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June 8, 2007

Mr. Josh Cook
MGP Remedial Section
Bureau of Western Remedial Action
Division of Environmental Remediation
New York State Department of Environmental Conservation
625 Broadway
Albany, New York 12233-7010

Subject: Soil Vapor Intrusion Evaluation Report
O&R Operations Facility Building
Port Jervis Pike Street Former MGP Site
NYSDEC Site No. 03-36-049V
Port Jervis, New York

Dear Mr. Cook,

On behalf of our client, Orange and Rockland Utilities, Inc. (O&R), ENSR Corporation (dba The RETEC Group, Inc. [RETEC]) has prepared this soil vapor intrusion (SVI) evaluation report for the O&R Operations facility building located at the Pike Street former manufactured gas plant (MGP) site in Port Jervis, New York.

Background

The attached Figure 1 shows the layout of the O&R Operations facility and the surrounding area. Three previous SVI sampling events have been performed in the facility building. In June 2002, sub-slab vapor samples were collected in an employee break room in the western end of the building, in an office area in the eastern end of the building, and in a storage room in the northern area of the building. In October 2003, indoor air samples were collected at these locations. The three locations were re-sampled in June 2004. For this event, sub-slab vapor and indoor air samples were collected at the same time. Note that for the June 2004 sampling event, the sub-slab and indoor air samples in the eastern end of the facility were relocated approximately 20 feet to the north to an adjacent hallway because the office area was being remodeled into a customer service area at that time.

The results of the June 2004 sampling indicated that low-level concentrations of volatile organic compounds (VOCs) were present in the soil vapor samples collected beneath the floor of the building; however, the VOCs in indoor air that were possibly MGP-related, were within the range of typical background values. Therefore evidence for the intrusion of vapors from the soil to the indoor air in the building was not identified. Following a review of the sampling results, the New York State Department of Environmental Conservation (NYSDEC) and the New York State Department of Health (NYSDOH) indicated that no further action to evaluate the vapor intrusion pathway in the facility would be required. The results of these three sampling events were included in the final Phase II RI Report for the Port Jervis MGP site, dated October 25, 2005, which has been subsequently approved by the NYSDEC and the NYSDOH. The results of the June 2004 SVI sampling event are provided in RI Report Table 5-24, attached.

Two rounds of SVI sampling (June 2004 and June 2006) have also been performed at the 28 Pike Street portion of the former MGP site. This property is located adjacent to the O&R Operations facility, at the corner of King and Pike Streets (Figure 1). The concentrations of VOCs in the SVI samples collected at this property that may possibly be related to MGP residuals have also been found to be low. The most significant results for the sampling performed in this portion of the site relate to the apparent vapor intrusion of tetrachloroethene (PCE) which is a dry cleaning agent that is not related to former MGP operations. Additional SVI sampling at the 28 Pike Street portion of the site was performed in March 2007 to further assess the potential for vapor intrusion at this location. The results of this sampling event will be provided in a separate report.

When the PCE results for the 28 Pike Street portion of the site became known, O&R proposed that additional information be collected to further evaluate the potential intrusion of this compound at the operations facility building. A work plan was prepared to describe the field activities and analyses for the sampling which was submitted to the NYSDEC and the NYSDOH on February 23, 2007. The agencies indicated approval for the work plan in a letter to O&R dated March 3, 2007. The SVI sampling was performed over the weekend of March 11 and 12, 2007, in order to complete the work when the facility was not active. The results of the field activities and laboratory analyses are presented below.

Scope of work

The SVI evaluation sampling was performed in accordance with the methods and procedures provided in the NYSDOH document entitled "*Final – Guidance for Evaluating Soil Vapor Intrusion in the State of New York,*" dated October 2006. As specified in the guidance document, the SVI sampling was performed during the heating season which is designated as the period between November 15 and March 31. The scope of work for the evaluation included the completion of a NYSDOH Indoor Air Quality Questionnaire and building inventory and a chemical products inventory, and the collection and analysis of the SVI samples.

Facility building and chemical inventory

A reconnaissance was performed at the facility building on March 11, 2007. The observations made during the reconnaissance are presented on the completed NYSDOH Indoor Air Quality Questionnaire which is included in Appendix A. A chemical products inventory was also completed during the reconnaissance. With the exception of a few isolated products, such as room deodorizer, paint, and correction fluid, the majority of the chemical products in use by the facility are stored in a designated storage area in the store room. The observations made during the chemical products inventory are summarized in Table 1, which is a completed NYSDOH Household Products Inventory Form.

SVI sample locations

The locations of the SVI samples are shown in red on Figure 1. The samples were collected at the same locations as the samples collected during the previous sampling events, with the exception of the office area discussed above. The samples and locations are summarized as follows:

- Sub-slab soil vapor sample SG1 and indoor air sample IA1 were collected in the employee break room in the southwest corner of the facility building.
- Sub-slab soil vapor SG2 and indoor air sample IA2 were collected in the hallway adjacent to the customer service area in the eastern end of the building.
- Sub-slab soil vapor SG3 and indoor air sample IA3 were collected in the western end of the store room.

- Ambient air sample AMB1 was collected to the west of the facility near the loading docks.

Sub-slab vapor point installation

Sub-slab soil vapor sampling points were installed by drilling a ¾-inch diameter hole through the concrete floor slabs with a rotary hammer. Teflon™ tubing was placed in the hole and the hole was sealed with modeling clay. A helium tracer gas evaluation was then performed to ensure the integrity of the soil vapor sampling seal, and to assess the potential for the introduction of indoor air into the soil vapor samples. A metal shroud was used as an air-tight chamber to retain the helium. The chamber was placed over the sampling point and sealed to the concrete floor with modeling clay. The sampling tubing was run through a hole at the top of the chamber and sealed. Helium was then introduced through an opening at the top of the chamber. The helium concentration was measured with a helium detector through an opening at the bottom of the chamber to ensure that the chamber was filled with helium to a concentration greater than 90%. Once this measurement was confirmed, the chamber was sealed. Approximately 3 volumes of air were purged from the sampling tubing with the helium meter at a rate of approximately 0.2 liters per minute. Helium was not detected in the purged air from any of the samples, indicating that the seals were competent. The soil vapor samples were also analyzed for helium to confirm the field screening results. The laboratory results are discussed below. The soil vapor points were then left to stabilize overnight so that the soil vapor samples could be collected at the same time as the indoor and ambient air samples.

SVI sample collection

The soil vapor, indoor air, and ambient air samples were collected in 6-liter Summa sampling canisters provided by Air Toxics Laboratory of Folsom, California. Each canister was equipped with a flow restrictor which was pre-set to collect the samples over a time period of approximately 2 hours. Laboratory grade, ¼-inch Teflon™ tubing was used to connect the sampling equipment to the flow restrictors. Following sample collection, the canisters were shipped to the laboratory. The chain of custody record for the sample shipment is included in with the laboratory results in Appendix B.

SVI evaluation results

The air and soil vapor samples were analyzed by Air Toxics, which is a NYSDOH Environmental Laboratory Accreditation Program (ELAP) certified laboratory, for VOCs by U.S. EPA Method TO-15 (including naphthalene). The sub-slab vapor samples were also analyzed for helium by ASTM Method ASTM D-1945. Consistent with the sampling performed in 2004, in addition to the standard TO-15 list of compounds, several additional compounds were analyzed for, including: indane, indene, thiophene, styrene, 2-methyl pentane, isopentane, 2,3-dimethyl pentane, isooctane, and methyl tert-butyl ether (MTBE). The results of the SVI analyses are summarized in Table 2. The laboratory Form I Results Sheets are included in Appendix B. The full NYSDEC Category B Analytical Services Protocol (ASP) laboratory package is included in Appendix C (CD-ROM).

DUSR review

A Data Usability Summary Report (DUSR) was prepared in order to perform a review of the comprehensive data package provided by the laboratory. Air data quality for the VOC analyses was evaluated by reviewing the following parameters: holding times, GC/MS tuning and performance, internal standards, initial and continuing calibrations, continuing calibration verifications, surrogate recoveries, LCS, laboratory blanks, laboratory duplicates, compound identification, and compound quantitation. No problems were identified for the analyses and the data was determined to be useable with some qualifications for laboratory blank contamination and calibration nonconformance. The Form I Results Sheets in Appendix B, and the data summary spreadsheet (Table 2) have been modified to

reflect the findings of the DUSR. The DUSR is included in Appendix D. No analytical results were rejected as a result of the review.

Analytical results

On Table 2, the sample results are compared to a database of typical background indoor air concentrations from fuel oil heated homes in New York State that was compiled by the NYSDOH in 2003, and revised in 2005. Using these data, background values have been established, which are expressed as statistical values in the tables. The "75th percentile" value indicates that 75% of the background indoor air concentrations were below that value. Similarly, the "90th percentile" value indicates that 90% of the background indoor air concentrations were below that value. Where a concentration is greater than the 75th percentile concentration listed on the tables, the concentration is highlighted with yellow shading. Where a concentration is greater than the 90th percentile concentration listed on the tables, the concentration is highlighted with green shading.

The 68 VOCs that were analyzed are divided into two categories in the data summary table. The first category includes compounds that could possibly be related to MGP sources, but may also be related to non-MGP sources, including: naphthalene, and indene and indan. The second category includes compounds that are certainly not related to MGP sources, including: chlorinated hydrocarbons and methyl tert-butyl ether (MTBE), a gasoline additive.

The NYSDOH has developed decision matrices for four specific VOC compounds to assist in determining whether further actions are required regarding these compounds. The compounds include TCE and carbon tetrachloride, which are addressed in Soil Vapor/Indoor Air Matrix 1, and 1,1,1 TCA and PCE which are addressed in Soil Vapor/Indoor Air Matrix 2. Decision matrices have not yet been established for any other compounds. The concentrations of these VOCs in soil vapor and indoor air, and the actions indicated in the respective NYSDOH soil vapor matrix tables, where applicable, are discussed below. The NYSDOH matrix tables are included in Appendix E.

MGP-related VOCs

The results of the analysis of the VOCs that could possibly be MGP-related indicate that most of the compounds had very low concentrations or were not detectable in indoor air. None of the detected concentrations were significantly elevated above the typical range of these compounds in indoor air (they were all below the 75th percentile of NYSDOH background values).

The soil vapor samples did not contain any of the compounds that may be typically (though not uniquely) associated with MGP sources (naphthalene, indene, and indan). Consistent with the results of the 2004 sampling (attached RI Table 5-24), there were some compounds that could be associated with MGP operations, specifically benzene and toluene in sample SG3, which was collected from beneath the concrete floor of the store room. These compounds were not detected in concentrations greater than the 75th percentile of NYSDOH background values in the indoor samples collected at these locations, indicating a low potential for subsurface intrusion of MGP-impacted vapors.

Non MGP-related VOCs

One non-MGP-related VOC was present in two of the three indoor air samples in concentrations slightly above the typical indoor air background range (i.e. the 90th percentile of NYSDOH background values). Halogenated volatile compound 1,4-dichlorobenzene was detected in the break room (IA1), and the hallway (IA2), in concentrations of 6.9 µg/m^3, and 5.9 µg/m^3 respectively. These concentrations are slightly greater than the 90th percentile background concentration of 1.3 µg/m^3. This VOC was not detected in any of the soil vapor samples in concentrations greater than the method reporting limits. The results of this sampling event are similar to the results of the sampling performed in 2004 (RI Table

5-24). The NYSDOH does not specifically address any actions for this VOC in the October 2006 guidance document. This VOC is commonly found in household deodorizing products. Although the concentrations are low, they are above typical background levels. O&R may wish to re-check the facility building for possible sources of this VOC in indoor air. If sources are identified, the products may be moved to an area of the facility where people do not spend much time.

PCE

PCE was detected in two of the sub-slab soil vapor samples in concentrations of 35 $\mu g/m^3$ in the storage room sample (SG3), and 49 $\mu g/m^3$ in the hallway sample (SG2). PCE was not detected in any of the indoor air samples in concentrations greater than the method reporting limits. For the sampling performed in 2004, PCE was detected in concentrations of 33 $\mu g/m^3$ in the storage room sample (SG3), and 26 $\mu g/m^3$ in the hallway sample (SG2).

Possible actions for PCE are addressed in the NYSDOH Vapor/Indoor Matrix 2 Table (Appendix E). Based on the concentrations of PCE detected in the sub-slab vapor samples (< 100 $\mu g/m^3$) and the indoor air samples (< 3 $\mu g/m^3$) no further action is needed to address potential exposures in indoor air for this VOC. PCE is not an MGP-related VOC, and the presence of this compound in the sub-slab vapor at the facility is likely due to an off-site source.

Tracer gas analyses

The results of the helium tracer gas analyses for the sub-slab vapor samples were: SG1(07) - 0.075%, SG2(07) - 0.56%, and SG3(07) - 0.54%. The concentrations detected in the samples were all well below the limit established by the NYSDOH (20% helium). The results of the analysis indicate that the seals installed during the sub-slab vapor sampling were effective in preventing the infiltration of indoor air into the sub-slab vapor samples.

Conclusions

Similar to the results of the SVI sampling performed in 2004, the VOCs detected in the indoor air samples collected at the facility that could possibly be MGP-related were within the range of typical background values. Evidence for the intrusion of MGP-impacted vapors in the soil to the indoor air of the facility was not identified.

O&R may wish to re-check the facility to determine a possible source for the non-MGP-related VOC compound 1,4-dichlorobenzene, which was not detected in the soil vapor samples; however, was detected in the indoor air samples in concentrations slightly greater than the typical background range for indoor air. Products containing this VOC, if identified, could be moved to an area where people do not spend much time.

The non MGP-related compound PCE was detected in the soil vapor samples collected in the facility in concentrations that were greater than the typical background range for indoor air. PCE was not detected in any of the indoor air samples collected at the facility. Based on NYSDOH guidance criteria, no further action is needed to address the potential for soil vapor intrusion for this compound.

Based on the previous SVI sampling, and the sampling performed for this event, additional monitoring to further evaluate the potential vapor intrusion at the O&R Operations facility does not appear warranted.

If you have any questions regarding the information provided in this letter, please do not hesitate to contact us at (607) 277-5716.

Sincerely yours,

James H. Edwards
Senior Geologist

John T. Finn, P.E.
Senior Engineer

Attachments: Table 1 – NYSDOH Household Products Inventory Form
Table 2 – SVI Sample Results – March 2007
Phase II RI Report Table 5-24 – June 2004 SVI Sample Results
Figure 1 – Site Plan with SVI Sampling Locations
Appendix A – NYSDOH Indoor Air Quality Questionnaire
Appendix B – Chain-of-custody Form and Form I Laboratory Results Sheets
Appendix C – NYSDEC ASP Category B Laboratory Report Package (CD-ROM)
Appendix D – DUSR
Appendix E – NYSDOH Soil Vapor/Indoor Air Matrix Tables

cc: Maribeth McCormick – O&R
Kristin Kulow – NYSDOH
Project File: ORAN2-20146

Table 1
NYSDOH Chemical Inventory Form
Port Jervis Operations Center
Pike Street MGP Site
March 2007

Store Room			
Product	**Container/Size**	**Condition**	**VOC Contents**
Gunk Brake Cleaner	20 oz. can	Good	Tetrachloroethylene
WD40	Two 11 oz. cans	No lids	Petroleum distillates
Solvent Cement	16 oz.	Good	Methyl ethyl ketone, tetrahydrofuran, cyclohexane, acetone
Nu-Tri Clean	20 oz. can	Good	Not listed
Crown dry graphite lubricant	12 oz. can	Good	Acetone, trichloroethylene, toluene
2 gas-powered trimmers	<1 gallon gas tanks	Stains on tanks	Petroleum hydrocarbons
2-cycle oil	Four 5 oz. bottles	Good	Petroleum hydrocarbons
Hypress Oil	1 qt. can	Good	Not listed
Spray-It Clean Glass Cleaner	16 oz.	Spray button missing	Isopropanol
Bon Ami Glass and Surface Cleaner	Three 20 oz. cans	Good	Isopropanol
Windex	Three 32 oz. bottles	Good	Ammonia
Rainbow Wasp and Ant Spray	Eight 20 oz. cans	Good	Petroleum distillates
Burndy Penetrox A	8 oz. bottle	Good	Not listed
Sawyer Insect Repellent	8 oz. bottle	Good	None Listed
Mark-out Paint	20 oz. can	Good	Naphtha, mineral spirits
Ivy Block	4 oz.	Good	None Listed
Motor Oil	7 qts.	Good	Petroleum hydrocarbons
Citriclean	20 oz. can	Good	Not listed
Flares	3 cases	Good	Not listed
GC202 Glass Cleaner	1 qt. bottle	Good	Not listed
Spray Disinfectant	12 oz. can	Good	Ethanol
700 Special Mop Treatment and Floor Oil	16 oz.	Good	Petroleum distillates
LogiChem Baseboard Stripper	16 oz.	Good	None Listed
Offices			
KILZ	Four 13 oz. cans	Good	Petroleum distillates, acetone
Acrylic latex paint	1 gallon	Good	None Listed
Easy Glide Glass Cleaner	Two 24 oz. bottles	Good	Isopropanol
Bausch and Lomb Sight Savers	Two 12 oz. bottles	Good	Isopropanol
Bick 4 Leather Conditioner	8 oz. bottle	Good	Not listed
Bernzomatic	8 oz. bottle	Good	Propane
Hoppe's Power Solvent #9	16 oz. bottle	Good	Ethanol, kerosene
White Out	1 oz. bottle	Good	Not listed
The BOM	4 oz. bottle	Good	Not listed
Bathrooms			
Plug-in deodorizer	Unknown	Good	Fragrance oil; not listed
Gojo Lemon Hand Cleaner	18 oz. container	Good	Petroleum distillates

