



Airport Professional Park  
2374 Post Road, Suite 102  
Warwick, Rhode Island 02886  
Telephone: 401-736-3440  
Fax: 401-736-3423  
www.eaest.com

EA Engineering, Science, and Technology, Inc.

4 October 2011

Mr. Joseph T. Martella II, Senior Engineer  
Site Remediation Program  
Office of Waste Management  
RI Department of Environmental Management  
235 Promenade Street  
Providence, RI 02908

RE: *Quarterly O&M Status Report No. 16*  
*Alvarez High School, 333 Adelaide Avenue, Providence, Rhode Island*  
*Case No. 2005-029*  
*EA Project No. 14687.01.0002*

Dear Mr. Martella:

On behalf of the City of Providence School Department (City), EA Engineering, Science, and Technology, Inc. (EA) is providing this Quarterly Operations and Maintenance (O&M) Status Report in accordance with Provision 6(f) of the Order of Approval and amendments (Amended OA) for the referenced Alvarez High School site (the Site, formerly Adelaide Avenue High School).

This O&M Report summarizes recently-completed Site activities related to compliance sublab vapor and indoor air sampling for the period between June 2011 and August 2011.

If you have any questions or require additional information, please contact me at (401) 736-3440, Ext. 203.

Sincerely,

EA ENGINEERING, SCIENCE,  
AND TECHNOLOGY, INC.

Frank B. Postma, LSP, LEP, PG  
Project Manager

cc: C. Jones, Prov. Dept. of Public Schools  
T. Deller, Prov. Redevelopment Agency  
J. Padwa, City of Prov. Law Department  
R. Dorr, Neighborhood Resident  
Rep. Scott Slater  
Knight Memorial Library Repository

A. Sepe, Prov. Dept. of Public Property  
S. Fischbach, RI Legal Services  
J. Ryan, Partridge, Snow, & Hahn  
J. Pichardo, Senator  
Principal Torchon, Alvarez High School





# **Quarterly O&M Status Report No. 16**

## **Summarizing Subslab Depressurization and Indoor Air Monitoring and Sampling Activities**

### **Alvarez High School Site (Formerly Adelaide Avenue High School) Providence, Rhode Island**

*Prepared for*

City of Providence School Department  
797 Westminster Street  
Providence, Rhode Island 02903

*Prepared by*

EA Engineering, Science, and Technology, Inc.  
2374 Post Road, Suite 102  
Warwick, Rhode Island 02886  
(401) 736-3440

EA Project No. 14687.01.0002  
October 2011



## TABLE OF CONTENTS

	<u>Page</u>
1. INTRODUCTION AND BACKGROUND .....	1
2. SUMMARY OF SSD SYSTEM AND INDOOR METHANE MONITORING SYSTEM PERFORMANCE .....	2
2.1 SSD System .....	2
2.2 Indoor Methane Monitoring System.....	3
2.3 Ambient Outdoor and Indoor Air Sampling .....	3
2.4 Subslab Vapor Sampling and Evaluation of Potential VOC Rebound Effect .....	4
2.5 Summary of Rooftop VOC Emissions.....	5
2.6 Conclusions.....	5
3. FUTURE ACTIVITIES AND NEXT QUARTERLY SUMMARY REPORT .....	6

### FIGURES

FIGURE 1: SITE LOCATION MAP

FIGURE 2: INDOOR AIR SAMPLING AND METHANE MONITORING  
SYSTEM DIAGRAM

FIGURE 3: AS-BUILT SUBSLAB MONITORING AND SAMPLING PLAN

### APPENDICES

APPENDIX A: O&M FIELD FORMS

APPENDIX B: INDOOR AND AMBIENT OUTDOOR AIR ANALYTICAL SUMMARY  
AND LAB REPORTS

APPENDIX C: SUBSLAB VAPOR ANALYTICAL SUMMARY AND LAB REPORT

APPENDIX D: ROOFTOP EFFLUENT ANALYTICAL SUMMARY

APPENDIX E: LABORATORY REPORTING LIMITS CORRESPONDENCE



## 1. INTRODUCTION AND BACKGROUND

On behalf of the City of Providence School Department (the City), EA Engineering, Science, and Technology, Inc. (EA) has prepared this Quarterly Operations and Maintenance (O&M) Status Report No. 16 for the Parcel B area of the former Gorham Manufacturing site in Providence, Rhode Island, formerly referred to as the Adelaide Avenue High School and now referred to as the Alvarez High School site (the Site). A Site Location Map is provided as Figure 1. This report has been prepared to satisfy provision 6(f) of the Rhode Island Department of Environmental Management (RIDEM) Order of Approval (OA) issued in June 2006, as amended in February 2007, July 2007, and July 2009. For the purposes of this report, the original and the amended OA will collectively be referred to as the Amended OA.

The Amended OA specifies the details of the approved remedy for the Site including, but not limited to, the installation of a subslab depressurization (SSD) system, installation of a continuous indoor air methane monitoring system, and implementation of an associated periodic monitoring and sampling program. In August 2007, the RIDEM-approved remedy for the Site was completed and a Remedial Action Closure Report (RACR) was submitted to RIDEM. In July 2009, the periodic indoor air and subslab vapor sampling schedule was reduced to quarterly sampling from previously required monthly sampling.

This report summarizes the O&M, monitoring, and sampling activities completed at the Site for the 3-month period from June 2011 through August 2011 (Quarterly Reporting Period No. 16) and also includes an overall evaluation of volatile organic compound (VOC) concentrations within soil gas as they pertain to a potential rebound effect at the Site. Please refer to Quarterly O&M Status Reports No. 1 through No. 15 for information regarding monitoring and sampling at the Site during the previous quarters. The RACR and previously-submitted monthly correspondence contain details regarding the results of the monitoring and sampling program for the period between March and August 2007.

## **2. SUMMARY OF SSD SYSTEM AND INDOOR METHANE MONITORING SYSTEM PERFORMANCE**

### **2.1 SSD SYSTEM**

The following SSD System performance parameters were inspected and/or monitored at the frequencies indicated below in accordance with the Amended OA to evaluate system performance:

- Monthly subslab vacuum monitoring at 11 monitoring locations, as illustrated on the As-Built Subslab Monitoring and Sampling Plan provided as Figure 3.
- Monthly inspections and monitoring of rooftop fans (air velocity and vacuum) to verify proper operation.
- Continuous electronic monitoring (with automatic alarm notification via audible signal and phone notification) at each of three SSD System extraction fans to ensure continuous operation.

All vacuum measurements taken at each interior and perimeter subslab monitoring/sampling locations were between 0.00 and greater than -0.25 in. of water column. These zero vacuum measurements were observed at MP-3 and MP-6 in August 2011. EA observed water within the subslab vapor measuring point that was blocking the air stream and thereby preventing an accurate vacuum measurement. Review of precipitation records for the area indicate there were approximately 1.98 in. of rainfall in the week prior to the August 2011 monitoring event. To confirm that the SSD system was operating effectively, EA returned to the school on 14 September 2011 to measure the vacuum at these two subslab vacuum monitoring points. The vacuum readings from MP-3 and MP-6 were both 0.01 in. of water column. Based on the information above, continuous negative pressure has been maintained beneath the building slab.

Inspections and monitoring of all other system equipment revealed proper system operation, and no equipment shutdowns, failures, alarms, or interruptions of any type occurred during this reporting period. The continuous, verified zone of negative pressure beneath the school's concrete slab, along with the monthly inspections and continuous monitoring of both the indoor air monitoring system and the subslab depressurization system, confirms proper operation of the SSD System during this reporting period.

Copies of O&M field forms summarizing SSD System monitoring data collected during this reporting period are provided in Appendix A.



## 2.2 INDOOR METHANE MONITORING SYSTEM

Indoor methane concentrations were continuously monitored by an indoor methane monitoring system (equipped with automatic alarm notification via audible signal and phone notification) within the school at eight RIDEM-approved locations (refer to the Indoor Air Sampling and Methane Monitoring System Diagram provided as Figure 2) during this reporting period. In addition, the methane monitoring system was inspected and filters were replaced on a regular basis. The indoor methane monitoring system operated continuously throughout this reporting period with no equipment shutdowns, failures, alarms, or interruptions of any type, and no methane was detected during any of the supplemental monthly indoor methane monitoring events.

