air Monitoring Report
OU-1 (Operable Unit 1) Remedial Action Plan (RAP)-Phase IV
Bay Shore/Brightwaters Former MGP Site
April 3, 2010 through April 9, 2010

Dear Bill and Christie:

This report includes a summary of data collected during the Community Air Monitoring Program (CAMP) at the Bay Shore/Brightwaters former MGP Site in Bay Shore, New York during the period April 3, 2010 through April 9, 2010. Data collected are discussed in relation to intrusive and non-intrusive construction activities associated with Phase IV of the OU-1 Remedial Action Plan. The tables and figures accompanying this report summarize air monitoring results related to the action levels described by the CAMP Work Plan. Figure 1 illustrates the current locations of the CAMP units.

Fifteen-minute averages for Total Volatile Organic Compounds (TVOC) and Respirable Particulate Matter ($PM_{10}$) remained at a Site Condition 1 during this reporting period. A Site Condition 1 is defined as normal or ambient air conditions where all target concentrations are less than the Alert Limit.

The following target compounds and corresponding Alert Limits and Action Limits were developed in accordance with the NYSDOH Generic CAMP.

| Target Compounds | Alert Limit |
|---|---|
| TVOCs (15-minute average concentration) | 3.7 ppm greater than background* |
| Respirable Particulate Matter ($PM_{10}$) | 100 $\mu g/m^3$ greater than background* |

| Target Compounds | Action Limit |
|---|---|
| TVOCs (15-minute average concentration) | 5.0 ppm greater than background* |
| TVOCs (1-minute concentration) | 25 ppm greater than background* |
| Respirable Particulate Matter ($PM_{10}$) | 150 $\mu g/m^3$ greater than background* |

ppm - parts per million
$\mu g/m^3$ - micrograms per meter cubed
TVOCs – Total Volatile Organic Compounds
* Background is defined as the current upwind fifteen-minute average concentration.

The following information is summarized in this report:

- Site related construction activities,
- Daily maximum 15-minute average concentrations of TVOC and $PM_{10}$ at each fixed station,
- Elevated concentrations (if any) and,
- Meteorological data.

## Remedial Site Activities

Site activity (non-intrusive) conducted during this reporting period consisted of:

- Demobilization of site equipment and materials
- Removal of stockpiled impacted material from the temporary fabric structure via dump trucks
- Delivery of backfill and stone
- Surface grading of the exclusion zone
- Removal of dewatered contents from Frac tanks via tanker trucks
- Site maintenance

Site activities are summarized on Table 1.

## Data Collection

Real-time fixed station monitoring for TVOC and $PM_{10}$ was performed on the OU-1 site perimeter at four locations (AMS-1 through AMS-4) during this time period. Fifteen-minute averages for TVOC and $PM_{10}$ remained at a Site Condition 1 during this reporting period.

Table 2 summarizes the target concentrations for action levels and Site Conditions described by the CAMP Work Plan (GEI, 2009). Table 3 provides a daily summary of maximum fifteen-minute average ambient air concentrations from each station. Table 4 depicts a more detailed and time-specific comparison of upwind and downwind measurements that is needed to determine the site condition.

On Tuesday, April 6, 15-minute average concentrations of $PM_{10}$ were recorded above the Alert limit of 100 ug/$m^3$ at AMS-3 from 1:05 pm to 1:09 pm. There was no intrusive work being conducted onsite and the elevated readings were due to site maintenance and restoration (sweeping). Water sprinklers were in continuous use onsite and close to the site perimeter for dust mitigation. The remediation contractor was notified and a Site Condition 1 was maintained. Please see Table 3 and Table 4 for more details.

On Wednesday, April 7, 15-minute average concentrations of $PM_{10}$ were recorded above the Alert limit of 100 ug/$m^3$ at AMS-3 from 8:10 am to 8:13 am. There was no intrusive work being conducted onsite and the elevated readings were due to vehicular surface dust from offsite truck traffic. Water sprinklers were in continuous use onsite and close to the site perimeter for dust mitigation. The remediation contractor was notified and a Site Condition 1 was maintained. Please see Table 3 and Table 4 for more details.

On Thursday, April 8, 15-minute average concentrations of $PM_{10}$ were recorded above the Alert limit of 100 ug/$m^3$ at AMS-3 from 3:42 pm to 3:45 pm and at AMS 1 from 5:09 pm to 5:10 pm and from 5:13 pm to 5:14 pm. There was no work onsite during these time periods and a Site Condition 1 was maintained. Please see Table 3 and Table 4 for more details.

If you have any questions regarding the information in this report, please contact me at 631-760-9300.

**References**

GEI Consultants, Inc (2009). Community Air Monitoring Program Work Plan: Bay Shore/Brightwaters Former MGP Site, Operable Unit 1, Summers Lumber/ King Bear IRM Relocation, Interim Remedial Measure, Brightwaters, NY. February 18, 2010.

New York State Department of Environmental Conservation. Draft DER-10 Technical Guidance for Site Remediation and Investigation. Washington: Division of Environmental Remediation, November 2009. Appendix 1-A.

**Table 1. Site Related Construction Activities**
**Weekly Community Air Monitoring Report**
**Operable Unit 1 (OU-1) Remedial Action Plan (RAP)- Phase IV**
**Bay Shore Former MGP Site**
**Bay Shore, New York**

| ***Summary of Observations*** | | |
|---|---|---|
| Saturday | 4/3/2010 | No site activity. GEI not on site. Air monitoring data collection. |
| Sunday | 4/4/2010 | No site activity. GEI not on site. Air monitoring data collection. |
| Monday | 4/5/2010 | Delivery of backfill. Surface grading of exclusion zone. Removal of stockpiled impacted material from temporary fabric structure via dump truck. Demobilization of site equipment and materials. Site maintanence. Air monitoring data collection. |
| Tuesday | 4/6/2010 | Delivery of backfill and stone. Surface grading of exclusion zone. Removal of stockpiled impacted material from temporary fabric structure via dump truck. Demobilization of site equipment and materials. Site maintanence. Air monitoring data collection. |
| Wednesday | 4/7/2010 | Removal of stockpiled impacted material from temporary fabric structure via dump truck. Demobilization of site equipment and materials. Removal of dewatered contents from Frac tanks via tanker trucks. Air monitoring data collection. |
| Thursday | 4/8/2010 | Demobilization of site equipment and materials. Air monitoring data collection. |
| Friday | 4/9/2010 | Removal of stockpiled impacted material from temporary fabric structure via dump truck. Demobilization of site equipment and materials. Site maintanence. Air monitoring data collection. |

**Table 2. Target Concentrations For Action Levels and Site Conditions**
**Weekly Community Air Monitoring Report**
**Operable Unit 1 (OU-1) Remedial Action Plan (RAP)- Phase IV**
**Bay Shore Former MGP Site**
**Bay Shore, New York**

| Target Constituent | Action Limit | Site Condition 1 | Site Condition 2 | Site Condition 3 |
|---|---|---|---|---|
| TVOCs* | 5.0 ppmv | < 3.7 ppmv | ≥ 3.7 ppmv, <5.0 ppmv | ≥ 5.0 ppmv |
| $PM_{10}$* | 150 µg/$m^3$ | < 100 µg/$m^3$ | ≥ 100 µg/$m^3$, < 150 µg/$m^3$ | ≥ 150 µg/$m^3$ |
| Odor (n-butanol scale) | 3 | Delivery of backfill. Surface grading of | NA | ≥ 3 or Odor Complaints |
| Odor (nuisance) | Public Complaints | Delivery of backfill and stone. Surface grading | NA | Public Complaints |

* Values represent the difference in 15-minute average concentration between a given location and corresponding location upwind.

NA - not applicable, odor intensity will be either a Site Condition 1 or a Site Condition 3, there are no other alert conditions for odor.

$PM_{10}$ - respirable particulate matter

ppmv - parts per million by volume

TVOC - total volatile organic compound

µg/$m^3$ - micrograms per cubic meter

The action levels shown in this table are based on the Community Air Monitoring Program (CAMP) Work Plan (GEI, 2009) and the New York State Department of Environmental Conservation (NYSDEC) Draft DER-10 Technical Guidance for Site Remediation and Investigation (NYSDEC, 2009).

**Table 3. Daily Maximum 15-minute Average Concentrations of TVOC and $PM_{10}$**
**Weekly Community Air Monitoring Report**
**Operable Unit 1 (OU-1) Remedial Action Plan (RAP)- Phase IV**
**Bay Shore Former MGP Site**
**Bay Shore, New York**

| Date | $PM_{10}$ Alert Limit ($\mu g/m^3$) | $PM_{10}$ Action Limit ($\mu g/m^3$) | AMS-1 | | AMS-2 | | AMS-3 | | AMS-4 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | $PM_{10}$ ($\mu g/m^3$) | TVOC (ppmv) | $PM_{10}$ ($\mu g/m^3$) | TVOC (ppmv) | $PM_{10}$ ($\mu g/m^3$) | TVOC (ppmv) | $PM_{10}$ ($\mu g/m^3$) | TVOC (ppmv) |
| 4/3/2010 | 100 | 150 | 29 | 0.3 | 31 | 0.2 | 98 | 0.1 | 32 | 0.1 |
| 4/4/2010 | 100 | 150 | 38 | 0.7 | 42 | 0.2 | 53 | 0.1 | 36 | 0.0 |
| 4/5/2010 | 100 | 150 | 41 | 0.2 | 39 | 0.2 | 80 | 0.0 | 48 | 0.0 |
| 4/6/2010 | 100 | 150 | 75 | 0.7 | 53 | 0.2 | 152 | 0.1 | 69 | 0.1 |
| 4/7/2010 | 100 | 150 | 89 | 0.4 | 64 | 0.6 | 181 | 0.1 | 60 | 0.1 |
| 4/8/2010 | 100 | 150 | 116 | 0.2 | 65 | 0.2 | 102 | 0.1 | 48 | 0.1 |
| 4/9/2010 | 100 | 150 | 35 | 0.8 | 38 | 0.2 | 83 | 0.0 | 31 | 0.0 |

All reported $PM_{10}$ and TVOC values represent fifteen-minute averages

AMS - air monitoring station

$PM_{10}$ - respirable particulate matter

ppmv - parts per million by volume

TVOC - total volatile organic compound

$\mu g/m^3$ - micrograms per cubic meter

TVOC concentrations are rounded to the nearest 0.1 ppmv

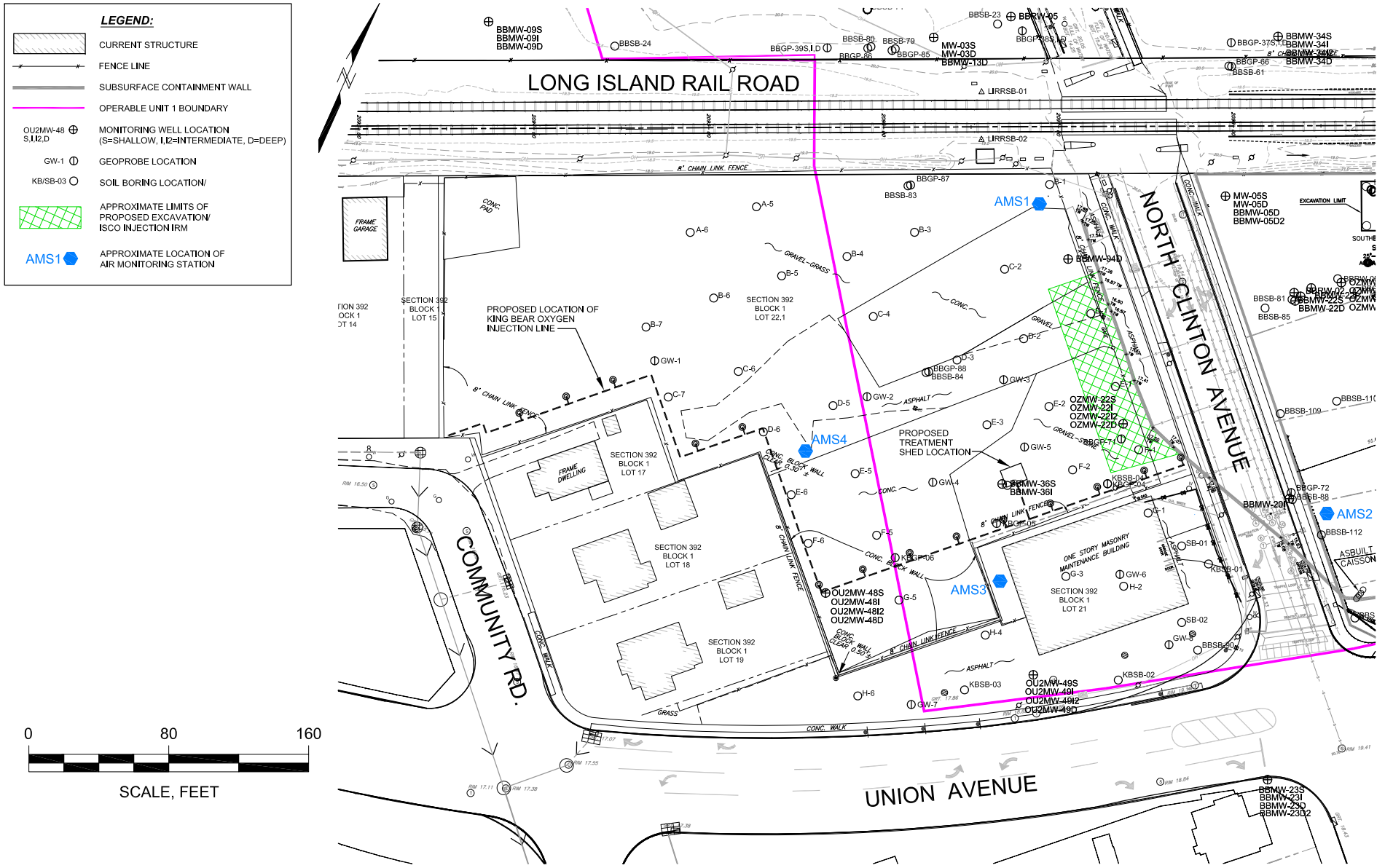
Highlighted values indicate dates and locations that require further comparison to the action levels based on wind direction. (See Table 4)

**Table 4. Summary Of Elevated Concentrations**
**Weekly Community Air Monitoring Report**
**Operable Unit 1 (OU-1) Remedial Action Plan (RAP)- Phase IV**
**Bay Shore Former MGP Site**
**Bay Shore, New York**

***Summary of Elevated Concentrations***

| Date | Station | Start Time (H:mm) | End Time (H:mm) | Duration (hrs) | Alert Trigger | Alert Limit ($\mu g/m^3$) | Action Limit ($\mu g/m^3$) | Approx. Start Dir* | Approx. End Dir* | Upwind/ Downwind | Upwind Station(s) | 15-Minute Upwind-Downwind Concentration Min** | 15-Minute Upwind-Downwind Concentration Max** | Site Condition | Site Activity During the Period (if applicable) | Actions Taken |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ***Real-Time Fixed Station Monitoring*** | | | | | | | | | | | | | | | | |
| 4/6/2010 | AMS 3 | 13:05 | 13:09 | 0:05 | PM10 | 100 | 150 | SE | SE | NA | NA | NA | NA | 1 | No intrusive work. Elevated readings due to dust generated from site housekeeping activities. | Notify remediation contractor. Continue Monitoring. |
| 4/7/2010 | AMS 3 | 8:10 | 8:13 | 0:04 | PM10 | 100 | 150 | SW | SW | NA | NA | NA | NA | 1 | No intrusive work. Elevated readings due to vehicular surface dust from offsite truck traffic. | Notify remediation contractor. Continue Monitoring. |
| 4/8/2010 | AMS 3 | 15:42 | 15:45 | 0:04 | PM10 | 100 | 150 | S | SE | NA | NA | NA | NA | 1 | After hours. Elevated readings due to dust generated from offsite activities. | Notify remediation contractor. Continue Monitoring. |
| 4/8/2010 | AMS 1 | 17:09 | 17:10 | 0:02 | PM10 | 100 | 150 | S | S | NA | NA | NA | NA | 1 | After hours. No work being conducted onsite. | Continue monitoring. |
| 4/8/2010 | AMS 1 | 17:13 | 17:14 | 0:02 | PM10 | 100 | 150 | S | S | NA | NA | NA | NA | 1 | After hours. No work being conducted onsite. | Continue monitoring. |

* Wind directions are presented by octant (i.e. N, NE, E, SE, S, SW, W, NW).
** Upwind minus downwind concentrations are a time specific comparison.
AMS - air monitoring station
ND - no data available
$PM_{10}$ - respirable particulate matter (reported in micrograms per cubic meter)
TVOC - total volatile organic compound (reported in parts per million by volume)




**SOURCE:**

1. PLAN BASED ON MAP PREPARED BY KS ENGINEERS, P.C., 24 COMMERCE STREET, NEWARK, N.J. 07102, TITLED *BOUNDARY AND TOPOGRAPHIC SURVEY, PORTION OF SEC. 392, BLOCK 1 SUFFOLK COUNTY, NEW YORK,* SCALE 1"=30', DATED 7/09/09.

SUMMERS LUMBER/KING BEAR IRM
BAY SHORE/BRIGHTWATERS FORMER MGP SITE
BAY SHORE, NEW YORK

nationalgrid

PROJECT 093180-1-1114

GEI Consultants
110 WALT WHITMAN ROAD
SUITE 204
HUNTINGTON STATION, NY 11746

**AIR MONITORING STATION LOCATIONS**

March 2010 Figure 1

I:\GEI\National Grid\Bay Shore\OU-1\Summers Lumber-King Bear\IRM\ Bay Shore-Summers L-King B IRM CAMP.dwg \Mar 25, 2010

**Figures 2-5. Meteorological Data**
**Weekly Community Air Monitoring Report**
**Operable Unit 1 (OU-1) Remedial Action Plan (RAP)-Phase IV**
**Bayshore Former MGP Site**
**Bay Shore, New York**

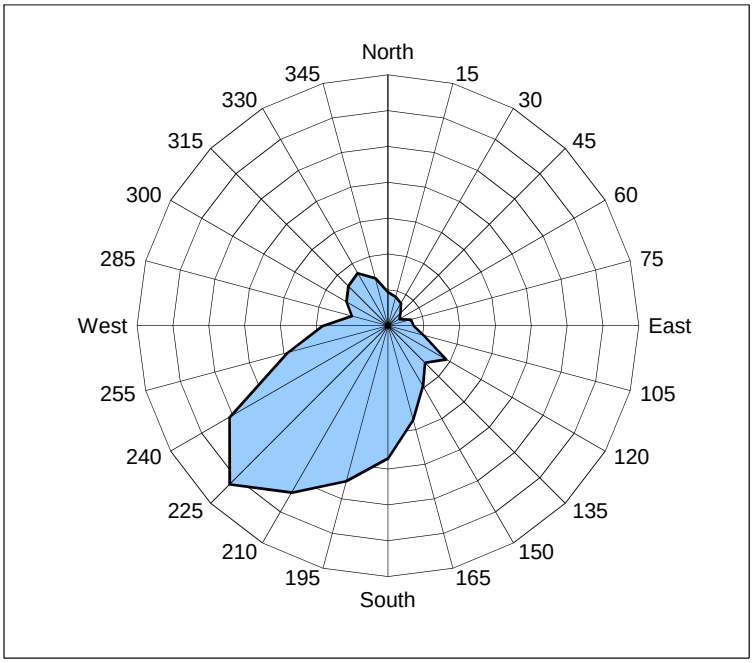



Figure 2. Wind rose for the period 04/03/10 through 04/09/10 collected at the Bay Shore Former MGP Site in Bay Shore, New York. Wind direction data used to create the wind rose were calculated from 15-minute averages.

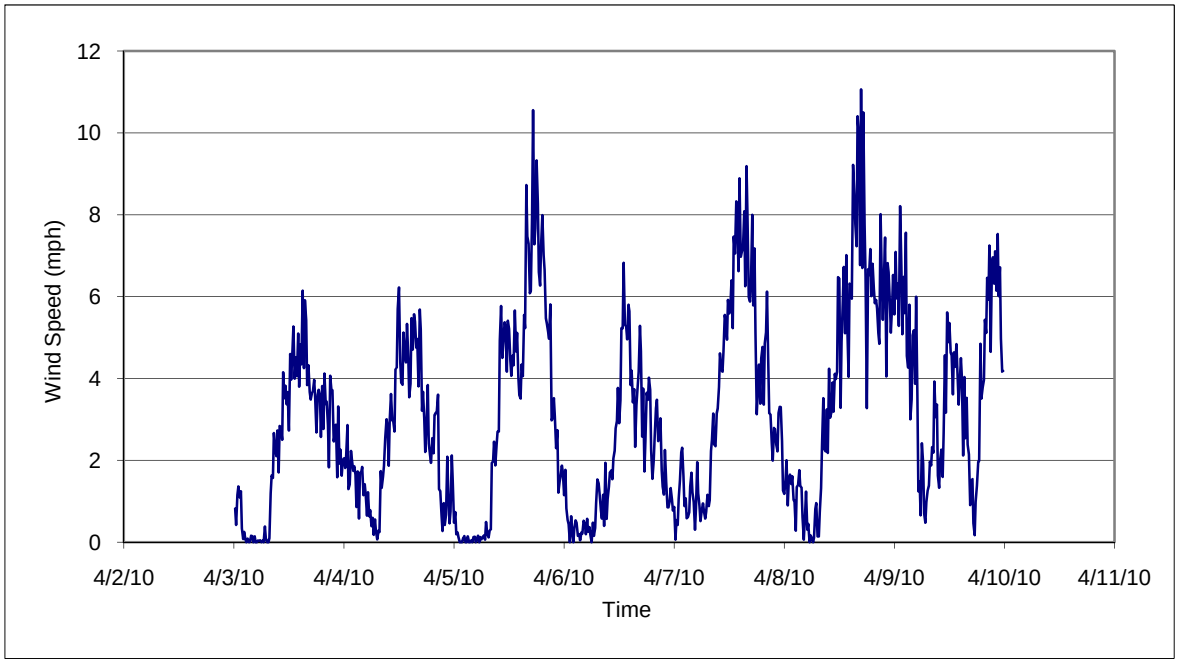



Figure 3. Wind speed for the period 04/03/10 through 04/09/10 collected at the Bay Shore Former MGP Site in Bay Shore, New York. Data are 15-minute averages.

**Figures 2-5. Meteorological Data**
**Weekly Community Air Monitoring Report**
**Operable Unit 1 (OU-1) Remedial Action Plan (RAP)-Phase IV**
**Bayshore Former MGP Site**
**Bay Shore, New York**

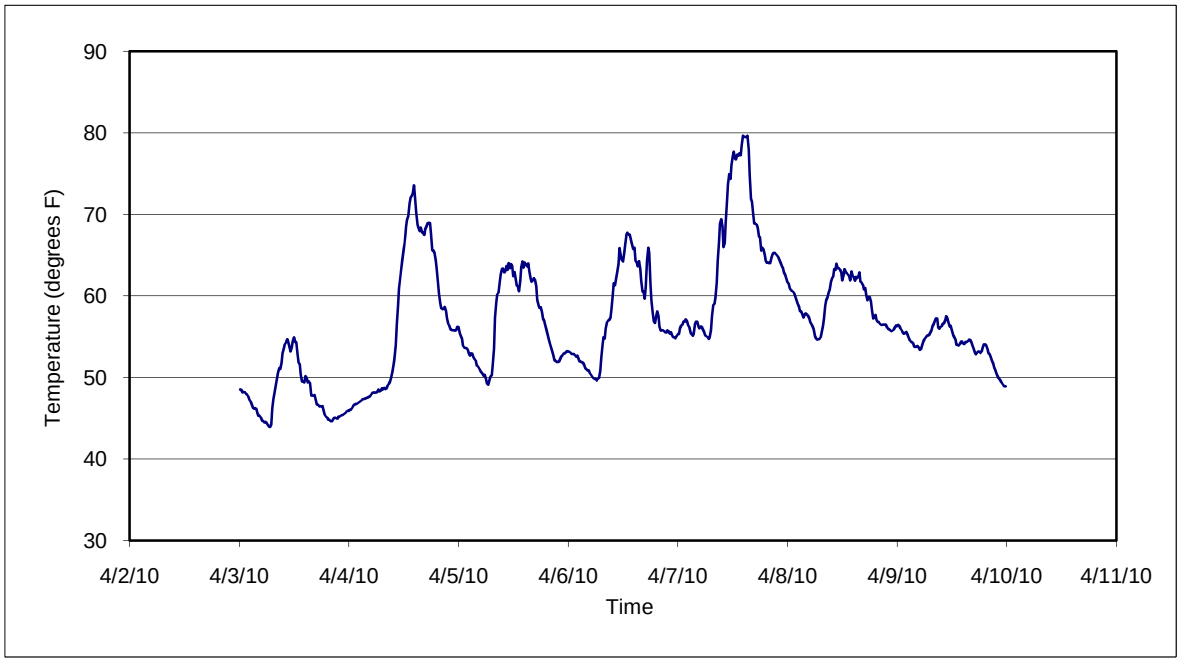



Figure 4. Temperature for the period 04/03/10 through 04/09/10 collected at the Bay Shore Former MGP Site in Bay Shore, New York. Data are 15-minute averages.

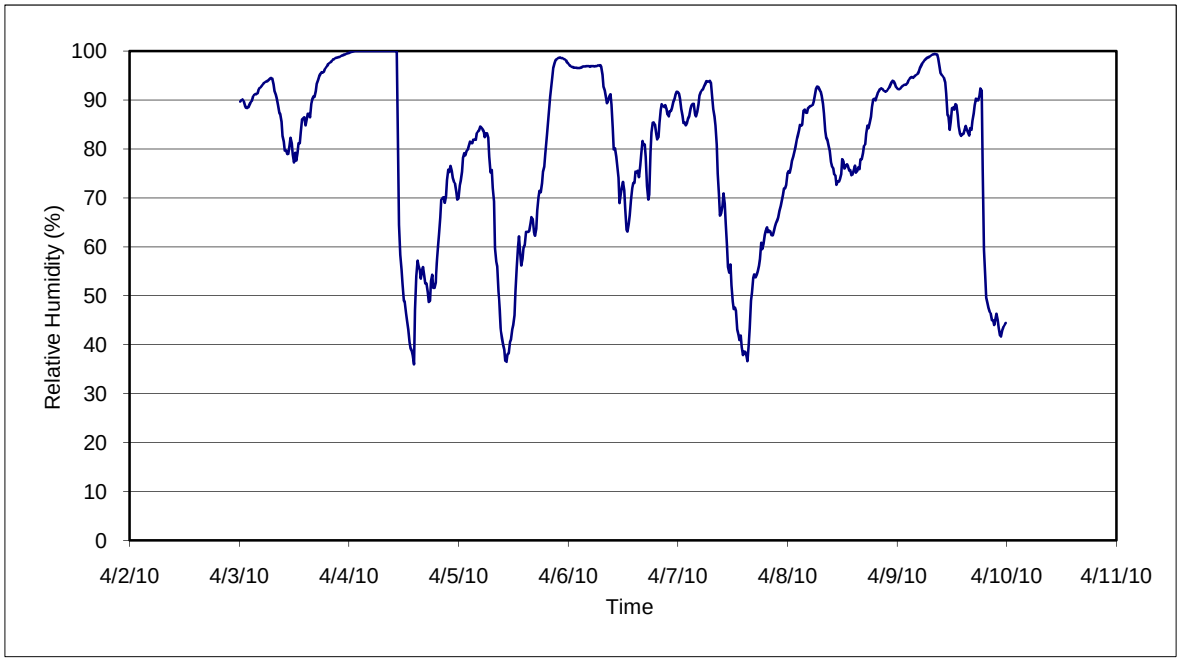



Figure 5. Relative humidity for the period 04/03/10 through 04/09/10 collected at the Bay Shore Former MGP Site in Bay Shore, New York. Data are 15-minute averages.

# Appendix D

## Agency Approval Letters (electronic only)

## O'Neil, Matt

**From:** Douglas MacNeal [dkmacnea@gw.dec.state.ny.us]
**Sent:** Monday, December 07, 2009 3:24 PM
**To:** Matt O'Neil; Christie Battenhouse; William Ryan
**Cc:** Gardiner Cross; Steven Karpinski; Amy Juchatz; MIchael Maraviglia; Ronald Paulsen
**Subject:** King Bear/ Summer's Lumber IRM Oxygen Injection System

We have collected all the comments on the IRM work plan. There is nothing that would prevent the installation of the oxygen injection system. You may move forward with that at your convenience. Comments on the full work plan will be forthcoming. If you have any questions, you may contact me at this address or you may call me at (518) 402-9564.

## O'Neil, Matt

**From:** Ryan, William [William.Ryan@us.ngrid.com]
**Sent:** Wednesday, February 10, 2010 2:11 PM
**To:** Dave Work; Kathleen Slimon; Matt O'Neil
**Cc:** Christie Battenhouse
**Subject:** FW: Bay Shore OU1 IRM

William J. Ryan
Project Manager
Site Investigation and Remediation Department
national**grid**
175 East Old Country Road
Hicksville, NY 11801
(516)545-2586-office
(516)790-1660-cell

---

**From:** Amen Omorogbe [mailto:amomorog@gw.dec.state.ny.us]
**Sent:** Wednesday, February 10, 2010 1:53 PM
**To:** Ryan, William
**Subject:** Re: Bay Shore OU1 IRM

Please finalize - Thanks

>>> On 2/10/10 at 11:10 AM, in message
<B261CB77CDABDD4595B124486008F36F02A129EF@NYHCBMSG43.NA.NGRID.NET>, "Ryan, William"
<William.Ryan@us.ngrid.com> wrote:

> Amen,
> Should we finalize and submit OU1 IRM WP or are there additional comments pending from other agencies? Please let me know at your convenience.
>
> Thanks,
> Bill
>
> William J. Ryan
> Project Manager
> Site Investigation and Remediation Department
> national**grid**
> 175 East Old Country Road
> Hicksville, NY 11801
> (516)545-2586-office
> (516)790-1660-cell
>
> **********
> This e-mail and any files transmitted with it, are confidential to National Grid and are intended solely for the use of the individual or entity to whom they are addressed. If you have received this e-mail in error, please reply to this message and let the sender know.

## O'Neil, Matt

**From:** Ryan, William [William.Ryan@us.ngrid.com]
**Sent:** Saturday, March 13, 2010 7:04 AM
**To:** Dave Work; Kathleen Slimon; Matt O'Neil
**Cc:** Christie Battenhouse; Theodore O. Leissing
**Subject:** FW: OU1 Excavation/O2 Injection

All:
Please be advised that we need to revise current OU1 IRM work plan to Phase 4 of the RAP. Apparently, you cannot have an IRM within a RAP. Let's discuss on Monday. At this time we do not have to do anything with regards to revising the RAP.
Thanks,
Bill

William J. Ryan
Project Manager
Site Investigation and Remediation Department
national**grid**
175 East Old Country Road
Hicksville, NY 11801
(516)545-2586-office
(516)790-1660-cell

---

**From:** Amen Omorogbe [mailto:amomorog@gw.dec.state.ny.us]
**Sent:** Friday, March 12, 2010 1:13 PM
**To:** Ryan, William
**Cc:** Battenhouse, Christie
**Subject:** Re: OU1 Excavation/O2 Injection

Bill -

Thanks for the clarification. We will make this work "Phase IV". Please ask your consultant to revise the plan accordingly.

Amen

>>> On 3/12/10 at 12:01 PM, in message
<B261CB77CDABDD4595B124486008F36F02D1C45E@NYHCBMSG43.NA.NGRID.NET>, "Ryan, William"
<William.Ryan@us.ngrid.com> wrote:

> Amen,
>
> Please let me know if you need any additional information. I need to take a half day, so please copy Christie on any additional requests.
>
> **This is the intro paragraph is from the former OU1 IRM work plan.**

National Grid has prepared this Interim Remedial Measure (IRM) Work Plan to address comments and concerns conveyed by the New York State Department of Environmental Conservation (NYSDEC) regarding concentrations of Manufactured Gas Plant (MGP)-related contaminants detected in the subsurface on two properties located outside of the subsurface containment barrier wall in Operable Unit No. 1 (OU-1) of the Bay Shore Former MGP Site (Site). This IRM Work Plan presents the results of investigations performed at the former King Bear property (60 N. Clinton Avenue) and the former Summer's Lumber property (66 N. Clinton Avenue) and an IRM to address the MGP-related impacts identified at the site. The IRM will include the excavation and off-site disposal of shallow suspected MGP-related source material, groundwater treatment using oxygen injection technology, and **in-situ chemical oxidation (ISCO). Although this portion of the ISCO is a component of Phase 3 of the OU-1 Final Remedial Action Plan, it is being implemented concurrently with the excavation and oxygen diffusion IRM.**
This IRM Work Plan has been prepared to be consistent with the Order.

**Please note**: we are not planning in implementing isco as part of this IRM-like work. Just installing some piping and several injection wells.

## From the Final FER:

To implement the remedy selected in the RAP, the project was divided into three phases with one sub-phase. The following are the components of the selected remedy:
• Phase I: Installation of the subsurface NAPL and groundwater barrier wall (Waterloo Barrier® System) on the downgradient portion of the OU-1 Site located to the south of the Long Island Rail Road (LIRR) Right of Way (ROW) and extending offsite across and north along N. Clinton Ave, and excavation of source materials on the portion of the OU-1 Site located to the south of the LIRR, the Southern Cell Excavation Area;
• Phase IA: Installation of a groundwater treatment support building for the supplemental oxygen injection system on the portion of the OU-1 Site located to the south of the LIRR ROW;
• Phase II: Removal of source materials on the portions of the OU-1 Site located to the north of the LIRR from the Shallow Excavation Area and the deep Hot Spot Excavation Areas; and
• Phase III: Injection of the in-situ chemical oxidation on the portion of the OU-1 Site located to the north of the LIRR ROW.
After approval of the RAP by NYSDEC, National Grid contracted with PS&SPC to

William J. Ryan
Project Manager
Site Investigation and Remediation Department
national**grid**
175 East Old Country Road
Hicksville, NY 11801
(516)545-2586-office
(516)790-1660-cell

**********
This e-mail and any files transmitted with it, are confidential to National Grid and are intended solely for the use of the individual or entity to whom they are addressed. If you have received this e-mail in error, please reply to this message and let the sender know.

SUFFOLK COUNTY DEPARTMENT OF PUBLIC WORKS

HIGHWAY WORK PERMIT

PERMIT # 50-384 TYPE NU CR # CR050

DATE ISSUED 12/22/2009 TAX MAP #:

PROJECT NAME

| | | | |
|---|---|---|---|
| REVIEW FEE | $0.00 | DATE PAID | |
| MAINT SEC | | DATE PAID | |
| SECURITY | $2,000.00 | DATE PAID | 1/6/10 |
| PERMIT FEE | $100.00 | DATE PAID | 1/6/10 |
| BOND # | LPM0893343 | CERTIFIED CHECK # | |
| IMPACT FEE: | $0.00 | DATE PAID | |

LETTER OF CREDIT #

PERMITTEE Fenley & Nicol Environmental Inc.

ADDRESS 445 Brook Ave.

Deer Park,NY 11729

PHONE #

RETURN SECURITY TO THE FOLLOWING (IF DIFFERENT)

PURSUANT TO THE PROVISIONS OF SECTION 136, ART. 6, OF THE NEW YORK STATE HIGHWAY LAW, PERMISSION IS HEREBY GRANTED TO THE PERMITTEE TO:

Install 4 ground water monitoring wells on the south side of CR 50, Union Blvd., from N. Clinton Ave. to Community Drive in the hamlet of Bayshore, town of Islip.

IN THE HAMLET/ VILLAGE OF: Bayshore IN THE TOWN OF: Islip

AS SET FORTH AND REPRESENTED ON THE ATTACHED PLANS, TYPICAL SECTIONS AND PURSUANT TO THIS DEPARTMENT'S GENERAL SPECIFICATIONS

*The zoning and subsequent use of this property is under the authority of the town in which this development is located. Thereby, the issuance of this "Highway Work Permit" should not be construed as an approval by this Department for this development and/or associated land use.*

DATE SIGNED: _____

REVIEWED BY PERMITS ENGINEER: _____ (Initial)

GILBERT ANDERSON, P.E.
COMMISSIONER OF PUBLIC WORKS

BY: _____

William Hillman, P.E.
Chief Engineer

BY: _____ (Permittee)

UPON COMPLETION OF WORK AUTHORIZED BY THIS PERMIT, PLEASE COMPLETE THE FOLLOWING AND RETURN TO THIS DEPARTMENT

WORK AUTHORIZED BY THIS PERMIT HAS BEEN COMPLETED, REFUND OF DEPOSIT/ BOND IS REQUESTED.

DATE: _____ SIGNATURE OF PERMITTEE/ AGENT _____

DO NOT WRITE BELOW THIS LINE

ALL WORK AUTHORIZED BY THIS PERMIT IS:

☐ COMPLETED, REFUND DEPOSIT/ BOND

DATE: PERMITS INSPECTOR:

_____ _____

**SUFFOLK COUNTY DEPARTMENT OF PUBLIC WORKS**

**HIGHWAY WORK PERMIT**

PERMIT # 13-520 TYPE NU CR # CR013

DATE ISSUED 12/22/2009 TAX MAP #:

PROJECT NAME

| | | | |
|---|---|---|---|
| REVIEW FEE | $0.00 | DATE PAID | |
| MAINT SEC | | DATE PAID | |
| SECURITY | $1,020.00 | DATE PAID | 1/6/10 |
| PERMIT FEE | $51.00 | DATE PAID | 1/6/10 |
| BOND # | LM0893342 | CERTIFIED CHECK # | |
| IMPACT FEE: | $0.00 | DATE PAID | |

LETTER OF CREDIT #

PERMITTEE Fenley & Nicol Environemental

ADDRESS 445 Brook Ave.

Deer Park,NY 11729

PHONE # (631) 586-4900

RETURN SECURITY TO THE FOLLOWING (IF DIFFERENT)

**PURSUANT TO THE PROVISIONS OF SECTION 136, ART. 6, OF THE NEW YORK STATE HIGHWAY LAW, PERMISSION IS HEREBY GRANTED TO THE PERMITTEE TO:**

Install 2 oxygen injection wells. Open and restore one 20'x3'x4' trench in grass area to install supply lines to wells. On CR 13, North Clinton Ave. at Union Blvd. in the hamlet of Bayshore, town of Islip.

IN THE HAMLET/ VILLAGE OF: Bayshore IN THE TOWN OF: Islip

**AS SET FORTH AND REPRESENTED ON THE ATTACHED PLANS, TYPICAL SECTIONS AND PURSUANT TO THIS DEPARTMENT'S GENERAL SPECIFICATIONS**

*The zoning and subsequent use of this property is under the authority of the town in which this development is located. Thereby, the issuance of this "Highway Work Permit" should not be construed as an approval by this Department for this development and/or associated land use.*

DATE SIGNED: _____

REVIEWED BY PERMITS ENGINEER: _____ (Initial)

GILBERT ANDERSON, P.E.
COMMISSIONER OF PUBLIC WORKS

BY: _____
William Hillman, P.E.
Chief Engineer

BY: _____ (Permittee)

UPON COMPLETION OF WORK AUTHORIZED BY THIS PERMIT, PLEASE COMPLETE THE FOLLOWING AND RETURN TO THIS DEPARTMENT

WORK AUTHORIZED BY THIS PERMIT HAS BEEN COMPLETED, REFUND OF DEPOSIT/ BOND IS REQUESTED.

DATE: _____ SIGNATURE OF PERMITTEE/ AGENT _____

DO NOT WRITE BELOW THIS LINE

**ALL WORK AUTHORIZED BY THIS PERMIT IS:**

☐ **COMPLETED, REFUND DEPOSIT/ BOND**

**DATE:** **PERMITS INSPECTOR:**

## O'Neil, Matt

**From:** Amen Omorogbe [amomorog@gw.dec.state.ny.us]
**Sent:** Tuesday, December 29, 2009 3:20 PM
**To:** Dave Work; Scott Deyette
**Cc:** Chris Morris; Kathleen Slimon; Matt O'Neil; Christie Battenhouse; William Ryan
**Subject:** Re: Bay Shore OU-1 Summers Lumber King Bear Well Decommissioning - OZMW-22
**Attachments:** Part.002

Dave:

The request to abandon the monitoring wells identified is granted.

You also mentioned that the IRM excavation work plan is being reviewed by us. I had thought I transmitted our comments on the work plan to Bill Ryan. Please let me know if this is not the case.

Thanks,

Amen.

>>> On 12/23/09 at 3:46 PM, in message <4B323B3A.ADE9.005D.0@geiconsultants.com>, "Dave Work" <DWork@geiconsultants.com> wrote:

> Amen,
>
> Welcome back.
>
> National Grid is planning to complete site work in anticipation of the Summers Lumber King Bear Excavation IRM. The work plan is currently in for your review, we would like to abandon monitoring well cluster OZMW-22 next week while we are installing other wells on the site. The well is within the proposed excavation footprint.
>
> Attached is the boring log from the well cluster, a location map and a table with the well screen intervals.
>
> 
>
> It is our intention to abandon by grouting and attempting to pull the wells consistent with NYSDEC guidance. In the event we cannot pull, we will grout and cutoff at the excavation bottom during the upcoming site work. We will prepare a well decommissioning log and include in the completion report for the IRM.
>
> Please advise on whether we can proceed with the above next week.
>
> Have a great holiday.
>
> Thanks.
>
> Dave

# Appendix E

## Daily Reports (electronic only)

**Project Name:** National-Grid/LIRR

**Location:** Bay-Shore NY **Date of Work:** 3/8/10

**Contract Number:** PO# 554199 **Creamer Job#:** 09-2096

**Project Manager:** Gary Kowalski **Project HSO:** H.Hansen

**Project Superintendent:** Harvey Hansen

**Tailgate Safety Meeting:** Emergency Response-PPE-Swing Zone-Traffic-

**Weather:** 60º Sunny

## Subcontractors

| Company | Number of Employees | Description of Work |
|---|---|---|
| K&S Engineers | 2 | Lay Out OU1& Preconstrustion |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

## Materials Delivered

| Company | Description of Material | Quantity of Material |
|---|---|---|
| Pozament | Kiln Dust | 68.81 tons |
| Watral Brothers | 3/4" stone | 180.18 tons |
| | | |
| | | |
| | | |
| | | |
| | | |

## Work Force & Equipment on Site

| Labor | | | Equipment | |
|---|---|---|---|---|
| Name | Description | Hours | Description | Hours |
| Harvey Hansen | Superintendent | 10 | Loader Z#13804 | 8 |
| Eric Silvestri | Foreman | 8 | Pick up S596 | 8 |
| Vincent Montefusco | Laborer | 0 | Tent Z# 14408 | 8 |
| Peter Pawlowski | Laborer | 8 | CETF-18 | 8 |
| Ken Zeman | Laborer | 0 | CETF-16 | 8 |
| Gary Pittel | Operator | 0 | Tigg Air Unit Z#13809 | 8 |
| Robert Distefano | Operator | 8.5 | PC228 H152 | 8 |
| | | | Generator | 8 |
| | | | 10X32 Office Trlr Z#13803 | 8 |
| | | | 8X24 Office Trlr Z#13802 | 8 |
| | | | Port-O-John Z#13799 | 8 |
| | | | Port-O-John Z#13800 | 8 |
| | | | Port-O-John Z#13801 | 8 |
| | | | Frac Tank Z#14409 | 8 |
| | | | Frac Tank CEI# | 8 |
| | | | Shoring Panelsz#14418 | 8 |
| | | | | |
| | | | | |
| | | | | |
| **Total Hours Today** | | **34.5** | | |
| **Total Hours Previous** | | **8413.5** | **Project to Date** | **8448** |

## Work Completed

1.) Began to mobilize supplies for OU1 work. 2.) Received 3/4" stone for back filling. 3.) K&S Engineers laying out excavation limits for OU1 and preconstruction conditions, in OU1 & OU4. 4.) Generator Remobilized to the site and reconnected to the blower unit. 5.) Slide rail shoring mobilized to the site. 6.) Second frac tank mobilized to the site.

## Problems / Delays

1.) Trash belonging to other's still remain onsite. 2.) Fenloy-Nicol electrian out sick today so electric line that runs thru excavation could not be deenergized till tomorrow.

| | | | |
|---|---|---|---|
| **Project Name:** | National-Grid/LIRR | | |
| **Location:** | Bay-Shore NY | **Date of Work:** | 3/8/10 |
| **Contract Number:** | PO# 554199 | **Creamer Job#:** | 09-2096 |
| **Project Manager:** | Gary Kowalski | **Project HSO:** | H.Hansen |
| **Project Superintendent:** | Harvey Hansen | | |
| **Tailgate Safety Meeting:** | Emergency Response-PPE-Swing Zone-Traffic- | | |
| **Weather:** | 60º Sunny | | |

**In-house Recommendations Given**

**Directions Given / National Grid/GEI**

1.)Tom Shock instructed CEI to dispose of soil that was generated by Fenloy-Nicol during the installation of the O2 system. 2.) Tom Shock told CEI that a soil analysis may now be required for the backfill being called common fill. He said he will forward any info as soon as he receives it. This could mean that the gate on Union st would have to be used at some point to bring in the backfill, so that excavation progress will not be delayed.

**QAPP Test Performed**

**Daily Record Document / Submittals**

**Out of Scope Work**

**Project Name:** National-Grid/LIRR

**Location:** Bay-Shore NY **Date of Work:** 3/9/10

**Contract Number:** PO# 554199 **Creamer Job#:** 09-2096

**Project Manager:** Gary Kowalski **Project HSO:** H.Hansen

**Project Superintendent:** Harvey Hansen

**Tailgate Safety Meeting:** Emergency Response-PPE-Swing Zone-Traffic-Dust Control

**Weather:** 62º Sunny

## Subcontractors

| Company | Number of Employees | Description of Work |
|---|---|---|
| K&S Engineers | 2 | Preconstrustion OU4 |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

## Materials Delivered

| Company | Description of Material | Quantity of Material |
|---|---|---|
| Watral Brothers | 3/4" Stone | 90.42 tons |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

## Work Force & Equipment on Site

| Labor | | | Equipment | |
|---|---|---|---|---|
| Name | Description | Hours | Description | Hours |
| Harvey Hansen | Superintendent | 10 | Loader Z#13804 | 8 |
| Eric Silvestri | Foreman | 9 | Pick up S596 | 8 |
| Vincent Montefusco | Laborer | 0 | Tent Z# 14408 | 8 |
| Peter Pawlowski | Laborer | 9 | CETF-18 | 8 |
| Ken Zeman | Laborer | 8 | CETF-16 | 8 |
| Gary Pittel | Operator | 8.5 | Tigg Air Unit Z#13809 | 8 |
| Robert Distefano | Operator | 8.5 | PC228 H152 | 8 |
| Stan Smith | Operator | 8 | Generator | 8 |
| | | | 10X32 Office Trlr Z#13803 | 8 |
| | | | 8X24 Office Trlr Z#13802 | 8 |
| | | | Port-O-John Z#13799 | 8 |
| | | | Port-O-John Z#13800 | 8 |
| | | | Port-O-John Z#13801 | 8 |
| | | | Frac Tank Z#14409 | 8 |
| | | | Frac Tank CEI# | 8 |
| | | | Shoring Corners z#14418 | 8 |
| | | | | |
| | | | | |
| | | | | |
| **Total Hours Today** | | | | |
| **Total Hours Previous** | | | **Project to Date** | |

## Work Completed

1.) Continued to mobilize supplies for OU1 work. 2.) Received 3/4" stone for back filling. 3.) Began to saw cut blacktop and concrete for OU1 excavation. 4.) Loaded 4 trucks with soil that was generated by Fenloy Nicol for disposal at bayshore soil management for disposal. 5.) Began to excavate and search to locate the waterloo sheets and the sewer line that passes thru them on the north end of the excavation area.

## Problems / Delays

1.) Trash belonging to other's still remain onsite.

| | | | |
|---|---|---|---|
| **Project Name:** | National-Grid/LIRR | | |
| **Location:** | Bay-Shore NY | **Date of Work:** | 3/9/10 |
| **Contract Number:** | PO# 554199 | **Creamer Job#:** | 09-2096 |
| **Project Manager:** | Gary Kowalski | **Project HSO:** | H.Hansen |
| **Project Superintendent:** | Harvey Hansen | | |
| **Tailgate Safety Meeting:** | Emergency Response-PPE-Swing Zone-Traffic-Dust Control | | |
| **Weather:** | 62º Sunny | | |

## In-house Recommendations Given

## Directions Given / National Grid/GEI

1.) Tom Shock directed CEI to what soil will be reused as backfill,or to be disposed of from the East side of the sheeting.

## QAPP Test Performed

Tom Shock went to the stockpile of common fill to take a sample to see if it meets tha DEC Spec's.

## Daily Record Document / Submittals

## Out of Scope Work

**Project Name:** National-Grid/LIRR

**Location:** Bay-Shore NY **Date of Work:** 3/10/10

**Contract Number:** PO# 554199 **Creamer Job#:** 09-2096

**Project Manager:** Gary Kowalski **Project HSO:** H.Hansen

**Project Superintendent:** Harvey Hansen

**Tailgate Safety Meeting:** Emergency Response-PPE-Swing Zone-Traffic-Dust Control

**Weather:** 58º Cloudy

## Subcontractors

| Company | Number of Employees | Description of Work |
|---|---|---|
| Wartral Brothers | 1 | Site Truck |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

## Materials Delivered

| Company | Description of Material | Quantity of Material |
|---|---|---|
| Watral Brothers | 3/4" Stone | 43.01 tons |
| Home Depot | Piian Supplies | |
| | | |
| | | |
| | | |
| | | |
| | | |

## Work Force & Equipment on Site

| Labor | | | Equipment | |
|---|---|---|---|---|
| Name | Description | Hours | Description | Hours |
| Harvey Hansen | Superintendent | 10 | Loader Z#13804 | 8 |
| Eric Silvestri | Foreman | 11 | Pick up S596 | 8 |
| Vincent Montefusco | Laborer | 9.5 | Tent Z# 14408 | 8 |
| Peter Pawlowski | Laborer | 9.5 | CETF-18 | 8 |
| Ken Zeman | Laborer | 8 | CETF-16 | 8 |
| Gary Pittel | Operator | 8.5 | Tigg Air Unit Z#13809 | 8 |
| Robert Distefano | Operator | 8.5 | PC228 H152 | 8 |
| Stan Smith | Operator | 8 | Generator | 8 |
| | | | 10X32 Office Trlr Z#13803 | 8 |
| | | | 8X24 Office Trlr Z#13802 | 8 |
| | | | Port-O-John Z#13799 | 8 |
| | | | Port-O-John Z#13800 | 8 |
| | | | Port-O-John Z#13801 | 8 |
| | | | Frac Tank Z#14409 | 8 |
| | | | Frac Tank CEI# | 8 |
| | | | Shoring Corners z#14418 | 8 |
| | | | | |
| | | | | |
| | | | | |
| **Total Hours Today** | | **73** | | |
| **Total Hours Previous** | | **95.5** | **Project to Date** | **168.5** |

## Work Completed

1.) Received 3/4" stone for back filling. 2.) Began Slide Rail Excavation today. Set box # 1 and excavated it to 10' below grade.Back filled box with 3/4" stone to make it safe for the night. 3.) Foam was applied to the excavation and the top of the site truck for odors. A total of 3 drums where used today. 4.) Tom Shock Instructed CEI to mobilize their Piian system to the site to help with the odor's suppressing. 5.) Pumped water from excavation during backfilling to the frac tank.

## Problems / Delays

1.) Trash belonging to other's still remain onsite.2.) CEI waiting for sample results for the backfill so that boxes can be filled above the water level.

| | | | |
|---|---|---|---|
| **Project Name:** | National-Grid/LIRR | | |
| **Location:** | Bay-Shore NY | **Date of Work:** | 3/10/10 |
| **Contract Number:** | PO# 554199 | **Creamer Job#:** | 09-2096 |
| **Project Manager:** | Gary Kowalski | **Project HSO:** | H.Hansen |
| **Project Superintendent:** | Harvey Hansen | | |
| **Tailgate Safety Meeting:** | Emergency Response-PPE-Swing Zone-Traffic-Dust Control | | |
| **Weather:** | 58º Cloudy | | |

**In-house Recommendations Given**

**Directions Given / National Grid/GEI**

1.) Tom Shock Directed CEI to foam the excaavation and top of the site truck for odors. 2.) Also to cover box #1 with plastic after it has ben backfilled with stone.

**QAPP Test Performed**

**Daily Record Document / Submittals**

**Out of Scope Work**

**Project Name:** National-Grid/LIRR

**Location:** Bay-Shore NY **Date of Work:** 3/11/10

**Contract Number:** PO# 554199 **Creamer Job#:** 09-2096

**Project Manager:** Gary Kowalski **Project HSO:** H.Hansen

**Project Superintendent:** Harvey Hansen

**Tailgate Safety Meeting:** Emergency Response-PPE-Swing Zone-Traffic-Dust Control

**Weather:** 51º Cloudy

## Subcontractors

| Company | Number of Employees | Description of Work |
|---|---|---|
| Wartral Brothers | 1 | Site Truck |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

## Materials Delivered

| Company | Description of Material | Quantity of Material |
|---|---|---|
| Watral Brothers | 3/4" Stone | 44.84 tons |
| In Line Fuel | Diesel | 536.9 gallons |
| | | |
| | | |
| | | |
| | | |
| | | |

## Work Force & Equipment on Site

| Labor | | | Equipment | |
|---|---|---|---|---|
| Name | Description | Hours | Description | Hours |
| Harvey Hansen | Superintendent | 10 | Loader Z#13804 | 8 |
| Eric Silvestri | Foreman | 9.5 | Pick up S596 | 8 |
| Vincent Montefusco | Laborer | 9.5 | Tent Z# 14408 | 8 |
| Peter Pawlowski | Laborer | 9.5 | CETF-18 | 8 |
| Ken Zeman | Laborer | 8 | CETF-16 | 8 |
| Gary Pittel | Operator | 8.5 | Tigg Air Unit Z#13809 | 8 |
| Robert Distefano | Operator | 8.5 | PC228 H152 | 8 |
| Stan Smith | Operator | 8 | Generator | 8 |
| John Cole | Operator | 8 | 10X32 Office Trlr Z#13803 | 8 |
| | | | 8X24 Office Trlr Z#13802 | 8 |
| | | | Port-O-John Z#13799 | 8 |
| | | | Port-O-John Z#13800 | 8 |
| | | | Port-O-John Z#13801 | 8 |
| | | | Frac Tank Z#14409 | 8 |
| | | | Frac Tank CEI# | 8 |
| | | | Shoring Corners z#14418 | 8 |
| | | | | |
| | | | | |
| | | | | |
| **Total Hours Today** | | **79.5** | | |
| **Total Hours Previous** | | **168.5** | **Project to Date** | **248** |

## Work Completed

1.) Received 3/4" stone for back filling. 2.) Set box # 2 and excavated it to 10' below grade.Back filled box with 3/4" stone to make it safe for the night. 3.) Foam was applied to the excavation and the top of the site truck for odors. A total of 2 drums was used today,bringing the OU-1 total to 275 gallon of concentrate. 4.) Pumped water from excavation during backfilling to the frac tank. 5.) Loaded 4 truck for disposal to Bayshore Soil Management for disposal from the tent. 6.) Mobilized Piian System onsite today. Set it up and began running it immediately.

## Problems / Delays

1.) Trash belonging to other's still remain onsite.2.) CEI waiting for sample results for the backfill so that boxes can be filled above the water level.

| | | | |
|---|---|---|---|
| **Project Name:** | National-Grid/LIRR | | |
| **Location:** | Bay-Shore NY | **Date of Work:** | 3/11/10 |
| **Contract Number:** | PO# 554199 | **Creamer Job#:** | 09-2096 |
| **Project Manager:** | Gary Kowalski | **Project HSO:** | H.Hansen |
| **Project Superintendent:** | Harvey Hansen | | |
| **Tailgate Safety Meeting:** | Emergency Response-PPE-Swing Zone-Traffic-Dust Control | | |
| **Weather:** | 51º Cloudy | | |

**In-house Recommendations Given**

**Directions Given / National Grid/GEI**

1.) Tom Shock Directed CEI to foam the excaavation and top of the site truck for odors. 2.) Also to cover box #1 with plastic after it has ben backfilled with stone.

**QAPP Test Performed**

**Daily Record Document / Submittals**

**Out of Scope Work**

Set up and operate Piian system for odors.