Table 2
SVI Sample Results
Port Jervis Operations Center
March 2007

Location ID	Type of Sample	Break Room	Break Room	Break Room	Hallway	Hallway	Hallway	Storage Area	Storage Area	Outdoor	NYSDOH Background Indoor Air Values[3]	
	Sample Date	Soil vapor	Indoor Air	Indoor Air	Soil vapor	Soil vapor	Indoor Air	Soil vapor	Indoor Air	Ambient		
	Lab Sample ID	3/11/2007	3/11/2007	3/11/2007	3/11/2007	3/11/2007	3/11/2007	3/11/2007	3/11/2007	3/11/2007		
	Sample ID	0703315A-07A/B	0703315A-08A/B	0703315A-09A/B	0703315A-02A/B	0703315A-03A/B	0703315A-04A/B	0703315A-05A/B	0703315A-06A/B	0703315A-01A/B		
		SG1(07)	IA1(07)	IA1(07)DUP	SG2(07)	SG2(07)DUP	IA2(07)	SG3(07)	IA3(07)	AMB1(07)	75th Percentile	90th Percentile
Possibly MGP Related or Other Sources 1 (µg/m3)	**CAS No**											
1,2,4-Trimethylbenzene	95-63-6	0.72 U	**4.6** J	**4.9**	0.79 U	0.73 U	**5.5**	0.79 U	**3.6**	0.75 U	4.3	9.5
1,3,5-Trimethylbenzene	108-67-8	0.72 U	**1.3** J	**1.4**	0.79 U	0.73 U	**1.7**	0.79 U	**1.2**	0.75 U	1.7	3.6
2,2,4-Trimethylpentane	540-84-1	3.4 U	3.1 UJ	3.6 U	3.8 U	3.5 U	3.6 U	3.8 U	3.8 U	3.6 U	NL	NL
2,3-Dimethylpentane	565-59-3	3 U	2.7 UJ	3.1 U	3.3 U	3 U	3.1 U	3.3 U	3.3 U	3.1 U	2.2	7.5
2-Methylpentane	107-83-5	2.6 U	2.4 UJ	2.7 U	2.8 U	2.6 U	2.7 U	2.8 U	2.8 U	2.7 U	NL	NL
4-Ethyltoluene	622-96-8	3.6 U	**3.7** J	3.7 U	4 U	3.7 U	**4.2**	4 U	4 U	3.7 U	NL	NL
Benzene	71-43-2	0.68 U	**1.3** J	**1.2**	0.51 U	0.48 U	**1.2**	**16**	**1.4**	**0.91**	5.9	15
Carbon Disulfide	75-15-0	**76**	2.1 UJ	2.4 U	2.5 U	2.3 U	2.4 U	2.5 U	2.5 U	2.4 U	NL	NL
Cyclohexane	110-82-7	2.5 U	2.3 UJ	2.6 U	2.8 U	2.6 U	2.6 U	2.8 U	2.8 U	2.6 U	2.6	8.1
Ethylbenzene	100-41-4	0.63 U	**0.78** J	**0.7**	0.7 U	0.65 U	**0.85**	**1.7**	**0.79**	0.66 U	2.8	7.4
Heptane	142-82-5	3 U	2.7 UJ	3.1 U	3.3 U	3 U	3.1 U	3.3 U	3.3 U	3.1 U	7.6	19
Hexane	110-54-3	**3.4**	2.4 UJ	2.7 U	2.8 U	2.6 U	2.7 U	2.8 U	2.8 U	2.7 U	6	18
Indan	496-11-7	3.5 U	3.2 UJ	3.7 U	3.9 U	3.6 U	3.7 U	3.9 U	3.9 U	3.7 U	NL	NL
Indene	95-13-6	3.5 U	3.2 UJ	3.6 U	3.8 U	3.5 U	3.6 U	3.8 U	3.8 U	3.6 U	NL	NL
Isopentane	78-784	**4.4**	**3.3** J	**3.5**	2.4 U	2.2 U	**3.3**	2.4 U	**3.6**	2.2 U	NL	NL
Naphthalene	91-20-3	3.8 U	3.5 UJ	4 U	4.2 U	3.9 U	4 U	4.2 U	4.2 U	4 U	NL	NL
Styrene	100-42-5	0.62 U	0.57 UJ	0.65 U	0.68 U	0.63 U	0.65 U	0.68 U	0.68 U	0.65 U	0.64	1.3
Thiophene	110-02-1	2.5 U	2.3 UJ	2.6 U	2.8 U	2.6 U	2.6 U	2.8 U	2.8 U	2.6 U	NL	NL
Toluene	108-88-3	**3.6**	**4.8** J	**4.8**	**1**	**0.99**	**4.9**	**21**	**6.8**	**1.6**	24.8	58
m/p-Xylenes	136777-61-2	**1.6**	**2.5** J	**2.4**	0.7 U	0.65 U	**2.6**	**4.7**	**2.6**	0.66 U	4.6	12
o-Xylene	95-47-6	0.63 U	**1** J	**1**	0.7 U	0.65 U	**0.97**	**1.5**	**1**	0.66 U	3.1	7.6
Not MGP Related [2]												
1,1,1-Trichloroethane	71-55-6	0.8 U	0.73 UJ	0.83 U	**1.2**	**1.1**	0.83 U	**1**	0.88 U	**1.2**	1.1	3.1
1,1,2,2-Tetrachloroethane	79-34-5	1 U	0.92 UJ	1 U	1.1 U	1 U	1 U	1.1 U	1.1 U	1 U	0.25	0.25
1,1,2-Trichloroethane	79-00-5	0.8 U	0.73 UJ	0.83 U	0.88 U	0.81 U	0.83 U	0.88 U	0.88 U	0.83 U	0.25	0.25
1,1-Dichloroethane	75-34-3	0.59 U	0.54 UJ	0.62 U	0.65 U	0.6 U	0.62 U	0.65 U	0.65 U	0.62 U	0.25	0.25
1,1-Dichloroethene	75-35-4	0.58 U	0.53 UJ	0.6 U	0.64 U	0.59 U	0.6 U	0.64 U	0.64 U	0.6 U	0.25	0.25
1,2,4-Trichlorobenzene	120-82-1	5.4 UJ	5 UJ	5.6 UJ	6 UJ	5.5 UJ	5.6 UJ	6 UJ	6 UJ	5.6 UJ	0.25	3.4
1,2-Dibromoethane (EDB)	106-93-4	1.1 U	1 UJ	1.2 U	1.2 U	1.1 U	1.2 U	1.2 U	1.2 U	1.2 U	0.25	0.25
1,2-Dichlorobenzene	95-50-1	0.88 U	0.8 UJ	0.91 U	0.97 U	0.9 U	0.91 U	0.97 U	0.97 U	0.91 U	0.25	0.72
1,2-Dichloroethane	107-06-2	0.59 U	0.54 UJ	0.62 U	0.65 U	0.6 U	0.62 U	0.65 U	0.65 U	0.62 U	0.25	0.25
1,2-Dichloropropane	78-87-5	0.67 U	0.62 UJ	0.7 U	0.74 U	0.69 U	0.7 U	0.74 U	0.74 U	0.7 U	0.25	0.25
1,3-Butadiene	106-99-0	1.6 UJUJ	1.5 UJUJ	1.7 UJUJ	1.8 UJUJ	1.6 UJUJ	1.7 UJUJ	1.8 UJUJ	1.8 UJ	1.7 UJUJ	NA	NA
1,3-Dichlorobenzene	541-73-1	0.88 U	0.8 UJ	0.91 U	0.97 U	0.9 U	0.91 U	0.97 U	0.97 U	0.91 U	0.25	0.6
1,4-Dichlorobenzene	106-46-7	0.88 U	**6.9** J	**7.6**	0.97 U	0.9 U	**5.8**	0.97 U	**1.1**	0.91 U	0.54	1.3
1,4-Dioxane	123-91-1	2.6 U	2.4 UJ	2.7 U	2.9 U	2.7 U	2.7 U	2.9 U	2.9 U	2.7 U	NL	NL
2-Butanone (MEK)	78-93-3	2.2 U	2 UJ	2.2 U	2.4 U	2.2 U	2.2 U	**2.9**	2.4 U	2.2 U	7.3	16
2-Hexanone	591-78-6	3 U	2.7 UJ	3.1 U	3.3 U	3 U	3.1 U	3.3 U	3.3 U	3.1 U	NL	NL
4-Methyl-2-pentanone	108-10-1	3 U	2.7 UJ	3.1 U	3.3 U	3 U	3.1 U	3.3 U	3.3 U	3.1 U	0.86	2.2
Acetone	67-64-1	**12**	**14** J	**13**	1.9 UJ	**7.2** J	**11**	**17**	**9.8**	**9**	52	110
Benzyl chloride	100-44-7	0.76 U	0.69 UJ	0.79 U	0.83 U	0.77 U	0.79 U	0.83 U	0.83 U	0.79 U	NL	NL
Bromodichloromethane	75-27-4	4.9 U	4.5 UJ	5.1 U	5.4 U	5 U	5.1 U	5.4 U	5.4 U	5.1 U	NL	NL
Bromoform	75-25-2	7.5 U	6.9 UJ	7.8 U	8.3 U	7.7 U	7.8 U	8.3 U	8.3 U	7.8 U	NL	NL
Bromomethane	74-83-9	1.2 U	0.86 U	1.1 U	0.64 U	1 U	1.2 U	1.1 U	0.91 U	0.92 U	0.25	0.6
Carbon Tetrachloride	56-23-5	0.92 U	0.84 UJ	0.96 U	1 U	0.94 U	0.96 U	1 U	1 U	0.96 U	0.59	0.81
Chlorobenzene	108-90-7	0.67 U	0.62 UJ	0.7 U	0.74 U	0.68 U	0.7 U	0.74 U	0.74 U	0.7 U	0.25	0.25
Chloroethane	75-00-3	0.38 UJUJ	0.35 UJUJ	0.4 UJUJ	0.42 UJUJ	0.39 UJUJ	0.4 UJUJ	0.42 UJUJ	0.42 UJ	0.4 UJUJ	0.25	0.25
Chloroform	67-66-3	0.71 U	0.65 UJ	0.74 U	0.79 U	0.73 U	0.74 U	0.79 U	0.79 U	0.74 U	0.54	1.4
Chloromethane	74-87-3	1.3 U	1.1 U	1.1 U	0.33 UJ	0.31 UJ	1 UJ	0.33 UJ	1 U	1.2 U	1.8	3.3
cis-1,2-Dichloroethene	156-59-2	0.58 U	0.53 UJ	0.6 U	0.64 U	0.59 U	0.6 U	0.64 U	0.64 U	0.6 U	0.25	0.25
cis-1,3-Dichloropropene	10061-01-5	0.66 U	0.61 UJ	0.69 U	0.73 U	0.68 U	0.69 U	0.73 U	0.73 U	0.69 U	0.25	0.25
Dibromochloromethane	124-48-1	6.2 U	5.7 UJ	6.5 U	6.8 U	6.3 U	6.5 U	6.8 U	6.8 U	6.5 U	NL	NL
Ethanol	64-17-5	**18**	**82** J	**83**	**2.3**	**1.9**	**71**	**2.2**	**34**	**2.8**	540	1400
Trichlorofluoromethane (Freon 11)	75-69-4	**2**	**1.3** J	**1.4**	**1.5**	**1.6**	**1.3**	**1.6**	**1.4**	**1.1**	5.4	17
1,1,2-Trichlorotrifluoroethane (Freon 113)	76-13-1	1.1 U	1 UJ	1.2 U	1.2 U	1.1 U	1.2 U	1.2 U	1.2 U	1.2 U	1.1	1.8
1,2-Dichlorotetrafluoroethane	76-14-2	1 U	0.94 UJ	1.1 U	1.1 U	1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.25	0.52
Dichlorodifluoromethane (Freon 12)	75-71-8	**3**	**2.2** J	**2.2**	**2**	**1.9**	**2.3**	**2.1**	**2.3**	**2.4**	4.1	15
Hexachlorobutadiene (C-46)	87-68-3	7.8 U	7.1 UJ	8.1 U	8.6 U	7.9 U	8.1 U	8.6 U	8.6 U	8.1 U	0.25	4.6
Methyl tert-Butyl Ether	1634-04-4	2.6 U	2.4 UJ	2.7 U	2.9 U	2.7 U	2.7 U	2.9 U	2.9 U	2.7 U	5.6	27
Methylene Chloride (Dichloromethane)	75-09-2	**28** J	**0.91** J	**0.98** J	0.56 U	0.52 U	**0.94** J	0.56 U	**0.63** J	0.53 U	6.6	22
2-Propanol	67-63-0	**3.9**	**2.6** J	**2.6**	2 U	1.8 U	**2.7**	2 U	**16**	1.9 U	NL	NL
Propene	115-07-1	1.2 U	1.2 UJ	1.3 U	1.4 U	1.3 U	1.3 U	1.4 U	1.4 U	1.3 U	NL	NL
Tetrachloroethene	127-18-4	0.99 U	0.91 UJ	1 U	**49**	**48**	1 U	**35**	1.1 U	1 U	1.1	2.9
Tetrahydrofuran	109-99-9	2.2 U	2 UJ	2.2 U	2.4 U	2.2 U	2.2 U	2.4 U	2.4 U	2.2 U	0.35	3.3
trans-1,2-Dichloroethene	156-60-5	2.9 U	2.6 UJ	3 U	3.2 U	3 U	3 U	3.2 U	3.2 U	3 U	NA	NA
trans-1,3-Dichloropropene	10061-02-6	0.66 U	0.61 UJ	0.69 U	0.73 U	0.68 U	0.69 U	0.73 U	0.73 U	0.69 U	0.25	0.25
Trichloroethene	79-01-6	0.78 U	0.72 UJ	0.82 U	0.86 U	0.8 U	0.82 U	0.86 U	0.86 U	0.82 U	0.25	0.48
Vinyl Chloride	75-01-4	0.37 U	0.34 UJ	0.39 U	0.41 U	0.38 U	0.39 U	0.41 U	0.41 U	0.39 U	0.25	0.25

Notes:

All units in micrograms per cubic meter (µg/m³)

1 - These compounds may be related to either MGP sources or non-MGP sources, or both. MGP sources include MGP tars and petroleum feedstocks used in MGP processes, such as the carburetted water gas process. Non-MGP sources include cleaning products, floor wax and polish, vehicle exhaust, construction materials, and cigarette smoke.

2 - These compounds are not related to MGP sources and are present due to non-MGP sources, such as vehicle exhaust, heating and air conditioning systems, cleaning agents, art supplies, paints, etc.

3 - New York State Department of Health, November 14, 2005.

Dup - As suffix on Sample ID indicates that the sample is a field duplicate.

NL - Not Listed - Data not available for background concentrations for these compounds.

U - Not detected at concentrations greater than the method reporting limits.

J - Estimated concentration.

Bold - Compound detected in a concentration greater than the method reporting limits.

Exceeds NYSDOH Bakground Indoor Air Values 75th Percentile

Exceeds NYSDOH Bakground Indoor Air Values 90th Percentile

Table 5-24
Ambient, Indoor Air, and Soil Gas Results - 2004
Operations Center Building
Port Jervis MGP Site

Compound	CAS number	Results in ug/m³									Background Indoor Air Values (Note 1)	
Type of Sample		Ambient Air	Ambient Air	Indoor Air	Indoor Air	Indoor Air-FD	Indoor Air	Soil Gas	Soil Gas	Soil Gas	DOH 75th ug/m³	DOH 95th ug/m³
Sample Location		West of O&R Building	King Street	Break Room	Hallway, in Corner	Field Duplicate	Warehouse	Break Room	Hallway, in Corner	Warehouse		
Sampling Date		6/20/2004	6/20/2004	6/20/2004	6/20/2004	6/20/2004	6/20/2004	6/20/2004	6/20/2004	6/20/2004		
Sample ID		AMB-1	AMB-2	IA-1	IA-2	IA-20	IA-3	SG-1	SG-2	SG-3		
Laboratory ID												
Possibly MGP Related or Other Sources [1]												
1,2,4-Trimethylbenzene	95-63-6	0.80 U	0.79 U	1.2 J	1.4 J	1.8 J	1.6 J	11 J	7.9 J	15 J	7	20
1,3,5-Trimethylbenzene	108-67-8	0.80 U	0.79 U	0.79 U	0.80 U	0.79 U	0.80 U	3.3	2.3	7.5	<10	<10
2,3-Dimethylpentane	565-59-3	3.4 U	3.3 U	3.3 U	3.4 U	3.3 U	3.4 U	3.3 U	3.6 U	8.5 U	NA	NA
2-Hexanone	591-78-6	3.4 U	3.3 U	3.3 U	3.4 U	3.3 U	3.4 U	3.3 U	3.6 U	8.5 U	NA	NA
2-Methylpentane	107-83-5	2.9 U	2.8 U	2.8 U	2.9 U	2.8 U	2.9 U	16	5.8	30	NA	NA
4-Ethyltoluene	622-96-8	4.0 U	3.9 U	3.9 U	4.0 U	3.9 U	4.0 U	9.5	6.3	13	NA	NA
4-Methyl-2-pentanone	108-10-1	3.4 U	3.3 U	3.3 U	3.4 U	3.3 U	3.4 U	3.3 U	3.6 U	8.5 U	NA	NA
Benzene	71-43-2	0.52 U	0.51 U	0.79	0.80	0.87	0.68	29	3.4	400	5	14
Carbon Disulfide	75-15-0	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	9.4	7.1	26	NA	NA
Cyclohexane	110-82-7	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	11	3.0 U	31	NA	NA
Ethylbenzene	100-41-4	0.71 U	0.70 U	0.96	1.1	1.3	0.78	8.4	5.9	25	4.8	6.5
Heptane	142-82-5	3.4 U	3.3 U	3.3 U	3.4 U	3.3 U	3.4 U	8.8	4.9	44	NA	NA
Hexane	110-54-3	2.9 U	2.8 U	2.8 U	2.9 U	2.8 U	2.9 U	16	4.0	52	3.6	14
2,2,4-Trimethylpentane	540-84-1	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U	7.2	4.6	9.7 U	NA	NA
Indan	496-11-7	4.0 U	3.9 U	3.9 U	4.0 U	3.9 U	4.0 U	3.9 U	4.2 U	10 U	NA	NA
Indene	95-13-6	3.9 U	3.8 U	3.8 U	3.9 U	3.8 U	3.9 U	3.8 U	4.1 U	9.9 U	NA	NA
Isopentane	78-784	2.4 U	2.4 U	7.0	4.4	4.1	2.7	28	11	31	NA	NA
Naphthalene	91-20-3	4.3 U	4.2 U	7.1	6.4	6.5	6.5	7.6	4.7	11 U	<10	<10
Styrene	100-42-5	0.70 U	0.68 U	1.7 J	1.2 J	1.2 J	0.70 U	1.8 J	1.5 J	14 J	<10	<10
Thiophene	110-02-1	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	3.0 U	7.2 U	NA	NA
Toluene	108-88-3	0.74	0.69	9.3	7.1	7.3	5.6	64	36	260	25	49
m/p-Xylenes	136777-61-2	0.71 U	0.70 U	3.0	3.8	4.2	2.9	30	20	67	9.5	21
o-Xylene	95-47-6	0.71 U	0.70 U	0.88	1.2	1.2	1.0	11	7.3	24	5	7.9
Not MGP Related [2]												
1,1,1-Trichloroethane	71-55-6	0.89 U	0.88 U	0.88 U	0.89 U	0.88 U	0.89 U	1.1	1.7	3.4	6.7	28
1,1,2,2-Tetrachloroethane	79-34-5	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.2 U	2.9 U	<9	<10
1,1,2-Trichloroethane	79-00-5	0.89 U	0.88 U	0.88 U	0.89 U	0.88 U	0.89 U	0.88 U	0.95 U	2.3 U	<9	<10
1,1-Dichloroethane	75-34-3	0.66 U	0.65 U	0.65 U	0.66 U	0.65 U	0.66 U	0.65 U	0.70 U	1.7 U	<1	<10
1,1-Dichloroethene	75-35-4	0.65 U	0.64 U	0.64 U	0.65 U	0.64 U	0.65 U	0.64 U	0.69 U	1.6 U	<1	<8
1,2,4-Trichlorobenzene	120-82-1	6.1 UJ	6.0 UJ	6.0 UJ	6.1 UJ	6.0 UJ	6.1 UJ	6.0 UJ	6.4 UJ	15 UJ	<10	<10
1,2-Dibromoethane (EDB)	106-93-4	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.3 U	3.2 U	<1.5	<1.5
1,2-Dichlorobenzene	95-50-1	0.98 U	0.96 U	0.96 U	0.98 U	0.96 U	0.98 U	0.96 U	1.0 U	2.5 U	<6	<10
1,2-Dichloroethane	107-06-2	0.66 U	0.65 U	0.65 U	0.66 U	0.65 U	0.66 U	0.65 U	0.70 U	1.7 U	<1	<10
1,2-Dichloropropane	78-87-5	0.76 U	0.74 U	0.74 U	0.76 U	0.74 U	0.76 U	0.74 U	0.80 U	1.9 U	<10	<10
1,3-Butadiene	106-99-0	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	13	1.9 U	7.4	NA	NA
1,3-Dichlorobenzene	541-73-1	0.98 U	0.96 U	0.96 U	0.98 U	0.96 U	0.98 U	0.96 U	1.0 U	2.5 U	<8	<10
1,4-Dichlorobenzene	106-46-7	0.98 U	0.96 U	27	21	21	8.4	1.1	1.3	2.5 U	<5	5.1
1,4-Dioxane	123-91-1	2.9 U	2.9 U	2.9 U	2.9 U	2.9 U	2.9 U	2.9 U	3.1 U	7.5 U	NA	NA
2-Butanone (MEK)	78-93-3	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	21	12	22	NA	NA
Acetone	67-64-1	7.0	5.4	19	20	20	15	310 J	180 J	300	NA	NA
Benzyl chloride	100-44-7	0.85 U	0.83 U	0.83 U	0.85 U	0.83 U	0.85 U	0.83 U	0.90 U	2.2 U	<1	<1
Bromodichloromethane	75-27-4	5.5 U	5.4 U	5.4 U	5.5 U	5.4 U	5.5 U	5.4 U	5.8 U	14 U	<10	<10
Bromoform	75-25-2	8.4 U	8.3 U	8.3 U	8.4 U	8.3 U	8.4 U	8.3 U	9.0 U	22 U	<10	<10
Bromomethane	74-83-9	0.64 U	0.62 U	0.62 U	0.64 U	0.62 U	0.64 U	0.62 U	0.67 U	1.6 U	<1	<1
Carbon Tetrachloride	56-23-5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.1 U	2.6 U	<6.2	<10
Chlorobenzene	108-90-7	0.75 U	0.74 U	0.74 U	0.75 U	0.74 U	0.75 U	0.74 U	0.80 U	1.9 U	<10	<10
Chloroethane	75-00-3	0.43 UJ	0.42 UJ	0.42 UJ	0.43 UJ	0.42 UJ	0.43 UJ	0.42 UJ	0.46 UJ	1.1 UJ	<1	<1
Chloroform	67-66-3	0.80 U	0.78 U	0.78 U	0.80 U	0.78 U	0.80 U	0.78 U	0.85 U	2.0 U	4.3	<10
Chloromethane	74-87-3	1.5	1.1	1.5	1.4	1.4	1.4	0.71	0.56	0.86 U	<2	2.6
cis-1,2-Dichloroethene	156-59-2	0.65 U	0.64 U	0.64 U	0.65 U	0.64 U	0.65 U	0.64 U	0.69 U	1.6 U	<10	<10
cis-1,3-Dichloropropene	10061-01-5	0.74 U	0.73 U	0.73 U	0.74 U	0.73 U	0.74 U	0.73 U	0.79 U	1.9 U	<9	<10
Dibromochloromethane	124-48-1	7.0 U	6.8 U	6.8 U	7.0 U	6.8 U	7.0 U	6.8 U	7.4 U	18 U	<10	<10
Ethanol	64-17-5	1.8 J	1.8 J	78 J	66 J	64 J	26 J	19 J	8.3 J	12 J	NA	NA
Trichlorofluoromethane (Freon 11)	75-69-4	1.7	1.6	2.7	2.2	2.0	1.8	2.1	2.2	2.5	3.8	5.9
1,1,2-Trichlorotrifluoroethane (Freon 113)	76-13-1	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.3 U	3.2 U	<1	<1
1,2-Dichlorotetrafluoroethane	76-14-2	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.2 U	2.9 U	<1.5	<1.5
Dichlorodifluoromethane (Freon 12)	75-71-8	3.2	2.8	3.0	3.1	3.1	2.7	2.4	2.7	2.4	<1	<5
Hexachlorobutadiene (C-46)	87-68-3	8.7 U	8.6 U	8.6 U	8.7 U	8.6 U	8.7 U	8.6 U	9.3 U	22 U	<2	<6
Methyl tert-Butyl Ether	1634-04-4	2.9 U	2.9 U	2.9 U	2.9 U	2.9 U	2.9 U	24	10	17	NA	NA
Methylene Chloride (Dichloromethane)	75-09-2	0.62	0.68	1.4	2.0	2.0	1.9	0.56 U	0.96	1.6	5.6	45
2-Propanol	67-63-0	2.0 U	2.0 U	20	14	15	5.1	3.9	2.2	5.3	NA	NA
Propene	115-07-1	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.5 U	3.6 U	NA	NA
Tetrachloroethene	127-18-4	1.1 U	1.1 U	2.2	3.4	3.4	2.9	2.6	26	33	<10	7.3
Tetrahydrofuran	109-99-9	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	6.2	5.9	13	NA	NA
trans-1,2-Dichloroethene	156-60-5	3.2 U	3.2 U	3.2 U	3.2 U	3.2 U	3.2 U	3.2 U	3.4 U	8.3 U	<10	<10
trans-1,3-Dichloropropene	10061-02-6	0.74 U	0.73 U	0.73 U	0.74 U	0.73 U	0.74 U	0.73 U	0.79 U	1.9 U	<9	<10
Trichloroethene	79-01-6	0.88 U	0.86 U	4.7	1.5	1.4	0.88 U	0.86 U	0.93 U	2.2 U	<5.3	<10
Vinyl Acetate	108-05-4	2.9 U	2.8 U	2.8 U	2.9 U	2.8 U	2.9 U	2.8 U	3.0 U	7.3 U	NA	NA
Vinyl Chloride	75-01-4	0.42 U	0.41 U	0.41 U	0.42 U	0.41 U	0.42 U	0.41 U	0.44 U	1.1 U	<1	<5

Notes:

[1] These compounds may be related to either MGP sources or non-MGP sources, or both. MGP sources include MGP tars and petroleum feedstocks used in MGP processes, such as the carburetted water gas process. Non-MGP sources include cleaning products, floor wax and polish, vehicle exhaust, construction materials, and cigarette smoke.

[2] These compounds are not related to MGP sources and are present due to non-MGP sources, such as vehicle exhaust, heating and air conditioning systems, cleaning agents, art supplies, paints, etc.

NA - Not Available. No data available for background concentrations of these compounds.

U - Not detected at the detection limit indicated.

J - Estimated Concentration.

(Note 1) - NYSDOH, 1997. Background Indoor/Outdoor Air Levels of Volatile Organic Compounds in Homes Sampled by the New York State Department of Health, 1989-1996, New York State Department of Health, Bureau of Toxic Substance Assessment.

GAS OIL AST G
DP7
TP4
PURIFIER
MW5
SB18
PURIFIER W
TP8
TAR EXTRACTOR R
GARAGE
SB1
DIESEL UST N
TP9
TP10
DP3
PURIFIER V
LSG8
LOADING DOCK
DP6
SB4
GARAGE BAYS
SS1
28 PIKE ST. (APARTMENTS/ RESTAURANT)
TAR WELL S
AS OIL ST H
GAS HOLDER A
CONDENSOR
PURIFIER U
DP8
HA-1
IA2(07)
SG2(07)
STORAGE AREA
DP10
COAL HOUSE
PURIFIER T
DP19
HALLWAY
TP3
DP5
AMB1(07)
SG3(07)
DP4
IA3(07)
O & R OPERATIONS CENTER
OFFICES
SS4
LOADING DOCK
SB15
DP9
TAR SEPARATOR O
TAR TANK P
DP11
MW15S
MW1D
MW1S
SB17
TAR WELL Q
GENERATOR ROOM
NAPHTHA AST I
BREAK ROOM
TP6
GAS HOLDER B
SB14
IA1(07)
TP1
SG1(07)
DP1
COMMUNICATIONS BUILDING
AMB1
TP2
GATE
DP2
GAS OIL AST J
SS2
SG4S
LSG14
SG4D

LEGEND

- MW13 — MONITORING WELL
- RBB2/TW4 — TEMPORARY WELL
- T14 — SEDIMENT TRANSECT LOCATION
- DP18/SB18 — SOIL BORING LOCATION
- SS13 — SURFACE SOIL SAMPLE
- SD11 — SEDIMENT SAMPLE
- SG1 — STAFF GAUGE LOCATION
- LSG15 — SOIL GAS OR SUB-FLOOR SOIL GAS SAMPLE LOCATION
- IA2 — INDOOR AIR SAMPLE LOCATION
- AMB3 — AMBIENT AIR SAMPLE LOCATION
- SG2(07) — 2007 SUB-SLAB VAPOR SAMPLE LOCATION
- IA2(07) — 2007 INDOOR AIR SAMPLE LOCATION
- AMB1(07) — 2007 AMBIENT AIR SAMPLE LOCATION
- FENCE
- TP4 — TEST PIT LOCATION
- EXISTING STRUCTURES
- SUBSURFACE OR HISTORIC STRUCTURES

N

10 0 20

1"=20'

SOURCE: DONALD STEDGE PLS: 2000
LANGAN ENGINEERS PLS: 2003
ROBERT MURRAY PLS: 2004

RETEC

PORT JERVIS MGP SITE ORAN2-20146		**O&R OPERATIONS BUILDING SVI SAMPLE LOCATIONS**
DATE: 4/12/07	DRWN: MAW/BIL	**FIGURE 1**

File: J:\20146\SVI_SAMP_LOC.dwg Layout: FIG1 User: mwilliamson Plotted: Apr 12, 2007 - 7:51am Xref's:

Appendix A

NYSDOH Indoor Air Quality Questionnaire and Building Inventory

NEW YORK STATE DEPARTMENT OF HEALTH
INDOOR AIR QUALITY QUESTIONNAIRE AND BUILDING INVENTORY
CENTER FOR ENVIRONMENTAL HEALTH

This form must be completed for each residence involved in indoor air testing.

Preparer's Name: Scott Hauswirth Date/Time Prepared: March 11, 2007

Preparer's Affiliation: RETEC Phone No: 607-277-5716

Purpose of Investigation: Soil vapor intrusion (SVI) evaluation at an active operations facility located on a Former Manufacturing Gas Plant (MGP) site.

1. OCCUPANT:

Interviewed: (Y) / N

Last Name: Hart (O&R employee) First Name: Fred

Address: 16 Pike Street, Port Jervis, New York 12771

County: Orange

Home Phone: N/A Office Phone: 1-845-783-5448

Number of Occupants/persons at this location: Active operations facility with O&R line crews and accounting office employee

Age of Occupants: Varies

2. OWNER OR LANDLORD: N/A

Interviewed: Y / N (N/A)

Last Name: Orange and Rockland Utilities, Inc. First Name:

Address: One Blue Hill Plaza, Pearl River, New York 10965

County: Rockland

Home Phone: N/A Office Phone: 1-877-434-4100

3. BUILDING CHARACTERISTICS

Type of Building: (Circle appropriate response)

Residential	School	(Commercial/Multi-use)
Industrial	Church	Other:

If the property is residential, type? (Circle appropriate response) (N/A)

Ranch	2-Family	3-Family
Raised Ranch	Split Level	Colonial
Cape Cod	Contemporary	Mobile Home
Duplex	Apartment House	Townhouses/Condos
Modular	Log Home	Other:

If multiple units, how many?