On July 26 2011, filter discs at each of the eight continuous methane sensors were replaced in accordance with a quarterly frequency schedule. The next filter replacement is scheduled for October 2011.

No other maintenance or repairs to the methane monitoring system or components were performed or required during this reporting period.

## 2.3 AMBIENT OUTDOOR AND INDOOR AIR SAMPLING

One outdoor ambient air sample and eight indoor air samples within the school at RIDEM-approved sampling locations were collected and analyzed for VOCs via Method TO-15 SIM (Selective Ion Monitoring) on 26 July 2011. The outdoor ambient sample was collected from the northeast side of the school (upwind) to ensure that system effluent was not captured in the sample. The sampling frequency has been reduced to quarterly sampling, per OA Addendum 3 prepared by RIDEM and dated 19 July 2009. Sampling locations are shown on the Indoor Air Sampling and Methane Monitoring System Diagram provided as Figure 2. The indoor air sampling results were compared to the State of Connecticut's Draft Proposed Indoor Residential Targeted Air Concentrations (CT RTACs) in accordance with the Amended OA. The laboratory reporting limits (RLs) for several VOCs reported via TO-15 analysis, even though analyzed via the SIM procedure, were greater than the respective CT RTACs. In accordance with the Amended OA, EA contacted the laboratory prior to sample analysis to verify that the RLs provided would be the lowest currently achievable limits. An RL verification letter from Alpha Analytical Laboratory is provided in Appendix E. A data summary table and copies of the laboratory data reports associated with this sampling event are provided in Appendix B.

One compound, methylene chloride, was detected within several indoor air samples and the upgradient outdoor ambient air sample at concentrations that exceed the State of Connecticut's Draft Proposed Indoor Residential Targeted Air Concentrations ( $3.0 \mu\text{g}/\text{m}^3$ ) in accordance with the Amended OA for this Site. The detected methylene chloride concentrations ranged from 3.51 to  $10.20 \mu\text{g}/\text{m}^3$ . Methylene chloride was detected in the ambient outdoor air at a concentration of  $5.38 \mu\text{g}/\text{m}^3$ . The presence of methylene chloride in the outdoor ambient air indicates the source is unrelated to the subsurface impacts.

EA conducted a program in January 2011 to determine if the concentrations of methylene chloride detected in these sampling events by Alpha Analytical Laboratories were indeed related to the Site or some other contaminating factor. Recurring methylene chloride exceedances have been observed since the July 2010 sampling event. Methylene chloride is a common laboratory contaminant as it is used to perform extractions for analysis of semi-volatile organic compounds. Air samples were split between the RIDEM air laboratory, Con-Test Analytical Laboratory, and the current lab, Alpha Analytical Laboratories. The program determined that the analyte is not present in exceedance of applicable standards at the Site and is a contaminant issue at Alpha Analytical Laboratories. Please refer to the letter report submitted to RIDEM on 8 March 2011 regarding *January 2011 Air Sampling Event Comment Letter* for additional information.

Carbon tetrachloride, a documented background ambient compound present at the Site, has consistently been detected in ambient outdoor air and inside the school during every sampling event completed at the Site at concentrations ranging between 0.19 and 0.77  $\mu\text{g}/\text{m}^3$ . Similarly, during this reporting period the ambient outdoor and indoor air concentrations of carbon tetrachloride ranged between 0.402 and 0.459  $\mu\text{g}/\text{m}^3$ . Discussions and guidance provided by the Rhode Island Department of Health, RIDEM Office of Waste Management, and RIDEM Office of Air Resources resulted in an understanding that these carbon tetrachloride results do not constitute Indoor Air Action Level exceedances for the Site since they are consistent with documented background concentrations.

All other compounds analyzed were below the applicable CT RTACs for all samples collected on 26 July 2011.

## **2.4 SUBSLAB VAPOR SAMPLING AND EVALUATION OF POTENTIAL VOC REBOUND EFFECT**

A total of 11 RIDEM-approved subslab sampling locations are installed at the Site. Six subslab vapor samples were collected in accordance with a RIDEM-approved (Amended OA) rotating sampling schedule and analyzed for VOCs via Method TO-15 SIM on 26 July 2011 in accordance with the Amended OA. The subslab data is summarized in Appendix C, along with copies of the laboratory data reports associated with these sampling events.

Quarterly Report No. 13 indicated that *“VOC rebound may be occurring. Historical maximum concentrations of tetrachloroethene have been identified in 7 of 11 of the subslab vapor points in the most recent sampling of the respective sampling point (July or October 2010).”* Quarterly Report No. 14 states *“Review of analytical data from the subslab vapor sampling and analysis indicate greatly reduced concentrations of tetrachloroethene. The maximum concentration observed this sampling event (8.3  $\mu\text{g}/\text{m}^3$  at IMP-2 [in January 2011]) is less than the minimum value observed in the previous sampling round (October 2010).”* Quarterly Report 15 states *“Review of data from the April 2011 sampling event indicates a continuance of the decreasing trend observed in the prior quarter. Based on the data provided above, a VOC rebound within the subslab is not occurring.”* The concentrations detected during the July 2011 sampling event are consistent with the decreasing trend observed the previous two quarters. The maximum

concentration observed this sampling event is  $9.29 \mu\text{g}/\text{m}^3$  at MP-6, which was noted to have the least sub-slab vacuum of any monitoring point.

## 2.5 SUMMARY OF ROOFTOP VOC EMISSIONS

The Amended OA requires that rooftop VOC sampling be completed on an annual basis. The latest rooftop VOC sampling event was completed during this quarter on 26 July 2011 and is summarized in Appendix D. No exceedances of the RIDEM Air Pollution Control Permit Applicability Thresholds for hourly, daily, or yearly emissions were detected. The 2012 annual rooftop effluent VOC sampling event is scheduled for July 2012 to accommodate the revised quarterly sampling schedule.

Previous rooftop effluent sampling rounds conducted in March 2007 (immediately after SSD system startup), June 2007, June 2008, September 2009, and July 2010 indicated compliance with all Air Pollution Control Permit Applicability Thresholds. In general, the VOC concentrations in the rooftop effluent associated with the July 2011 sampling round indicate continuance of the decreasing trend of VOC concentrations in subsurface soils and do not exceed the Air Pollution Control Permit Applicability Thresholds. Tabulation of the data and the rooftop sampling analytical report is provided as Appendix D.

## 2.6 CONCLUSIONS

The following conclusions are made based upon the completed inspections, monitoring, and sampling performed during this reporting period:

- The consistent negative pressure maintained below the floor slab indicates that soil vapor intrusion into the Alvarez High School is not occurring. Although two readings of zero vacuum were observed at subsurface monitoring, water was observed within the piping blocking the air flow. Subsequent measurements of each of these measuring points indicate sufficient vacuum.
- Subslab vapor rebound is not occurring at the school, based on analytical data from this and the previous two sampling events.
- The continuous operation of the SSD System, with no equipment malfunctions or alarm conditions, and confirmation of continuous subslab vacuum beneath the school illustrates ongoing, effective operation of the SSD System. No soil vapor intrusion pathway exists at the school while the SSD System is operational.
- No SSD System modifications or other actions to address current site conditions are warranted or proposed at this time.