**Project Name:** National-Grid/LIRR

**Location:** Bay-Shore NY **Date of Work:** 3/12/10

**Contract Number:** PO# 554199 **Creamer Job#:** 09-2096

**Project Manager:** Gary Kowalski **Project HSO:** H.Hansen

**Project Superintendent:** Harvey Hansen

**Tailgate Safety Meeting:** Emergency Response-PPE-Swing Zone-Traffic-Dust Control

**Weather:** 51º Cloudy

## Subcontractors

| Company | Number of Employees | Description of Work |
|---|---|---|
| Wartral Brothers | 1 | Site Truck |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

## Materials Delivered

| Company | Description of Material | Quantity of Material |
|---|---|---|
| Watral Brothers | 3/4" Stone | 176.44 tons |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

## Work Force & Equipment on Site

| Labor | | | Equipment | |
|---|---|---|---|---|
| Name | Description | Hours | Description | Hours |
| Harvey Hansen | Superintendent | 10 | Loader Z#13804 | 8 |
| Eric Silvestri | Foreman | 8 | Pick up S596 | 8 |
| Vincent Montefusco | Laborer | 8 | Tent Z# 14408 | 8 |
| Peter Pawlowski | Laborer | 8 | CETF-18 | 8 |
| Ken Zeman | Laborer | 8 | CETF-16 | 8 |
| Gary Pittel | Operator | 8.5 | Tigg Air Unit Z#13809 | 8 |
| Robert Distefano | Operator | 8.5 | PC228 H152 | 8 |
| Stan Smith | Operator | 8 | Generator | 8 |
| John Cole | Operator | 8 | 10X32 Office Trlr Z#13803 | 8 |
| | | | 8X24 Office Trlr Z#13802 | 8 |
| | | | Port-O-John Z#13799 | 8 |
| | | | Port-O-John Z#13800 | 8 |
| | | | Port-O-John Z#13801 | 8 |
| | | | Frac Tank Z#14409 | 8 |
| | | | Frac Tank CEI# | 8 |
| | | | Shoring Corners z#14418 | 8 |
| | | | | |
| | | | | |
| | | | | |
| **Total Hours Today** | | **75** | | |
| **Total Hours Previous** | | **248** | **Project to Date** | **323** |

## Work Completed

1.) Received 3/4" stone for back filling. 2.) Set box # 3 and excavated it to 10' below grade.Back filled box with 3/4" stone to make it safe for the weekend. 3.) Foam was applied to the excavation and the top of the site truck for odors. A total of 7 drums was used today,bringing the OU-1 total to 660 gallons of concentrate. 4.) Pumped water from excavation during backfilling to the frac tank. 5.) Loaded 4 truck for disposal to Bayshore Soil Management for disposal from the tent. 6.) Operated Piian System onsite today. 7.) Prepared site for strom that is predicted to bring heavy rain and wind.

## Problems / Delays

1.) Trash belonging to other's still remain onsite.2.) CEI waiting for sample results for the backfill so that boxes can be filled above the water level.

| | | | |
|---|---|---|---|
| **Project Name:** | National-Grid/LIRR | | |
| **Location:** | Bay-Shore NY | **Date of Work:** | 3/12/10 |
| **Contract Number:** | PO# 554199 | **Creamer Job#:** | 09-2096 |
| **Project Manager:** | Gary Kowalski | **Project HSO:** | H.Hansen |
| **Project Superintendent:** | Harvey Hansen | | |
| **Tailgate Safety Meeting:** | Emergency Response-PPE-Swing Zone-Traffic-Dust Control | | |
| **Weather:** | 51º Cloudy | | |

## In-house Recommendations Given

## Directions Given / National Grid/GEI

1.) Tom Shock Directed CEI to foam the excavation and top of the site truck for odors. 2.) Also to cover box #1,2,and 3 with plastic after it has ben backfilled with stone.

## QAPP Test Performed

## Daily Record Document / Submittals

## Out of Scope Work

Operated Piian system for odors.

**Project Name:** National-Grid/LIRR

**Location:** Bay-Shore NY **Date of Work:** 3/14/10

**Contract Number:** PO# 554199 **Creamer Job#:** 09-2096

**Project Manager:** Gary Kowalski **Project HSO:** H.Hansen

**Project Superintendent:** Harvey Hansen

**Tailgate Safety Meeting:** PPE

**Weather:** 51º Cloudy-Rain-Wind

## Subcontractors

| Company | Number of Employees | Description of Work |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

## Materials Delivered

| Company | Description of Material | Quantity of Material |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

## Work Force & Equipment on Site

| Labor | | | Equipment | |
|---|---|---|---|---|
| **Name** | **Description** | **Hours** | **Description** | **Hours** |
| Harvey Hansen | Superintendent | 0 | Loader Z#13804 | 8 |
| Eric Silvestri | Foreman | 0 | Pick up S596 | 8 |
| Vincent Montefusco | Laborer | 8 | Tent Z# 14408 | 8 |
| Peter Pawlowski | Laborer | 0 | CETF-18 | 8 |
| Ken Zeman | Laborer | 8 | CETF-16 | 8 |
| Gary Pittel | Operator | 0 | Tigg Air Unit Z#13809 | 8 |
| Robert Distefano | Operator | 0 | PC228 H152 | 8 |
| Stan Smith | Operator | 0 | Generator Z# | 8 |
| John Cole | Operator | 0 | 10X32 Office Trlr Z#13803 | 8 |
| | | | 8X24 Office Trlr Z#13802 | 8 |
| | | | Port-O-John Z#13799 | 8 |
| | | | Port-O-John Z#13800 | 8 |
| | | | Port-O-John Z#13801 | 8 |
| | | | Frac Tank Z#14409 | 8 |
| | | | Frac Tank CEI# | 8 |
| | | | Shoring Corners z#14418 | 8 |
| | | | Manlift Z# | |
| | | | | |
| | | | | |
| **Total Hours Today** | | **16** | | |
| **Total Hours Previous** | | **323** | **Project to Date** | **339** |

## Work Completed

1.) Began to patch tent after the storm that brought high wind and rain. 2.) Moved Piian system to the tent to operate it as a preventive measure for odors till the repairs can be completed to the tent. 3.) Pumped the water from excavation to prevent odors and prevent it from overflowing from the excavation.

## Problems / Delays

1.) Trash belonging to other's still remain onsite.

| | | | |
|---|---|---|---|
| **Project Name:** | National-Grid/LIRR | | |
| **Location:** | Bay-Shore NY | **Date of Work:** | 3/14/10 |
| **Contract Number:** | PO# 554199 | **Creamer Job#:** | 09-2096 |
| **Project Manager:** | Gary Kowalski | **Project HSO:** | H.Hansen |
| **Project Superintendent:** | Harvey Hansen | | |
| **Tailgate Safety Meeting:** | PPE | | |
| **Weather:** | 51º Cloudy-Rain-Wind | | |

## In-house Recommendations Given

## Directions Given / National Grid/GEI

1.) Tom Shock Directed CEI to operate the PIIAN system in the tent all night as a precaution till the tent is completely repaired

## QAPP Test Performed

## Daily Record Document / Submittals

## Out of Scope Work

Operated Piian system for odors inside of tent structure.

**Project Name:** National-Grid/LIRR

**Location:** Bay-Shore NY **Date of Work:** 3/15/10

**Contract Number:** PO# 554199 **Creamer Job#:** 09-2096

**Project Manager:** Gary Kowalski **Project HSO:** H.Hansen

**Project Superintendent:** Harvey Hansen

**Tailgate Safety Meeting:** Emergency Response-PPE-Swing Zone-Traffic-Dust Control

**Weather:** 51º Cloudy

## Subcontractors

| Company | Number of Employees | Description of Work |
|---|---|---|
| Wartral Brothers | 1 | Site Truck |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

## Materials Delivered

| Company | Description of Material | Quantity of Material |
|---|---|---|
| Watral Brothers | 3/4" Stone | 45.66 tons |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

## Work Force & Equipment on Site

| Labor | | | Equipment | |
|---|---|---|---|---|
| **Name** | **Description** | **Hours** | **Description** | **Hours** |
| Harvey Hansen | Superintendent | 10 | Loader Z#13804 | 8 |
| Eric Silvestri | Foreman | 9.5 | Pick up S596 | 8 |
| Vincent Montefusco | Laborer | 9.5 | Tent Z# 14408 | 8 |
| Peter Pawlowski | Laborer | 9.5 | CETF-18 | 8 |
| Ken Zeman | Laborer | 8.5 | CETF-16 | 8 |
| Gary Pittel | Operator | 8.5 | Tigg Air Unit Z#13809 | 8 |
| Robert Distefano | Operator | 8.5 | PC228 H152 | 8 |
| Stan Smith | Operator | 8 | Generator Z# | 8 |
| John Cole | Operator | 8 | 10X32 Office Trlr Z#13803 | 8 |
| | | | 8X24 Office Trlr Z#13802 | 8 |
| | | | Port-O-John Z#13799 | 8 |
| | | | Port-O-John Z#13800 | 8 |
| | | | Port-O-John Z#13801 | 8 |
| | | | Frac Tank Z#14409 | 8 |
| | | | Frac Tank CEI# | 8 |
| | | | Shoring Corners z#14418 | 8 |
| | | | Manlift Z# | |
| | | | | |
| | | | | |
| **Total Hours Today** | | **80** | | |
| **Total Hours Previous** | | **419** | **Project to Date** | **339** |

## Work Completed

1.) Received 3/4" stone for back filling. 2.) Pumped water from excavation area to the frac tank to prevent any odors. 3.) Loaded 6 trucks for disposal to Bayshore Soil Management for disposal from the tent. 4.) Operated Piian System onsite today. 5.) Mobilized a manlift to the site and began to make the needed repairs to the tent after this past weekends storm.

## Problems / Delays

1.) Trash belonging to other's still remain onsite.

| | | | |
|---|---|---|---|
| **Project Name:** | National-Grid/LIRR | | |
| **Location:** | Bay-Shore NY | **Date of Work:** | 3/15/10 |
| **Contract Number:** | PO# 554199 | **Creamer Job#:** | 09-2096 |
| **Project Manager:** | Gary Kowalski | **Project HSO:** | H.Hansen |
| **Project Superintendent:** | Harvey Hansen | | |
| **Tailgate Safety Meeting:** | Emergency Response-PPE-Swing Zone-Traffic-Dust Control | | |
| **Weather:** | 51º Cloudy | | |

## In-house Recommendations Given

## Directions Given / National Grid/GEI

1.) Tom Shock Directed CEI to operate the PIIAN system in the tent all night as a precaution till the tent is completely repaired

## QAPP Test Performed

## Daily Record Document / Submittals

## Out of Scope Work

Operated Piian system for odors inside of tent structure.

**Project Name:** National-Grid/LIRR

**Location:** Bay-Shore NY **Date of Work:** 3/16/10

**Contract Number:** PO# 554199 **Creamer Job#:** 09-2096

**Project Manager:** Gary Kowalski **Project HSO:** H.Hansen

**Project Superintendent:** Harvey Hansen

**Tailgate Safety Meeting:** Emergency Response-PPE-Swing Zone-Traffic-High Wind-Ladders

**Weather:** 61º Sunny

## Subcontractors

| Company | Number of Employees | Description of Work |
|---|---|---|
| Wartral Brothers | 1 | Site Truck |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

## Materials Delivered

| Company | Description of Material | Quantity of Material |
|---|---|---|
| Watral Brothers | 3/4" Stone | 139.41 tons |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

## Work Force & Equipment on Site

| Labor | | | Equipment | |
|---|---|---|---|---|
| Name | Description | Hours | Description | Hours |
| Harvey Hansen | Superintendent | 10 | Loader Z#13804 | 8 |
| Eric Silvestri | Foreman | 9 | Pick up S596 | 8 |
| Vincent Montefusco | Laborer | 9 | Tent Z# 14408 | 8 |
| Peter Pawlowski | Laborer | 9 | CETF-18 | 8 |
| Ken Zeman | Laborer | 9 | CETF-16 | 8 |
| Gary Pittel | Operator | 8.5 | Tigg Air Unit Z#13809 | 8 |
| Robert Distefano | Operator | 8.5 | PC228 H152 | 8 |
| Stan Smith | Operator | 8 | Generator Z# | 8 |
| John Cole | Operator | 8 | 10X32 Office Trlr Z#13803 | 8 |
| | | | 8X24 Office Trlr Z#13802 | 8 |
| | | | Port-O-John Z#13799 | 8 |
| | | | Port-O-John Z#13800 | 8 |
| | | | Port-O-John Z#13801 | 8 |
| | | | Frac Tank Z#14409 | 8 |
| | | | Frac Tank CEI# | 8 |
| | | | Shoring Corners z#14418 | 8 |
| | | | Manlift Z# | 8 |
| | | | | |
| | | | | |
| **Total Hours Today** | | **79** | | |
| **Total Hours Previous** | | **419** | **Project to Date** | **498** |

## Work Completed

1.) Received 3/4" stone for back filling. 2.) Pumped water from the excavation area during backfilling to the frac tank for disposal. 3.) Loaded 0 trucks for disposal to Bayshore Soil Management for disposal from the tent. 4.) Operated Piian System onsite today. 5.) Loaded 2 trucks with water from the frac tank, to Clean Waters for disposal. 6.) Applied foam to the excavation Box #4 and to the site truck for odors. Today 7 drums of concentrate where used at the excavation area and 2 drum of concentrate was used on top of the site truck for a daily total of 495 gallons of concentrate. Bringing the OU1 total to 1155 gallons of concentrate.

## Problems / Delays

1.) Trash belonging to other's still remain onsite. 2.) Temporary repairs where made to the tent structure so excavation work could continue.

| | | | |
|---|---|---|---|
| **Project Name:** | National-Grid/LIRR | | |
| **Location:** | Bay-Shore NY | **Date of Work:** | 3/16/10 |
| **Contract Number:** | PO# 554199 | **Creamer Job#:** | 09-2096 |
| **Project Manager:** | Gary Kowalski | **Project HSO:** | H.Hansen |
| **Project Superintendent:** | Harvey Hansen | | |
| **Tailgate Safety Meeting:** | Emergency Response-PPE-Swing Zone-Traffic-High Wind-Ladders | | |
| **Weather:** | 61º Sunny | | |

## In-house Recommendations Given

## Directions Given / National Grid/GEI

1.) Tom Shock directed CEI to use the Piian system at the excavation. Also to foam the excavation and the top of the site truck for odors.

## QAPP Test Performed

## Daily Record Document / Submittals

## Out of Scope Work

1.) Operated Piian system for odors at excavation area. 2.) Loaded 2 trucks with water for disposal at Clean Waters.

**Project Name:** National-Grid/LIRR

**Location:** Bay-Shore NY **Date of Work:** 3/17/10

**Contract Number:** PO#596977 OU-1 **Creamer Job#:** 09-2096

**Project Manager:** Gary Kowalski **Project HSO:** H.Hansen

**Project Superintendent:** Harvey Hansen

**Tailgate Safety Meeting:** Emergency Response-PPE-Swing Zone-Traffic-Dust Control-Odors

**Weather:** 62 Sunny

**Subcontractors**

| Company | Number of Employees | Hours On-Site | Total Hours | Description of Work |
|---|---|---|---|---|
| Watral | 1 | 8 | 8 | Site Truck |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

**Materials Delivered**

| Company | Description of Material | Quantity of Material |
|---|---|---|
| | | |
| | | |
| | | |
| | | |

**Work Force & Equipment on Site**

**Labor**

| Name | Description | ST Hours | OT Hours | Total Hours |
|---|---|---|---|---|
| Harvey Hansen | Superintendent | 8 | 2 | 10 |
| Eric Silvestri | Foreman | 8 | 2 | 10 |
| Vincent Montefusco | Laborer | 8 | 2 | 10 |
| Peter Pawlowski | Laborer | 8 | 2 | 10 |
| Ken Zeman | Laborer | 8 | 0.5 | 8.5 |
| Robert Distefano | Operator | 8.5 | | 8.5 |
| Gary Pittel | Operator | 8.5 | | 8.5 |
| Stan Smith | Operator | 8 | | 8 |
| John Cole | Operator | 8 | | 8 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| **Total Hours Today** | | 73 | 8.5 | **81.5** |
| **Project Hours Total** | | **654.5** | | |

**Equipment**

| Description | Equipment / Z# | Hours Worked | Down Hours | Idle Hours | Total Hours |
|---|---|---|---|---|---|
| **Loader** | **Z#13804** | | | | 0 |
| **Pick Up** | **S596** | | | | 0 |
| **Tent** | **Z#14408** | | | | 0 |
| **Foam Unit** | **CETF16** | | | | 0 |
| **Foam Unit** | **CETF18** | | | | 0 |
| **Tigg Air Unit** | **Z#13809** | | | | 0 |
| **PC228** | **H152** | | | | 0 |
| **Generator** | | | | | 0 |
| **10x32 Office Trailer** | **Z#13803** | | | | 0 |
| **8x24 Office Trailer** | **Z#13802** | | | | 0 |
| **Port-O-John** | **Z#13799** | | | | 0 |
| **Port-O-John** | **Z#13800** | | | | 0 |
| **Port-O-John** | **Z#13801** | | | | 0 |
| **Frac Tank** | **Z#14409** | | | | 0 |
| **Frac Tank** | | | | | 0 |
| **Shoring Corners** | **Z#14418** | | | | 0 |
| **Man Lift** | | | | | 0 |
| | | | | | 0 |
| | | | | | 0 |
| **Total Hours** | | 0 | 0 | 0 | **0** |

**Work Completed**

1.) Loaded 4 trucks with soil for disposal at Bayshore Soil Managament. 2.) Foamed excavation area and the top of the site truck for odors. A total of 385 gallons of concentrate where used today,bringing the OU1 job total to1540 gallons of concentrate used. 3.) Operated PIIAN unit at the excavation area for odor prevention. And all night tonight as asked by Tom Shock. 4.) Excavated box #5 to 10' below grade and backfilled it with stone above the water level. 5.) Transfered water from the excavation to the frac tank during backkfilling. 6.) Picked up trash left by others and placed it in National Grid trash dumpster on site. 6.) Installed new tarp and tracks over door way on the east side of the tent.

**Problems / Delays**

CEI still waiting for approval or disapproval of the common fill to be used in excavation area.

**In-house Recommendations Given**

1.) Cei (H.H) asked Tom Shock to lay out the starting point where GEI would like to place the 4" PVC. So that backfilling can get started using the reusable material, and possibly prevent any gasses from escaping thru the stone.

**Directions Given from National Grid / GEI**

1.)Tom Shock asked CEI to sweep up out side of the truck gate. CEI responded that they will have it done, and would like to have Fenloy-Nicol clean up there RCA that they place along the entrance so it would not be tracked off the site and than CEI would replace it with stone no make it cleaner. Lot was sweeped,but RCA still remains. 2.) Tom Shock asked for CEI to let the PIIAN system run all night for odor prevention

**QAPP Test Performed**

**Time & Material / Out of Scope Work**

1.) Operated PIIAN system at excavation for odor prevention. 2.) Transferred water from the excavation to the frac tank during the backfilling operation.

**Third Party Contact Information**

**Project Name:** National-Grid/LIRR

**Location:** Bay-Shore NY **Date of Work:** 3/19/10

**Contract Number:** PO#596977 OU-1 **Creamer Job#:** 09-2096

**Project Manager:** Gary Kowalski **Project HSO:** H.Hansen

**Project Superintendent:** Harvey Hansen

**Tailgate Safety Meeting:** Emergency Response-PPE-Swing Zone-Traffic-Dust Control-Odors

**Weather:** 72 Sunny

## Subcontractors

| Company | Number of Employees | Hours On Site | Total Hours | Description of Work |
|---|---|---|---|---|
| Watral | 1 | 8 | 8 | Site Truck |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

## Materials Delivered

| Company | Description of Material | Quantity of Material |
|---|---|---|
| Watral Brothers | Common Fill | 256.58 tons |
| Inline Fuel | Diesel | 607.4 gallons |
| | | |
| | | |

## Work Force & Equipment on Site

### Labor

| Name | Description | ST Hours | OT Hours | Total Hours |
|---|---|---|---|---|
| Harvey Hansen | Superintendent | 8 | 2 | 10 |
| Eric Silvestri | Foreman | 8 | | 8 |
| Vincent Montefusco | Laborer | 8 | | 8 |
| Peter Pawlowski | Laborer | 8 | | 8 |
| Ken Zeman | Laborer | 8 | | 8 |
| Robert Distefano | Operator | 8.5 | | 8.5 |
| Gary Pittel | Operator | 8.5 | | 8.5 |
| Stan Smith | Operator | 8 | | 8 |
| John Cole | Operator | 8 | | 8 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | **Total Hours Today** | 73 | 2 | **75** |
| | **Project Hours Total** | **729.5** | | |

### Equipment

| Description | Equipment / Z# | Hours Worked | Down Hours | Idle Hours | Total Hours |
|---|---|---|---|---|---|
| **Loader** | **Z#13804** | 8 | | | 8 |
| **Pick Up** | **S596** | 8 | | | 8 |
| **Tent** | **Z#14408** | 8 | | | 8 |
| **Foam Unit** | **CETF16** | 8 | | | 8 |
| **Foam Unit** | **CETF18** | 8 | | | 8 |
| **Tigg Air Unit** | **Z#13809** | 8 | | | 8 |
| **PC228** | **H152** | 8 | | | 8 |
| **Generator** | | 8 | | | 8 |
| **10x32 Office Trailer** | **Z#13803** | 8 | | | 8 |
| **8x24 Office Trailer** | **Z#13802** | 8 | | | 8 |
| **Port-O-John** | **Z#13799** | 8 | | | 8 |
| **Port-O-John** | **Z#13800** | 88 | | | 88 |
| **Port-O-John** | **Z#13801** | 8 | | | 8 |
| **Frac Tank** | **Z#14409** | 8 | | | 8 |
| **Frac Tank** | | 8 | | | 8 |
| **Shoring Corners** | **Z#14418** | 8 | | | 8 |
| **Man Lift** | | 8 | | | 8 |
| **Roller** | | | | | 0 |
| | | | | | 0 |
| **Total Hours** | | 216 | 0 | 0 | **216** |

## Work Completed

1.) Loaded 8 trucks with soil for disposal at Bayshore Soil Managament. 2.) Foamed excavation area and the top of the site truck for odors. A total of 495 gallons of concentrate where used today,bringing the OU1 job total to 2035 gallons of concentrate used. 3.) Operated PIIAN unit at the excavation area for odor prevention. And all night tonight as asked by Tom Shock. 4.) Excavated box #6 to 10' below grade and backfilled it with stone above the water level. 5.) Transfered water from the excavation to the frac tank during backfilling. 6.) Ongoing dust control measures now that it is warming up and drying out. 7.) Began to recieve backfill material being called common fill. 8.) Began to backfill with common fill and compact in the excavation area.

## Problems / Delays

## In-house Recommendations Given

## Directions Given from National Grid / GEI

## QAPP Test Performed

## Time & Material / Out of Scope Work

1.) Operated PIIAN system at excavation for odor prevention. 2.) Transferred water from the excavation to the frac tank during the backfilling operation.

## Third Party Contact Information

**Project Name:** National-Grid/LIRR

**Location:** Bay-Shore NY **Date of Work:** 3/22/10

**Contract Number:** PO#596977 OU-1 **Creamer Job#:** 09-2096

**Project Manager:** Gary Kowalski **Project HSO:** H.Hansen

**Project Superintendent:** Harvey Hansen

**Tailgate Safety Meeting:** Emergency Response-PPE-Swing Zone-Traffic-Dust Control-Odors

**Weather:** 72 Sunny

## Subcontractors

| Company | Number of Employees | Hours On Site | Total Hours | Description of Work |
|---|---|---|---|---|
| Watral | 1 | 8 | 8 | Site Truck |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

## Materials Delivered

| Company | Description of Material | Quantity of Material |
|---|---|---|
| Watral Brothers | Common Fill | 43.50 tons |
| Watral Brothers | 3/4" stone | 131.84 tons |
| | | |
| | | |

## Work Force & Equipment on Site

### Labor

| Name | Description | ST Hours | OT Hours | Total Hours |
|---|---|---|---|---|
| Harvey Hansen | Superintendent | 8 | 2 | 10 |
| Eric Silvestri | Foreman | 8 | | 8 |
| Vincent Montefusco | Laborer | 8 | | 8 |
| Peter Pawlowski | Laborer | 8 | | 8 |
| Ken Zeman | Laborer | 8 | | 8 |
| Robert Distefano | Operator | 8.5 | | 8.5 |
| Gary Pittel | Operator | 8.5 | | 8.5 |
| Stan Smith | Operator | 8 | | 8 |
| John Cole | Operator | 0 | | 0 |
| James Quility | Operator | 8 | | 8 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | **Total Hours Today** | 73 | 2 | **75** |
| | **Project Hours Total** | **879.5** | | |

### Equipment

| Description | Equipment / Z# | Hours Worked | Down Hours | Idle Hours | Total Hours |
|---|---|---|---|---|---|
| **Loader** | **Z#13804** | 8 | | | 8 |
| **Pick Up** | **S596** | 8 | | | 8 |
| **Tent** | **Z#14408** | 8 | | | 8 |
| **Foam Unit** | **CETF16** | 8 | | | 8 |
| **Foam Unit** | **CETF18** | 8 | | | 8 |
| **Tigg Air Unit** | **Z#13809** | 8 | | | 8 |
| **PC228** | **H152** | 8 | | | 8 |
| **Generator** | | 8 | | | 8 |
| **10x32 Office Trailer** | **Z#13803** | 8 | | | 8 |
| **8x24 Office Trailer** | **Z#13802** | 8 | | | 8 |
| **Port-O-John** | **Z#13799** | 8 | | | 8 |
| **Port-O-John** | **Z#13800** | 88 | | | 88 |
| **Port-O-John** | **Z#13801** | 8 | | | 8 |
| **Frac Tank** | **Z#14409** | 8 | | | 8 |
| **Frac Tank** | | 8 | | | 8 |
| **Shoring Corners** | **Z#14418** | 8 | | | 8 |
| **Man Lift** | | 8 | | | 8 |
| **Roller** | **RX37** | 8 | | | 8 |
| | | | | | 0 |
| **Total Hours** | | 224 | 0 | 0 | **224** |

## Work Completed

1.) Loaded 1 trucks with water for disposal from the frac tank. 2.) Foamed excavation area and the top of the site truck for odors. A total of 550 gallons of concentrate where used today,bringing the OU1 job total to 2585 gallons of concentrate used. 3.) Operated PIIAN unit at the excavation area for odor prevention. 4.) Excavated box #7 & #11 to 10' below grade and backfilled it with stone above the water level. 5.) Transfered water from the excavation to the frac tank during backfilling. 6.) Ongoing dust control measures now that it is warming up and drying out. 7.) Received 3/4" stone and common fill in today for back filling.

## Problems / Delays

## In-house Recommendations Given

## Directions Given from National Grid / GEI

## QAPP Test Performed

## Time & Material / Out of Scope Work

1.) Operated PIIAN system at excavation for odor prevention. 2.) Transferred water from the excavation to the frac tank during the backfilling operation. 3.) Loaded 1 truck with water for disposal from the frac tank.

## Third Party Contact Information

**Project Name:** National-Grid/LIRR

**Location:** Bay-Shore NY **Date of Work:** 3/23/10

**Contract Number:** PO#596977 OU-1 **Creamer Job#:** 09-2096

**Project Manager:** Gary Kowalski **Project HSO:** H.Hansen

**Project Superintendent:** Harvey Hansen

**Tailgate Safety Meeting:** Emergency Response-PPE-Swing Zone-Traffic-Dust Control-Odors

**Weather:** 51 Showers

**Subcontractors**

| Company | Number of Employees | Hours On-Site | Total Hours | Description of Work |
|---|---|---|---|---|
| Watral | 1 | 8 | 8 | Site Truck |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

**Materials Delivered**

| Company | Description of Material | Quantity of Material |
|---|---|---|
| Watral Brothers | 3/4" stone | 88.23 tons |
| | | |
| | | |
| | | |

**Work Force & Equipment on Site**

**Labor**

| Name | Description | ST Hours | OT Hours | Total Hours |
|---|---|---|---|---|
| Harvey Hansen | Superintendent | 8 | 2 | 10 |
| Eric Silvestri | Foreman | 8 | 0.5 | 8.5 |
| Vincent Montefusco | Laborer | 8 | | 8 |
| Peter Pawlowski | Laborer | 8 | | 8 |
| Ken Zeman | Laborer | 8 | | 8 |
| Robert Distefano | Operator | 8.5 | | 8.5 |
| Gary Pittel | Operator | 8.5 | | 8.5 |
| Stan Smith | Operator | 8 | | 8 |
| John Cole | Operator | 8 | | 8 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| **Total Hours Today** | | 73 | 2.5 | **75.5** |
| **Project Hours Total** | | **955** | | |

**Equipment**

| Description | Equipment / Z# | Hours Worked | Down Hours | Idle Hours | Total Hours |
|---|---|---|---|---|---|
| **Loader** | **Z#13804** | 8 | | | 8 |
| **Pick Up** | **S596** | 8 | | | 8 |
| **Tent** | **Z#14408** | 8 | | | 8 |
| **Foam Unit** | **CETF16** | 8 | | | 8 |
| **Foam Unit** | **CETF18** | 8 | | | 8 |
| **Tigg Air Unit** | **Z#13809** | 8 | | | 8 |
| **PC228** | **H152** | 8 | | | 8 |
| **Generator** | | 8 | | | 8 |
| **10x32 Office Trailer** | **Z#13803** | 8 | | | 8 |
| **8x24 Office Trailer** | **Z#13802** | 8 | | | 8 |
| **Port-O-John** | **Z#13799** | 8 | | | 8 |
| **Port-O-John** | **Z#13800** | 8 | | | 8 |
| **Port-O-John** | **Z#13801** | 8 | | | 8 |
| **Frac Tank** | **Z#14409** | 8 | | | 8 |
| **Frac Tank** | | 8 | | | 8 |
| **Shoring Corners** | **Z#14418** | 8 | | | 8 |
| **Man Lift** | | 8 | | | 8 |
| **Roller** | **RX37** | 8 | | | 8 |
| | | | | | 0 |
| **Total Hours** | | 144 | 0 | 0 | **144** |

**Work Completed**

1.) Loaded 8 trucks with soil for disposal at Bayshore Soil Management 2.) No Foam was used today, the job total remains at a total to 2585 gallons of concentrate used. 3.) Operated PIIAN unit at the excavation area for odor prevention. 4.) Excavated for the set up of the steel bracing along the sheet pile wall in the area of box #9. Set up the silde rail system in the area's known as box #9 & #10 in prep for excavation. 5.) Ongoing dust control measures now that it is warming up and drying out. 7.) Received 3/4" stone in today for back filling.

**Problems / Delays**

**In-house Recommendations Given**

**Directions Given from National Grid / GEI**

**QAPP Test Performed**

**Time & Material / Out of Scope Work**

1.) Operated PIIAN system at excavation for odor prevention.

**Third Party Contact Information**

**Project Name:** National-Grid/LIRR

**Location:** Bay-Shore NY **Date of Work:** 3/24/10

**Contract Number:** PO#596977 OU-1 **Creamer Job#:** 09-2096

**Project Manager:** Gary Kowalski **Project HSO:** H.Hansen

**Project Superintendent:** Harvey Hansen

**Tailgate Safety Meeting:** Emergency Response-PPE-Swing Zone-Traffic-Dust Control-Odors

**Weather:** 56 Sunny-Windy

**Subcontractors**

| Company | Number of Employees | Hours On-Site | Total Hours | Description of Work |
|---|---|---|---|---|
| Watral | 1 | 8 | 8 | Site Truck |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

**Materials Delivered**

| Company | Description of Material | Quantity of Material |
|---|---|---|
| Watral Brothers | 3/4" stone | 91.61 tons |
| Watral Brothers | Common fill | 175.8 tons |
| | | |
| | | |

**Work Force & Equipment on Site**

**Labor**

| Name | Description | ST Hours | OT Hours | Total Hours |
|---|---|---|---|---|
| Harvey Hansen | Superintendent | 8 | 2 | 10 |
| Eric Silvestri | Foreman | 8 | 0.5 | 8.5 |
| Vincent Montefusco | Laborer | 8 | 0.5 | 8.5 |
| Peter Pawlowski | Laborer | 8 | 0.5 | 8.5 |
| Ken Zeman | Laborer | 8 | 0.5 | 8.5 |
| Robert Distefano | Operator | 8.5 | | 8.5 |
| Gary Pittel | Operator | 8.5 | | 8.5 |
| Stan Smith | Operator | 8 | | 8 |
| John Cole | Operator | 8 | | 8 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| **Total Hours Today** | | 73 | 4 | **77** |
| **Project Hours Total** | | **956.5** | | |

**Equipment**

| Description | Equipment / Z# | Hours Worked | Down Hours | Idle Hours | Total Hours |
|---|---|---|---|---|---|
| **Loader** | **Z#13804** | 8 | | | 8 |
| **Pick Up** | **S596** | 8 | | | 8 |
| **Tent** | **Z#14408** | 8 | | | 8 |
| **Foam Unit** | **CETF16** | 8 | | | 8 |
| **Foam Unit** | **CETF18** | 8 | | | 8 |
| **Tigg Air Unit** | **Z#13809** | 8 | | | 8 |
| **PC228** | **H152** | 8 | | | 8 |
| **Generator** | | 8 | | | 8 |
| **10x32 Office Trailer** | **Z#13803** | 8 | | | 8 |
| **8x24 Office Trailer** | **Z#13802** | 8 | | | 8 |
| **Port-O-John** | **Z#13799** | 8 | | | 8 |
| **Port-O-John** | **Z#13800** | 8 | | | 8 |
| **Port-O-John** | **Z#13801** | 8 | | | 8 |
| **Frac Tank** | **Z#14409** | 8 | | | 8 |
| **Frac Tank** | | 8 | | | 8 |
| **Shoring Corners** | **Z#14418** | 8 | | | 8 |
| **Man Lift** | | 8 | | | 8 |
| **Roller** | **RX37** | 8 | | | 8 |
| | | | | | 0 |
| **Total Hours** | | 144 | 0 | 0 | **144** |

**Work Completed**

1.) Loaded 6 trucks with soil for disposal at Bayshore Soil Management. 2.) Foamed excavation area and the top of the site truck for odors. a total of 605 gallons of concentrate where used today bringing the job total to 3190 gallons of concentrate used. 3.) Operated PIIAN unit at the excavation area for odor prevention. 4.) Excavated the area's of boxes #9, #10 & #8 to 10' below grade and backfilled with stone above the water level. 5.) Ongoing dust control measures now that it is warming up and drying out. 7.) Received 3/4" stone, and common fill in today for back filling. 8.) Transfered water from the excavation to the frac tank during backfilling.

**Problems / Delays**

**In-house Recommendations Given**

**Directions Given from National Grid / GEI**

**QAPP Test Performed**

**Time & Material / Out of Scope Work**

1.) Operated PIIAN system at excavation for odor prevention. 2.) Transferred water from the excavation to the frac tank during backfilling.

**Third Party Contact Information**

**Project Name:** National-Grid/LIRR

**Location:** Bay-Shore NY **Date of Work:** 3/25/10

**Contract Number:** PO#596977 OU-1 **Creamer Job#:** 09-2096

**Project Manager:** Gary Kowalski **Project HSO:** H.Hansen

**Project Superintendent:** Harvey Hansen

**Tailgate Safety Meeting:** Emergency Response-PPE-Swing Zone-Traffic-Dust Control-Odors

**Weather:** 56 Showers

**Subcontractors**

| Company | Number of Employees | Hours On-Site | Total Hours | Description of Work |
|---|---|---|---|---|
| Watral | 1 | 8 | 8 | Site Truck |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

**Materials Delivered**

| Company | Description of Material | Quantity of Material |
|---|---|---|
| Watral Brothers | 3/4" stone | 91.61 tons |
| Watral Brothers | Common fill | 175.8 tons |
| | | |
| | | |

**Work Force & Equipment on Site**

**Labor**

| Name | Description | ST Hours | OT Hours | Total Hours |
|---|---|---|---|---|
| Harvey Hansen | Superintendent | 8 | 2 | 10 |
| Eric Silvestri | Foreman | 8 | 0.5 | 8.5 |
| Vincent Montefusco | Laborer | 8 | 0.5 | 8.5 |
| Peter Pawlowski | Laborer | 8 | 0.5 | 8.5 |
| Ken Zeman | Laborer | 8 | 0.5 | 8.5 |
| Robert Distefano | Operator | 8.5 | | 8.5 |
| Gary Pittel | Operator | 8.5 | | 8.5 |
| Stan Smith | Operator | 8 | | 8 |
| John Cole | Operator | 8 | | 8 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| **Total Hours Today** | | 73 | 4 | **77** |
| **Project Hours Total** | | **956.5** | | |

**Equipment**

| Description | Equipment / Z# | Hours Worked | Down Hours | Idle Hours | Total Hours |
|---|---|---|---|---|---|
| **Loader** | **Z#13804** | 8 | | | 8 |
| **Pick Up** | **S596** | 8 | | | 8 |
| **Tent** | **Z#14408** | 8 | | | 8 |
| **Foam Unit** | **CETF16** | 8 | | | 8 |
| **Foam Unit** | **CETF18** | 8 | | | 8 |
| **Tigg Air Unit** | **Z#13809** | 8 | | | 8 |
| **PC228** | **H152** | 8 | | | 8 |
| **Generator** | | 8 | | | 8 |
| **10x32 Office Trailer** | **Z#13803** | 8 | | | 8 |
| **8x24 Office Trailer** | **Z#13802** | 8 | | | 8 |
| **Port-O-John** | **Z#13799** | 8 | | | 8 |
| **Port-O-John** | **Z#13800** | 8 | | | 8 |
| **Port-O-John** | **Z#13801** | 8 | | | 8 |
| **Frac Tank** | **Z#14409** | 8 | | | 8 |
| **Frac Tank** | | 8 | | | 8 |
| **Shoring Corners** | **Z#14418** | 8 | | | 8 |
| **Man Lift** | | 8 | | | 8 |
| **Roller** | **RX37** | 8 | | | 8 |
| | | | | | 0 |
| **Total Hours** | | 144 | 0 | 0 | **144** |

**Work Completed**

1.) Loaded 6 trucks with soil for disposal at Bayshore Soil Management. 2.) Foamed excavation area and the top of the site truck for odors. a total of 605 gallons of concentrate where used today bringing the job total to 3190 gallons of concentrate used. 3.) Operated PIIAN unit at the excavation area for odor prevention. 4.) Excavated the area's of boxes #9, #10 & #8 to 10' below grade and backfilled with stone above the water level. 5.) Ongoing dust control measures now that it is warming up and drying out. 7.) Received 3/4" stone, and common fill in today for back filling. 8.) Transfered water from the excavation to the frac tank during backfilling.

**Problems / Delays**

**In-house Recommendations Given**

**Directions Given from National Grid / GEI**

**QAPP Test Performed**

**Time & Material / Out of Scope Work**

1.) Operated PIIAN system at excavation for odor prevention. 2.) Transferred water from the excavation to the frac tank during backfilling.

**Third Party Contact Information**

**Project Name:** National-Grid/LIRR

**Location:** Bay-Shore NY **Date of Work:** 3/26/10

**Contract Number:** PO#596977 OU-1 **Creamer Job#:** 09-2096

**Project Manager:** Gary Kowalski **Project HSO:** H.Hansen

**Project Superintendent:** Harvey Hansen

**Tailgate Safety Meeting:** Emergency Response-PPE-Swing Zone-Traffic-Dust Control-Odors

**Weather:** 56 Showers

**Subcontractors**

| Company | Number of Employees | Hours On Site | Total Hours | Description of Work |
|---|---|---|---|---|
| Watral | 1 | 8 | 8 | Site Truck |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

**Materials Delivered**

| Company | Description of Material | Quantity of Material |
|---|---|---|
| Watral Brothers | Common Fill | 44.32 tons |
| | | |
| | | |
| | | |

**Work Force & Equipment on Site**

**Labor**

| Name | Description | ST Hours | OT Hours | Total Hours |
|---|---|---|---|---|
| Harvey Hansen | Superintendent | 8 | 2 | 10 |
| Eric Silvestri | Foreman | 8 | | 8 |
| Vincent Montefusco | Laborer | 8 | | 8 |
| Peter Pawlowski | Laborer | 8 | | 8 |
| Ken Zeman | Laborer | 8 | | 8 |
| Robert Distefano | Operator | 8.5 | | 8.5 |
| Gary Pittel | Operator | 8.5 | | 8.5 |
| Stan Smith | Operator | 8 | | 8 |
| John Cole | Operator | 8 | | 8 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| **Total Hours Today** | | 73 | 2 | **75** |
| **Project Hours Total** | | **1031.5** | | |

**Equipment**

| Description | Equipment / Z# | Hours Worked | Down Hours | Idle Hours | Total Hours |
|---|---|---|---|---|---|
| **Loader** | **Z#13804** | 8 | | | 8 |
| **Pick Up** | **S596** | 8 | | | 8 |
| **Tent** | **Z#14408** | 8 | | | 8 |
| **Foam Unit** | **CETF16** | 8 | | | 8 |
| **Foam Unit** | **CETF18** | 8 | | | 8 |
| **Tigg Air Unit** | **Z#13809** | 8 | | | 8 |
| **PC228** | **H152** | 8 | | | 8 |
| **Generator** | | 8 | | | 8 |
| **10x32 Office Trailer** | **Z#13803** | 8 | | | 8 |
| **8x24 Office Trailer** | **Z#13802** | 8 | | | 8 |
| **Port-O-John** | **Z#13799** | 8 | | | 8 |
| **Port-O-John** | **Z#13800** | 8 | | | 8 |
| **Port-O-John** | **Z#13801** | 8 | | | 8 |
| **Frac Tank** | **Z#14409** | 8 | | | 8 |
| **Frac Tank** | | 8 | | | 8 |
| **Shoring Corners** | **Z#14418** | 8 | | | 8 |
| **Man Lift** | | 8 | | | 8 |
| **Roller** | **RX37** | 8 | | | 8 |
| | | | | | 0 |
| **Total Hours** | | 144 | 0 | 0 | **144** |

**Work Completed**

1.) Foamed excavation area and the top of the site truck for odors. a total of 495 gallons of concentrate where used today bringing the job total to 3685 gallons of concentrate used. 2.) Operated PIIAN unit at the excavation area for odor prevention. 3.) Excavated the area's of boxes #12 & #13 to 10' below grade and backfilled with stone above the water level. 4.) Ongoing dust control measures now that it is warming up and drying out. 5.) Received common fill in today for back filling. 6.) Transfered water from the excavation to the frac tank during backfilling. 7.) Backfilled with common fill and compacted.

**Problems / Delays**

**In-house Recommendations Given**

**Directions Given from National Grid / GEI**

**QAPP Test Performed**

**Time & Material / Out of Scope Work**

1.) Operated PIIAN system at excavation for odor prevention. 2.) Transferred water from the excavation to the frac tank during backfilling.

**Third Party Contact Information**

**Project Name:** National-Grid/LIRR

**Location:** Bay-Shore NY **Date of Work:** 3/29/10

**Contract Number:** PO#596977 OU-1 **Creamer Job#:** 09-2096

**Project Manager:** Gary Kowalski **Project HSO:** H.Hansen

**Project Superintendent:** Harvey Hansen

**Tailgate Safety Meeting:** Emergency Response-PPE-Swing Zone-Traffic-Dust Control-Odors

**Weather:** 56 Rain

## Subcontractors

| Company | Number of Employees | Hours On-Site | Total Hours | Description of Work |
|---|---|---|---|---|
| K&S Engineers | 2 | 4 | 4 | Survey Excavation area |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

## Materials Delivered

| Company | Description of Material | Quantity of Material |
|---|---|---|
| | | |
| | | |
| | | |
| | | |

## Work Force & Equipment on Site

### Labor

| Name | Description | ST Hours | OT Hours | Total Hours |
|---|---|---|---|---|
| Harvey Hansen | Superintendent | 8 | 2 | 10 |
| Eric Silvestri | Foreman | 8 | | 8 |
| Vincent Montefusco | Laborer | 8 | | 8 |
| Peter Pawlowski | Laborer | 8 | | 8 |
| Ken Zeman | Laborer | 8 | | 8 |
| Robert Distefano | Operator | 8.5 | | 8.5 |
| Gary Pittel | Operator | 8.5 | | 8.5 |
| Stan Smith | Operator | 8 | | 8 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| **Total Hours Today** | | 65 | 2 | **67** |
| **Project Hours Total** | | **1165.5** | | |

### Equipment

| Description | Equipment / Z# | Hours Worked | Down Hours | Idle Hours | Total Hours |
|---|---|---|---|---|---|
| **Loader** | **Z#13804** | 8 | | | 8 |
| **Pick Up** | **S596** | 8 | | | 8 |
| **Tent** | **Z#14408** | 8 | | | 8 |
| **Foam Unit** | **CETF16** | 8 | | | 8 |
| **Foam Unit** | **CETF18** | 8 | | | 8 |
| **Tigg Air Unit** | **Z#13809** | 8 | | | 8 |
| **PC228** | **H152** | 8 | | | 8 |
| **Generator** | | 8 | | | 8 |
| **10x32 Office Trailer** | **Z#13803** | 8 | | | 8 |
| **8x24 Office Trailer** | **Z#13802** | 8 | | | 8 |
| **Port-O-John** | **Z#13799** | 8 | | | 8 |
| **Port-O-John** | **Z#13800** | 8 | | | 8 |
| **Port-O-John** | **Z#13801** | 8 | | | 8 |
| **Frac Tank** | **Z#14409** | 8 | | | 8 |
| **Frac Tank** | | 8 | | | 8 |
| **Shoring Corners** | **Z#14418** | 8 | | | 8 |
| **Man Lift** | | 8 | | | 8 |
| **Roller** | **RX37** | 8 | | | 8 |
| | | | | | 0 |
| **Total Hours** | | 144 | 0 | 0 | **144** |

## Work Completed

1.) Loaded 10 trucks with soil for disposal to Bayshore Soil Management. 2.) Began to pack up supplies. 3.)Began to move equipement and supplies to the north side of the tracks.

## Problems / Delays

## In-house Recommendations Given

## Directions Given from National Grid / GEI

## QAPP Test Performed

## Time & Material / Out of Scope Work

## Third Party Contact Information

**Project Name:** National-Grid/LIRR

**Location:** Bay-Shore NY **Date of Work:** 3/31/10

**Contract Number:** PO#596977 OU-1 **Creamer Job#:** 09-2096

**Project Manager:** Gary Kowalski **Project HSO:** H.Hansen

**Project Superintendent:** Harvey Hansen

**Tailgate Safety Meeting:** Emergency Response-PPE-Visibility-Traffic-Complacency

**Weather:** 56 Cloudy

**Subcontractors**

| Company | Number of Employees | Hours On-Site | Total Hours | Description of Work |
|---|---|---|---|---|
| Watral Brothers | 1 | 8 | 8 | Site Truck Moving Supplies |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

**Materials Delivered**

| Company | Description of Material | Quantity of Material |
|---|---|---|
| | | |
| | | |
| | | |
| | | |

**Work Force & Equipment on Site**

**Labor**

| Name | Description | ST Hours | OT Hours | Total Hours |
|---|---|---|---|---|
| Harvey Hansen | Superintendent | 8 | 2 | 10 |
| Eric Silvestri | Foreman | 8 | | 8 |
| Vincent Montefusco | Laborer | 8 | | 8 |
| Peter Pawlowski | Laborer | 8 | | 8 |
| Ken Zeman | Laborer | 8 | | 8 |
| Robert Distefano | Operator | 8.5 | | 8.5 |
| Gary Pittel | Operator | 8.5 | | 8.5 |
| Stan Smith | Operator | 8 | | 8 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| **Total Hours Today** | | 65 | 2 | **67** |
| **Project Hours Total** | | **1232.5** | | |

**Equipment**

| Description | Equipment / Z# | Hours Worked | Down Hours | Idle Hours | Total Hours |
|---|---|---|---|---|---|
| **Loader** | **Z#13804** | 8 | | | 8 |
| **Pick Up** | **S596** | 8 | | | 8 |
| **Tent** | **Z#14408** | 8 | | | 8 |
| **Foam Unit** | **CETF16** | 8 | | | 8 |
| **Foam Unit** | **CETF18** | 8 | | | 8 |
| **Tigg Air Unit** | **Z#13809** | 8 | | | 8 |
| **PC228** | **H152** | 8 | | | 8 |
| **Generator** | | 8 | | | 8 |
| **10x32 Office Trailer** | **Z#13803** | 8 | | | 8 |
| **8x24 Office Trailer** | **Z#13802** | 8 | | | 8 |
| **Port-O-John** | **Z#13799** | 8 | | | 8 |
| **Port-O-John** | **Z#13800** | 8 | | | 8 |
| **Port-O-John** | **Z#13801** | 8 | | | 8 |
| **Frac Tank** | **Z#14409** | 8 | | | 8 |
| **Frac Tank** | | 8 | | | 8 |
| | | | | | 0 |
| **Man Lift** | | 8 | | | 8 |
| **Roller** | **RX37** | 8 | | | 8 |
| | | | | | 0 |
| **Total Hours** | | 136 | 0 | 0 | **136** |

**Work Completed**

1.) Loaded 8 trucks with soil for disposal to Bayshore Soil Management. 2.) Continued to pack up supplies. 3.) Continued to move equipement and supplies to the north side of the tracks.

**Problems / Delays**

**In-house Recommendations Given**

**Directions Given from National Grid / GEI**

**QAPP Test Performed**

**Time & Material / Out of Scope Work**

**Third Party Contact Information**

**Project Name:** National-Grid/LIRR

**Location:** Bay-Shore NY **Date of Work:** 4/1/10

**Contract Number:** PO#596977 OU-1 **Creamer Job#:** 09-2096

**Project Manager:** Gary Kowalski **Project HSO:** H.Hansen

**Project Superintendent:** Harvey Hansen

**Tailgate Safety Meeting:** Emergency Response-PPE-Visibility-Traffic-Dust-Visitors

**Weather:** 56 Cloudy

**Subcontractors**

| Company | Number of Employees | Hours On-Site | Total Hours | Description of Work |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

**Materials Delivered**

| Company | Description of Material | Quantity of Material |
|---|---|---|
| Watral Brothers | Common Fill | 175.7 tons |
| | | |
| | | |
| | | |

**Work Force & Equipment on Site**

**Labor**

| Name | Description | ST Hours | OT Hours | Total Hours |
|---|---|---|---|---|
| Harvey Hansen | Superintendent | 8 | 2 | 10 |
| Eric Silvestri | Foreman | 8 | | 8 |
| Vincent Montefusco | Laborer | 8 | | 8 |
| Peter Pawlowski | Laborer | 8 | | 8 |
| Ken Zeman | Laborer | 8 | | 8 |
| Robert Distefano | Operator | 8.5 | | 8.5 |
| Gary Pittel | Operator | 8.5 | | 8.5 |
| Stan Smith | Operator | 8 | | 8 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| **Total Hours Today** | | 65 | 2 | **67** |
| **Project Hours Total** | | **1299.5** | | |

**Equipment**

| Description | Equipment / Z# | Hours Worked | Down Hours | Idle Hours | Total Hours |
|---|---|---|---|---|---|
| **Loader** | **Z#13804** | 8 | | | 8 |
| **Pick Up** | **S596** | 8 | | | 8 |
| **Tent** | **Z#14408** | 8 | | | 8 |
| **Foam Unit** | **CETF16** | 8 | | | 8 |
| **Foam Unit** | **CETF18** | 8 | | | 8 |
| **Tigg Air Unit** | **Z#13809** | 8 | | | 8 |
| **PC228** | **H152** | 8 | | | 8 |
| **Generator** | | 8 | | | 8 |
| **10x32 Office Trailer** | **Z#13803** | 8 | | | 8 |
| **8x24 Office Trailer** | **Z#13802** | 8 | | | 8 |
| **Port-O-John** | **Z#13799** | 8 | | | 8 |
| **Port-O-John** | **Z#13800** | 8 | | | 8 |
| **Port-O-John** | **Z#13801** | 8 | | | 8 |
| **Frac Tank** | **Z#14409** | 8 | | | 8 |
| **Frac Tank** | | 8 | | | 8 |
| | | | | | 0 |
| **Man Lift** | | 8 | | | 8 |
| **Roller** | **RX37** | 8 | | | 8 |
| | | | | | 0 |
| **Total Hours** | | 136 | 0 | 0 | **136** |

**Work Completed**

1.) Loaded 10 trucks with soil for disposal to Bayshore Soil Management. 2.) Continued to pack up supplies. 3.) Continued to move equipement and supplies to the north side of the tracks.

**Problems / Delays**

**In-house Recommendations Given**

**Directions Given from National Grid / GEI**

**QAPP Test Performed**

**Time & Material / Out of Scope Work**

**Third Party Contact Information**

**Project Name:** National-Grid/LIRR

**Location:** Bay-Shore NY **Date of Work:** 4/2/10

**Contract Number:** PO#596977 OU-1 **Creamer Job#:** 09-2096

**Project Manager:** Gary Kowalski **Project HSO:** H.Hansen

**Project Superintendent:** Harvey Hansen

**Tailgate Safety Meeting:** Emergency Response-PPE-Visibility-Traffic-Dust-Visitors

**Weather:** 56 Cloudy

**Subcontractors**

| Company | Number of Employees | Hours On-Site | Total Hours | Description of Work |
|---|---|---|---|---|
| Watral Brothers | 1 | 8 | 8 | Site Truck Moving Supplies |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

**Materials Delivered**

| Company | Description of Material | Quantity of Material |
|---|---|---|
| Watral Brothers | Common Fill | 132.81 tons |
| Watral Brothers | DGA | 134.5 tons |
| | | |
| | | |

**Work Force & Equipment on Site**

**Labor**

| Name | Description | ST Hours | OT Hours | Total Hours |
|---|---|---|---|---|
| Harvey Hansen | Superintendent | 8 | 2 | 10 |
| Eric Silvestri | Foreman | 8 | | 8 |
| Vincent Montefusco | Laborer | 8 | | 8 |
| Peter Pawlowski | Laborer | 8 | | 8 |
| Ken Zeman | Laborer | 8 | | 8 |
| Robert Distefano | Operator | 8.5 | | 8.5 |
| Gary Pittel | Operator | 8.5 | | 8.5 |
| Stan Smith | Operator | 8 | | 8 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| **Total Hours Today** | | 65 | 2 | **67** |
| **Project Hours Total** | | **1366.5** | | |

**Equipment**

| Description | Equipment / Z# | Hours Worked | Down Hours | Idle Hours | Total Hours |
|---|---|---|---|---|---|
| **Loader** | **Z#13804** | 8 | | | 8 |
| **Pick Up** | **S596** | 8 | | | 8 |
| **Tent** | **Z#14408** | 8 | | | 8 |
| **Foam Unit** | **CETF16** | 8 | | | 8 |
| **Foam Unit** | **CETF18** | 8 | | | 8 |
| **Tigg Air Unit** | **Z#13809** | 8 | | | 8 |
| **PC228** | **H152** | 8 | | | 8 |
| **Generator** | **Picked up** | | | | |
| **10x32 Office Trailer** | **Z#13803** | 8 | | | 8 |
| **8x24 Office Trailer** | **Z#13802** | 8 | | | 8 |
| **Port-O-John** | **Z#13799** | 8 | | | 8 |
| **Port-O-John** | **Z#13800** | 8 | | | 8 |
| **Port-O-John** | **Z#13801** | 8 | | | 8 |
| **Frac Tank** | **Z#14409** | 8 | | | 8 |
| **Frac Tank** | | 8 | | | 8 |
| **Man Lift** | | 8 | | | 8 |
| **Man Lift** | | 8 | | | 8 |
| **Roller** | **RX37** | 8 | | | 8 |
| **Lull** | **FL40** | 8 | | | 8 |
| **Total Hours** | | 144 | 0 | 0 | **144** |

**Work Completed**

1.) Loaded 6 trucks with soil for disposal to Bayshore Soil Management. 2.) Continued to pack up supplies. 3.) Continued to move equipement and supplies to the north side of the tracks. 4.) Began to backfill with DGA. 5.) Began to clean up stone outside of tent and load it out for disposal.