If the property is commercial, type?

Business Type(s): Utility company operations building (offices, garage, storage)

Does it include residences (i.e., multi-use)? Y / (N) If yes, how many?

Other characteristics:

Number of floors: 1 Building age: Built in 1950s

Is the building insulated? Y / (N) How air tight? Tight / (Average) / Not Tight

4. AIRFLOW

Airflow between floors:

N/A

Airflow near source:

No distinct airflow patterns observed except as described below.

Outdoor air infiltration:

Slight flow observed entering building from west near overhead door. Air observed entering building through large gap beneath door leading to loading dock on the east side of the building.

Infiltration into air ducts:

None observed.

5. BASEMENT AND CONSTRUCTION CHARACTERISTICS (Circle all that apply)

a. Above grade construction: wood frame (concrete) stone brick

b. Basement type: (N/A) full crawlspace slab other:

c. Basement floor: (N/A) concrete dirt stone other:

d. Basement floor: (N/A) uncovered covered covered with:

e. Concrete floor: **Unknown** unsealed sealed sealed with:

f. Foundation walls: poured (block) stone other:

g. Foundation walls: (unsealed) sealed sealed with:

h. The basement is: (N/A) wet damp dry moldy

i. The basement is: (N/A) finished unfinished partly finished

j. Sump present? Y / (N)

k. Water in sump? **N/A** Y / N / (not applicable)

Basement/Lowest level depth below grade: (N/A)

Identify potential soil vapor entry points and approximate size. (e.g., cracks, utility ports, drains)

Small cracks throughout main hallway and in storage area.

6. HEATING, VENTING and AIR CONDITIONING (Circle all that apply)

Type of heating system(s) used in this building: (circle all that apply – note primary)

(Hot air circulation)	Heat pump	Hot water baseboard	
Space Heaters	Stream radiation	Radiant floor	
Electric baseboard	Wood Stove	Outdoor wood boiler	Other:

The primary type of fuel used is:

(Natural Gas)	Fuel Oil	Kerosene
Electric	Propane	Solar
Wood	Coal	

Domestic hot water tank fueled by: Natural Gas

Boiler/furnace located in: Basement Outdoor (Main Floor) Other:

Air conditioning: (Central Air) Window units Open Windows None

Are there air distribution ducts present? (Y) / N

Describe the supply and air return ductwork, and its condition where visible, including whether There is a cold air return and the tightness of duct joints. Indicate the locations on the floor plan diagram,

Ducts in walls and ceilings. Supply vents located at ceiling level in each room. Cold air returns located at floor level in hallway.

7. OCCUPANCY

Is the lowest level occupied? (Full-time) Occasionally Seldom Almost Never

Level	General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)
Basement:	None
1st Floor:	Offices, break room, store room.

8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

a. Is there an attached garage? (Open truck bays) (Y) / N

b. Does the garage have a separate heating unit? Y / (N) / NA

c. Are petroleum-powered machines or vehicles stored in the garage? (e.g., lawnmower, atv, car) Please specify: (Y) / N / NA Utility repair trucks

d. Has the building ever had a fire? Y / (N)

e. Is a kerosene or unvented gas space heater present? Y / (N)

f. Is there a workshop or hobby/craft area? Y / (N)

g. Is there smoking in the building? Y / (N)

h. Have cleaning products been used recently? (Y) / N When & Type? 2 days before sampling. See chemical inventory.

i. Have cosmetic products been used recently? Y / (N)

j. Has painting/staining been done in the last 6 months? Y / (N)

k. Is there new carpet, drapes or other textiles? Y / (N)

l. Have air fresheners been used recently? (Y) / N When & Type? Automatic air freshener in bathroom

m. Is there a kitchen exhaust fan? Y / (N)

n. Is there a bathroom exhaust fan? (Y) / N If yes, where vented? Straight up out of roof

o. Is there a clothes dryer? Y / (N)

p. Has there been a pesticide application? Y / (N)

Are there odors in the building? Y / (N)
If yes, please describe:

Do any of the building occupants use solvents at work? Y / (N)
(e.g., chemical manufacturing or laboratory, auto mechanic or auto body shop, painting, fuel oil delivery, boiler mechanic, pesticide application, cosmetologist)

If yes, what types of solvents are used? Rust-Bust, WD40

If yes, are their clothes washed at work? Y / (N)

Do any of the building occupants regularly use or work at a dry-cleaning service? (Circle appropriate response)

Yes, use dry-cleaning regularly (weekly) (No)

Is there a radon mitigation system for the building/structure? Y / (N)
Is the system active or passive? (N/A) Active / Passive

9. WATER AND SEWAGE

Water Supply: (Public Water)

Sewage Disposal: (Public Sewer)

10. RELOCATION INFORMATION (for oil spill residential emergency) (N/A)

a. Provide reasons why relocation is recommended:

b. Residents choose to: remain in home relocate to friends/family relocate to hotel/motel

c. Responsibility for costs associated with reimbursement explained? Y / N

d. Relocation package provided and explained to residents? Y / N

Appendix B

Chain of Custody Record and Form I Laboratory Sheets

Chain of Custody Record

№ 095

Receipt Date 3/16/07 0703315

The RETEC Group, Inc.
2000 Eisenhower Avenue • Eagleville, PA 19403-2231
(610) 853-8770 Phone • (610) 539-8001 Fax
www.retec.com

RETEC

Project Name: Port Jervis Oper. Gabr.	Project Number: ORANL-20146
Send Report To: James Edwards	Sampler (Print Name): Scott Hausmith
Address: 1001 W. Seneca St	Sampler (Print Name): Jesse Lloyd
Suite 204	Shipment Method: FedEX
Ithaca, NY 14850	Airbill Number:
Phone: 607-277-5716	Laboratory Receiving: ATL
Fax: 607-277-9057	

Page 1 of 1

Purchase Order #:

	Field Sample ID	Sample Date	Start Sample Time	End time Sample Time	Can # Number of Containers	Analysis Requested: TO-15 (on Ed List Helium)	Receipt Vac. 3/16/07	Pressure Start	Pressure End	Comments, Special Instructions, etc.	Lab Sample ID (to be completed by lab)
01A	AMB1(07)	3/11/07	0825	1650	34449	X				-30.0	-6.0
02A	SG2(07)		0827	1122	05364	X	X			-30+	-5.5
03A	SG2(07)Dup		0827	1122	34250	X	X			-30+	-5.0
04A	IA2(07)		0828	1122	25303	X				-30+	-5.0
05A	SG3(07)		0830	1102	34502	X	X			-29	-5.0
06A	IA3(07)		0832	1102	12011	X				-30+	-6.0
07A	SG1(07)		0838	1147	24017	X	X			-32	-6.0
08A	IA1(07)		0839	0948	33327	X	[redacted]	No helium analysis		-32	-4.5
09A	IA1(07)Dup		0839	1140	13860	X	[redacted]	3/14 3/16/07		-30	-5.0

FedEx 8576 1531 4439

CUSTODY SEAL INTACT? Y N NONE FOUND N/A

Do not Dilute without Calling Retec First

	Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
		FedEx	3/12/07	0800
	Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
		TimFlesh-ATL	3/14/07	0910
	Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

Sample Custodian Remarks (Completed By Laboratory):

QA/QC Level		Turnaround		Sample Receipt	
Level I	☐	Routine	☒	Total # Containers Received?	
Level II	☐	24 Hour	☐	COC Seals Present?	
Level III	☐	1 Week	☐	COC Seals Intact?	
Other	☒	Other ____		Received Containers Intact?	
				Temperature?	

White: Lab Copy Yellow: PM Copy Pink: Field Copy Gold: PM/QA/QC Copy

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SG1 (07)

Lab ID#: 0703315A-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	g032321	Date of Collection: 3/11/07
Dil. Factor:	1.46	Date of Analysis: 3/24/07 01:21 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.15	0.60	0.72	3.0
Freon 114	0.15	Not Detected	1.0	Not Detected
Chloromethane	0.15	0.62 B U	0.30	1.3 B U
Vinyl Chloride	0.15	Not Detected	0.37	Not Detected
Bromomethane	0.15	0.30 B U	0.57	1.2 B U
Chloroethane	0.15 UJ	Not Detected U J	0.38 UJ	Not Detected U J
Freon 11	0.15	0.36	0.82	2.0
1,1-Dichloroethene	0.15	Not Detected	0.58	Not Detected
Freon 113	0.15	Not Detected	1.1	Not Detected
Methylene Chloride	0.15	7.5 J	0.51	26 J
1,1-Dichloroethane	0.15	Not Detected	0.59	Not Detected
cis-1,2-Dichloroethene	0.15	Not Detected	0.58	Not Detected
Chloroform	0.15	Not Detected	0.71	Not Detected
1,1,1-Trichloroethane	0.15	Not Detected	0.80	Not Detected
Carbon Tetrachloride	0.15	Not Detected	0.92	Not Detected
1,2-Dichloroethane	0.15	Not Detected	0.59	Not Detected
Trichloroethene	0.15	Not Detected	0.78	Not Detected
1,2-Dichloropropane	0.15	Not Detected	0.67	Not Detected
cis-1,3-Dichloropropene	0.15	Not Detected	0.66	Not Detected
Toluene	0.15	0.96	0.55	3.6
trans-1,3-Dichloropropene	0.15	Not Detected	0.66	Not Detected
1,1,2-Trichloroethane	0.15	Not Detected	0.80	Not Detected
Tetrachloroethene	0.15	Not Detected	0.99	Not Detected
1,2-Dibromoethane (EDB)	0.15	Not Detected	1.1	Not Detected
Chlorobenzene	0.15	Not Detected	0.67	Not Detected
Ethyl Benzene	0.15	Not Detected	0.63	Not Detected
m,p-Xylene	0.15	0.37	0.63	1.6
o-Xylene	0.15	Not Detected	0.63	Not Detected
Styrene	0.15	Not Detected	0.62	Not Detected
1,1,2,2-Tetrachloroethane	0.15	Not Detected	1.0	Not Detected
1,3,5-Trimethylbenzene	0.15	Not Detected	0.72	Not Detected
1,2,4-Trimethylbenzene	0.15	Not Detected	0.72	Not Detected
1,3-Dichlorobenzene	0.15	Not Detected	0.88	Not Detected
1,4-Dichlorobenzene	0.15	Not Detected	0.88	Not Detected
alpha-Chlorotoluene	0.15	Not Detected	0.76	Not Detected
1,2-Dichlorobenzene	0.15	Not Detected	0.88	Not Detected
1,2,4-Trichlorobenzene	0.73 UJ	Not Detected	5.4 UJ	Not Detected
Hexachlorobutadiene	0.73	Not Detected	7.8	Not Detected
Propylene	0.73	Not Detected	1.2	Not Detected

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SG1 (07)

Lab ID#: 0703315A-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	070323211	Date of Collection:	3/11/07
Dil. Factor:	1.46	Date of Analysis:	3/24/07 01:21 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,3-Butadiene	0.73 UJ	Not Detected U J	1.6 UJ	Not Detected U J
Acetone	0.73	5.1	1.7	12
Carbon Disulfide	0.73	24	2.3	76
trans-1,2-Dichloroethene	0.73	Not Detected	2.9	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.73	Not Detected	2.2	Not Detected
Hexane	0.73	0.97	2.6	3.4
Tetrahydrofuran	0.73	Not Detected	2.2	Not Detected
Cyclohexane	0.73	Not Detected	2.5	Not Detected
1,4-Dioxane	0.73	Not Detected	2.6	Not Detected
Bromodichloromethane	0.73	Not Detected	4.9	Not Detected
4-Methyl-2-pentanone	0.73	Not Detected	3.0	Not Detected
2-Hexanone	0.73	Not Detected	3.0	Not Detected
Dibromochloromethane	0.73	Not Detected	6.2	Not Detected
Bromoform	0.73	Not Detected	7.5	Not Detected
4-Ethyltoluene	0.73	Not Detected	3.6	Not Detected
Ethanol	0.73	9.4	1.4	18
Methyl tert-butyl ether	0.73	Not Detected	2.6	Not Detected
Heptane	0.73	Not Detected	3.0	Not Detected
Naphthalene	0.73	Not Detected	3.8	Not Detected
2-Methylpentane	0.73	Not Detected	2.6	Not Detected
Isopentane	0.73	1.5	2.2	4.4
2,3-Dimethylpentane	0.73	Not Detected	3.0	Not Detected
2,2,4-Trimethylpentane	0.73	Not Detected	3.4	Not Detected
Indene	0.73	Not Detected	3.5	Not Detected
Indan	0.73	Not Detected	3.5	Not Detected
Thiophene	0.73	Not Detected	2.5	Not Detected
2-Propanol	0.73	1.6	1.8	3.9

~~B = Compound present in laboratory blank greater than reporting limit, background subtraction not performed.~~
~~UJ = Non-detected compound associated with low bias in the CCV~~

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ppbv)
Unknown	NA	NA	31 J
Propane, 2-methyl-	75-28-5	9.0%	3.7 N J
Unknown	NA	NA	4.4 J

Container Type: 6 Liter Summa Special (100% Certified)

0242

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SG1 (07)

Lab ID#: 0703315A-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	g032321	Date of Collection:	3/11/07
Dil. Factor:	1.46	Date of Analysis:	3/24/07 01:21 AM

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
4-Bromofluorobenzene	99	70-130
Toluene-d8	96	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SG1 (07)

Lab ID#: 0703315A-07B

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	6032806	Date of Collection:	3/11/07
Dil. Factor:	2.13	Date of Analysis:	3/28/07 10:26 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Benzene	0.21	Not Detected	0.68	Not Detected

Container Type: 6 Liter Summa Special (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	124	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	113	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SG1 (07)

Lab ID#: 0703315B-07A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	9031715b	Date of Collection:	3/11/07
Dil. Factor:	1.46	Date of Analysis:	3/17/07 04:38 PM

Compound	Rpt. Limit (%)	Amount (%)
Helium	0.073	0.075

Container Type: 6 Liter Summa Special (100% Certified)

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: IA1 (07)

Lab ID#: 0703315A-08A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	g032317	Date of Collection:	3/11/07
Dil. Factor:	1.34	Date of Analysis:	3/23/07 09:35 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.13	0.44 J	0.66	2.2 J
Freon 114	0.13 UJ	Not Detected	0.94 UJ	Not Detected
Chloromethane	0.13	0.53 B U	0.28	1.1 B V
Vinyl Chloride	0.13 UJ	Not Detected	0.34 UJ	Not Detected
Bromomethane	0.13	0.22 B U	0.52	0.86 B U
Chloroethane	0.13 UJ	Not Detected U J	0.35 UJ	Not Detected U J
Freon 11	0.13	0.23 J	0.75	1.3 J
1,1-Dichloroethene	0.13 UJ	Not Detected	0.53 UJ	Not Detected
Freon 113	0.13 UJ	Not Detected	1.0 UJ	Not Detected
Methylene Chloride	0.13	0.26 J	0.46	0.91 J
1,1-Dichloroethane	0.13 UJ	Not Detected	0.54 UJ	Not Detected
cis-1,2-Dichloroethene	0.13	Not Detected	0.53	Not Detected
Chloroform	0.13	Not Detected	0.65	Not Detected
1,1,1-Trichloroethane	0.13	Not Detected	0.73	Not Detected
Carbon Tetrachloride	0.13	Not Detected	0.84	Not Detected
1,2-Dichloroethane	0.13	Not Detected	0.54	Not Detected
Trichloroethene	0.13	Not Detected	0.72	Not Detected
1,2-Dichloropropane	0.13	Not Detected	0.62	Not Detected
cis-1,3-Dichloropropene	0.13	Not Detected	0.61	Not Detected
Toluene	0.13	1.3 J	0.50	4.8 J
trans-1,3-Dichloropropene	0.13 UJ	Not Detected	0.61 UJ	Not Detected
1,1,2-Trichloroethane	0.13 UJ	Not Detected	0.73 UJ	Not Detected
Tetrachloroethene	0.13 UJ	Not Detected	0.91 UJ	Not Detected
1,2-Dibromoethane (EDB)	0.13 UJ	Not Detected	1.0 UJ	Not Detected
Chlorobenzene	0.13 UJ	Not Detected	0.62 UJ	Not Detected
Ethyl Benzene	0.13	0.18 J	0.58	0.78 J
m,p-Xylene	0.13	0.57 J	0.58	2.5 J
o-Xylene	0.13	0.24 J	0.58	1.0 J
Styrene	0.13 UJ	Not Detected	0.57 UJ	Not Detected
1,1,2,2-Tetrachloroethane	0.13 UJ	Not Detected	0.92 UJ	Not Detected
1,3,5-Trimethylbenzene	0.13	0.26 J	0.66	1.3 J
1,2,4-Trimethylbenzene	0.13	0.95 J	0.66	4.6 J
1,3-Dichlorobenzene	0.13 UJ	Not Detected	0.80 UJ	Not Detected
1,4-Dichlorobenzene	0.13	1.2 J	0.80	6.9 J
alpha-Chlorotoluene	0.13 UJ	Not Detected	0.69 UJ	Not Detected
1,2-Dichlorobenzene	0.13 UJ	Not Detected	0.80 UJ	Not Detected
1,2,4-Trichlorobenzene	0.67 UJ	Not Detected	5.0 UJ	Not Detected
Hexachlorobutadiene	0.67 UJ	Not Detected	7.1 UJ	Not Detected
Propylene	0.67 UJ	Not Detected	1.2 UJ	Not Detected

0277

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: IA1 (07)

Lab ID#: 0703315A-08A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	g032317	Date of Collection:	3/11/07
Dil. Factor:	1.34	Date of Analysis:	3/23/07 09:35 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,3-Butadiene	0.67 UJ	Not Detected U J	1.5 UJ	Not Detected U J
Acetone	0.67	5.8 J	1.6	14 J
Carbon Disulfide	0.67 UJ	Not Detected	2.1 UJ	Not Detected
trans-1,2-Dichloroethene	0.67	Not Detected	2.6	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.67	Not Detected	2.0	Not Detected
Hexane	0.67	Not Detected	2.4	Not Detected
Tetrahydrofuran	0.67	Not Detected	2.0	Not Detected
Cyclohexane	0.67	Not Detected	2.3	Not Detected
1,4-Dioxane	0.67	Not Detected	2.4	Not Detected
Bromodichloromethane	0.67	Not Detected	4.5	Not Detected
4-Methyl-2-pentanone	0.67	Not Detected	2.7	Not Detected
2-Hexanone	0.67	Not Detected	2.7	Not Detected
Dibromochloromethane	0.67	Not Detected	5.7	Not Detected
Bromoform	0.67	Not Detected	6.9	Not Detected
4-Ethyltoluene	0.67	0.75 J	3.3	3.7 J
Ethanol	0.67	44 J	1.3	82 J
Methyl tert-butyl ether	0.67 UJ	Not Detected	2.4 UJ	Not Detected
Heptane	0.67 UJ	Not Detected	2.7 UJ	Not Detected
Naphthalene	0.67 UJ	Not Detected	3.5 UJ	Not Detected
2-Methylpentane	0.67 UJ	Not Detected	2.4 UJ	Not Detected
Isopentane	0.67 UJ	1.1 J	2.0	3.3 J
2,3-Dimethylpentane	0.67 UJ	Not Detected	2.7 UJ	Not Detected
2,2,4-Trimethylpentane	0.67 UJ	Not Detected	3.1 UJ	Not Detected
Indene	0.67 UJ	Not Detected	3.2 UJ	Not Detected
Indan	0.67 UJ	Not Detected	3.2 UJ	Not Detected
Thiophene	0.67 UJ	Not Detected	2.3 UJ	Not Detected
2-Propanol	0.67	1.1 J	1.6	2.6 J

~~B = Compound present in laboratory blank greater than reporting limit, background subtraction not performed.~~

~~UJ = Non-detected compound associated with low bias in the CCV~~

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ppbv)
Butane	106-97-8	59%	3.0 N J
Unknown	NA	NA	2.2 J
Pentane	109-66-0	90%	7.3 N J
Decane	124-18-5	64%	9.3 N J
Bicyclo[2.2.1]hept-2-ene, 1,7,7-trimethy	464-17-5	94%	6.7 N J

0278

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: IA1 (07)

Lab ID#: 0703315A-08A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	g032317	Date of Collection:	3/11/07
Dil. Factor:	1.34	Date of Analysis:	3/23/07 09:35 PM

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ppbv)
Unknown	NA	NA	2.6 J
Octacosane	630-02-4	78%	11 N J
Unknown	NA	NA	2.7 J
Unknown	NA	NA	2.7 J
Tridecane	629-50-5	83%	3.0 N J

Container Type: 6 Liter Summa Special (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	99	70-130
4-Bromofluorobenzene	100	70-130
Toluene-d8	92	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: IA1 (07)

Lab ID#: 0703315A-08B

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name: 0032719	Date of Collection: 3/11/07
Dil. Factor: 1.34	Date of Analysis: 3/28/07 01:10 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Benzene	0.13	0.40 J	0.43	1.3 J

Container Type: 6 Liter Summa Special (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	127	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	114	70-130

0316

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: IA1 (07) DUP

Lab ID#: 0703315A-09A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	g032318	Date of Collection:	3/11/07
Dil. Factor:	1.52	Date of Analysis:	3/23/07 10:08 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.15	0.44	0.75	2.2
Freon 114	0.15	Not Detected	1.1	Not Detected
Chloromethane	0.15	0.55 B U	0.31	1.1 B U
Vinyl Chloride	0.15	Not Detected	0.39	Not Detected
Bromomethane	0.15	0.29 B U	0.59	1.1 B U
Chloroethane	0.15 UJ	Not Detected U J	0.40 UJ	Not Detected U J
Freon 11	0.15	0.24	0.85	1.4
1,1-Dichloroethene	0.15	Not Detected	0.60	Not Detected
Freon 113	0.15	Not Detected	1.2	Not Detected
Methylene Chloride	0.15	0.28 J	0.53	0.98 J
1,1-Dichloroethane	0.15	Not Detected	0.62	Not Detected
cis-1,2-Dichloroethene	0.15	Not Detected	0.60	Not Detected
Chloroform	0.15	Not Detected	0.74	Not Detected
1,1,1-Trichloroethane	0.15	Not Detected	0.83	Not Detected
Carbon Tetrachloride	0.15	Not Detected	0.96	Not Detected
1,2-Dichloroethane	0.15	Not Detected	0.62	Not Detected
Trichloroethene	0.15	Not Detected	0.82	Not Detected
1,2-Dichloropropane	0.15	Not Detected	0.70	Not Detected
cis-1,3-Dichloropropene	0.15	Not Detected	0.69	Not Detected
Toluene	0.15	1.3	0.57	4.8
trans-1,3-Dichloropropene	0.15	Not Detected	0.69	Not Detected
1,1,2-Trichloroethane	0.15	Not Detected	0.83	Not Detected
Tetrachloroethene	0.15	Not Detected	1.0	Not Detected
1,2-Dibromoethane (EDB)	0.15	Not Detected	1.2	Not Detected
Chlorobenzene	0.15	Not Detected	0.70	Not Detected
Ethyl Benzene	0.15	0.16	0.66	0.70
m,p-Xylene	0.15	0.56	0.66	2.4
o-Xylene	0.15	0.24	0.66	1.0
Styrene	0.15	Not Detected	0.65	Not Detected
1,1,2,2-Tetrachloroethane	0.15	Not Detected	1.0	Not Detected
1,3,5-Trimethylbenzene	0.15	0.29	0.75	1.4
1,2,4-Trimethylbenzene	0.15	0.99	0.75	4.9
1,3-Dichlorobenzene	0.15	Not Detected	0.91	Not Detected
1,4-Dichlorobenzene	0.15	1.3	0.91	7.6
alpha-Chlorotoluene	0.15	Not Detected	0.79	Not Detected
1,2-Dichlorobenzene	0.15	Not Detected	0.91	Not Detected
1,2,4-Trichlorobenzene	0.76 UJ	Not Detected	5.6 UJ	Not Detected
Hexachlorobutadiene	0.76	Not Detected	8.1	Not Detected
Propylene	0.76	Not Detected	1.3	Not Detected