### **3. FUTURE ACTIVITIES AND NEXT QUARTERLY SUMMARY REPORT**

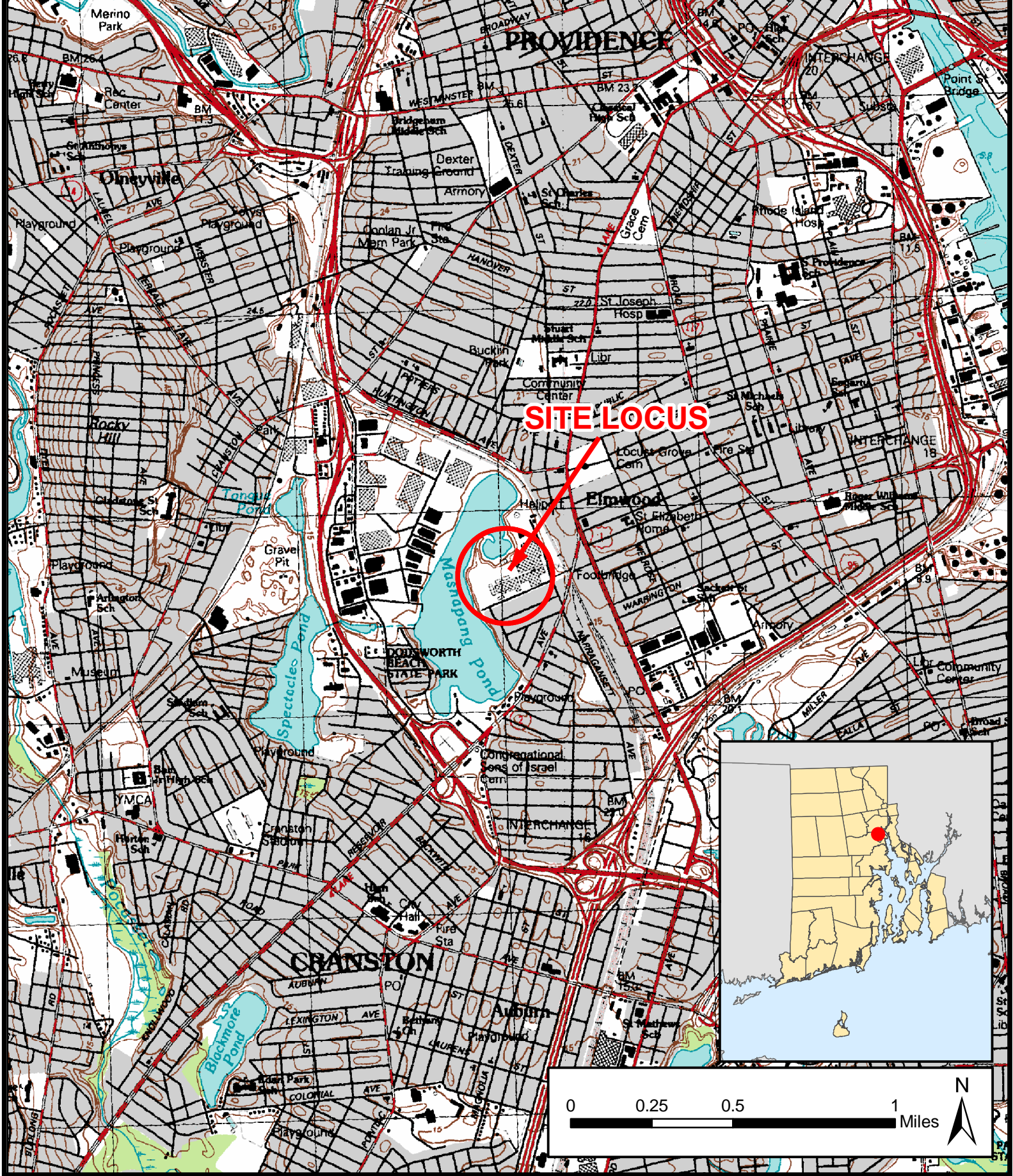
The following activities will be completed in accordance with the Amended OA during the next quarterly status reporting period ending 30 November 2011:

- Continuous monitoring of the operational status of the three rooftop fans
- Monthly site inspections and monitoring using a photoionization detector with part-per-billion sensitivity
- Collection of air samples from eight indoor locations, one ambient location, and six subslab monitoring points in October 2011.

These activities will be summarized in the next status report (Quarterly Status Report No. 17), expected to be submitted by the end of December 2011.

# ***FIGURES***





ALVAREZ HIGH SCHOOL  
 333 ADELAIDE AVENUE  
 PROVIDENCE, RHODE ISLAND

FIGURE 1  
 SITE LOCUS

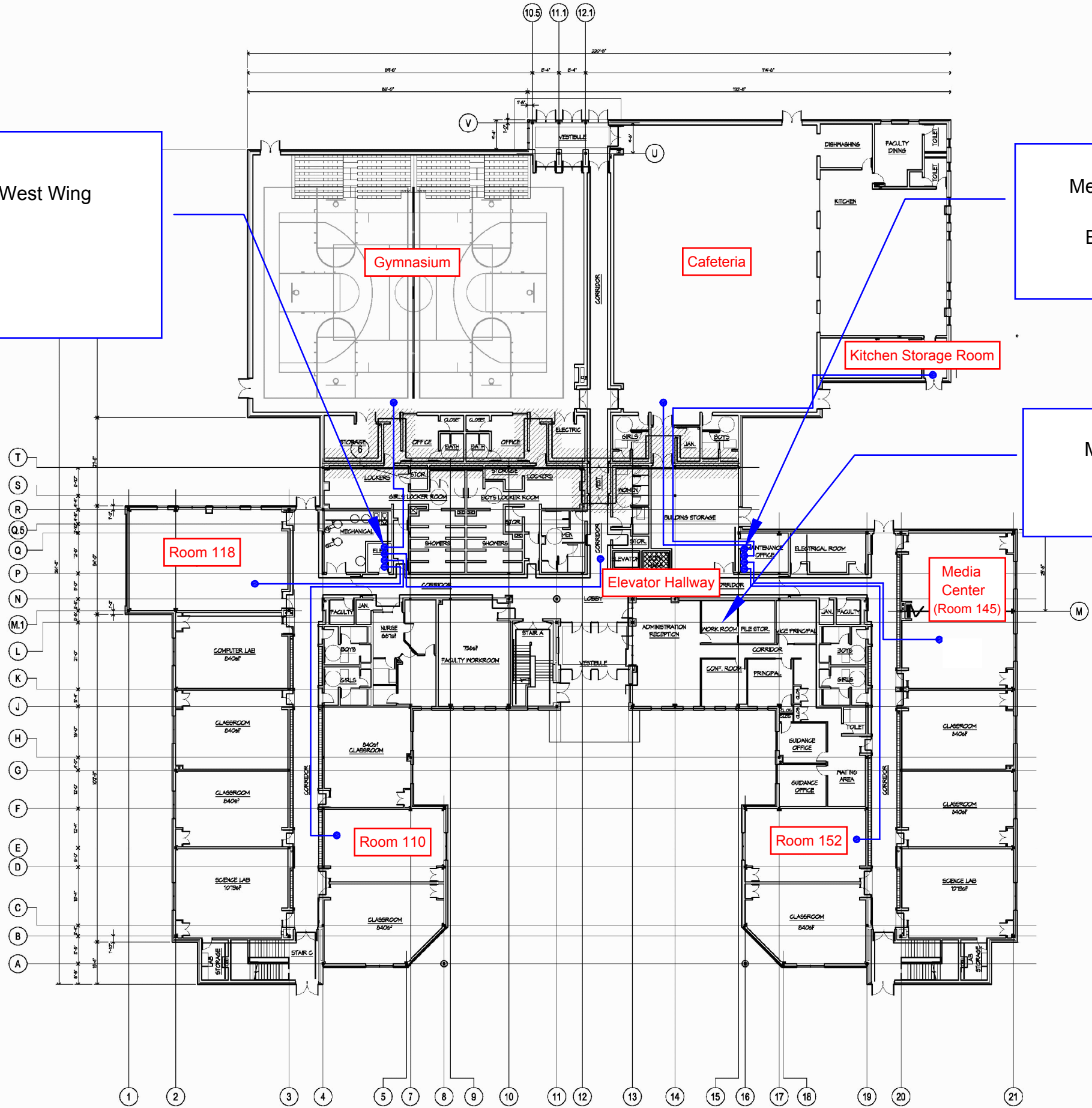
PROJECT MGR:	DESIGNED BY:	CREATED BY:	CHECKED BY:	SCALE:	DATE:	PROJECT NO:	FILE NO:
FP	PT	PT	FP	1:24,000	FEBRUARY 2010	14687.01	SITE_LOCUS.MXD





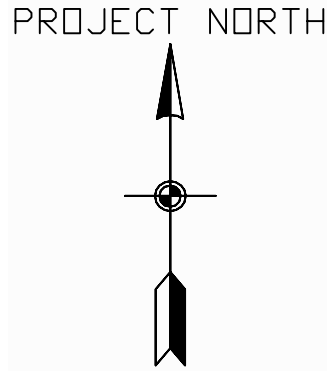
Methane Sensor Location in West Wing  
Electrical Room Area

Methane Sensor Location in East Wing  
Electrical Room/Maintenance Office Area.