**Problems / Delays**

**In-house Recommendations Given**

**Directions Given from National Grid / GEI**

**QAPP Test Performed**

**Time & Material / Out of Scope Work**

**Third Party Contact Information**

**Project Name:** National-Grid/LIRR

**Location:** Bay-Shore NY **Date of Work:** 4/5/10

**Contract Number:** PO#596977 OU-1 **Creamer Job#:** 09-2096

**Project Manager:** Gary Kowalski **Project HSO:** H.Hansen

**Project Superintendent:** Harvey Hansen

**Tailgate Safety Meeting:** Emergency Response-PPE-Visibility-Traffic-Dust-Visitors
Tent Safety Analyses

**Weather:** 68 Sunny

## Subcontractors

| Company | Number of Employees | Hours On-Site | Total Hours | Description of Work |
|---|---|---|---|---|
| Allsite Tent Rentals | 1 | 8 | 8 | Dissamble Tent |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

## Materials Delivered

| Company | Description of Material | Quantity of Material |
|---|---|---|
| Watral Brothers | Common Fill | 132.78 tons |
| Watral Brothers | DGA | 135.65 tons |
| | | |
| | | |

## Work Force & Equipment on Site

### Labor

| Name | Description | ST Hours | OT Hours | Total Hours |
|---|---|---|---|---|
| Harvey Hansen | Superintendent | 8 | 2 | 10 |
| Eric Silvestri | Foreman | 8 | | 8 |
| Vincent Montefusco | Laborer | 8 | | 8 |
| Peter Pawlowski | Laborer | 8 | | 8 |
| Ken Zeman | Laborer | 8 | | 8 |
| Robert Distefano | Operator | 8.5 | | 8.5 |
| Gary Pittel | Operator | 8.5 | | 8.5 |
| Stan Smith | Operator | 8 | | 8 |
| John Vise | Dockbuilder Foreman | 8 | | 8 |
| Mark Mceachen | Dockbuilder | 8 | | 8 |
| Paul Bartha | Dockbuilder | 8 | | 8 |
| Stephen Torres | Ironworker | 8 | | 8 |
| Bob Alese | Ironworker | 8 | | 8 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | **Total Hours Today** | 105 | 2 | **107** |
| | **Project Hours Total** | **1473.5** | | |

### Equipment

| Description | Equipment / Z# | Hours Worked | Down Hours | Idle Hours | Total Hours |
|---|---|---|---|---|---|
| **Loader** | **Z#13804** | 8 | | | 8 |
| **Pick Up** | **S596** | 8 | | | 8 |
| **Tent** | **Z#14408** | 8 | | | 8 |
| **Foam Unit** | **CETF16** | | | **8** | 8 |
| **Foam Unit** | **CETF18** | | | **8** | 8 |
| **Tigg Air Unit** | **Z#13809** | | | **8** | 8 |
| **PC228** | **H152** | 8 | | | 8 |
| **Compressor** | **C201** | | | **8** | 8 |
| **10x32 Office Trailer** | **Z#13803** | 8 | | | 8 |
| **8x24 Office Trailer** | **Z#13802** | 8 | | | 8 |
| **Port-O-John** | **Z#13799** | 8 | | | 8 |
| **Port-O-John** | **Z#13800** | 8 | | | 8 |
| **Port-O-John** | **Z#13801** | 8 | | | 8 |
| **Frac Tank** | **Z#14409** | 8 | | | 8 |
| **Frac Tank** | | | | **8** | 8 |
| **Man Lift** | | 8 | | | 8 |
| **Man Lift** | | 8 | | | 8 |
| **Roller** | **RX37** | 3 | | **5** | 8 |
| **Lull** | **FL40** | 8 | | | 8 |
| **Total Hours** | | 107 | 0 | 45 | **152** |

## Work Completed

1.) Loaded 10 trucks with soil for disposal to Bayshore Soil Management. 2.) Continued to pack up supplies. 3.) Continued to move equipement and supplies to the north side of the tracks. 4.) Continued to backfill OU1 with DGA and Common fill. 5.) Continued to clean up stone outside of tent and load it out for disposal.6.) Crew began to disassemble tent and prepare it for shipping to the north side of the tracks for phase 2. 7.) Ongoing dust control being performed due to the dry and breezy conditions. 8.) Removed stone and liner from the decon pad at the east end door of the tent and loaded it out for disposal.Backfilled it with common fill as previously told by Tom Shock. Chris from GEI observed work being done.

## Problems / Delays

NONE

## In-house Recommendations Given

NONE

## Directions Given from National Grid / GEI

NONE

## QAPP Test Performed

Chris (GEI) on site and performed the visual inspection of the compaction. DGA and common fill where installed in the OU1 work area, and common fill was used to backfill the decon pad

## Time & Material / Out of Scope Work

NONE

## Third Party Contact Information

NONE

**Project Name:** National-Grid/LIRR

**Location:** Bay-Shore NY **Date of Work:** 4/6/10

**Contract Number:** PO#596977 OU-1 **Creamer Job#:** 09-2096

**Project Manager:** Gary Kowalski **Project HSO:** H.Hansen

**Project Superintendent:** Harvey Hansen

**Tailgate Safety Meeting:** Emergency Response-PPE-Visibility-Traffic-Dust-Visitors

**Weather:** 68 Sunny

**Subcontractors**

| Company | Number of Employees | Hours On-Site | Total Hours | Description of Work |
|---|---|---|---|---|
| Allsite Tent Rentals | 1 | 8 | 8 | Dissamble Tent |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

**Materials Delivered**

| Company | Description of Material | Quantity of Material |
|---|---|---|
| Watral Brothers | Common Fill | 43.94 tons |
| Watral Brothers | DGA | 92.33 tons |
| | | |
| | | |

**Work Force & Equipment on Site**

**Labor**

| Name | Description | ST Hours | OT Hours | Total Hours |
|---|---|---|---|---|
| Harvey Hansen | Superintendent | 8 | 2 | 10 |
| Eric Silvestri | Foreman | 8 | 1 | 9 |
| Vincent Montefusco | Laborer | 8 | | 8 |
| Peter Pawlowski | Laborer | 8 | | 8 |
| Ken Zeman | Laborer | 8 | | 8 |
| Robert Distefano | Operator | 8.5 | | 8.5 |
| Gary Pittel | Operator | 8.5 | | 8.5 |
| Stan Smith | Operator | 8 | | 8 |
| John Vise | Dockbuilder Foreman | 8 | | 8 |
| Mark Mceachen | Dockbuilder | 8 | | 8 |
| Paul Bartha | Dockbuilder | 8 | | 8 |
| Stephen Torres | Ironworker | 8 | | 8 |
| Bob Alese | Ironworker | 8 | | 8 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| **Total Hours Today** | | 105 | 3 | **108** |
| **Project Hours Total** | | **1581.5** | | |

**Equipment**

| Description | Equipment / Z# | Hours Worked | Down Hours | Idle Hours | Total Hours |
|---|---|---|---|---|---|
| **Loader** | **Z#13804** | 8 | | | 8 |
| **Pick Up** | **S596** | 8 | | | 8 |
| **Tent** | **Z#14408** | 8 | | | 8 |
| **Foam Unit** | **CETF16** | | | **8** | 8 |
| **Foam Unit** | **CETF18** | | | **8** | 8 |
| **Tigg Air Unit** | **Z#13809** | | | **8** | 8 |
| **PC228** | **H152** | 8 | | | 8 |
| **Compressor** | **C201** | | | **8** | 8 |
| **10x32 Office Trailer** | **Z#13803** | 8 | | | 8 |
| **8x24 Office Trailer** | **Z#13802** | 8 | | | 8 |
| **Port-O-John** | **Z#13799** | 8 | | | 8 |
| **Port-O-John** | **Z#13800** | 8 | | | 8 |
| **Port-O-John** | **Z#13801** | 8 | | | 8 |
| **Frac Tank** | **Z#14409** | 8 | | | 8 |
| **Frac Tank** | | | | **8** | 8 |
| **Man Lift** | | 8 | | | 8 |
| **Man Lift** | | 8 | | | 8 |
| **Roller** | **RX37** | 3 | | **5** | 8 |
| **Lull** | **FL40** | 8 | | | 8 |
| **Total Hours** | | 107 | 0 | 45 | **152** |

**Work Completed**

1.) Loaded 6 trucks with soil for disposal to Bayshore Soil Management. 2.) Continued to pack up supplies. 3.) Continued to move equipement and supplies to the north side of the tracks. 4.) Completed backfilling OU1 with DGA and Common fill. 5.) Continued to clean up stone outside of tent and load it out for disposal.6.) Crew continued to disassemble tent and prepare it for shipping to the north side of the tracks for phase 2. 7.) Ongoing dust control being performed due to the dry and breezy conditions.

**Problems / Delays**

NONE

**In-house Recommendations Given**

NONE

**Directions Given from National Grid / GEI**

NONE

**QAPP Test Performed**

Chris (GEI) on site and performed the visual inspection of the compaction. DGA and common fill where installed in the OU1 work area.

**Time & Material / Out of Scope Work**

NONE

**Third Party Contact Information**

NONE

**Project Name:** National-Grid/LIRR

**Location:** Bay-Shore NY **Date of Work:** 4/7/10

**Contract Number:** PO#596977 OU-1 **Creamer Job#:** 09-2096

**Project Manager:** Gary Kowalski **Project HSO:** H.Hansen

**Project Superintendent:** Harvey Hansen

**Tailgate Safety Meeting:** Emergency Response-PPE-Visibility-Traffic-Dust-Visitors

**Weather:** 68 Sunny

**Subcontractors**

| Company | Number of Employees | Hours On-Site | Total Hours | Description of Work |
|---|---|---|---|---|
| Allsite Tent Rentals | 1 | 8 | 8 | Dissamble Tent |
| Watral Brothers | 1 | 8 | 8 | Site Truck |
| | | | | |
| | | | | |
| | | | | |

**Materials Delivered**

| Company | Description of Material | Quantity of Material |
|---|---|---|
| | | |
| | | |
| | | |
| | | |

**Work Force & Equipment on Site**

**Labor**

| Name | Description | ST Hours | OT Hours | Total Hours |
|---|---|---|---|---|
| Harvey Hansen | Superintendent | 8 | 2 | 10 |
| Eric Silvestri | Foreman | 8 | | 8 |
| Vincent Montefusco | Laborer | 8 | | 8 |
| Peter Pawlowski | Laborer | 8 | | 8 |
| Ken Zeman | Laborer | 8 | | 8 |
| Robert Distefano | Operator | 8.5 | | 8.5 |
| Gary Pittel | Operator | 8.5 | | 8.5 |
| Stan Smith | Operator | 8 | | 8 |
| John Vise | Dockbuilder Foreman | 8 | | 8 |
| Mark Mceachen | Dockbuilder | 8 | | 8 |
| Paul Bartha | Dockbuilder | 8 | | 8 |
| Stephen Torres | Ironworker | 8 | | 8 |
| Bob Alese | Ironworker | 8 | | 8 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| | | | | 0 |
| **Total Hours Today** | | 105 | 2 | **107** |
| **Project Hours Total** | | **1581.5** | | |

**Equipment**

| Description | Equipment / Z# | Hours Worked | Down Hours | Idle Hours | Total Hours |
|---|---|---|---|---|---|
| **Loader** | **Z#13804** | 8 | | | 8 |
| **Pick Up** | **S596** | 8 | | | 8 |
| **Tent** | **Z#14408** | 8 | | | 8 |
| **Foam Unit** | **CETF16** | | | **8** | 8 |
| **Foam Unit** | **CETF18** | | | **8** | 8 |
| **Tigg Air Unit** | **Z#13809** | | | **8** | 8 |
| **PC228** | **H152** | 3 | | **5** | 8 |
| **Compressor** | **C201** | | | **8** | 8 |
| **10x32 Office Trailer** | **Z#13803** | 8 | | | 8 |
| **8x24 Office Trailer** | **Z#13802** | 8 | | | 8 |
| **Port-O-John** | **Z#13799** | 8 | | | 8 |
| **Port-O-John** | **Z#13800** | 8 | | | 8 |
| **Port-O-John** | **Z#13801** | 8 | | | 8 |
| **Frac Tank** | **Z#14409** | 8 | | | 8 |
| **Frac Tank** | | | | **8** | 8 |
| **Man Lift** | | 8 | | | 8 |
| **Man Lift** | | 8 | | | 8 |
| **Roller** | **RX37** | 5 | | **3** | 8 |
| **Lull** | **FL40** | 8 | | | 8 |
| **Total Hours** | | 104 | 0 | 48 | **152** |

**Work Completed**

1.) Loaded 2 trucks with soil for disposal to Bayshore Soil Management. 2.) Continued to pack up supplies. 3.) Continued to move equipement and supplies to the north side of the tracks. 4.) Loaded 2 trucks with water for disposal from the frac tank. 5.) Continued to clean up stone outside of tent and load it out for disposal.6.) Crew completed to disassemble tent and began to relocate it to the north side of the tracks for phase 2. 7.) Ongoing dust control being performed due to the dry conditions. 8.) Site truck moving supplies and equipement to the north side of the track for phase 2.

**Problems / Delays**

NONE

**In-house Recommendations Given**

NONE

**Directions Given from National Grid / GEI**

NONE

**QAPP Test Performed**

NONE

**Time & Material / Out of Scope Work**

Loaded 2 trucks with water for disposal from the frac tank.

**Third Party Contact Information**

NONE

# Appendix F

## Photographic Log




Installation of construction fencing along N. Clinton Avenue.




Utility Mark-out in excavation area.







OPERABLE UNIT No. 1 PHASE IV REMEDIAL ACTION
BAY SHORE/BRIGHTWATERS FORMER MGP SITE
BAY SHORE, NEW YORK

nationalgrid

GEI Consultants

PHOTOGRAPHIC LOG

093180-1-1115

MAY 2011




Construction of Temporary Fabric Structure for Waste Handling




Establish Lined Haul Road from Excavation to Temporary Fabric Structure









Saw-Cut Excavation Limits and Excavation of Asphalt and Sub-Grade




Installation of Excavation Support System





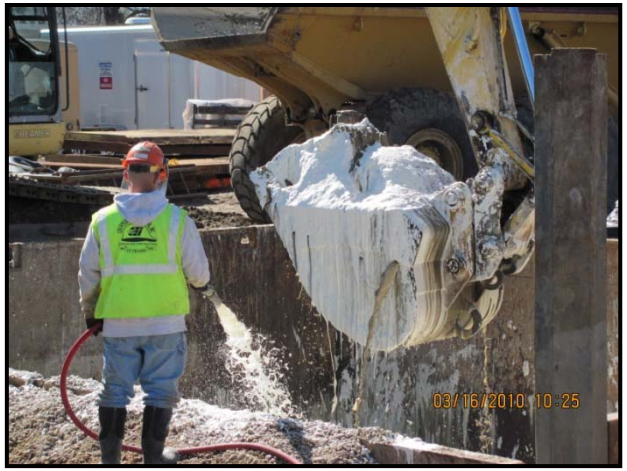



Excavation Inside of Excavation Support System Cells




Applying Odor Suppressing Foam to Excavations and Excavator During Excavation






Excavation Outside of Excavation Support System to edge of Subsurface Barrier Wall




Loading Transport Truck and Applying Odor Suppressant Foam to Material in Truck Bed for Transport to Temporary Fabric Structure









Piian Odor Neutralizer System and Odor Suppressant Foam Application During Excavation




Materials Handling and Truck Loading for Off-Site Transport Inside Temporary Fabric Structure









Backfilling Excavation Cells to
Water Table with Stone Backfill




Installation of Demarcation Barrier Above Stone
Backfill and PVC Wells in Stone Backfill









Compaction Using Plate Compactor to 2 Feet Above Waterloo Barrier Elevation and Walk Behind Compactor from 2 Feet Above Waterloo Barrier Elevation to Final Sub-Grade Elevation




Restoration of Asphalt Surface









Demobilization of Temporary Fabric Structure






Installation Trench for Oxygen Injection System Piping and Injection Wells



Trench Excavation Along Western Site Boundary of 66 North Clinton Avenue



Trench Excavation Behind Building on 60 North Clinton Avenue







HDPE Oxygen Lines in Trench
and Injection Wells



HDPE Oxygen Lines
Stick Up at System Trailer





Backfill and Compaction of
System Trenches to Site Grade



Installation of Warning Tape and
Toning Wire During Backfill



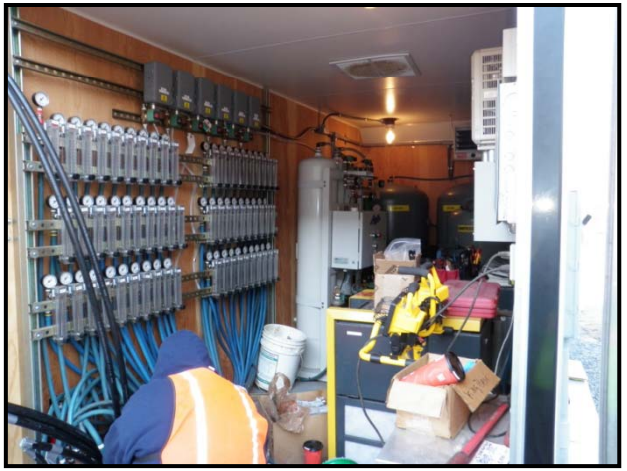


Injection Well Completion at Grade in Traffic Rated Road Boxes



System Trailer and Injection Banks





# Appendix G

## As-Built Record Drawings (electronic only)

N.Y.L.I.S.P.C.S.
NAD83

SEC. 006
BLOCK 1
LOTS 24, 26, AND 51

LANDS OF THE LONG ISLAND RAIL ROAD

371.85' (SUR.)
371.82' (DEED)

8' CHAIN LINK FENCE

N65°48'32"E

S42°56'28"E

8' CHAIN LINK FENCE

N43°12'28"W

S46°47'32"W

S42°56'28"E

8' CHAIN LINK FENCE

N43°12'28"W

S46°47'12"W 100.00' (SUR. & DEED)

S65°48'32"W 20.38' (SUR. & DEED)

N43°12'28"W 11.80' (SUR. & DEED)

N24°11'28"W 150.00' (SUR. & DEED)

50.00' (SUR. & DEED)

50.00' (SUR. & DEED)

S46°49'52"W

135.60' (SUR. & DEED)

S47°03'32"W 100.49' (SUR. & DEED)

S47°03'32"W 129.60' (SUR. & DEED)

S42°54'08"E 44.00' (SUR. & DEED)

6' CHAIN LINK FENCE

8' CHAIN LINK FENCE

CONC. BLOCK WALL CLEAR 0.30' ±

CONC. BLOCK WALL CLEAR 0.50' ±

CONC. BLOCK WALL

OU1 AREA EXCAVATION LIMITS
(SEE DETAIL)

SECTION 392
BLOCK 1
LOT 22.1
DB 12521 PG 655
78,829 Sq Ft
1.810 Ac.

SECTION 392
BLOCK 1
LOT 21
DB 12548 PG 857

SECTION 392
BLOCK 1
LOT 14

SECTION 392
BLOCK 1
LOT 15

SECTION 392
BLOCK 1
LOT 17
DB 12313 PG 385

SECTION 392
BLOCK 1
LOT 18
DB 12364 PG 645

SECTION 392
BLOCK 1
LOT 19
DB 12538 PG 395

N O R T H C L I N T O N A V E N U E
(VARIABLE WIDTH R.O.W. PER TAX MAP)

U N I O N A V E N U E
(VARIABLE WIDTH R.O.W. PER TAX MAP)

C O M M U N I T Y R D.
(VARIABLE WIDTH R.O.W. PER TAX MAP)

ONE STORY MASONRY MAINTENANCE BUILDING

FRAME GARAGE

FRAME DWELLING

STOCK PILE

CONC. PAD

CONTAINER

GRAVEL-DIRT

GRAVEL-GRASS

GRAVEL-STONE

ASPHALT

CONC.

GRASS

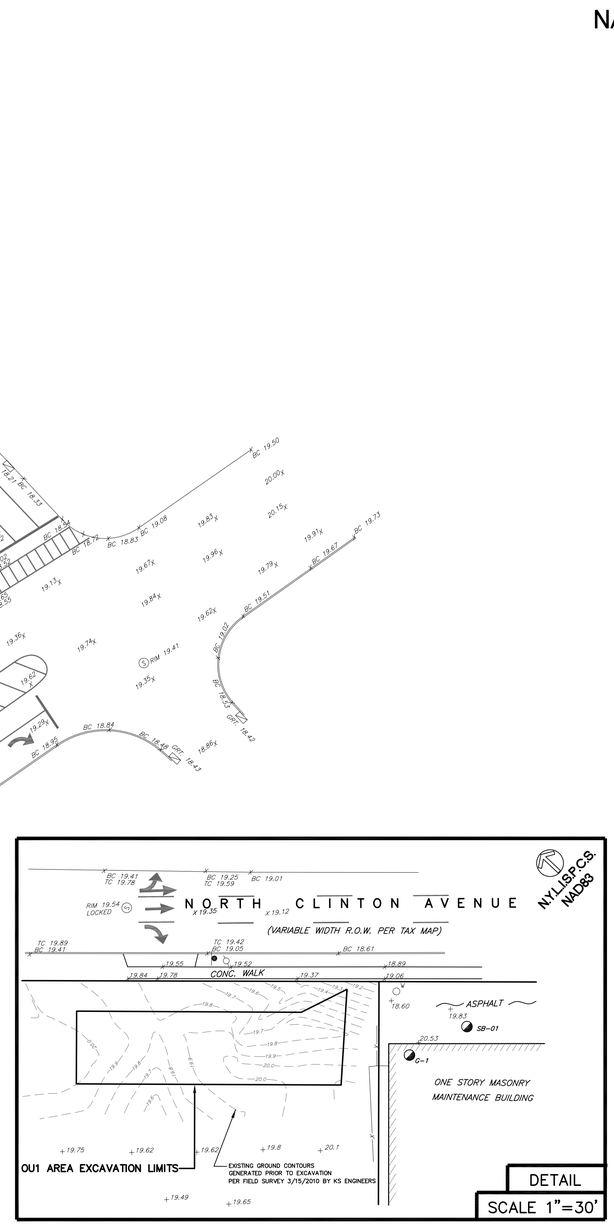
CONC. WALK

## LEGEND:

- BOLLARD
- CATCH BASIN (RECT.)
- CATCH BASIN (ROUND)
- FIRE HYDRANT
- LIGHT POLE
- METER WATER
- MANHOLE DRAINAGE
- MANHOLE ELECTRICAL
- MANHOLE SEWER
- MANHOLE TELEPHONE
- MANHOLE UNKNOWN
- SING W/1 BOARD
- TREE DECIDIOUS
- UTILITY POLE
- VALVE GAS
- VALVE UNKNOWN
- VALVE WATER
- SOIL BORING
- MONITORING WELL
- VIBRATION MONITOR
- RAIL ROAD GATE

NOTES:

1. VERTICAL DATUM NGVD 88 AND HORIZONTAL DATUM NEW YORK LONG ISLAND STATE PLANE COORDINATE SYSTEM (NAD 83) ESTABLISHED BY GLOBAL POSITIONING SYSTEM METHODOLOGY
2. UNDERGROUND UTILITY INFORMATION BASED ON ABOVE GROUND FIELD OBSERVATIONS, IF SHOWN.
3. R.O.W. AND BASELINE OF THE LONG ISLAND RAILROAD ESTABLISHED PER A CERTAIN MAP ENTITLED "STATION MAP-LANDS, THE LONG ISLAND RAILROAD COMPANY OPERATED BY THE LONG ISLAND RAILROAD COMPANY, MONTAUK DIVISION, STATION 2104+56.57 TO STATION 2154+65.772", DATED JUNE 30, 1916, FOUND IN THE OFFICE OF THE VALUATION ENGINEER, JAMAICA, NEW YORK, SHEETS V1/65 & V1/66.
4. MAP REFERENCE:
   A CERTAIN MAP ENTITLED "LAWRANCE FARM CORPORATION, SECTION ONE, BAY SHORE, SUFFOLK CO., NY" PREPARED BY EUGENE R. SMITH, C.E., ISLIP, NY DATED MARCH-1923 AND FILED ON APRIL 28, 1923 AS FILE No. 776





**KSE**
**KS ENGINEERS, P.C.**
Engineers • Surveyors • Construction Managers
24 Commerce Street, Newark, N.J. 07102
Phone: (973) 623-2999, Fax: (973) 623-2988

ROBERT A. RYAN
PROFESSIONAL LAND SURVEYOR
N.Y. LICENSE NO. 49728


| Rev. No. | Drawn by | Chk by | Description | Date |
|---|---|---|---|---|

project:
# BOUNDARY AND TOPOGRAPHIC SURVEY

Metropolitan Transportation Authority
MTA
THE LONG ISLAND RAIL ROAD
Office of the Chief Engineer

drawing title:
## SECTION 392, BLOCK 1, LOT 22.1
## SUFFOLK COUNTY, NEW YORK

P.E.
designed by:
drawn by:
drawing no.
checked by: R.A.R.
scale: 1"=30'
sheet no: 1 OF 1
in charge:
date: 07/09/09
branch:
of:

N.Y.L.I.S.P.C.S.
NAD83

N/F LANDS OF THE LONG ISLAND RAIL ROAD

R/W

8' CHAIN LINK FENCE

CONC. WALK

NORTH CLINTON AVENUE
(VARIABLE WIDTH R.O.W. PER TAX MAP)

CONC. CURB

CONCRETE APRON

ASPHALT

CONCRETE SIDEWALK

N65°48'32"E
371.85' (SUR.)

S42°56'28"E
181.79' (SUR.)

R/W

GATE

4" PVC, 30" TALL
FOR FUTURE SAMPLING (TYP.)

FINAL GRADING AS-BUILT CONTOURS (TYP.)
SURVEYED 4/10/10
BY KS ENGINEERS

FINAL GRADING AS-BUILT SPOT ELEV. (TYP.)
SURVEYED 4/10/10
BY KS ENGINEERS

SPOT ELEAVATION
AT BOTTOM OF EXCAVATION
SURVEYED 3/18/2010 AND 3/29/2010
BY KS ENGINEERS (TYP.)

OU-1 EXCAVATION LIMITS

CONCRETE

ASPHALT

DIRT

SECTION 392
BLOCK 1
LOT 22.1

DB 12521 PG 655
78,829 Sq. Ft
1.810 Ac.

8' CHAIN LINK FENCE

S 47°33'32" W
129.60'

ONE STORY MASONRY
MAINTENANCE BUILDING

SECTION 392
BLOCK 1
LOT 21

DB 12548 PG 857

UNION AVENUE
(VARIABLE WIDTH R.O.W. PER TAX MAP)

## LEGEND:

| | |
|---|---|
| x 19.45 | FINAL GRADING AS-BUILT SPOT ELEV. SURVEYED 4/10/10 |
| --19.5-- | FINAL GRADING AS-BUILT CONTOUR SURVEYED 4/10/10 |
| x 9.80 | BOTTOM OF EXCAVATION SPOT ELEV. SURVEYED 3/18/2010 AND 3/29/2010 |

NOTES:

1. VERTICAL DATUM NGVD 88 AND HORIZONTAL DATUM NEW YORK LONG ISLAND STATE PLANE COORDINATE SYSTEM (NAD 83) ESTABLISHED BY GLOBAL POSITIONING SYSTEM METHODOLOGY


KSE
KS ENGINEERS, P.C.
Engineers • Surveyors • Construction Managers
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ROBERT A. RYAN
PROFESSIONAL LAND SURVEYOR
N.Y. LICENSE NO. 49728


| Rev. No. | Drawn by | Chk by | Description | Date |
|---|---|---|---|---|
| | | | | |

project:

# FINAL AS-BUILT OU-1 AREA

Metropolitan Transportation Authority — Capital Construction Department

MTA

THE LONG ISLAND RAIL ROAD — Office of the Chief Engineer

drawing title:

## SECTION 392, BLOCK 1, LOT 22.1
## SUFFOLK COUNTY, NEW YORK

P.E.

designed by:

drawn by:

drawing no:

checked by: R.A.R.

scale: 1"=30'

sheet no: 1 OF 1

in charge:

date: 07/26/10

branch:

of:

N.Y.L.I.S.P.C.S.
NAD83

SECTION 392
BLOCK 1
LOT 22.1
DB 12521 PG 655
78,829 Sq Ft
1.810 Ac.

SECTION 392
BLOCK 1
LOT 14

SECTION 392
BLOCK 1
LOT 15

SECTION 392
BLOCK 1
LOT 17
DB 12313 PG 385

SECTION 392
BLOCK 1
LOT 18
DB 12364 PG 645

SECTION 392
BLOCK 1
LOT 19
DB 12538 PG 395

SECTION 392
BLOCK 1
LOT 21
DB 12548 PG 857

N65°48'32"E 816.72'

S65°48'32"W 8' CHAIN LINK FENCE W/ WIRE

S65°48'32"W 20.38' (SUR. & DEED)

N43°12'28"W 11.80' (SUR. & DEED)

N24°11'28"W 150.00' (SUR. & DEED)

N43°12'28"W 100.00' (SUR. & DEED)

S46°47'12"E 100.00' (SUR. & DEED)

S46°49'52"W 100.43' (SUR. & DEED)

S47°03'32"W 135.60' (SUR. & DEED)

S42°56'28"E 371.85' (SUR.) 371.82' (DEED)

S42°56'28"E 181.79' (SUR.) 181.82' (DEED)

S42°56'28"E 44.00' (SUR. & DEED)

N47°03'32"E 123.60' (SUR. & DEED)

N65°48'32"E 6' CHAIN LINK FENCE

6' STOCKADE FENCE

6' CHAIN LINK FENCE

8' CHAIN LINK FENCE

CONC. BLOCK WALL
CLEAR 0.30' ±

CONC. WALK

ASPHALT

GRAVEL

GRAVEL-DIRT

GRAVEL-STONE

GRAVEL-GRASS

CONC.

GRASS

STOCK PILE

CONC. PAD

UTILITY TRAILER

OXYGEN INJECTION TRAILER

FRAME GARAGE

FRAME DWELLING

MASONRY GARAGE

ONE STORY MASONRY MAINTENANCE BUILDING F.F. 20.68

N. CLINTON AVENUE
(VARIABLE WIDTH R.O.W. PER TAX MAP)

UNION AVENUE
(VARIABLE WIDTH R.O.W. PER TAX MAP)

COMMUNITY RD.
(VARIABLE WIDTH R.O.W. PER TAX MAP)

SIW-1
RIM 20.11
TOP PVC 19.92
GROUND 20.09

SIW-2
RIM 20.06
TOP PVC 19.30
GROUND 20.04

SIW-2
RIM 19.88
TOP PVC 19.29
GROUND 19.95

OU2MW-48 S, I, I2,D
RIM 22.01
TOP PVC 21.83
GROUND 18.59
RIM 22.02
TOP PVC 21.84
GROUND 18.61
RIM 22.02
TOP PVC 21.85
GROUND 18.26
RIM 22.01
TOP PVC 21.80
GROUND 18.57

BBMW-28S, I
RIM 16.61
TOP PVC 16.44
GROUND 16.61
RIM 16.64
TOP PVC 16.45
GROUND 16.62

OU3MW-07S
RIM 16.50
TOP PVC 16.18
GROUND 16.46

OU3MW-07I
RIM 16.50
TOP PVC 16.18
GROUND 16.47

OU3MW-0712
RIM 16.48
TOP PVC 16.06
GROUND 16.40

OU2MW-54S
RIM 18.69
TOP PVC 18.24
GROUND 18.66

OU2MW-54I
RIM 18.70
TOP PVC 18.14
GROUND 18.64

OU2MW-5412
RIM 18.05
TOP PVC 18.06
GROUND 18.59

OU2MW-5412
RIM 18.70
TOP PVC 18.35
GROUND 18.62

UB-4
RIM 18.14
TOP PVC 17.92
GROUND 18.15
RIM 18.12
TOP PVC 17.94
GROUND 18.11

UB-5
RIM 18.42
TOP PVC 18.21
GROUND 18.38
RIM 18.39
TOP PVC 18.23
GROUND 18.40

UB-6
RIM 18.86
TOP PVC 18.71
GROUND 18.74
RIM 18.79
TOP PVC 18.66
GROUND 18.79

UB-7
RIM 19.34
TOP PVC 19.17
GROUND 19.25
RIM 19.29
TOP PVC 19.16
GROUND 19.28

SPUCE PT
RIM 17.17

FOUND ROAD SPIKE 0.2 (S)

FOUND ROAD SPIKE 0.2 (E)

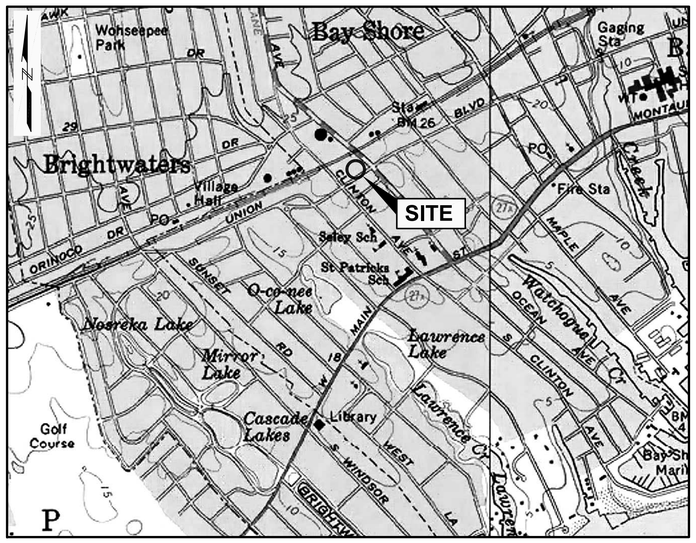
# Appendix H

## Design Drawings (electronic only)

# INTERIM REMEDIAL MEASURE
# EXCAVATION PHASE DRAWINGS

## FORMER KING BEAR/SUMMER'S LUMBER PROPERTIES
## BAY SHORE/BRIGHTWATERS FORMER MANUFACTURED GAS PLANT SITE
## BAY SHORE, NEW YORK

| REV. NO. | DATE | DESCRIPTION | DES | DR | CH | APP |
|---|---|---|---|---|---|---|
| 0 | 3/12/10 | FINAL FOR CONSTRUCTION | MW | DE | MW | DW |
| | | | | | | |
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| | | | | | | |
| | | | | | | |




**SITE LOCATION**
SCALE: 1" = 1000'

## SCHEDULE OF DRAWINGS


| | |
|---|---|
| | TITLE SHEET AND INDEX TO SHEETS |
| 1 | EXISTING CONDITIONS |
| 2 | SITE PREPARATION AND EROSION AND SEDIMENT CONTROL PLAN |
| 3 | EXTENT OF EXCAVATION |
| 4 | SITE RESTORATION PLAN |
| 5 | DETAILS |


Dignet of NEW YORK CITY & LONG ISLAND
800-272-4480 | 811

811 Know what's below. Call before you dig.

811 Determina lo que esta bajo tierra. Llama antes de excavar.

PREPARED FOR:

nationalgrid

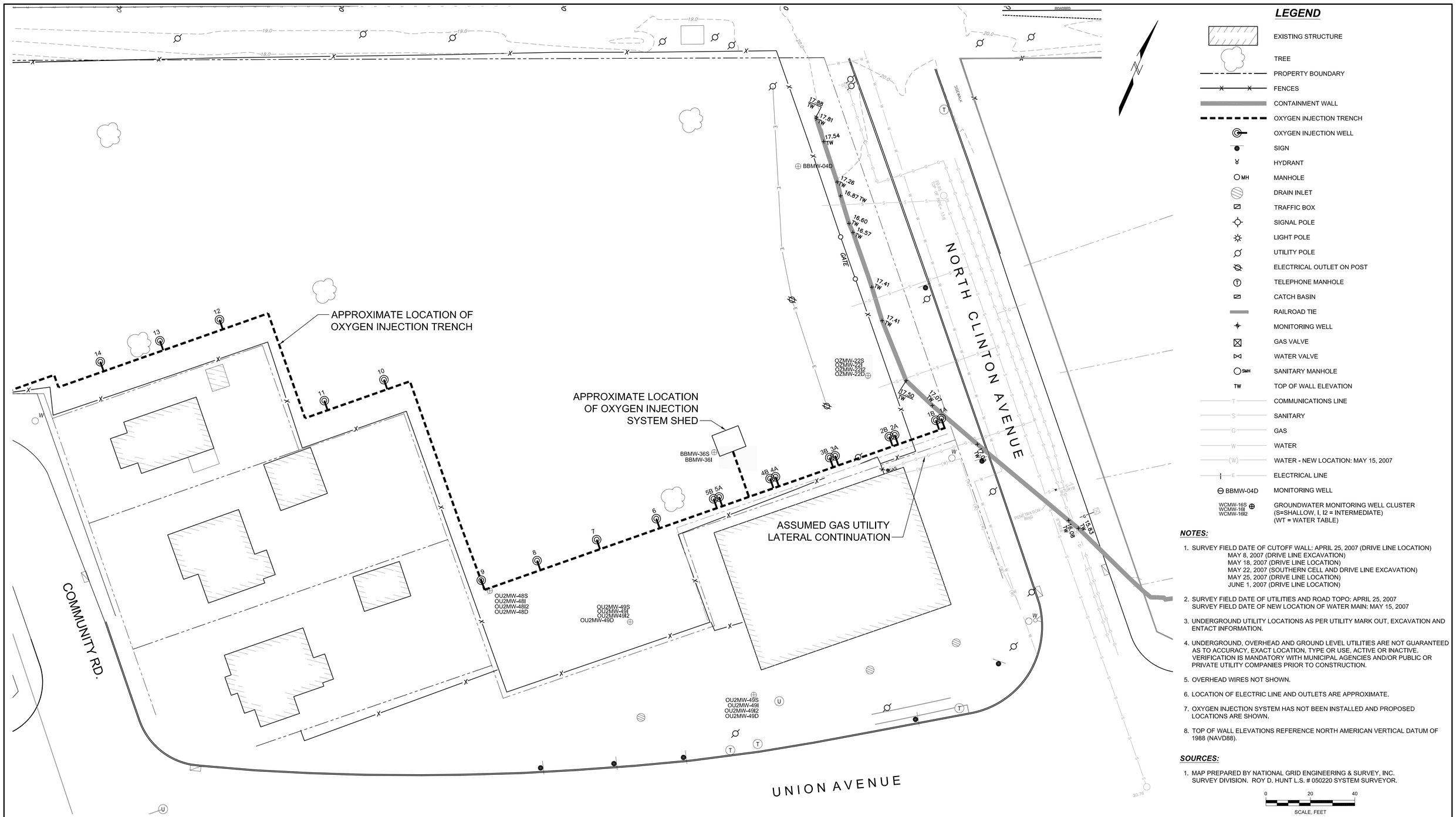
**175 EAST OLD COUNTRY ROAD**
**HICKSVILLE, NEW YORK 11801**


GEI Consultants
*110 WALT WHITMAN ROAD*
*SUITE 204*
*HUNTINGTON STATION, NY 11746*
973-509-9650, FAX 973-509-9625
WWW.GEICONSULTANTS.COM


**PROJECT NUMBER: 093180-1-1107**
**MARCH 12, 2010**

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## LEGEND

- EXISTING STRUCTURE
- TREE
- PROPERTY BOUNDARY
- FENCES
- CONTAINMENT WALL
- OXYGEN INJECTION TRENCH
- OXYGEN INJECTION WELL
- SIGN
- HYDRANT
- MH — MANHOLE
- DRAIN INLET
- TRAFFIC BOX
- SIGNAL POLE
- LIGHT POLE
- UTILITY POLE
- ELECTRICAL OUTLET ON POST
- T — TELEPHONE MANHOLE
- CATCH BASIN
- RAILROAD TIE
- MONITORING WELL
- GAS VALVE
- WATER VALVE
- SMH — SANITARY MANHOLE
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- (W) — WATER - NEW LOCATION: MAY 15, 2007
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- BBMW-04D — MONITORING WELL
- WCMW-16S, WCMW-16I, WCMW-16I2 — GROUNDWATER MONITORING WELL CLUSTER (S=SHALLOW, I, I2 = INTERMEDIATE) (WT = WATER TABLE)

### NOTES:

1. SURVEY FIELD DATE OF CUTOFF WALL: APRIL 25, 2007 (DRIVE LINE LOCATION)
   MAY 8, 2007 (DRIVE LINE EXCAVATION)
   MAY 18, 2007 (DRIVE LINE LOCATION)
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5. OVERHEAD WIRES NOT SHOWN.
6. LOCATION OF ELECTRIC LINE AND OUTLETS ARE APPROXIMATE.
7. OXYGEN INJECTION SYSTEM HAS NOT BEEN INSTALLED AND PROPOSED LOCATIONS ARE SHOWN.
8. TOP OF WALL ELEVATIONS REFERENCE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).

### SOURCES:

1. MAP PREPARED BY NATIONAL GRID ENGINEERING & SURVEY, INC. SURVEY DIVISION. ROY D. HUNT L.S. # 050220 SYSTEM SURVEYOR.

0 20 40
SCALE, FEET

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|---|---|---|---|---|---|---|
| 0 | 3/12/10 | FINAL FOR CONSTRUCTION | MW | DE | MW | DW |

DESIGNED BY: MW
DRAWN BY: DE
CHECKED BY: MW
APPROVED BY: MW
12/11/09

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BAYSHORE/BRIGHTWATERS
FORMER MANUFACTURED GAS PLANT SITE
BAY SHORE, NEW YORK

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**EXISTING CONDITIONS**

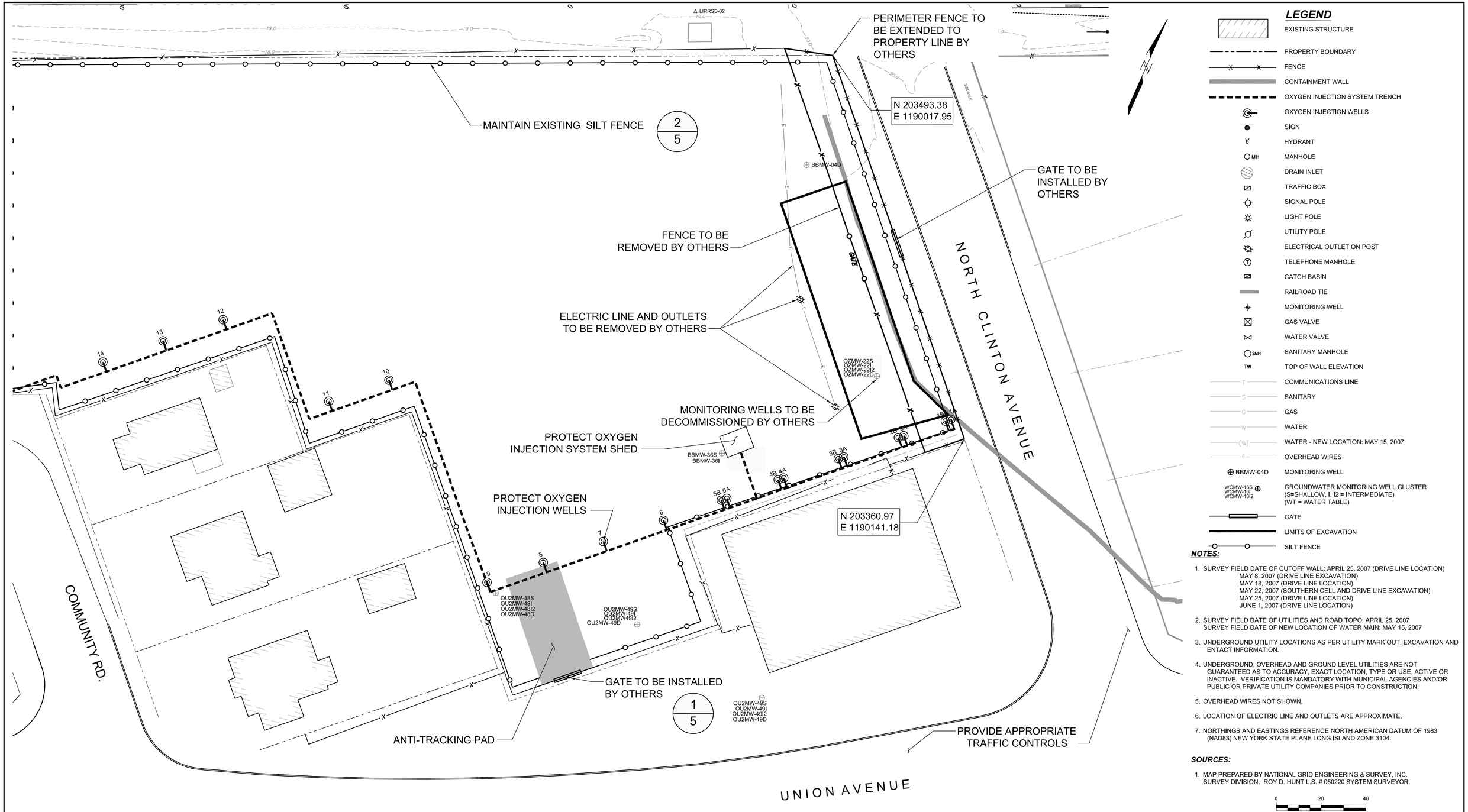
DWG NO. 1

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SHEET NO. 1 of 5

ISSUE 0

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## LEGEND

- EXISTING STRUCTURE
- PROPERTY BOUNDARY
- FENCE
- CONTAINMENT WALL
- OXYGEN INJECTION SYSTEM TRENCH
- OXYGEN INJECTION WELLS
- SIGN
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- WCMW-16S ⊕ WCMW-16I WCMW-16I2 — GROUNDWATER MONITORING WELL CLUSTER (S=SHALLOW, I, I2 = INTERMEDIATE) (WT = WATER TABLE)
- GATE
- LIMITS OF EXCAVATION
- SILT FENCE

***NOTES:***

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***SOURCES:***

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SCALE, FEET

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APPROVED BY MW
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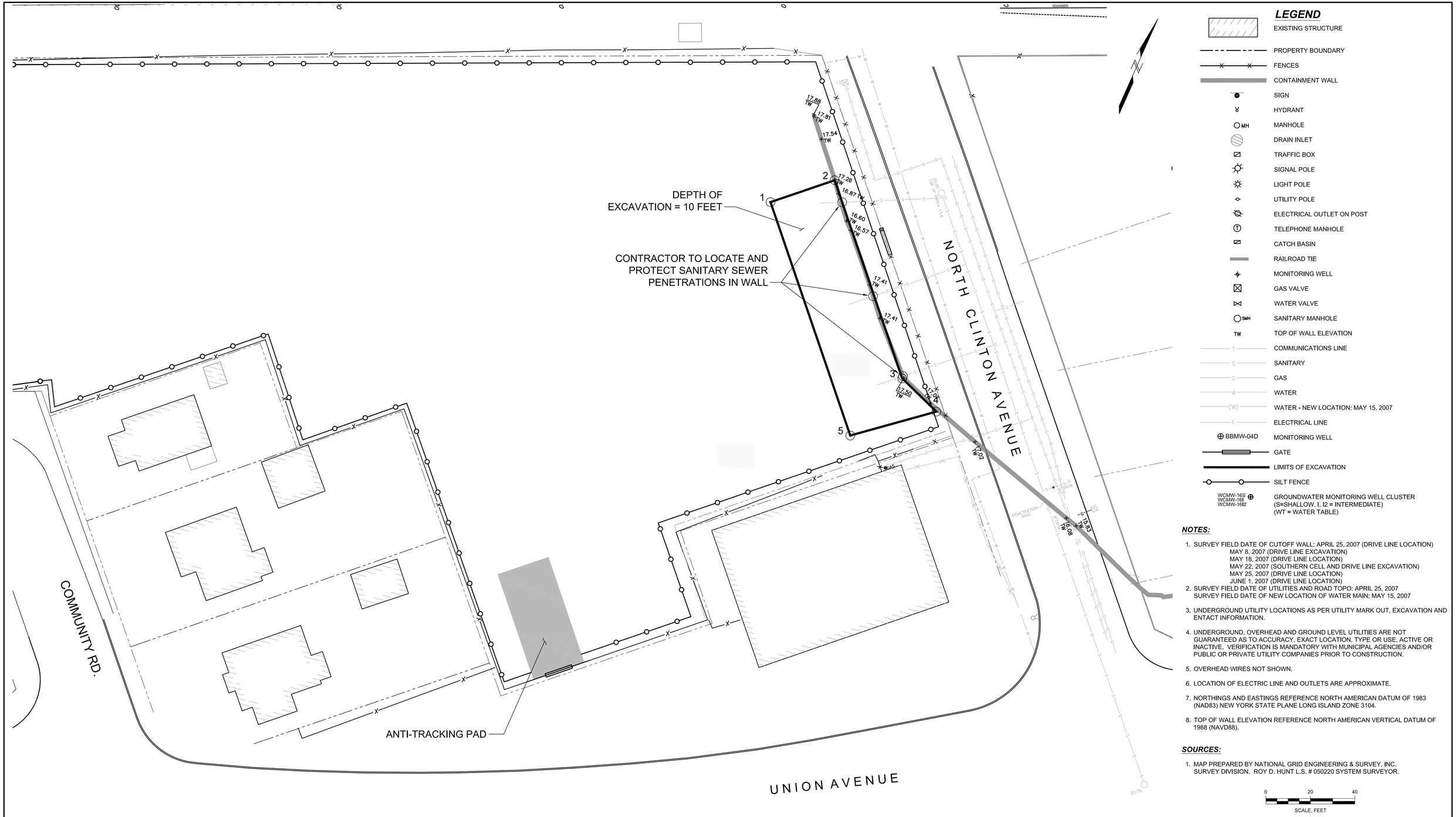
FORMER KING BEAR/SUMMER'S & LUMBER PROPERTIES
BAYSHORE/BRIGHTWATERS
FORMER MANUFACTURED GAS PLANT SITE
BAY SHORE, NEW YORK

**SITE PREPARATION AND EROSION AND SEDIMENT CONTROL PLAN**

DWG NO. 2

| GEI PROJECT | SHEET NO. | ISSUE |
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| 093180–1–1107 | 2 of 5 | 0 |

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## LEGEND

- EXISTING STRUCTURE
- PROPERTY BOUNDARY
- FENCES
- CONTAINMENT WALL
- SIGN
- HYDRANT
- MH MANHOLE
- DRAIN INLET
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**SOURCES:**

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0 20 40
SCALE, FEET

**TABLE 1 - WORK POINT SCHEDULE**

| WPID | NORTHING | EASTING |
|---|---|---|
| 1 | 203423.65 | 1190023.76 |
| 2 | 203444.40 | 1190046.12 |
| 3 | 203375.29 | 1190110.15 |
| 4 | 203367.89 | 1190130.26 |
| 5 | 203342.29 | 1190099.26 |

# FINAL FOR CONSTRUCTION

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|---|---|---|---|---|---|---|
| 0 | 3/12/10 | FINAL FOR CONSTRUCTION | MW | DE | MW | DW |

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**EXCAVATION EXTENT**

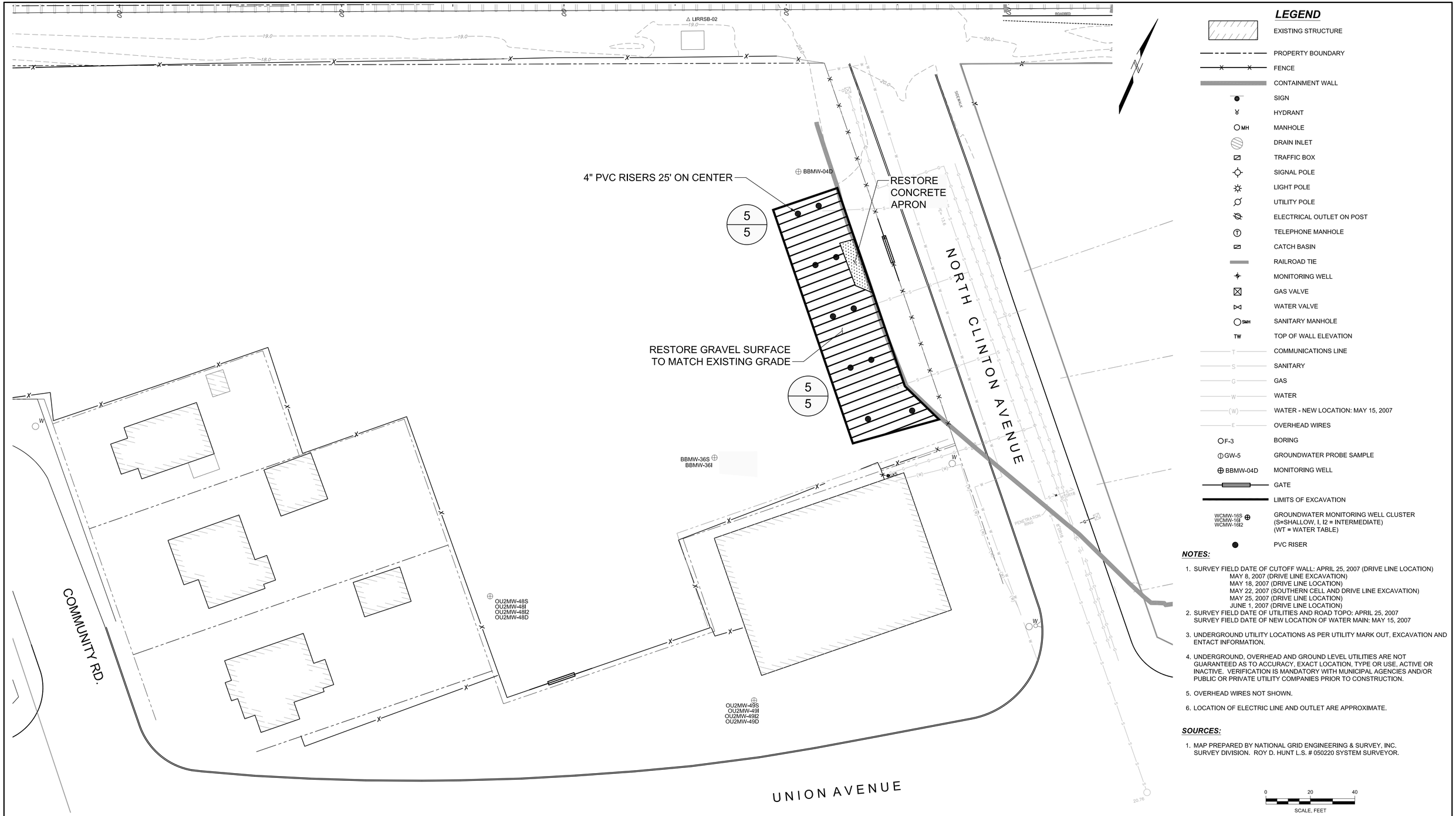
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***NOTES:***

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APPROVED BY: MW
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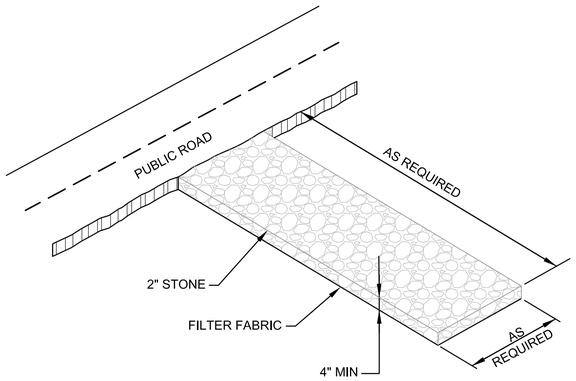
FORMER KING BEAR/SUMMER'S & LUMBER PROPERTIES
BAYSHORE/BRIGHTWATERS
FORMER MANUFACTURED GAS PLANT SITE
BAY SHORE, NEW YORK

**SITE RESTORATION PLAN**

DWG NO. 4

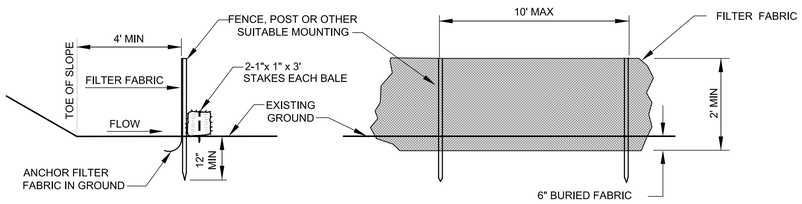
GEI PROJECT: 093180–1–1107
SHEET NO.: 4 of 5
ISSUE: 0

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## ANTI-TRACKING PAD DETAIL (1/5)

NOT TO SCALE

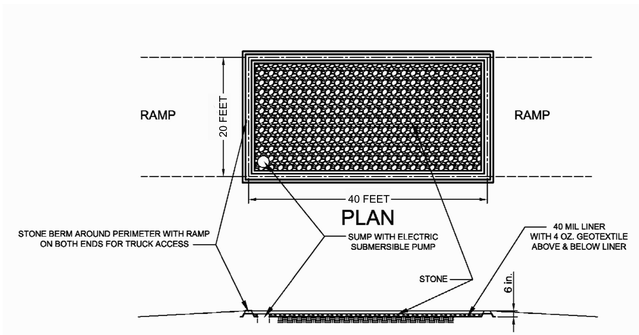



SECTION ELEVATION

NOTE:
POST SPACING AND EMBEDMENT VARIES BASED ON THE FABRIC MANUFACTURER REQUIREMENTS.

## SILT FENCE DETAIL (2/5)

NOT TO SCALE



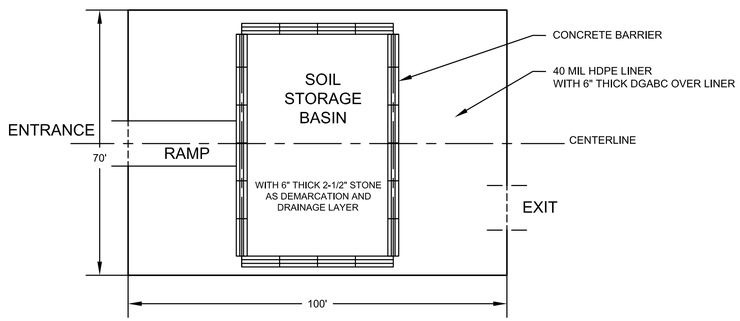

SECTION ELEVATION

## TEMPORARY DECONTAMINATION PAD DETAIL (3/5)

NOT TO SCALE

***SOURCE:***

ADAPTED FROM DRAWING TITLED *TEMPORARY SOIL STOCKPILE PLAN* BY CREAMER ENVIRONMENTAL, INC., HACKENSACK, NJ, DATED 5/18/09.

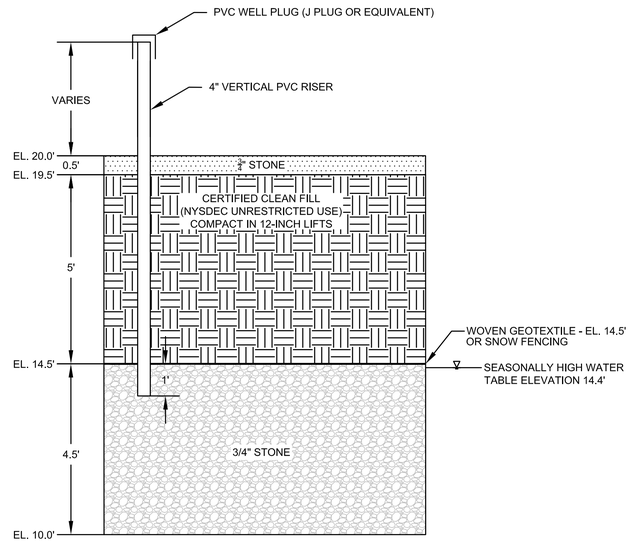



## TEMPORARY SOIL STOCKPILE PLAN DETAIL (4/5)

NOT TO SCALE

***SOURCE:***

ADAPTED FROM DRAWING TITLED *TEMPORARY SOIL STOCKPILE PLAN* BY CREAMER ENVIRONMENTAL, INC., HACKENSACK, NJ, DATED 5/18/09.