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: IA1 (07) DUP

Lab ID#: 0703315A-09A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name: g032318 Date of Collection: 3/11/07
Dil. Factor: 1.52 Date of Analysis: 3/23/07 10:08 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,3-Butadiene	0.76 UJ	Not Detected U J	1.7 UJ	Not Detected U J
Acetone	0.76	5.3	1.8	13
Carbon Disulfide	0.76	Not Detected	2.4	Not Detected
trans-1,2-Dichloroethene	0.76	Not Detected	3.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.76	Not Detected	2.2	Not Detected
Hexane	0.76	Not Detected	2.7	Not Detected
Tetrahydrofuran	0.76	Not Detected	2.2	Not Detected
Cyclohexane	0.76	Not Detected	2.6	Not Detected
1,4-Dioxane	0.76	Not Detected	2.7	Not Detected
Bromodichloromethane	0.76	Not Detected	5.1	Not Detected
4-Methyl-2-pentanone	0.76	Not Detected	3.1	Not Detected
2-Hexanone	0.76	Not Detected	3.1	Not Detected
Dibromochloromethane	0.76	Not Detected	6.5	Not Detected
Bromoform	0.76	Not Detected	7.8	Not Detected
4-Ethyltoluene	0.76	Not Detected	3.7	Not Detected
Ethanol	0.76	44	1.4	83
Methyl tert-butyl ether	0.76	Not Detected	2.7	Not Detected
Heptane	0.76	Not Detected	3.1	Not Detected
Naphthalene	0.76	Not Detected	4.0	Not Detected
2-Methylpentane	0.76	Not Detected	2.7	Not Detected
Isopentane	0.76	1.2	2.2	3.5
2,3-Dimethylpentane	0.76	Not Detected	3.1	Not Detected
2,2,4-Trimethylpentane	0.76	Not Detected	3.6	Not Detected
Indene	0.76	Not Detected	3.6	Not Detected
Indan	0.76	Not Detected	3.7	Not Detected
Thiophene	0.76	Not Detected	2.6	Not Detected
2-Propanol	0.76	1.0	1.9	2.6

~~B = Compound present in laboratory blank greater than reporting limit, background subtraction not performed.~~
~~UJ = Non-detected compound associated with low bias in the CCV~~

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ppbv)
Butane	106-97-8	59%	3.5 N J
Pentane	109-66-0	90%	8.6 N J
Unknown	NA	NA	3.1 J
Nonane	111-84-2	64%	9.2 N J
Bicyclo[2.2.1]hept-2-ene, 1,7,7-trimethy	464-17-5	94%	6.8 N J

0327

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: IA1 (07) DUP

Lab ID#: 0703315A-09A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	g032318	Date of Collection:	3/11/07
Dil. Factor:	1.52	Date of Analysis:	3/23/07 10:08 PM

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ppbv)
Benzene, 1-methyl-3-propyl-	1074-43-7	53%	2.4 N J
Undecane	1120-21-4	78%	12 N J
Unknown	NA	NA	3.1 J
Unknown	NA	NA	4.3 J
Dodecane	112-40-3	91%	3.7 N J

Container Type: 6 Liter Summa Special (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
4-Bromofluorobenzene	104	70-130
Toluene-d8	94	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: IA1 (07) DUP

Lab ID#: 0703315A-09B

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	6032805	Date of Collection:	3/11/07
Dil. Factor:	1.52	Date of Analysis:	3/28/07 09:34 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Benzene	0.15	0.38	0.48	1.2

Container Type: 6 Liter Summa Special (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	125	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	118	70-130

0364

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SG2 (07)

Lab ID#: 0703315A-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	g032322r	Date of Collection: 3/11/07
Dil. Factor:	1.61	Date of Analysis: 3/24/07 02:15 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.16	0.40	0.80	2.0
Freon 114	0.16	Not Detected	1.1	Not Detected
Chloromethane	0.16 UJ	Not Detected	0.33 UJ	Not Detected
Vinyl Chloride	0.16	Not Detected	0.41	Not Detected
Bromomethane	0.16	0.17 B U	0.62	0.64 B U
Chloroethane	0.16 UJ	Not Detected U J	0.42 UJ	Not Detected U J
Freon 11	0.16	0.27	0.90	1.5
1,1-Dichloroethene	0.16	Not Detected	0.64	Not Detected
Freon 113	0.16	Not Detected	1.2	Not Detected
Methylene Chloride	0.16	Not Detected	0.56	Not Detected
1,1-Dichloroethane	0.16	Not Detected	0.65	Not Detected
cis-1,2-Dichloroethene	0.16	Not Detected	0.64	Not Detected
Chloroform	0.16	Not Detected	0.79	Not Detected
1,1,1-Trichloroethane	0.16	0.21	0.88	1.2
Carbon Tetrachloride	0.16	Not Detected	1.0	Not Detected
1,2-Dichloroethane	0.16	Not Detected	0.65	Not Detected
Trichloroethene	0.16	Not Detected	0.86	Not Detected
1,2-Dichloropropane	0.16	Not Detected	0.74	Not Detected
cis-1,3-Dichloropropene	0.16	Not Detected	0.73	Not Detected
Toluene	0.16	0.27	0.61	1.0
trans-1,3-Dichloropropene	0.16	Not Detected	0.73	Not Detected
1,1,2-Trichloroethane	0.16	Not Detected	0.88	Not Detected
Tetrachloroethene	0.16	7.3	1.1	49
1,2-Dibromoethane (EDB)	0.16	Not Detected	1.2	Not Detected
Chlorobenzene	0.16	Not Detected	0.74	Not Detected
Ethyl Benzene	0.16	Not Detected	0.70	Not Detected
m,p-Xylene	0.16	Not Detected	0.70	Not Detected
o-Xylene	0.16	Not Detected	0.70	Not Detected
Styrene	0.16	Not Detected	0.68	Not Detected
1,1,2,2-Tetrachloroethane	0.16	Not Detected	1.1	Not Detected
1,3,5-Trimethylbenzene	0.16	Not Detected	0.79	Not Detected
1,2,4-Trimethylbenzene	0.16	Not Detected	0.79	Not Detected
1,3-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
alpha-Chlorotoluene	0.16	Not Detected	0.83	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
1,2,4-Trichlorobenzene	0.80 UJ	Not Detected	6.0 UJ	Not Detected
Hexachlorobutadiene	0.80	Not Detected	8.6	Not Detected
Propylene	0.80	Not Detected	1.4	Not Detected

0039

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SG2 (07)

Lab ID#: 0703315A-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	g032322	Date of Collection:	3/11/07
Dil. Factor:	1.61	Date of Analysis:	3/24/07 02:16 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,3-Butadiene	0.80 UJ	Not Detected U J	1.8 UJ	Not Detected U J
Acetone	0.80 UJ	Not Detected	1.9 UJ	Not Detected
Carbon Disulfide	0.80	Not Detected	2.5	Not Detected
trans-1,2-Dichloroethene	0.80	Not Detected	3.2	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.80	Not Detected	2.4	Not Detected
Hexane	0.80	Not Detected	2.8	Not Detected
Tetrahydrofuran	0.80	Not Detected	2.4	Not Detected
Cyclohexane	0.80	Not Detected	2.8	Not Detected
1,4-Dioxane	0.80	Not Detected	2.9	Not Detected
Bromodichloromethane	0.80	Not Detected	5.4	Not Detected
4-Methyl-2-pentanone	0.80	Not Detected	3.3	Not Detected
2-Hexanone	0.80	Not Detected	3.3	Not Detected
Dibromochloromethane	0.80	Not Detected	6.8	Not Detected
Bromoform	0.80	Not Detected	8.3	Not Detected
4-Ethyltoluene	0.80	Not Detected	4.0	Not Detected
Ethanol	0.80	1.2	1.5	2.3
Methyl tert-butyl ether	0.80	Not Detected	2.9	Not Detected
Heptane	0.80	Not Detected	3.3	Not Detected
Naphthalene	0.80	Not Detected	4.2	Not Detected
2-Methylpentane	0.80	Not Detected	2.8	Not Detected
Isopentane	0.80	Not Detected	2.4	Not Detected
2,3-Dimethylpentane	0.80	Not Detected	3.3	Not Detected
2,2,4-Trimethylpentane	0.80	Not Detected	3.8	Not Detected
Indene	0.80	Not Detected	3.8	Not Detected
Indan	0.80	Not Detected	3.9	Not Detected
Thiophene	0.80	Not Detected	2.8	Not Detected
2-Propanol	0.80	Not Detected	2.0	Not Detected

~~B = Compound present in laboratory blank greater than reporting limit, background subtraction not performed.~~
~~UJ = Non-detected compound associated with low bias in the CCV.~~

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ppbv)
Unknown	NA	NA	200 J
Unknown	NA	NA	8.0 J

Container Type: 6 Liter Summa Special (100% Certified)

Surrogates	%Recovery	Method Limits

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SG2 (07)

Lab ID#: 0703315A-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	g032322	Date of Collection:	3/11/07
Dil. Factor:	1.61	Date of Analysis:	3/24/07 02:15 AM

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
4-Bromofluorobenzene	98	70-130
Toluene-d8	95	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SG2 (07)

Lab ID#: 0703315A-02B

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	6032712	Date of Collection:	3/11/07
Dil. Factor:	1.61	Date of Analysis:	3/27/07 07:06 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Benzene	0.16	Not Detected	0.51	Not Detected

Container Type: 6 Liter Summa Special (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	126	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	112	70-130

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Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SG2 (07)

Lab ID#: 0703315B-02A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	**9031712b**	**Date of Collection: 3/11/07**	
Dil. Factor:	**1.61**	**Date of Analysis: 3/17/07 03:25 PM**	

Compound	Rpt. Limit (%)	Amount (%)
Helium	0.080	0.56

Container Type: 6 Liter Summa Special (100% Certified)

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SG2 (07) DUP

Lab ID#: 0703315A-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	g032323	Date of Collection:	3/11/07
Dil. Factor:	1.49	Date of Analysis:	3/24/07 03:19 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.15	0.39	0.74	1.9
Freon 114	0.15	Not Detected	1.0	Not Detected
Chloromethane	0.15 UJ	Not Detected	0.31 UJ	Not Detected
Vinyl Chloride	0.15	Not Detected	0.38	Not Detected
Bromomethane	0.15	0.27 B U	0.58	1.0 B U
Chloroethane	0.15 UJ	Not Detected U J	0.39 UJ	Not Detected U J
Freon 11	0.15	0.29	0.84	1.6
1,1-Dichloroethene	0.15	Not Detected	0.59	Not Detected
Freon 113	0.15	Not Detected	1.1	Not Detected
Methylene Chloride	0.15	Not Detected	0.52	Not Detected
1,1-Dichloroethane	0.15	Not Detected	0.60	Not Detected
cis-1,2-Dichloroethene	0.15	Not Detected	0.59	Not Detected
Chloroform	0.15	Not Detected	0.73	Not Detected
1,1,1-Trichloroethane	0.15	0.20	0.81	1.1
Carbon Tetrachloride	0.15	Not Detected	0.94	Not Detected
1,2-Dichloroethane	0.15	Not Detected	0.60	Not Detected
Trichloroethene	0.15	Not Detected	0.80	Not Detected
1,2-Dichloropropane	0.15	Not Detected	0.69	Not Detected
cis-1,3-Dichloropropene	0.15	Not Detected	0.68	Not Detected
Toluene	0.15	0.26	0.56	0.99
trans-1,3-Dichloropropene	0.15	Not Detected	0.68	Not Detected
1,1,2-Trichloroethane	0.15	Not Detected	0.81	Not Detected
Tetrachloroethene	0.15	7.1	1.0	48
1,2-Dibromoethane (EDB)	0.15	Not Detected	1.1	Not Detected
Chlorobenzene	0.15	Not Detected	0.68	Not Detected
Ethyl Benzene	0.15	Not Detected	0.65	Not Detected
m,p-Xylene	0.15	Not Detected	0.65	Not Detected
o-Xylene	0.15	Not Detected	0.65	Not Detected
Styrene	0.15	Not Detected	0.63	Not Detected
1,1,2,2-Tetrachloroethane	0.15	Not Detected	1.0	Not Detected
1,3,5-Trimethylbenzene	0.15	Not Detected	0.73	Not Detected
1,2,4-Trimethylbenzene	0.15	Not Detected	0.73	Not Detected
1,3-Dichlorobenzene	0.15	Not Detected	0.90	Not Detected
1,4-Dichlorobenzene	0.15	Not Detected	0.90	Not Detected
alpha-Chlorotoluene	0.15	Not Detected	0.77	Not Detected
1,2-Dichlorobenzene	0.15	Not Detected	0.90	Not Detected
1,2,4-Trichlorobenzene	0.74 UJ	Not Detected	5.5 UJ	Not Detected
Hexachlorobutadiene	0.74	Not Detected	7.9	Not Detected
Propylene	0.74	Not Detected	1.3	Not Detected

0068

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SG2 (07) DUP

Lab ID#: 0703315A-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	g032323	Date of Collection:	3/11/07
Dil. Factor:	1.49	Date of Analysis:	3/24/07 03:19 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,3-Butadiene	0.74 UJ	Not Detected U J	1.6 UJ	Not Detected U J
Acetone	0.74	3.0 J	1.8	7.2 J
Carbon Disulfide	0.74	Not Detected	2.3	Not Detected
trans-1,2-Dichloroethene	0.74	Not Detected	3.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.74	Not Detected	2.2	Not Detected
Hexane	0.74	Not Detected	2.6	Not Detected
Tetrahydrofuran	0.74	Not Detected	2.2	Not Detected
Cyclohexane	0.74	Not Detected	2.6	Not Detected
1,4-Dioxane	0.74	Not Detected	2.7	Not Detected
Bromodichloromethane	0.74	Not Detected	5.0	Not Detected
4-Methyl-2-pentanone	0.74	Not Detected	3.0	Not Detected
2-Hexanone	0.74	Not Detected	3.0	Not Detected
Dibromochloromethane	0.74	Not Detected	6.3	Not Detected
Bromoform	0.74	Not Detected	7.7	Not Detected
4-Ethyltoluene	0.74	Not Detected	3.7	Not Detected
Ethanol	0.74	1.0	1.4	1.9
Methyl tert-butyl ether	0.74	Not Detected	2.7	Not Detected
Heptane	0.74	Not Detected	3.0	Not Detected
Naphthalene	0.74	Not Detected	3.9	Not Detected
2-Methylpentane	0.74	Not Detected	2.6	Not Detected
Isopentane	0.74	Not Detected	2.2	Not Detected
2,3-Dimethylpentane	0.74	Not Detected	3.0	Not Detected
2,2,4-Trimethylpentane	0.74	Not Detected	3.5	Not Detected
Indene	0.74	Not Detected	3.5	Not Detected
Indan	0.74	Not Detected	3.6	Not Detected
Thiophene	0.74	Not Detected	2.6	Not Detected
2-Propanol	0.74	Not Detected	1.8	Not Detected

~~B = Compound present in laboratory blank greater than reporting limit, background subtraction not performed.~~
~~UJ = Non-detected compound associated with low bias in the CCV~~

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ppbv)
Unknown	NA	NA	210 J
Unknown	NA	NA	7.8 J

Container Type: 6 Liter Summa Special (100% Certified)

Surrogates	%Recovery	Method Limits

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Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SG2 (07) DUP

Lab ID#: 0703315A-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	g032323	Date of Collection:	3/11/07
Dil. Factor:	1.49	Date of Analysis:	3/24/07 03:19 AM

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
4-Bromofluorobenzene	96	70-130
Toluene-d8	98	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SG2 (07) DUP

Lab ID#: 0703315A-03B

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	6032713	Date of Collection:	3/11/07
Dil. Factor:	1.49	Date of Analysis:	3/27/07 07:51 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Benzene	0.15	Not Detected	0.48	Not Detected

Container Type: 6 Liter Summa Special (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	129	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	113	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SG2 (07) DUP

Lab ID#: 0703315B-03A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	9031713b	**Date of Collection:**	3/11/07
Dil. Factor:	1.49	**Date of Analysis:**	3/17/07 03:47 PM

Compound	Rpt. Limit (%)	Amount (%)
Helium	0.074	0.55

Container Type: 6 Liter Summa Special (100% Certified)

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: IA2 (07)

Lab ID#: 0703315A-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	g032316	Date of Collection:	3/11/07
Dil. Factor:	1.52	Date of Analysis:	3/23/07 09:04 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.15	0.47	0.75	2.3
Freon 114	0.15	Not Detected	1.1	Not Detected
Chloromethane	0.15	0.49 B U	0.31	1.0 B U
Vinyl Chloride	0.15	Not Detected	0.39	Not Detected
Bromomethane	0.15	0.30 B U	0.59	1.2 B U
Chloroethane	0.15 UJ	Not Detected U J	0.40 UJ	Not Detected U J
Freon 11	0.15	0.23	0.85	1.3
1,1-Dichloroethene	0.15	Not Detected	0.60	Not Detected
Freon 113	0.15	Not Detected	1.2	Not Detected
Methylene Chloride	0.15	0.27 J	0.53	0.94 J
1,1-Dichloroethane	0.15	Not Detected	0.62	Not Detected
cis-1,2-Dichloroethene	0.15	Not Detected	0.60	Not Detected
Chloroform	0.15	Not Detected	0.74	Not Detected
1,1,1-Trichloroethane	0.15	Not Detected	0.83	Not Detected
Carbon Tetrachloride	0.15	Not Detected	0.96	Not Detected
1,2-Dichloroethane	0.15	Not Detected	0.62	Not Detected
Trichloroethene	0.15	Not Detected	0.82	Not Detected
1,2-Dichloropropane	0.15	Not Detected	0.70	Not Detected
cis-1,3-Dichloropropene	0.15	Not Detected	0.69	Not Detected
Toluene	0.15	1.3	0.57	4.9
trans-1,3-Dichloropropene	0.15	Not Detected	0.69	Not Detected
1,1,2-Trichloroethane	0.15	Not Detected	0.83	Not Detected
Tetrachloroethene	0.15	Not Detected	1.0	Not Detected
1,2-Dibromoethane (EDB)	0.15	Not Detected	1.2	Not Detected
Chlorobenzene	0.15	Not Detected	0.70	Not Detected
Ethyl Benzene	0.15	0.20	0.66	0.85
m,p-Xylene	0.15	0.60	0.66	2.6
o-Xylene	0.15	0.22	0.66	0.97
Styrene	0.15	Not Detected	0.65	Not Detected
1,1,2,2-Tetrachloroethane	0.15	Not Detected	1.0	Not Detected
1,3,5-Trimethylbenzene	0.15	0.34	0.75	1.7
1,2,4-Trimethylbenzene	0.15	1.1	0.75	5.5
1,3-Dichlorobenzene	0.15	Not Detected	0.91	Not Detected
1,4-Dichlorobenzene	0.15	0.98	0.91	5.9
alpha-Chlorotoluene	0.15	Not Detected	0.79	Not Detected
1,2-Dichlorobenzene	0.15	Not Detected	0.91	Not Detected
1,2,4-Trichlorobenzene	0.76 UJ	Not Detected	5.6 UJ	Not Detected
Hexachlorobutadiene	0.76	Not Detected	8.1	Not Detected
Propylene	0.76	Not Detected	1.3	Not Detected

0099

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: IA2 (07)

Lab ID#: 0703315A-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	g032316	Date of Collection: 3/11/07
Dil. Factor:	1.52	Date of Analysis: 3/23/07 09:04 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,3-Butadiene	0.76 UJ	Not Detected U J	1.7 UJ	Not Detected U J
Acetone	0.76	4.7	1.8	11
Carbon Disulfide	0.76	Not Detected	2.4	Not Detected
trans-1,2-Dichloroethene	0.76	Not Detected	3.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.76	Not Detected	2.2	Not Detected
Hexane	0.76	Not Detected	2.7	Not Detected
Tetrahydrofuran	0.76	Not Detected	2.2	Not Detected
Cyclohexane	0.76	Not Detected	2.6	Not Detected
1,4-Dioxane	0.76	Not Detected	2.7	Not Detected
Bromodichloromethane	0.76	Not Detected	5.1	Not Detected
4-Methyl-2-pentanone	0.76	Not Detected	3.1	Not Detected
2-Hexanone	0.76	Not Detected	3.1	Not Detected
Dibromochloromethane	0.76	Not Detected	6.5	Not Detected
Bromoform	0.76	Not Detected	7.8	Not Detected
4-Ethyltoluene	0.76	0.85	3.7	4.2
Ethanol	0.76	38	1.4	71
Methyl tert-butyl ether	0.76	Not Detected	2.7	Not Detected
Heptane	0.76	Not Detected	3.1	Not Detected
Naphthalene	0.76	Not Detected	4.0	Not Detected
2-Methylpentane	0.76	Not Detected	2.7	Not Detected
Isopentane	0.76	1.1	2.2	3.3
2,3-Dimethylpentane	0.76	Not Detected	3.1	Not Detected
2,2,4-Trimethylpentane	0.76	Not Detected	3.6	Not Detected
Indene	0.76	Not Detected	3.6	Not Detected
Indan	0.76	Not Detected	3.7	Not Detected
Thiophene	0.76	Not Detected	2.6	Not Detected
2-Propanol	0.76	1.1	1.9	2.7

~~B = Compound present in laboratory blank greater than reporting limit, background subtraction not performed.~~
~~UJ = Non-detected compound associated with low bias in the CCV~~

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ppbv)
Unknown	NA	NA	2.5 J
Butane	106-97-8	72%	2.8 N J
Decane, 2,5,6-trimethyl-	62108-23-0	64%	1.9 N J
Decane	124-18-5	83%	11 N J
Decane, 2,6,7-trimethyl-	62108-25-2	83%	1.8 N J

0100

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: IA2 (07)

Lab ID#: 0703315A-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	g032316	Date of Collection:	3/11/07
Dil. Factor:	1.52	Date of Analysis:	3/23/07 09:04 PM

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ppbv)
Bicyclo[2.2.1]hept-2-ene, 1,7,7-trimethy	464-17-5	94%	5.3 N J
Decane, 3-methyl-	13151-34-3	93%	1.8 N J
Decane, 2-methyl-	6975-98-0	80%	10 N J
Unknown	NA	NA	3.3 J
Undecane	1120-21-4	83%	2.6 N J

Container Type: 6 Liter Summa Special (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
4-Bromofluorobenzene	101	70-130
Toluene-d8	93	70-130

0101

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: IA2 (07)

Lab ID#: 0703315A-04B

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	6032714	Date of Collection:	3/11/07
Dil. Factor:	1.52	Date of Analysis:	3/27/07 08:31 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Benzene	0.15	0.38	0.48	1.2

Container Type: 6 Liter Summa Special (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	129	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	115	70-130

0138

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SG3 (07)

Lab ID#: 0703315A-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	g032314	Date of Collection: 3/11/07
Dil. Factor:	1.61	Date of Analysis: 3/23/07 07:59 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.16	0.42	0.80	2.1
Freon 114	0.16	Not Detected	1.1	Not Detected
Chloromethane	0.16 UJ	Not Detected	0.33 UJ	Not Detected
Vinyl Chloride	0.16	Not Detected	0.41	Not Detected
Bromomethane	0.16	0.28 B U	0.62	1.1 B U
Chloroethane	0.16 UJ	Not Detected U J	0.42 UJ	Not Detected U J
Freon 11	0.16	0.29	0.90	1.6
1,1-Dichloroethene	0.16	Not Detected	0.64	Not Detected
Freon 113	0.16	Not Detected	1.2	Not Detected
Methylene Chloride	0.16	Not Detected	0.56	Not Detected
1,1-Dichloroethane	0.16	Not Detected	0.65	Not Detected
cis-1,2-Dichloroethene	0.16	Not Detected	0.64	Not Detected
Chloroform	0.16	Not Detected	0.79	Not Detected
1,1,1-Trichloroethane	0.16	0.18	0.88	1.0
Carbon Tetrachloride	0.16	Not Detected	1.0	Not Detected
1,2-Dichloroethane	0.16	Not Detected	0.65	Not Detected
Trichloroethene	0.16	Not Detected	0.86	Not Detected
1,2-Dichloropropane	0.16	Not Detected	0.74	Not Detected
cis-1,3-Dichloropropene	0.16	Not Detected	0.73	Not Detected
Toluene	0.16	5.5	0.61	21
trans-1,3-Dichloropropene	0.16	Not Detected	0.73	Not Detected
1,1,2-Trichloroethane	0.16	Not Detected	0.88	Not Detected
Tetrachloroethene	0.16	5.1	1.1	35
1,2-Dibromoethane (EDB)	0.16	Not Detected	1.2	Not Detected
Chlorobenzene	0.16	Not Detected	0.74	Not Detected
Ethyl Benzene	0.16	0.40	0.70	1.7
m,p-Xylene	0.16	1.1	0.70	4.7
o-Xylene	0.16	0.34	0.70	1.5
Styrene	0.16	Not Detected	0.68	Not Detected
1,1,2,2-Tetrachloroethane	0.16	Not Detected	1.1	Not Detected
1,3,5-Trimethylbenzene	0.16	Not Detected	0.79	Not Detected
1,2,4-Trimethylbenzene	0.16	Not Detected	0.79	Not Detected
1,3-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
alpha-Chlorotoluene	0.16	Not Detected	0.83	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
1,2,4-Trichlorobenzene	0.80 UJ	Not Detected	6.0 UJ	Not Detected
Hexachlorobutadiene	0.80	Not Detected	8.6	Not Detected
Propylene	0.80	Not Detected	1.4	Not Detected