Methane System Controller Location  
Administration Work Room

NOTE: NOT TO SCALE



DESIGNED BY PMG	DRAWN BY PMG	DATE 4-3-07	PROJECT NO. 61965.01	FILE NAME Gorham Layout
CHECKED BY PMG	PROJECT MGR. PMG	SCALE NTS	DRAWING NO. -	FIGURE N/A

INDOOR AIR SAMPLING AND METHANE MONITORING  
SYSTEM DIAGRAM - GORHAM HIGH SCHOOL  
PROVIDENCE, RHODE ISLAND

QUARTERLY STATUS REPORT  
FIGURE 2



**LEGEND :**

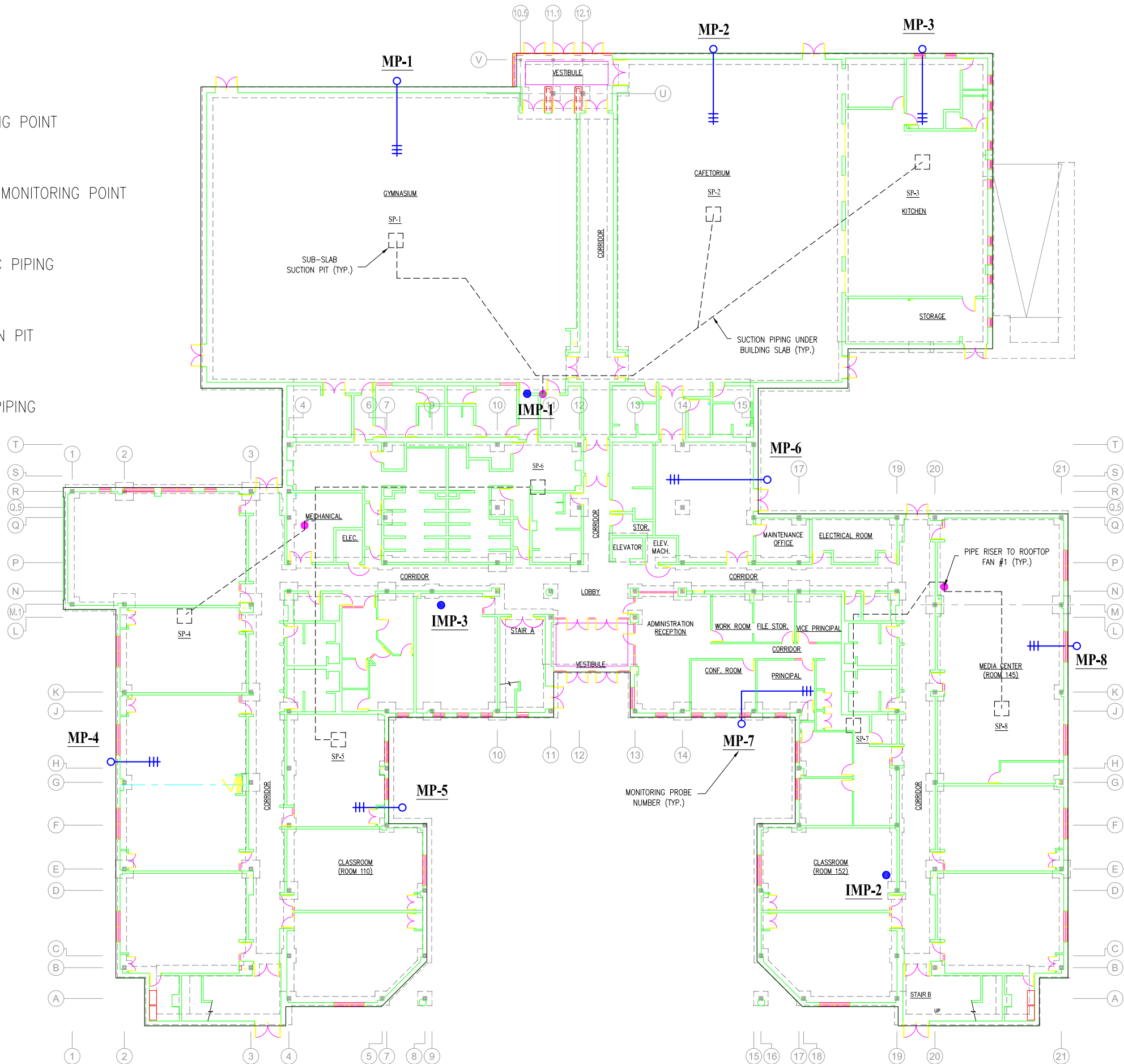
**MP-1** SUB-SLAB MONITORING POINT

**IMP-1** INTERIOR SUB-SLAB MONITORING POINT

—||— SLOTTED 1 INCH PVC PIPING

SP-1  
□ SSD SYSTEM SUCTION PIT

----- SOLID 4 INCH PVC PIPING



DESIGNED BY PMG	DRAWN BY DMA	DATE AUG 27 2007	PROJECT NO. 14687.01	FILE NAME FIG 3
CHECKED BY PMG	PROJECT MGR. PMG	SCALE NTS	DRAWING NO. N/A	FIGURE 3

AS-BUILT  
SUB SLAB MONITORING AND SAMPLING LOCATIONS  
ALVAREZ HIGH SCHOOL  
PROVIDENCE, RHODE ISLAND

QUARTERLY STATUS REPORT  
FIGURE 3



***APPENDIX A***

***O&M Field Forms***



**Alvarez High School - SSD & Interior Methane Monitoring System O&M Form**

Date of O&M: 8/31/2011

Performed by: P. Theroux

PID/Methane Calibration? US Environmental (yes/no)

Date of last Methane Sensor Filter Replacement: 7/26/11

Replaced this O&M Visit? no (yes/no)

General Status of SSD System: online and operational

General Status of Methane Monitoring System: online and operational

Eng. Cap/Fence Inspection Performed/Notes: observed in good condition

Monitoring/ Sampling Location	Sub-slab or gauge vacuum	Air Velocity (fpm)	VOC Monitoring	Methane Monitoring			Air/Vapor Sample Collection						Comments/Notes (Ambient weather conditions, status of HVAC, possible monitoring/sampling interferences, etc .... continue on separate sheet if needed)
			PID (ppb)	Indoor Sensor (ppm)	(% Gas)	(% LEL)*	Summa Can ID	Controller ID	Start Time	Start Vac (inches Hg)	End Time	End Vac (inches Hg)	
Gymnasium	NA	NA	90	0	0	0	--	--	--	--	--	--	
Cafeteria	NA	NA	52	0	0	0	--	--	--	--	--	--	
Kitchen Storage Room	NA	NA	87	0	0	0	--	--	--	--	--	--	
Elevator Hallway	NA	NA	117	0	0	0	--	--	--	--	--	--	
Room 145	NA	NA	0	0	0	0	--	--	--	--	--	--	
Room 152	NA	NA	0	0	0	0	--	--	--	--	--	--	
Room 118	NA	NA	1,030	0	0	0	--	--	--	--	--	--	
Room 110	NA	NA	90	0	0	0	--	--	--	--	--	--	
MP-1	-0.10	NA	1,273	NA	0	0	--	--	--	--	--	--	
MP-2	-0.10	NA	2,903	NA	0	0	--	--	--	--	--	--	
MP-3	NM	NA	NM	NA	0	0	--	--	--	--	--	--	water visible in piping; Aub-slab vacuum -0.01 on 9/14/11
MP-4	-0.06	NA	10.58 ppm	NA	0	0	--	--	--	--	--	--	
MP-5	-0.07	NA	742	NA	0	0	--	--	--	--	--	--	
MP-6	NM	NA	NM	NA	0	0	--	--	--	--	--	--	water visible in piping; Aub-slab vacuum -0.01 on 9/14/11
MP-7	-0.05	NA	569	NA	0	0	--	--	--	--	--	--	
MP-8	-0.10	NA	576	NA	0	0	--	--	--	--	--	--	
IMP-1	-0.01	NA	891	NA	0	0	--	--	--	--	--	--	low vacuum - possible water in line
IMP-2	-0.04	NA	333	NA	0	0	--	--	--	--	--	--	
IMP-3	-0.03	NA	767	NA	0	0	--	--	--	--	--	--	
Roof-Top Fan 1	-2.1	4,008	1,144	NA	0	0	--	--	--	--	--	--	
Roof-Top Fan 2	-2.0	2,333	1,444	NA	0	0	--	--	--	--	--	--	
Roof-Top Fan 3	-2.4	2438	NM	NA	0	0	--	--	--	--	--	--	Monitored on 9/14/11
Ambient Outdoor Air	NA	NA	0	NA	0	0	--	--	--	--	--	--	

NA: not applicable.