## BACKFILL AND RISER DETAIL (5/5)

NOT TO SCALE

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| NO. | DATE | DESCRIPTION | DES | DR | CH | APP |
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DRAWN BY: DE
CHECKED BY: MW
APPROVED BY: MW
12/11/09

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**DETAILS**

DWG NO. 5

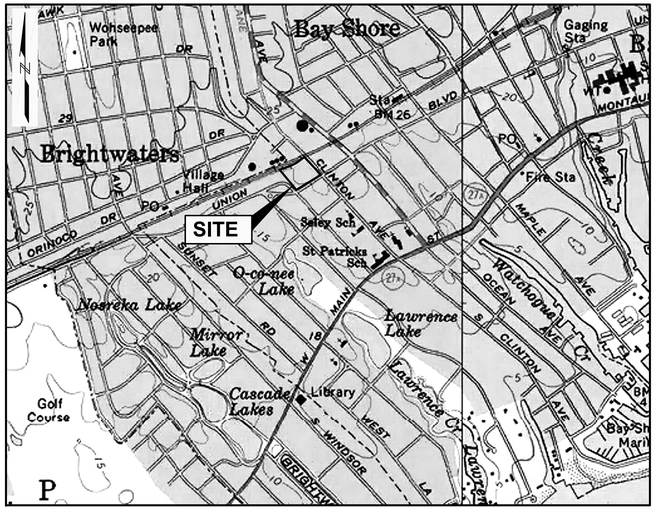
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SHEET NO. 5 of 5

ISSUE 0

# OXYGEN INJECTION SYSTEM DESIGN SCHEMATICS
# SUMMERS LUMBER/KING BEAR INJECTION LINE

## OPERABLE UNIT NO. 1
## BAY SHORE/BRIGHTWATERS FORMER MANUFACTURED GAS PLANT SITE
## BAY SHORE, NEW YORK




**SITE LOCATION**
SCALE: 1" = 1000'

## SCHEDULE OF DRAWINGS


1 EXISTING CONDITIONS

2 INDEX MAP WITH TRAFFIC ROUTE

3 PROPOSED SYSTEM LOCATION
SUMMERS LUMBER/KING BEAR LINE

4 PROPOSED SYSTEM LOCATION
OU-3 UNION BOULEVARD LINE

5 INJECTION POINT LAYOUT AND SCHEMATIC
FOR SUMMERS LUMBER/KING BEAR LINE

6 INJECTION POINT LAYOUT AND SCHEMATIC
FOR OU-3 UNION BOULEVARD LINE

7 PROPOSED MONITORING LOCATIONS

8 TRENCH AND INJECTION POINT DETAILS


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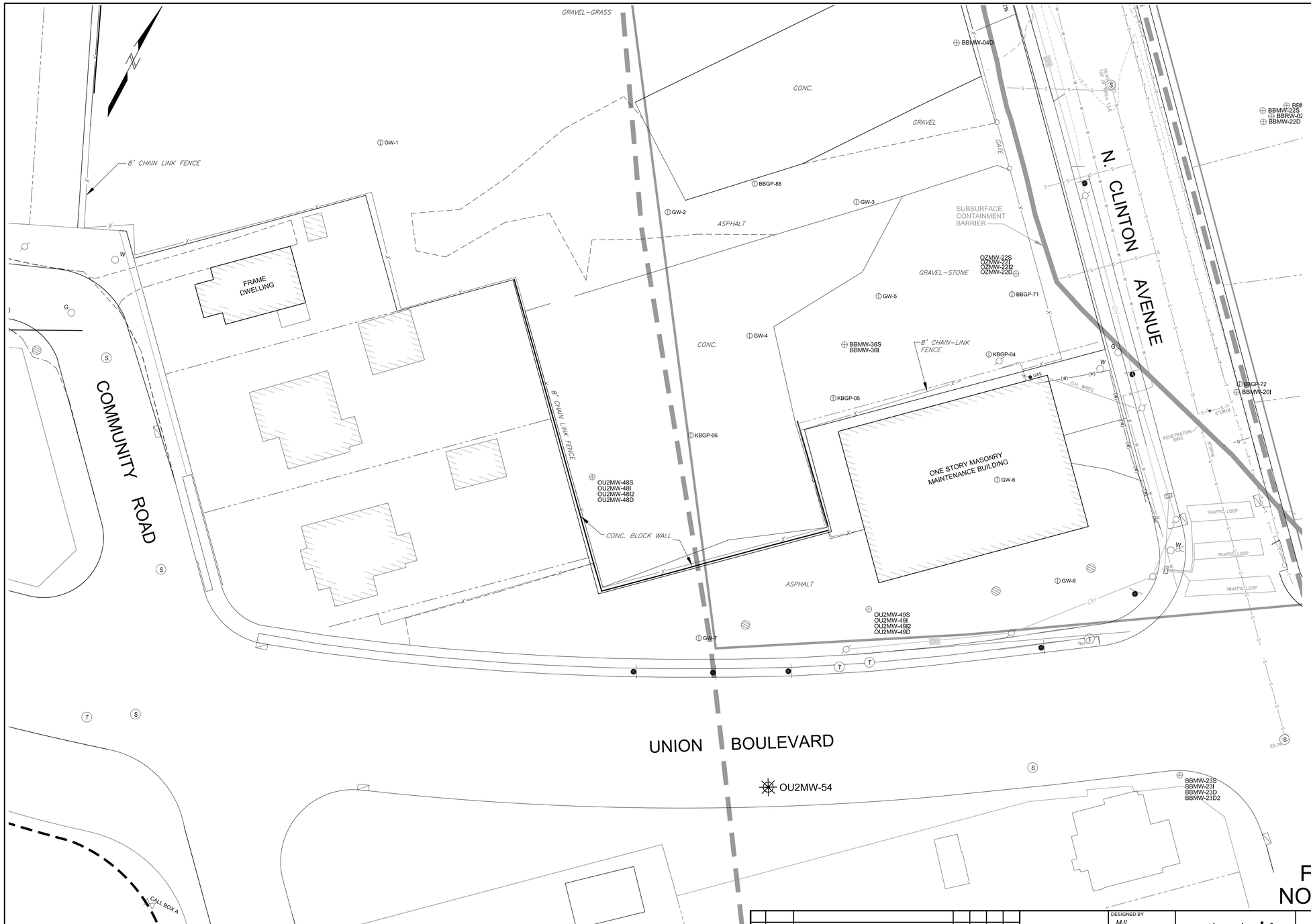

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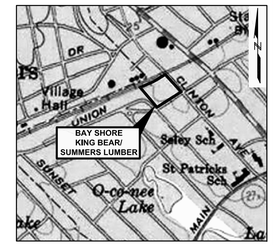
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**PROJECT NUMBER: 093180-1-1109**

**NOVEMBER 2009**

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**SITE LOCATION**
SCALE: 1" = 1000'

## LEGEND

| | |
|---|---|
| ⊕ OU2MW-48S<br>OU2MW-48I<br>OU2MW-48I2<br>OU2MW-48D | EXISTING MONITORING WELL CLUSTER LOCATION<br>S=SHALLOW<br>I=INTERMEDIATE<br>I2= INTERMEDIATE TWO<br>D=DEEP |
| ⓘ GW-6 | GROUNDWATER PROBE LOCATION |
| | CATCH BASIN |
| | INLET |
| WM | WATER METER |
| WV | WATER VALVE |
| S | SANITARY MANHOLE |
| | LIGHT |
| | UTILITY POLE/GUY POLE |
| | GUY WIRE |
| GV | GAS VALVE |
| | CURB |
| X | FENCE |
| D | STORM DRAIN |
| W | WATER MAIN |
| S | SANITARY SEWER |
| G | UNDERGROUND GAS |
| E | UNDERGROUND ELECTRIC |
| T | UNDERGROUND TELEPHONE |
| OH | OVERHEAD WIRES |
| CTV | UNDERGROUND CABLE TELEVISION |
| | OU-2 EXTENT FROM 2004 RI BASED ON >100 ug/L TOTAL BTEX OR >100 ug/L TOTAL PAHs DETECTED IN GROUNDWATER |

0 20 40
SCALE, FEET

**SOURCES:**

1. MAP TITLED "BAY SHORE/BRIGHTWATERS, FORMER MGP SITE FINAL REMEDIAL INVESTIGATION, BAY SHORE, NEW YORK, OFF-SITE SAMPLE LOCATION MAP" DATED: SEPT. 2002 BY DVIRKA AND BARTILUCCI.
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3. DRAWING C-1, OFF-SITE SAMPLE LOCATION MAP, BAY SHORE/BRIGHTWATERS FINAL REMEDIAL INVESTIGATION, SCALE: 1"=200', DATED OCTOBER 15, 2003, PREPARED BY VANASSE HANGEN BRUSTLIN, INC., MIDDLETOWN, CONNECTICUT.
4. PROPERTY BOUNDARY LOCATIONS WERE DETERMINED BY OTHERS USING AERIAL PHOTOGRAPHS AND TAX MAPS. PROPERTY BOUNDARIES ARE APPROXIMATE AND MONITORING WELLS LOCATED NEAR OR AT PROPERTY BOUNDARIES DEPICTED ON THE MAP ARE WITHIN THE ROAD RIGHT-OF-WAY.
5. WELL SURVEY CONDUCTED IN NOVEMBER 2007 BY NELSON & POPE, 572 WALT WHITMAN ROAD, MELVILLE, N.Y.

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DESIGNED BY: MJL
DRAWN BY: SCG
CHECKED BY: MJO
APPROVED BY:
DATE: 11/17/09

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OXYGEN INJECTION SYSTEM DESIGN SCHEMATICS
SUMMERS LUMBER/KING BEAR - OPERABLE UNIT NO. 1
BAYSHORE/BRIGHTWATERS FORMER MANUFACTURED GAS PLANT SITE
BAY SHORE, NEW YORK

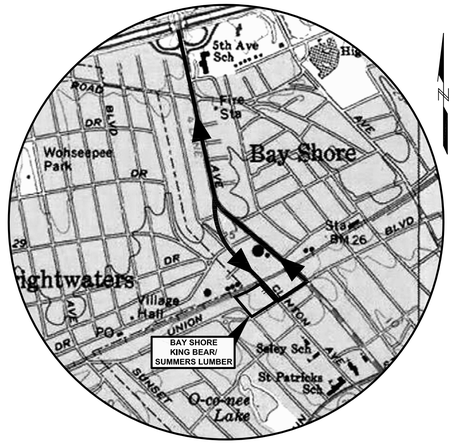
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**EXISTING CONDITIONS**

FIG. NO. 1

GEI PROJECT: 093180-1-1109
SHEET NO.: 1 of 8
ISSUE: A




## TRUCK ROUTE AND INDEX MAP

SCALE: 1"=600'

0 600 1200

SCALE, FEET

### LEGEND

- ⊕ OU2MW-48S / OU2MW-48I / OU2MW-48I2 / OU2MW-48D — EXISTING MONITORING WELL CLUSTER LOCATION; S=SHALLOW, I=INTERMEDIATE, I2= INTERMEDIATE TWO, D=DEEP
- GW-6 — GROUNDWATER PROBE LOCATION
- CATCH BASIN
- INLET
- WM — WATER METER
- WV — WATER VALVE
- SANITARY MANHOLE
- LIGHT
- UTILITY POLE/GUY POLE
- GUY WIRE
- GV — GAS VALVE
- CURB
- X — FENCE
- D — STORM DRAIN
- W — WATER MAIN
- S — SANITARY SEWER
- G — UNDERGROUND GAS
- E — UNDERGROUND ELECTRIC
- T — UNDERGROUND TELEPHONE
- OH — OVERHEAD WIRES
- CTV — UNDERGROUND CABLE TELEVISION
- DIRECTION OF TRAFFIC FLOW
- OU-2 EXTENT FROM 2004 RI BASED ON >100 ug/L TOTAL BTEX OR >100 ug/L TOTAL PAHs DETECTED IN GROUNDWATER
- OU-3 EXTENT FROM 2004 RI BASED ON >100 ug/L TOTAL BTEX OR >100 ug/L TOTAL PAHs DETECTED IN GROUNDWATER

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| | | | | | | |

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DRAWN BY: SCG
CHECKED BY: MJO
APPROVED BY:
DATE: 11/17/09

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OXYGEN INJECTION SYSTEM DESIGN SCHEMATICS
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BAY SHORE, NEW YORK

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**INDEX MAP WITH TRAFFIC ROUTE**

FIG. NO. 2

GEI PROJECT: 093180-1-1109
SHEET NO.: 2 of 8
ISSUE: A

**MATCH LINE** *(SEE SHEET 4)*

COMMUNITY ROAD

N. CLINTON AVENUE

UNION BOULEVARD

GRAVEL – GRASS

CONC.

GRAVEL

ASPHALT

GRAVEL – STONE

CONC.

8' CHAIN LINK FENCE

8' CHAIN – LINK FENCE

CONC. BLOCK WALL

GATE

FRAME DWELLING

ONE STORY MASONRY MAINTENANCE BUILDING

SUBSURFACE CONTAINMENT BARRIER

PROPOSED LOCATION OF KING BEAR OXYGEN INJECTION LINE

PROPOSED TREATMENT SHED LOCATION

GW-1 GW-2 GW-3 GW-4 GW-5 GW-6 GW-7 GW-8

BBGP-88 BBGP-71 BBGP-72

KBGP-04 KBSG-01 KBSG-02 KBSG-03

BBMW-04D BBMW-22S BBMW-22I BBMW-22D BBMW-36S BBMW-36I BBMW-20I

OZMW-22S OZMW-22I OZMW-22I2 OZMW-22D

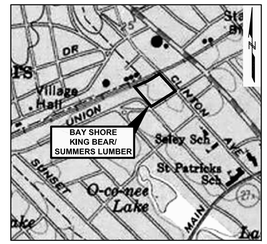
OU2MW-48S OU2MW-48I OU2MW-48I2 OU2MW-48D

OU2MW-49S OU2MW-49I OU2MW-49I2 OU2MW-49D

OU2MW-54

BBMW-23S BBMW-23I BBMW-23D BBMW-23D2

1B 1A 2B 2A 3B 3A 4B 4A 5B 5A 6 7 8 9 10 11 12 13 14




**SITE LOCATION**
SCALE: 1" = 1000'

## LEGEND

| | |
|---|---|
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| ◌ KBSG-01 | PERMANENT SOIL VAPOR SAMPLING LOCATION |
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| | INJECTION POINT LOCATION |
| | CATCH BASIN |
| | INLET |
| WM | WATER METER |
| WV | WATER VALVE |
| S | SANITARY MANHOLE |
| | LIGHT |
| | UTILITY POLE/GUY POLE |
| | GUY WIRE |
| GV | GAS VALVE |
| | CURB |
| X | FENCE |
| D | STORM DRAIN |
| W | WATER MAIN |
| S | SANITARY SEWER |
| G | UNDERGROUND GAS |
| E | UNDERGROUND ELECTRIC |
| T | UNDERGROUND TELEPHONE |
| OH | OVERHEAD WIRES |
| CTV | UNDERGROUND CABLE TELEVISION |
| OU2MW-54 ✳ | PROPOSED MONITORING WELL LOCATION |

0 30 60
SCALE, FEET

**SOURCES:**

1. MAP TITLED "BAY SHORE/BRIGHTWATERS, FORMER MGP SITE FINAL REMEDIAL INVESTIGATION, BAY SHORE, NEW YORK, OFF-SITE SAMPLE LOCATION MAP" DATED: SEPT. 2002 BY DVIRKA AND BARTILUCCI.
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DRAWN BY *NELSON & POPE, ENGINEERS & SURVEYORS*
CHECKED BY
APPROVED BY
DATE *11/17/09*

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OXYGEN INJECTION SYSTEM DESIGN SCHEMATICS
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BAY SHORE, NEW YORK

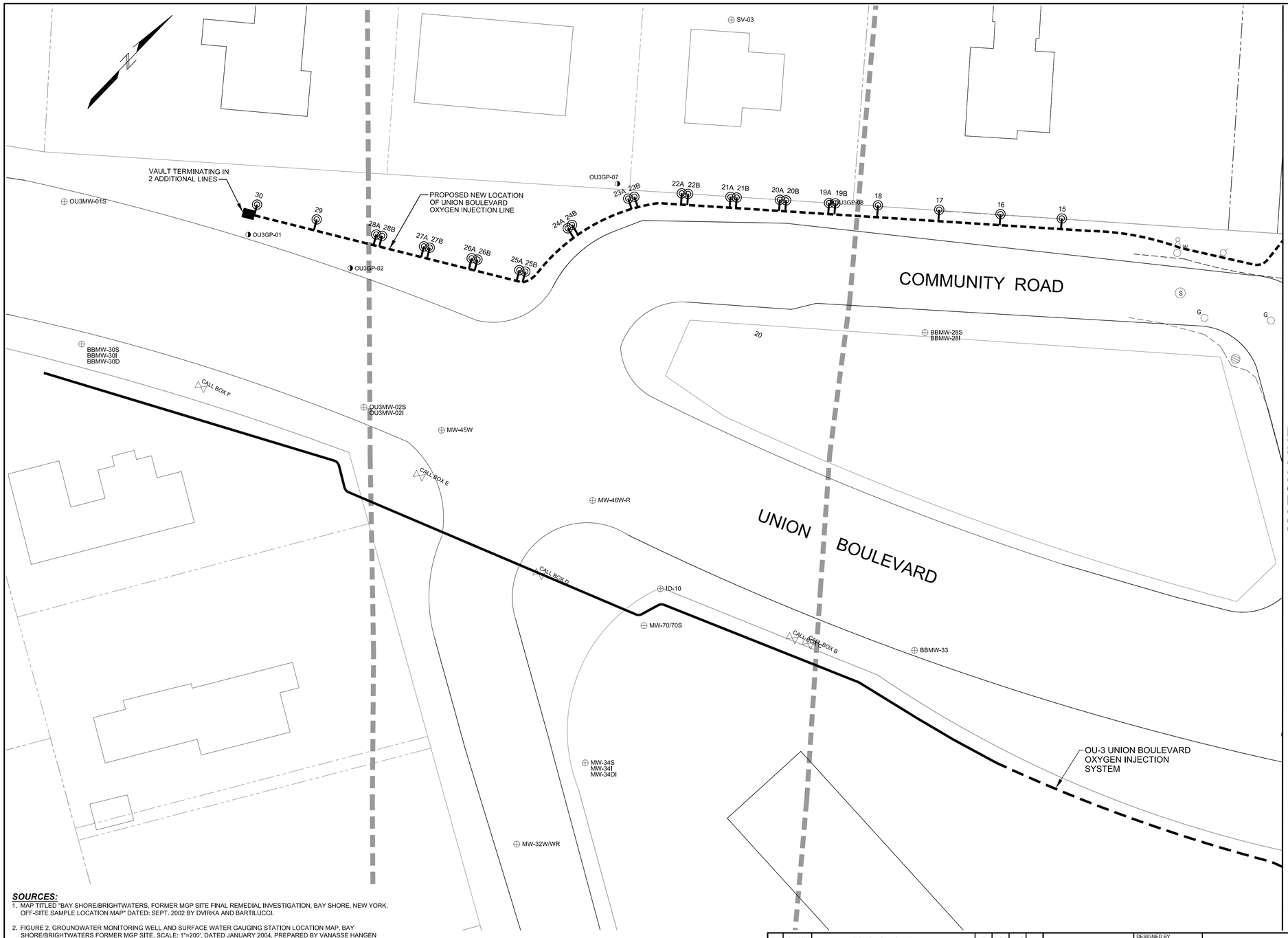
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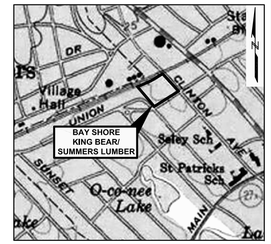
**PROPOSED SYSTEM LOCATION**
**SUMMERS LUMBER/KING BEAR LINE**

FIG. NO. 3

GEI PROJECT 093180-1-1109
SHEET NO. 3 of 8
ISSUE A

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***SITE LOCATION***

SCALE: 1" = 1000'

## *LEGEND*

| | |
|---|---|
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| | INJECTION POINT LOCATION |
| | CATCH BASIN |
| | INLET |
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| WV | WATER VALVE |
| S | SANITARY MANHOLE |
| | LIGHT |
| | UTILITY POLE/GUY POLE |
| | GUY WIRE |
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| X | FENCE |
| D | STORM DRAIN |
| W | WATER MAIN |
| S | SANITARY SEWER |
| G | UNDERGROUND GAS |
| E | UNDERGROUND ELECTRIC |
| T | UNDERGROUND TELEPHONE |
| OH | OVERHEAD WIRES |
| CTV | UNDERGROUND CABLE TELEVISION |

0 30 60

SCALE, FEET

***MATCH LINE (SEE SHEET 3)***

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| 1 | 12/02/09 | Injection location change | JP | SCG | MJO | |

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DRAWN BY *SCG*
CHECKED BY *MJO*
APPROVED BY –
DATE *11/17/09*

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OXYGEN INJECTION SYSTEM DESIGN SCHEMATICS
SUMMERS LUMBER/KING BEAR - OPERABLE UNIT NO. 1
BAYSHORE/BRIGHTWATERS FORMER MANUFACTURED GAS PLANT SITE
BAY SHORE, NEW YORK

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**PROPOSED SYSTEM LOCATION**
**UNION BOULEVARD LINE**

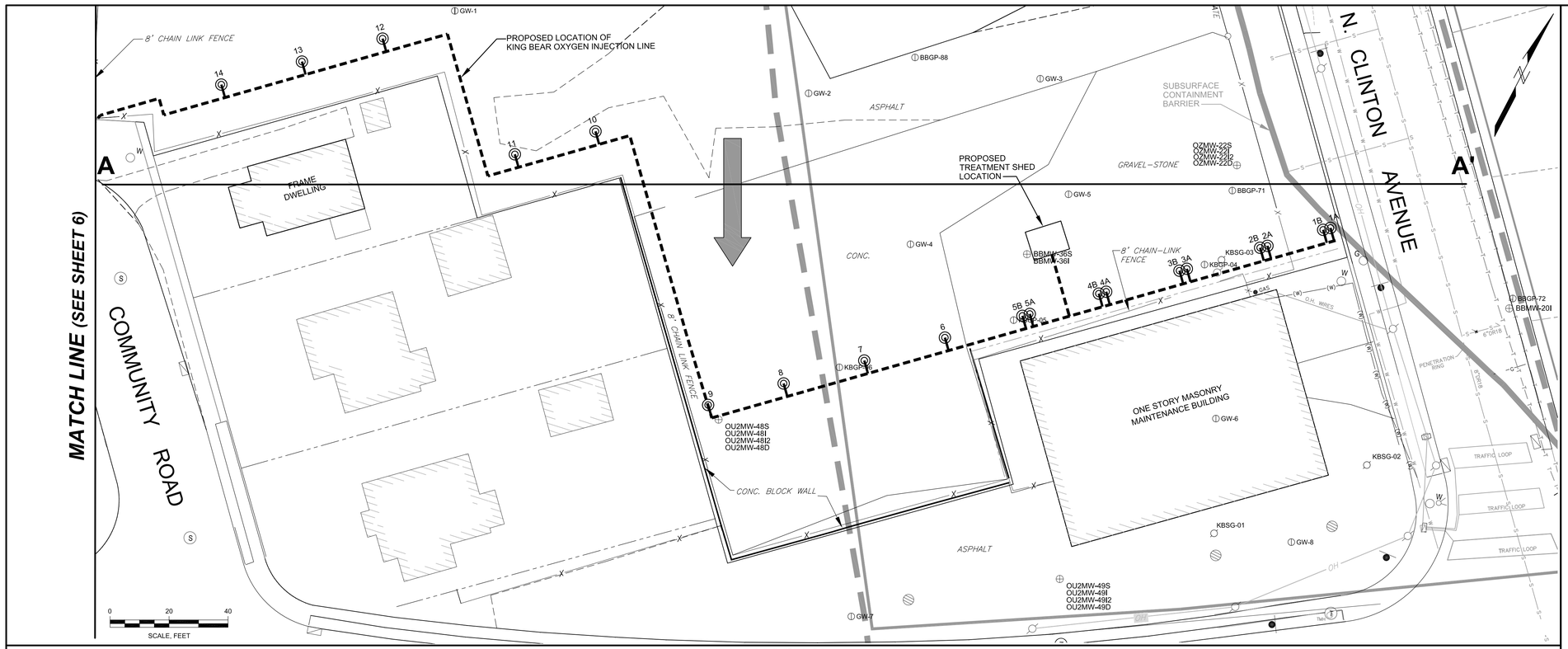
FIG. NO. 4

GEI PROJECT 093180-1-1109

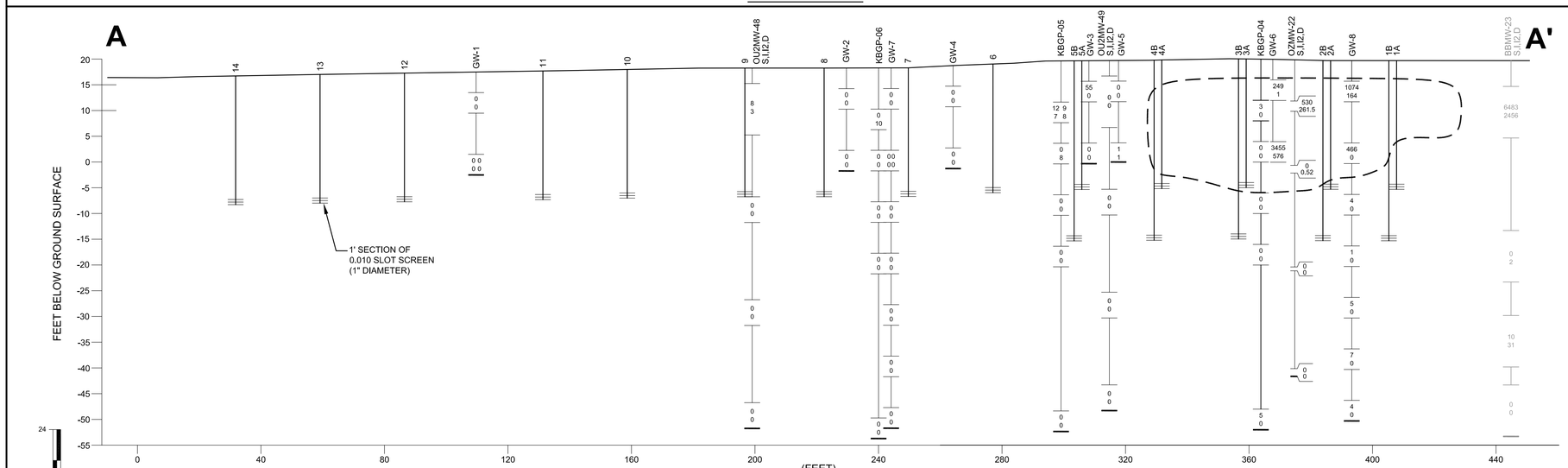
SHEET NO. 4 of 8

ISSUE A

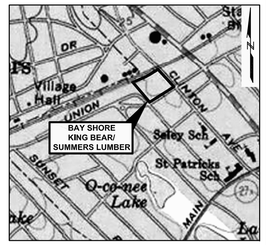
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## PLAN VIEW




## CROSS-SECTION VIEW




**SITE LOCATION**
SCALE: 1" = 1000'

## LEGEND

- GROUNDWATER PROBE LOCATION
- KBSG-01 — PERMANENT SOIL VAPOR SAMPLING LOCATION
- OU2MW-48S / OU2MW-48I / OU2MW-48I2 / OU2MW-48D — EXISTING MONITORING WELL CLUSTER LOCATION; S=SHALLOW, I=INTERMEDIATE, I2= INTERMEDIATE TWO, D=DEEP
- GW-5 — EXISTING OR PROPOSED MONITORING WELL OR MONITORING POINT ID
- SAMPLE INTERVAL — EXISTING OR PROPOSED MONITORING WELL OR MONITORING POINT LOCATION
- 1.5 — TOTAL BTEX ug/L
- 1.5 — TOTAL PAH ug/L
- END OF BORING/WELL
- TOTAL BTEX AND PAHs > 100 ug/L
- BTEX — BENZENE, TOLUENE, ETHYLBENZENE AND XYLENE
- PAHs — POLYCYCLIC AROMATIC HYDROCARBONS
- ug/L — MICROGRAMS PER LITER
- 14 — INJECTION POINT ID
- INJECTION POINT LOCATION
- 0.010 SLOT SCREEN (1" DIAMETER)
- CATCH BASIN
- INLET
- WM — WATER METER
- WV — WATER VALVE
- SANITARY MANHOLE
- LIGHT
- UTILITY POLE/GUY POLE
- GUY WIRE
- GV — GAS VALVE
- CURB
- FENCE
- D — STORM DRAIN
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**NOTES:**

1. GROUNDWATER PROBE DATA COLLECTED QUARTER 4, 2007 AND QUARTER 1, 2008 BY GEI CONSULTANTS, INC.
2. MONITORING WELL DATA COLLECTED QUARTER 2, 2008 BY GEI CONSULTANTS, INC.
3. BBMW-23 CLUSTER IS DOWNGRADIENT OF PROPOSED TREATMENT LINE AND IS SHOWN FOR ILLUSTRATION PURPOSES ONLY.

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DRAWN BY: SCG
CHECKED BY: MJO
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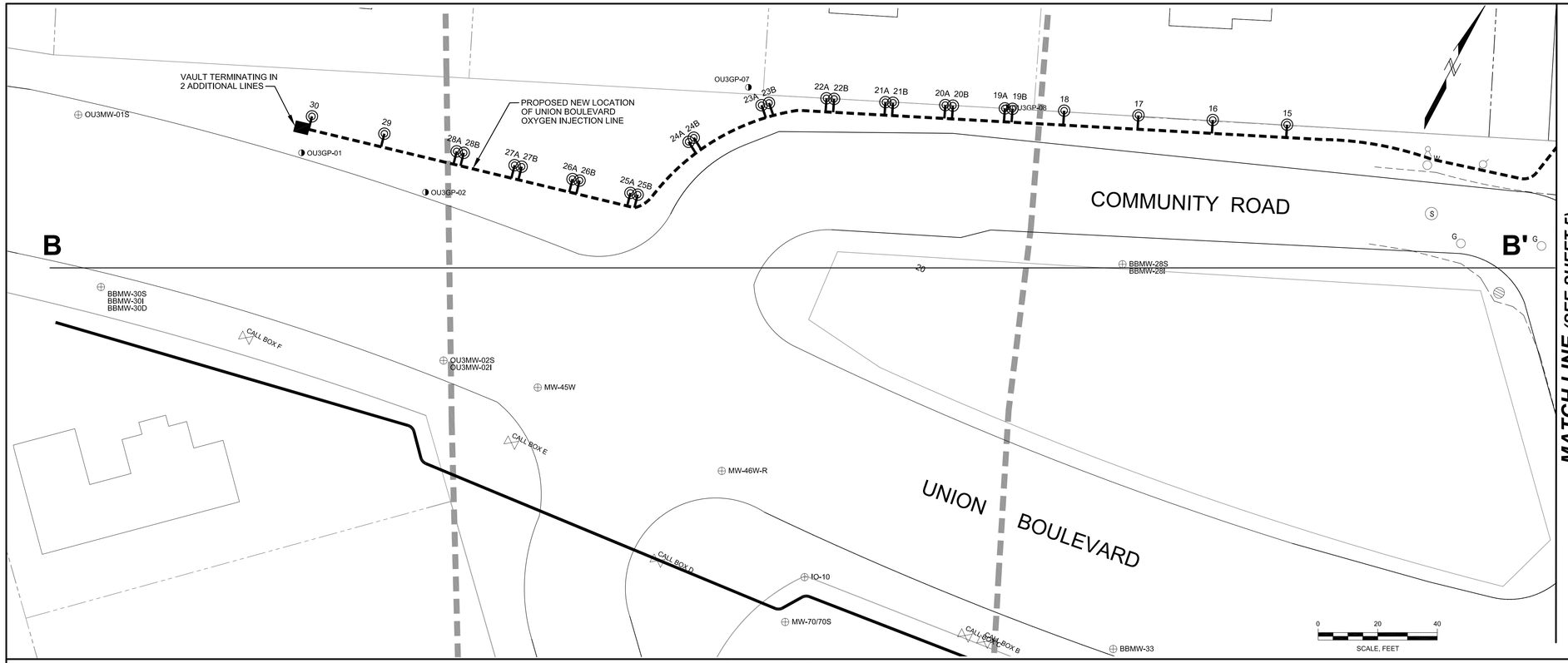
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**INJECTION POINT LAYOUT AND SCHEMATIC FOR SUMMERS LUMBER/KING BEAR LINE**

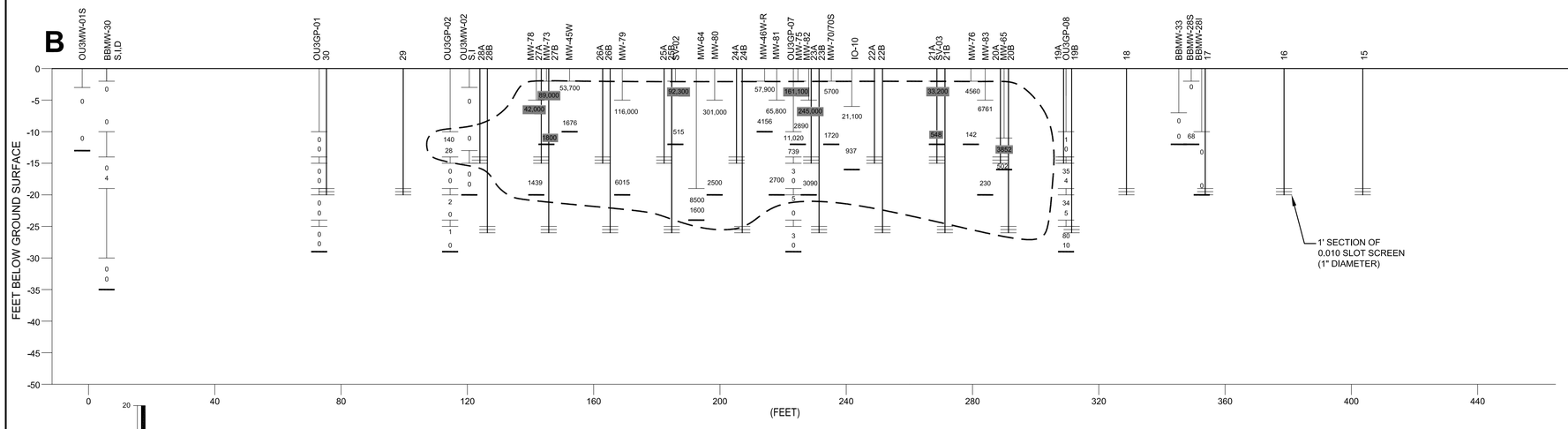
FIG. NO. 5

GEI PROJECT: 093180-1-1109
SHEET NO.: 5 of 8
ISSUE: A

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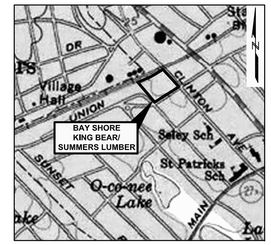



## PLAN VIEW




## CROSS-SECTION VIEW

*MATCH LINE (SEE SHEET 5)*




***SITE LOCATION***
SCALE: 1" = 1000'

### *LEGEND*

- GROUNDWATER PROBE LOCATION
- KBSG-01 — PERMANENT SOIL VAPOR SAMPLING LOCATION
- OU2MW-48S — EXISTING MONITORING WELL CLUSTER LOCATION
  - OU2MW-48S — S=SHALLOW
  - OU2MW-48I — I=INTERMEDIATE
  - OU2MW-48I2 — I2= INTERMEDIATE TWO
  - OU2MW-48D — D=DEEP
- WM — WATER METER
- WV — WATER VALVE
- S — SANITARY MANHOLE
- UTILITY POLE/GUY POLE
- GW-5 — EXISTING OR PROPOSED MONITORING WELL OR MONITORING POINT ID
- EXISTING OR PROPOSED MONITORING WELL OR MONITORING POINT LOCATION
- SAMPLE INTERVAL — 1.5 TOTAL BTEX ug/L; 1.5 TOTAL PAH ug/L
- WATER LEVEL
- END OF BORING/WELL
- TOTAL BTEX AND PAHs ≤ 100 ug/L
- BTEX — BENZENE, TOLUENE, ETHYLBENZENE AND XYLENE
- PAHs — POLYCYCLIC AROMATIC HYDROCARBONS
- ug/L — MICROGRAMS PER LITER
- 14 — INJECTION POINT ID
- INJECTION POINT LOCATION
- 0.010 SLOT SCREEN (1" DIAMETER)

***NOTES:***

1. GROUNDWATER PROBE DATA COLLECTED QUARTER 4, 2007 AND QUARTER 1, 2008 BY GEI CONSULTANTS, INC.
2. MONITORING WELL DATA COLLECTED QUARTER 2, 2008 BY GEI CONSULTANTS, INC.

**DRAFT**
**FOR AGENCY REVIEW**
**NOT FOR CONSTRUCTION**

| NO. | DATE | DESCRIPTION | DES | DR | CH | APP |
|---|---|---|---|---|---|---|
| 1 | 12/02/09 | Injection location change | JP | SCG | MJO | |

DESIGNED BY: MJL
DRAWN BY: SCG
CHECKED BY: MJO
APPROVED BY: .
DATE: 11/17/09

nationalgrid

OXYGEN INJECTION SYSTEM DESIGN SCHEMATICS
SUMMERS LUMBER/KING BEAR - OPERABLE UNIT NO. 1
BAYSHORE/BRIGHTWATERS FORMER MANUFACTURED GAS PLANT SITE
BAY SHORE, NEW YORK

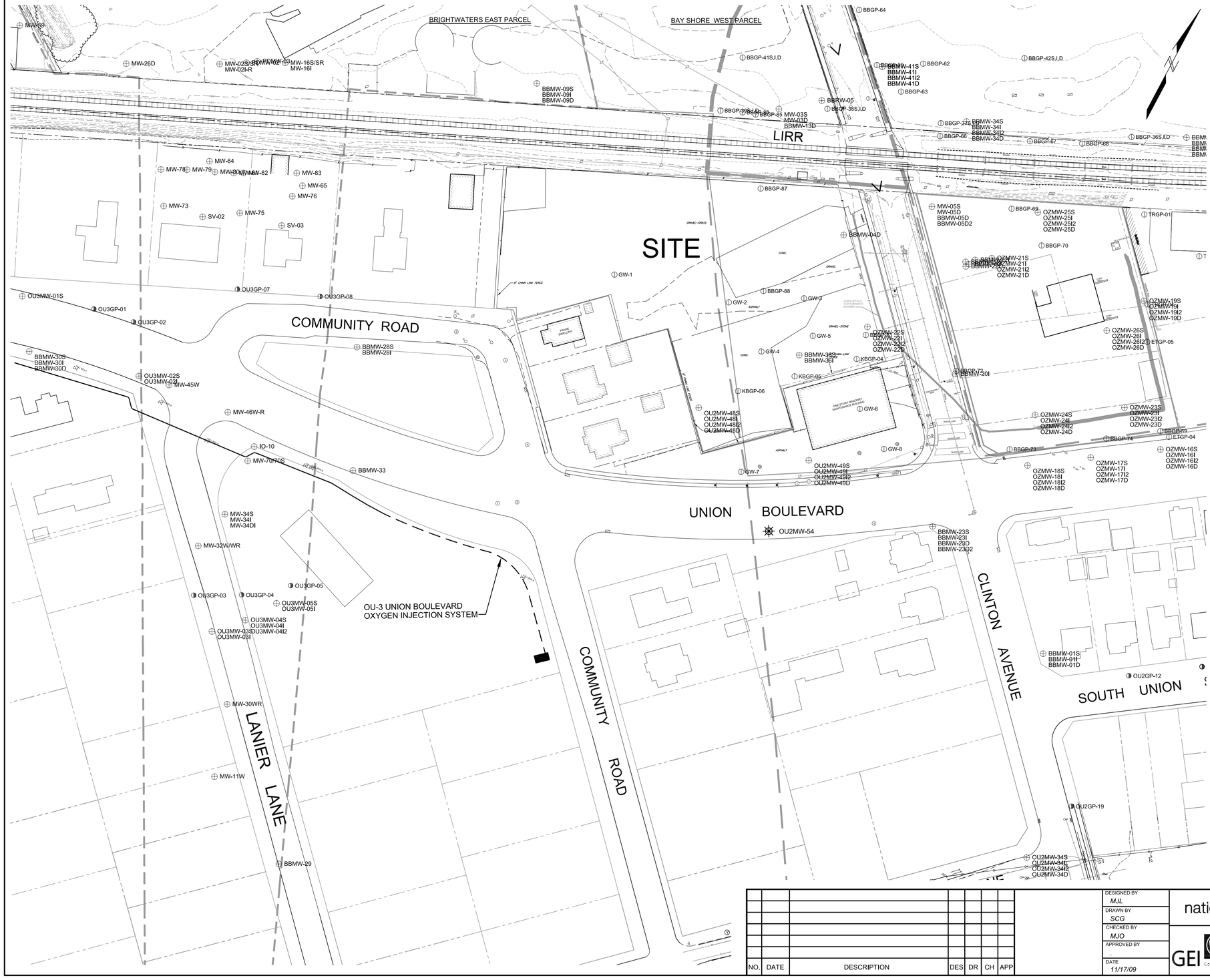
GEI Consultants
110 WALT WHITMAN ROAD
SUITE 204
HUNTINGTON STATION, NY 11746
631-760-9300, FAX 631-760-9301
WWW.GEICONSULTANTS.COM

**INJECTION POINT LAYOUT AND SCHEMATIC FOR OU-3 UNION BOULEVARD LINE**

FIG. NO. 6

GEI PROJECT: 093180-1-1109
SHEET NO.: 6 of 8
ISSUE: A

I:\GEI\National Grid\Bay Shore\Ozone Pilot Test\Supplemental Systems\Summers Lumber-King Bear System\ BAY SHORE-SL-KB Plan Sheets.dwg \Dec 02, 2009




**SOURCES:**

1. MAP TITLED "BAY SHORE/BRIGHTWATERS, FORMER MGP SITE FINAL REMEDIAL INVESTIGATION, BAY SHORE, NEW YORK, OFF-SITE SAMPLE LOCATION MAP" DATED: SEPT. 2002 BY DVIRKA AND BARTILUCCI.
2. FIGURE 2, GROUNDWATER MONITORING WELL AND SURFACE WATER GAUGING STATION LOCATION MAP, BAY SHORE/BRIGHTWATERS FORMER MGP SITE, SCALE: 1"=200', DATED JANUARY 2004, PREPARED BY VANASSE HANGEN BRUSTLIN, INC., MIDDLETOWN, CONNECTICUT.
3. DRAWING C-1, OFF-SITE SAMPLE LOCATION MAP, BAY SHORE/BRIGHTWATERS FINAL REMEDIAL INVESTIGATION, SCALE: 1"=200', DATED OCTOBER 15, 2003, PREPARED BY VANASSE HANGEN BRUSTLIN, INC., MIDDLETOWN, CONNECTICUT.
4. PROPERTY BOUNDARY LOCATIONS WERE DETERMINED BY OTHERS USING AERIAL PHOTOGRAPHS AND TAX MAPS. PROPERTY BOUNDARIES ARE APPROXIMATE AND MONITORING WELLS LOCATED NEAR OR AT PROPERTY BOUNDARIES DEPICTED ON THE MAP ARE WITHIN THE ROAD RIGHT-OF-WAY.
5. WELL SURVEY CONDUCTED IN NOVEMBER 2007 BY NELSON & POPE, 572 WALT WHITMAN ROAD, MELVILLE, N.Y.

# DRAFT
# FOR AGENCY REVIEW
# NOT FOR CONSTRUCTION

| NO. | DATE | DESCRIPTION | DES | DR | CH | APP |
|---|---|---|---|---|---|---|
| | | | | | | |

DESIGNED BY: MJL
DRAWN BY: SCG
CHECKED BY: MJO
APPROVED BY: -
DATE: 11/17/09

nationalgrid

OXYGEN INJECTION SYSTEM DESIGN SCHEMATICS
SUMMERS LUMBER/KING BEAR - OPERABLE UNIT NO. 1
BAYSHORE/BRIGHTWATERS FORMER MANUFACTURED GAS PLANT SITE
BAY SHORE, NEW YORK

GEI Consultants
110 WALT WHITMAN ROAD
SUITE 204
HUNTINGTON STATION, NY 11746
631-760-9300, FAX 631-760-9301
WWW.GEICONSULTANTS.COM

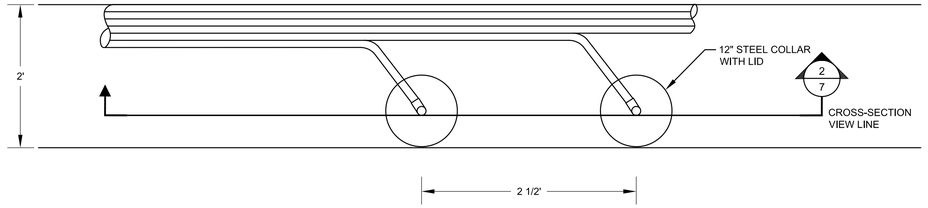
**PROPOSED MONITORING PLAN**

FIG. NO. 7

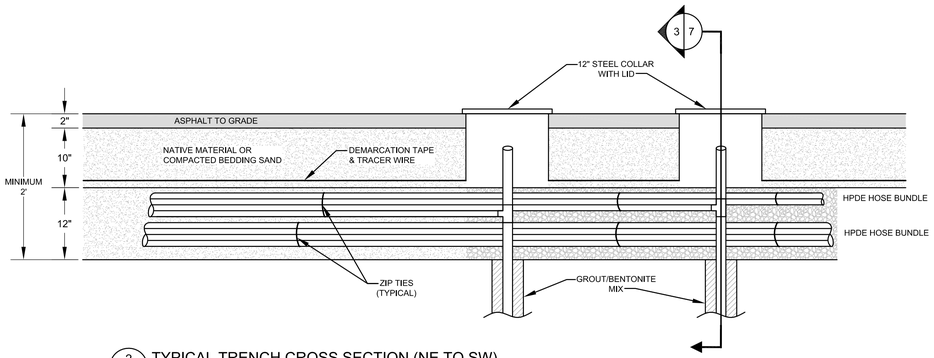
GEI PROJECT: 093180-1-1109

SHEET NO.: 7 of 8

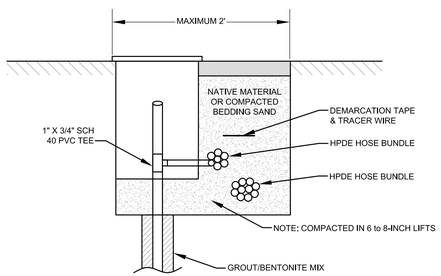
ISSUE: A



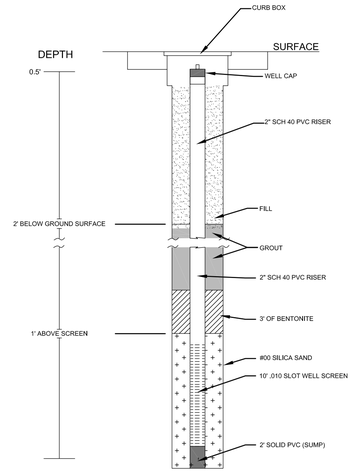

1/3/8 TYPICAL TRENCH PLAN VIEW



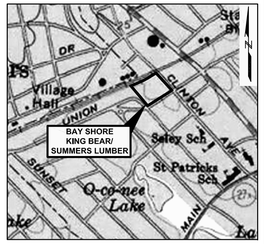

2/8 TYPICAL TRENCH CROSS SECTION (NE TO SW)



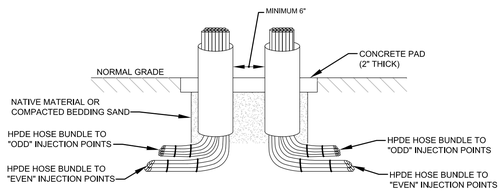

3/8 TYPICAL TRENCH DETAIL



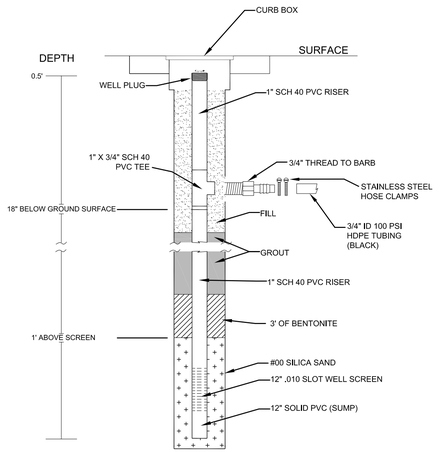

TYPICAL MONITORING WELL DETAIL
NOT TO SCALE



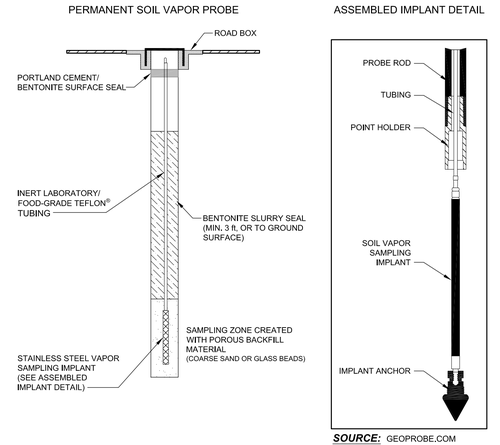

SITE LOCATION
SCALE: 1" = 1000'




STUB-UP SCHEMATIC
NOT TO SCALE




TYPICAL INJECTION WELL CONSTRUCTION DIAGRAM
NOT TO SCALE




***SOURCE:*** GEOPROBE.COM

PERMANENT SOIL VAPOR POINT INSTALLATION
NOT TO SCALE

# DRAFT
# FOR AGENCY REVIEW
# NOT FOR CONSTRUCTION

***NOTES:***

1. SCALE: 1" = 10' EXCEPT PIPE/HOSE SIZE.
2. CONNECTION TO INJECTION POINT SHOULD BE MADE WITH SCH 40 PVC TEE AT A MINIMUM OF 18" BELOW GROUND SURFACE.
3. NATIVE MATERIAL OR BEDDING SAND WILL BE COMPACTED IN 6-INCH LIFTS.
4. EACH HDPE HOSE LINE WILL BE LABELED ACCORDING TO IT'S RESPECTIVE INJECTION POINT EVERY TWENTY FEET.

| NO. | DATE | DESCRIPTION | DES | DR | CH | APP |
|---|---|---|---|---|---|---|
| | | | | | | |

DESIGNED BY: MJL
DRAWN BY: SCG
CHECKED BY: MJO
APPROVED BY: .
DATE: 11/17/09

nationalgrid

OXYGEN INJECTION SYSTEM DESIGN SCHEMATICS
SUMMERS LUMBER/KING BEAR - OPERABLE UNIT NO. 1
BAYSHORE/BRIGHTWATERS FORMER MANUFACTURED GAS PLANT SITE
BAY SHORE, NEW YORK

GEI Consultants
110 WALT WHITMAN ROAD
SUITE 204
HUNTINGTON STATION, NY 11746
631-760-9300, FAX 631-760-9301
WWW.GEICONSULTANTS.COM

TRENCH AND INJECTION POINT DETAILS

FIG. NO. 8

GEI PROJECT: 093180-1-1109
SHEET NO.: 8 of 8
ISSUE: A

I:\GEI\National Grid\Bay Shore\Ozone Pilot Test\Supplemental Systems\Summers Lumber-King Bear System\ BAY SHORE-SL-KB Plan Sheets.dwg \Nov 20, 2009

1970TO2010 40 YEARS

GEI Consultants

Geotechnical
Environmental
Water Resources
Ecological

March 9, 2010
Project 093180

Mr. Gary Kowalski
Creamer Environmental, Inc.
215 Union Street
Hackensack, New Jersey 07601

Dear Mr. Kowalski:

**Re: Submittal #2 Rev. 1 – Shoring Plan Revised**
**Review Recommendations**
**Bay Shore OU-1**
**Bay Shore, New York**

We have reviewed Submittal #2 - Rev. 1 dated March 5, 2010 from Creamer Environmental, Inc. to GEI. This submittal contained an excavation plan, a memorandum from Mr. John A. Geary, P.E. to Mr. Gary Kowalski, output from SPW911 computer program for analysis of excavation support, and product cut sheets for slide rail system.

The review of these submittals is solely for the purpose of determining whether the information contained in the submittals conforms to the design concept of the contract documents. Review of submittals does not relieve the contractor of responsibility for errors or omissions in the contractor's design, details, calculations, analyses, test methods, materials, means and methods, and safe and successful construction of the work.

| Submittal Item - Date | Review Classification | Comments |
|---|---|---|
| Submittal #2 Rev. 1 (Shoring Plan Revised), dated March 5, 2010 | 1 | No Comments. |

Submittal Review Classifications:

1. WORK MAY PROCEED: Reviewed for general consistency with contract documents. No corrections or marks.
2N. WORK MAY PROCEED SUBJECT TO THE CHANGES INDICATED: Resubmittal not required, minor corrections. Proceed with work subject to comments and revisions; no resubmittal is required.
2R. WORK MAY NOT PROCEED ON INDICATED PART(S): Resubmittal required, work may proceed on other parts, minor corrections. Proceed with work subject to comments and revisions; a resubmittal is required.
3. WORK MAY NOT PROCEED: Revise and resubmit. Major corrections required or not in conformance with the contract documents. Correct and resubmit.
4. FOR INFORMATION ONLY: Items not reviewed or items for which submittals are not required.



GEI Consultants, Inc.
400 Unicorn Park Drive, Woburn, MA 01801
781.721.4000 fax: 781.721.4073

Please call James Christensen (781-721-4126) or me (781-721-4057) if you have any questions.

Sincerely yours,

GEI CONSULTANTS, INC.

Michael P. Walker, P.E.
Vice President

MPW:rr
Attachment
M:\PROJECT\2009\09318\Submittals\OU-1 Submittal No. 2_Resubmittal.docx

**CREAMER ENVIRONMENTAL, INC.**
CONTRACTORS & CONSULTANTS
215 Union Street Hackensack,, New Jersey 07601
201-968-3300 Fax (201) 968-3301

# LETTER OF TRANSMITTAL

| | |
|---|---|
| DATE 3/5/10 | JOB NO. 09-2096 |
| ATTENTION: | Tom Shock |
| RE: Brightwaters/Bay Shore | |
| OU-1 King Bear | |
| | |
| | |

TO **National Grid Corporate Services**
**Site Investigation and Remediation**
**175 E. Old Country Road**
**Hicksville, NY 11801**

**GENTLEMEN**

**WE ARE SENDING YOU** ☐ Attached ☐ **X via E Mail**

☐ Shop Drawings ☐ Prints ☐ Plans ☐ Samples ☐ Specifications

☐ Copy of letter ☐ Change order ☐ Monitoring Well Data

| COPIES | DATE | NO. | DESCRIPTION |
|---|---|---|---|
| | | | Submittal #2 Rev. 1 |
| 1 | 3/5/2010 | 1 | Shoring Plan Revised |
| | | | |
| | | | |
| | | | |

THESE ARE TRANSMITTED as checked below:

☒ For Approval ☐ Approved as submitted ☐ Resubmit ____ copies for approval

☐ For your use ☐ Approved as noted ☐ Submit ____ copies for distribution

☐ As requested ☐ Returned for corrections ☐ Return ____ corrected print

☐ Review/comment ☐ For your information.

☐ **FOR BIDS DUE** _____ ☐ **PRINTS RETURNED AFTER LOAN TO US**

**REMARKS:**
If you have any question, please feel free to call.

**COPY TO:** CEI Job File **SIGNED:** Gary Kowalski

# JOHN A. GEARY, P.E.

PO BOX 102, ALLAMUCHY, NJ 07820
OFFICE: 908-852-7532; FAX: 908-852-1742; E-MAIL: JGEARY@CEACONGROUP.COM


MEMORANDUM – E-MAILED

TO: Gary Kowalski @ Creamer Environmental, Inc.
FROM: John Geary, P.E.
DATE: 3/4/10
RE: National Grid – Former MGP Site, Bayshore, NY
SUBJECT: Sheet Piling Preliminary Evaluation and Excavation Details

Dear Mr. Kowalski:

Please consider this a revision to the previous 2/22/10 memo sent to Tom Cawley regarding this project. This memo has been generated as a result of the 2/26/10 GEI comments related to the earlier memo.

I am in receipt of the following information that was e-mailed to me:

1. Interim Remedial Measure Excavation Phase Drawings, No. 1 through 5, marked "Draft for Bidding, Not for Construction",
2. CEI Sheet 1 of 1 hand sketch of proposed excavation cross section, GEI Soil Boring Log KBSB-04,
3. Waterloo Barrier System Installation Report by C3 Environmental Limited, dated August 2008,
4. Technical Specifications Section 01-11-00, Summary of Work.