0155

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SG3 (07)

Lab ID#: 0703315A-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	gu032314	Date of Collection: 3/11/07
Dil. Factor:	1.61	Date of Analysis: 3/23/07 07:59 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,3-Butadiene	0.80 UJ	Not Detected U J	1.8 UJ	Not Detected U J
Acetone	0.80	7.1	1.9	17
Carbon Disulfide	0.80	Not Detected	2.5	Not Detected
trans-1,2-Dichloroethene	0.80	Not Detected	3.2	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.80	0.99	2.4	2.9
Hexane	0.80	Not Detected	2.8	Not Detected
Tetrahydrofuran	0.80	Not Detected	2.4	Not Detected
Cyclohexane	0.80	Not Detected	2.8	Not Detected
1,4-Dioxane	0.80	Not Detected	2.9	Not Detected
Bromodichloromethane	0.80	Not Detected	5.4	Not Detected
4-Methyl-2-pentanone	0.80	Not Detected	3.3	Not Detected
2-Hexanone	0.80	Not Detected	3.3	Not Detected
Dibromochloromethane	0.80	Not Detected	6.8	Not Detected
Bromoform	0.80	Not Detected	8.3	Not Detected
4-Ethyltoluene	0.80	Not Detected	4.0	Not Detected
Ethanol	0.80	1.2	1.5	2.2
Methyl tert-butyl ether	0.80	Not Detected	2.9	Not Detected
Heptane	0.80	Not Detected	3.3	Not Detected
Naphthalene	0.80	Not Detected	4.2	Not Detected
2-Methylpentane	0.80	Not Detected	2.8	Not Detected
Isopentane	0.80	Not Detected	2.4	Not Detected
2,3-Dimethylpentane	0.80	Not Detected	3.3	Not Detected
2,2,4-Trimethylpentane	0.80	Not Detected	3.8	Not Detected
Indene	0.80	Not Detected	3.8	Not Detected
Indan	0.80	Not Detected	3.9	Not Detected
Thiophene	0.80	Not Detected	2.8	Not Detected
2-Propanol	0.80	Not Detected	2.0	Not Detected

~~B = Compound present in laboratory blank greater than reporting limit, background subtraction not performed.~~
~~UJ = Non-detected compound associated with low bias in the CCV.~~

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ppbv)
Unknown	NA	NA	82 J
Unknown	NA	NA	2.3 J
Butane	106-97-8	42%	2.7 N J
Acetaldehyde	75-07-0	86%	2.1 N J
Pentane	109-66-0	86%	2.3 N J

0156

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SG3 (07)

Lab ID#: 0703315A-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	g032314	Date of Collection: 3/11/07	
Dil. Factor:	1.61	Date of Analysis: 3/23/07 07:59 PM	

Container Type: 6 Liter Summa Special (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
4-Bromofluorobenzene	102	70-130
Toluene-d8	97	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SG3 (07)

Lab ID#: 0703315A-05B

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	6032715_21	Date of Collection: 3/11/07
Dil. Factor:	1.61	Date of Analysis: 3/27/07 09:10 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Benzene	0.16	4.9	0.51	16

Container Type: 6 Liter Summa Special (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	129	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	117	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SG3 (07)

Lab ID#: 0703315B-05A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	**9031714b**	**Date of Collection: 3/11/07**	
Dil. Factor:	**1.61**	**Date of Analysis: 3/17/07 04:10 PM**	

Compound	Rpt. Limit (%)	Amount (%)
Helium	0.080	0.54

Container Type: 6 Liter Summa Special (100% Certified)

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: IA3 (07)

Lab ID#: 0703315A-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	g032319	Date of Collection: 3/11/07
Dil. Factor:	1.61	Date of Analysis: 3/23/07 10:39 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.16	0.46	0.80	2.3
Freon 114	0.16	Not Detected	1.1	Not Detected
Chloromethane	0.16	0.51 B U	0.33	1.0 B U
Vinyl Chloride	0.16	Not Detected	0.41	Not Detected
Bromomethane	0.16	0.23 B U	0.62	0.91 B U
Chloroethane	0.16 UJ	Not Detected U J	0.42 UJ	Not Detected U J
Freon 11	0.16	0.26	0.90	1.4
1,1-Dichloroethene	0.16	Not Detected	0.64	Not Detected
Freon 113	0.16	Not Detected	1.2	Not Detected
Methylene Chloride	0.16	0.18 J	0.56	0.63 J
1,1-Dichloroethane	0.16	Not Detected	0.65	Not Detected
cis-1,2-Dichloroethene	0.16	Not Detected	0.64	Not Detected
Chloroform	0.16	Not Detected	0.79	Not Detected
1,1,1-Trichloroethane	0.16	Not Detected	0.88	Not Detected
Carbon Tetrachloride	0.16	Not Detected	1.0	Not Detected
1,2-Dichloroethane	0.16	Not Detected	0.65	Not Detected
Trichloroethene	0.16	Not Detected	0.86	Not Detected
1,2-Dichloropropane	0.16	Not Detected	0.74	Not Detected
cis-1,3-Dichloropropene	0.16	Not Detected	0.73	Not Detected
Toluene	0.16	1.8	0.61	6.8
trans-1,3-Dichloropropene	0.16	Not Detected	0.73	Not Detected
1,1,2-Trichloroethane	0.16	Not Detected	0.88	Not Detected
Tetrachloroethene	0.16	Not Detected	1.1	Not Detected
1,2-Dibromoethane (EDB)	0.16	Not Detected	1.2	Not Detected
Chlorobenzene	0.16	Not Detected	0.74	Not Detected
Ethyl Benzene	0.16	0.18	0.70	0.79
m,p-Xylene	0.16	0.59	0.70	2.6
o-Xylene	0.16	0.24	0.70	1.0
Styrene	0.16	Not Detected	0.68	Not Detected
1,1,2,2-Tetrachloroethane	0.16	Not Detected	1.1	Not Detected
1,3,5-Trimethylbenzene	0.16	0.25	0.79	1.2
1,2,4-Trimethylbenzene	0.16	0.73	0.79	3.6
1,3-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
1,4-Dichlorobenzene	0.16	0.18	0.97	1.1
alpha-Chlorotoluene	0.16	Not Detected	0.83	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
1,2,4-Trichlorobenzene	0.80 UJ	Not Detected	6.0 UJ	Not Detected
Hexachlorobutadiene	0.80	Not Detected	8.6	Not Detected
Propylene	0.80	Not Detected	1.4	Not Detected

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: IA3 (07)

Lab ID#: 0703315A-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	g032319	Date of Collection: 3/11/07
Dil. Factor:	1.61	Date of Analysis: 3/23/07 10:39 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,3-Butadiene	0.80 U5	Not Detected U J	1.8 U5	Not Detected U J
Acetone	0.80	4.1	1.9	9.8
Carbon Disulfide	0.80	Not Detected	2.5	Not Detected
trans-1,2-Dichloroethene	0.80	Not Detected	3.2	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.80	Not Detected	2.4	Not Detected
Hexane	0.80	Not Detected	2.8	Not Detected
Tetrahydrofuran	0.80	Not Detected	2.4	Not Detected
Cyclohexane	0.80	Not Detected	2.8	Not Detected
1,4-Dioxane	0.80	Not Detected	2.9	Not Detected
Bromodichloromethane	0.80	Not Detected	5.4	Not Detected
4-Methyl-2-pentanone	0.80	Not Detected	3.3	Not Detected
2-Hexanone	0.80	Not Detected	3.3	Not Detected
Dibromochloromethane	0.80	Not Detected	6.8	Not Detected
Bromoform	0.80	Not Detected	8.3	Not Detected
4-Ethyltoluene	0.80	Not Detected	4.0	Not Detected
Ethanol	0.80	18	1.5	34
Methyl tert-butyl ether	0.80	Not Detected	2.9	Not Detected
Heptane	0.80	Not Detected	3.3	Not Detected
Naphthalene	0.80	Not Detected	4.2	Not Detected
2-Methylpentane	0.80	Not Detected	2.8	Not Detected
Isopentane	0.80	1.2	2.4	3.6
2,3-Dimethylpentane	0.80	Not Detected	3.3	Not Detected
2,2,4-Trimethylpentane	0.80	Not Detected	3.8	Not Detected
Indene	0.80	Not Detected	3.8	Not Detected
Indan	0.80	Not Detected	3.9	Not Detected
Thiophene	0.80	Not Detected	2.8	Not Detected
2-Propanol	0.80	6.4	2.0	16

~~B = Compound present in laboratory blank greater than reporting limit, background subtraction not performed.~~
~~UJ = Non-detected compound associated with low bias in the CCV~~

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ppbv)
Unknown	NA	NA	2.6 J
Butane	106-97-8	42%	3.0 N J
Pentane	109-66-0	86%	2.4 N J
Silane, trichloroeicosyl-	18733-57-8	37%	2.7 N J
Ether, hexyl pentyl	32357-83-8	64%	6.7 N J

0195

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: IA3 (07)

Lab ID#: 0703315A-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	70032319	Date of Collection:	3/11/07
Dil. Factor:	1.61	Date of Analysis:	3/23/07 10:39 PM

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ppbv)
Octadecane, 1-chloro-	3386-33-2	78%	4.7 N J

Container Type: 6 Liter Summa Special (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
4-Bromofluorobenzene	102	70-130
Toluene-d8	93	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: IA3 (07)

Lab ID#: 0703315A-06B

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	60327r17	**Date of Collection:**	3/11/07
Dil. Factor:	1.61	**Date of Analysis:**	3/27/07 10:34 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Benzene	0.16	0.42	0.51	1.4

Container Type: 6 Liter Summa Special (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	129	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	115	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: AMB1 (07)

Lab ID#: 0703315A-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	g032315	Date of Collection: 3/11/07
Dil. Factor:	1.52	Date of Analysis: 3/23/07 08:34 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.15	0.49	0.75	2.4
Freon 114	0.15	Not Detected	1.1	Not Detected
Chloromethane	0.15	0.61 B U	0.31	1.2 B U
Vinyl Chloride	0.15	Not Detected	0.39	Not Detected
Bromomethane	0.15	0.24 B U	0.59	0.92 B U
Chloroethane	0.15 UJ	Not Detected U J	0.40 UJ	Not Detected U J
Freon 11	0.15	0.20	0.85	1.1
1,1-Dichloroethene	0.15	Not Detected	0.60	Not Detected
Freon 113	0.15	Not Detected	1.2	Not Detected
Methylene Chloride	0.15	Not Detected	0.53	Not Detected
1,1-Dichloroethane	0.15	Not Detected	0.62	Not Detected
cis-1,2-Dichloroethene	0.15	Not Detected	0.60	Not Detected
Chloroform	0.15	Not Detected	0.74	Not Detected
1,1,1-Trichloroethane	0.15	0.21	0.83	1.2
Carbon Tetrachloride	0.15	Not Detected	0.96	Not Detected
1,2-Dichloroethane	0.15	Not Detected	0.62	Not Detected
Trichloroethene	0.15	Not Detected	0.82	Not Detected
1,2-Dichloropropane	0.15	Not Detected	0.70	Not Detected
cis-1,3-Dichloropropene	0.15	Not Detected	0.69	Not Detected
Toluene	0.15	0.42	0.57	1.6
trans-1,3-Dichloropropene	0.15	Not Detected	0.69	Not Detected
1,1,2-Trichloroethane	0.15	Not Detected	0.83	Not Detected
Tetrachloroethene	0.15	Not Detected	1.0	Not Detected
1,2-Dibromoethane (EDB)	0.15	Not Detected	1.2	Not Detected
Chlorobenzene	0.15	Not Detected	0.70	Not Detected
Ethyl Benzene	0.15	Not Detected	0.66	Not Detected
m,p-Xylene	0.15	Not Detected	0.66	Not Detected
o-Xylene	0.15	Not Detected	0.66	Not Detected
Styrene	0.15	Not Detected	0.65	Not Detected
1,1,2,2-Tetrachloroethane	0.15	Not Detected	1.0	Not Detected
1,3,5-Trimethylbenzene	0.15	Not Detected	0.75	Not Detected
1,2,4-Trimethylbenzene	0.15	Not Detected	0.75	Not Detected
1,3-Dichlorobenzene	0.15	Not Detected	0.91	Not Detected
1,4-Dichlorobenzene	0.15	Not Detected	0.91	Not Detected
alpha-Chlorotoluene	0.15	Not Detected	0.79	Not Detected
1,2-Dichlorobenzene	0.15	Not Detected	0.91	Not Detected
1,2,4-Trichlorobenzene	0.76 UJ	Not Detected	5.6 UJ	Not Detected
Hexachlorobutadiene	0.76	Not Detected	8.1	Not Detected
Propylene	0.76	Not Detected	1.3	Not Detected

0008

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: AMB1 (07)

Lab ID#: 0703315A-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	g032315	Date of Collection:	3/11/07
Dil. Factor:	1.52	Date of Analysis:	3/23/07 08:34 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,3-Butadiene	0.76 UJ	Not Detected U J	1.7 UJ	Not Detected U J
Acetone	0.76	3.8	1.8	9.0
Carbon Disulfide	0.76	Not Detected	2.4	Not Detected
trans-1,2-Dichloroethene	0.76	Not Detected	3.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.76	Not Detected	2.2	Not Detected
Hexane	0.76	Not Detected	2.7	Not Detected
Tetrahydrofuran	0.76	Not Detected	2.2	Not Detected
Cyclohexane	0.76	Not Detected	2.6	Not Detected
1,4-Dioxane	0.76	Not Detected	2.7	Not Detected
Bromodichloromethane	0.76	Not Detected	5.1	Not Detected
4-Methyl-2-pentanone	0.76	Not Detected	3.1	Not Detected
2-Hexanone	0.76	Not Detected	3.1	Not Detected
Dibromochloromethane	0.76	Not Detected	6.5	Not Detected
Bromoform	0.76	Not Detected	7.8	Not Detected
4-Ethyltoluene	0.76	Not Detected	3.7	Not Detected
Ethanol	0.76	1.5	1.4	2.8
Methyl tert-butyl ether	0.76	Not Detected	2.7	Not Detected
Heptane	0.76	Not Detected	3.1	Not Detected
Naphthalene	0.76	Not Detected	4.0	Not Detected
2-Methylpentane	0.76	Not Detected	2.7	Not Detected
Isopentane	0.76	Not Detected	2.2	Not Detected
2,3-Dimethylpentane	0.76	Not Detected	3.1	Not Detected
2,2,4-Trimethylpentane	0.76	Not Detected	3.6	Not Detected
Indene	0.76	Not Detected	3.6	Not Detected
Indan	0.76	Not Detected	3.7	Not Detected
Thiophene	0.76	Not Detected	2.6	Not Detected
2-Propanol	0.76	Not Detected	1.9	Not Detected

~~B = Compound present in laboratory blank greater than reporting limit, background subtraction not performed.~~
~~UJ = Non-detected compound associated with low bias in the CCV.~~

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ppbv)
Unknown	NA	NA	77 J
Unknown	NA	NA	2.7 J

Container Type: 6 Liter Summa Special (100% Certified)

Surrogates	%Recovery	Method Limits

0009

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: AMB1 (07)

Lab ID#: 0703315A-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	g032315	Date of Collection:	3/11/07
Dil. Factor:	1.52	Date of Analysis:	3/23/07 08:34 PM

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
4-Bromofluorobenzene	100	70-130
Toluene-d8	94	70-130

0010

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: AMB1 (07)

Lab ID#: 0703315A-01B

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	6032711	Date of Collection:	3/11/07
Dil. Factor:	1.52	Date of Analysis:	3/27/07 06:27 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Benzene	0.15	0.28	0.48	0.91

Container Type: 6 Liter Summa Special (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	122	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	113	70-130

Appendix C

NYSDEC Category B Laboratory Deliverable Package (CD-ROM)

Appendix D

DUSR

Data Usability Summary Report

DATE: April 11, 2007

TO: Mr. James Edwards
The RETEC Group, Inc. - Merged with ENSR in 2007
1001 West Seneca Street, Suite 204
Ithaca, NY 14850

FROM: Gregory A. Malzone
Data Validator

SUBJECT: Orange and Rockland
Port Jervis O & R Operation Center Site
March 11, 2007 Air Sampling Event

Data Validation: Air Toxics LTD Work Orders:
0703315A and 0703315B

Overview

Air Toxics LTD. (ATL) work orders 0703315A and 0703315B contained four (4) soil gas, four (4) indoor air, and one (1) ambient air samples collected during the March 11, 2007 air sampling event at the Port Jervis O & R Operations Center site. A sample submittal summary is attached in Appendix A of this report.

Air Toxics LTD., 180 Blue Ravine Road, Suite B, Folsom, CA 95630 analyzed the samples for Volatile Organic Compounds (VOCs) using USEPA Compendium Method TO-15. Benzene was determined using GC/MS in the Selected Ion Monitoring (SIM) mode because a problem was encountered with ATL's low-level instrument establishing a curve for benzene. The helium analyses for the soil gas samples were performed using modified ASTM method D1946.

Summary

Data quality for this organic analysis was evaluated by reviewing the following parameters: holding times, GC/MS tuning and performance, internal standards, initial and continuing calibrations, continuing calibration verifications, surrogate recoveries, laboratory control standards (LCSs), laboratory blanks, laboratory duplicates, compound identification, and compound quantitation.

The Form 1s attached as Appendix A were revised to include the data validation qualifiers. All USEPA-defined data qualifiers and changes made by the data evaluators were added in red ink. A glossary of data qualifier definitions is included as Attachment 1. All samples were analyzed successfully and the results are useable with some qualification. Completeness of 100% was achieved for this data set.

Each specific issue of concern with respect to data usability is addressed below. Support documentation for data qualifications was included in Appendix B. Specific page references were provided in each item header for the supporting documentation.

Volatile Organic Compounds

a. Blank Contamination (pp. 0381-0383): Chloromethane and bromomethane were detected in the method blank (0703315-10A) at 0.14 ppbv and 0.18 ppbv, respectively. All samples were affected. All positive chloromethane and bromomethane results were less than five times the blank levels. The "B" qualifiers appended to the chloromethane and bromomethane results by ATL were changed to "U" qualifiers, as undetected, because of laboratory contamination.

b. Calibrations (pp. 0412-0422, 0431, 0738-0741, 0752-0754, 0764-0766): The March 20, 2007 initial calibration relative standard deviations (RSDs) for chloroethane and methylene chloride were greater than the 30% specification limit on instrument msd.g. All samples were affected. Results reported for chloroethane were nondetect. Validation action was not required in response to the calibration nonconformance. The positive methylene chloride results for samples IA2(07), IA3(07), SG1(07), IA1(07), and IA1(07) DUP were qualified "J," as estimated concentrations, because of the calibration nonconformance. The direction of bias cannot be determined.

   The continuing calibration verification (CCV) percent differences (%Ds) for chloroethane and 1, 3-butadiene were less than the lower quality control limit of -30% on March 23, 2007 at 12:02 hrs. on instrument msd.g. In addition, the percent recoveries for the CCV were less than the lower quality control limits for chloroethane and 1, 3-butadiene. All samples were affected. All chloroethane and 1,3-butadiene results were nondetect and were qualified "UJ," as estimates, because of low instrument bias.

c. Final Canister Pressure (p. 0923): The final vacuum measurement for sample IA1(07) was 0.0 " Hg upon receipt at ATL. The sampler cannot be certain that the desired sampling interval was achieved before the canister arrived at ambient conditions. Although the actual sampling interval is uncertain, the canister still contains sample from the site. Based on professional judgment, all positive and nondetect results for sample IA1(07) were qualified as estimates, "J/UJ," because the sampling interval was uncertain.

d. Laboratory Control Sample Recoveries (pp. 0783-0786): The LCS (0703315A-12A) recoveries for chloromethane, chloroethane, 1, 2, 4-trichlorobenzene, and 1, 3-butadiene were less than the lower quality control limit of 70%, but greater than 30%. All samples were affected. The results for chloroethane, 1, 2, 4-trichlorobenzene, and 1, 3-butadiene were nondetect and were qualified "UJ," as estimates, because the low method bias. The positive chloromethane results were qualified "U," as undetected because of laboratory contamination. No further data qualifications were required for the positive chloromethane results. The nondetect chloromethane results were qualified "UJ," as estimates, because the low method bias.

Helium Analysis

No data quality issues were noted. No data qualifications were required.

Field Duplicates

Field Duplicate Precision (pp. 0039-0041, 0058, 0069-0070, 0088, 0277-0279, 0316, 0326-0328, 0364): Samples SG2(07) / SG2(07) DUP and IA1(07) / IA1(07) DUP were the primary and field duplicate samples collected for this sampling event. No data qualifications are required based on the relative percent difference (RPD) of field duplicate sample data alone. However, the positive results are presented in the table below to evaluate precision and sample homogeneity. All RPDs were less than 25%. Overall, laboratory and field precision were acceptable. The difference between the primary and field duplicate results for acetone for samples SG2(07) and SG2(07) DUP was greater than the reporting limit. The acetone results for samples SG2(07) and SG2(07) DUP were qualified "J/UJ," as estimates, because of poor field sampling and/or laboratory precision and/or sample heterogeneity, based on professional judgment.

Field Duplicate Comparison
Orange and Rockland/Operations Center

Analyte	SG2(07) (ppbv)	SG2(07) DUP (ppbv)	%RPD	Qualifications
Freon 12	0.40	0.39	3	None
Freon 11	0.27	0.29	7	None
1,1,1-Trichloroethane	0.21	0.20	5	None
Toluene	0.27	0.26	4	None
Tetrachloroethene	7.3	7.1	3	None
Acetone	**0.80 UJ**	**3.0 J**	**NC**	**J/UJ**
Ethanol	1.2	1.0	18	None

Analyte	SG2(07) (%)	SG2(07) DUP (%)	%RPD	Qualifications
Helium	0.56	0.55	2	None

Field Duplicate Comparison (continued)
Orange and Rockland/Operations Center

Analyte	IA1(07) (ppbv)	IA1(07) DUP (ppbv)	%RPD	Qualifications
Freon 12	0.44 J	0.44	0	None
Freon 11	0.23 J	0.24	4	None
Methylene Chloride	0.26 J	0.28 J	7	None
Benzene	0.40 J	0.38	5	None
Toluene	1.3 J	1.3	0	None
Ethylbenzene	0.18 J	0.16	12	None
m,p-Xylene	0.57 J	0.56	2	None
o-Xylene	0.24 J	0.24	0	None
1,3,5-Trimethylbenzene	0.26 J	0.29	11	None
1,2,4- Trimethylbenzene	0.95 J	0.99	4	None
1,4-Dichlorobenzene	1.2 J	1.3	8	None
Acetone	5.8 J	5.3	9	None
4-Ethyltoluene	0.75 J	0.76 U [0.746 J]	1	None
Ethanol	44 J	44	0	None
Isopentane	1.1 J	1.2	9	None
2-Propanol	1.1 J	1.0	10	None

Notes

The laboratory indicated that no second source (i.e., independently traceable) standard was commercially available for propylene, 2-methylpentane, isopentane, 2,3-dimethylpentane, 2,2,4-trimethylpentane, indene, indan, and thiophene. These analytes were not spiked into the LCS sample.

Tentatively Identified Compounds (TICs) were identified by the laboratory and are included on the Form 1s.

The data were reviewed according to *USEPA Compendium Method TO-15, Determination of VOCs in Air Collected in Specially Prepared-Canisters and Analyzed by Gas Chromatography / Mass Spectrometry (GC/MS)*, January 1999, and with reference to *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, October 1999, document number EPA 540/R-99/008.

Attachments

Glossary of USEPA-defined data qualifier codes.

Appendices

1.0 Appendix A – Data Summary

2.0 Appendix B – Support Documentation

Attachment 1

Glossary of Data Qualifier Codes

Glossary of Data Qualifier Codes

U The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

R The data are unusable. The sample results are rejected due to serious deficiencies in the ability to meet quality control criteria. The presence or absence of the analyte cannot be verified.

N The analysis indicates the presence of an analyte for which there is presumptive evidence to make a tentative identification.