NM: not monitored on this date.

NS : not sampled on this date.

\* RIDEM Action Level for methane %LEL beneath the building is 10% and within the building is 1%. If these methane levels are exceeded, immediately notify EA Project Manager to initiate response protocol.

**Alvarez High School - SSD & Interior Methane Monitoring System O&M Form**

Date of O&M: 7/26/2011

Performed by: P. Theroux

PID/Methane Calibration? US Environmental (yes/no)

Date of last Methane Sensor Filter Replacement: 4/27/2011 - 7/26/2011

Replaced this O&M Visit? yes (yes/no)

General Status of SSD System: online and operational

General Status of Methane Monitoring System: online and operational

Eng. Cap/Fence Inspection Performed/Notes: observed in good condition

Monitoring/ Sampling Location	Sub-slab or gauge vacuum	Air Velocity (fpm)	VOC Monitoring	Methane Monitoring			Air/Vapor Sample Collection						Comments/Notes (Ambient weather conditions, status of HVAC, possible monitoring/sampling interferences, etc .... continue on separate sheet if needed)
			PID (ppb)	Indoor Sensor (ppm)	(% Gas)	(% LEL)*	Summa Can ID	Controller ID	Start Time	Start Vac (inches Hg)	End Time	End Vac (inches Hg)	
Gymnasium	NA	NA	0	0	0	0	1664	0338	0802	-29.53	0831	-3.55	
Cafeteria	NA	NA	0	0	0	0	1535	0332	0803	-29.43	0833	-5.48	
Kitchen Storage Room	NA	NA	0	0	0	0	1531	0099	0805	-29.42	0834	-4.14	
Elevator Hallway	NA	NA	211	0	0	0	1060	0358	0807	-29.31	0836	-4.37	smells like cleaning supplies
Room 145	NA	NA	0	0	0	0	963	0445	0815	-29.49	0846	-5.11	
Room 152	NA	NA	0	0	0	0	1769	0342	0816	-28.59	0847	-3.74	
Room 118	NA	NA	0	0	0	0	1712	0025	0813	-29.35	0844	-6.21	
Room 110	NA	NA	200	0	0	0	903	0424	0911	-29.47	0942	-3.23	cannister set just outside of classroom which had just been washed; cleaning odor in classroom and hall
MP-1	0.12	NA	581	NA	0	0	504	0493	1051	-29.36	1121	-4.72	
MP-2	0.11	NA	314	NA	0	0	--	--	--	--	--	--	
MP-3	0.05	NA	9,361	NA	0	0	389	0419	1059	-29.96	1131	-4.6	
MP-4	0.08	NA	297	NA	0	0	532	0423	1118	-29.92	1150	-0.29	
MP-5	0.09	NA	138	NA	0	0	--	--	--	--	--	--	
MP-6	0.01	NA	6,911	NA	0	0	111	0408	1111	-28.85	1145	-8.65	
MP-7	>0.25	NA	85	NA	0	0	--	--	--	--	--	--	
MP-8	0.12	NA	117	NA	0	0	--	--	--	--	--	--	
IMP-1	0.015	NA	306	NA	0	0	393	0429	830	-29.12	0901	-2.87	
IMP-2	0.02	NA	697	NA	0	0	496	0200	0857	-29.36	0928	-4.76	
IMP-3	0.02	NA	296	NA	0	0	--	--	--	--	--	--	
Roof-Top Fan 1	2.1	3,862	151	NA	0	0	387	--	1022	-22	--	-2	
Roof-Top Fan 2	2.0	2,629	210	NA	0	0	356	--	1014	-18	--	-2	Gage not functioning properly
Roof-Top Fan 3	2.4	2,348	148	NA	0	0	479	--	0957	-18	--	-2	
Ambient Outdoor Air	NA	NA	0	NA	0	0							

NA: not applicable.

NM: not monitored on this date.

NS : not sampled on this date.

\* RIDEM Action Level for methane %LEL beneath the building is 10% and within the building is 1%. If these methane levels are exceeded, immediately notify EA Project Manager to initiate response protocol.



**Alvarez High School - SSD & Interior Methane Monitoring System O&M Form**

Date of O&M: 6/23/2011

Performed by: P. Theroux

PID/Methane Calibration? US Environmental (yes/no)

Date of last Methane Sensor Filter Replacement: 4/27/2011

Replaced this O&M Visit? no (yes/no)

General Status of SSD System: online and operational

General Status of Methane Monitoring System: online and operational

Eng. Cap/Fence Inspection Performed/Notes: observed in good condition

Monitoring/ Sampling Location	Sub-slab or gauge vacuum	Air Velocity (fpm)	VOC Monitoring	Methane Monitoring			Air/Vapor Sample Collection						Comments/Notes (Ambient weather conditions, status of HVAC, possible monitoring/sampling interferences, etc .... continue on separate sheet if needed)
			PID (ppb)	Indoor Sensor (ppm)	(% Gas)	(% LEL)*	Summa Can ID	Controller ID	Start Time	Start Vac (inches Hg)	End Time	End Vac (inches Hg)	
Gymnasium	NA	NA	0	0	0	0	--	--	--	--	--	--	
Cafeteria	NA	NA	0	0	0	0	--	--	--	--	--	--	
Kitchen Storage Room	NA	NA	0	0	0	0	--	--	--	--	--	--	
Elevator Hallway	NA	NA	0	0	0	0	--	--	--	--	--	--	
Room 145	NA	NA	0	0	0	0	--	--	--	--	--	--	
Room 152	NA	NA	0	0	0	0	--	--	--	--	--	--	
Room 118	NA	NA	0	0	0	0	--	--	--	--	--	--	
Room 110	NA	NA	0	0	0	0	--	--	--	--	--	--	
MP-1	0.09	NA	220	NA	0	0	--	--	--	--	--	--	
MP-2	0.10	NA	55	NA	0	0	--	--	--	--	--	--	
MP-3	0.02	NA	7,145	NA	0	0	--	--	--	--	--	--	
MP-4	0.06	NA	335	NA	0	0	--	--	--	--	--	--	
MP-5	0.08	NA	161	NA	0	0	--	--	--	--	--	--	
MP-6	0.08	NA	1,076	NA	0	0	--	--	--	--	--	--	
MP-7	0.04	NA	94	NA	0	0	--	--	--	--	--	--	
MP-8	0.10	NA	144	NA	0	0	--	--	--	--	--	--	
IMP-1	0.01	NA	38	NA	0	0	--	--	--	--	--	--	
IMP-2	0.02	NA	63	NA	0	0	--	--	--	--	--	--	
IMP-3	0.02	NA	93	NA	0	0	--	--	--	--	--	--	
Roof-Top Fan 1	2.1	3,017	22	NA	0	0	--	--	--	--	--	--	
Roof-Top Fan 2	2.0	2,196	21	NA	0	0	--	--	--	--	--	--	
Roof-Top Fan 3	2.4	2,384	29	NA	0	0	--	--	--	--	--	--	
Ambient Outdoor Air	NA	NA	0	NA	0	0	--	--	--	--	--	--	

NA: not applicable.

NM: not monitored on this date.

NS : not sampled on this date.

\* RIDEM Action Level for methane %LEL beneath the building is 10% and within the building is 1%. If these methane levels are exceeded, immediately notify EA Project Manager to initiate response protocol.