I have reviewed the aforementioned information pursuant to my conversation with Tom Cawley on 2/22/10 and with you on 3/4/10. It's my understanding that CEI's preliminary work plan under consideration would be as follows for an initially planned excavation depth of 10 feet, which could possibly be extended to 12 feet if required.

1. Dig down to the top of the existing sheet piling, excavate a bench approximately 5 ft. to 6 ft. wide behind (i.e. on the northeast side) of the sheet piling and slope up to the existing surface;
2. Perform excavation in the designated work zone "in the wet" (i.e. without dewatering) so as to minimize hydrostatic pressure differentials between the front and back of the sheet piling;
3. Use 15 ft. wide X 20 ft. long slide rail system modules within the excavation area as necessary to compartmentalize the excavation work. The slide rail equipment would be independent of the sheet piling and would not be used to provide support to the sheet piling wall, unless specifically designed to do so.

Considering this approach, and assuming that ground water levels can be maintained at a 1 ft. maximum differential between the front and back of the sheet piling during the excavation process, several analyses were performed of the existing WEZ-95 sheet piling using SPW911 software. The analyses (attached) indicate that the toe-in and section modulus of the sheet piling is adequate to handle the cantilevered condition with minimal deflection in all areas but one. The exception is the southeast corner of the site, which may need some temporary bracing during the excavation to limit deflection. The need for this additional bracing will be further addressed after the sheet pile wall is uncovered and further measurements can be taken. Deflection of the

cantilevered sheet piling for up to a 12 ft. cut will be on the order of approximately 0.3 inches at the top of the piling, and will gradually reduce to approximate 0.0 inches at the proposed excavation subgrade. This is a very minimal deflection of the sheet piling which, in my professional opinion, will not affect the integrity of the grout within the sheet piling joints.

As requested in the GEI 2/26/10 comments, additional information has been requested relative to site clearances and a plan of the excavation shoring systems. Drawing ES-2 (attached) provides information in this regard.

Product cut and allowable load sheets for the American Shoring/SBH slide rail shoring system have been provided.

A two (2) ft. overcut beyond the initially planned 10 ft. cut has been considered in the sheet piling analyses (i.e. 12 ft. maximum cut).

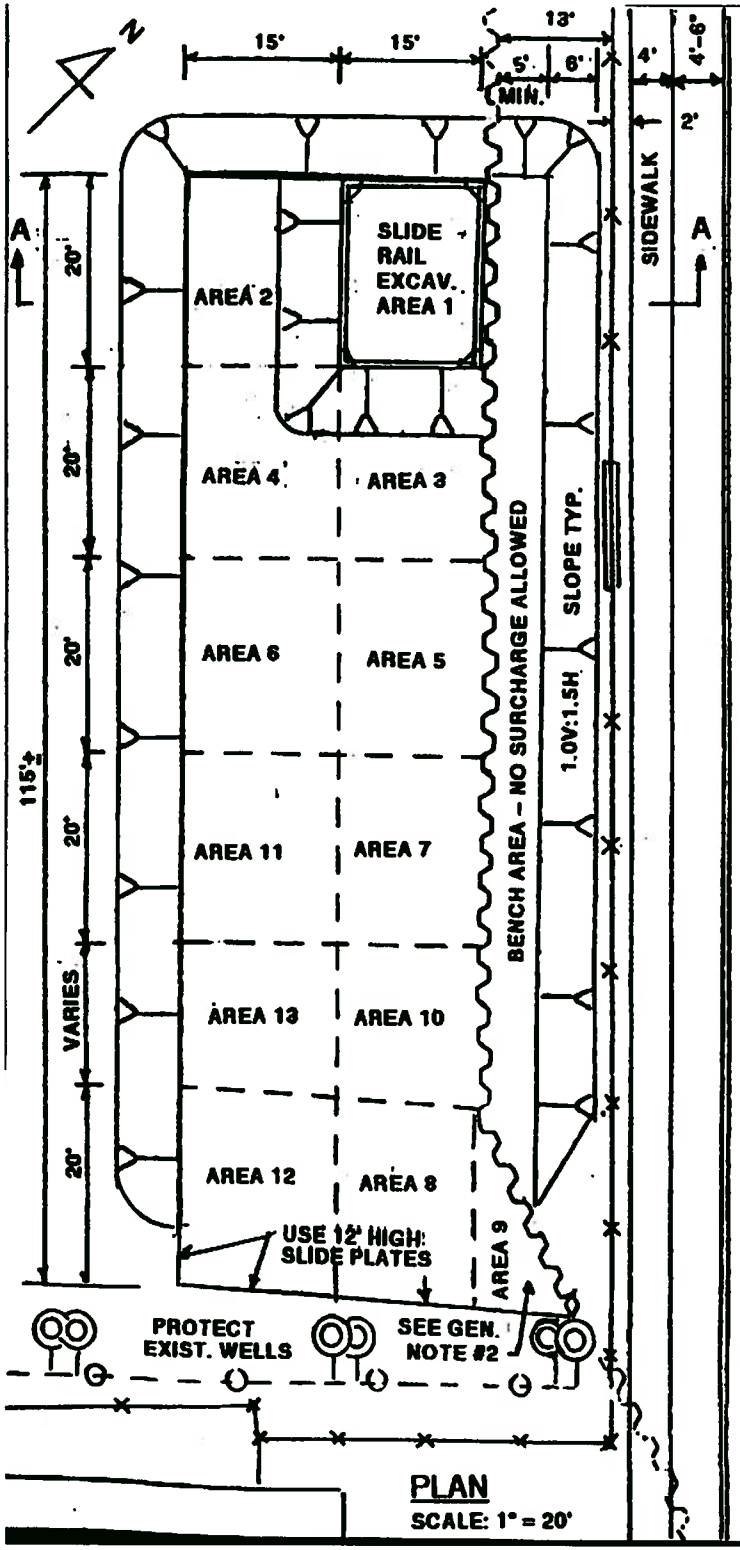
A note has been added to the attached drawing ES-1 regarding maintenance of the water levels within the excavation.

Sincerely,

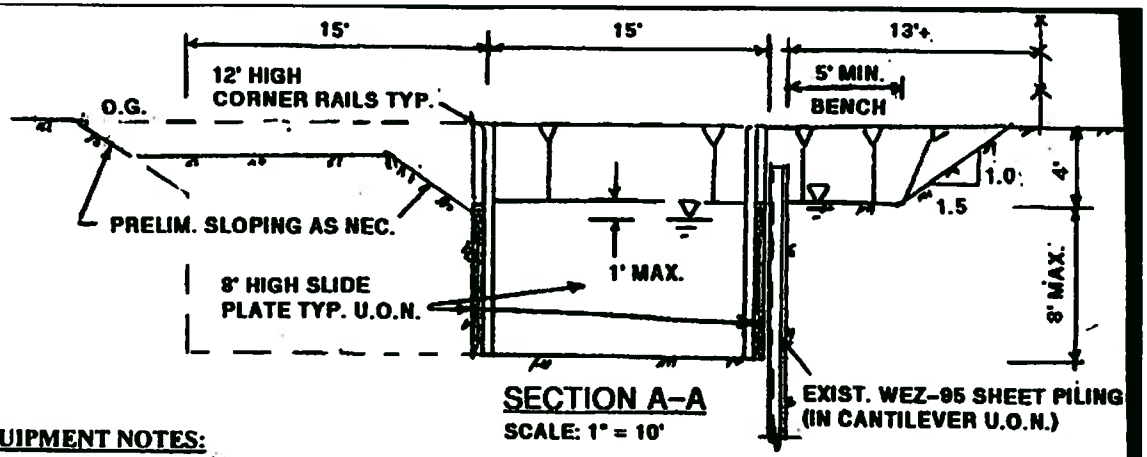



John A. Geary, P.E.
New York License No. 57723






PLAN
SCALE: 1" = 20'




SECTION A–A
SCALE: 1" = 10'

**EQUIPMENT NOTES:**

**SLIDE RAIL SYSTEM:** As manufactured by American Shoring/SBH or equal.

**GENERAL NOTES:**

1. The water level within the excavation area shall be maintained at or above 1 ft. below the groundwater level on the outside of the sheet piling. If necessary, water is to be added to the area undergoing excavation to achieve this requirement
2. Area 9 is not expected to be accessible by the slide rail system, and the area behind the sheet piling will not be able to be benched. Since deflection of the sheet piling may occur beyond acceptable limits, it is possible that some internal bracing may be required to minimize sheet piling deflection. Additional measurements of Area 9 will be performed upon exposure of the existing sheet piling wall, and a determination will be made as to use of an appropriate temporary bracing system. A bracing design for Area 9 will follow.
3. The slide rail excavation equipment is to be considered independent of the existing sheet piling, which is capable of acting in cantilever for the proposed excavation depth except as noted.
4. The excavation sequence shown is currently tentative and is subject to revision as necessary to properly perform the work.
5. The sheet pile wall location has been based on the drawing representations, and related dimensions are also based on this presumed location. The sheet pile wall location will be verified in the field.

**SUGGESTED PROCEDURE:**

1. Bench down 4 ft. behind the sheet piling wall. Additional pre-cut above the water table may also be performed within the overall excavation site.
2. Using a four (4) sided slide rail equipment, proceed with excavation and backfill within the designated areas. Segments of the slide rail systems may remain in place to segregate remediated zones from unremediated zones as necessary.
3. Upon completion, backfill the site, including the bench area.




JOHN A. GEARY, P.E.
CONSTRUCTION ENGINEERS, MANAGERS & CONSULTANTS
P.O. BOX 102 ALLAMUCHY, NJ 07820 (908) 852-7532

| | | |
|---|---|---|
| SCALE: AS SHOWN | APPROVED BY | DRAWN BY J.A.G. |
| DATE: 3/4/10 | | |

NATIONAL GRID - FORMER MGP SITE, BAYSHORE, NY
PROPOSED EXCAVATION DETAILS

CONTRACTOR: CREAMER ENVIRONMENTAL, INC.

DRAWING NUMBER ES-1

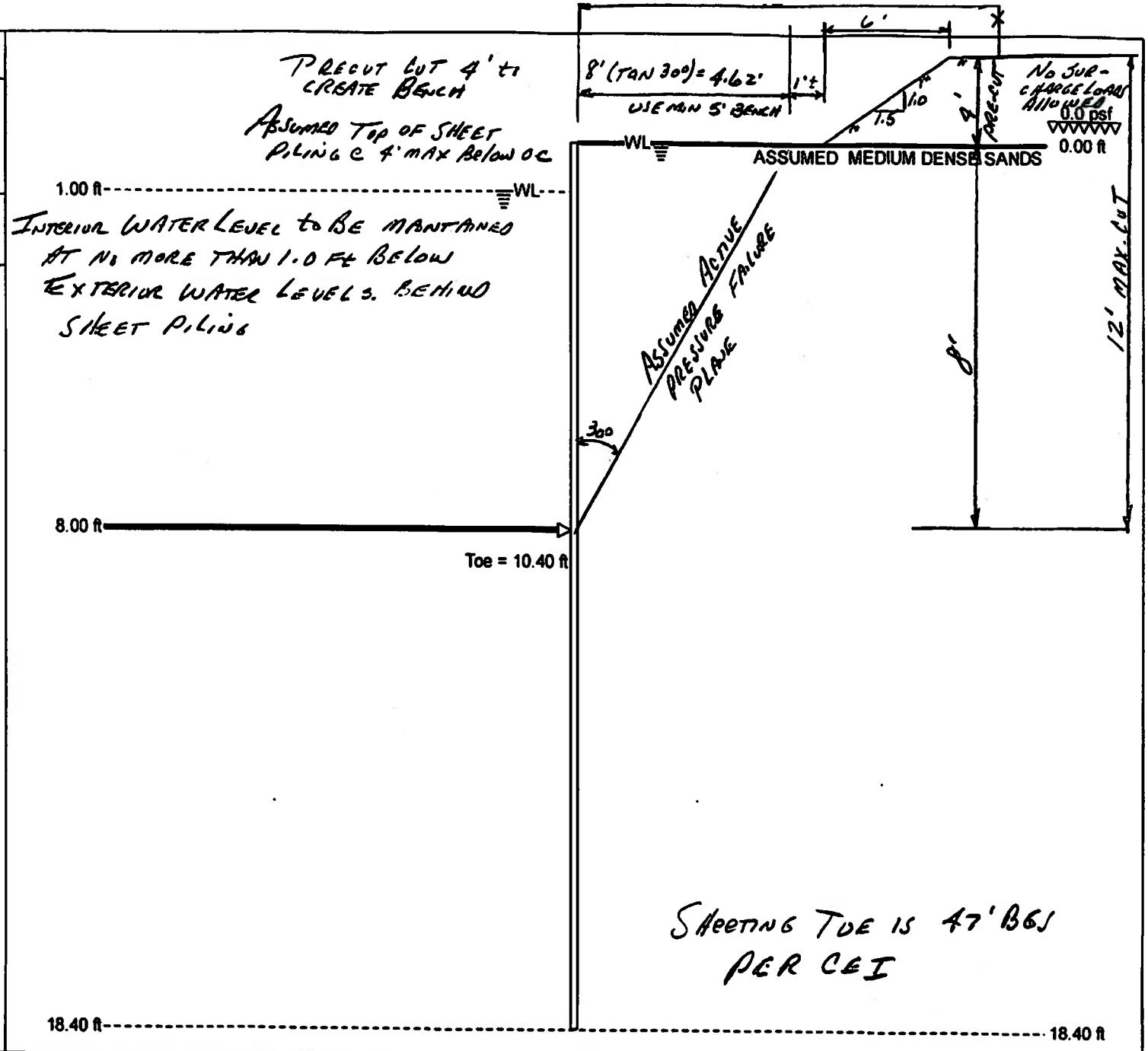
Client: CREAMER ENVIRONMENTAL, INC.

Title: FORMER MGP SITE, BAYSHORE, NY
Designer: JOHN A. GEARY, P.E.
Page: 1
Date: 3.3.10

Sheet: WEZ-95
Pressure: Rankine
Toe: Cantilever

ANALYSIS OF EXISTING SHEETING WITH 12 FT. CUT BELOW O.G. AND BENCHING ON EAST SIDE

CASE I




# JOHN A. GEARY, P.E.


P.O. BOX 102, ALLAMUCHY, NJ 07820
Tel: 908-852-7532
Fax: 908-852-1742


SPW911, v2.20


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Email: pilebuck@pilebuck.com
Web: www.pilebuck.com

Client: CREAMER ENVIRONMENTAL, INC.

Title: FORMER MGP SITE, BAYSHORE, NY
Designer: JOHN A. GEARY, P.E.
Page: 2
Date: 3.3.10

Sheet: WEZ-95
Pressure: Rankine
Toe: Cantilever

ANALYSIS OF EXISTING SHEETING WITH 12 FT. CUT BELOW O.G. AND BENCHING ON EAST SIDE

## Input Data

Depth Of Excavation = 8.00 ft  Depth Of Active Water = 0.00 ft  Water Density = 62.43 pcf
Surcharge = 0.0 psf  Depth Of Passive Water = 1.00 ft  Minimum Fluid Density = 31.82 pcf

Soil Profile

| Depth (ft) | Soil Name | $\gamma$ (pcf) | $\gamma'$ (pcf) | C (psf) | $C_a$ (psf) | $\phi$(°) | $\delta$(°) | $K_a$ | $K_{ac}$ | $K_p$ | $K_{pc}$ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.00 | ASSUMED MEDIUM DENSE SANDS | 120.00 | 58.00 | 0.0 | 0.0 | 30.0 | 14.0 | 0.33 | 0.00 | 4.59 | 0.00 |

## Solution

Sheet

| Sheet Name | I (in⁴/ft) | E (psi) | Z (in³/ft) | f (psi) | Maximum Bending Moment (ftlb/ft) | Upstand (ft) | Toe (ft) | Pile Length (ft) |
|---|---|---|---|---|---|---|---|---|
| WEZ-95 | 134.00 | 3.04E+07 | 24.90 | 32500.0 | 67357.2 | 0.00 | 10.40 | 18.40 |

Maxima

| | Maximum | Depth | |
|---|---|---|---|
| Bending Moment | 6804.3 ftlb/ft | 11.96 ft | O.K |
| Deflection | 0.3 in | 0.00 ft | MINIMAL |
| Pressure | 215.6 psf | 8.00 ft | |
| Shear Force | 1262.7 lb/ft | 15.18 ft | |

JOHN A. GEARY, P.E.
P.O. BOX 102, ALLAMUCHY, NJ 07820
Tel: 908-852-7532
Fax: 908-852-1742

SPW911, v2.20
© 2001 - 2003 Pile Buck®, Inc
Email piebuck@piebuck.com
Web www.piebuck.com

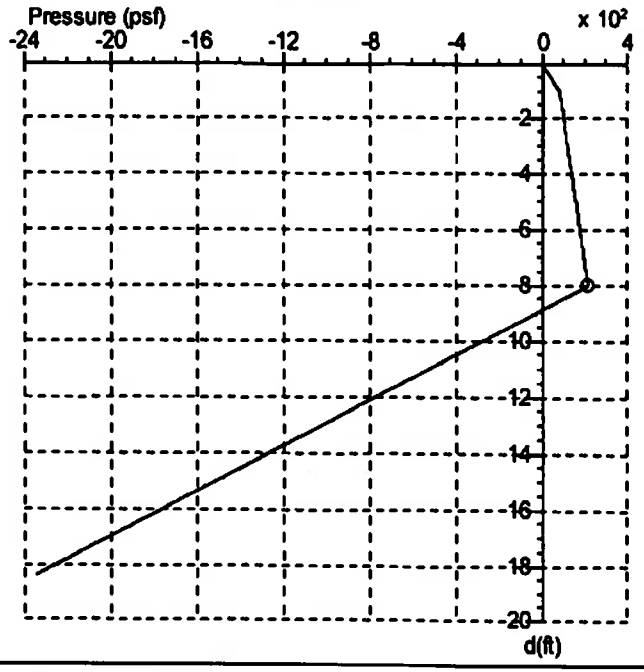
Client: CREAMER ENVIRONMENTAL, INC.

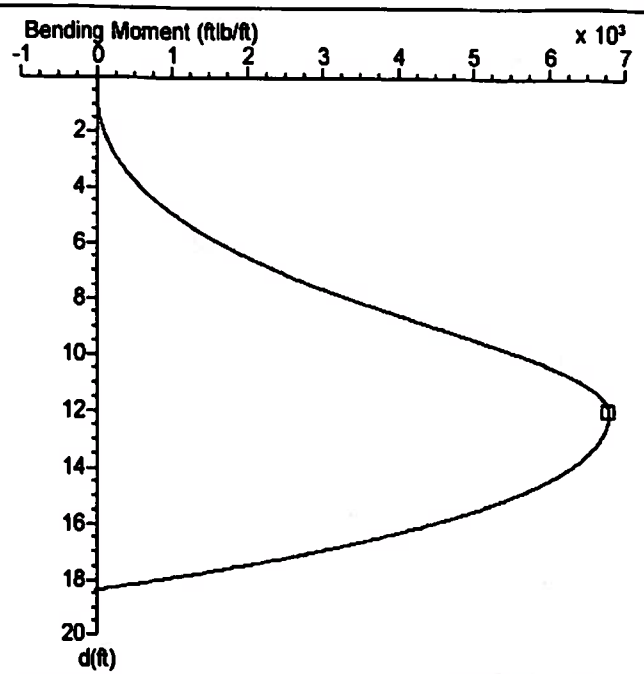
Title: FORMER MGP SITE, BAYSHORE, NY
Designer: JOHN A. GEARY, P.E.
Page: 3
Date: 3.3.10

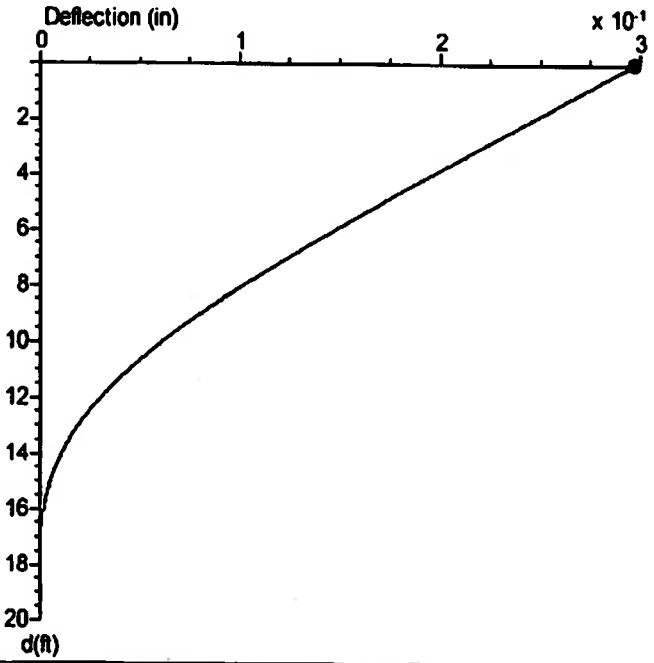
Sheet: WEZ-95
Pressure: Rankine
Toe: Cantilever

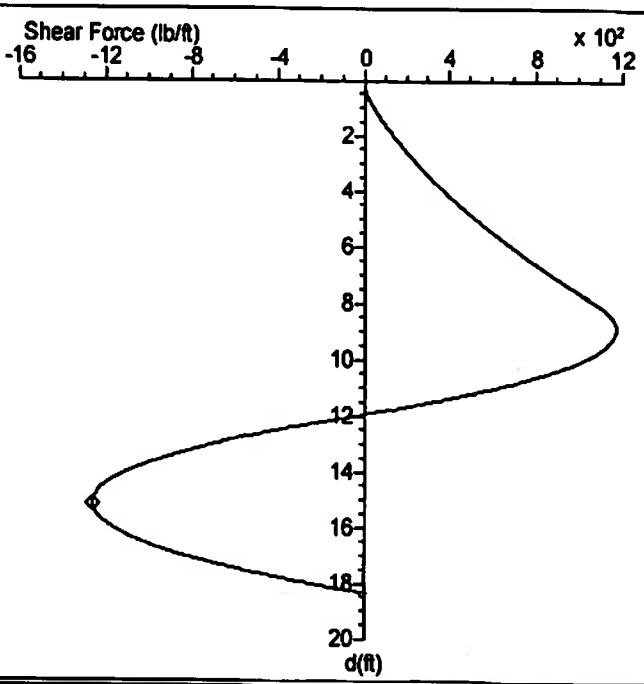
| | Maximum | d (ft) |
|---|---|---|
| ○ | 215.6 psf | 8.00 |
| □ | 6804.3 ftlb/ft | 11.96 |
| ◇ | 1262.7 lb/ft | 15.18 |
| ● | 0.3 in | 0.00 |

ANALYSIS OF EXISTING SHEETING WITH 12 FT. CUT BELOW O.G. AND BENCHING ON EAST SIDE





# JOHN A. GEARY, P.E.

P.O. BOX 102, ALLAMUCHY, NJ 07820
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Fax: 908-852-1742


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Client: CREAMER ENVIRONMENTAL, INC.

Title: FORMER MGP SITE, BAYSHORE, NY
Designer: JOHN A. GEARY, P.E.
Page: 4
Date: 3.3.10

Sheet: WEZ-95
Pressure: Rankine
Toe: Cantilever

ANALYSIS OF EXISTING SHEETING WITH 12 FT. CUT BELOW O.G. AND BENCHING ON EAST SIDE

| depth (ft) | P (psf) | M (ftlb/ft) | D (in) | F (lb/ft) | depth (ft) | P (psf) | M (ftlb/ft) | D (in) | F (lb/ft) | depth (ft) | P (psf) | M (ftlb/ft) | D (in) | F (lb/ft) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.00 | 1.3 | 0.0 | 0.3 | 0.0 | 6.19 | 181.0 | 1772.7 | 0.1 | 724.0 | 12.37 | -868.6 | 6780.3 | 0.0 | -305.8 |
| 0.16 | 13.8 | 0.1 | 0.3 | 1.3 | 6.35 | 184.2 | 1897.1 | 0.1 | 754.8 | 12.54 | -906.5 | 6762.8 | 0.0 | -408.3 |
| 0.33 | 27.5 | 0.5 | 0.3 | 4.9 | 6.51 | 187.1 | 2014.8 | 0.1 | 783.3 | 12.70 | -948.2 | 6735.2 | 0.0 | -514.4 |
| 0.49 | 40.0 | 1.6 | 0.3 | 10.1 | 6.68 | 190.4 | 2149.4 | 0.1 | 815.2 | 12.86 | -986.1 | 6700.4 | 0.0 | -604.7 |
| 0.65 | 53.8 | 3.9 | 0.3 | 18.1 | 6.84 | 193.6 | 2289.3 | 0.1 | 847.6 | 13.03 | -1027.7 | 6658.0 | 0.0 | -697.4 |
| 0.81 | 67.5 | 7.7 | 0.3 | 28.5 | 7.00 | 196.5 | 2421.3 | 0.1 | 877.5 | 13.19 | -1069.4 | 6607.9 | 0.0 | -783.0 |
| 0.98 | 80.0 | 12.8 | 0.3 | 39.9 | 7.16 | 199.8 | 2571.9 | 0.1 | 911.0 | 13.35 | -1107.3 | 6549.9 | 0.0 | -854.8 |
| 1.14 | 84.4 | 20.6 | 0.3 | 53.9 | 7.33 | 202.7 | 2713.7 | 0.1 | 941.8 | 13.51 | -1149.0 | 6483.9 | 0.0 | -927.0 |
| 1.30 | 87.4 | 29.8 | 0.3 | 67.1 | 7.49 | 205.9 | 2875.2 | 0.1 | 976.3 | 13.68 | -1190.6 | 6409.6 | 0.0 | -992.2 |
| 1.47 | 90.6 | 42.3 | 0.3 | 82.1 | 7.65 | 209.2 | 3042.5 | 0.1 | 1011.3 | 13.84 | -1228.5 | 6326.7 | 0.0 | -1045.3 |
| 1.63 | 93.8 | 57.3 | 0.3 | 97.7 | 7.82 | 212.1 | 3199.8 | 0.1 | 1043.7 | 14.00 | -1270.2 | 6235.3 | 0.0 | -1097.1 |
| 1.79 | 96.8 | 73.3 | 0.3 | 112.3 | 7.98 | 215.6 | 3378.6 | 0.1 | 1079.7 | 14.16 | -1308.1 | 6134.9 | 0.0 | -1138.0 |
| 1.95 | 100.0 | 93.5 | 0.2 | 128.9 | 8.14 | 180.7 | 3546.3 | 0.1 | 1110.0 | 14.33 | -1349.7 | 6025.6 | 0.0 | -1176.4 |
| 2.12 | 103.2 | 116.5 | 0.2 | 146.1 | 8.30 | 139.0 | 3735.6 | 0.1 | 1136.7 | 14.49 | -1391.4 | 5906.9 | 0.0 | -1207.7 |
| 2.28 | 106.2 | 140.0 | 0.2 | 162.2 | 8.47 | 97.4 | 3928.9 | 0.1 | 1156.3 | 14.65 | -1429.3 | 5800.9 | 0.0 | -1230.1 |
| 2.44 | 109.4 | 168.8 | 0.2 | 180.4 | 8.63 | 59.5 | 4107.1 | 0.1 | 1168.0 | 14.82 | -1471.0 | 5641.2 | 0.0 | -1248.0 |
| 2.61 | 112.3 | 197.6 | 0.2 | 197.4 | 8.79 | 17.8 | 4304.7 | 0.1 | 1174.2 | 14.98 | -1508.8 | 5519.0 | 0.0 | -1258.2 |
| 2.77 | 115.5 | 232.3 | 0.2 | 216.6 | 8.95 | -23.9 | 4502.7 | 0.1 | 1173.4 | 15.14 | -1550.5 | 5363.2 | 0.0 | -1262.7 |
| 2.93 | 118.8 | 270.4 | 0.2 | 236.4 | 9.12 | -61.8 | 4682.2 | 0.1 | 1166.5 | 15.30 | -1592.2 | 5197.2 | 0.0 | -1260.1 |
| 3.09 | 121.7 | 307.9 | 0.2 | 254.9 | 9.28 | -103.4 | 4878.0 | 0.1 | 1152.3 | 15.47 | -1630.1 | 5020.8 | 0.0 | -1251.7 |
| 3.26 | 124.9 | 352.5 | 0.2 | 275.7 | 9.44 | -141.3 | 5053.4 | 0.1 | 1133.2 | 15.63 | -1671.7 | 4833.9 | 0.0 | -1235.8 |
| 3.42 | 128.2 | 400.6 | 0.2 | 297.0 | 9.61 | -183.0 | 5242.5 | 0.1 | 1105.6 | 15.79 | -1713.4 | 4636.2 | 0.0 | -1212.8 |
| 3.58 | 131.1 | 447.5 | 0.2 | 316.9 | 9.77 | -224.6 | 5426.4 | 0.1 | 1070.9 | 15.96 | -1751.3 | 4427.6 | 0.0 | -1185.8 |
| 3.74 | 134.3 | 502.6 | 0.2 | 339.3 | 9.93 | -262.5 | 5588.1 | 0.1 | 1033.2 | 16.12 | -1793.0 | 4207.9 | 0.0 | -1149.4 |
| 3.91 | 137.3 | 556.1 | 0.2 | 360.2 | 10.09 | -304.2 | 5758.7 | 0.1 | 985.1 | 16.28 | -1830.8 | 3976.8 | 0.0 | -1110.2 |
| 4.07 | 140.5 | 618.6 | 0.2 | 383.6 | 10.26 | -345.9 | 5920.7 | 0.1 | 930.0 | 16.44 | -1872.5 | 3734.3 | 0.0 | -1060.4 |
| 4.23 | 143.7 | 685.2 | 0.2 | 407.6 | 10.42 | -383.8 | 6059.5 | 0.1 | 873.8 | 16.61 | -1914.2 | 3480.0 | 0.0 | -1003.5 |
| 4.40 | 146.7 | 749.2 | 0.2 | 429.9 | 10.58 | -425.4 | 6201.7 | 0.1 | 805.2 | 16.77 | -1952.1 | 3213.8 | 0.0 | -945.8 |
| 4.56 | 149.9 | 823.6 | 0.2 | 454.9 | 10.75 | -463.3 | 6320.5 | 0.0 | 736.8 | 16.93 | -1993.7 | 2935.5 | 0.0 | -875.5 |
| 4.72 | 152.8 | 895.0 | 0.2 | 478.2 | 10.91 | -505.0 | 6438.6 | 0.0 | 654.9 | 17.10 | -2035.4 | 2644.9 | 0.0 | -798.2 |
| 4.88 | 156.0 | 977.6 | 0.2 | 504.2 | 11.07 | -546.6 | 6542.3 | 0.0 | 565.9 | 17.26 | -2073.3 | 2341.9 | 0.0 | -721.9 |
| 5.05 | 159.3 | 1064.7 | 0.2 | 530.8 | 11.23 | -584.5 | 6623.2 | 0.0 | 478.9 | 17.42 | -2115.0 | 2026.1 | 0.0 | -631.2 |
| 5.21 | 162.2 | 1147.7 | 0.2 | 555.5 | 11.40 | -626.2 | 6696.2 | 0.0 | 376.4 | 17.58 | -2152.8 | 1753.2 | 0.0 | -542.6 |
| 5.37 | 165.4 | 1243.5 | 0.2 | 583.2 | 11.56 | -664.1 | 6747.1 | 0.0 | 277.2 | 17.75 | -2194.5 | 1413.8 | 0.0 | -438.5 |
| 5.54 | 168.7 | 1344.0 | 0.2 | 611.4 | 11.72 | -705.7 | 6785.1 | 0.0 | 161.4 | 17.91 | -2236.2 | 1001.0 | 0.0 | -327.4 |
| 5.70 | 171.6 | 1439.6 | 0.2 | 637.5 | 11.89 | -747.4 | 6803.0 | 0.0 | 38.6 | 18.07 | -2274.1 | 695.0 | 0.0 | -220.2 |
| 5.86 | 174.8 | 1549.3 | 0.2 | 666.7 | 12.05 | -785.3 | 6803.4 | 0.0 | -59.8 | 18.24 | -2315.7 | 315.3 | 0.0 | -95.7 |
| 6.02 | 177.8 | 1653.4 | 0.1 | 693.7 | 12.21 | -827.0 | 6796.7 | 0.0 | -186.3 | 18.40 | -2349.8 | -11.6 | 0.0 | 11.5 |


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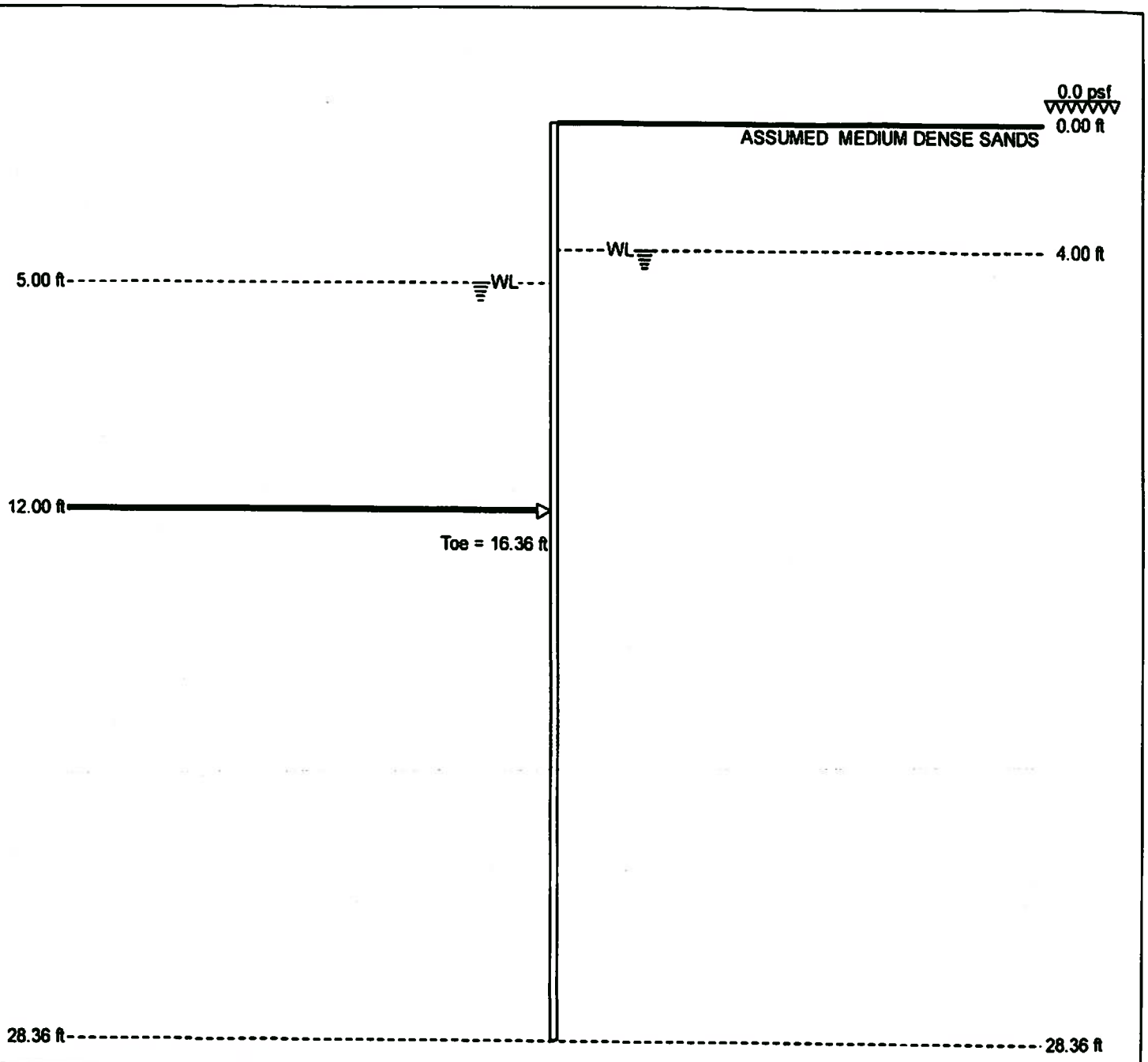
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Title: FORMER MGP SITE, BAYSHORE, NY
Designer: JOHN A. GEARY, P.E.
Page: 1
Date: 3.4.10

Sheet: WEZ-95
Pressure: Rankine
Toe: Cantilever

ANALYSIS OF EXISTING SHEETING WITH 12 FT. CUT BELOW O.G. AND NO ROOM FOR BENCHING AT S.E. CORNER

CASE II





# JOHN A. GEARY, P.E.

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ANALYSIS OF EXISTING SHEETING WITH 12 FT. CUT BELOW O.G. AND NO ROOM FOR BENCHING AT S.E. CORNER

## Input Data

Depth Of Excavation = 12.00 ft  Depth Of Active Water = 4.00 ft  Water Density = 62.43 pcf

Surcharge = 0.0 psf  Depth Of Passive Water = 5.00 ft  Minimum Fluid Density = 31.82 pcf

Soil Profile

| Depth (ft) | Soil Name | γ (pcf) | γ' (pcf) | C (psf) | $C_a$ (psf) | φ(°) | δ(°) | $K_a$ | $K_{ac}$ | $K_p$ | $K_{pc}$ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.00 | ASSUMED MEDIUM DENSE SANDS | 120.00 | 58.00 | 0.0 | 0.0 | 30.0 | 14.0 | 0.33 | 0.00 | 4.59 | 0.00 |

## Solution

Sheet

| Sheet Name | I (in⁴/ft) | E (psi) | Z (in³/ft) | f (psi) | Maximum Bending Moment (ftlb/ft) | Upstand (ft) | Toe (ft) | Pile Length (ft) |
|---|---|---|---|---|---|---|---|---|
| WEZ-95 | 134.00 | 3.04E+07 | 24.90 | 32500.0 | 67357.2 | 0.00 | 16.36 | 28.36 |

Maxima

| | Maximum | Depth |
|---|---|---|
| Bending Moment | 25334.9 ftlb/ft | 18.39 ft |
| Deflection | 2.6 in | 0.00 ft |
| Pressure | 374.0 psf | 12.00 ft |
| Shear Force | 3029.7 lb/ft | 23.38 ft |

O.K
DEFLECTION MAY BE TOO MUCH → USE BRACING @ S.E. CORNER


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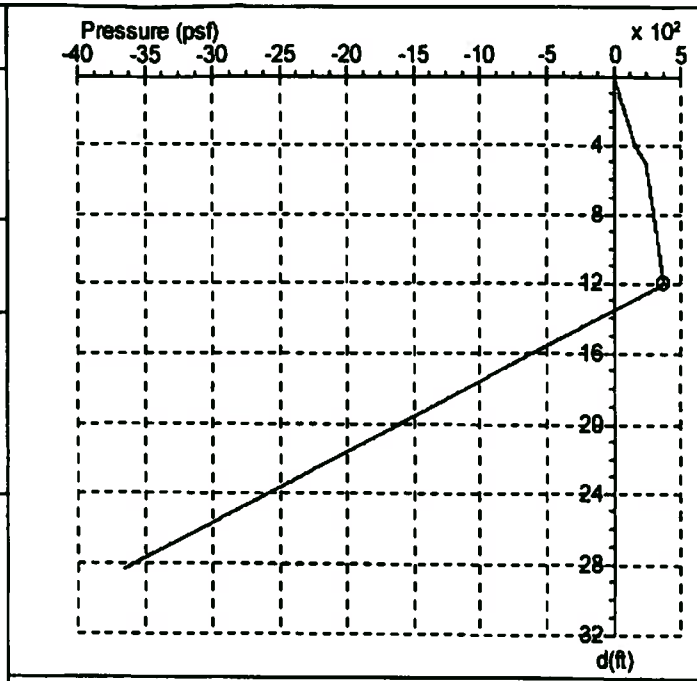
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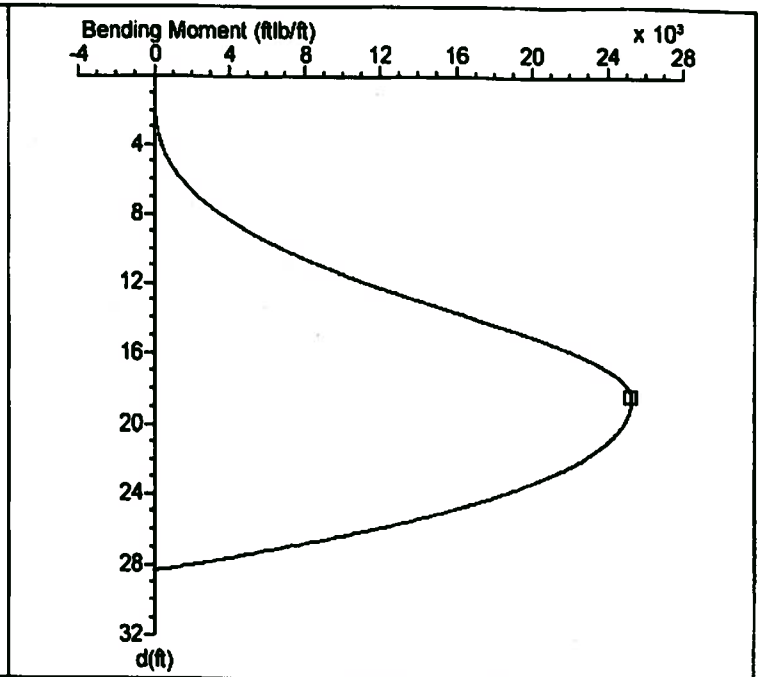
Title: FORMER MGP SITE, BAYSHORE, NY
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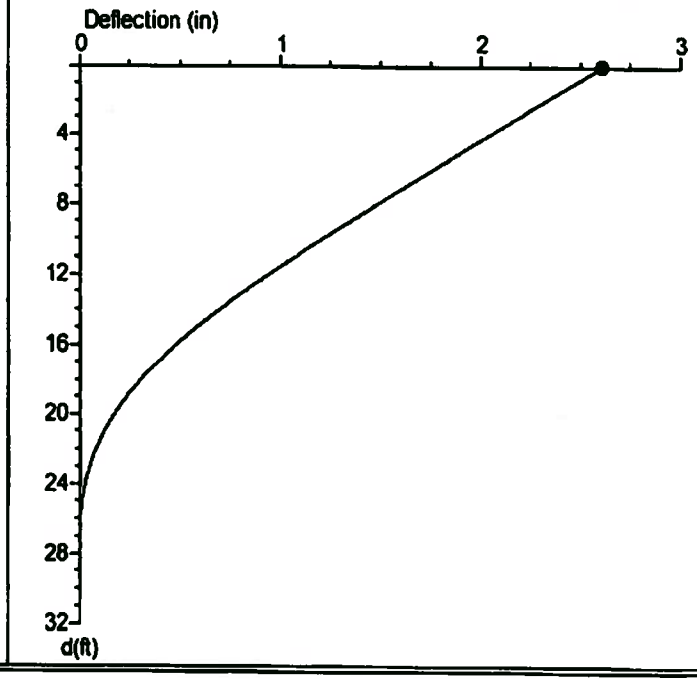
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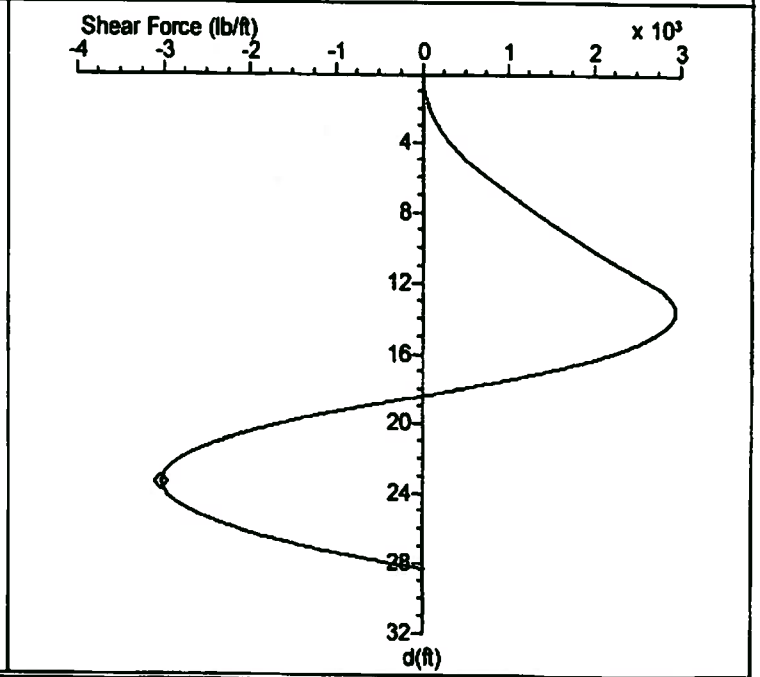
| | Maximum | d (ft) |
|---|---|---|
| ○ | 374.0 psf | 12.00 |
| □ | 25334.9 ftlb/ft | 18.39 |
| ◇ | 3029.7 lb/ft | 23.38 |
| ● | 2.6 in | 0.00 |

ANALYSIS OF EXISTING SHEETING WITH 12 FT. CUT BELOW O.G. AND NO ROOM FOR BENCHING AT S.E. CORNER





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ANALYSIS OF EXISTING SHEETING WITH 12 FT. CUT BELOW O.G. AND NO ROOM FOR BENCHING AT S.E. CORNER

| depth (ft) | P (psf) | M (ftlb/ft) | D (in) | F (lb/ft) |
|---|---|---|---|---|
| 0.00 | 0.9 | 0.0 | 2.6 | 0.0 |
| 0.25 | 10.3 | 0.1 | 2.6 | 1.5 |
| 0.50 | 20.6 | 0.9 | 2.5 | 5.6 |
| 0.75 | 30.0 | 2.9 | 2.5 | 11.7 |
| 1.00 | 40.3 | 6.9 | 2.5 | 20.9 |
| 1.26 | 50.5 | 13.7 | 2.4 | 32.9 |
| 1.51 | 59.9 | 22.8 | 2.4 | 46.0 |
| 1.76 | 70.2 | 36.8 | 2.4 | 63.1 |
| 2.01 | 79.6 | 53.5 | 2.3 | 80.9 |
| 2.26 | 89.9 | 77.1 | 2.3 | 103.0 |
| 2.51 | 100.2 | 106.8 | 2.2 | 127.8 |
| 2.76 | 109.5 | 139.6 | 2.2 | 152.7 |
| 3.01 | 119.8 | 182.8 | 2.2 | 182.7 |
| 3.26 | 130.1 | 234.1 | 2.1 | 215.3 |
| 3.51 | 139.5 | 288.3 | 2.1 | 247.3 |
| 3.77 | 149.8 | 357.0 | 2.1 | 285.0 |
| 4.02 | 159.9 | 428.2 | 2.0 | 321.6 |
| 4.27 | 181.1 | 517.0 | 2.0 | 366.2 |
| 4.52 | 202.3 | 618.0 | 2.0 | 416.3 |
| 4.77 | 221.6 | 721.7 | 1.9 | 466.6 |
| 5.02 | 240.6 | 850.1 | 1.9 | 527.2 |
| 5.27 | 245.6 | 994.6 | 1.9 | 590.5 |
| 5.52 | 250.1 | 1140.4 | 1.8 | 649.1 |
| 5.77 | 255.1 | 1316.9 | 1.8 | 714.9 |
| 6.02 | 259.6 | 1492.3 | 1.8 | 775.8 |
| 6.28 | 264.6 | 1702.1 | 1.7 | 844.0 |
| 6.53 | 269.6 | 1929.7 | 1.7 | 913.5 |
| 6.78 | 274.1 | 2152.4 | 1.6 | 977.8 |
| 7.03 | 279.1 | 2415.2 | 1.6 | 1049.8 |
| 7.28 | 283.6 | 2670.4 | 1.6 | 1116.3 |
| 7.53 | 288.6 | 2969.4 | 1.5 | 1190.8 |
| 7.78 | 293.6 | 3287.9 | 1.5 | 1266.5 |
| 8.03 | 298.1 | 3594.7 | 1.5 | 1336.5 |
| 8.28 | 303.1 | 3951.4 | 1.4 | 1414.7 |
| 8.53 | 308.1 | 4328.7 | 1.4 | 1494.2 |
| 8.79 | 312.6 | 4689.6 | 1.4 | 1567.6 |
| 9.04 | 317.6 | 5106.9 | 1.3 | 1649.6 |
| 9.29 | 322.1 | 5504.8 | 1.3 | 1725.2 |
| 9.54 | 327.1 | 5963.4 | 1.3 | 1809.7 |
| 9.79 | 332.0 | 6444.0 | 1.2 | 1895.4 |
| 10.04 | 336.6 | 6900.4 | 1.2 | 1974.5 |
| 10.29 | 341.5 | 7424.2 | 1.2 | 2062.7 |
| 10.54 | 346.5 | 7971.1 | 1.1 | 2152.2 |
| 10.79 | 351.0 | 8488.6 | 1.1 | 2234.7 |
| 11.04 | 356.0 | 9080.5 | 1.1 | 2326.7 |
| 11.30 | 360.5 | 9639.5 | 1.0 | 2411.4 |
| 11.55 | 365.5 | 10277.6 | 1.0 | 2505.9 |
| 11.80 | 370.5 | 10940.4 | 1.0 | 2601.6 |
| 12.05 | 360.4 | 11564.7 | 0.9 | 2689.2 |
| 12.30 | 296.1 | 12274.3 | 0.9 | 2773.8 |
| 12.55 | 237.7 | 12936.9 | 0.9 | 2836.2 |
| 12.80 | 173.5 | 13680.9 | 0.8 | 2888.9 |
| 13.05 | 109.2 | 14436.6 | 0.8 | 2924.8 |
| 13.30 | 50.8 | 15130.2 | 0.8 | 2943.1 |
| 13.55 | -13.4 | 15896.2 | 0.7 | 2947.2 |
| 13.81 | -77.7 | 16661.4 | 0.7 | 2934.6 |
| 14.06 | -136.1 | 17352.5 | 0.7 | 2908.6 |
| 14.31 | -200.3 | 18103.9 | 0.7 | 2864.1 |
| 14.56 | -258.7 | 18775.3 | 0.6 | 2809.2 |
| 14.81 | -323.0 | 19497.0 | 0.6 | 2732.8 |
| 15.06 | -387.2 | 20196.9 | 0.6 | 2639.7 |
| 15.31 | -445.6 | 20810.6 | 0.6 | 2540.6 |
| 15.56 | -509.9 | 21456.7 | 0.5 | 2415.6 |
| 15.81 | -574.1 | 22068.4 | 0.5 | 2273.9 |
| 16.07 | -632.5 | 22590.9 | 0.5 | 2130.6 |
| 16.32 | -698.8 | 23124.7 | 0.5 | 1957.1 |
| 16.57 | -755.2 | 23569.3 | 0.4 | 1784.8 |
| 16.82 | -819.4 | 24009.4 | 0.4 | 1579.3 |
| 17.07 | -883.6 | 24394.1 | 0.4 | 1357.2 |
| 17.32 | -942.1 | 24692.2 | 0.4 | 1140.7 |
| 17.57 | -1006.3 | 24959.1 | 0.3 | 886.7 |
| 17.82 | -1064.7 | 25142.8 | 0.3 | 641.2 |
| 18.07 | -1128.9 | 25276.1 | 0.3 | 355.3 |
| 18.32 | -1193.2 | 25333.1 | 0.3 | 52.6 |
| 18.58 | -1251.6 | 25330.4 | 0.3 | -199.1 |
| 18.83 | -1315.8 | 25296.1 | 0.2 | -498.2 |
| 19.08 | -1380.1 | 25239.0 | 0.2 | -780.7 |
| 19.33 | -1438.5 | 25171.4 | 0.2 | -1023.0 |
| 19.58 | -1502.7 | 25065.7 | 0.2 | -1273.6 |
| 19.83 | -1561.1 | 24932.5 | 0.2 | -1486.8 |
| 20.08 | -1625.4 | 24771.1 | 0.2 | -1705.5 |
| 20.33 | -1689.6 | 24580.7 | 0.2 | -1907.5 |
| 20.58 | -1748.0 | 24360.7 | 0.1 | -2076.6 |
| 20.83 | -1812.3 | 24110.3 | 0.1 | -2246.7 |
| 21.09 | -1876.5 | 23828.9 | 0.1 | -2400.1 |
| 21.34 | -1934.9 | 23515.8 | 0.1 | -2525.0 |
| 21.59 | -1999.2 | 23170.2 | 0.1 | -2646.5 |
| 21.84 | -2057.6 | 22856.9 | 0.1 | -2742.5 |
| 22.09 | -2121.8 | 22449.9 | 0.1 | -2832.1 |
| 22.34 | -2186.1 | 22008.5 | 0.1 | -2905.0 |
| 22.59 | -2244.5 | 21532.0 | 0.1 | -2956.8 |
| 22.84 | -2308.7 | 21019.6 | 0.1 | -2997.8 |
| 23.09 | -2367.1 | 20470.6 | 0.0 | -3020.6 |
| 23.34 | -2431.4 | 19884.3 | 0.0 | -3029.7 |
| 23.60 | -2495.6 | 19260.1 | 0.0 | -3022.1 |
| 23.85 | -2554.0 | 18597.2 | 0.0 | -3000.7 |
| 24.10 | -2618.2 | 17894.9 | 0.0 | -2961.3 |
| 24.35 | -2682.5 | 17152.5 | 0.0 | -2905.1 |
| 24.60 | -2740.9 | 16502.7 | 0.0 | -2839.5 |
| 24.85 | -2805.1 | 15544.6 | 0.0 | -2751.5 |
| 25.10 | -2863.5 | 14825.1 | 0.0 | -2656.9 |
| 25.35 | -2927.8 | 13922.5 | 0.0 | -2537.0 |
| 25.60 | -2992.0 | 12976.4 | 0.0 | -2400.3 |
| 25.85 | -3050.4 | 11986.1 | 0.0 | -2261.6 |
| 26.11 | -3114.7 | 10950.9 | 0.0 | -2093.0 |
| 26.36 | -3178.9 | 9870.0 | 0.0 | -1907.8 |
| 26.61 | -3237.3 | 8742.9 | 0.0 | -1724.9 |
| 26.86 | -3301.6 | 7568.7 | 0.0 | -1507.7 |
| 27.11 | -3360.0 | 6553.8 | 0.0 | -1295.8 |
| 27.36 | -3424.2 | 5076.5 | 0.0 | -1046.8 |
| 27.61 | -3488.5 | 3757.0 | 0.0 | -781.1 |
| 27.86 | -3546.9 | 2619.4 | 0.0 | -525.0 |
| 28.11 | -3611.1 | 1208.0 | 0.0 | -227.4 |
| 28.36 | -3663.7 | -7.1 | 0.0 | 28.6 |


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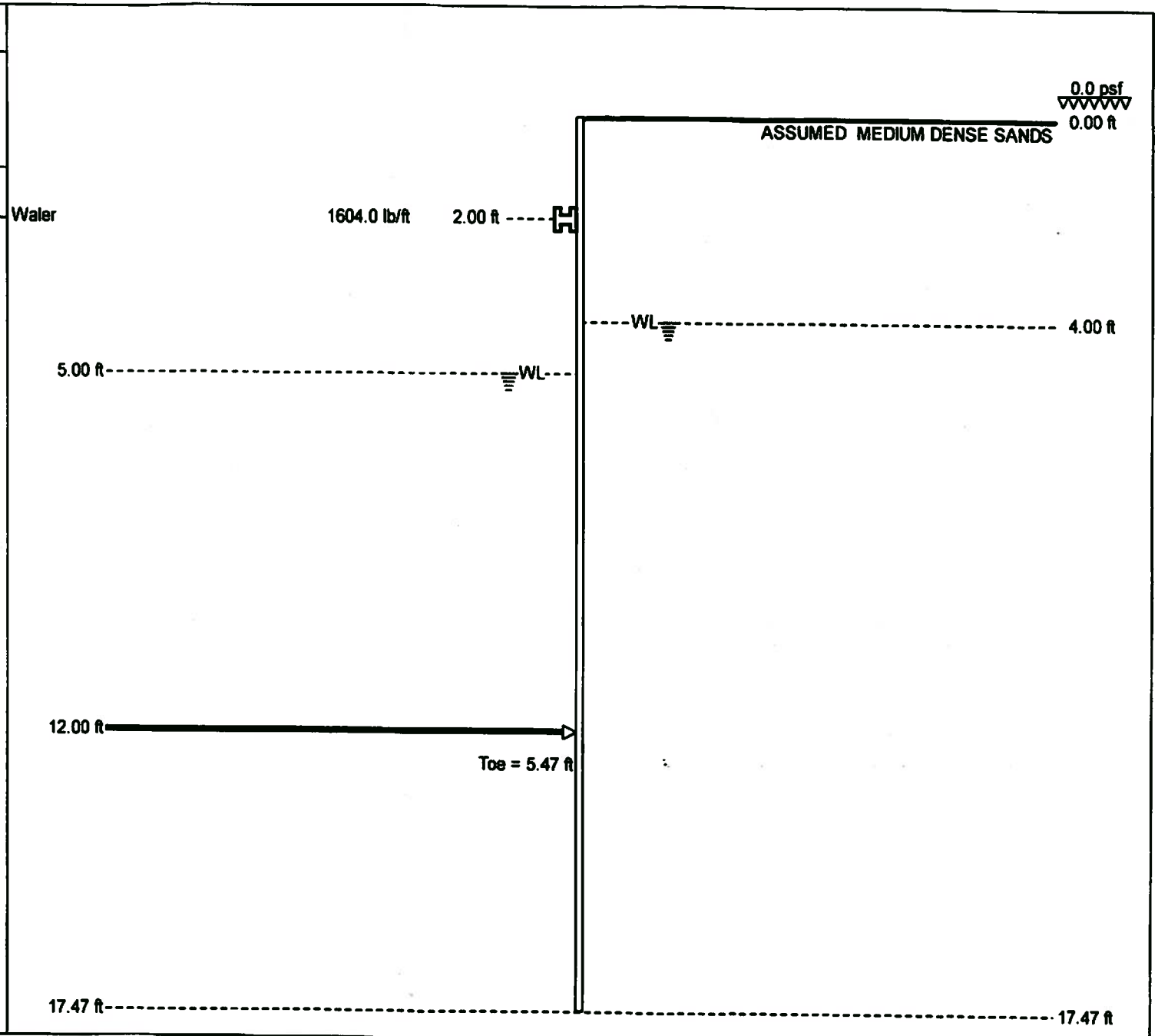
Client: CREAMER ENVIRONMENTAL, INC.