NJ The analysis indicates the presence of an analyte that has been tentatively identified and the associated numerical value represents its approximate concentration.

J The analyte was positively identified. The associated numerical value is the approximate concentration of the analyte in the sample.

UJ The analyte was analyzed for, but was not detected. The reported quantitation limit is approximated and may be inaccurate or imprecise.

Appendix B

Support Documentation

Air Toxics LTD.
AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 0703315A

Work Order Summary

CLIENT:	Mr. Jesse Lloyd The RETEC Group, Inc. 1001 W. Seneca St. Suite 204 Ithaca, NY 14850	**BILL TO:**	Mr. Scott Hauswirth The RETEC Group, Inc. 1001 W. Seneca St. Suite 204 Ithaca, NY 14850
PHONE:	607-277-5716	**P.O. #**	
FAX:		**PROJECT #**	ORAN2-20146 Port Jervis Oper. Cntr.
DATE RECEIVED:	03/14/2007	**CONTACT:**	Kelly Buettner
DATE COMPLETED:	03/29/2007		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.
01A	AMB1 (07)	Modified TO-15	3.5 "Hg
01B	AMB1 (07)	Modified TO-15	3.5 "Hg
02A	SG2 (07)	Modified TO-15	5.0 "Hg
02B	SG2 (07)	Modified TO-15	5.0 "Hg
03A	SG2 (07) DUP	Modified TO-15	3.0 "Hg
03B	SG2 (07) DUP	Modified TO-15	3.0 "Hg
04A	IA2 (07)	Modified TO-15	3.5 "Hg
04B	IA2 (07)	Modified TO-15	3.5 "Hg
05A	SG3 (07)	Modified TO-15	5.0 "Hg
05B	SG3 (07)	Modified TO-15	5.0 "Hg
06A	IA3 (07)	Modified TO-15	5.0 "Hg
06B	IA3 (07)	Modified TO-15	5.0 "Hg
07A	SG1 (07)	Modified TO-15	2.5 "Hg
07B	SG1 (07)	Modified TO-15	2.5 "Hg
08A	IA1 (07)	Modified TO-15	0.0 "Hg
08B	IA1 (07)	Modified TO-15	0.0 "Hg
09A	IA1 (07) DUP	Modified TO-15	3.5 "Hg

Continued on next page

Air Toxics LTD.
AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 0703315A

Work Order Summary

CLIENT:	Mr. Jesse Lloyd The RETEC Group, Inc. 1001 W. Seneca St. Suite 204 Ithaca, NY 14850	**BILL TO:**	Mr. Scott Hauswirth The RETEC Group, Inc. 1001 W. Seneca St. Suite 204 Ithaca, NY 14850
PHONE:	607-277-5716	**P.O. #**	
FAX:		**PROJECT #**	ORAN2-20146 Port Jervis Oper. Cntr.
DATE RECEIVED:	03/14/2007	**CONTACT:**	Kelly Buettner
DATE COMPLETED:	03/29/2007		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.
09B	IA1 (07) DUP	Modified TO-15	3.5 "Hg
10A	Lab Blank	Modified TO-15	NA
10B	Lab Blank	Modified TO-15	NA
10C	Lab Blank	Modified TO-15	NA
11A	CCV	Modified TO-15	NA
11B	CCV	Modified TO-15	NA
11C	CCV	Modified TO-15	NA
12A	LCS	Modified TO-15	NA
12B	LCS	Modified TO-15	NA
12C	LCS	Modified TO-15	NA

CERTIFIED BY: Linda D. Truman DATE: 03/29/07

Laboratory Director

Certfication numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/06, Expiration date: 06/30/07
Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

0002

LABORATORY NARRATIVE
Modified TO-15
The RETEC Group, Inc.
Workorder# 0703315A

Nine 6 Liter Summa Special (100% Certified) samples were received on March 14, 2007. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode. The method involves concentrating up to 1.0 liter of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

Method modifications taken to run these samples are summarized in the below table. Specific project requirements may over-ride the ATL modifications.

Requirement	*TO-15*	*ATL Modifications*
ICAL %RSD acceptance criteria	+- 30% RSD with 2 compounds allowed out to < 40% RSD	30% RSD with 4 compounds allowed out to < 40% RSD
Daily Calibration	+- 30% Difference	</= 30% Difference with four allowed out up to </=40%.; flag and narrate outliers
Blank and standards	Zero air	Nitrogen
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
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

Receiving Notes

Sample IA1 (07) arrived at ambient pressure yet flow controllers were used for sample collection. The discrepancy was noted in the Sample Receipt Confirmation email/fax.

Analytical Notes

The results for each sample in this report were acquired from two separate data files.

All Quality Control Limit failures 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.

Chloromethane and Bromomethane was detected in the laboratory blank analyzed on 03-23-2007 at less than 5X the reporting limit. Associated samples were flagged as indicated.

The reported CCV for each daily batch may be derived from more than one analytical file due to the client's request for non-standard compounds.

Non-standard compounds may have different acceptance criteria than the standard TO-14A/TO-15 compound list as per contract or verbal agreement.

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

Chain of Custody Record № 095

Receipt Var 3/16/07 0703315

The RETEC Group, Inc.
2560 Belmont Avenue • Eagleville, PA 19403-2331
(610) 650-8070 Phone • (610) 650-8001 Fax
www.retec.com

RETEC

0923

Project Name: Port Seneca Oper. Cntr.	Project Number: ORANZ-20196
Send Report To: James Edwards	Sampler (Print Name): Scott Haworth
Address: 1001 W. Seneca St Suite 204	Sampler (Print Name): Jesse Lloyd
Ithaca, NY 14850	Shipment Method: FedEx
Phone: 607-277-5716	Airbill Number:
Fax: 607-277-9057	Laboratory Receiving: ATL

Page 1 of 1

Purchase Order #:

	Field Sample ID		Sample Date	Sample Time	Start / End time	Can #	Number of Containers	Analysis Requested: TO-15 (on Full List) Helium	Comments, Special Instructions, etc. Pressure Start / End	Lab Sample ID (to be completed by lab)
01A	AMB1(07)	3.5"Hg	3/11/07	0825	1050	39449	X		-30.0 / -6.0	
02A	SG2(07)	5.0"Hg		0827	1122	05364	X X		-30+ / -5.5	
03A	SG2(07)Dup	3.0"Hg		0827	1122	34250	X X		-30+ / -5.0	
04A	IA2(07)	3.5"Hg		0828	1122	25308	X		-30+ / -5.0	
05A	SG3(07)	5.0"Hg		0830	1102	34502	X X		-29 / -5.0	
06A	IA3(07)	5.0"Hg		0832	1102	12011	X		-30+ / -6.0	
07A	SG1(07)	2.5"Hg		0838	1147	21017	X X		-32 / -6.0	
08A	IA1(07)	0.0"Hg		0839	0948	33527	X	No Helium ordered SMF 3/16/07	-32 / -4.5	
09A	IA1(07)Dup	3.5"Hg	↓	0839	1140	13860	X		-30 / -5.0	

FedEx 8576 1531 4439

CUSTODY SEAL INTACT? Y N NONE NOTED N/A

Do not Dilute without calling Retec First

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
	FedEx	3/12/07	0800
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
	T. LaFish - ATL	3/14/07	0910
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

Sample Custodian Remarks (Completed By Laboratory):

QA/QC Level		Turnaround		Sample Receipt	
Level I	☐	Routine	☒	Total # Containers Received?	
Level II	☐	24 Hour	☐	COC Seals Present?	
Level III	☐	1 Week	☐	COC Seals Intact?	
Other	☒	Other ____		Received Containers Intact?	
				Temperature?	

White: Lab Copy Yellow: PM Copy Pink: Field Copy Gold: PM/QA/QC Copy

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0703315A-10A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	g032306a	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	3/23/07 01:16 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.10	Not Detected	0.49	Not Detected
Freon 114	0.10	Not Detected	0.70	Not Detected
Chloromethane	0.10	0.14 x5 = 0.70	0.21	0.28
Vinyl Chloride	0.10	Not Detected	0.26	Not Detected
Bromomethane	0.10	0.18 x5 = 0.90	0.39	0.71
Chloroethane	0.10	Not Detected U J	0.26	Not Detected U J
Freon 11	0.10	Not Detected	0.56	Not Detected
1,1-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Freon 113	0.10	Not Detected	0.77	Not Detected
Methylene Chloride	0.10	Not Detected	0.35	Not Detected
1,1-Dichloroethane	0.10	Not Detected	0.40	Not Detected
cis-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Chloroform	0.10	Not Detected	0.49	Not Detected
1,1,1-Trichloroethane	0.10	Not Detected	0.54	Not Detected
Carbon Tetrachloride	0.10	Not Detected	0.63	Not Detected
1,2-Dichloroethane	0.10	Not Detected	0.40	Not Detected
Trichloroethene	0.10	Not Detected	0.54	Not Detected
1,2-Dichloropropane	0.10	Not Detected	0.46	Not Detected
cis-1,3-Dichloropropene	0.10	Not Detected	0.45	Not Detected
Toluene	0.10	Not Detected	0.38	Not Detected
trans-1,3-Dichloropropene	0.10	Not Detected	0.45	Not Detected
1,1,2-Trichloroethane	0.10	Not Detected	0.54	Not Detected
Tetrachloroethene	0.10	Not Detected	0.68	Not Detected
1,2-Dibromoethane (EDB)	0.10	Not Detected	0.77	Not Detected
Chlorobenzene	0.10	Not Detected	0.46	Not Detected
Ethyl Benzene	0.10	Not Detected	0.43	Not Detected
m,p-Xylene	0.10	Not Detected	0.43	Not Detected
o-Xylene	0.10	Not Detected	0.43	Not Detected
Styrene	0.10	Not Detected	0.42	Not Detected
1,1,2,2-Tetrachloroethane	0.10	Not Detected	0.69	Not Detected
1,3,5-Trimethylbenzene	0.10	Not Detected	0.49	Not Detected
1,2,4-Trimethylbenzene	0.10	Not Detected	0.49	Not Detected
1,3-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,4-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
alpha-Chlorotoluene	0.10	Not Detected	0.52	Not Detected
1,2-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,2,4-Trichlorobenzene	0.50	Not Detected	3.7	Not Detected
Hexachlorobutadiene	0.50	Not Detected	5.3	Not Detected
Propylene	0.50	Not Detected	0.86	Not Detected

0381

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0703315A-10A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name: g032306a Date of Collection: NA
Dil. Factor: 1.00 Date of Analysis: 3/23/07 01:16 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,3-Butadiene	0.50	Not Detected U J	1.1	Not Detected U J
Acetone	0.50	Not Detected	1.2	Not Detected
Carbon Disulfide	0.50	Not Detected	1.6	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.50	Not Detected	1.5	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected
1,4-Dioxane	0.50	Not Detected	1.8	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
2-Hexanone	0.50	Not Detected	2.0	Not Detected
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
Ethanol	0.50	Not Detected	0.94	Not Detected
Methyl tert-butyl ether	0.50	Not Detected	1.8	Not Detected
Heptane	0.50	Not Detected	2.0	Not Detected
Naphthalene	0.50	Not Detected	2.6	Not Detected
2-Methylpentane	0.50	Not Detected	1.8	Not Detected
Isopentane	0.50	Not Detected	1.5	Not Detected
2,3-Dimethylpentane	0.50	Not Detected	2.0	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Indene	0.50	Not Detected	2.4	Not Detected
Indan	0.50	Not Detected	2.4	Not Detected
Thiophene	0.50	Not Detected	1.7	Not Detected
2-Propanol	0.50	Not Detected	1.2	Not Detected

UJ = Non-detected compound associated with low bias in the CCV

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ppbv)
None Identified			

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	92	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0703315A-10A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	g032306a	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 3/23/07 01:16 PM	

Surrogates	%Recovery	Method Limits
4-Bromofluorobenzene	98	70-130
Toluene-d8	92	70-130

Air Toxics Ltd.

INITIAL CALIBRATION DATA

Start Cal Date : 21-FEB-2007 14:04
End Cal Date : 20-MAR-2007 18:54
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msdg.i/20Mar2007.b/t141221d.m
Cal Date : 21-Mar-2007 16:38 jgray
Curve Type : Average

Calibration File Names:
Level 5: /chem/msdg.i/20Mar2007.b/g032007.d
Level 6: /chem/msdg.i/20Mar2007.b/g032008.d
Level 7: /chem/msdg.i/20Mar2007.b/g032009.d
Level 8: /chem/msdg.i/20Mar2007.b/g032010.d
Level 9: /chem/msdg.i/21Feb2007.b/g022119a.d
Level 10: /chem/msdg.i/20Mar2007.b/g032013.d
Level 12: /chem/msdg.i/20Mar2007.b/g032004.d

Compound	0.10000 Level 5 / 5.000 Level 12	0.50000 Level 6	2.000 Level 7	10.000 Level 8	20.000 Level 9	40.000 Level 10	RRF	% RSD
176 Methyl Acetate	+++++ / 6.87191	5.34857	6.99627	7.32996	+++++	8.33842	6.97703	15.439
177 1,2-Dibromo-3-Chloroprene	+++++ / 0.41157	0.32269	0.36240	0.45082	+++++	0.56545	0.42259	22.114
178 1,2,3-Trichlorobenzene	+++++ / 0.95068	0.88776	0.91876	1.09383	+++++	1.33443	1.03709	17.740
2 Methylcyclohexane	+++++ / +++++	2.64097	2.71644	2.83323	2.74809	2.94082	2.77591	4.147
3 Freon 134a	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
4 Propylene	+++++ / +++++	1.28043	1.24997	1.35390	1.26870	1.29917	1.29043	3.079
5 Freon 152A	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

Air Toxics Ltd.

INITIAL CALIBRATION DATA

Start Cal Date : 21-FEB-2007 14:04
End Cal Date : 20-MAR-2007 18:54
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msdg.i/20Mar2007.b/t141221d.m
Cal Date : 21-Mar-2007 16:38 jgray
Curve Type : Average

Compound	0.10000 Level 5 / 5.000 Level 12	0.50000 Level 6	2.000 Level 7	10.000 Level 8	20.000 Level 9	40.000 Level 10	RRF	% RSD	
6 Dichlorodifluoromethane/Fr12	3.41360	3.08312	3.31460	3.26494	3.11517	3.14514	3.22276	4.015	
	+++++								
7 Freon 114	2.38608	2.30846	2.43915	2.45194	2.33896	2.42950	2.39235	2.441	
	+++++								
8 Chloromethane	2.21188	1.74300	1.63597	1.48883	1.38103	1.45518	1.65265	18.369	
	+++++								
9 Vinyl Chloride	1.62018	1.53617	1.65513	1.70658	1.62844	1.70237	1.64148	3.838	
	+++++								
10 1,3-Butadiene	1.96633	1.18639	1.28008	1.24548	1.18673	1.22956	1.34910	22.571	
	+++++								
11 Bromomethane	1.01209	0.91467	0.92697	1.16334	1.16477	1.20237	1.06403	12.104	
	+++++								
12 Freon 22	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
	+++++								
13 Chloroethane	1.06062	0.88905	0.71539	0.49664	0.48835	0.43723	0.68121	37.085	<-
	+++++								
174 2,4-Dimethylpentane	+++++	2.84153	3.60860	3.99540	+++++	4.28355	3.67647	14.726	
	3.65329								
14 Isopentane	+++++	1.26662	1.27728	1.47356	1.12689	0.82016	1.19290	20.302	
	+++++								

Air Toxics Ltd.

INITIAL CALIBRATION DATA

Start Cal Date : 21-FEB-2007 14:04
End Cal Date : 20-MAR-2007 18:54
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msdg.i/20Mar2007.b/t141221d.m
Cal Date : 21-Mar-2007 16:38 jgray
Curve Type : Average

Compound	0.10000 Level 5	0.50000 Level 6	2.000 Level 7	10.000 Level 8	20.000 Level 9	40.000 Level 10	RRF	% RSD
	5.000 Level 12							
15 Vinyl Bromide	+++++	0.93426	0.91106	0.91351	+++++	0.91190		
	0.89974						0.91409	1.370
16 Trichlorofluoromethane/Frl1	2.70170	2.72423	2.79153	2.86556	2.76419	2.71475		
	+++++						2.76033	2.226
17 Ethanol	+++++	0.48246	0.55634	0.48760	0.45135	0.45996		
	+++++						0.48754	8.475
18 1,1-Dichloroethene	0.89253	0.80169	0.72409	0.82178	0.80282	0.70051		
	+++++						0.79057	8.795
19 Freon 113	1.76481	1.88062	1.66017	1.95034	1.85842	1.66027		
	+++++						1.79577	6.716
20 Carbon Disulfide	+++++	4.68689	3.67316	4.33266	4.35224	3.55338		
	+++++						4.11967	11.775
21 Acetone	+++++	3.11208	2.60100	2.61415	2.47440	2.16591		
	+++++						2.59351	13.167
22 Acrolein	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
23 Pentane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
24 2-Propanol	+++++	2.57415	2.25102	2.57909	2.69384	2.17761		
	+++++						2.45514	9.225

Air Toxics Ltd.

INITIAL CALIBRATION DATA

Start Cal Date : 21-FEB-2007 14:04
End Cal Date : 20-MAR-2007 18:54
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msdg.i/20Mar2007.b/t141221d.m
Cal Date : 21-Mar-2007 16:38 jgray
Curve Type : Average

Compound	0.10000 Level 5	0.50000 Level 6	2.000 Level 7	10.000 Level 8	20.000 Level 9	40.000 Level 10	RRF	% RSD	
	5.000 Level 12								
25 3-Chloroprene	+++++	0.61746	0.42499	0.68477	0.69464	0.43513			
	+++++						0.57140	23.179	
26 2-Methylpentane	+++++	0.83036	1.14770	1.26979	+++++	1.41585			
	1.19371						1.17148	18.447	
27 Acetonitrile	+++++	2.31082	3.04035	3.06044	+++++	3.44123			
	2.91283						2.95313	13.875	
28 Methylene Chloride	1.59961	1.28653	0.67149	1.16778	1.17487	0.76613			
	+++++						1.11107	30.890	<-
29 MTBE	3.34739	3.31004	2.48250	3.71522	3.43283	3.62029			
	+++++						3.31805	13.215	
30 trans-1,2-Dichloroethene	0.87067	0.88905	0.50539	0.96450	0.88809	0.90636			
	+++++						0.83734	19.804	
31 Acrylonitrile	+++++	1.56693	1.27144	1.38443	+++++	1.64330			
	1.26550						1.42632	12.065	
32 Hexane	3.35960	2.77603	2.93339	3.02515	2.88771	3.08570			
	+++++						3.01126	6.703	
33 1,1-Dichloroethane	2.88329	2.77135	2.78830	3.01854	2.96530	3.08626			
	+++++						2.91884	4.339	
34 Chlorprene	+++++	2.70013	2.96986	3.19081	3.11636	3.42335			
	+++++						3.08010	8.710	

Air Toxics Ltd.

INITIAL CALIBRATION DATA

Start Cal Date : 21-FEB-2007 14:04
End Cal Date : 20-MAR-2007 18:54
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msdg.i/20Mar2007.b/t141221d.m
Cal Date : 21-Mar-2007 16:38 jgray
Curve Type : Average

Compound	0.10000 Level 5	0.50000 Level 6	2.000 Level 7	10.000 Level 8	20.000 Level 9	40.000 Level 10	RRF	% RSD
	5.000 Level 12							
35 Vinyl Acetate	+++++	4.20154	4.75108	5.01958	4.88731	5.15472		
	+++++						4.80284	7.666
36 cis-1,2-Dichloroethene	0.86296	0.88392	0.84368	0.89910	0.87292	0.90917		
	+++++						0.87863	2.731
37 2-Butanone	0.74790	0.63184	0.68067	0.72169	0.71655	0.75299		
	+++++						0.70861	6.443
169 Ethyl Acetate	+++++	4.32122	4.61012	5.08383	+++++	5.40935		
	4.76407						4.83772	8.717
38 Tetrahydrofuran	+++++	2.07307	2.17026	2.25153	2.13718	2.32474		
	+++++						2.19136	4.494
40 Chloroform	2.20770	2.23515	2.27373	2.44800	2.37313	2.48996		
	+++++						2.33795	4.992
41 Cyclohexane	2.02161	1.79660	1.95652	2.03273	2.00000	2.10776		
	+++++						1.98587	5.292
42 1,1,1-Trichloroethane	2.15403	1.96272	2.03905	2.19538	2.16096	2.31175		
	+++++						2.13732	5.722
43 2,3-Dimethylpentane	0.19505	0.18910	0.22749	0.24108	+++++	0.25673		
	0.23801						0.22458	11.991
44 Carbon Tetrachloride	1.87345	1.80956	1.86446	2.05631	2.00307	2.15003		
	+++++						1.95948	6.712

Air Toxics Ltd.

INITIAL CALIBRATION DATA

Start Cal Date : 21-FEB-2007 14:04
End Cal Date : 20-MAR-2007 18:54
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msdg.i/20Mar2007.b/t141221d.m
Cal Date : 21-Mar-2007 16:38 jgray
Curve Type : Average

Compound	0.10000 Level 5	0.50000 Level 6	2.000 Level 7	10.000 Level 8	20.000 Level 9	40.000 Level 10	5.000 Level 12	RRF	% RSD
45 2,2,4-Trimethylpentane	2.97392	2.68295	2.77361	3.02496	2.93674	3.11186	+++++	2.91734	5.497
46 Benzene	+++++	1.33309	1.10848	1.06453	1.08895	1.12035	+++++	1.14308	9.475
48 1,2-Dichloroethane	0.44144	0.43436	0.43251	0.45198	0.46366	0.46779	+++++	0.44862	3.336
49 Heptane	0.91011	0.80980	0.90963	0.92105	0.90092	0.96299	+++++	0.90242	5.587
50 Thiophene	+++++	0.51114	0.52408	0.54978	+++++	0.57936	0.53491	0.53986	4.863
52 Trichloroethene	0.38396	0.39533	0.39632	0.40969	0.41320	0.43011	+++++	0.40477	4.031
53 1,2-Dichloropropane	0.44474	0.40752	0.45507	0.46352	0.46869	0.48578	+++++	0.45422	5.877
54 1,4-Dioxane	0.17836	0.18600	0.19506	0.18803	0.19873	0.20203	+++++	0.19137	4.620
55 Bromodichloromethane	0.52646	0.51345	0.54115	0.56488	0.58058	0.59890	+++++	0.55424	5.934
56 cis-1,3-Dichloropropene	0.45690	0.47860	0.51938	0.52986	0.53701	0.55340	+++++	0.51253	7.229

Air Toxics Ltd.

INITIAL CALIBRATION DATA

Start Cal Date : 21-FEB-2007 14:04
End Cal Date : 20-MAR-2007 18:54
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msdg.i/20Mar2007.b/t141221d.m
Cal Date : 21-Mar-2007 16:38 jgray
Curve Type : Average

Compound	0.10000 Level 5	0.50000 Level 6	2.000 Level 7	10.000 Level 8	20.000 Level 9	40.000 Level 10	RRF	% RSD
	5.000 Level 12							
57 Octane	+++++	0.36155	0.44661	0.48027	+++++	0.49289		
	0.45691						0.44765	11.505
58 4-Methyl-2-pentanone	1.11363	0.96975	1.10875	1.07333	1.11336	1.13576		
	+++++						1.08577	5.554
60 Toluene	1.58984	1.18973	1.19063	1.17425	1.17279	1.20423		
	+++++						1.25358	13.174
61 trans-1,3-Dichloropropene	0.56855	0.59542	0.62723	0.65725	0.67948	0.69844		
	+++++						0.63773	7.839
62 1,3-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
63 1,1,2-Trichloroethane	0.42687	0.50356	0.48319	0.48453	0.49185	0.50471		
	+++++						0.48245	5.953
64 Tetrachloroethene	0.59820	0.61191	0.63358	0.63417	0.65854	0.68200		
	+++++						0.63640	4.788
65 1,2,3-Trichloropropane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
66 Dibromomethane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
67 2-Hexanone	+++++	0.62617	0.64383	0.61706	0.68000	0.71005		
	+++++						0.65542	5.933

Air Toxics Ltd.