## ***APPENDIX B***

### ***Indoor and Ambient Outdoor Air Analytical Summary and Lab Report***





## ANALYTICAL REPORT

Lab Number:	L1111433
Client:	EA Engineering, Science and Technology 2374 Post Road Suite 102 Warwick, RI 02886
ATTN:	Frank Postma
Phone:	(401) 736-3440
Project Name:	ALVAREZ HIGH SCHOOL
Project Number:	14687.01
Report Date:	08/03/11

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA030), NY (11627), CT (PH-0141), NH (2206), NJ (MA015), RI (LAO00299), ME (MA0030), PA (Registration #68-02089), LA NELAC (03090), FL NELAC (E87814), US Army Corps of Engineers.

---

320 Forbes Boulevard, Mansfield, MA 02048-1806  
508-822-9300 (Fax) 508-822-3288 800-624-9220 - [www.alphalab.com](http://www.alphalab.com)



**Project Name:** ALVAREZ HIGH SCHOOL  
**Project Number:** 14687.01

**Lab Number:** L1111433  
**Report Date:** 08/03/11

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>
L1111433-01	GYMNASIUM	PROVIDENCE, RI	07/26/11 08:31
L1111433-02	CAFETERIA	PROVIDENCE, RI	07/26/11 08:33
L1111433-03	KITCHEN STORAGE RM	PROVIDENCE, RI	07/26/11 08:34
L1111433-04	ELEVATOR HALLWAY	PROVIDENCE, RI	07/26/11 08:36
L1111433-05	RM 145	PROVIDENCE, RI	07/26/11 08:46
L1111433-06	RM 152	PROVIDENCE, RI	07/26/11 08:47
L1111433-07	RM 118	PROVIDENCE, RI	07/26/11 08:44
L1111433-08	RM 110	PROVIDENCE, RI	07/26/11 09:42
L1111433-09	AMBIENT OUTDOOR	PROVIDENCE, RI	07/26/11 11:29

**Project Name:** ALVAREZ HIGH SCHOOL  
**Project Number:** 14687.01

**Lab Number:** L1111433  
**Report Date:** 08/03/11

### Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

For additional information, please contact Client Services at 800-624-9220.


---

#### Volatile Organics in Air (SIM)

The canister certification results are provided as an addendum.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:



Kathleen O'Brien

Title: Technical Director/Representative

Date: 08/03/11

**AIR**



**Project Name:** ALVAREZ HIGH SCHOOL**Lab Number:** L1111433**Project Number:** 14687.01**Report Date:** 08/03/11**SAMPLE RESULTS**

Lab ID: L1111433-01  
 Client ID: GYMNASIUM  
 Sample Location: PROVIDENCE, RI  
 Matrix: Air  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 07/29/11 18:50  
 Analyst: RY

Date Collected: 07/26/11 08:31  
 Date Received: 07/27/11  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	0.460	0.050	--	2.27	0.247	--		1
Chloromethane	ND	0.500	--	ND	1.03	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	9.62	2.00	--	22.8	4.75	--		1
Trichlorofluoromethane	0.231	0.050	--	1.30	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.08	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	1.22	1.00	--	4.24	3.47	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.020	--	ND	0.072	--		1
2-Butanone	0.786	0.500	--	2.32	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	0.034	0.020	--	0.166	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	0.065	0.020	--	0.409	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
Trichloroethene	0.022	0.020	--	0.118	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1



**Project Name:** ALVAREZ HIGH SCHOOL**Lab Number:** L1111433**Project Number:** 14687.01**Report Date:** 08/03/11**SAMPLE RESULTS**

Lab ID: L1111433-01

Date Collected: 07/26/11 08:31

Client ID: GYMNASIUM

Date Received: 07/27/11

Sample Location: PROVIDENCE, RI

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	0.422	0.050	--	1.59	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	0.077	0.020	--	0.522	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.020	--	ND	0.092	--		1
Ethylbenzene	0.201	0.020	--	0.873	0.087	--		1
p/m-Xylene	0.606	0.040	--	2.63	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	0.031	0.020	--	0.132	0.085	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	0.148	0.020	--	0.643	0.087	--		1
Isopropylbenzene	ND	0.500	--	ND	2.46	--		1
1,3,5-Trimethylbenzene	0.080	0.020	--	0.393	0.098	--		1
1,2,4-Trimethylbenzene	0.229	0.020	--	1.12	0.098	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.500	--	ND	2.74	--		1
p-Isopropyltoluene	ND	0.500	--	ND	2.74	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.500	--	ND	2.74	--		1



**Project Name:** ALVAREZ HIGH SCHOOL**Lab Number:** L1111433**Project Number:** 14687.01**Report Date:** 08/03/11**SAMPLE RESULTS**

Lab ID: L1111433-01

Date Collected: 07/26/11 08:31

Client ID: GYMNASIUM

Date Received: 07/27/11

Sample Location: PROVIDENCE, RI

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	99		60-140
bromochloromethane	99		60-140
chlorobenzene-d5	97		60-140

**Project Name:** ALVAREZ HIGH SCHOOL**Lab Number:** L1111433**Project Number:** 14687.01**Report Date:** 08/03/11**SAMPLE RESULTS**

Lab ID: L1111433-02  
 Client ID: CAFETERIA  
 Sample Location: PROVIDENCE, RI  
 Matrix: Air  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 07/29/11 19:25  
 Analyst: RY

Date Collected: 07/26/11 08:33  
 Date Received: 07/27/11  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	0.459	0.050	--	2.27	0.247	--		1
Chloromethane	0.773	0.500	--	1.60	1.03	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	20.2	2.00	--	48.0	4.75	--		1
Trichlorofluoromethane	0.215	0.050	--	1.21	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.08	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	1.67	1.00	--	5.80	3.47	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.020	--	ND	0.072	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	0.051	0.020	--	0.249	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	0.208	0.100	--	0.664	0.319	--		1
Carbon tetrachloride	0.064	0.020	--	0.402	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1



**Project Name:** ALVAREZ HIGH SCHOOL**Lab Number:** L1111433**Project Number:** 14687.01**Report Date:** 08/03/11**SAMPLE RESULTS**

Lab ID: L1111433-02

Date Collected: 07/26/11 08:33

Client ID: CAFETERIA

Date Received: 07/27/11

Sample Location: PROVIDENCE, RI

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	1.04	0.050	--	3.92	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	0.083	0.020	--	0.563	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.020	--	ND	0.092	--		1
Ethylbenzene	0.234	0.020	--	1.02	0.087	--		1
p/m-Xylene	0.841	0.040	--	3.65	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	0.579	0.020	--	2.46	0.085	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	0.351	0.020	--	1.52	0.087	--		1
Isopropylbenzene	ND	0.500	--	ND	2.46	--		1
1,3,5-Trimethylbenzene	0.150	0.020	--	0.737	0.098	--		1
1,2,4-Trimethylbenzene	0.439	0.020	--	2.16	0.098	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.500	--	ND	2.74	--		1
p-Isopropyltoluene	ND	0.500	--	ND	2.74	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.500	--	ND	2.74	--		1



**Project Name:** ALVAREZ HIGH SCHOOL

**Lab Number:** L1111433

**Project Number:** 14687.01

**Report Date:** 08/03/11

**SAMPLE RESULTS**

Lab ID: L1111433-02

Date Collected: 07/26/11 08:33

Client ID: CAFETERIA

Date Received: 07/27/11

Sample Location: PROVIDENCE, RI

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	102		60-140
bromochloromethane	101		60-140
chlorobenzene-d5	100		60-140



**Project Name:** ALVAREZ HIGH SCHOOL**Lab Number:** L1111433**Project Number:** 14687.01**Report Date:** 08/03/11**SAMPLE RESULTS**

Lab ID: L1111433-03  
 Client ID: KITCHEN STORAGE RM  
 Sample Location: PROVIDENCE, RI  
 Matrix: Air  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 07/29/11 19:59  
 Analyst: RY

Date Collected: 07/26/11 08:34  
 Date Received: 07/27/11  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatiles Organics in Air by SIM - Mansfield Lab</b>								
Dichlorodifluoromethane	0.463	0.050	--	2.29	0.247	--		1
Chloromethane	0.564	0.500	--	1.16	1.03	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	21.8	2.00	--	51.8	4.75	--		1
Trichlorofluoromethane	0.215	0.050	--	1.21	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.08	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	1.00	--	ND	3.47	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.020	--	ND	0.072	--		1
2-Butanone	0.542	0.500	--	1.60	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	0.047	0.020	--	0.230	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	0.175	0.100	--	0.559	0.319	--		1
Carbon tetrachloride	0.065	0.020	--	0.409	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1