Title: FORMER MGP SITE, BAYSHORE, NY
Designer: JOHN A. GEARY, P.E.
Page: 1
Date: 3.4.10

Sheet: WEZ-95
Pressure: Rankine

ANALYSIS OF EXISTING SHEETING WITH 12 FT. CUT BELOW O.G. AND NO ROOM FOR BENCHING AT S.E. CORNER

CASE III





JOHN A. GEARY, P.E.

P.O. BOX 102, ALLAMUCHY, NJ 07820
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Fax: 908-852-1742


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Client: CREAMER ENVIRONMENTAL, INC.

Title: FORMER MGP SITE, BAYSHORE, NY

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Page: 2

Date: 3.4.10

Sheet: WEZ-95

Pressure: Rankine

ANALYSIS OF EXISTING SHEETING WITH 12 FT. CUT BELOW O.G. AND NO ROOM FOR BENCHING AT S.E. CORNER

## Input Data

Depth Of Excavation = 12.00 ft  Depth Of Active Water = 4.00 ft  Water Density = 62.43 pcf

Surcharge = 0.0 psf  Depth Of Passive Water = 5.00 ft  Minimum Fluid Density = 31.82 pcf

Soil Profile

| Depth (ft) | Soil Name | $\gamma$ (pcf) | $\gamma'$ (pcf) | C (psf) | $C_a$ (psf) | $\phi$(°) | $\delta$(°) | $K_a$ | $K_{ac}$ | $K_p$ | $K_{pc}$ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.00 | ASSUMED MEDIUM DENSE SANDS | 120.00 | 58.00 | 0.0 | 0.0 | 30.0 | 14.0 | 0.33 | 0.00 | 4.59 | 0.00 |

## Solution

Sheet

| Sheet Name | I (in⁴/ft) | E (psi) | Z (in³/ft) | f (psi) | Maximum Bending Moment (ftlb/ft) | Upstand (ft) | Toe (ft) | Pile Length (ft) |
|---|---|---|---|---|---|---|---|---|
| WEZ-95 | 134.00 | 3.04E+07 | 24.90 | 32500.0 | 67357.2 | 0.00 | 5.47 | 17.47 |

Load Model: Hinge Method

Supports

| Depth (ft) | Type | Linear Load (lb/ft) |
|---|---|---|
| 2.00 | Waler | 1604.0 |

Maxima

| | Maximum | Depth |
|---|---|---|
| Bending Moment | 6185.9 ftlb/ft | 8.91 ft |
| Deflection | 0.1 in | 9.36 ft |
| Pressure | 374.0 psf | 12.00 ft |
| Shear Force | 1523.6 lb/ft | 2.00 ft |

JOHN A. GEARY, P.E.

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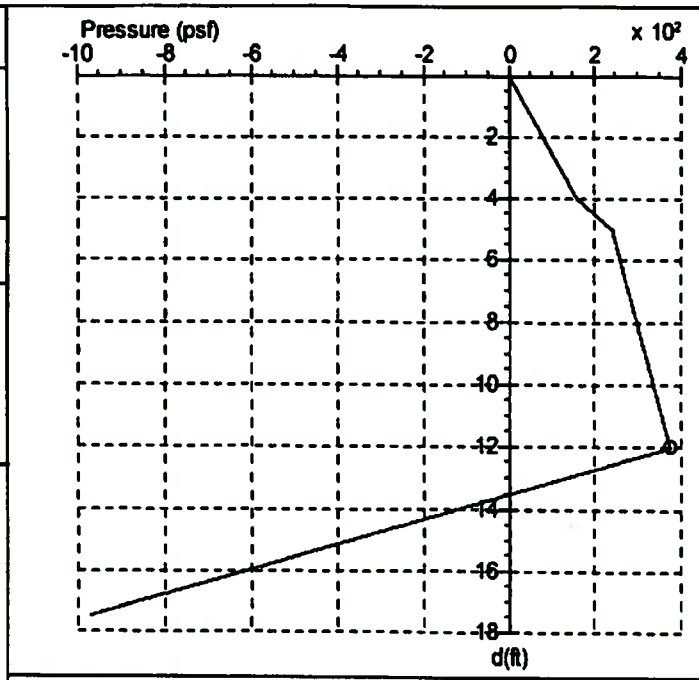
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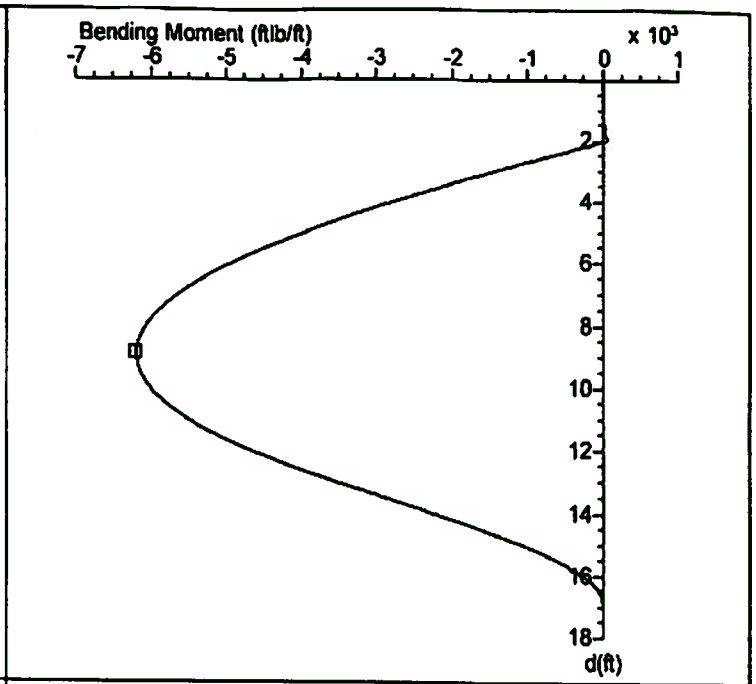
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Designer: JOHN A. GEARY, P.E.
Page: 3
Date: 3.4.10

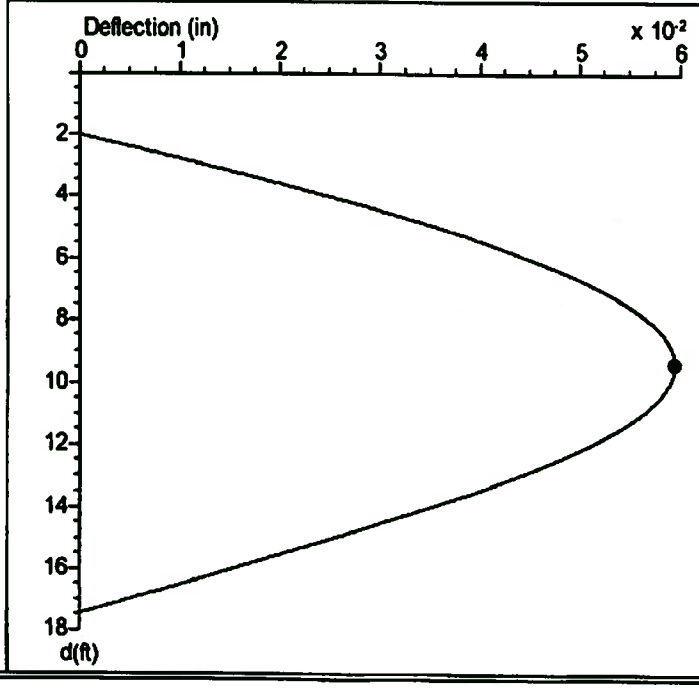
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Pressure: Rankine

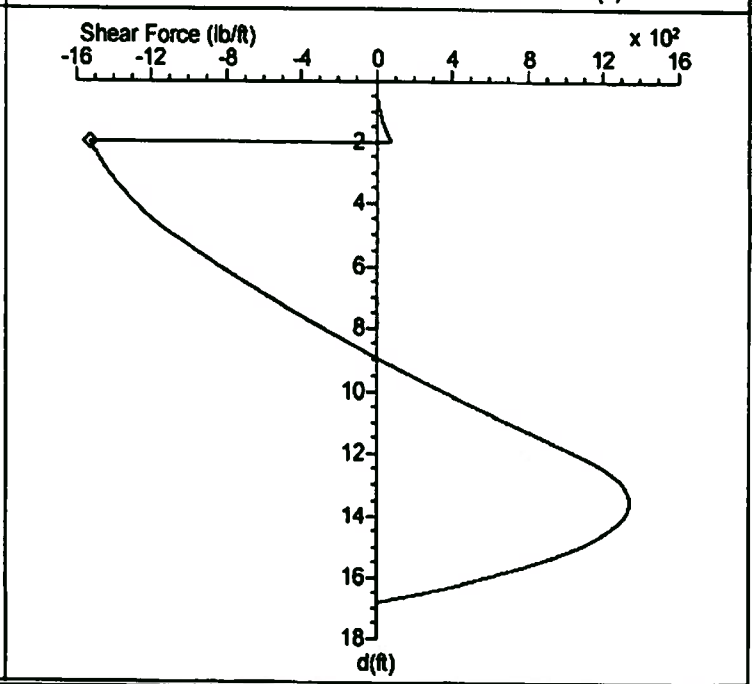
| | Maximum | d (ft) |
|---|---|---|
| ○ | 374.0 psf | 12.00 |
| □ | 6185.9 ftlb/ft | 8.91 |
| ◇ | 1523.6 lb/ft | 2.00 |
| ● | 0.1 in | 9.36 |

ANALYSIS OF EXISTING SHEETING WITH 12 FT. CUT BELOW O.G. AND NO ROOM FOR BENCHING AT S.E. CORNER




# JOHN A. GEARY, P.E.


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Designer: JOHN A. GEARY, P.E.
Page: 4
Date: 3.4.10

Sheet: WEZ-95
Pressure: Rankine

ANALYSIS OF EXISTING SHEETING WITH 12 FT. CUT BELOW O.G. AND NO ROOM FOR BENCHING AT S.E. CORNER

| depth (ft) | P (psf) | M (ftlb/ft) | D (in) | F (lb/ft) | depth (ft) | P (psf) | M (ftlb/ft) | D (in) | F (lb/ft) | depth (ft) | P (psf) | M (ftlb/ft) | D (in) | F (lb/ft) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.00 | 0.6 | 0.0 | 0.0 | 0.0 | 5.87 | 256.8 | -4822.5 | 0.0 | -867.5 | 11.75 | 369.4 | -4898.6 | 0.1 | 974.4 |
| 0.15 | 6.3 | 0.0 | 0.0 | 0.6 | 6.03 | 259.9 | -4969.1 | 0.0 | -826.1 | 11.90 | 372.2 | -4757.5 | 0.1 | 1028.4 |
| 0.31 | 12.7 | 0.2 | 0.0 | 2.1 | 6.18 | 262.7 | -5085.3 | 0.0 | -788.0 | 12.06 | 357.6 | -4593.4 | 0.1 | 1087.6 |
| 0.46 | 18.4 | 0.7 | 0.0 | 4.4 | 6.34 | 265.7 | -5206.7 | 0.0 | -745.7 | 12.21 | 321.6 | -4436.4 | 0.0 | 1136.7 |
| 0.62 | 24.8 | 1.7 | 0.0 | 7.9 | 6.49 | 268.8 | -5321.5 | 0.0 | -702.9 | 12.37 | 282.0 | -4272.9 | 0.0 | 1184.8 |
| 0.77 | 31.1 | 3.3 | 0.0 | 12.5 | 6.65 | 271.6 | -5419.9 | 0.0 | -663.6 | 12.52 | 242.5 | -4086.2 | 0.0 | 1226.5 |
| 0.93 | 36.9 | 5.5 | 0.0 | 17.5 | 6.80 | 274.7 | -5521.6 | 0.1 | -619.8 | 12.67 | 206.5 | -3911.2 | 0.0 | 1258.9 |
| 1.08 | 43.2 | 8.8 | 0.0 | 23.9 | 6.96 | 277.4 | -5608.1 | 0.1 | -579.6 | 12.83 | 166.9 | -3713.8 | 0.0 | 1288.5 |
| 1.24 | 49.0 | 12.7 | 0.0 | 30.7 | 7.11 | 280.5 | -5696.6 | 0.1 | -534.9 | 12.98 | 127.4 | -3512.2 | 0.0 | 1311.8 |
| 1.39 | 55.3 | 18.2 | 0.0 | 39.1 | 7.26 | 283.6 | -5777.9 | 0.1 | -489.7 | 13.14 | 91.4 | -3326.1 | 0.0 | 1327.4 |
| 1.55 | 61.7 | 25.1 | 0.0 | 48.5 | 7.42 | 286.4 | -5845.7 | 0.1 | -448.2 | 13.29 | 51.9 | -3119.2 | 0.0 | 1338.6 |
| 1.70 | 67.4 | 32.8 | 0.0 | 57.9 | 7.57 | 289.4 | -5913.4 | 0.1 | -402.1 | 13.45 | 15.9 | -2949.0 | 0.0 | 1343.3 |
| 1.85 | 73.8 | 42.9 | 0.0 | 69.3 | 7.73 | 292.2 | -5968.5 | 0.1 | -359.8 | 13.60 | -23.7 | -2740.5 | 0.0 | 1342.4 |
| 2.01 | 80.1 | 9.0 | 0.0 | -1522.4 | 7.88 | 295.3 | -6022.2 | 0.1 | -312.7 | 13.76 | -63.2 | -2532.5 | 0.0 | 1335.1 |
| 2.16 | 85.9 | -209.7 | 0.0 | -1510.3 | 8.04 | 298.3 | -6068.4 | 0.1 | -265.2 | 13.91 | -99.2 | -2344.6 | 0.0 | 1323.0 |
| 2.32 | 92.2 | -448.2 | 0.0 | -1496.0 | 8.19 | 301.1 | -6103.9 | 0.1 | -221.5 | 14.07 | -138.7 | -2140.4 | 0.0 | 1303.7 |
| 2.47 | 98.0 | -663.0 | 0.0 | -1482.1 | 8.35 | 304.2 | -6135.6 | 0.1 | -173.1 | 14.22 | -174.7 | -1957.6 | 0.0 | 1280.6 |
| 2.63 | 104.3 | -896.9 | 0.0 | -1465.8 | 8.50 | 307.2 | -6159.7 | 0.1 | -124.1 | 14.38 | -214.3 | -1760.7 | 0.0 | 1249.2 |
| 2.78 | 110.7 | -1128.2 | 0.0 | -1448.6 | 8.66 | 310.0 | -6174.9 | 0.1 | -79.2 | 14.53 | -253.8 | -1569.1 | 0.0 | 1211.4 |
| 2.94 | 116.4 | -1336.0 | 0.0 | -1432.0 | 8.81 | 313.1 | -6184.2 | 0.1 | -29.2 | 14.68 | -289.8 | -1416.9 | 0.0 | 1171.6 |
| 3.09 | 122.8 | -1561.8 | 0.0 | -1412.8 | 8.97 | 315.9 | -6185.7 | 0.1 | 16.5 | 14.84 | -329.4 | -1237.5 | 0.0 | 1121.8 |
| 3.25 | 129.1 | -1804.6 | 0.0 | -1392.6 | 9.12 | 319.0 | -6179.8 | 0.1 | 67.4 | 14.99 | -368.9 | -1066.1 | 0.0 | 1085.6 |
| 3.40 | 134.9 | -2004.0 | 0.0 | -1373.4 | 9.27 | 322.0 | -6165.9 | 0.1 | 118.7 | 15.15 | -404.9 | -918.2 | 0.0 | 1009.0 |
| 3.56 | 141.2 | -2220.0 | 0.0 | -1351.2 | 9.43 | 324.8 | -6146.2 | 0.1 | 165.8 | 15.30 | -444.4 | -765.1 | 0.0 | 940.7 |
| 3.71 | 147.0 | -2413.3 | 0.0 | -1330.2 | 9.58 | 327.9 | -6116.7 | 0.1 | 218.1 | 15.46 | -480.4 | -635.5 | 0.0 | 873.2 |
| 3.86 | 153.3 | -2622.3 | 0.0 | -1306.1 | 9.74 | 330.9 | -6078.9 | 0.1 | 270.8 | 15.61 | -520.0 | -504.2 | 0.0 | 792.8 |
| 4.02 | 161.0 | -2827.5 | 0.0 | -1281.0 | 9.89 | 333.7 | -6037.3 | 0.1 | 319.2 | 15.77 | -559.5 | -396.0 | 0.0 | 706.1 |
| 4.17 | 172.9 | -3010.4 | 0.0 | -1256.6 | 10.05 | 336.8 | -5988.8 | 0.1 | 372.9 | 15.92 | -595.5 | -299.3 | 0.0 | 621.8 |
| 4.33 | 185.9 | -3207.4 | 0.0 | -1227.8 | 10.20 | 339.6 | -5933.3 | 0.1 | 422.2 | 16.08 | -635.0 | -206.9 | 0.0 | 523.0 |
| 4.48 | 197.8 | -3382.4 | 0.0 | -1199.7 | 10.36 | 342.6 | -5864.0 | 0.1 | 476.8 | 16.23 | -674.6 | -130.3 | 0.0 | 417.8 |
| 4.64 | 210.9 | -3570.1 | 0.0 | -1166.9 | 10.51 | 345.7 | -5786.1 | 0.1 | 531.9 | 16.38 | -710.6 | -75.0 | 0.0 | 316.8 |
| 4.79 | 223.9 | -3752.5 | 0.0 | -1132.0 | 10.67 | 348.5 | -5707.8 | 0.1 | 582.5 | 16.54 | -750.1 | -31.1 | 0.0 | 199.6 |
| 4.95 | 235.8 | -3913.3 | 0.0 | -1098.5 | 10.82 | 351.5 | -5613.2 | 0.1 | 638.5 | 16.69 | -786.1 | -7.3 | 0.0 | 87.5 |
| 5.10 | 242.1 | -4084.5 | 0.0 | -1060.0 | 10.97 | 354.3 | -5519.5 | 0.1 | 689.9 | 16.85 | -825.7 | 0.0 | 0.0 | 0.0 |
| 5.26 | 245.1 | -4249.6 | 0.0 | -1021.0 | 11.13 | 357.4 | -5408.0 | 0.1 | 746.9 | 17.00 | -865.2 | 0.0 | 0.0 | 0.0 |
| 5.41 | 247.9 | -4394.4 | 0.0 | -985.1 | 11.28 | 360.5 | -5298.7 | 0.1 | 804.4 | 17.16 | -901.2 | 0.0 | 0.0 | 0.0 |
| 5.56 | 251.0 | -4547.6 | 0.0 | -945.1 | 11.44 | 363.2 | -5182.0 | 0.1 | 857.1 | 17.31 | -940.7 | 0.0 | 0.0 | 0.0 |
| 5.72 | 253.8 | -4681.4 | 0.0 | -908.4 | 11.59 | 366.3 | -5044.9 | 0.1 | 915.5 | 17.47 | -973.1 | 0.0 | 0.0 | 0.0 |


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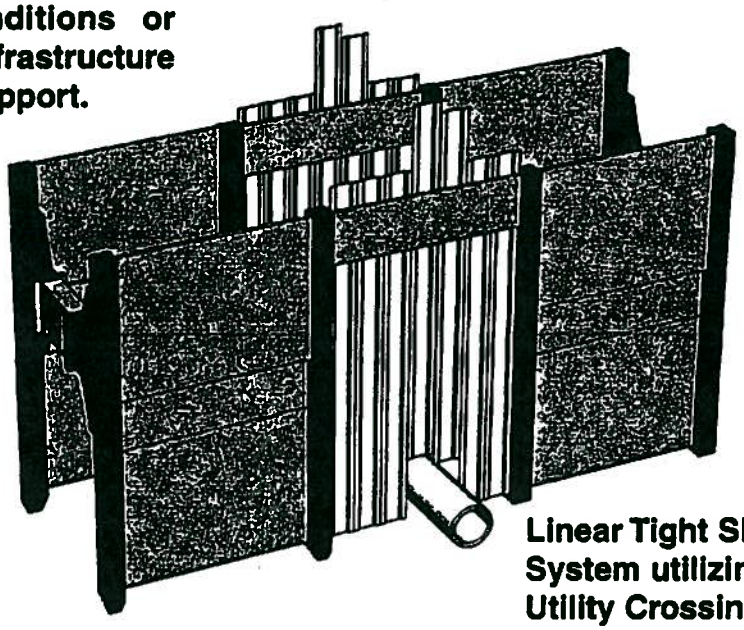
# SLIDE RAIL SYSTEM

Our slide rail system is a vertical sheeting and trench support system. It is used to replace the conventional application of wood or steel sheeting. In using the system, the excavation may be shored from ground level to subgrade without soil movement.

This is a highly effective system in areas having unfavorable ground conditions or where an existing underground infrastructure would pose difficulties in trench support.

By using the modular slide rail system either with side panel lining plates or in-line sheeting templates, the system will accommodate a variety of job site requirements.

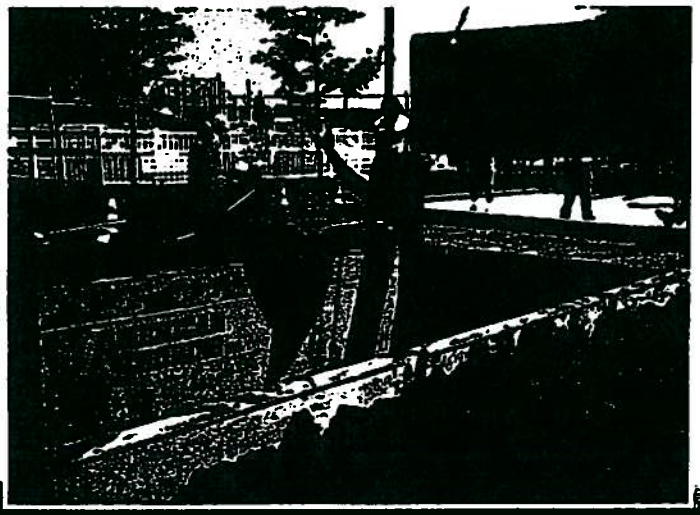
There is an added benefit to the contractor, in that a significant savings in labor and materials will be realized.



Linear Tight Shoring System utilizing in line Utility Crossing Frame

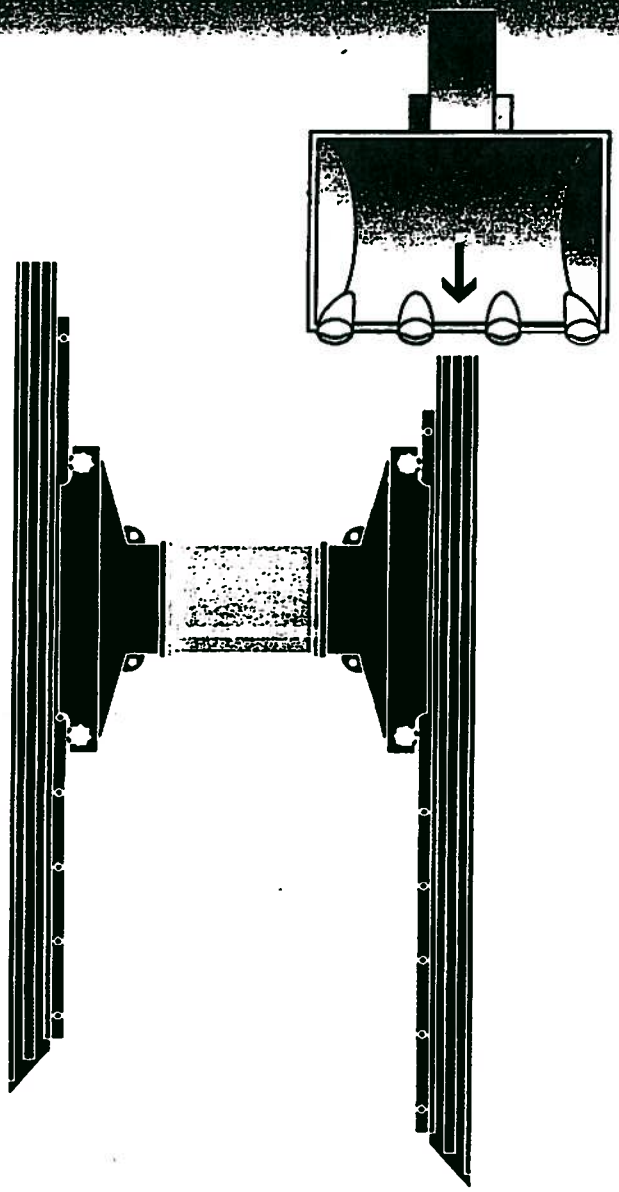
## *SLIDE RAIL ADVANTAGES*

- ***Provides safety while excavating***
- ***Tight shoring without soil movement***
- ***Vibration free, no damage to adjacent structures***
- ***Save on equipment- no crane or hammer is required***
- ***Installs with a mid-sized excavator***



- ***Saves money: less material cost than conventional sheeting, finish in a third of the time using half of the labor***
- ***Lower restorative costs***
- ***Professional Engineer certified to OSHA regulations. All data is prepared and ready for submittal***

# THE ROLLING STRUT ADVANTAGES!



- **Save time with ease of installation**
- **Save money because this system installs and removes faster than any of it's predecessors**
- **One Strut System**
- **Our Entire System Moves**
- **Strongest Rails and Struts in the industry**
- **Maximum Clearances**
- **Reinforced Panel Designs have optional Wheel Ends**
- **Advance panels by direct bucket contact**
- **Maximum Cantilevers**
- **Parallel Drive- also means:**
  **No Rocking**
  **No Soil Movement**

**All This Yet...**

- **Competitively Priced**
- **Available for Sale or Rentals**
- **P.E. certified to OSHA regulations**
  **Site specific engineering available**
- **Field service/supervision with on site assembly and take down**

***Rolling Struts** allow the slide rails to be driven independently as you dig-unlike the older systems that only allowed a 9° advancement.*

*Solid rollers ride on outer face of the rails and they are guaranteed not to bind like "frame work" systems.*

*The Rolling Struts keep the Slide Rails apart and parallel to one another- the results: no voids unlike the superceded designs.*

*Our strong offset design struts offer more boom clearance while digging between bays.*

*Our entire system moves.*

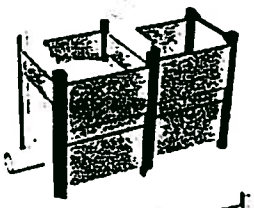
***This design provides more pipe clearance than any other system.***

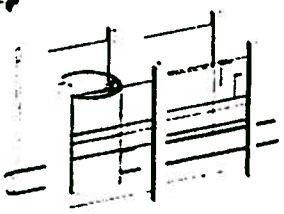
**AMERICAN SHORING INC.**

**1-800-407-4674**

# TIGHT SHEETING APPLICATIONS

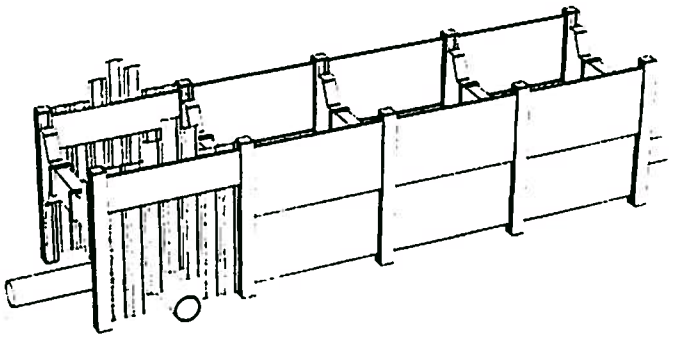
***Flexibility of design allows unlimited adaptations to accommodate a variety of sheeted excavation requirements.***



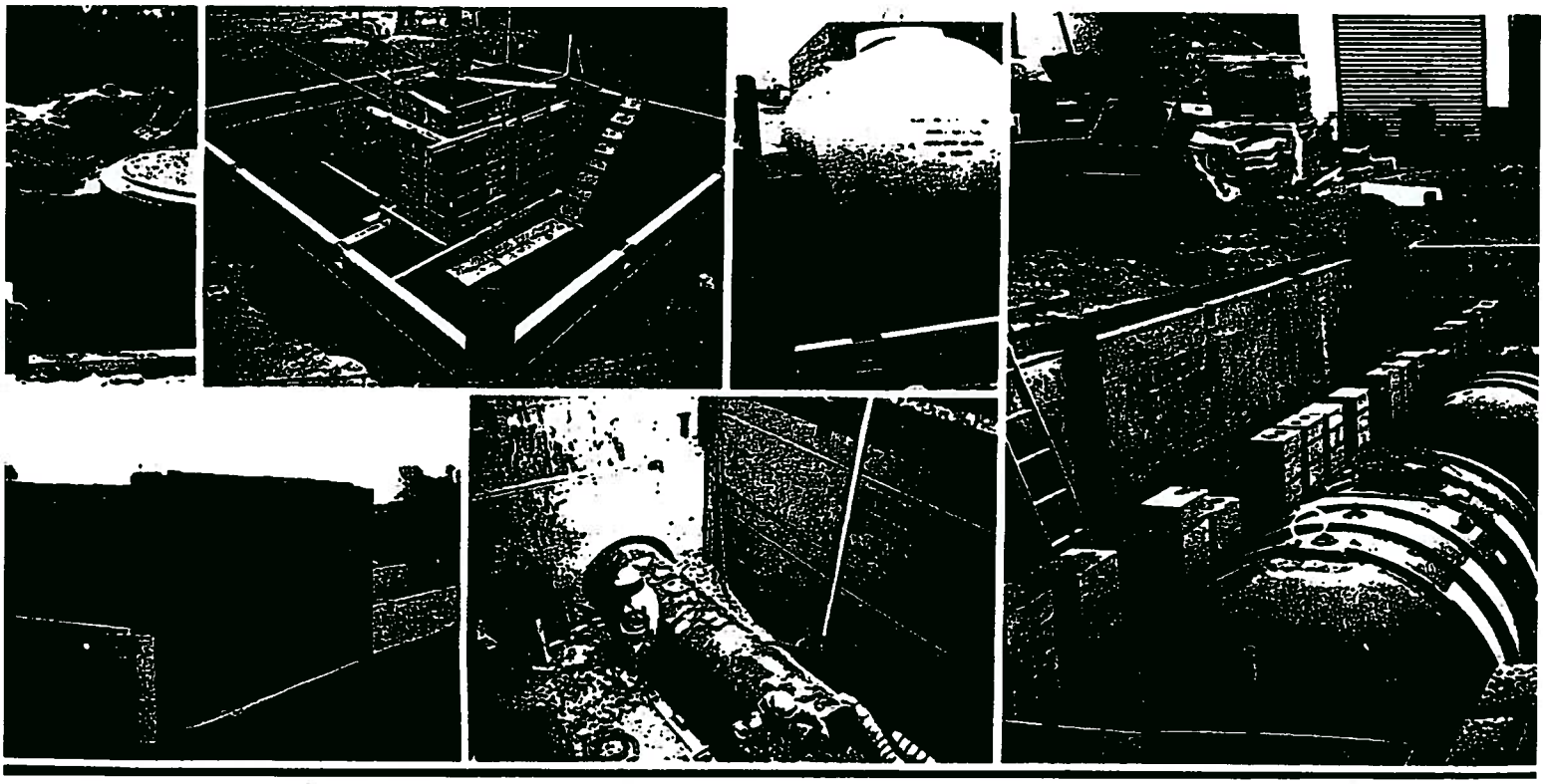


## *USE SLIDE RAIL TIGHT SHEETING FOR:*

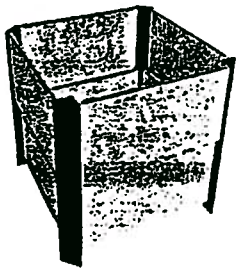
- ***Pre-cast and cast in place structures***
- ***Concrete walls and footings***
- ***Retaining walls and footings***
- ***Seepage basins***
- ***Culverts***
- ***Pump stations***
- ***Deep manholes***
- ***Tank installation or removal***
- ***Boring and jacking operations***
- ***Pipeline installation***
- ***Foundation waterproofing and more***



***Virtually any configuration is possible using combinations of single, double or triple slide rails, corner rails, side panels and in-line sheeting templates.***



# MORE CONFIGURATIONS



**Small Rectangular Pit**
closed all four sides

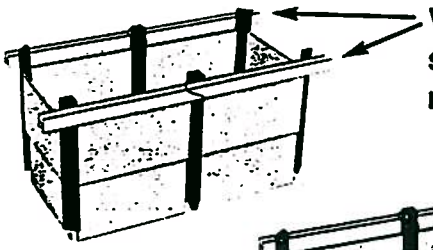


**Small Rectangular Pit**
with sheeting on one
(or both) ends

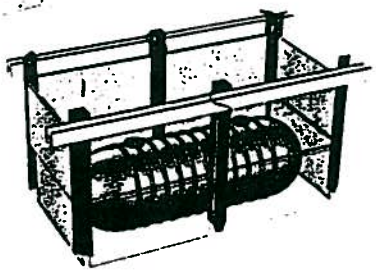
***Your Slide Rail System with Rolling Struts® may be used in most excavating applications.***

***Telescoping step down systems using 90° corner posts makes it easy!***

AMERICAN SHORING INC.
***1-800-407-4674***

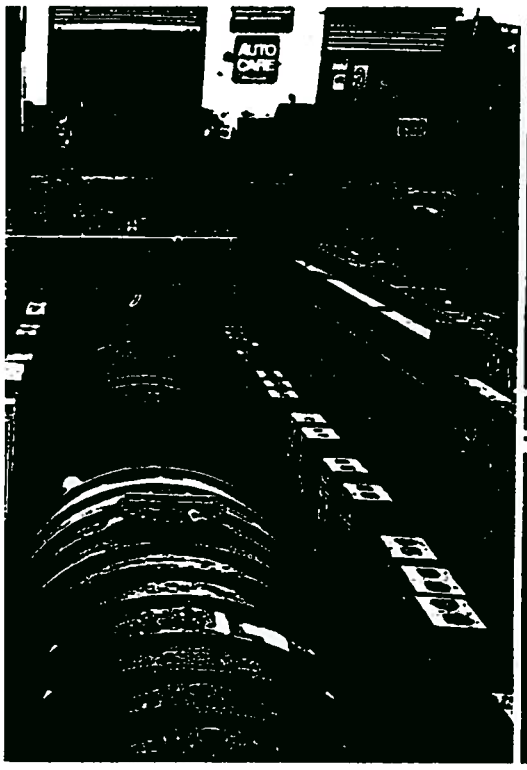


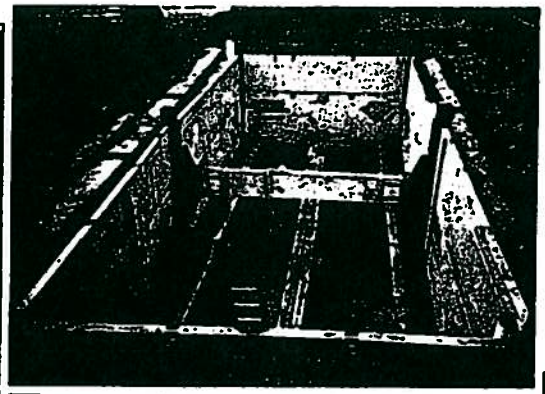
**Walers are used for side support when clear span requirements are needed.**



**Two Bay Sheeted Pit**

***When rolling strut removal is required- it couldn't be easier!- remove top limit pins and pull out...no nuts, bolts, wrenches or mechanics are required.***







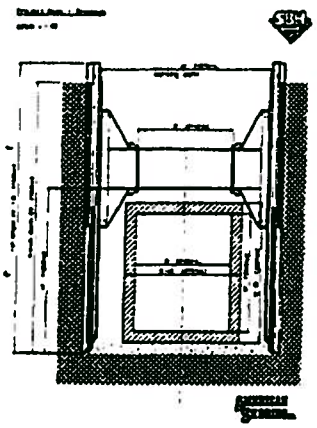


# MEGA STRUTS FOR MAX CLEARANCE

## Mega Rolling Struts Provide Max Clearance Under Cross Braces

American Shoring Inc.'s Rolling Strut™ Slide Rail systems replace out of date fixed brace shoring systems as well as "frame work" spreaders on rollers. Our whole system moves.

The versatile Rolling Strut™ cantilever cross brace is positioned near the bottom of the vertical support rails to keep it from obstructing the operator's view during installation. Once the digging is done and the shoring is down to grade the cantilever brace is rolled up and pinned in place.

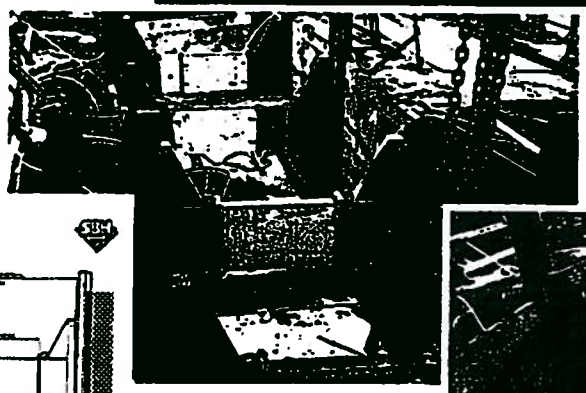


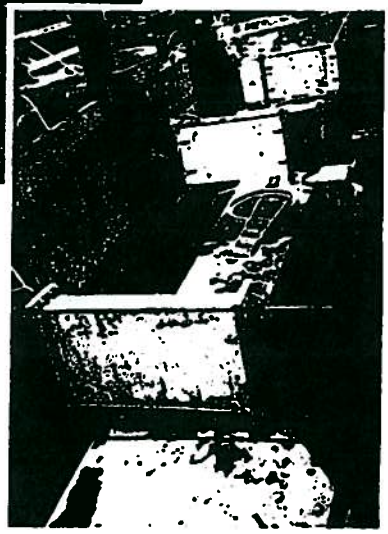
This provides maximum clearance under the brace before the excavator backs up and installs the next section. With the "Mega" Double Slide Rail System excavations up to 24' deep can have 16' of clearance under the brace for installation of box culverts, large diameter pipe, structures or tanks.

American Shoring, Inc. rents and sells Rolling Strut Slide Rail systems nation wide for depths up to 40' deep.

- ***World's Largest 36' Panels***
- ***Any Width Available***







**EIC Associates, Inc.** installs a 23'D x 12'H x 10'W precast concrete box culvert using Mega Rolling Strut Slide Rail with a clearance of 16' under the cross brace for the NYCDEP in Brooklyn, NY.

**AMERICAN SHORING INC.**

**1-800-407-4674**

## Large Four Sided Pit Shoring





Form work for cast in place underground storage structure.

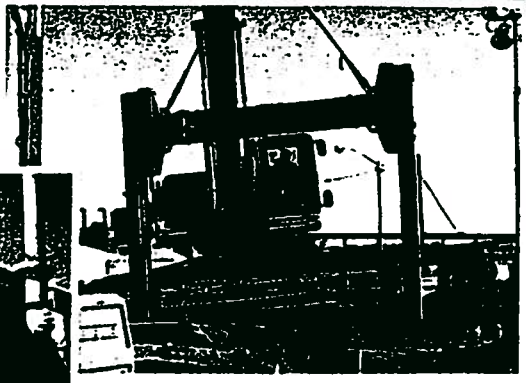
Contractor: Marois Brothers

Owner: Cisco Systems

Location: Boxborough, Mass.

# INNOVATIVE TRENCH SHORING

## Rolling Struts™ Retains Shoring Strength While Providing Maximum Clearance



J. Fletcher Creamer & Son, Inc. installing duct banks using our Rolling Strut™ Slide Rail System for Public Service Electric & Gas at Linden, New Jersey generating plant expansion project.



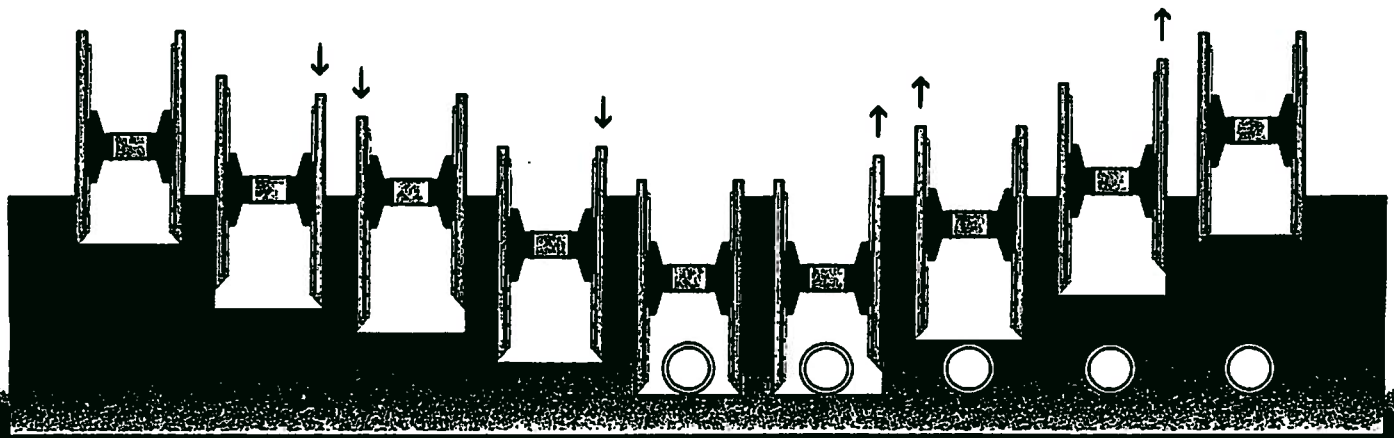




**AMERICAN SHORING INC.**

**1-800-407-4674**

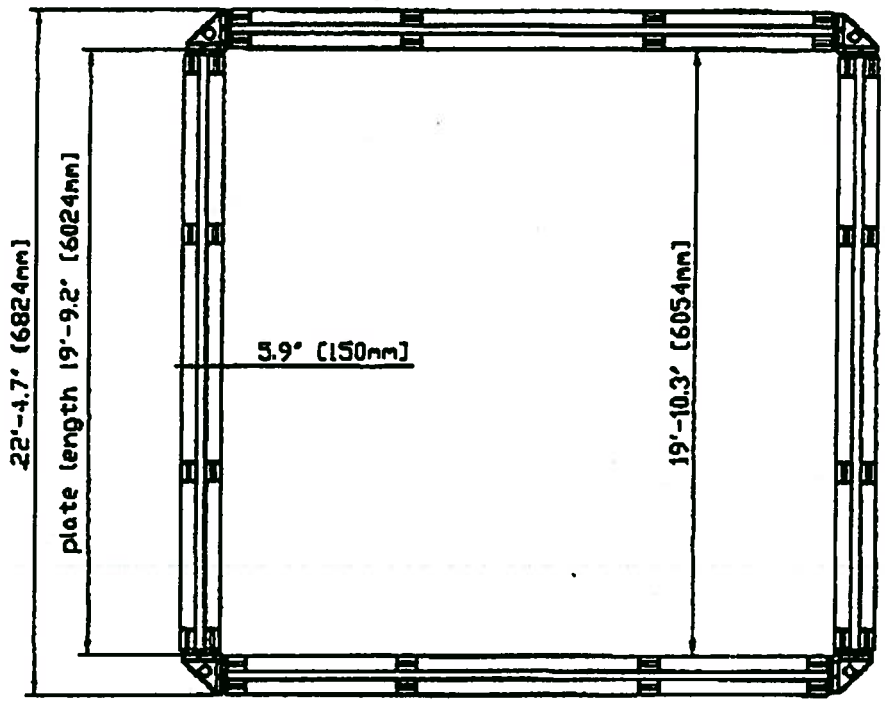
**SALES ★ RENTALS ★ SERVICE**



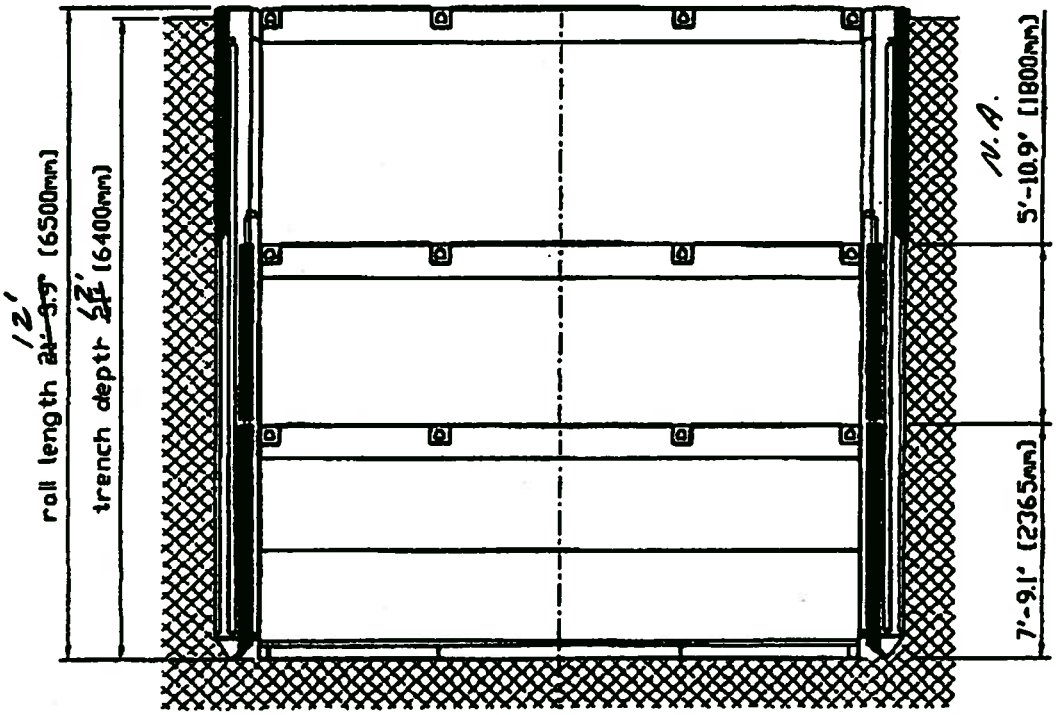
Typical Slide Rail Pit Configuration
Module will be 15' Wide x 20' Long x 12' High

SBH-Tiefbautechnik GmbH, Ferdinand-Porsche-Str. 8, 52525 Heinsberg
scale 1 : 60

06.12.2002
TÜrp




section A-A




g:\r13\rollensc\kunde\eckgrube\gt6,40m-pl6,0m inch.dwg

06-DEZ-02 14:42 VON:SBH TIEFBAUTECHNIK +49 2452 21553 AN:845 562 2911 SEITE:003/015

## SUMMARY OF ROLLING STRUT SYSTEM ALLOWABLE LOADS AND ENGINEERING PROPERTIES

## PIT CORNER SERIES DOUBLE SLIDE RAIL SYSTEM

### I. SLIDE PLATES

ALLOWABLE SOIL PRESSURE ON PLATES (IN PSF) FOR ALL ROLLING STRUT SYSTEMS

| LENGTH (ft.) | NO OVERSTRESS | WITH OVERSTRESS % PERMITTED, DUE TO TEMPORARY LOADING 10% | 15% | 20% | 25% | 30% | 33% |
|---|---|---|---|---|---|---|---|
| 26.246 | 552 | 607 | 635 | 662 | 690 | 718 | 734 |
| 24.606 | 628 | 691 | 722 | 754 | 785 | 816 | 835 |
| 23.790 | 672 | 739 | 773 | 806 | 840 | 874 | 894 |
| 22.966 | 721 | 793 | 829 | 865 | 901 | 937 | 959 |
| 21.325 | 836 | 920 | 961 | 1003 | 1045 | 1087 | 1112 |
| 20.500 | 905 | 996 | 1041 | 1086 | 1131 | 1177 | 1204 |
| → 19.685 | 982 | 1080 | 1129 | 1178 | 1228 | 1277 | 1306 |
| 18.040 | 1168 | 1285 | 1343 | 1402 | 1460 | 1518 | 1553 |
| 16.404 | 1052 | 1157 | 1210 | 1262 | 1315 | 1368 | 1399 |
| → 14.764 | 1298 | 1428 | 1493 | 1558 | 1623 | 1687 | 1726 |
| 13.123 | 1643 | 1807 | 1889 | 1972 | 2054 | 2136 | 2185 |
| 11.483 | 2146 | 2361 | 2468 | 2575 | 2683 | 2790 | 2854 |
| 9.842 | 2922 | 3214 | 3360 | 3506 | 3653 | 3799 | 3886 |
| 8.202 | 4207 | 4628 | 4838 | 5048 | 5259 | 5469 | 5595 |

FOR CASES WHERE AXIAL LOADING WILL BE ALSO BE APPLIED TO THE PLATES, USE THE FOLLOWING ENGINEERING PROPERTIES FOR COMBINATION AXIAL AND BENDING LOAD ANALYSIS:

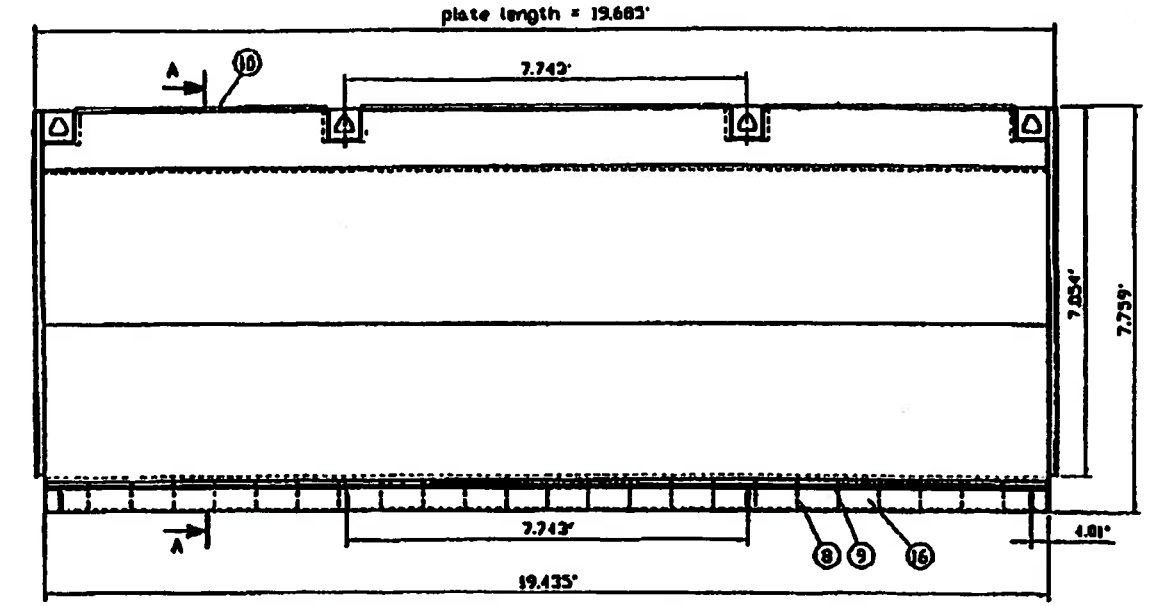
| PLATES LENGTHS | 8.202' TO 16.404' | 18.04' TO 26.246' |
|---|---|---|
| $S_y$ PER VERTICAL FOOT OF PLATE HEIGHT = | 5.08 $IN^3$ | 5.69 $IN^3$ |
| $S_x$ PER VERTICAL FOOT OF PLATE HEIGHT = | 14.15 $IN^3$ | 19.02 $IN^3$ |
| $r_y$ PER VERTICAL FOOT OF PLATE HEIGHT = | 1.35 IN. | 1.20 IN. |
| $r_x$ PER VERTICAL FOOT OF PLATE HEIGHT = | 2.23 IN. | 2.46 IN. |
| AREA PER VERTICAL FOOT OF PLATE HEIGHT, A = | 7.25 $IN^2$ | 9.31 $IN^2$ |

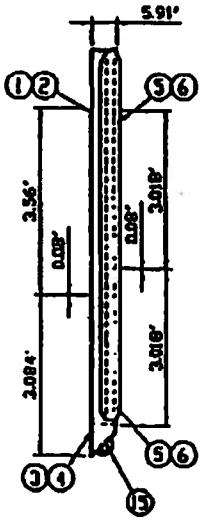
### II. ALLOWABLE VALUES ON CORNER SLIDE RAILS - 12 Ft HIGH

| | No Overstress | WITH OVERSTRESS % PERMITTED, DUE TO TEMPORARY LOADING 10% | 15% | 20% | 25% | 30% | 33% |
|---|---|---|---|---|---|---|---|
| MOMENT (FT-#) | 212934 | 234227 | 244874 | 255521 | 266168 | 276814 | 283202 |
| SHEAR (LBS.) | 618920 | 680812 | 711758 | 742704 | 773650 | 804596 | 823164 |

NOTE: MAX SOIL PRESSURE FROM SPW 911 ANALYSES IS 375 PSF (SEE CASE II, Pg 2). SLIDE PLATES THAT WILL BE USED (SEE ABOVE) HAVE ALLOWABLE PRESSURES OF 982 PSF. NO BENDING MOMENT WILL OCCUR ON CORNER RAILS DUE TO A SIDED SLIDE RAIL CONFIGURATION.