INITIAL CALIBRATION DATA

Start Cal Date : 21-FEB-2007 14:04
End Cal Date : 20-MAR-2007 18:54
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msdg.i/20Mar2007.b/t14l221d.m
Cal Date : 21-Mar-2007 16:38 jgray
Curve Type : Average

Compound	0.10000 Level 5	0.50000 Level 6	2.000 Level 7	10.000 Level 8	20.000 Level 9	40.000 Level 10	RRF	% RSD
	5.000 Level 12							
68 Dibromochloromethane	0.58529	0.60102	0.63808	0.68699	0.73507	0.75777		
	+++++						0.66737	10.625
69 1,2-Dibromoethane	0.68291	0.67374	0.71079	0.70707	0.74046	0.73808		
	+++++						0.70884	3.872
70 p-Cymene	+++++	1.31222	1.74795	2.04050	+++++	2.36823		
	1.91266						1.87631	20.726
71 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
73 Chlorobenzene	1.08709	1.08902	1.12579	1.12528	1.15902	1.19134		
	+++++						1.12959	3.577
173 Nonane	+++++	1.18458	1.63534	1.87762	+++++	1.99081		
	1.85496						1.70866	18.728
74 Ethyl Benzene	0.57692	0.58586	0.61040	0.61509	0.63917	0.66814		
	+++++						0.61593	5.493
168 1,1,1,2-Tetrachloroethane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
75 m,p-Xylene	0.80614	0.73964	0.78488	0.77616	0.81241	0.85457		
	+++++						0.79563	4.866
76 1,3,5-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++

Air Toxics Ltd.

INITIAL CALIBRATION DATA

Start Cal Date : 21-FEB-2007 14:04
End Cal Date : 20-MAR-2007 18:54
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msdg.i/20Mar2007.b/t141221d.m
Cal Date : 21-Mar-2007 16:38 jgray
Curve Type : Average

Compound	0.10000 Level 5	0.50000 Level 6	2.000 Level 7	10.000 Level 8	20.000 Level 9	40.000 Level 10	RRF	% RSD
	5.000 Level 12							
77 o-Xylene	0.64338	0.64014	0.69149	0.69094	0.73273	0.75406		
	+++++						0.69212	6.641
78 Styrene	0.99482	1.02983	1.13233	1.14843	1.19310	1.26661		
	+++++						1.12752	8.980
79 Bromoform	0.47164	0.46241	0.50479	0.56410	0.62688	0.67349		
	+++++						0.55055	15.670
170 alpha-Pinene	+++++	0.76948	1.11236	1.26384	+++++	1.45728		
	1.24878						1.17035	21.838
80 Cumene	1.68700	1.74728	1.89980	1.88887	1.96758	2.06485		
	+++++						1.87590	7.428
82 1,1,2,2-Tetrachloroethane	0.80896	0.92810	0.97549	0.96104	1.01280	1.06714		
	+++++						0.95892	9.131
83 Propylbenzene	2.15340	2.11696	2.33749	2.23509	2.34593	2.40476		
	+++++						2.26561	5.094
84 4-Ethyltoluene	1.64556	1.77774	1.93569	1.87843	1.97908	2.09104		
	+++++						1.88459	8.314
172 2-Chlorotoluene	+++++	0.34559	0.43176	0.47289	+++++	0.54251		
	0.46779						0.45211	15.877
85 1,3,5-Trimethylbenzene	1.47291	1.50216	1.56700	1.60012	1.69634	1.75223		
	+++++						1.59846	6.810

Air Toxics Ltd.

INITIAL CALIBRATION DATA

Start Cal Date : 21-FEB-2007 14:04
End Cal Date : 20-MAR-2007 18:54
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msdg.i/20Mar2007.b/t141221d.m
Cal Date : 21-Mar-2007 16:38 jgray
Curve Type : Average

Compound	0.10000 Level 5 / 5.000 Level 12	0.50000 Level 6	2.000 Level 7	10.000 Level 8	20.000 Level 9	40.000 Level 10	RRF	% RSD
175 Decane	+++++ / 1.70093	1.12722	1.57242	1.76432	+++++	2.02760	1.63850	20.171
86 tert-Butylbenzene	+++++ / 1.55076	1.12067	1.49850	1.63589	+++++	1.89350	1.53986	18.132
87 1,2,4-Trimethylbenzene	1.39436 / +++++	1.45245	1.58731	1.57861	1.65810	1.71851	1.56489	7.811
88 sec-Butylbenzene	+++++ / 2.08133	1.50418	1.93841	2.19591	+++++	2.53396	2.05076	18.357
89 1,3-Dichlorobenzene	0.94722 / +++++	1.00674	1.07496	1.03371	1.09601	1.15019	1.05147	6.787
90 1,4-Dichlorobenzene	1.01176 / +++++	1.03613	1.08566	1.06376	1.11502	1.16809	1.08007	5.215
171 1,2,3-Trimethylbenzene	+++++ / 0.64428	0.44440	0.59468	0.66253	+++++	0.79076	0.62733	19.968
91 alpha-chlorotoluene	0.81955 / +++++	0.89327	1.00534	1.07372	1.18125	1.23964	1.03546	15.701
92 Indan	+++++ / 1.53125	1.09644	1.43411	1.60545	+++++	1.92699	1.51885	19.747
93 Butylbenzene	+++++ / 0.51934	0.36497	0.49965	0.55653	+++++	0.67086	0.52227	21.087

Air Toxics Ltd.

INITIAL CALIBRATION DATA

Start Cal Date : 21-FEB-2007 14:04
End Cal Date : 20-MAR-2007 18:54
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msdg.i/20Mar2007.b/t141221d.m
Cal Date : 21-Mar-2007 16:38 jgray
Curve Type : Average

Compound	0.10000 Level 5	0.50000 Level 6	2.000 Level 7	10.000 Level 8	20.000 Level 9	40.000 Level 10	RRF	% RSD
	5.000 Level 12							
94 1,2-Dichlorobenzene	0.76580	0.85729	0.94763	0.91924	0.97249	1.02720		
	+++++						0.91494	10.085
95 Indene	+++++	0.87269	1.15862	1.39287	+++++	1.66514		
	1.28932						1.27573	22.911
96 1,2,4-Trichlorobenzene	+++++	0.91854	1.07549	0.83765	0.94251	1.09309		
	+++++						0.97346	11.152
97 Hexachlorobutadiene	+++++	0.47974	0.53587	0.46388	0.51153	0.60794		
	+++++						0.51979	10.894
98 Naphthalene	+++++	2.57405	2.76453	2.92158	3.26508	3.61116		
	+++++						3.02728	13.651
$ 47 1,2-Dichloroethane-d4	1.34928	1.39590	1.34194	1.42677	1.43407	1.51527		
	+++++						1.41054	4.535
$ 59 Toluene-d8	0.99460	0.97818	1.00270	1.01166	0.99655	0.99332		
	+++++						0.99617	1.115
$ 81 Bromofluorobenzene	0.48900	0.49921	0.51208	0.52723	0.52204	0.51220		
	+++++						0.51029	2.782

Initial Calibration Narrative

An initial calibration curve was analyzed on 02/21/07 on MSD-G. The instrument was set up to do Full Scan and Selective Ion Monitoring (SIM) simultaneously.

A five point initial calibration curve was analyzed on 03/20/07 for Full Scan (Low Level). Level 10 (40ppbv) was re-analyzed to confirm co-elution of Acetonitrile with 2-Methylpentane. The reported result for Acetonitrile in samples may be biased high due to co-elution with 2-Methylpentane, which has similar characteristic ions. Both the primary and secondary ion for Acetonitrile exhibited potential interference.

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: CCV

Lab ID#: 0703315A-11A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	g032305	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	3/23/07 12:02 PM

Compound	%Recovery
Freon 12	75
Freon 114	89
Chloromethane	73
Vinyl Chloride	74
Bromomethane	83
Chloroethane	60 Q
Freon 11	88
1,1-Dichloroethene	101
Freon 113	101
Methylene Chloride	104
1,1-Dichloroethane	102
cis-1,2-Dichloroethene	107
Chloroform	108
1,1,1-Trichloroethane	98
Carbon Tetrachloride	103
1,2-Dichloroethane	88
Trichloroethene	100
1,2-Dichloropropane	100
cis-1,3-Dichloropropene	95
Toluene	90
trans-1,3-Dichloropropene	101
1,1,2-Trichloroethane	104
Tetrachloroethene	105
1,2-Dibromoethane (EDB)	102
Chlorobenzene	104
Ethyl Benzene	104
m,p-Xylene	99
o-Xylene	103
Styrene	107
1,1,2,2-Tetrachloroethane	111
1,3,5-Trimethylbenzene	102
1,2,4-Trimethylbenzene	101
1,3-Dichlorobenzene	102
1,4-Dichlorobenzene	102
alpha-Chlorotoluene	123
1,2-Dichlorobenzene	104
1,2,4-Trichlorobenzene	78
Hexachlorobutadiene	96
Propylene	75

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Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: CCV

Lab ID#: 0703315A-11A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	g032305	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	3/23/07 12:02 PM

Compound	%Recovery
1,3-Butadiene	69 Q
Acetone	89
Carbon Disulfide	96
trans-1,2-Dichloroethene	117
2-Butanone (Methyl Ethyl Ketone)	112
Hexane	96
Tetrahydrofuran	105
Cyclohexane	104
1,4-Dioxane	114
Bromodichloromethane	95
4-Methyl-2-pentanone	90
2-Hexanone	103
Dibromochloromethane	106
Bromoform	109
4-Ethyltoluene	109
Ethanol	83
Methyl tert-butyl ether	96
Heptane	92
Naphthalene	90
2-Methylpentane	108
Isopentane	72
2,3-Dimethylpentane	100
2,2,4-Trimethylpentane	107
Indene	94
Indan	96
Thiophene	96
2-Propanol	94

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	91	70-130
4-Bromofluorobenzene	100	70-130
Toluene-d8	98	70-130

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Air Toxics Ltd.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msdg.i
Lab File ID: g032305.d
Analysis Type: AIR
Lab Sample ID: CCV-1
Method: /chem/msdg.i/23Mar2007.b/t141221d.m

Injection Date: 23-MAR-2007 12:02
Init. Cal. Date(s): 21-FEB-2007 20-MAR-2007
Init. Cal. Times: 14:04 18:54
Quant Type: ISTD

	COMPOUND	RRF / AMOUNT	RF10	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
$	47 1,2-Dichloroethane-d4	1.41054	1.28695	0.010	8.76189	30.00000	Averaged	
$	59 Toluene-d8	0.99617	0.98205	0.010	1.41700	30.00000	Averaged	
$	81 Bromofluorobenzene	0.51029	0.50899	0.010	0.25466	30.00000	Averaged	
	4 Propylene	1.29043	0.97241	0.010	24.64476	30.00000	Averaged	
	6 Dichlorodifluoromethane/Fr1	3.22276	2.42726	0.010	24.68374	30.00000	Averaged	
	7 Freon 114	2.39235	2.12849	0.010	11.02913	30.00000	Averaged	
	8 Chloromethane	1.65265	1.21323	0.010	26.58898	30.00000	Averaged	
	9 Vinyl Chloride	1.64148	1.21458	0.010	26.00692	30.00000	Averaged	
	10 1,3-Butadiene	1.34910	0.93096	0.010	30.99345	30.00000	Averaged	<-
	11 Bromomethane	1.06403	0.88710	0.010	16.62911	30.00000	Averaged	
	13 Chloroethane	0.68121	0.40617	0.010	40.37551	30.00000	Averaged	<-
	16 Trichlorofluoromethane/Fr11	2.76033	2.41583	0.010	12.48035	30.00000	Averaged	
	17 Ethanol	0.48754	0.40297	0.010	17.34625	30.00000	Averaged	
	19 Freon 113	1.79577	1.81142	0.010	-0.87117	30.00000	Averaged	
	18 1,1-Dichloroethene	0.79057	0.80054	0.010	-1.26130	30.00000	Averaged	
	21 Acetone	2.59351	2.31854	0.010	10.60210	30.00000	Averaged	
	24 2-Propanol	2.45514	2.31365	0.010	5.76325	30.00000	Averaged	
	20 Carbon Disulfide	4.11967	3.97781	0.010	3.44334	30.00000	Averaged	
	25 3-Chloroprene	0.57140	0.65368	0.010	-14.40005	30.00000	Averaged	
	28 Methylene Chloride	1.11107	1.15488	0.010	-3.94307	30.00000	Averaged	
	29 MTBE	3.31805	3.17937	0.010	4.17937	30.00000	Averaged	
	30 trans-1,2-Dichloroethene	0.83734	0.97739	0.010	-16.72513	30.00000	Averaged	
	32 Hexane	3.01126	2.88542	0.010	4.17929	30.00000	Averaged	
	33 1,1-Dichloroethane	2.91884	2.97592	0.010	-1.95560	30.00000	Averaged	
	35 Vinyl Acetate	4.80284	4.57639	0.010	4.71492	30.00000	Averaged	
	37 2-Butanone	0.70861	0.79408	0.010	-12.06292	30.00000	Averaged	
	36 cis-1,2-Dichloroethene	0.87863	0.93716	0.010	-6.66249	30.00000	Averaged	
	38 Tetrahydrofuran	2.19136	2.29320	0.010	-4.64754	30.00000	Averaged	
	40 Chloroform	2.33795	2.51927	0.010	-7.75550	30.00000	Averaged	
	42 1,1,1-Trichloroethane	2.13732	2.08905	0.010	2.25836	30.00000	Averaged	
	41 Cyclohexane	1.98587	2.07201	0.010	-4.33760	30.00000	Averaged	
	44 Carbon Tetrachloride	1.95948	2.01901	0.010	-3.03838	30.00000	Averaged	
	45 2,2,4-Trimethylpentane	2.91734	3.11782	0.010	-6.87182	30.00000	Averaged	
	46 Benzene	1.14308	1.04561	0.010	8.52670	30.00000	Averaged	
	48 1,2-Dichloroethane	0.44862	0.39304	0.010	12.38977	30.00000	Averaged	

Air Toxics Ltd.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msdg.i Injection Date: 23-MAR-2007 12:02
Lab File ID: g032305.d Init. Cal. Date(s): 21-FEB-2007 20-MAR-2007
Analysis Type: AIR Init. Cal. Times: 14:04 18:54
Lab Sample ID: CCV-1 Quant Type: ISTD
Method: /chem/msdg.i/23Mar2007.b/t141221d.m

	COMPOUND	RRF / AMOUNT	RF10	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
49	Heptane	0.90242	0.82988	0.010	8.03830	30.00000	Averaged
52	Trichloroethene	0.40477	0.40337	0.010	0.34602	30.00000	Averaged
53	1,2-Dichloropropane	0.45422	0.45251	0.010	0.37665	30.00000	Averaged
54	1,4-Dioxane	0.19137	0.21773	0.010	-13.77654	30.00000	Averaged
55	Bromodichloromethane	0.55424	0.52841	0.010	4.66000	30.00000	Averaged
56	cis-1,3-Dichloropropene	0.51253	0.48921	0.010	4.54974	30.00000	Averaged
58	4-Methyl-2-pentanone	1.08577	0.97799	0.010	9.92615	30.00000	Averaged
60	Toluene	1.25358	1.12539	0.010	10.22582	30.00000	Averaged
61	trans-1,3-Dichloropropene	0.63773	0.64228	0.010	-0.71289	30.00000	Averaged
63	1,1,2-Trichloroethane	0.48245	0.49998	0.010	-3.63232	30.00000	Averaged
64	Tetrachloroethene	0.63640	0.66701	0.010	-4.80988	30.00000	Averaged
67	2-Hexanone	0.65542	0.67773	0.010	-3.40295	30.00000	Averaged
68	Dibromochloromethane	0.66737	0.70963	0.010	-6.33262	30.00000	Averaged
69	1,2-Dibromoethane	0.70884	0.72637	0.010	-2.47308	30.00000	Averaged
73	Chlorobenzene	1.12959	1.17036	0.010	-3.60924	30.00000	Averaged
74	Ethyl Benzene	0.61593	0.64263	0.010	-4.33432	30.00000	Averaged
75	m,p-Xylene	0.79563	0.78786	0.010	0.97707	30.00000	Averaged
77	o-Xylene	0.69212	0.71628	0.010	-3.49000	30.00000	Averaged
78	Styrene	1.12752	1.20781	0.010	-7.12075	30.00000	Averaged
79	Bromoform	0.55055	0.60162	0.010	-9.27650	30.00000	Averaged
80	Cumene	1.87590	1.96121	0.010	-4.54811	30.00000	Averaged
82	1,1,2,2-Tetrachloroethane	0.95892	1.06088	0.010	-10.63248	30.00000	Averaged
83	Propylbenzene	2.26561	2.42427	0.010	-7.00337	30.00000	Averaged
84	4-Ethyltoluene	1.88459	2.06050	0.010	-9.33403	30.00000	Averaged
85	1,3,5-Trimethylbenzene	1.59846	1.63616	0.010	-2.35850	30.00000	Averaged
87	1,2,4-Trimethylbenzene	1.56489	1.57531	0.010	-0.66611	30.00000	Averaged
89	1,3-Dichlorobenzene	1.05147	1.07691	0.010	-2.41911	30.00000	Averaged
90	1,4-Dichlorobenzene	1.08007	1.10672	0.010	-2.46701	30.00000	Averaged
91	alpha-chlorotoluene	1.03546	1.27731	0.010	-23.35679	30.00000	Averaged
94	1,2-Dichlorobenzene	0.91494	0.95451	0.010	-4.32510	30.00000	Averaged
96	1,2,4-Trichlorobenzene	0.97346	0.75558	0.010	22.38170	30.00000	Averaged
97	Hexachlorobutadiene	0.51979	0.50135	0.010	3.54858	30.00000	Averaged
98	Naphthalene	3.02728	2.73365	0.010	9.69947	30.00000	Averaged
14	Isopentane	1.19290	0.85329	0.010	28.46897	30.00000	Averaged

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: CCV

Lab ID#: 0703315A-11B

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	60327O2	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	3/27/07 09:44 AM

Compound	%Recovery
Benzene	75

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	110	70-130

Air Toxics Ltd.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msd6.i
Lab File ID: 6032702.d
Analysis Type: AIR
Lab Sample ID: CCV
Method: /var/chem/msd6.i/6-27mar.b/t14s0117a.m

Injection Date: 27-MAR-2007 09:44
Init. Cal. Date(s): 17-JAN-2007 18-JAN-2007
Init. Cal. Times: 18:42 03:41
Quant Type: ISTD

	COMPOUND	RRF / AMOUNT	RF10	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
$	37 1,2-Dichloroethane-d4	2.77005	2.99149	0.010	-7.99418	30.00000	Averaged	
$	47 Toluene-d8	0.91403	0.89108	0.010	2.51054	30.00000	Averaged	
$	63 Bromofluorobenzene	0.57716	0.63375	0.010	-9.80418	30.00000	Averaged	
	2 Dichlorodifluoromethane/Frl	5.55601	4.86444	0.010	12.44716	30.00000	Averaged	
	3 Freon 114	4.07295	3.38782	0.010	16.82144	30.00000	Averaged	
	4 Chloromethane	1.62628	0.97443	0.010	40.08267	30.00000	Averaged	<-
	5 Vinyl Chloride	1.47831	1.06706	0.010	27.81930	30.00000	Averaged	
	6 1,3-Butadiene	1.50488	1.47747	0.010	1.82146	30.00000	Averaged	
	9 Bromomethane	1.04121	0.83257	0.010	20.03830	30.00000	Averaged	
	10 Chloroethane	0.62610	0.48445	0.010	22.62454	30.00000	Averaged	
	11 Trichlorofluoromethane/Frl1	7.56990	7.76422	0.010	-2.56711	30.00000	Averaged	
	14 1,1-Dichloroethene	1.13171	0.88157	0.010	22.10234	30.00000	Averaged	
	13 Freon 113	3.39729	2.82208	0.010	16.93137	30.00000	Averaged	
	17 Acetone	4.75795	4.00989	0.010	15.72238	30.00000	Averaged	
	18 Carbon Disulfide	4.47259	3.76422	0.010	15.83794	30.00000	Averaged	
	20 Methylene Chloride	1.28689	0.77925	0.010	39.44731	30.00000	Averaged	<-
	23 trans-1,2-Dichloroethene	1.25273	1.02314	0.010	18.32752	30.00000	Averaged	
	22 MTBE	6.15156	5.34371	0.010	13.13245	30.00000	Averaged	
	24 Hexane	2.92720	2.42550	0.010	17.13923	30.00000	Averaged	
	25 1,1-Dichloroethane	3.84611	3.24224	0.010	15.70070	30.00000	Averaged	
	31 2-Butanone	0.67674	0.57134	0.010	15.57558	30.00000	Averaged	
	30 cis-1,2-Dichloroethene	1.25741	0.93868	0.010	25.34831	30.00000	Averaged	
	33 Chloroform	5.20247	4.53038	0.010	12.91861	30.00000	Averaged	
	34 1,1,1-Trichloroethane	6.30925	6.02599	0.010	4.48953	30.00000	Averaged	
	35 Carbon Tetrachloride	5.10330	5.38212	0.010	-5.46354	30.00000	Averaged	
	38 1,2-Dichloroethane	0.99365	1.07026	0.010	-7.71049	30.00000	Averaged	
	36 Benzene	1.15743	0.86935	0.010	24.88956	30.00000	Averaged	
	39 Heptane	0.87132	0.78708	0.010	9.66793	30.00000	Averaged	
	41 Trichloroethene	0.55213	0.48428	0.010	12.28919	30.00000	Averaged	
	42 1,2-Dichloropropane	0.38208	0.32879	0.010	13.94626	30.00000	Averaged	
	43 1,4-Dioxane	0.24787	0.18266	0.010	26.30727	30.00000	Averaged	
	44 Bromodichloromethane	1.27247	1.21230	0.010	4.72867	30.00000	Averaged	
	45 cis-1,3-Dichloropropene	0.66423	0.62225	0.010	6.32015	30.00000	Averaged	
	46 4-Methyl-2-pentanone	1.23044	1.01896	0.010	17.18788	30.00000	Averaged	
	48 Toluene	1.29676	1.07034	0.010	17.46019	30.00000	Averaged	

Air Toxics Ltd.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msd6.i Injection Date: 27-MAR-2007 09:44
Lab File ID: 6032702.d Init. Cal. Date(s): 17-JAN-2007 18-JAN-2007
Analysis Type: AIR Init. Cal. Times: 18:42 03:41
Lab Sample ID: CCV Quant Type: ISTD
Method: /var/chem/msd6.i/6-27mar.b/t14s0117a.m

COMPOUND	RRF / AMOUNT	RF10	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
49 trans-1,3-Dichloropropene	0.96285	0.99769	0.010	-3.61892	30.00000	Averaged
50 1,1,2-Trichloroethane	0.66057	0.53632	0.010	18.81004	30.00000	Averaged
52 2-Hexanone	1.57745	1.26482	0.010	19.81849	30.00000	Averaged
51 Tetrachloroethene	1.06111	0.97150	0.010	8.44560	30.00000	Averaged
53 Dibromochloromethane	1.29410	1.24471	0.010	3.81666	30.00000	Averaged
54 1,2-Dibromoethane	1.07456	1.02267	0.010	4.82944	30.00000	Averaged
57 Chlorobenzene	1.64415	1.35854	0.010	17.37157	30.00000	Averaged
58 Ethyl Benzene	0.76189	0.68489	0.010	10.10617	30.00000	Averaged
59 m,p-Xylene	0.93238	0.85820	0.010	7.95543	30.00000	Averaged
60 o-Xylene	0.85337	0.77491	0.010	9.19459	30.00000	Averaged
61 Styrene	1.21971	1.22381	0.010	-0.33578	30.00000	Averaged
62 Bromoform	1.09018	0.99567	0.010	8.66935	30.00000	Averaged
64 1,1,2,2-Tetrachloroethane	0.82933	0.64492	0.010	22.23584	30.00000	Averaged
65 4-Ethyltoluene	2.86927	2.30779	0.010	19.56883	30.00000	Averaged
67 1,3,5-Trimethylbenzene	2.04882	1.90349	0.010	7.09313	30.00000	Averaged
68 1,2,4-Trimethylbenzene	1.74956	1.53551	0.010	12.23436	30.00000	Averaged
70 1,3-Dichlorobenzene	0.88747	0.74277	0.010	16.30474	30.00000	Averaged
71 1,4-Dichlorobenzene	0.86608	0.73967	0.010	14.59566	30.00000	Averaged
72 alpha-Chlorotoluene	1.09140	0.91087	0.010	16.54138	30.00000	Averaged
73 1,2-Dichlorobenzene	0.69262	0.55180	0.010	20.33194	30.00000	Averaged
74 1,2,4-Trichlorobenzene	0.07699	0.08107	0.010	-5.29972	30.00000	Averaged
75 Hexachlorobutadiene	0.16195	0.14490	0.010	10.52546	30.00000	Averaged

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: CCV

Lab ID#: 0703315A-11C

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	6032802	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 3/28/07 05:46 AM	

Compound	%Recovery
Benzene	78

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	111	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	111	70-130