**Project Name:** ALVAREZ HIGH SCHOOL**Lab Number:** L1111433**Project Number:** 14687.01**Report Date:** 08/03/11**SAMPLE RESULTS**

Lab ID: L1111433-03  
 Client ID: KITCHEN STORAGE RM  
 Sample Location: PROVIDENCE, RI

Date Collected: 07/26/11 08:34  
 Date Received: 07/27/11  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
4-Methyl-2-pentanone	2.85	0.500	--	11.7	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	0.542	0.050	--	2.04	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	0.078	0.020	--	0.529	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.020	--	ND	0.092	--		1
Ethylbenzene	0.109	0.020	--	0.473	0.087	--		1
p/m-Xylene	0.285	0.040	--	1.24	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	0.159	0.020	--	0.677	0.085	--		1
1,1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	0.101	0.020	--	0.439	0.087	--		1
Isopropylbenzene	ND	0.500	--	ND	2.46	--		1
1,3,5-Trimethylbenzene	0.042	0.020	--	0.206	0.098	--		1
1,2,4-Trimethylbenzene	0.117	0.020	--	0.575	0.098	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.500	--	ND	2.74	--		1
p-Isopropyltoluene	ND	0.500	--	ND	2.74	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.500	--	ND	2.74	--		1





**Project Name:** ALVAREZ HIGH SCHOOL**Lab Number:** L1111433**Project Number:** 14687.01**Report Date:** 08/03/11**SAMPLE RESULTS**

Lab ID: L1111433-03

Date Collected: 07/26/11 08:34

Client ID: KITCHEN STORAGE RM

Date Received: 07/27/11

Sample Location: PROVIDENCE, RI

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	101		60-140
bromochloromethane	100		60-140
chlorobenzene-d5	99		60-140



**Project Name:** ALVAREZ HIGH SCHOOL**Lab Number:** L1111433**Project Number:** 14687.01**Report Date:** 08/03/11**SAMPLE RESULTS**

Lab ID: L1111433-04  
 Client ID: ELEVATOR HALLWAY  
 Sample Location: PROVIDENCE, RI  
 Matrix: Air  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 07/29/11 20:34  
 Analyst: RY

Date Collected: 07/26/11 08:36  
 Date Received: 07/27/11  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	0.477	0.050	--	2.36	0.247	--		1
Chloromethane	0.540	0.500	--	1.12	1.03	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	34.6	2.00	--	82.2	4.75	--		1
Trichlorofluoromethane	0.222	0.050	--	1.25	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.08	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	1.00	--	ND	3.47	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.020	--	ND	0.072	--		1
2-Butanone	0.514	0.500	--	1.52	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	0.202	0.020	--	0.986	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	0.102	0.100	--	0.326	0.319	--		1
Carbon tetrachloride	0.068	0.020	--	0.428	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1



**Project Name:** ALVAREZ HIGH SCHOOL**Lab Number:** L1111433**Project Number:** 14687.01**Report Date:** 08/03/11**SAMPLE RESULTS**

Lab ID: L1111433-04

Date Collected: 07/26/11 08:36

Client ID: ELEVATOR HALLWAY

Date Received: 07/27/11

Sample Location: PROVIDENCE, RI

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	0.321	0.050	--	1.21	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	0.093	0.020	--	0.631	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.020	--	ND	0.092	--		1
Ethylbenzene	0.096	0.020	--	0.417	0.087	--		1
p/m-Xylene	0.845	0.040	--	3.67	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	2.74	0.020	--	11.7	0.085	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	0.509	0.020	--	2.21	0.087	--		1
Isopropylbenzene	ND	0.500	--	ND	2.46	--		1
1,3,5-Trimethylbenzene	0.022	0.020	--	0.108	0.098	--		1
1,2,4-Trimethylbenzene	0.058	0.020	--	0.285	0.098	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.500	--	ND	2.74	--		1
p-Isopropyltoluene	ND	0.500	--	ND	2.74	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.500	--	ND	2.74	--		1



**Project Name:** ALVAREZ HIGH SCHOOL**Lab Number:** L1111433**Project Number:** 14687.01**Report Date:** 08/03/11**SAMPLE RESULTS**

Lab ID: L1111433-04

Date Collected: 07/26/11 08:36

Client ID: ELEVATOR HALLWAY

Date Received: 07/27/11

Sample Location: PROVIDENCE, RI

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	93		60-140
bromochloromethane	92		60-140
chlorobenzene-d5	92		60-140



**Project Name:** ALVAREZ HIGH SCHOOL**Lab Number:** L1111433**Project Number:** 14687.01**Report Date:** 08/03/11**SAMPLE RESULTS**

Lab ID: L1111433-05  
 Client ID: RM 145  
 Sample Location: PROVIDENCE, RI  
 Matrix: Air  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 07/29/11 21:09  
 Analyst: RY

Date Collected: 07/26/11 08:46  
 Date Received: 07/27/11  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	0.455	0.050	--	2.25	0.247	--		1
Chloromethane	ND	0.500	--	ND	1.03	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	10.7	2.00	--	25.4	4.75	--		1
Trichlorofluoromethane	0.210	0.050	--	1.18	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.08	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	1.01	1.00	--	3.51	3.47	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.020	--	ND	0.072	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	0.050	0.020	--	0.244	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	0.103	0.100	--	0.329	0.319	--		1
Carbon tetrachloride	0.064	0.020	--	0.402	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1



**Project Name:** ALVAREZ HIGH SCHOOL**Lab Number:** L1111433**Project Number:** 14687.01**Report Date:** 08/03/11**SAMPLE RESULTS**

Lab ID: L1111433-05

Date Collected: 07/26/11 08:46

Client ID: RM 145

Date Received: 07/27/11

Sample Location: PROVIDENCE, RI

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	0.371	0.050	--	1.40	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	0.109	0.020	--	0.739	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.020	--	ND	0.092	--		1
Ethylbenzene	0.082	0.020	--	0.356	0.087	--		1
p/m-Xylene	0.199	0.040	--	0.864	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	0.047	0.020	--	0.200	0.085	--		1
1,1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	0.071	0.020	--	0.308	0.087	--		1
Isopropylbenzene	ND	0.500	--	ND	2.46	--		1
1,3,5-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	0.059	0.020	--	0.290	0.098	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.500	--	ND	2.74	--		1
p-Isopropyltoluene	ND	0.500	--	ND	2.74	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.500	--	ND	2.74	--		1

**Project Name:** ALVAREZ HIGH SCHOOL**Lab Number:** L1111433**Project Number:** 14687.01**Report Date:** 08/03/11**SAMPLE RESULTS**

Lab ID: L1111433-05

Date Collected: 07/26/11 08:46

Client ID: RM 145

Date Received: 07/27/11

Sample Location: PROVIDENCE, RI

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	98		60-140
bromochloromethane	97		60-140
chlorobenzene-d5	96		60-140

**Project Name:** ALVAREZ HIGH SCHOOL**Lab Number:** L1111433**Project Number:** 14687.01**Report Date:** 08/03/11**SAMPLE RESULTS**

Lab ID: L1111433-06  
 Client ID: RM 152  
 Sample Location: PROVIDENCE, RI  
 Matrix: Air  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 07/29/11 21:44  
 Analyst: RY

Date Collected: 07/26/11 08:47  
 Date Received: 07/27/11  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	0.458	0.050	--	2.26	0.247	--		1
Chloromethane	ND	0.500	--	ND	1.03	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	16.6	2.00	--	39.4	4.75	--		1
Trichlorofluoromethane	0.208	0.050	--	1.17	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.08	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	2.95	1.00	--	10.2	3.47	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.020	--	ND	0.072	--		1
2-Butanone	1.02	0.500	--	3.01	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	0.032	0.020	--	0.156	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	0.067	0.020	--	0.421	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1





**Project Name:** ALVAREZ HIGH SCHOOL**Lab Number:** L1111433**Project Number:** 14687.01**Report Date:** 08/03/11**SAMPLE RESULTS**