06-DEZ-02 14:42 VON:SBH TIEFBAUTECHNIK +49 2452 21553 AN:845 562 2411 SEITE:005/015

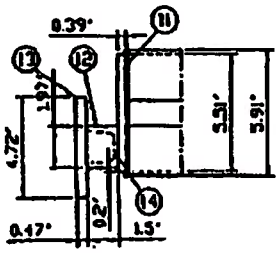






Detail "X"
scale 1 : 5




section A-A drawing 729.b.51.00.0 / 3

| | | |
|---|---|---|
| S235JR<br>S355JR/J0 | 1 : 25<br>1 : 5 | alle unteren Schweißnähte ohne SG Angabe |
| | Rolling strut | |
| | plate 50 729 002<br>19,685' x 7,759' x 5,91" | |
| | g:\r-13\rollensc\usa\729b5000.dwg<br>729.b.50.00.0 / 3 | |

# Appendix I

## Clean Fill Analysis (electronic only)

# H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 . FAX: (631) 420-8436 NYSDOH ID # 10478

## LABORATORY RESULTS

For the submitted sample

**Lab No. : 1003345-001**

**ClientSample ID. : SOURCE #1 A**

**Sample Information...**
Type : Soil

Origin:

**GEI Consultants, Inc.**
**455 Winding Brook Drive**
**Glastonbury, CT 06033**
**Attn To :** Chris Morris

Collected : 3/9/2010 1:30:00 PM
Received : 3/9/2010 2:30:00 PM
Collected By CA99
Copies To : Dave Work
**CC** ; EDD (PKG)

| Parameter(s) | Results | Qualifier | D.F. | Units | Method Number | Analyzed |
|---|---|---|---|---|---|---|
| alpha-BHC | < 1.8 | | 1 | µg/Kg-dry | SW8081/8082 | 03/11/2010 7:47 PM |
| beta-BHC | < 1.8 | | 1 | µg/Kg-dry | SW8081/8082 | 03/11/2010 7:47 PM |
| delta-BHC | < 1.8 | | 1 | µg/Kg-dry | SW8081/8082 | 03/11/2010 7:47 PM |
| gamma-BHC | < 1.8 | | 1 | µg/Kg-dry | SW8081/8082 | 03/11/2010 7:47 PM |
| Heptachlor | < 1.8 | | 1 | µg/Kg-dry | SW8081/8082 | 03/11/2010 7:47 PM |
| Aldrin | < 1.8 | | 1 | µg/Kg-dry | SW8081/8082 | 03/11/2010 7:47 PM |
| Heptachlor epoxide | < 1.8 | | 1 | µg/Kg-dry | SW8081/8082 | 03/11/2010 7:47 PM |
| Endosulfan I | < 1.8 | | 1 | µg/Kg-dry | SW8081/8082 | 03/11/2010 7:47 PM |
| Dieldrin | < 3.5 | | 1 | µg/Kg-dry | SW8081/8082 | 03/11/2010 7:47 PM |
| 4,4´-DDE | < 3.5 | | 1 | µg/Kg-dry | SW8081/8082 | 03/11/2010 7:47 PM |
| Endrin | < 3.5 | | 1 | µg/Kg-dry | SW8081/8082 | 03/11/2010 7:47 PM |
| Endosulfan II | < 3.5 | | 1 | µg/Kg-dry | SW8081/8082 | 03/11/2010 7:47 PM |
| 4,4´-DDD | < 3.5 | | 1 | µg/Kg-dry | SW8081/8082 | 03/11/2010 7:47 PM |
| Endosulfan sulfate | < 3.5 | | 1 | µg/Kg-dry | SW8081/8082 | 03/11/2010 7:47 PM |
| 4,4´-DDT | < 3.5 | | 1 | µg/Kg-dry | SW8081/8082 | 03/11/2010 7:47 PM |
| Methoxychlor | < 18 | | 1 | µg/Kg-dry | SW8081/8082 | 03/11/2010 7:47 PM |
| Endrin ketone | < 3.5 | | 1 | µg/Kg-dry | SW8081/8082 | 03/11/2010 7:47 PM |
| Endrin aldehyde | < 3.5 | | 1 | µg/Kg-dry | SW8081/8082 | 03/11/2010 7:47 PM |
| alpha-Chlordane | 3.0 | | 1 | µg/Kg-dry | SW8081/8082 | 03/11/2010 7:47 PM |
| gamma-Chlordane | 4.1 | | 1 | µg/Kg-dry | SW8081/8082 | 03/11/2010 7:47 PM |
| Toxaphene | < 180 | | 1 | µg/Kg-dry | SW8081/8082 | 03/11/2010 7:47 PM |
| Aroclor 1016 | < 35 | | 1 | µg/Kg-dry | SW8081/8082 | 03/10/2010 3:37 PM |
| Aroclor 1221 | < 70 | | 1 | µg/Kg-dry | SW8081/8082 | 03/10/2010 3:37 PM |
| Aroclor 1232 | < 35 | | 1 | µg/Kg-dry | SW8081/8082 | 03/10/2010 3:37 PM |
| Aroclor 1242 | < 35 | | 1 | µg/Kg-dry | SW8081/8082 | 03/10/2010 3:37 PM |
| Aroclor 1248 | < 35 | | 1 | µg/Kg-dry | SW8081/8082 | 03/10/2010 3:37 PM |
| Aroclor 1254 | < 35 | | 1 | µg/Kg-dry | SW8081/8082 | 03/10/2010 3:37 PM |
| Aroclor 1260 | < 35 | | 1 | µg/Kg-dry | SW8081/8082 | 03/10/2010 3:37 PM |
| Dicamba | < 3.1 | | 1 | µg/Kg-dry | SW8151 | 03/12/2010 11:21 AM |
| 2,4-D | < 10 | | 1 | µg/Kg-dry | SW8151 | 03/12/2010 11:21 AM |
| 2,4,5-TP (Silvex) | < 5.2 | | 1 | µg/Kg-dry | SW8151 | 03/12/2010 11:21 AM |
| 2,4,5-T | < 5.2 | | 1 | µg/Kg-dry | SW8151 | 03/12/2010 11:21 AM |
| Aluminum | 2080 | | 1 | mg/Kg-dry | SW6010B | 03/10/2010 2:04 AM |
| Barium | < 20.9 | | 1 | mg/Kg-dry | SW6010B | 03/10/2010 2:04 AM |
| Beryllium | < 0.52 | | 1 | mg/Kg-dry | SW6010B | 03/10/2010 2:04 AM |
| Cadmium | < 0.52 | | 1 | mg/Kg-dry | SW6010B | 03/10/2010 2:04 AM |

Qualifiers:

E - Value above quantitation range
D - Results for Dilution
D.F. = Dilution Factor
H = Sample received/analyzed outside of analytical holding time
# = ELAP / NELAP does not offer certification for this analyte

Joann M. Slavin

Laboratory Manager

Date Reported : 3/12/2010

# H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 . FAX: (631) 420-8436 NYSDOH ID # 10478

## LABORATORY RESULTS

For the submitted sample

**Lab No. : 1003345-001**

**ClientSample ID. : SOURCE #1 A**

**Sample Information...**
Type : Soil

Origin:

**GEI Consultants, Inc.**
**455 Winding Brook Drive**
**Glastonbury, CT 06033**
**Attn To :** Chris Morris

Collected : 3/9/2010 1:30:00 PM
Received : 3/9/2010 2:30:00 PM
Collected By CA99
Copies To : Dave Work
**CC** ; EDD (PKG)

| Parameter(s) | Results | Qualifier | D.F. | Units | Method Number | Analyzed |
|---|---|---|---|---|---|---|
| Calcium | 1720 | | 1 | mg/Kg-dry | SW6010B | 03/10/2010 2:04 AM |
| Chromium | 3.76 | | 1 | mg/Kg-dry | SW6010B | 03/10/2010 2:04 AM |
| Cobalt | < 5.23 | | 1 | mg/Kg-dry | SW6010B | 03/10/2010 2:04 AM |
| Copper | 4.29 | | 1 | mg/Kg-dry | SW6010B | 03/10/2010 2:04 AM |
| Iron | 4410 | | 1 | mg/Kg-dry | SW6010B | 03/10/2010 2:04 AM |
| Magnesium | 703 | | 1 | mg/Kg-dry | SW6010B | 03/10/2010 2:04 AM |
| Manganese | 85.0 | | 1 | mg/Kg-dry | SW6010B | 03/10/2010 2:04 AM |
| Nickel | < 4.18 | | 1 | mg/Kg-dry | SW6010B | 03/10/2010 2:04 AM |
| Potassium | 331 | | 1 | mg/Kg-dry | SW6010B | 03/10/2010 2:04 AM |
| Sodium | 37.9 | | 1 | mg/Kg-dry | SW6010B | 03/10/2010 2:04 AM |
| Vanadium | 5.24 | | 1 | mg/Kg-dry | SW6010B | 03/10/2010 2:04 AM |
| Zinc | 10.4 | | 1 | mg/Kg-dry | SW6010B | 03/10/2010 2:04 AM |
| Antimony | < 6.27 | | 1 | mg/Kg-dry | SW6010B | 03/10/2010 2:04 AM |
| Arsenic | < 1.05 | | 1 | mg/Kg-dry | SW6010B | 03/10/2010 2:04 AM |
| Lead | 4.28 | | 1 | mg/Kg-dry | SW6010B | 03/10/2010 2:04 AM |
| Selenium | < 0.52 | | 1 | mg/Kg-dry | SW6010B | 03/10/2010 2:04 AM |
| Silver | < 1.05 | | 1 | mg/Kg-dry | SW6010B | 03/10/2010 2:04 AM |
| Thallium | < 1.05 | | 1 | mg/Kg-dry | SW6010B | 03/10/2010 2:04 AM |
| Mercury | < 0.21 | | 1 | mg/Kg-dry | SW7471 | 03/10/2010 12:49 PM |
| Phenol | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:19 PM |
| Bis(2-chloroethyl)ether | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:19 PM |
| 2-Chlorophenol | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:19 PM |
| 1,3-Dichlorobenzene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:19 PM |
| 1,4-Dichlorobenzene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:19 PM |
| 1,2-Dichlorobenzene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:19 PM |
| 2-Methylphenol | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:19 PM |
| 2,2´-oxybis(1-Chloropropane) | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:19 PM |
| 4-Methylphenol | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:19 PM |
| N-Nitroso-di-n-propylamine | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:19 PM |
| Hexachloroethane | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:19 PM |
| Nitrobenzene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:19 PM |
| Isophorone | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:19 PM |
| 2-Nitrophenol | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:19 PM |
| 2,4-Dimethylphenol | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:19 PM |
| bis(2-Chloroethoxy)methane | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:19 PM |
| 2,4-Dichlorophenol | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:19 PM |
| 1,2,4-Trichlorobenzene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:19 PM |

Qualifiers:

E - Value above quantitation range
D - Results for Dilution
D.F. = Dilution Factor
H = Sample received/analyzed outside of analytical holding time
# = ELAP / NELAP does not offer certification for this analyte

Joann M. Slavin

Laboratory Manager

Date Reported : 3/12/2010

# H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 . FAX: (631) 420-8436 NYSDOH ID # 10478


## LABORATORY RESULTS

For the submitted sample

**Lab No. : 1003345-001**

**ClientSample ID. : SOURCE #1 A**

**GEI Consultants, Inc.**
**455 Winding Brook Drive**
**Glastonbury, CT 06033**
**Attn To :** Chris Morris

**Sample Information...**
Type : Soil

Origin:

Collected : 3/9/2010 1:30:00 PM
Received : 3/9/2010 2:30:00 PM
Collected By CA99
Copies To : Dave Work
**CC** ; EDD (PKG)

| Parameter(s) | Results | Qualifier | D.F. | Units | Method Number | Analyzed |
|---|---|---|---|---|---|---|
| Naphthalene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:19 PM |
| 4-Chloroaniline | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:19 PM |
| Hexachlorobutadiene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:19 PM |
| 4-Chloro-3-methylphenol | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:19 PM |
| 2-Methylnaphthalene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:19 PM |
| Hexachlorocyclopentadiene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:19 PM |
| 2,4,6-Trichlorophenol | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:19 PM |
| 2,4,5-Trichlorophenol | < 870 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:19 PM |
| 2-Chloronaphthalene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:19 PM |
| 2-Nitroaniline | < 870 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:19 PM |
| Dimethylphthalate | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:19 PM |
| Acenaphthylene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:19 PM |
| 2,6-Dinitrotoluene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:19 PM |
| 3-Nitroaniline | < 870 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:19 PM |
| Acenaphthene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:19 PM |
| 2,4-Dinitrophenol | < 870 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:19 PM |
| 4-Nitrophenol | < 870 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:19 PM |
| Dibenzofuran | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:19 PM |
| 2,4-Dinitrotoluene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:19 PM |
| Diethylphthalate | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:19 PM |
| 4-Chlorophenyl-phenylether | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:19 PM |
| Fluorene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:19 PM |
| 4-Nitroaniline | < 870 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:19 PM |
| 4,6-Dinitro-2-methylphenol | < 870 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:19 PM |
| N-Nitrosodiphenylamine | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:19 PM |
| 4-Bromophenyl-phenylether | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:19 PM |
| Hexachlorobenzene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:19 PM |
| Pentachlorophenol | < 870 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:19 PM |
| Phenanthrene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:19 PM |
| Anthracene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:19 PM |
| Carbazole | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:19 PM |
| Di-n-butyl phthalate | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:19 PM |
| Fluoranthene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:19 PM |
| Pyrene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:19 PM |
| Butyl benzyl phthalate | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:19 PM |
| 3,3´-Dichlorobenzidine | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:19 PM |
| Benzo(a)anthracene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:19 PM |

Qualifiers:

E - Value above quantitation range
D - Results for Dilution
D.F. = Dilution Factor
H = Sample received/analyzed outside of analytical holding time
# = ELAP / NELAP does not offer certification for this analyte

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Laboratory Manager

Date Reported : 3/12/2010

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## LABORATORY RESULTS

For the submitted sample

**Lab No. : 1003345-001**

**ClientSample ID. : SOURCE #1 A**

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Type : Soil

Origin:

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**Attn To :** Chris Morris

Collected : 3/9/2010 1:30:00 PM
Received : 3/9/2010 2:30:00 PM
Collected By CA99
Copies To : Dave Work
**CC** ; EDD (PKG)

| Parameter(s) | Results | Qualifier | D.F. | Units | Method Number | Analyzed |
|---|---|---|---|---|---|---|
| Chrysene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:19 PM |
| bis(2-Ethylhexyl)phthalate | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:19 PM |
| Di-n-octyl phthalate | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:19 PM |
| Benzo(b)fluoranthene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:19 PM |
| Benzo(k)fluoranthene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:19 PM |
| Benzo(a)pyrene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:19 PM |
| Indeno(1,2,3-cd)pyrene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:19 PM |
| Dibenzo(a,h)anthracene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:19 PM |
| Benzo(g,h,i)perylene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:19 PM |
| 1,4-Dioxane | < 260 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:08 PM |
| Dichlorodifluoromethane | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:08 PM |
| Chloromethane | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:08 PM |
| Vinyl chloride | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:08 PM |
| 1,3-Butadiene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:08 PM |
| Bromomethane | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:08 PM |
| Freon-114 | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:08 PM |
| Chloroethane | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:08 PM |
| Trichlorofluoromethane | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:08 PM |
| 1,1-Dichloroethene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:08 PM |
| Allyl Chloride | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:08 PM |
| Freon-113 | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:08 PM |
| Vinyl acetate | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:08 PM |
| Acetone | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:08 PM |
| Carbon disulfide | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:08 PM |
| Tetrahydrofuran | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:08 PM |
| Methylene chloride | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:08 PM |
| trans-1,2-Dichloroethene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:08 PM |
| Methyl tert-butyl ether | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:08 PM |
| 1,1-Dichloroethane | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:08 PM |
| cis-1,2-Dichloroethene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:08 PM |
| 2-Butanone | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:08 PM |
| Chloroform | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:08 PM |
| 1,1,1-Trichloroethane | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:08 PM |
| Heptane | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:08 PM |
| Cyclohexane | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:08 PM |
| 2,2,4-Trimethylpentane | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:08 PM |
| Carbon tetrachloride | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:08 PM |

Qualifiers:

E - Value above quantitation range
D - Results for Dilution
D.F. = Dilution Factor
H = Sample received/analyzed outside of analytical holding time
# = ELAP / NELAP does not offer certification for this analyte

Joann M. Slavin

Laboratory Manager

Date Reported : 3/12/2010

# H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 . FAX: (631) 420-8436 NYSDOH ID # 10478


## LABORATORY RESULTS

For the submitted sample

**Lab No. : 1003345-001**

**ClientSample ID. : SOURCE #1 A**

**GEI Consultants, Inc.**
**455 Winding Brook Drive**
**Glastonbury, CT 06033**
**Attn To :** Chris Morris

**Sample Information...**
Type : Soil

Origin:

Collected : 3/9/2010 1:30:00 PM
Received : 3/9/2010 2:30:00 PM
Collected By CA99
Copies To : Dave Work
**CC** ; EDD (PKG)

| Parameter(s) | Results | Qualifier | D.F. | Units | Method Number | Analyzed |
|---|---|---|---|---|---|---|
| 2-Propanol | < 520 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:08 PM |
| Benzene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:08 PM |
| 1,2-Dichloroethane | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:08 PM |
| Trichloroethene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:08 PM |
| 1,2-Dichloropropane | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:08 PM |
| Bromodichloromethane | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:08 PM |
| cis-1,3-Dichloropropene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:08 PM |
| 4-Methyl-2-pentanone | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:08 PM |
| Toluene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:08 PM |
| Chlorotoluene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:08 PM |
| trans-1,3-Dichloropropene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:08 PM |
| 1,1,2-Trichloroethane | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:08 PM |
| Tetrachloroethene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:08 PM |
| 2-Hexanone | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:08 PM |
| Dibromochloromethane | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:08 PM |
| 1,2-Dibromoethane | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:08 PM |
| Chlorobenzene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:08 PM |
| Ethylbenzene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:08 PM |
| 1,1,1,2-Tetrachloroethane | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:08 PM |
| Hexane | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:08 PM |
| m,p-Xylene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:08 PM |
| o-Xylene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:08 PM |
| Styrene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:08 PM |
| Bromoform | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:08 PM |
| Isopropylbenzene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:08 PM |
| 1,1,2,2-Tetrachloroethane | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:08 PM |
| n-Propylbenzene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:08 PM |
| 1,3,5-Trimethylbenzene/P-ethyltoluene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:08 PM |
| 1,2,4-Trimethylbenzene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:08 PM |
| Acetaldehyde | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:08 PM |
| 1,3-Dichlorobenzene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:08 PM |
| Ethanol | < 520 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:08 PM |
| 1,4-Dichlorobenzene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:08 PM |
| Naphthalene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:08 PM |
| 1,2-Dichlorobenzene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:08 PM |
| Hexachlorobutadiene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:08 PM |

Qualifiers:

E - Value above quantitation range
D - Results for Dilution
D.F. = Dilution Factor
H = Sample received/analyzed outside of analytical holding time
# = ELAP / NELAP does not offer certification for this analyte

Joann M. Slavin

Laboratory Manager

Date Reported : 3/12/2010

# H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 . FAX: (631) 420-8436 NYSDOH ID # 10478

## LABORATORY RESULTS

For the submitted sample

**Lab No. : 1003345-001**

**ClientSample ID. : SOURCE #1 A**

**Sample Information...**
Type : Soil

Origin:

**GEI Consultants, Inc.**
**455 Winding Brook Drive**
**Glastonbury, CT 06033**
**Attn To :** Chris Morris

Collected : 3/9/2010 1:30:00 PM
Received : 3/9/2010 2:30:00 PM
Collected By CA99
Copies To : Dave Work
**CC** ; EDD (PKG)

| Parameter(s) | Results | Qualifier | D.F. | Units | Method Number | Analyzed |
|---|---|---|---|---|---|---|
| 1,2,4-Trichlorobenzene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:08 PM |
| Cyanide | < 0.52 | | 1 | mg/Kg-dry | SW9014 | 03/10/2010 2:43 PM |
| Chromium, Hexavalent | < 1.0 | | 1 | mg/Kg-dry | SW7196 | 03/10/2010 2:48 PM |
| Percent Moisture | 4.4 | | 1 | wt% | D2216 | 03/09/2010 5:35 PM |

Qualifiers:

E - Value above quantitation range
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D.F. = Dilution Factor
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Joann M. Slavin

Laboratory Manager

Date Reported : 3/12/2010

# H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 . FAX: (631) 420-8436 NYSDOH ID # 10478


## LABORATORY RESULTS

For the submitted sample

**Lab No. : 1003345-002**

**ClientSample ID. : SOURCE #1 B**

**Sample Information...**
Type : Soil

Origin:

**GEI Consultants, Inc.**
**455 Winding Brook Drive**
**Glastonbury, CT 06033**
**Attn To :** Chris Morris

Collected : 3/9/2010 1:30:00 PM
Received : 3/9/2010 2:30:00 PM
Collected By CA99
Copies To : Dave Work
**CC** ; EDD (PKG)

| Parameter(s) | Results | Qualifier | D.F. | Units | Method Number | Analyzed |
|---|---|---|---|---|---|---|
| alpha-BHC | < 1.8 | | 1 | µg/Kg-dry | SW8081/8082 | 03/11/2010 8:04 PM |
| beta-BHC | < 1.8 | | 1 | µg/Kg-dry | SW8081/8082 | 03/11/2010 8:04 PM |
| delta-BHC | < 1.8 | | 1 | µg/Kg-dry | SW8081/8082 | 03/11/2010 8:04 PM |
| gamma-BHC | < 1.8 | | 1 | µg/Kg-dry | SW8081/8082 | 03/11/2010 8:04 PM |
| Heptachlor | < 1.8 | | 1 | µg/Kg-dry | SW8081/8082 | 03/11/2010 8:04 PM |
| Aldrin | < 1.8 | | 1 | µg/Kg-dry | SW8081/8082 | 03/11/2010 8:04 PM |
| Heptachlor epoxide | < 1.8 | | 1 | µg/Kg-dry | SW8081/8082 | 03/11/2010 8:04 PM |
| Endosulfan I | < 1.8 | | 1 | µg/Kg-dry | SW8081/8082 | 03/11/2010 8:04 PM |
| Dieldrin | < 3.5 | | 1 | µg/Kg-dry | SW8081/8082 | 03/11/2010 8:04 PM |
| 4,4´-DDE | < 3.5 | | 1 | µg/Kg-dry | SW8081/8082 | 03/11/2010 8:04 PM |
| Endrin | < 3.5 | | 1 | µg/Kg-dry | SW8081/8082 | 03/11/2010 8:04 PM |
| Endosulfan II | < 3.5 | | 1 | µg/Kg-dry | SW8081/8082 | 03/11/2010 8:04 PM |
| 4,4´-DDD | < 3.5 | | 1 | µg/Kg-dry | SW8081/8082 | 03/11/2010 8:04 PM |
| Endosulfan sulfate | < 3.5 | | 1 | µg/Kg-dry | SW8081/8082 | 03/11/2010 8:04 PM |
| 4,4´-DDT | < 3.5 | | 1 | µg/Kg-dry | SW8081/8082 | 03/11/2010 8:04 PM |
| Methoxychlor | < 18 | | 1 | µg/Kg-dry | SW8081/8082 | 03/11/2010 8:04 PM |
| Endrin ketone | < 3.5 | | 1 | µg/Kg-dry | SW8081/8082 | 03/11/2010 8:04 PM |
| Endrin aldehyde | < 3.5 | | 1 | µg/Kg-dry | SW8081/8082 | 03/11/2010 8:04 PM |
| alpha-Chlordane | 3.1 | | 1 | µg/Kg-dry | SW8081/8082 | 03/11/2010 8:04 PM |
| gamma-Chlordane | 4.2 | | 1 | µg/Kg-dry | SW8081/8082 | 03/11/2010 8:04 PM |
| Toxaphene | < 180 | | 1 | µg/Kg-dry | SW8081/8082 | 03/11/2010 8:04 PM |
| Aroclor 1016 | < 35 | | 1 | µg/Kg-dry | SW8081/8082 | 03/10/2010 3:52 PM |
| Aroclor 1221 | < 70 | | 1 | µg/Kg-dry | SW8081/8082 | 03/10/2010 3:52 PM |
| Aroclor 1232 | < 35 | | 1 | µg/Kg-dry | SW8081/8082 | 03/10/2010 3:52 PM |
| Aroclor 1242 | < 35 | | 1 | µg/Kg-dry | SW8081/8082 | 03/10/2010 3:52 PM |
| Aroclor 1248 | < 35 | | 1 | µg/Kg-dry | SW8081/8082 | 03/10/2010 3:52 PM |
| Aroclor 1254 | < 35 | | 1 | µg/Kg-dry | SW8081/8082 | 03/10/2010 3:52 PM |
| Aroclor 1260 | < 35 | | 1 | µg/Kg-dry | SW8081/8082 | 03/10/2010 3:52 PM |
| Dicamba | < 3.1 | | 1 | µg/Kg-dry | SW8151 | 03/12/2010 11:37 AM |
| 2,4-D | < 10 | | 1 | µg/Kg-dry | SW8151 | 03/12/2010 11:37 AM |
| 2,4,5-TP (Silvex) | < 5.2 | | 1 | µg/Kg-dry | SW8151 | 03/12/2010 11:37 AM |
| 2,4,5-T | < 5.2 | | 1 | µg/Kg-dry | SW8151 | 03/12/2010 11:37 AM |
| Aluminum | 1760 | | 1 | mg/Kg-dry | SW6010B | 03/10/2010 2:11 AM |
| Barium | < 21.0 | | 1 | mg/Kg-dry | SW6010B | 03/10/2010 2:11 AM |
| Beryllium | < 0.52 | | 1 | mg/Kg-dry | SW6010B | 03/10/2010 2:11 AM |
| Cadmium | < 0.52 | | 1 | mg/Kg-dry | SW6010B | 03/10/2010 2:11 AM |

Qualifiers:

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Joann M. Slavin

Laboratory Manager

Date Reported : 3/12/2010

# H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 . FAX: (631) 420-8436 NYSDOH ID # 10478

## LABORATORY RESULTS

For the submitted sample

**Lab No. : 1003345-002**

**ClientSample ID. : SOURCE #1 B**

**Sample Information...**
Type : Soil

Origin:

**GEI Consultants, Inc.**
**455 Winding Brook Drive**
**Glastonbury, CT 06033**
**Attn To :** Chris Morris

Collected : 3/9/2010 1:30:00 PM
Received : 3/9/2010 2:30:00 PM
Collected By CA99
Copies To : Dave Work
**CC** ; EDD (PKG)

| Parameter(s) | Results | Qualifier | D.F. | Units | Method Number | Analyzed |
|---|---|---|---|---|---|---|
| Calcium | 615 | | 1 | mg/Kg-dry | SW6010B | 03/10/2010 2:11 AM |
| Chromium | 3.21 | | 1 | mg/Kg-dry | SW6010B | 03/10/2010 2:11 AM |
| Cobalt | < 5.24 | | 1 | mg/Kg-dry | SW6010B | 03/10/2010 2:11 AM |
| Copper | 3.05 | | 1 | mg/Kg-dry | SW6010B | 03/10/2010 2:11 AM |
| Iron | 3720 | | 1 | mg/Kg-dry | SW6010B | 03/10/2010 2:11 AM |
| Magnesium | 516 | | 1 | mg/Kg-dry | SW6010B | 03/10/2010 2:11 AM |
| Manganese | 71.0 | | 1 | mg/Kg-dry | SW6010B | 03/10/2010 2:11 AM |
| Nickel | < 4.19 | | 1 | mg/Kg-dry | SW6010B | 03/10/2010 2:11 AM |
| Potassium | 277 | | 1 | mg/Kg-dry | SW6010B | 03/10/2010 2:11 AM |
| Sodium | 26.7 | | 1 | mg/Kg-dry | SW6010B | 03/10/2010 2:11 AM |
| Vanadium | < 5.24 | | 1 | mg/Kg-dry | SW6010B | 03/10/2010 2:11 AM |
| Zinc | 6.96 | | 1 | mg/Kg-dry | SW6010B | 03/10/2010 2:11 AM |
| Antimony | < 6.29 | | 1 | mg/Kg-dry | SW6010B | 03/10/2010 2:11 AM |
| Arsenic | < 1.05 | | 1 | mg/Kg-dry | SW6010B | 03/10/2010 2:11 AM |
| Lead | 2.47 | | 1 | mg/Kg-dry | SW6010B | 03/10/2010 2:11 AM |
| Selenium | < 0.52 | | 1 | mg/Kg-dry | SW6010B | 03/10/2010 2:11 AM |
| Silver | < 1.05 | | 1 | mg/Kg-dry | SW6010B | 03/10/2010 2:11 AM |
| Thallium | < 1.05 | | 1 | mg/Kg-dry | SW6010B | 03/10/2010 2:11 AM |
| Mercury | < 0.21 | | 1 | mg/Kg-dry | SW7471 | 03/10/2010 12:51 PM |
| Phenol | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:48 PM |
| Bis(2-chloroethyl)ether | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:48 PM |
| 2-Chlorophenol | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:48 PM |
| 1,3-Dichlorobenzene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:48 PM |
| 1,4-Dichlorobenzene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:48 PM |
| 1,2-Dichlorobenzene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:48 PM |
| 2-Methylphenol | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:48 PM |
| 2,2´-oxybis(1-Chloropropane) | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:48 PM |
| 4-Methylphenol | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:48 PM |
| N-Nitroso-di-n-propylamine | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:48 PM |
| Hexachloroethane | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:48 PM |
| Nitrobenzene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:48 PM |
| Isophorone | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:48 PM |
| 2-Nitrophenol | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:48 PM |
| 2,4-Dimethylphenol | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:48 PM |
| bis(2-Chloroethoxy)methane | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:48 PM |
| 2,4-Dichlorophenol | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:48 PM |
| 1,2,4-Trichlorobenzene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:48 PM |

Qualifiers:

E - Value above quantitation range
D - Results for Dilution
D.F. = Dilution Factor
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# = ELAP / NELAP does not offer certification for this analyte

Joann M. Slavin

Laboratory Manager

Date Reported : 3/12/2010

# H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 . FAX: (631) 420-8436 NYSDOH ID # 10478


## LABORATORY RESULTS

For the submitted sample

**Lab No. : 1003345-002**

**ClientSample ID. : SOURCE #1 B**

**Sample Information...**
Type : Soil

Origin:

**GEI Consultants, Inc.**
**455 Winding Brook Drive**
**Glastonbury, CT 06033**
**Attn To :** Chris Morris

Collected : 3/9/2010 1:30:00 PM
Received : 3/9/2010 2:30:00 PM
Collected By CA99
Copies To : Dave Work
**CC** ; EDD (PKG)

| Parameter(s) | Results | Qualifier | D.F. | Units | Method Number | Analyzed |
|---|---|---|---|---|---|---|
| Naphthalene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:48 PM |
| 4-Chloroaniline | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:48 PM |
| Hexachlorobutadiene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:48 PM |
| 4-Chloro-3-methylphenol | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:48 PM |
| 2-Methylnaphthalene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:48 PM |
| Hexachlorocyclopentadiene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:48 PM |
| 2,4,6-Trichlorophenol | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:48 PM |
| 2,4,5-Trichlorophenol | < 870 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:48 PM |
| 2-Chloronaphthalene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:48 PM |
| 2-Nitroaniline | < 870 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:48 PM |
| Dimethylphthalate | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:48 PM |
| Acenaphthylene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:48 PM |
| 2,6-Dinitrotoluene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:48 PM |
| 3-Nitroaniline | < 870 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:48 PM |
| Acenaphthene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:48 PM |
| 2,4-Dinitrophenol | < 870 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:48 PM |
| 4-Nitrophenol | < 870 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:48 PM |
| Dibenzofuran | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:48 PM |
| 2,4-Dinitrotoluene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:48 PM |
| Diethylphthalate | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:48 PM |
| 4-Chlorophenyl-phenylether | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:48 PM |
| Fluorene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:48 PM |
| 4-Nitroaniline | < 870 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:48 PM |
| 4,6-Dinitro-2-methylphenol | < 870 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:48 PM |
| N-Nitrosodiphenylamine | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:48 PM |
| 4-Bromophenyl-phenylether | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:48 PM |
| Hexachlorobenzene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:48 PM |
| Pentachlorophenol | < 870 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:48 PM |
| Phenanthrene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:48 PM |
| Anthracene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:48 PM |
| Carbazole | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:48 PM |
| Di-n-butyl phthalate | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:48 PM |
| Fluoranthene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:48 PM |
| Pyrene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:48 PM |
| Butyl benzyl phthalate | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:48 PM |
| 3,3´-Dichlorobenzidine | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:48 PM |
| Benzo(a)anthracene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:48 PM |

Qualifiers:

E - Value above quantitation range
D - Results for Dilution
D.F. = Dilution Factor
H = Sample received/analyzed outside of analytical holding time
# = ELAP / NELAP does not offer certification for this analyte

Joann M. Slavin

Laboratory Manager

Date Reported : 3/12/2010

# H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 . FAX: (631) 420-8436 NYSDOH ID # 10478


## LABORATORY RESULTS

For the submitted sample

**Lab No. : 1003345-002**

**ClientSample ID. : SOURCE #1 B**

**Sample Information...**
Type : Soil

Origin:

**GEI Consultants, Inc.**
**455 Winding Brook Drive**
**Glastonbury, CT 06033**
**Attn To :** Chris Morris

Collected : 3/9/2010 1:30:00 PM
Received : 3/9/2010 2:30:00 PM
Collected By CA99
Copies To : Dave Work
**CC** ; EDD (PKG)

| Parameter(s) | Results | Qualifier | D.F. | Units | Method Number | Analyzed |
|---|---|---|---|---|---|---|
| Chrysene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:48 PM |
| bis(2-Ethylhexyl)phthalate | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:48 PM |
| Di-n-octyl phthalate | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:48 PM |
| Benzo(b)fluoranthene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:48 PM |
| Benzo(k)fluoranthene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:48 PM |
| Benzo(a)pyrene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:48 PM |
| Indeno(1,2,3-cd)pyrene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:48 PM |
| Dibenzo(a,h)anthracene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:48 PM |
| Benzo(g,h,i)perylene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 3:48 PM |
| 1,4-Dioxane | < 260 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:39 PM |
| Dichlorodifluoromethane | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:39 PM |
| Chloromethane | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:39 PM |
| Vinyl chloride | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:39 PM |
| 1,3-Butadiene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:39 PM |
| Bromomethane | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:39 PM |
| Freon-114 | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:39 PM |
| Chloroethane | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:39 PM |
| Trichlorofluoromethane | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:39 PM |
| 1,1-Dichloroethene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:39 PM |
| Allyl Chloride | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:39 PM |
| Freon-113 | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:39 PM |
| Vinyl acetate | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:39 PM |
| Acetone | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:39 PM |
| Carbon disulfide | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:39 PM |
| Tetrahydrofuran | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:39 PM |
| Methylene chloride | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:39 PM |
| trans-1,2-Dichloroethene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:39 PM |
| Methyl tert-butyl ether | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:39 PM |
| 1,1-Dichloroethane | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:39 PM |
| cis-1,2-Dichloroethene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:39 PM |
| 2-Butanone | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:39 PM |
| Chloroform | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:39 PM |
| 1,1,1-Trichloroethane | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:39 PM |
| Heptane | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:39 PM |
| Cyclohexane | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:39 PM |
| 2,2,4-Trimethylpentane | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:39 PM |
| Carbon tetrachloride | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:39 PM |

Qualifiers:

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# = ELAP / NELAP does not offer certification for this analyte

Joann M. Slavin

Laboratory Manager

Date Reported : 3/12/2010

# H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 . FAX: (631) 420-8436 NYSDOH ID # 10478

## LABORATORY RESULTS

For the submitted sample

**Lab No. : 1003345-002**

**ClientSample ID. : SOURCE #1 B**

**GEI Consultants, Inc.**
**455 Winding Brook Drive**
**Glastonbury, CT 06033**
**Attn To :** Chris Morris

**Sample Information...**
Type : Soil

Origin:

Collected : 3/9/2010 1:30:00 PM
Received : 3/9/2010 2:30:00 PM
Collected By CA99
Copies To : Dave Work
**CC** ; EDD (PKG)

| Parameter(s) | Results | Qualifier | D.F. | Units | Method Number | Analyzed |
|---|---|---|---|---|---|---|
| 2-Propanol | < 520 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:39 PM |
| Benzene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:39 PM |
| 1,2-Dichloroethane | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:39 PM |
| Trichloroethene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:39 PM |
| 1,2-Dichloropropane | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:39 PM |
| Bromodichloromethane | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:39 PM |
| cis-1,3-Dichloropropene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:39 PM |
| 4-Methyl-2-pentanone | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:39 PM |
| Toluene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:39 PM |
| Chlorotoluene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:39 PM |
| trans-1,3-Dichloropropene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:39 PM |
| 1,1,2-Trichloroethane | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:39 PM |
| Tetrachloroethene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:39 PM |
| 2-Hexanone | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:39 PM |
| Dibromochloromethane | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:39 PM |
| 1,2-Dibromoethane | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:39 PM |
| Chlorobenzene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:39 PM |
| Ethylbenzene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:39 PM |
| 1,1,1,2-Tetrachloroethane | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:39 PM |
| Hexane | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:39 PM |
| m,p-Xylene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:39 PM |
| o-Xylene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:39 PM |
| Styrene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:39 PM |
| Bromoform | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:39 PM |
| Isopropylbenzene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:39 PM |
| 1,1,2,2-Tetrachloroethane | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:39 PM |
| n-Propylbenzene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:39 PM |
| 1,3,5-Trimethylbenzene/P-ethyltoluene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:39 PM |
| 1,2,4-Trimethylbenzene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:39 PM |
| Acetaldehyde | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:39 PM |
| 1,3-Dichlorobenzene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:39 PM |
| Ethanol | < 520 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:39 PM |
| 1,4-Dichlorobenzene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:39 PM |
| Naphthalene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:39 PM |
| 1,2-Dichlorobenzene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:39 PM |
| Hexachlorobutadiene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:39 PM |

Qualifiers:

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D - Results for Dilution
D.F. = Dilution Factor
H = Sample received/analyzed outside of analytical holding time
# = ELAP / NELAP does not offer certification for this analyte

Joann M. Slavin

Laboratory Manager

Date Reported : 3/12/2010

# H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 . FAX: (631) 420-8436 NYSDOH ID # 10478

## LABORATORY RESULTS

For the submitted sample

**Lab No. : 1003345-002**

**ClientSample ID. : SOURCE #1 B**

**GEI Consultants, Inc.**
**455 Winding Brook Drive**
**Glastonbury, CT 06033**
**Attn To :** Chris Morris

**Sample Information...**
Type : Soil

Origin:

Collected : 3/9/2010 1:30:00 PM
Received : 3/9/2010 2:30:00 PM
Collected By CA99
Copies To : Dave Work
**CC** ; EDD (PKG)

| Parameter(s) | Results | Qualifier | D.F. | Units | Method Number | Analyzed |
|---|---|---|---|---|---|---|
| 1,2,4-Trichlorobenzene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 9:39 PM |
| Cyanide | < 0.52 | | 1 | mg/Kg-dry | SW9014 | 03/10/2010 2:46 PM |
| Chromium, Hexavalent | < 1.0 | | 1 | mg/Kg-dry | SW7196 | 03/10/2010 2:49 PM |
| Percent Moisture | 4.6 | | 1 | wt% | D2216 | 03/09/2010 5:36 PM |

Qualifiers:

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D.F. = Dilution Factor
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Joann M. Slavin

Laboratory Manager

Date Reported : 3/12/2010

# H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 . FAX: (631) 420-8436 NYSDOH ID # 10478


## LABORATORY RESULTS

For the submitted sample

**Lab No. : 1003345-003**

**ClientSample ID. : SOURCE #1 C**

**Sample Information...**
Type : Soil

Origin:

**GEI Consultants, Inc.**
**455 Winding Brook Drive**
**Glastonbury, CT 06033**
**Attn To :** Chris Morris

Collected : 3/9/2010 1:30:00 PM
Received : 3/9/2010 2:30:00 PM
Collected By CA99
Copies To : Dave Work
**CC** ; EDD (PKG)

| Parameter(s) | Results | Qualifier | D.F. | Units | Method Number | Analyzed |
|---|---|---|---|---|---|---|
| alpha-BHC | < 1.8 | | 1 | µg/Kg-dry | SW8081/8082 | 03/11/2010 8:20 PM |
| beta-BHC | < 1.8 | | 1 | µg/Kg-dry | SW8081/8082 | 03/11/2010 8:20 PM |
| delta-BHC | < 1.8 | | 1 | µg/Kg-dry | SW8081/8082 | 03/11/2010 8:20 PM |
| gamma-BHC | < 1.8 | | 1 | µg/Kg-dry | SW8081/8082 | 03/11/2010 8:20 PM |
| Heptachlor | < 1.8 | | 1 | µg/Kg-dry | SW8081/8082 | 03/11/2010 8:20 PM |
| Aldrin | < 1.8 | | 1 | µg/Kg-dry | SW8081/8082 | 03/11/2010 8:20 PM |
| Heptachlor epoxide | < 1.8 | | 1 | µg/Kg-dry | SW8081/8082 | 03/11/2010 8:20 PM |
| Endosulfan I | < 1.8 | | 1 | µg/Kg-dry | SW8081/8082 | 03/11/2010 8:20 PM |
| Dieldrin | < 3.5 | | 1 | µg/Kg-dry | SW8081/8082 | 03/11/2010 8:20 PM |
| 4,4´-DDE | < 3.5 | | 1 | µg/Kg-dry | SW8081/8082 | 03/11/2010 8:20 PM |
| Endrin | < 3.5 | | 1 | µg/Kg-dry | SW8081/8082 | 03/11/2010 8:20 PM |
| Endosulfan II | < 3.5 | | 1 | µg/Kg-dry | SW8081/8082 | 03/11/2010 8:20 PM |
| 4,4´-DDD | < 3.5 | | 1 | µg/Kg-dry | SW8081/8082 | 03/11/2010 8:20 PM |
| Endosulfan sulfate | < 3.5 | | 1 | µg/Kg-dry | SW8081/8082 | 03/11/2010 8:20 PM |
| 4,4´-DDT | < 3.5 | | 1 | µg/Kg-dry | SW8081/8082 | 03/11/2010 8:20 PM |
| Methoxychlor | < 18 | | 1 | µg/Kg-dry | SW8081/8082 | 03/11/2010 8:20 PM |
| Endrin ketone | < 3.5 | | 1 | µg/Kg-dry | SW8081/8082 | 03/11/2010 8:20 PM |
| Endrin aldehyde | < 3.5 | | 1 | µg/Kg-dry | SW8081/8082 | 03/11/2010 8:20 PM |
| alpha-Chlordane | 2.8 | | 1 | µg/Kg-dry | SW8081/8082 | 03/11/2010 8:20 PM |
| gamma-Chlordane | 2.9 | | 1 | µg/Kg-dry | SW8081/8082 | 03/11/2010 8:20 PM |
| Toxaphene | < 180 | | 1 | µg/Kg-dry | SW8081/8082 | 03/11/2010 8:20 PM |
| Aroclor 1016 | < 35 | | 1 | µg/Kg-dry | SW8081/8082 | 03/10/2010 4:06 PM |
| Aroclor 1221 | < 70 | | 1 | µg/Kg-dry | SW8081/8082 | 03/10/2010 4:06 PM |
| Aroclor 1232 | < 35 | | 1 | µg/Kg-dry | SW8081/8082 | 03/10/2010 4:06 PM |
| Aroclor 1242 | < 35 | | 1 | µg/Kg-dry | SW8081/8082 | 03/10/2010 4:06 PM |
| Aroclor 1248 | < 35 | | 1 | µg/Kg-dry | SW8081/8082 | 03/10/2010 4:06 PM |
| Aroclor 1254 | < 35 | | 1 | µg/Kg-dry | SW8081/8082 | 03/10/2010 4:06 PM |
| Aroclor 1260 | < 35 | | 1 | µg/Kg-dry | SW8081/8082 | 03/10/2010 4:06 PM |
| Dicamba | < 3.1 | | 1 | µg/Kg-dry | SW8151 | 03/12/2010 11:53 AM |
| 2,4-D | < 10 | | 1 | µg/Kg-dry | SW8151 | 03/12/2010 11:53 AM |
| 2,4,5-TP (Silvex) | < 5.2 | | 1 | µg/Kg-dry | SW8151 | 03/12/2010 11:53 AM |
| 2,4,5-T | < 5.2 | | 1 | µg/Kg-dry | SW8151 | 03/12/2010 11:53 AM |
| Aluminum | 1990 | | 1 | mg/Kg-dry | SW6010B | 03/10/2010 2:42 AM |
| Barium | < 21.0 | | 1 | mg/Kg-dry | SW6010B | 03/10/2010 2:42 AM |
| Beryllium | < 0.52 | | 1 | mg/Kg-dry | SW6010B | 03/10/2010 2:42 AM |
| Cadmium | < 0.52 | | 1 | mg/Kg-dry | SW6010B | 03/10/2010 2:42 AM |

Qualifiers:

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Joann M. Slavin

Laboratory Manager

Date Reported : 3/12/2010

# H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 . FAX: (631) 420-8436 NYSDOH ID # 10478

## LABORATORY RESULTS

For the submitted sample

**Lab No. : 1003345-003**

**ClientSample ID. : SOURCE #1 C**

**GEI Consultants, Inc.**
**455 Winding Brook Drive**
**Glastonbury, CT 06033**
**Attn To :** Chris Morris

**Sample Information...**
Type : Soil

Origin:

Collected : 3/9/2010 1:30:00 PM
Received : 3/9/2010 2:30:00 PM
Collected By CA99
Copies To : Dave Work
**CC** ; EDD (PKG)

| Parameter(s) | Results | Qualifier | D.F. | Units | Method Number | Analyzed |
|---|---|---|---|---|---|---|
| Calcium | 1620 | | 1 | mg/Kg-dry | SW6010B | 03/10/2010 2:42 AM |
| Chromium | 4.19 | | 1 | mg/Kg-dry | SW6010B | 03/10/2010 2:42 AM |
| Cobalt | < 5.24 | | 1 | mg/Kg-dry | SW6010B | 03/10/2010 2:42 AM |
| Copper | 3.22 | | 1 | mg/Kg-dry | SW6010B | 03/10/2010 2:42 AM |
| Iron | 4620 | | 1 | mg/Kg-dry | SW6010B | 03/10/2010 2:42 AM |
| Magnesium | 625 | | 1 | mg/Kg-dry | SW6010B | 03/10/2010 2:42 AM |
| Manganese | 79.7 | | 1 | mg/Kg-dry | SW6010B | 03/10/2010 2:42 AM |
| Nickel | < 4.20 | | 1 | mg/Kg-dry | SW6010B | 03/10/2010 2:42 AM |
| Potassium | 292 | | 1 | mg/Kg-dry | SW6010B | 03/10/2010 2:42 AM |
| Sodium | 31.3 | | 1 | mg/Kg-dry | SW6010B | 03/10/2010 2:42 AM |
| Vanadium | 7.10 | | 1 | mg/Kg-dry | SW6010B | 03/10/2010 2:42 AM |
| Zinc | 10.3 | | 1 | mg/Kg-dry | SW6010B | 03/10/2010 2:42 AM |
| Antimony | < 6.29 | | 1 | mg/Kg-dry | SW6010B | 03/10/2010 2:42 AM |
| Arsenic | < 1.05 | | 1 | mg/Kg-dry | SW6010B | 03/10/2010 2:42 AM |
| Lead | 3.48 | | 1 | mg/Kg-dry | SW6010B | 03/10/2010 2:42 AM |
| Selenium | < 0.52 | | 1 | mg/Kg-dry | SW6010B | 03/10/2010 2:42 AM |
| Silver | < 1.05 | | 1 | mg/Kg-dry | SW6010B | 03/10/2010 2:42 AM |
| Thallium | < 1.05 | | 1 | mg/Kg-dry | SW6010B | 03/10/2010 2:42 AM |
| Mercury | < 0.21 | | 1 | mg/Kg-dry | SW7471 | 03/10/2010 12:53 PM |
| Phenol | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 4:17 PM |
| Bis(2-chloroethyl)ether | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 4:17 PM |
| 2-Chlorophenol | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 4:17 PM |
| 1,3-Dichlorobenzene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 4:17 PM |
| 1,4-Dichlorobenzene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 4:17 PM |
| 1,2-Dichlorobenzene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 4:17 PM |
| 2-Methylphenol | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 4:17 PM |
| 2,2´-oxybis(1-Chloropropane) | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 4:17 PM |
| 4-Methylphenol | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 4:17 PM |
| N-Nitroso-di-n-propylamine | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 4:17 PM |
| Hexachloroethane | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 4:17 PM |
| Nitrobenzene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 4:17 PM |
| Isophorone | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 4:17 PM |
| 2-Nitrophenol | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 4:17 PM |
| 2,4-Dimethylphenol | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 4:17 PM |
| bis(2-Chloroethoxy)methane | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 4:17 PM |
| 2,4-Dichlorophenol | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 4:17 PM |
| 1,2,4-Trichlorobenzene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 4:17 PM |

Qualifiers:

E - Value above quantitation range
D - Results for Dilution
D.F. = Dilution Factor
H = Sample received/analyzed outside of analytical holding time
# = ELAP / NELAP does not offer certification for this analyte

Joann M. Slavin

Laboratory Manager

Date Reported : 3/12/2010

# H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 . FAX: (631) 420-8436 NYSDOH ID # 10478

## LABORATORY RESULTS

For the submitted sample

**Lab No. : 1003345-003**

**ClientSample ID. : SOURCE #1 C**

**Sample Information...**
Type : Soil

Origin:

**GEI Consultants, Inc.**
**455 Winding Brook Drive**
**Glastonbury, CT 06033**
**Attn To :** Chris Morris

Collected : 3/9/2010 1:30:00 PM
Received : 3/9/2010 2:30:00 PM
Collected By CA99
Copies To : Dave Work
**CC** ; EDD (PKG)

| Parameter(s) | Results | Qualifier | D.F. | Units | Method Number | Analyzed |
|---|---|---|---|---|---|---|
| Naphthalene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 4:17 PM |
| 4-Chloroaniline | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 4:17 PM |
| Hexachlorobutadiene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 4:17 PM |
| 4-Chloro-3-methylphenol | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 4:17 PM |
| 2-Methylnaphthalene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 4:17 PM |
| Hexachlorocyclopentadiene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 4:17 PM |
| 2,4,6-Trichlorophenol | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 4:17 PM |
| 2,4,5-Trichlorophenol | < 870 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 4:17 PM |
| 2-Chloronaphthalene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 4:17 PM |
| 2-Nitroaniline | < 870 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 4:17 PM |
| Dimethylphthalate | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 4:17 PM |
| Acenaphthylene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 4:17 PM |
| 2,6-Dinitrotoluene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 4:17 PM |
| 3-Nitroaniline | < 870 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 4:17 PM |
| Acenaphthene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 4:17 PM |
| 2,4-Dinitrophenol | < 870 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 4:17 PM |
| 4-Nitrophenol | < 870 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 4:17 PM |
| Dibenzofuran | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 4:17 PM |
| 2,4-Dinitrotoluene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 4:17 PM |
| Diethylphthalate | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 4:17 PM |
| 4-Chlorophenyl-phenylether | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 4:17 PM |
| Fluorene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 4:17 PM |
| 4-Nitroaniline | < 870 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 4:17 PM |
| 4,6-Dinitro-2-methylphenol | < 870 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 4:17 PM |
| N-Nitrosodiphenylamine | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 4:17 PM |
| 4-Bromophenyl-phenylether | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 4:17 PM |
| Hexachlorobenzene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 4:17 PM |
| Pentachlorophenol | < 870 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 4:17 PM |
| Phenanthrene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 4:17 PM |
| Anthracene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 4:17 PM |
| Carbazole | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 4:17 PM |
| Di-n-butyl phthalate | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 4:17 PM |
| Fluoranthene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 4:17 PM |
| Pyrene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 4:17 PM |
| Butyl benzyl phthalate | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 4:17 PM |
| 3,3´-Dichlorobenzidine | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 4:17 PM |
| Benzo(a)anthracene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 4:17 PM |

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# = ELAP / NELAP does not offer certification for this analyte

Joann M. Slavin

Laboratory Manager

Date Reported : 3/12/2010

# H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 . FAX: (631) 420-8436 NYSDOH ID # 10478


## LABORATORY RESULTS

For the submitted sample

**Lab No. : 1003345-003**

**ClientSample ID. : SOURCE #1 C**

**Sample Information...**
Type : Soil

Origin:

**GEI Consultants, Inc.**
**455 Winding Brook Drive**
**Glastonbury, CT 06033**
**Attn To :** Chris Morris

Collected : 3/9/2010 1:30:00 PM
Received : 3/9/2010 2:30:00 PM
Collected By CA99
Copies To : Dave Work
**CC** ; EDD (PKG)

| Parameter(s) | Results | Qualifier | D.F. | Units | Method Number | Analyzed |
|---|---|---|---|---|---|---|
| Chrysene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 4:17 PM |
| bis(2-Ethylhexyl)phthalate | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 4:17 PM |
| Di-n-octyl phthalate | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 4:17 PM |
| Benzo(b)fluoranthene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 4:17 PM |
| Benzo(k)fluoranthene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 4:17 PM |
| Benzo(a)pyrene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 4:17 PM |
| Indeno(1,2,3-cd)pyrene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 4:17 PM |
| Dibenzo(a,h)anthracene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 4:17 PM |
| Benzo(g,h,i)perylene | < 350 | | 1 | µg/Kg-dry | SW8270C | 03/10/2010 4:17 PM |
| 1,4-Dioxane | < 260 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 10:10 PM |
| Dichlorodifluoromethane | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 10:10 PM |
| Chloromethane | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 10:10 PM |
| Vinyl chloride | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 10:10 PM |
| 1,3-Butadiene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 10:10 PM |
| Bromomethane | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 10:10 PM |
| Freon-114 | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 10:10 PM |
| Chloroethane | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 10:10 PM |
| Trichlorofluoromethane | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 10:10 PM |
| 1,1-Dichloroethene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 10:10 PM |
| Allyl Chloride | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 10:10 PM |
| Freon-113 | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 10:10 PM |
| Vinyl acetate | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 10:10 PM |
| Acetone | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 10:10 PM |
| Carbon disulfide | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 10:10 PM |
| Tetrahydrofuran | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 10:10 PM |
| Methylene chloride | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 10:10 PM |
| trans-1,2-Dichloroethene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 10:10 PM |
| Methyl tert-butyl ether | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 10:10 PM |
| 1,1-Dichloroethane | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 10:10 PM |
| cis-1,2-Dichloroethene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 10:10 PM |
| 2-Butanone | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 10:10 PM |
| Chloroform | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 10:10 PM |
| 1,1,1-Trichloroethane | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 10:10 PM |
| Heptane | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 10:10 PM |
| Cyclohexane | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 10:10 PM |
| 2,2,4-Trimethylpentane | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 10:10 PM |
| Carbon tetrachloride | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 10:10 PM |

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# = ELAP / NELAP does not offer certification for this analyte

Joann M. Slavin

Laboratory Manager

Date Reported : 3/12/2010

# H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 . FAX: (631) 420-8436 NYSDOH ID # 10478

## LABORATORY RESULTS

For the submitted sample

**Lab No. : 1003345-003**

**ClientSample ID. : SOURCE #1 C**

**GEI Consultants, Inc.**
**455 Winding Brook Drive**
**Glastonbury, CT 06033**
**Attn To :** Chris Morris

**Sample Information...**
Type : Soil

Origin:

Collected : 3/9/2010 1:30:00 PM
Received : 3/9/2010 2:30:00 PM
Collected By CA99
Copies To : Dave Work
**CC** ; EDD (PKG)

| Parameter(s) | Results | Qualifier | D.F. | Units | Method Number | Analyzed |
|---|---|---|---|---|---|---|
| 2-Propanol | < 520 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 10:10 PM |
| Benzene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 10:10 PM |
| 1,2-Dichloroethane | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 10:10 PM |
| Trichloroethene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 10:10 PM |
| 1,2-Dichloropropane | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 10:10 PM |
| Bromodichloromethane | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 10:10 PM |
| cis-1,3-Dichloropropene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 10:10 PM |
| 4-Methyl-2-pentanone | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 10:10 PM |
| Toluene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 10:10 PM |
| Chlorotoluene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 10:10 PM |
| trans-1,3-Dichloropropene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 10:10 PM |
| 1,1,2-Trichloroethane | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 10:10 PM |
| Tetrachloroethene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 10:10 PM |
| 2-Hexanone | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 10:10 PM |
| Dibromochloromethane | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 10:10 PM |
| 1,2-Dibromoethane | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 10:10 PM |
| Chlorobenzene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 10:10 PM |
| Ethylbenzene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 10:10 PM |
| 1,1,1,2-Tetrachloroethane | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 10:10 PM |
| Hexane | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 10:10 PM |
| m,p-Xylene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 10:10 PM |
| o-Xylene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 10:10 PM |
| Styrene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 10:10 PM |
| Bromoform | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 10:10 PM |
| Isopropylbenzene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 10:10 PM |
| 1,1,2,2-Tetrachloroethane | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 10:10 PM |
| n-Propylbenzene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 10:10 PM |
| 1,3,5-Trimethylbenzene/P-ethyltoluene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 10:10 PM |
| 1,2,4-Trimethylbenzene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 10:10 PM |
| Acetaldehyde | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 10:10 PM |
| 1,3-Dichlorobenzene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 10:10 PM |
| Ethanol | < 520 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 10:10 PM |
| 1,4-Dichlorobenzene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 10:10 PM |
| Naphthalene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 10:10 PM |
| 1,2-Dichlorobenzene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 10:10 PM |
| Hexachlorobutadiene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 10:10 PM |

Qualifiers:

E - Value above quantitation range
D - Results for Dilution
D.F. = Dilution Factor
H = Sample received/analyzed outside of analytical holding time
# = ELAP / NELAP does not offer certification for this analyte

Joann M. Slavin

Laboratory Manager

Date Reported : 3/12/2010

# H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 . FAX: (631) 420-8436 NYSDOH ID # 10478

## LABORATORY RESULTS

For the submitted sample

**Lab No. : 1003345-003**

**ClientSample ID. : SOURCE #1 C**

**Sample Information...**
Type : Soil

Origin:

**GEI Consultants, Inc.**
**455 Winding Brook Drive**
**Glastonbury, CT 06033**
**Attn To :** Chris Morris

Collected : 3/9/2010 1:30:00 PM
Received : 3/9/2010 2:30:00 PM
Collected By CA99
Copies To : Dave Work
**CC** ; EDD (PKG)

| Parameter(s) | Results | Qualifier | D.F. | Units | Method Number | Analyzed |
|---|---|---|---|---|---|---|
| 1,2,4-Trichlorobenzene | < 10 | | 1 | µg/Kg-dry | SW8260B | 03/09/2010 10:10 PM |
| Cyanide | < 0.52 | | 1 | mg/Kg-dry | SW9014 | 03/10/2010 2:47 PM |
| Chromium, Hexavalent | < 1.0 | | 1 | mg/Kg-dry | SW7196 | 03/10/2010 2:50 PM |
| Percent Moisture | 4.6 | | 1 | wt% | D2216 | 03/09/2010 5:37 PM |

Qualifiers:

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Joann M. Slavin

Laboratory Manager

Date Reported : 3/12/2010

# Appendix J

## Monitoring Well Logs

GEI Consultants, Inc.
455 Winding Brook Road
Glastonbury, CT 06033
(860) 368-5300

**CLIENT:** National Grid
**PROJECT:** Bay Shore Former MGP Site
**CITY/STATE:** Bay Shore, New York
**GEI PROJECT NUMBER:** 093180

**BORING LOG**
**PAGE 1 of 3**
**OZMW-22S-R.I-R**

**GROUND SURFACE ELEVATION (FT):** _____ **LOCATION:** _____
**NORTHING (FT):** _____ **EASTING (FT):** _____ **TOTAL DEPTH (FT):** 65.0
**DRILLED BY:** Fenley & Nicol Environmental, Inc. **DATUM VERT. / HORZ.:** NAVD 88 / NAD83 NY Long Island Zone
**LOGGED BY:** C. Berotti **DATE START / END:** 6/1/2010 - 6/2/2010
**DRILLING DETAILS:** Geoprobe
**WATER LEVEL DEPTHS (FT):** _____
**GENERAL NOTE:** Wells reinstalled to replace OZMW-22. Boring log data (lithology and descriptions) taken from OZMW-22.