Air Toxics Ltd.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msd6.i
Lab File ID: 6032802.d
Analysis Type: AIR
Lab Sample ID: CCV
Method: /var/chem/msd6.i/6-28mar.b/t14s0117a.m

Injection Date: 28-MAR-2007 05:46
Init. Cal. Date(s): 17-JAN-2007 18-JAN-2007
Init. Cal. Times: 18:42 03:41
Quant Type: ISTD

	COMPOUND	RRF / AMOUNT	RF10	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
$	37 1,2-Dichloroethane-d4	2.77005	3.07259	0.010	-10.92173	30.00000	Averaged	
$	47 Toluene-d8	0.91403	0.90985	0.010	0.45715	30.00000	Averaged	
$	63 Bromofluorobenzene	0.57716	0.64188	0.010	-11.21317	30.00000	Averaged	
	2 Dichlorodifluoromethane/Frl	5.55601	4.97558	0.010	10.44695	30.00000	Averaged	
	3 Freon 114	4.07295	3.47326	0.010	14.72359	30.00000	Averaged	
	4 Chloromethane	1.62628	0.97090	0.010	40.29928	30.00000	Averaged	<-
	5 Vinyl Chloride	1.47831	1.02099	0.010	30.93567	30.00000	Averaged	<-
	6 1,3-Butadiene	1.50488	1.46551	0.010	2.61632	30.00000	Averaged	
	9 Bromomethane	1.04121	0.80352	0.010	22.82792	30.00000	Averaged	
	10 Chloroethane	0.62610	0.48629	0.010	22.33009	30.00000	Averaged	
	11 Trichlorofluoromethane/Frll	7.56990	8.11178	0.010	-7.15837	30.00000	Averaged	
	14 1,1-Dichloroethene	1.13171	0.86619	0.010	23.46176	30.00000	Averaged	
	13 Freon 113	3.39729	2.85447	0.010	15.97805	30.00000	Averaged	
	17 Acetone	4.75795	4.11003	0.010	13.61757	30.00000	Averaged	
	18 Carbon Disulfide	4.47259	3.70589	0.010	17.14222	30.00000	Averaged	
	20 Methylene Chloride	1.28689	0.91452	0.010	28.93561	30.00000	Averaged	
	23 trans-1,2-Dichloroethene	1.25273	1.02252	0.010	18.37699	30.00000	Averaged	
	22 MTBE	6.15156	5.37792	0.010	12.57627	30.00000	Averaged	
	24 Hexane	2.92720	2.36790	0.010	19.10704	30.00000	Averaged	
	25 1,1-Dichloroethane	3.84611	3.29244	0.010	14.39547	30.00000	Averaged	
	31 2-Butanone	0.67674	0.56246	0.010	16.88688	30.00000	Averaged	
	30 cis-1,2-Dichloroethene	1.25741	0.91762	0.010	27.02330	30.00000	Averaged	
	33 Chloroform	5.20247	4.59584	0.010	11.66041	30.00000	Averaged	
	34 1,1,1-Trichloroethane	6.30925	6.31641	0.010	-0.11358	30.00000	Averaged	
	35 Carbon Tetrachloride	5.10330	5.69237	0.010	-11.54296	30.00000	Averaged	
	38 1,2-Dichloroethane	0.99365	1.16576	0.010	-17.32154	30.00000	Averaged	
	36 Benzene	1.15743	0.90089	0.010	22.16472	30.00000	Averaged	
	39 Heptane	0.87132	0.81803	0.010	6.11645	30.00000	Averaged	
	41 Trichloroethene	0.55213	0.48773	0.010	11.66282	30.00000	Averaged	
	42 1,2-Dichloropropane	0.38208	0.32813	0.010	14.11882	30.00000	Averaged	
	43 1,4-Dioxane	0.24787	0.20347	0.010	17.91143	30.00000	Averaged	
	44 Bromodichloromethane	1.27247	1.26922	0.010	0.25479	30.00000	Averaged	
	45 cis-1,3-Dichloropropene	0.66423	0.62410	0.010	6.04112	30.00000	Averaged	
	46 4-Methyl-2-pentanone	1.23044	1.15672	0.010	5.99143	30.00000	Averaged	
	48 Toluene	1.29676	1.09528	0.010	15.53731	30.00000	Averaged	

Air Toxics Ltd.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msd6.i Injection Date: 28-MAR-2007 05:46
Lab File ID: 6032802.d Init. Cal. Date(s): 17-JAN-2007 18-JAN-2007
Analysis Type: AIR Init. Cal. Times: 18:42 03:41
Lab Sample ID: CCV Quant Type: ISTD
Method: /var/chem/msd6.i/6-28mar.b/t14s0117a.m

	COMPOUND	RRF / AMOUNT	RF10	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
49	trans-1,3-Dichloropropene	0.96285	0.98031	0.010	-1.81295	30.00000	Averaged
50	1,1,2-Trichloroethane	0.66057	0.53928	0.010	18.36091	30.00000	Averaged
52	2-Hexanone	1.57745	1.49468	0.010	5.24690	30.00000	Averaged
51	Tetrachloroethene	1.06111	0.94145	0.010	11.27682	30.00000	Averaged
53	Dibromochloromethane	1.29410	1.32110	0.010	-2.08643	30.00000	Averaged
54	1,2-Dibromoethane	1.07456	1.03096	0.010	4.05774	30.00000	Averaged
57	Chlorobenzene	1.64415	1.34302	0.010	18.31511	30.00000	Averaged
58	Ethyl Benzene	0.76189	0.67503	0.010	11.40121	30.00000	Averaged
59	m,p-Xylene	0.93238	0.84988	0.010	8.84763	30.00000	Averaged
60	o-Xylene	0.85337	0.76247	0.010	10.65185	30.00000	Averaged
61	Styrene	1.21971	1.21577	0.010	0.32262	30.00000	Averaged
62	Bromoform	1.09018	1.03284	0.010	5.25927	30.00000	Averaged
64	1,1,2,2-Tetrachloroethane	0.82933	0.71059	0.010	14.31740	30.00000	Averaged
65	4-Ethyltoluene	2.86927	2.45408	0.010	14.47016	30.00000	Averaged
67	1,3,5-Trimethylbenzene	2.04882	2.05738	0.010	-0.41802	30.00000	Averaged
68	1,2,4-Trimethylbenzene	1.74956	1.69422	0.010	3.16306	30.00000	Averaged
70	1,3-Dichlorobenzene	0.88747	0.82596	0.010	6.93037	30.00000	Averaged
71	1,4-Dichlorobenzene	0.86608	0.82333	0.010	4.93639	30.00000	Averaged
72	alpha-Chlorotoluene	1.09140	1.06177	0.010	2.71552	30.00000	Averaged
73	1,2-Dichlorobenzene	0.69262	0.62224	0.010	10.16112	30.00000	Averaged
74	1,2,4-Trichlorobenzene	0.07699	0.07296	0.010	5.23885	30.00000	Averaged
75	Hexachlorobutadiene	0.16195	0.19143	0.010	-18.20502	30.00000	Averaged

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0703315A-12A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	032303	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 3/23/07 10:25 AM	

Compound	%Recovery
Freon 12	72
Freon 114	80
Chloromethane	65 Q
Vinyl Chloride	71
Bromomethane	85
Chloroethane	58 Q
Freon 11	85
1,1-Dichloroethene	106
Freon 113	107
Methylene Chloride	108
1,1-Dichloroethane	103
cis-1,2-Dichloroethene	104
Chloroform	104
1,1,1-Trichloroethane	95
Carbon Tetrachloride	99
1,2-Dichloroethane	88
Trichloroethene	99
1,2-Dichloropropane	99
cis-1,3-Dichloropropene	95
Toluene	95
trans-1,3-Dichloropropene	98
1,1,2-Trichloroethane	104
Tetrachloroethene	105
1,2-Dibromoethane (EDB)	99
Chlorobenzene	100
Ethyl Benzene	99
m,p-Xylene	96
o-Xylene	102
Styrene	101
1,1,2,2-Tetrachloroethane	108
1,3,5-Trimethylbenzene	97
1,2,4-Trimethylbenzene	95
1,3-Dichlorobenzene	97
1,4-Dichlorobenzene	93
alpha-Chlorotoluene	107
1,2-Dichlorobenzene	99
1,2,4-Trichlorobenzene	66 Q
Hexachlorobutadiene	91
Propylene	Not Spiked

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0703315A-12A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	g032303	**Date of Collection: NA**	
Dil. Factor:	1.00	**Date of Analysis: 3/23/07 10:25 AM**	

Compound	%Recovery
1,3-Butadiene	64
Acetone	101
Carbon Disulfide	91
trans-1,2-Dichloroethene	112
2-Butanone (Methyl Ethyl Ketone)	108
Hexane	92
Tetrahydrofuran	100
Cyclohexane	100
1,4-Dioxane	103
Bromodichloromethane	97
4-Methyl-2-pentanone	88
2-Hexanone	99
Dibromochloromethane	105
Bromoform	110
4-Ethyltoluene	104
Ethanol	82
Methyl tert-butyl ether	90
Heptane	92
Naphthalene	72
2-Methylpentane	Not Spiked
Isopentane	Not Spiked
2,3-Dimethylpentane	Not Spiked
2,2,4-Trimethylpentane	Not Spiked
Indene	Not Spiked
Indan	Not Spiked
Thiophene	Not Spiked
2-Propanol	92

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	91	70-130
4-Bromofluorobenzene	100	70-130
Toluene-d8	96	70-130

0784

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: 23Mar2007
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: LCS-1 Client Smp ID: LCS-1
Level: LOW Operator: JG
Data Type: MS DATA SampleType: LCS
SpikeList File: Spectra.spk Quant Type: ISTD
Sublist File: AT06.sub
Method File: /chem/msdg.i/23Mar2007.b/t141221d.m
Misc Info: 25ppbv-10ppbv

SPIKE	COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
6	Dichlorodifluorome	10.000	7.224	72.24	70-130
7	Freon 114	10.000	7.981	79.81	70-130
8	Chloromethane	10.000	6.511	65.11*	70-130
9	Vinyl Chloride	10.000	7.146	71.46	70-130
10	1,3-Butadiene	10.000	6.366	63.66	60-140
11	Bromomethane	10.000	8.478	84.78	70-130
13	Chloroethane	10.000	5.812	58.12*	70-130
16	Trichlorofluoromet	10.000	8.525	85.25	70-130
17	Ethanol	10.000	8.242	82.42	70-130
19	Freon 113	10.000	10.672	106.72	70-130
18	1,1-Dichloroethene	10.000	10.621	106.21	70-130
21	Acetone	10.000	10.110	101.10	70-130
20	Carbon Disulfide	10.000	9.149	91.49	70-130
24	2-Propanol	10.000	9.224	92.24	60-140
28	Methylene Chloride	10.000	10.782	107.82	70-130
29	MTBE	10.000	9.044	90.44	70-130
30	trans-1,2-Dichloro	10.000	11.259	112.59	70-130
32	Hexane	10.000	9.239	92.39	70-130
33	1,1-Dichloroethane	10.000	10.279	102.79	70-130
36	cis-1,2-Dichloroet	10.000	10.361	103.61	70-130
37	2-Butanone	10.000	10.798	107.98	70-130
38	Tetrahydrofuran	10.000	10.029	100.29	70-130
40	Chloroform	10.000	10.417	104.17	70-130
41	Cyclohexane	10.000	9.997	99.97	70-130
42	1,1,1-Trichloroeth	10.000	9.538	95.39	70-130
44	Carbon Tetrachlori	10.000	9.870	98.70	70-130
46	Benzene	10.000	9.151	91.51	70-130
49	Heptane	10.000	9.194	91.94	70-130
48	1,2-Dichloroethane	10.000	8.833	88.33	70-130
52	Trichloroethene	10.000	9.886	98.86	70-130
53	1,2-Dichloropropan	10.000	9.878	98.78	70-130
54	1,4-Dioxane	10.000	10.328	103.29	70-130
55	Bromodichlorometha	10.000	9.661	96.61	70-130

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
56 cis-1,3-Dichloropr	10.000	9.481	94.81	70-130
58 4-Methyl-2-pentano	10.000	8.830	88.30	70-130
60 Toluene	10.000	9.477	94.77	70-130
61 trans-1,3-Dichloro	10.000	9.775	97.75	70-130
63 1,1,2-Trichloroeth	10.000	10.427	104.27	70-130
67 2-Hexanone	10.000	9.898	98.98	70-130
64 Tetrachloroethene	10.000	10.520	105.20	70-130
68 Dibromochlorometha	10.000	10.533	105.33	70-130
69 1,2-Dibromoethane	10.000	9.923	99.23	70-130
73 Chlorobenzene	10.000	10.046	100.46	70-130
74 Ethyl Benzene	10.000	9.944	99.44	70-130
75 m,p-Xylene	10.000	9.638	96.39	70-130
77 o-Xylene	10.000	10.222	102.22	70-130
78 Styrene	10.000	10.081	100.81	70-130
79 Bromoform	10.000	11.014	110.14	70-130
80 Cumene	10.000	10.384	103.84	70-130
82 1,1,2,2-Tetrachlor	10.000	10.842	108.43	70-130
83 Propylbenzene	10.000	10.743	107.43	70-130
84 4-Ethyltoluene	10.000	10.441	104.41	70-130
85 1,3,5-Trimethylben	10.000	9.734	97.34	70-130
87 1,2,4-Trimethylben	10.000	9.535	95.35	70-130
89 1,3-Dichlorobenzen	10.000	9.680	96.80	70-130
90 1,4-Dichlorobenzen	10.000	9.321	93.21	70-130
91 alpha-chlorotoluen	10.000	10.710	107.10	70-130
94 1,2-Dichlorobenzen	10.000	9.864	98.64	70-130
96 1,2,4-Trichloroben	10.000	6.620	66.20*	70-130
97 Hexachlorobutadien	10.000	9.082	90.82	60-140
98 Naphthalene	10.000	7.218	72.18	60-140

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 47 1,2-Dichloroethane	10.000	9.136	91.36	70-130
$ 59 Toluene-d8	10.000	9.614	96.14	70-130
$ 81 Bromofluorobenzene	10.000	10.006	100.06	70-130

Air Toxics LTD.
AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 0703315B

Work Order Summary

CLIENT:	Mr. Jesse Lloyd The RETEC Group, Inc. 1001 W. Seneca St. Suite 204 Ithaca, NY 14850	**BILL TO:**	Mr. Scott Hauswirth The RETEC Group, Inc. 1001 W. Seneca St. Suite 204 Ithaca, NY 14850
PHONE:	607-277-5716	**P.O. #**	
FAX:		**PROJECT #**	ORAN2-20146 Port Jervis Oper. Cntr
DATE RECEIVED:	03/14/2007	**CONTACT:**	Kelly Buettner
DATE COMPLETED:	03/27/2007		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.
02A	SG2 (07)	Modified ASTM D-1945	5.0 "Hg
03A	SG2 (07) DUP	Modified ASTM D-1945	3.0 "Hg
05A	SG3 (07)	Modified ASTM D-1945	5.0 "Hg
07A	SG1 (07)	Modified ASTM D-1945	2.5 "Hg
08A	Lab Blank	Modified ASTM D-1945	NA
09A	LCS	Modified ASTM D-1945	NA

CERTIFIED BY: Linda A. Truman DATE: 03/27/07

Laboratory Director

Certfication numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/06, Expiration date: 06/30/07
Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
Modified ASTM D-1945
The RETEC Group, Inc.
Workorder# 0703315B

Four 6 Liter Summa Special (100% Certified) samples were received on March 14, 2007. The laboratory performed analysis via modified ASTM Method D-1945 for Helium in natural gas using GC/TCD. The method involves direct injection of 1.0 mL of sample. See the data sheets for the reporting limit.

Method modifications taken to run these samples include:

Requirement	*ASTM D-1945*	*ATL Modifications*
Normalization	Sum of original values should not differ from 100.0% by more than 1.0%.	Sum of original values may range between 75-125%. Normalization of data not performed.
Sample analysis	Equilibrate samples to 20-50° F. above source temperature at field sampling	No heating of samples is performed.
Sample calculation	Response factor is calculated using peak height for C5 and lighter compounds.	Peak areas are used for all target analytes to quantitate concentrations.
Reference Standard	Concentration should not be < half of nor differ by more than 2 X the concentration of the sample. Run 2 consecutive checks; must agree within 1%.	A minimum 3-point linear calibration is performed. The acceptance criterion is %RSD </= 25%. All target analytes must be within the linear range of calibration (with the exception of O2, N2, and C6+ Hydrocarbons).
Sample Injection Volume	0.50 mL to achieve Methane linearity.	1.0 mL.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

There were no analytical discrepancies.

Definition of Data Qualifying Flags

Six qualifiers may have been used on the data analysis sheets and indicate as follows:
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 detection limit.
M - Reported value may be biased due to apparent matrix interferences.

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

Project No. ORAN2-20146-200 | Page 1 of 1
Client Orange & Rockland | Date 04/16/07
Site Port Jervis Ops. Ctr. | By GAM
Subject Sample calculation | App.

RETEC

0703315A-01A

Toluene = 0.42 ppbv
IS: 1,4-Difluorobenzene

$$\text{Conc.}_{(\text{ppbv})} = \frac{(\text{analyte response})(\text{ng IS})(\text{DF})}{(\text{IS response})(\text{ICAL } \overline{\text{RRF}})} = \frac{(34887)(10)(1.52)}{(100100)(1.25358)} = 0.423 \text{ ppbv}$$

GAM 04/16/07

Appendix E

NYSDOH Guidance Document Matrix Tables

Soil Vapor/Indoor Air Matrix 1

October 2006

	INDOOR AIR CONCENTRATION of COMPOUND (mcg/m^3)			
SUB-SLAB VAPOR CONCENTRATION of COMPOUND (mcg/m^3)	< 0.25	0.25 to < 1	1 to < 5.0	5.0 and above
< 5	1. No further action	2. Take reasonable and practical actions to identify source(s) and reduce exposures	3. Take reasonable and practical actions to identify source(s) and reduce exposures	4. Take reasonable and practical actions to identify source(s) and reduce exposures
5 to < 50	5. No further action	6. MONITOR	7. MONITOR	8. MITIGATE
50 to < 250	9. MONITOR	10. MONITOR / MITIGATE	11. MITIGATE	12. MITIGATE
250 and above	13. MITIGATE	14. MITIGATE	15. MITIGATE	16. MITIGATE

No further action:
Given that the compound was not detected in the indoor air sample and that the concentration detected in the sub-slab vapor sample is not expected to significantly affect indoor air quality, no additional actions are needed to address human exposures.

Take reasonable and practical actions to identify source(s) and reduce exposures:
The concentration detected in the indoor air sample is likely due to indoor and/or outdoor sources rather than soil vapor intrusion given the concentration detected in the sub-slab vapor sample. Therefore, steps should be taken to identify potential source(s) and to reduce exposures accordingly (e.g., by keeping containers tightly capped or by storing volatile organic compound-containing products in places where people do not spend much time, such as a garage or outdoor shed). Resampling may be recommended to demonstrate the effectiveness of actions taken to reduce exposures.

MONITOR:
Monitoring, including sub-slab vapor, basement air, lowest occupied living space air, and outdoor air sampling, is needed to determine whether concentrations in the indoor air or sub-slab vapor have changed. Monitoring may also be needed to determine whether existing building conditions (e.g., positive pressure heating, ventilation and air-conditioning systems) are maintaining the desired mitigation endpoint and to determine whether changes are needed. The type and frequency of monitoring is determined on a site-specific and building-specific basis, taking into account applicable environmental data and building operating conditions. Monitoring is an interim measure required to evaluate exposures related to soil vapor intrusion until contaminated environmental media are remediated.

MITIGATE:
Mitigation is needed to minimize current or potential exposures associated with soil vapor intrusion. The most common mitigation methods are sealing preferential pathways in conjunction with installing a sub-slab depressurization system, and changing the pressurization of the building in conjunction with monitoring. The type, or combination of types, of mitigation is determined on a building-specific basis, taking into account building construction and operating conditions. Mitigation is considered a temporary measure implemented to address exposures related to soil vapor intrusion until contaminated environmental media are remediated.

MONITOR / MITIGATE:
Monitoring or mitigation may be recommended after considering the magnitude of sub-slab vapor and indoor air concentrations along with building- and site-specific conditions.

See additional notes on page 2.

Soil Vapor/Indoor Air Matrix 2

October 2006

	INDOOR AIR CONCENTRATION of COMPOUND (mcg/m^3)			
SUB-SLAB VAPOR CONCENTRATION of COMPOUND (mcg/m^3)	< 3	3 to < 30	30 to < 100	100 and above
< 100	1. No further action	2. Take reasonable and practical actions to identify source(s) and reduce exposures	3. Take reasonable and practical actions to identify source(s) and reduce exposures	4. Take reasonable and practical actions to identify source(s) and reduce exposures
100 to < 1,000	5. MONITOR	6. MONITOR / MITIGATE	7. MITIGATE	8. MITIGATE
1,000 and above	9. MITIGATE	10. MITIGATE	11. MITIGATE	12. MITIGATE

No further action:
Given that the compound was not detected in the indoor air sample and that the concentration detected in the sub-slab vapor sample is not expected to significantly affect indoor air quality, no additional actions are needed to address human exposures.

Take reasonable and practical actions to identify source(s) and reduce exposures:
The concentration detected in the indoor air sample is likely due to indoor and/or outdoor sources rather than soil vapor intrusion given the concentration detected in the sub-slab vapor sample. Therefore, steps should be taken to identify potential source(s) and to reduce exposures accordingly (e.g., by keeping containers tightly capped or by storing volatile organic compound-containing products in places where people do not spend much time, such as a garage or outdoor shed). Resampling may be recommended to demonstrate the effectiveness of actions taken to reduce exposures.

MONITOR:
Monitoring, including sub-slab vapor, basement air, lowest occupied living space air, and outdoor air sampling, is needed to determine whether concentrations in the indoor air or sub-slab vapor have changed. Monitoring may also be needed to determine whether existing building conditions (e.g., positive pressure heating, ventilation and air-conditioning systems) are maintaining the desired mitigation endpoint and to determine whether changes are needed. The type and frequency of monitoring is determined on a site-specific and building-specific basis, taking into account applicable environmental data and building operating conditions. Monitoring is an interim measure required to evaluate exposures related to soil vapor intrusion until contaminated environmental media are remediated.

MITIGATE:
Mitigation is needed to minimize current or potential exposures associated with soil vapor intrusion. The most common mitigation methods are sealing preferential pathways in conjunction with installing a sub-slab depressurization system, and changing the pressurization of the building in conjunction with monitoring. The type, or combination of types, of mitigation is determined on a building-specific basis, taking into account building construction and operating conditions. Mitigation is considered a temporary measure implemented to address exposures related to soil vapor intrusion until contaminated environmental media are remediated.

MONITOR / MITIGATE:
Monitoring or mitigation may be recommended after considering the magnitude of sub-slab vapor and indoor air concentrations along with building- and site-specific conditions.

See additional notes on page 2.

Table 3.2 General format of a decision matrix

	Indoor Air Concentration of Volatile Chemical (mcg/m^3)		
Sub-slab Vapor Concentration of Volatile Chemical (mcg/m^3)	Concentration Range 1	Concentration Range 2	Concentration Range 3
Concentration Range 1	ACTION	ACTION	ACTION
Concentration Range 2	ACTION	ACTION	ACTION
Concentration Range 3	ACTION	ACTION	ACTION

Indoor air and sub-slab vapor concentration ranges in a matrix are selected based on a number of considerations in addition to health risks. For example, factors that are considered when selecting the ranges include, but are not limited to, the following:

a. human health risks (i.e., cancer and non-cancer health effects) associated with exposure to the volatile chemical in air;

b. the NYSDOH's guidelines for volatile chemicals in air [Table 3.1];

c. background concentrations of volatile chemicals in air [Section 3.2.4];

d. analytical capabilities currently available; and

e. attenuation factors (i.e., the ratio of indoor air to sub-slab vapor concentrations).

3.4.2 Matrices

The NYSDOH has developed two matrices, which are included at the end of Section 3.4, to use as tools in making decisions when soil vapor may be entering buildings. The first decision matrix was originally developed for TCE and the second for PCE. As summarized in Table 3.3, four chemicals have been assigned to the two matrices to date.

Table 3.3 Volatile chemicals and their decision matrices

Chemical	**Soil Vapor/Indoor Air Matrix***
Carbon tetrachloride	Matrix 1
Tetrachloroethene (PCE)	Matrix 2
1,1,1-Trichloroethane (1,1,1-TCA)	Matrix 2
Trichloroethene (TCE)	Matrix 1

*The decision matrices are available at the end of Section 3.4.