| ELEV. FT. | DEPTH FT. | SAMPLE INFO: TYPE and NO. | SAMPLE INFO: PEN/REC IN./IN. | SAMPLE INFO: FIELD TEST DATA | STRATA | VISUAL IMPACTS | ODOR | REMARKS | SOIL / BEDROCK DESCRIPTION | WELL DETAILS |
|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | | | | | | | | (0'- 5') HAND CLEARED. | |
| | 5 | S-1 | 60/40 | PID= 857 | | | NLO | Env. Sample ID= OZMW-22 (8-10) | (5'- 10') WIDELY GRADED SAND (SW); ~90% sand, fine to coarse, subangular to subrounded, ~5% gravel, fine, ~5% fines; strong naphthalene-like odor, wet, black to gray, brown stained, possible LNAPL at 9.25 feet bgs. | |
| | 10 | S-2 | 60/36 | PID= 4.6 | | | NLO | | (10'- 15') WIDELY GRADED SAND (SW); ~90% sand, subangular to subrounded, ~5% gravel, fine, ~5% fines; moderate naphthalene-like odor, gray stained. | |
| | 15 | S-3 | 60/39 | | | | NLO | | (15'- 20') WIDELY GRADED SAND (SW); ~90% sand, fine to coarse, subangular to subrounded, ~5% gravel, fine, ~5% fines; slight naphthalene-like odor, stained gray to tan. | |
| | 20 | | | | | | | | | |

**NOTES:**

PEN = PENETRATION LENGTH OF SAMPLER OR CORE BARREL
REC = RECOVERY LENGTH OF SAMPLE
PID = PHOTOIONIZATION DETECTOR READING (JAR HEADSPACE) IN PARTS PER MILLION

IN. = INCHES
FT. = FEET
TSF = TONS PER SQUARE FOOT

NLO = NAPHTHALENE LIKE ODOR
PLO = PETROLEUM LIKE ODOR
TLO = TAR LIKE ODOR
CLO = CHEMICAL LIKE ODOR
ALO = ASPHALT LIKE ODOR
CrLO= CREOSOTE LIKE ODOR
OLO = ORGANIC LIKE ODOR
SLO = SULFUR LIKE ODOR
MLO = MUSTY LIKE ODOR

NA = NOT APPLICABLE
NM = NOT MEASURED
$Q_P$ = POCKET PENETROMETER IN TSF
$S_V$ = TORVANE PEAK IN TSF

ENVIRONMENTAL BORING LOG OU-1 GINT DATABASE 2010.03.28.GPJ ATLANTIC GEI DATA TEMPLATE.GDT 6/20/11

GEI Consultants

GEI Consultants, Inc.
455 Winding Brook Road
Glastonbury, CT 06033
(860) 368-5300

**CLIENT:** National Grid
**PROJECT:** Bay Shore Former MGP Site
**CITY/STATE:** Bay Shore, New York
**GEI PROJECT NUMBER:** 093180

**BORING LOG**
PAGE 2 of 3
**OZMW-22S-R.I-R**

| ELEV. FT. | DEPTH FT. | SAMPLE INFO: TYPE and NO. | SAMPLE INFO: PEN/REC IN./IN. | SAMPLE INFO: FIELD TEST DATA | STRATA | VISUAL IMPACTS | ODOR | REMARKS | SOIL / BEDROCK DESCRIPTION | WELL DETAILS |
|---|---|---|---|---|---|---|---|---|---|---|
| | 20 | S-4 | 60/38 | PID= 0.3 | | | NLO | Env. Sample ID= OZMW-22 (20.5-22) | (20'- 25') WIDELY GRADED SAND WITH SILT (SW-SM); ~75% sand, fine to coarse, ~15% gravel, fine, ~10% fines; slight naphthalene-like odor, wet, light brown and tan, loose, thin lens (~1/8") of dark brown staining at 21.8 feet bgs. | |
| | 25 | S-5 | 60/36 | PID= 0.2 | | | NLO | | (25'- 30') WIDELY GRADED SAND WITH SILT (SW-SM); ~80% sand, fine to coarse, ~10% gravel, fine, ~10% fines; slight naphthalene-like odor, wet, light brown and tan, loose. | |
| | 30 | S-6 | 60/34 | PID= 0.1 | | | NLO | | (30'- 35') WIDELY GRADED SAND (SW); ~90% sand, fine to coarse, ~5% gravel, fine, ~5% fines; slight naphthalene-like odor, wet, light brown and tan, loose. | |
| | 35 | S-7 | 60/32 | PID= 0.1 | | | NLO | | (35'- 40') WIDELY GRADED SAND (SW); ~90% sand, fine to coarse, ~5% gravel, fine, ~5% fines; slight naphthalene-like odor, wet, light brown and tan, loose. | |
| | 40 | S-8 | 60/40 | PID= 0.5 | | | NLO | Env. Sample ID= OZMW-22 (40.25-41) | (40'- 41.8') SILTY SAND (SM); ~85% sand, fine to coarse, ~15% fines; slight naphthalene-like odor, wet, light brown and tan, loose, slight gray staining. | |
| | | | | | | | NLO | | (41.8'- 42.1') SILTY SAND (SM); ~60% sand, fine, ~40% fines; slight naphthalene-like odor, wet, light brown and tan, moderately dense, slight gray staining. | |
| | | | | | | | NLO | | (42.1'- 45') SILTY SAND (SM); ~85% sand, fine to coarse, ~15% fines; slight naphthalene-like odor, wet, light brown and tan, loose, slight gray staining. | |

**NOTES:**

PEN = PENETRATION LENGTH OF SAMPLER OR CORE BARREL
REC = RECOVERY LENGTH OF SAMPLE
PID = PHOTOIONIZATION DETECTOR READING (JAR HEADSPACE) IN PARTS PER MILLION

IN. = INCHES
FT. = FEET
TSF = TONS PER SQUARE FOOT

NLO = NAPHTHALENE LIKE ODOR
PLO = PETROLEUM LIKE ODOR
TLO = TAR LIKE ODOR
CLO = CHEMICAL LIKE ODOR
ALO = ASPHALT LIKE ODOR
CrLO= CREOSOTE LIKE ODOR
OLO = ORGANIC LIKE ODOR
SLO = SULFUR LIKE ODOR
MLO = MUSTY LIKE ODOR

NA = NOT APPLICABLE
NM = NOT MEASURED
$Q_P$ = POCKET PENETROMETER IN TSF
$S_V$ = TORVANE PEAK IN TSF

ENVIRONMENTAL BORING LOG OU-1 GINT DATABASE 2010.03.28.GPJ ATLANTIC GEI DATA TEMPLATE.GDT 6/20/11

GEI Consultants

GEI Consultants, Inc.
455 Winding Brook Road
Glastonbury, CT 06033
(860) 368-5300

**CLIENT:** National Grid
**PROJECT:** Bay Shore Former MGP Site
**CITY/STATE:** Bay Shore, New York
**GEI PROJECT NUMBER:** 093180

**BORING LOG**
**PAGE 3 of 3**
**OZMW-22S-R.I-R**

| ELEV. FT. | DEPTH FT. | SAMPLE INFO: TYPE and NO. | SAMPLE INFO: PEN/REC IN./IN. | SAMPLE INFO: FIELD TEST DATA | STRATA | VISUAL IMPACTS | ODOR | REMARKS | SOIL / BEDROCK DESCRIPTION | WELL DETAILS |
|---|---|---|---|---|---|---|---|---|---|---|
| | 45 | | | | | | NLO | | | |
| | | S-9 | 60/34 | PID= 0.2 | | | NLO | | (45'- 50') SILTY SAND (SM); ~85% sand, fine to coarse, ~15% fines; slight naphthalene-like odor, wet, light brown and gray, loose, slight gray staining. | |
| | 50 | S-10 | 60/36 | PID= 0.2 | | | NLO | | (50'- 53.5') SILTY SAND (SM); ~80% sand, fine to coarse, ~20% fines; slight naphthalene-like odor, wet, light brown and tan, moderately dense. | |
| | | | | | | | NLO | | (53.5'- 55') SILTY SAND (SM); ~75% sand, fine to coarse, ~25% fines; slight naphthalene-like odor, wet, light brown and tan, moderately dense. | |
| | 55 | S-11 | 60/28 | PID= 0.1 | | | NLO | | (55'- 60') SILTY SAND (SM); ~80% sand, fine to coarse, ~20% fines; slight naphthalene-like odor, wet, light gray and tan, very slight light gray staining. | |
| | 60 | S-12 | 60/33 | PID= 0.5 | | | NLO | Env. Sample ID= OZMW-22 (60-61.5) | (60'- 65') SILTY SAND (SM); ~80% sand, fine to coarse, ~20% fines; slight naphthalene-like odor, wet, light gray and tan, moderately dense, very slight gray staining, thin bands of orange fine sand (~1/8-1/4" wide). | |
| | 65 | | | | | | | | End of Boring at 65 feet. | |

**NOTES:**

PEN = PENETRATION LENGTH OF SAMPLER OR CORE BARREL
REC = RECOVERY LENGTH OF SAMPLE
PID = PHOTOIONIZATION DETECTOR READING (JAR HEADSPACE) IN PARTS PER MILLION

IN. = INCHES
FT. = FEET
TSF = TONS PER SQUARE FOOT

NLO = NAPHTHALENE LIKE ODOR
PLO = PETROLEUM LIKE ODOR
TLO = TAR LIKE ODOR
CLO = CHEMICAL LIKE ODOR
ALO = ASPHALT LIKE ODOR
CrLO= CREOSOTE LIKE ODOR
OLO = ORGANIC LIKE ODOR
SLO = SULFUR LIKE ODOR
MLO = MUSTY LIKE ODOR

NA = NOT APPLICABLE
NM = NOT MEASURED
$Q_P$ = POCKET PENETROMETER IN TSF
$S_V$ = TORVANE PEAK IN TSF

ENVIRONMENTAL BORING LOG OU-1 GINT DATABASE 2010.03.28.GPJ ATLANTIC GEI DATA TEMPLATE.GDT 6/20/11

GEI Consultants, Inc.
455 Winding Brook Road
Glastonbury, CT 06033
(860) 368-5300

**CLIENT:** National Grid
**PROJECT NAME:** Bayshore
**CITY/STATE:** Bayshore, New York
**GEI PROJECT NUMBER:** 061140-8-1712

**BORING LOG**
**PAGE** 1 of 3
**OU2MW-48**

**GROUND SURFACE ELEVATION (FT):**
**LOCATION:** King Bear/Summers Lumber
**NORTHING:** **EASTING:**
**TOTAL DEPTH (FT):** 70.00
**DRILLED BY:** Fenley & Nicol Drilling Co. / Kevin Kegel
**DATUM VERT. / HORZ.:**
**LOGGED BY:** Chris Morris
**DATE START / END:** 5/6/2009 - 5/6/2009
**DRILLING DETAILS:** Geoprobe
**WATER LEVEL DEPTHS (FT):** ▽ 5.50

| DEPTH FT. | SAMPLE INFO TYPE and NO. | PEN FT. | REC IN. | PID (ppm) | STRATA | ODOR | ANALYZED SAMPLE ID | SOIL / BEDROCK DESCRIPTION |
|---|---|---|---|---|---|---|---|---|
| 0 | | 5.0 | | | | | | 0 - 0.8 CONCRETE.<br>0.8 - 1 FILL, Gravel/rubble.<br>1 - 3 WIDELY GRADED SAND WITH SILT AND GRAVEL (SW-SM); ~70% sand, fine to coarse, ~20% gravel, fine, ~10% fines; dry, light brown.<br>3 - 5 WIDELY GRADED SAND WITH GRAVEL (SW); ~60% sand, fine to coarse, ~40% gravel, fine to coarse; dry, light brown / red brown. |
| 5 ▽ | S1 | 5.0 | 59 | 0.0<br>0.0<br>0.0<br>0.0<br>0.0 | | | | 5 - 5.7 WIDELY GRADED SAND WITH GRAVEL (SW); ~60% sand, fine to coarse, ~40% gravel, fine to coarse; dry, light brown / red brown.<br>5.7 - 10 WIDELY GRADED SAND WITH GRAVEL (SW); ~80% sand, fine to coarse, ~20% gravel, fine; wet, light brown. |
| 10 | S2 | 5.0 | | 1.6<br>2.5<br>0.0<br>0.0<br>0.0<br>0.0 | | NLO | Collected Sample 10'-12' | 10 - 11.5 WIDELY GRADED SAND WITH GRAVEL (SW); ~80% sand, fine to coarse, ~20% gravel, fine; slight naphthalene-like odor, wet, light brown / gray.<br>11.5 - 12.5 WIDELY GRADED SAND WITH GRAVEL (SW); ~80% sand, fine to coarse, ~20% gravel, fine; wet, light brown.<br>12.5 - 15 NARROWLY GRADED SAND (SP); ~90% sand, fine to coarse, ~10% gravel, fine; wet, light brown. |
| 15 | S3 | 5.0 | 44 | 0.0<br>0.0<br>0.0<br>0.0<br>0.0 | | | | 15 - 16.7 NARROWLY GRADED SAND (SP); ~90% sand, fine to coarse, ~10% gravel, fine; wet, light brown.<br>16.7 - 20 WIDELY GRADED SAND (SW); ~90% sand, fine to coarse, ~10% gravel, fine; wet, light brown. |
| 20 | S4 | 5.0 | 44 | 0.0<br>0.0<br>0.0<br>0.0 | | | | 20 - 23.2 WIDELY GRADED SAND (SW); ~90% sand, fine to coarse, ~10% gravel, fine; wet, light brown.<br>23.2 - 24.1 WIDELY GRADED SAND WITH GRAVEL (SW); ~70% |

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ENVIRONMENTAL BORING LOG SUMMERS LUMBER-KING BEAR LOGS.GPJ GEI CONSULTANTS.GDT 8/19/09

GEI Consultants, Inc.
455 Winding Brook Road
Glastonbury, CT 06033
(860) 368-5300

**CLIENT:** National Grid
**PROJECT NAME:** Bayshore
**CITY/STATE:** Bayshore, New York
**GEI PROJECT NUMBER:** 061140-8-1712

**BORING LOG**



**OU2MW-48**

| DEPTH FT. | SAMPLE INFO TYPE and NO. | PEN FT. | REC IN. | PID (ppm) | STRATA | ODOR | ANALYZED SAMPLE ID | SOIL / BEDROCK DESCRIPTION |
|---|---|---|---|---|---|---|---|---|
| | | | | 0.0 | | | | sand, fine to coarse, ~30% gravel, fine to coarse; wet, light brown. |
| 25 | S5 | 5.0 | 56 | 0.0 | | | Collected Sample 25'-30' | 24.1 - 25 NARROWLY GRADED SAND (SP); ~100% sand, fine to coarse; wet, light brown. |
| | | | | 0.0 | | | | 25 - 27.1 NARROWLY GRADED SAND (SP); ~100% sand, fine to coarse; wet, light brown. |
| | | | | 0.0 | | | | 27.1 - 28.4 WIDELY GRADED SAND WITH GRAVEL (SW); ~80% sand, fine to coarse, ~20% gravel, fine; wet, light brown. |
| | | | | 0.0 | | | | |
| | | | | 0.0 | | | | 28.4 - 30 NARROWLY GRADED SAND (SP); ~95% sand, fine to coarse, ~5% gravel, fine; wet, light brown. |
| 30 | S6 | 5.0 | 55 | 0.0 | | | | 30 - 34.4 NARROWLY GRADED SAND (SP); ~95% sand, fine to coarse, ~5% gravel, fine; wet, light brown. |
| | | | | 0.0 | | | | |
| | | | | 0.0 | | | | |
| | | | | 0.0 | | | | |
| | | | | 0.0 | | | | |
| 35 | S7 | 5.0 | 56 | 0.0 | | | | 34.4 - 34.8 NARROWLY GRADED SAND (SP); ~100% sand, fine to medium; wet, light brown. |
| | | | | 0.0 | | | | 34.8 - 35 NARROWLY GRADED SAND (SP); ~95% sand, fine to coarse, ~5% gravel, fine; wet, light brown. |
| | | | | 0.0 | | | | 35 - 40 WIDELY GRADED SAND (SW); ~90% sand, fine to coarse, ~10% gravel, fine; wet, light brown. |
| | | | | 0.0 | | | | |
| | | | | 0.0 | | | | |
| 40 | S8 | 5.0 | 57 | 0.0 | | | | 40 - 44.3 WIDELY GRADED SAND (SW); ~90% sand, fine to coarse, ~10% gravel, fine; wet, light brown. |
| | | | | 0.0 | | | | |
| | | | | 0.0 | | | | |
| | | | | 0.0 | | | | |
| | | | | 0.0 | | | | |
| 45 | S9 | 5.0 | 56 | 0.0 | | | Collected Sample 45'-50' | 44.3 - 45 NARROWLY GRADED SAND (SP); ~100% sand, fine to coarse; wet, light brown. |
| | | | | 0.0 | | | | 45 - 50 NARROWLY GRADED SAND (SP); ~100% sand, fine to coarse; wet, light brown, 2 dark brown bands of soil, 2" in diameter, in bottom of sample. |
| | | | | 0.0 | | | | |
| | | | | 0.0 | | | | |
| | | | | 0.0 | | | | |
| 50 | S10 | 5.0 | 55 | 0.0 | | | | 50 - 55 NARROWLY GRADED SAND (SP); ~95% sand, fine to coarse, ~5% gravel, fine; wet, light brown. |
| | | | | 0.0 | | | | |

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ENVIRONMENTAL BORING LOG SUMMERS LUMBER-KING BEAR LOGS.GPJ GEI CONSULTANTS.GDT 8/19/09

GEI Consultants, Inc.
455 Winding Brook Road
Glastonbury, CT 06033
(860) 368-5300

**CLIENT:** National Grid
**PROJECT NAME:** Bayshore
**CITY/STATE:** Bayshore, New York
**GEI PROJECT NUMBER:** 061140-8-1712

**BORING LOG**
**PAGE** 3 of 3
**OU2MW-48**

| DEPTH FT. | SAMPLE INFO TYPE and NO. | PEN FT. | REC IN. | PID (ppm) | STRATA | ODOR | ANALYZED SAMPLE ID | SOIL / BEDROCK DESCRIPTION |
|---|---|---|---|---|---|---|---|---|
| | | | | 0.0 | | | | |
| | | | | 0.0 | | | | |
| | | | | 0.0 | | | | |
| 55 | S11 | 5.0 | 57 | 0.0 | | | | 55 - 60 NARROWLY GRADED SAND (SP); ~100% sand, fine to medium; wet, light brown. |
| | | | | 0.0 | | | | |
| | | | | 0.0 | | | | |
| | | | | 0.0 | | | | |
| | | | | 0.0 | | | | |
| 60 | S12 | 5.0 | 57 | 0.0 | | | | 60 - 63.2 NARROWLY GRADED SAND (SP); ~100% sand, fine to medium; wet, light brown. |
| | | | | 0.0 | | | | |
| | | | | 0.0 | | | | |
| | | | | 0.0 | | | | 63.2 - 65 NARROWLY GRADED SAND (SP); ~100% sand, fine to medium; wet, light brown, 3 bands of red/brow and 2 bands of dark brown sand, fine to medium ~2" in width. |
| | | | | 0.0 | | | | |
| 65 | S13 | 5.0 | 58 | 0.0 | | | Collected Sample 65'-70' | 65 - 69.3 NARROWLY GRADED SAND (SP); ~100% sand, fine to medium; wet, light brown. |
| | | | | 0.0 | | | | |
| | | | | 0.0 | | | | |
| | | | | 0.0 | | | | |
| | | | | 0.0 | | | | |
| 70 | | | | | | | | 69.3 - 70 NARROWLY GRADED SAND (SP); ~100% sand, fine to medium; wet, light brown. |
| | | | | | | | | Bottom of borehole at 70.0 feet. |

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ENVIRONMENTAL BORING LOG SUMMERS LUMBER-KING BEAR LOGS.GPJ GEI CONSULTANTS.GDT 8/19/09

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**CLIENT:** National Grid
**PROJECT NAME:** Bayshore
**CITY/STATE:** Bayshore, New York
**GEI PROJECT NUMBER:** 061140-8-1712

**BORING LOG**
**PAGE** 1 of 3
**OU2MW-49**

**GROUND SURFACE ELEVATION (FT):**
**LOCATION:** King Bear/Summers Lumber
**NORTHING:** **EASTING:**
**TOTAL DEPTH (FT):** 70.00
**DRILLED BY:** Fenley & Nicol Drilling Co. / Kevin Kegel
**DATUM VERT. / HORZ.:**
**LOGGED BY:** Chris Morris
**DATE START / END:** 5/7/2009 - 5/7/2009
**DRILLING DETAILS:** Geoprobe
**WATER LEVEL DEPTHS (FT):** ▽ 6.00

| DEPTH FT. | SAMPLE INFO: TYPE and NO. | PEN FT. | REC IN. | PID (ppm) | STRATA | VISUAL IMPACTS | ODOR | ANALYZED SAMPLE ID | SOIL / BEDROCK DESCRIPTION |
|---|---|---|---|---|---|---|---|---|---|
| 0 | | 5.0 | | 0.0 | | | | | 0 - 0.3 ASPHALT. |
| | | | | 0.0 | | | | | 0.3 - 0.5 FILL, Gravel. |
| | | | | 0.0 | | | | | 0.5 - 1.8 WIDELY GRADED SAND WITH SILT AND GRAVEL (SW-SM); ~60% sand, fine to coarse, ~30% gravel, fine to coarse, ~10% fines; dry, red brown, FILL. |
| | | | | 0.0 | | | | | 1.8 - 3.5 WIDELY GRADED SAND WITH SILT (SW-SM); ~80% sand, fine to coarse, ~10% gravel, fine, ~10% fines; dry, brown. |
| | | | | 0.0 | | | | | 3.5 - 5 WIDELY GRADED SAND WITH GRAVEL (SW); ~70% sand, fine to coarse, ~30% gravel, fine; dry, light brown. |
| 5 | S1 | 5.0 | 54 | 0.0 | | | | | 5 - 6.7 WIDELY GRADED SAND WITH GRAVEL (SW); ~70% sand, fine to coarse, ~30% gravel, fine; dry, light brown, wet at 6'. |
| ▽ | | | | 0.0 | | | | | |
| | | | | 0.0 | | | | | 6.7 - 8.2 GRAVELLY LEAN CLAY WITH SAND (CL); ~60% fines, ~25% gravel, fine to coarse, ~15% sand, fine to medium; wet, brown / gray. |
| | | | | 0.0 | | | | | 8.2 - 9.1 WIDELY GRADED SAND WITH GRAVEL (SW); ~80% sand, fine to coarse, ~20% gravel, fine; wet, light brown. |
| | | | | 0.0 | | | | | 9.1 - 9.4 GRAVELLY LEAN CLAY WITH SAND (CL); ~60% fines, ~25% gravel, fine to coarse, ~15% sand, fine to medium; wet, brown / gray. |
| 10 | S2 | 5.0 | 50 | 0.0 | | | | | 9.4 - 10 WIDELY GRADED SAND WITH GRAVEL (SW); ~80% sand, fine to coarse, ~20% gravel, fine; wet, light brown. |
| | | | | 0.0 | | | | | 10 - 12.4 WIDELY GRADED SAND WITH GRAVEL (SW); ~80% sand, fine to coarse, ~20% gravel, fine; wet, light brown. |
| | | | | 0.9 | | | | | 11.8 - 12.4 WIDELY GRADED SAND WITH GRAVEL (SW); ~80% sand, fine to coarse, ~20% gravel, fine; slight naphthalene-like odor, wet, light brown. |
| | | | | 1.8 | | | | | 12.4 - 15 WIDELY GRADED SAND WITH GRAVEL (SW); ~80% sand, fine to coarse, ~20% gravel, fine; slight naphthalene-like odor, wet, light brown / slightly gray, slightly stained. |
| | | | | 1.5 | | | NLO | Collected Sample 12'-15' | 15 - 16.5 WIDELY GRADED SAND WITH GRAVEL (SW); ~80% sand, fine to coarse, ~20% gravel, fine; moderate naphthalene-like odor, wet, light brown / slightly gray, slightly stained. |
| | | | | 1.4 | | | | | 16.5 - 17.4 WIDELY GRADED SAND WITH GRAVEL (SW); ~50% gravel, fine to coarse, ~50% sand, fine to coarse; slight naphthalene-like odor, wet, light brown / gray, slight staining. |
| | | | | 1.8 | | | | | 17.4 - 18 WIDELY GRADED SAND (SW); ~90% sand, fine to coarse, ~10% gravel, fine; moderate naphthalene-like odor, wet, gray / light brown, slight staining. |
| | | | | 0.8 | | | NLO | | 18 - 20 WIDELY GRADED SAND WITH GRAVEL (SW); ~80% sand, fine to coarse, ~20% gravel, fine; slight naphthalene-like odor, wet, light brown, no naphthalene-like odor at bottom. |
| | | | | 0.8 | | | | | 20 - 22 WIDELY GRADED SAND WITH GRAVEL (SW); ~80% sand, fine to coarse, ~20% gravel, fine; wet, light brown. |
| | | | | 1.0 | | | | | 22 - 23.7 WIDELY GRADED SAND WITH GRAVEL (SW); ~70% sand, fine to coarse, ~30% gravel, fine; wet, light brown. |
| 15 | S3 | 5.0 | 52 | 0.9 | | | | | |
| | | | | 0.8 | | | NLO | | |
| | | | | 1.5 | | | | | |
| | | | | 0.9 | | | NLO | | |
| | | | | 0.8 | | | | | |
| | | | | 2.5 | | | NLO | | |
| | | | | 1.9 | | | | | |
| | | | | 0.9 | | | NLO | | |
| | | | | 0.8 | | | | | |
| | | | | 0.0 | | | | | |
| 20 | S4 | 5.0 | 56 | 0.0 | | | | | |
| | | | | 0.0 | | | | | |
| | | | | 0.0 | | | | | |
| | | | | 0.0 | | | | | |

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ENVIRONMENTAL BORING LOG SUMMERS LUMBER-KING BEAR LOGS.GPJ GEI CONSULTANTS.GDT 8/19/09

GEI Consultants, Inc.
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(860) 368-5300

**CLIENT:** National Grid
**PROJECT NAME:** Bayshore
**CITY/STATE:** Bayshore, New York
**GEI PROJECT NUMBER:** 061140-8-1712

**BORING LOG**
**PAGE** 2 of 3
**OU2MW-49**

| DEPTH FT. | SAMPLE INFO TYPE and NO. | PEN FT. | REC IN. | PID (ppm) | STRATA | VISUAL IMPACTS | ODOR | ANALYZED SAMPLE ID | SOIL / BEDROCK DESCRIPTION |
|---|---|---|---|---|---|---|---|---|---|
| | | | | 0.0 | | | | | 23.7 - 25 WIDELY GRADED SAND WITH GRAVEL (SW); ~80% sand, fine to coarse, ~20% gravel, fine; wet, light brown. |
| 25 | S5 | 5.0 | 56 | 0.0 | | | | Collected Sample 25'-30' | 25 - 30 WIDELY GRADED SAND WITH GRAVEL (SW); ~80% sand, fine to coarse, ~20% gravel, fine; wet, light brown. |
| | | | | 0.0 | | | | | |
| | | | | 0.0 | | | | | |
| | | | | 0.0 | | | | | |
| | | | | 0.0 | | | | | |
| 30 | S6 | 5.0 | | 0.0 | | | | | 30 - 35 WIDELY GRADED SAND (SW); ~95% sand, fine to coarse, ~5% gravel, fine; wet, light brown. |
| | | | | 0.0 | | | | | |
| | | | | 0.0 | | | | | |
| | | | | 0.0 | | | | | |
| | | | | 0.0 | | | | | |
| 35 | S7 | 5.0 | 55 | 0.0 | | | | | 35 - 40 WIDELY GRADED SAND (SW); ~90% sand, fine to coarse, ~10% gravel, fine; wet, light brown. |
| | | | | 0.0 | | | | | |
| | | | | 0.0 | | | | | |
| | | | | 0.0 | | | | | |
| | | | | 0.0 | | | | | |
| 40 | S8 | 5.0 | 56 | 0.0 | | | | | 40 - 45 WIDELY GRADED SAND (SW); ~90% sand, fine to coarse, ~10% gravel, fine; wet, light brown / brown. |
| | | | | 0.0 | | | | | |
| | | | | 0.0 | | | | | |
| | | | | 0.0 | | | | | |
| | | | | 0.0 | | | | | |
| 45 | S9 | 5.0 | 50 | 0.0 | | | | Collected Sample 45'-50' | 45 - 50 WIDELY GRADED SAND (SW); ~95% sand, fine to coarse, ~5% gravel, fine; wet, light brown. |
| | | | | 0.0 | | | | | |
| | | | | 0.0 | | | | | |
| | | | | 0.0 | | | | | |
| | | | | 0.0 | | | | | |
| 50 | S10 | 5.0 | 57 | 0.0 | | | | | 50 - 55 NARROWLY GRADED SAND (SP); ~100% sand, fine to coarse; wet, light brown. |
| | | | | 0.0 | | | | | |

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ENVIRONMENTAL BORING LOG SUMMERS LUMBER-KING BEAR LOGS.GPJ GEI CONSULTANTS.GDT 8/19/09

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**CLIENT:** National Grid
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**GEI PROJECT NUMBER:** 061140-8-1712

**BORING LOG**
**PAGE** 3 of 3
**OU2MW-49**

| DEPTH FT. | SAMPLE INFO: TYPE and NO. | PEN FT. | REC IN. | PID (ppm) | STRATA | VISUAL IMPACTS | ODOR | ANALYZED SAMPLE ID | SOIL / BEDROCK DESCRIPTION |
|---|---|---|---|---|---|---|---|---|---|
| | | | | 0.0 | | | | | |
| | | | | 0.0 | | | | | |
| | | | | 0.0 | | | | | |
| 55 | S11 | 5.0 | 56 | 0.0 | | | | | 55 - 58.9 NARROWLY GRADED SAND (SP); ~100% sand, fine to coarse; wet, light brown. |
| | | | | 0.0 | | | | | |
| | | | | 0.0 | | | | | |
| | | | | 0.0 | | | | | |
| | | | | 0.0 | | | | | 58.9 - 60 NARROWLY GRADED SAND (SP); ~100% sand, fine to medium; wet, light brown. |
| 60 | S12 | 5.0 | 58 | 0.0 | | | | | 60 - 65 NARROWLY GRADED SAND (SP); ~100% sand, fine to medium; wet, light brown. |
| | | | | 0.0 | | | | | |
| | | | | 0.0 | | | | | |
| | | | | 0.0 | | | | | |
| | | | | 0.0 | | | | | |
| 65 | S13 | 5.0 | 57 | 0.0 | | | | Collected Sample 65'-70' | 65 - 70 NARROWLY GRADED SAND (SP); ~100% sand, fine to medium; wet, light brown. |
| | | | | 0.0 | | | | | |
| | | | | 0.0 | | | | | |
| | | | | 0.0 | | | | | |
| | | | | 0.0 | | | | | |
| 70 | | | | | | | | | Bottom of borehole at 70.0 feet. |

**NOTES:**

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IN. = INCHES
FT. = FEET

NLO = NAPHTHALENE LIKE ODOR
PLO = PETROLEUM LIKE ODOR
TLO = TAR LIKE ODOR
CLO = CHEMICAL LIKE ODOR
ALO = ASPHALT LIKE ODOR

CrLO= CREOSOTE LIKE ODOR
OLO = ORGANIC LIKE ODOR
SLO = SULFUR LIKE ODOR
MLO = MUSTY LIKE ODOR

ENVIRONMENTAL BORING LOG SUMMERS LUMBER-KING BEAR LOGS.GPJ GEI CONSULTANTS.GDT 8/19/09

GEI Consultants, Inc.
455 Winding Brook Road
Glastonbury, CT 06033
(860) 368-5300

**CLIENT:** National Grid
**PROJECT:** Bay Shore Former MGP Site
**CITY/STATE:** Bay Shore, New York
**GEI PROJECT NUMBER:** 093180

**BORING LOG**
**PAGE** 1 of 3
**OU2MW-54S; I; I2; D**

**GROUND SURFACE ELEVATION (FT):** _____ **LOCATION:** Summers Lumber
**NORTHING:** _____ **EASTING:** _____ **TOTAL DEPTH (FT):** 75.00
**DRILLED BY:** Fenley & Nicol Env. / Kevin Kegel & Matt Briody **DATUM VERT. / HORZ.:** NAVD 88 / NAD83 NY Long Island Zone
**LOGGED BY:** DH **DATE START / END:** 1/20/2010 - 1/22/2010
**DRILLING DETAILS:** Geoprobe
**WATER LEVEL DEPTHS (FT):** _____

| DEPTH FT. | SAMPLE INFO TYPE and NO. | PEN FT. | REC FT. | PID (ppm) | STRATA | ANALYZED SAMPLE ID | SOIL / BEDROCK DESCRIPTION | WELL CONSTRUCTION DETAILS |
|---|---|---|---|---|---|---|---|---|
| 0 | | 5.0 | | | | | Hand clear. | |
| 5 | S-1 | 5.0 | 3.3 | 0.0<br>0.0<br>0.0<br>0.0<br>0.0<br>0.0 | | | (5'- 5.3') LEAN CLAY (CL); gray.<br>(5.3'- 10') WELL GRADED SAND WITH SILT (SW); ~80% sand, fine to coarse, ~10% gravel, ~10% fines; max. size 0.75 in., wet, brown. | |
| 10 | S-2 | 5.0 | 4.3 | 0.1<br>0.2<br>0.3<br>1.6<br>1.0<br>0.7 | | OU2MW-54 (12-14) | (10'- 15') WELL GRADED SAND (SW); ~85% sand, fine to coarse, ~10% gravel, ~5% fines; max. size 1 in., wet, light brown. | |
| 15 | S-3 | 5.0 | 4.3 | 1.2<br>1.3<br>1.7<br>1.5<br>1.2<br>3.1<br>2.2 | | | (15'- 17.5') WELL GRADED SAND (SW); ~85% sand, fine to coarse, ~10% gravel, angular to subrounded, ~5% fines; max. size 1 in., wet, dark gray to light gray.<br>(17.5'- 20') WELL GRADED SAND (SW); ~85% sand, fine to coarse, ~10% gravel, angular to subrounded, ~5% fines; max. size 1 in., wet, light brown. | |
| 20 | S-4 | 5.0 | 4.7 | 0.5<br>0.5<br>0.7<br>0.5<br>0.7 | | | (20'- 25') WELL GRADED SAND (SW); ~90% sand, fine to coarse, ~5% gravel, subangular, ~5% fines; max. size 0.5 in., wet, light brown.<br>(21.5'- 22.5') gravel lense. | |

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ENVIRONMENTAL BORING LOG OU-2 GINT DATABASE 2010.07.28.GPJ GEI CONSULTANTS.GDT 8/24/10

GEI Consultants

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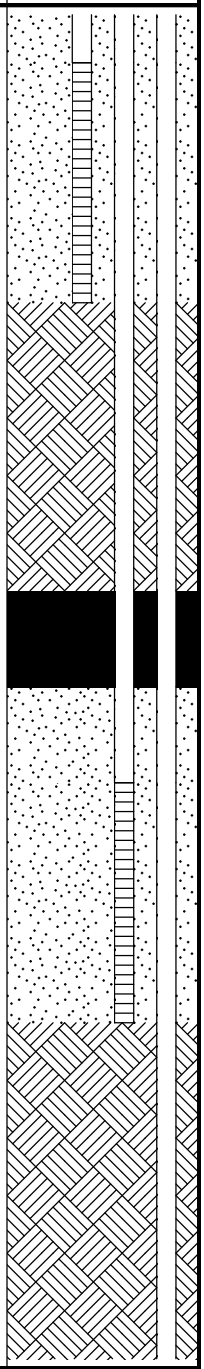
**BORING LOG**



**OU2MW-54S; I; I2; D**

| DEPTH FT. | SAMPLE INFO: TYPE and NO. | PEN FT. | REC FT. | PID (ppm) | STRATA | ANALYZED SAMPLE ID | SOIL / BEDROCK DESCRIPTION |
|---|---|---|---|---|---|---|---|
| | | | | 0.5 | | | |
| 25 | S-5 | 5.0 | 4.7 | 0.5 | | | (25'- 30') WELL GRADED SAND (SW); ~90% sand, fine to coarse, ~5% gravel, subangular, ~5% fines; max. size 0.5 in., wet, light brown. |
| | | | | 0.5 | | OU2MW-54 (26-28) | |
| | | | | 0.5 | | | |
| | | | | 0.7 | | | |
| | | | | 0.5 | | | |
| | | | | 0.5 | | | |
| 30 | S-6 | 5.0 | 4.7 | 0.0 | | | (30'- 35') WELL GRADED SAND (SW); ~90% sand, fine to coarse, ~5% gravel, subangular to subrounded, ~5% fines; max. size 0.5 in., wet, light brown. |
| | | | | 0.0 | | | |
| | | | | 0.0 | | | |
| | | | | 0.0 | | | |
| | | | | 0.0 | | | |
| | | | | 0.0 | | | |
| 35 | S-7 | 5.0 | 4.7 | 0.0 | | | (35'- 40') WELL GRADED SAND (SW); ~90% sand, fine to coarse, ~5% gravel, subangular to subrounded, ~5% fines; max. size 0.5 in., wet, light brown. |
| | | | | 0.0 | | | |
| | | | | 0.0 | | | |
| | | | | 0.0 | | | |
| | | | | 0.0 | | | |
| | | | | 0.0 | | | |
| 40 | S-8 | 5.0 | 4.7 | 0.0 | | | (40'- 45') WELL GRADED SAND (SW); ~90% sand, fine to coarse, ~5% gravel, subangular to subrounded, ~5% fines; max. size 0.5 in., wet, light brown. |
| | | | | 0.0 | | OU2MW-54 (41-43) | |
| | | | | 0.0 | | | |
| | | | | 0.0 | | | |
| | | | | 0.0 | | | |
| | | | | 0.0 | | | |
| | | | | 0.0 | | | |
| 45 | S-9 | 5.0 | 4.5 | 0.0 | | | (45'- 50') SILTY SAND (SM); ~85% sand, fine to coarse, ~15% fines; wet, light brown. |
| | | | | 0.0 | | | |
| | | | | 0.0 | | | |
| | | | | 0.0 | | | |
| | | | | 0.0 | | | |
| | | | | 0.0 | | | |
| 50 | S-10 | 5.0 | 4.7 | 0.0 | | | (50'- 55') SILTY SAND (SM); ~80% sand, fine to coarse, ~20% fines, ~5% gravel, subrounded to subangular; wet, light brown. |
| | | | | 0.0 | | | |

**WELL CONSTRUCTION DETAILS**



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ENVIRONMENTAL BORING LOG OU-2 GINT DATABASE 2010.07.28.GPJ GEI CONSULTANTS.GDT 8/24/10

GEI Consultants

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Glastonbury, CT 06033
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**BORING LOG**

**PAGE** 3 of 3

**OU2MW-54S; I; I2; D**

| DEPTH FT. | SAMPLE INFO: TYPE and NO. | PEN FT. | REC FT. | PID (ppm) | STRATA | ANALYZED SAMPLE ID | SOIL / BEDROCK DESCRIPTION | WELL CONSTRUCTION DETAILS |
|---|---|---|---|---|---|---|---|---|
| | | | | 0.0 | | | | |
| | | | | 0.0 | | | | |
| | | | | 0.0 | | | | |
| | | | | 0.0 | | | | |
| 55 | S-11 | 5.0 | 4.5 | 0.0 | | | (55'- 60') SILTY SAND (SM); ~75% sand, fine to coarse, ~20% fines, ~5% gravel, subrounded to subangular; wet, brown. | |
| | | | | 0.1 | | | | |
| | | | | 0.2 | | | | |
| | | | | 0.2 | | | | |
| | | | | 0.2 | | | | |
| | | | | 0.2 | | | | |
| 60 | S-12 | 5.0 | 4.7 | 0.1 | | OU2MW-54 (62-64) | (60'- 65') SILTY SAND (SM); ~75% sand, fine to coarse, ~25% fines; wet, dark brown. | |
| | | | | 0.2 | | | | |
| | | | | 0.2 | | | | |
| | | | | 0.1 | | | | |
| | | | | 0.3 | | | | |
| | | | | 0.2 | | | Orange staining at ~64.5'. | |
| 65 | S-13 | 5.0 | 4.7 | 0.0 | | | (65'- 70') SILTY SAND (SM); ~75% sand, fine to coarse, ~25% fines; wet, dark brown. | |
| | | | | 0.0 | | | | |
| | | | | 0.0 | | | | |
| | | | | 0.0 | | | | |
| | | | | 0.0 | | | | |
| | | | | 0.0 | | | | |
| | | | | 0.0 | | | | |
| 70 | S-14 | 5.0 | 4.7 | 0.1 | | | (70'- 73.5') SILTY SAND (SM); ~75% sand, fine to coarse, ~25% fines; wet, brown. | |
| | | | | 0.0 | | | | |
| | | | | 0.0 | | | | |
| | | | | 0.1 | | | Orange lense at ~72.5'. | |
| | | | | 0.0 | | | (73.5'- 75') LEAN CLAY (CL); ~100% fines; gray, tight, ~5% silt magothy. | |
| 75 | | | | 0.0 | | | | |

Bottom of borehole at 75.0 feet.
Each well was constructed with five or ten (shallow wells) feet of 1-inch diameter, 0.02-inch Schedule (SCH) 40 polyvinyl chloride (PVC) well screen threaded to 1-inch diameter SCH 40 PVC riser to surface road box.

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ENVIRONMENTAL BORING LOG OU-2 GINT DATABASE 2010.07.28.GPJ GEI CONSULTANTS.GDT 8/24/10

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**BORING LOG**
PAGE 1 of 3
**OU2MW-57S.I.I2**

**GROUND SURFACE ELEVATION (FT):** _____ **LOCATION:** _____
**NORTHING (FT):** _____ **EASTING (FT):** _____ **TOTAL DEPTH (FT):** 47.0
**DRILLED BY:** Fenley & Nicol Environmental, Inc. **DATUM VERT. / HORZ.:** NAVD 88 / NAD83 NY Long Island Zone
**LOGGED BY:** C. Berotti **DATE START / END:** 6/2/2011 - 6/3/2011
**DRILLING DETAILS:** Geoprobe
**WATER LEVEL DEPTHS (FT):** _____
**GENERAL NOTE:** (0'- 30') Subsurface data taken from KB/SL SB-02 performed by GEI on 5/22/2009. (30'- 47') Subsurface data taken from BBSB-90 performed by Dvirka and Bartilucci 4/8/2002.

| ELEV. FT. | DEPTH FT. | SAMPLE INFO: TYPE and NO. | SAMPLE INFO: PEN/REC IN./IN. | STRATA | VISUAL IMPACTS | ODOR | SOIL / BEDROCK DESCRIPTION | WELL DETAILS |
|---|---|---|---|---|---|---|---|---|
| | 0 | | | | | | (0'- 0.3') ASPHALT.<br>(0.3'- 0.8') SILTY SAND WITH GRAVEL (SM); ~50% sand, fine to medium, ~30% gravel, fine, ~20% fines; brown.<br>(0.8'- 2.5') SILTY SAND (SM); ~70% sand, fine to medium, ~20% fines, ~10% gravel, fine; dry, brown. | |
| | | | | | | | (2.5'- 3') SILTY SAND (SM); ~70% sand, fine to medium, ~20% fines, ~10% gravel, fine; dry, brown.<br>(3'- 4') SILTY SAND WITH GRAVEL (SM); ~70% sand, fine to medium, ~15% gravel, fine, ~15% fines; red brown. | |
| | | | | | | PLO | (4'- 5.7') WIDELY GRADED SAND (SW); ~100% sand, fine to coarse; slight petroleum-like odor, wet, brown / red, slight solvent-like odor. | |
| | 5 | | | | | PLO | (5.7'- 6.4') SILTY SAND (SM); ~70% sand, fine to coarse, ~20% fines, ~10% gravel, fine; strong petroleum-like odor, wet, brown, slight solvent-like odor. | |
| | | | | | | PLO | (6.4'- 7.3') LEAN CLAY (CL); ~100% fines; moderate petroleum-like odor, gray, slight solvent-like odor. | |
| | | | | | | PLO | (7.3'- 7.8') WIDELY GRADED SAND WITH GRAVEL (SW); ~80% sand, fine to coarse, ~20% gravel, fine; moderate petroleum-like odor, wet, light brown to gray, slight solvent-like odor, slight staining. | |
| | | | | | | PLO | (7.8'- 7.9') WIDELY GRADED SAND WITH GRAVEL (SW); ~80% sand, fine to coarse, ~20% gravel, fine; moderate petroleum-like odor, wet, dark gray, slight solvent-like odor, stained. | |
| | | | | | | PLO | (7.9'- 8.5') WIDELY GRADED SAND WITH GRAVEL (SW); ~80% sand, fine to coarse, ~20% gravel, fine; moderate petroleum-like odor, wet, light brown to gray, slight solvent-like odor, slight staining. | |
| | 10 | | | | | PLO | (8.5'- 10') WIDELY GRADED SAND WITH GRAVEL (SW); ~80% sand, fine to coarse, ~20% gravel, fine; moderate petroleum-like odor, wet, light brown, Naphthaline-like odor at bottom of sample.<br>(10'- 15') WIDELY GRADED SAND WITH GRAVEL (SW); ~80% sand, fine to coarse, ~20% gravel, fine to coarse; moderate petroleum-like odor, wet, light brown / light gray, very slight naphthaline-like odor, slight staining. | |
| | 15 | | | | | | | |

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NA = NOT APPLICABLE
NM = NOT MEASURED
$Q_P$ = POCKET PENETROMETER IN TSF
$S_V$ = TORVANE PEAK IN TSF

ENVIRONMENTAL BORING LOG OU-1 GINT DATABASE 2010.03.28.GPJ ATLANTIC GEI DATA TEMPLATE.GDT 6/20/11

GEI Consultants

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(860) 368-5300

**CLIENT:** National Grid
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**CITY/STATE:** Bay Shore, New York
**GEI PROJECT NUMBER:** 093180

**BORING LOG**



**OU2MW-57S.I.I2**

| ELEV. FT. | DEPTH FT. | SAMPLE INFO: TYPE and NO. | SAMPLE INFO: PEN/REC IN./IN. | STRATA | VISUAL IMPACTS | ODOR | SOIL / BEDROCK DESCRIPTION | WELL DETAILS |
|---|---|---|---|---|---|---|---|---|
| | 15 | | | | | PLO | (15'- 17.9') WIDELY GRADED SAND (SW); ~90% sand, fine to coarse, ~10% gravel, fine; slight petroleum-like odor, wet, light gray, slight staining, slight naphthaline-like odor. | |
| | | | | | | NLO | (17.9'- 19.8') WIDELY GRADED SAND (SW); ~90% sand, fine to coarse, ~10% gravel, fine; slight naphthalene-like odor, wet, light brown / gray, slightly stained. | |
| | 20 | | | | | NLO | (19.8'- 20') WIDELY GRADED SAND (SW); ~90% sand, fine to coarse, ~10% gravel, fine; slight naphthalene-like odor, wet, light brown. | |
| | | | | | | NLO | (20'- 21.5') WIDELY GRADED SAND (SW); ~90% sand, fine to coarse, ~10% gravel, fine; slight naphthalene-like odor, wet, light brown. | |
| | | | | | | NLO | (21.5'- 24') WIDELY GRADED SAND WITH GRAVEL (SW); ~80% sand, fine to coarse, ~20% gravel, fine to coarse; slight naphthalene-like odor, wet, light brown. | |
| | 25 | | | | | NLO | (24'- 25') WIDELY GRADED SAND (SW); ~90% sand, fine to coarse, ~10% gravel, fine; slight naphthalene-like odor, wet, light brown. | |
| | | | | | | NLO | (25'- 28') WIDELY GRADED SAND (SW); ~90% sand, fine to coarse, ~10% gravel, fine; slight naphthalene-like odor, wet, light brown. | |
| | 30 | | | | | | (28'- 29') NARROWLY GRADED SAND WITH GRAVEL (SP); ~70% sand, fine to medium, ~30% gravel, fine to coarse; wet, light brown. | |
| | | | | | | | (29'- 30') NARROWLY GRADED SAND (SP); ~90% sand, fine to medium, ~10% gravel, fine; wet, light brown. | |
| | | | | | | | Brown/light broon, coarse SAND, some gravel, loose, mild hydrocarbon-like odor, wet. | |
| | | | | | | | Same as above, no odor. | |

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NM = NOT MEASURED
$Q_P$ = POCKET PENETROMETER IN TSF
$S_V$ = TORVANE PEAK IN TSF

ENVIRONMENTAL BORING LOG OU-1 GINT DATABASE 2010.03.28.GPJ ATLANTIC GEI DATA TEMPLATE.GDT 6/20/11

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**BORING LOG**
**PAGE** 3 of 3
**OU2MW-57S.I.I2**

| ELEV. FT. | DEPTH FT. | SAMPLE INFO: TYPE and NO. | SAMPLE INFO: PEN/REC IN./IN. | STRATA | VISUAL IMPACTS | ODOR | SOIL / BEDROCK DESCRIPTION | WELL DETAILS |
|---|---|---|---|---|---|---|---|---|
| | 35 | | | | | | Brown, medium SAND, loose, wet. | |
| | | | | | | | Brown, medium-coarse SAND, trace gravel, loose, wet. | |
| | 40 | | | | | | Same as above. | |
| | 45 | | | | | | Same as above. | |
| | | | | | | | End of Boring at 47 feet. | |

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ENVIRONMENTAL BORING LOG OU-1 GINT DATABASE 2010.03.28.GPJ ATLANTIC GEI DATA TEMPLATE.GDT 6/20/11

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**BORING LOG**
PAGE 1 of 1
**SIW-1**

**GROUND SURFACE ELEVATION (FT):** _____ **LOCATION:** _____
**NORTHING (FT):** _____ **EASTING (FT):** _____ **TOTAL DEPTH (FT):** 12.0
**DRILLED BY:** Fenley & Nicol Environmental, Inc. / M. Mead **DATUM VERT. / HORZ.:** NAVD 88 / NAD83 NY Long Island Zone
**LOGGED BY:** D. Hinkly **DATE START / END:** 12/28/2009 - 12/28/2009
**DRILLING DETAILS:** Geoprobe
**WATER LEVEL DEPTHS (FT):** _____
**GENERAL NOTE:** _____

| ELEV. FT. | DEPTH FT. | SAMPLE INFO: TYPE and NO. | SAMPLE INFO: PEN/REC IN./IN. | SAMPLE INFO: FIELD TEST DATA | STRATA | VISUAL IMPACTS | ODOR | REMARKS | SOIL / BEDROCK DESCRIPTION | WELL DETAILS |
|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | | | | | | | | | |
| | 5 | | | | | | | | | |
| | | | 60/36 | PID= 1187<br>PID= 1318<br>PID= 1161<br>PID= 1133<br>PID= 1155 | | | TLO | Env. Sample ID= SIW-1 (11.5-12) | (7'- 12') WIDELY GRADED SAND WITH GRAVEL (SW); ~80% sand, ~15% gravel, ~5% fines; max. size 1, strong tar-like odor, tan to black, visual impacts at 12', black stained sand. | |
| | 10 | | | | | | | | End of Boring at 12 feet. | |

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**BORING LOG**
**PAGE 1 of 1**
**SIW-2**

**GROUND SURFACE ELEVATION (FT):** _____ **LOCATION:** _____
**NORTHING (FT):** _____ **EASTING (FT):** _____ **TOTAL DEPTH (FT):** 12.0
**DRILLED BY:** Fenley & Nicol Environmental, Inc. / M. Mead **DATUM VERT. / HORZ.:** NAVD 88 / NAD83 NY Long Island Zone
**LOGGED BY:** D. Hinkly **DATE START / END:** 12/28/2009 - 12/28/2009
**DRILLING DETAILS:** Geoprobe
**WATER LEVEL DEPTHS (FT):** _____
**GENERAL NOTE:** _____

| ELEV. FT. | DEPTH FT. | SAMPLE INFO: TYPE and NO. | SAMPLE INFO: PEN/REC IN./IN. | SAMPLE INFO: FIELD TEST DATA | STRATA | VISUAL IMPACTS | ODOR | REMARKS | SOIL / BEDROCK DESCRIPTION | WELL DETAILS |
|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | | | | | | | | | |
| | 5 | | | | | | | | | |
| | | | 60/48 | PID= 1129<br>PID= 1599<br>PID= 3584<br>PID= 1116<br>PID= 381<br>PID= 316<br>PID= 218 | | | TLO | Env. Sample ID= SIW-2 (10) | (7'- 12') WIDELY GRADED SAND (SW); ~85% sand, fine to coarse, ~10% gravel, ~5% fines; max. size 0.5, strong tar-like odor, tan to gray, mild staining 11'- 12'. | |
| | 10 | | | | | | | | | |

End of Boring at 12 feet.

**NOTES:**

PEN = PENETRATION LENGTH OF SAMPLER OR CORE BARREL
REC = RECOVERY LENGTH OF SAMPLE
PID = PHOTOIONIZATION DETECTOR READING (JAR HEADSPACE) IN PARTS PER MILLION
IN. = INCHES
FT. = FEET
TSF = TONS PER SQUARE FOOT
NLO = NAPHTHALENE LIKE ODOR
PLO = PETROLEUM LIKE ODOR
TLO = TAR LIKE ODOR
CLO = CHEMICAL LIKE ODOR
ALO = ASPHALT LIKE ODOR
CrLO= CREOSOTE LIKE ODOR
OLO = ORGANIC LIKE ODOR
SLO = SULFUR LIKE ODOR
MLO = MUSTY LIKE ODOR

NA = NOT APPLICABLE
NM = NOT MEASURED
$Q_P$ = POCKET PENETROMETER IN TSF
$S_V$ = TORVANE PEAK IN TSF

ENVIRONMENTAL BORING LOG OU-1 GINT DATABASE 2010.03.28.GPJ ATLANTIC GEI DATA TEMPLATE.GDT 6/20/11

GEI Consultants, Inc.
455 Winding Brook Road
Glastonbury, CT 06033
(860) 368-5300

**CLIENT:** National Grid
**PROJECT:** Bay Shore Former MGP Site
**CITY/STATE:** Bay Shore, New York
**GEI PROJECT NUMBER:** 093180

**BORING LOG**
**PAGE 1 of 1**
**SIW-3**

**GROUND SURFACE ELEVATION (FT):** _____ **LOCATION:** _____
**NORTHING (FT):** _____ **EASTING (FT):** _____ **TOTAL DEPTH (FT):** 12.0
**DRILLED BY:** Fenley & Nicol Environmental, Inc. / M. Mead **DATUM VERT. / HORZ.:** NAVD 88 / NAD83 NY Long Island Zone
**LOGGED BY:** D. Hinkly **DATE START / END:** 12/28/2009 - 12/28/2009
**DRILLING DETAILS:** Geoprobe
**WATER LEVEL DEPTHS (FT):** _____
**GENERAL NOTE:** _____

| ELEV. FT. | DEPTH FT. | SAMPLE INFO: TYPE and NO. | SAMPLE INFO: PEN/REC IN./IN. | SAMPLE INFO: FIELD TEST DATA | STRATA | VISUAL IMPACTS | ODOR | REMARKS | SOIL / BEDROCK DESCRIPTION | WELL DETAILS |
|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | | | | | | | | | |
| | 5 | | | | | | | | | |
| | | | 60/36 | PID= 1150<br>PID= 2680<br>PID= 2750<br>PID= 360<br>PID= 341<br>PID= 228 | | | TLO | Env. Sample ID= SIW-3 (10) | (7'- 12') WIDELY GRADED SAND WITH GRAVEL (SW); ~75% sand, fine to coarse, ~20% gravel, ~5% fines; max. size 1, strong tar-like odor, tan to dark gray, mild staining 10.5'- 12'. | |
| | 10 | | | | | | | | | |

End of Boring at 12 feet.

**NOTES:**

PEN = PENETRATION LENGTH OF SAMPLER OR CORE BARREL
REC = RECOVERY LENGTH OF SAMPLE
PID = PHOTOIONIZATION DETECTOR READING (JAR HEADSPACE) IN PARTS PER MILLION

IN. = INCHES
FT. = FEET
TSF = TONS PER SQUARE FOOT

NLO = NAPHTHALENE LIKE ODOR
PLO = PETROLEUM LIKE ODOR
TLO = TAR LIKE ODOR
CLO = CHEMICAL LIKE ODOR
ALO = ASPHALT LIKE ODOR
CrLO= CREOSOTE LIKE ODOR
OLO = ORGANIC LIKE ODOR
SLO = SULFUR LIKE ODOR
MLO = MUSTY LIKE ODOR

NA = NOT APPLICABLE
NM = NOT MEASURED
$Q_P$ = POCKET PENETROMETER IN TSF
$S_V$ = TORVANE PEAK IN TSF

ENVIRONMENTAL BORING LOG OU-1 GINT DATABASE 2010.03.28.GPJ ATLANTIC GEI DATA TEMPLATE.GDT 6/20/11