Lab ID: L1111433-06

Date Collected: 07/26/11 08:47

Client ID: RM 152

Date Received: 07/27/11

Sample Location: PROVIDENCE, RI

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	0.248	0.050	--	0.934	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	0.068	0.020	--	0.461	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.020	--	ND	0.092	--		1
Ethylbenzene	0.041	0.020	--	0.178	0.087	--		1
p/m-Xylene	0.112	0.040	--	0.486	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	0.038	0.020	--	0.165	0.087	--		1
Isopropylbenzene	ND	0.500	--	ND	2.46	--		1
1,3,5-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	0.036	0.020	--	0.177	0.098	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.500	--	ND	2.74	--		1
p-Isopropyltoluene	ND	0.500	--	ND	2.74	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.500	--	ND	2.74	--		1



**Project Name:** ALVAREZ HIGH SCHOOL**Lab Number:** L1111433**Project Number:** 14687.01**Report Date:** 08/03/11**SAMPLE RESULTS**

Lab ID: L1111433-06

Date Collected: 07/26/11 08:47

Client ID: RM 152

Date Received: 07/27/11

Sample Location: PROVIDENCE, RI

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	89		60-140
bromochloromethane	95		60-140
chlorobenzene-d5	93		60-140

**Project Name:** ALVAREZ HIGH SCHOOL**Lab Number:** L1111433**Project Number:** 14687.01**Report Date:** 08/03/11**SAMPLE RESULTS**

Lab ID: L1111433-07  
 Client ID: RM 118  
 Sample Location: PROVIDENCE, RI  
 Matrix: Air  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 07/29/11 22:19  
 Analyst: RY

Date Collected: 07/26/11 08:44  
 Date Received: 07/27/11  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	0.458	0.050	--	2.26	0.247	--		1
Chloromethane	ND	0.500	--	ND	1.03	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	12.1	2.00	--	28.7	4.75	--		1
Trichlorofluoromethane	0.217	0.050	--	1.22	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.08	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	1.00	--	ND	3.47	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.020	--	ND	0.072	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	0.034	0.020	--	0.166	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	0.064	0.020	--	0.402	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1



**Project Name:** ALVAREZ HIGH SCHOOL**Lab Number:** L1111433**Project Number:** 14687.01**Report Date:** 08/03/11**SAMPLE RESULTS**

Lab ID: L1111433-07

Date Collected: 07/26/11 08:44

Client ID: RM 118

Date Received: 07/27/11

Sample Location: PROVIDENCE, RI

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	0.430	0.050	--	1.62	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	0.081	0.020	--	0.549	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.020	--	ND	0.092	--		1
Ethylbenzene	0.069	0.020	--	0.300	0.087	--		1
p/m-Xylene	0.184	0.040	--	0.799	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	0.074	0.020	--	0.315	0.085	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	0.068	0.020	--	0.295	0.087	--		1
Isopropylbenzene	ND	0.500	--	ND	2.46	--		1
1,3,5-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	0.048	0.020	--	0.236	0.098	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.500	--	ND	2.74	--		1
p-Isopropyltoluene	ND	0.500	--	ND	2.74	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.500	--	ND	2.74	--		1



**Project Name:** ALVAREZ HIGH SCHOOL**Lab Number:** L1111433**Project Number:** 14687.01**Report Date:** 08/03/11**SAMPLE RESULTS**

Lab ID: L1111433-07

Date Collected: 07/26/11 08:44

Client ID: RM 118

Date Received: 07/27/11

Sample Location: PROVIDENCE, RI

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	104		60-140
bromochloromethane	102		60-140
chlorobenzene-d5	102		60-140

**Project Name:** ALVAREZ HIGH SCHOOL**Lab Number:** L1111433**Project Number:** 14687.01**Report Date:** 08/03/11**SAMPLE RESULTS**

Lab ID: L1111433-08  
 Client ID: RM 110  
 Sample Location: PROVIDENCE, RI  
 Matrix: Air  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 07/29/11 22:53  
 Analyst: RY

Date Collected: 07/26/11 09:42  
 Date Received: 07/27/11  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	0.474	0.050	--	2.34	0.247	--		1
Chloromethane	ND	0.500	--	ND	1.03	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	3.02	2.00	--	7.17	4.75	--		1
Trichlorofluoromethane	0.229	0.050	--	1.29	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.08	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	1.00	--	ND	3.47	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.020	--	ND	0.072	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	0.026	0.020	--	0.127	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	0.067	0.020	--	0.421	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1



**Project Name:** ALVAREZ HIGH SCHOOL**Lab Number:** L1111433**Project Number:** 14687.01**Report Date:** 08/03/11**SAMPLE RESULTS**

Lab ID: L1111433-08

Date Collected: 07/26/11 09:42

Client ID: RM 110

Date Received: 07/27/11

Sample Location: PROVIDENCE, RI

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	0.281	0.050	--	1.06	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	0.048	0.020	--	0.325	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.020	--	ND	0.092	--		1
Ethylbenzene	0.044	0.020	--	0.191	0.087	--		1
p/m-Xylene	0.188	0.040	--	0.816	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	0.310	0.020	--	1.32	0.085	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	0.091	0.020	--	0.395	0.087	--		1
Isopropylbenzene	ND	0.500	--	ND	2.46	--		1
1,3,5-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	0.032	0.020	--	0.157	0.098	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.500	--	ND	2.74	--		1
p-Isopropyltoluene	ND	0.500	--	ND	2.74	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.500	--	ND	2.74	--		1



**Project Name:** ALVAREZ HIGH SCHOOL**Lab Number:** L1111433**Project Number:** 14687.01**Report Date:** 08/03/11**SAMPLE RESULTS**

Lab ID: L1111433-08

Date Collected: 07/26/11 09:42

Client ID: RM 110

Date Received: 07/27/11

Sample Location: PROVIDENCE, RI

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	98		60-140
bromochloromethane	99		60-140
chlorobenzene-d5	97		60-140



**Project Name:** ALVAREZ HIGH SCHOOL**Lab Number:** L1111433**Project Number:** 14687.01**Report Date:** 08/03/11**SAMPLE RESULTS**

Lab ID: L1111433-09  
 Client ID: AMBIENT OUTDOOR  
 Sample Location: PROVIDENCE, RI  
 Matrix: Air  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 07/29/11 18:16  
 Analyst: RY

Date Collected: 07/26/11 11:29  
 Date Received: 07/27/11  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	0.476	0.050	--	2.35	0.247	--		1
Chloromethane	ND	0.500	--	1.03	1.03	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	3.72	2.00	--	8.84	4.75	--		1
Trichlorofluoromethane	0.216	0.050	--	1.21	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.08	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	1.55	1.00	--	5.38	3.47	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.020	--	ND	0.072	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	0.030	0.020	--	0.146	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	0.073	0.020	--	0.459	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1



**Project Name:** ALVAREZ HIGH SCHOOL**Lab Number:** L1111433**Project Number:** 14687.01**Report Date:** 08/03/11**SAMPLE RESULTS**

Lab ID: L1111433-09

Date Collected: 07/26/11 11:29

Client ID: AMBIENT OUTDOOR

Date Received: 07/27/11

Sample Location: PROVIDENCE, RI

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	0.173	0.050	--	0.652	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	0.033	0.020	--	0.224	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.020	--	ND	0.092	--		1
Ethylbenzene	0.037	0.020	--	0.161	0.087	--		1
p/m-Xylene	0.093	0.040	--	0.404	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	0.032	0.020	--	0.139	0.087	--		1
Isopropylbenzene	ND	0.500	--	ND	2.46	--		1
1,3,5-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	0.025	0.020	--	0.123	0.098	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.500	--	ND	2.74	--		1
p-Isopropyltoluene	ND	0.500	--	ND	2.74	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.500	--	ND	2.74	--		1



**Project Name:** ALVAREZ HIGH SCHOOL**Lab Number:** L1111433**Project Number:** 14687.01**Report Date:** 08/03/11**SAMPLE RESULTS**

Lab ID: L1111433-09

Date Collected: 07/26/11 11:29

Client ID: AMBIENT OUTDOOR

Date Received: 07/27/11

Sample Location: PROVIDENCE, RI

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	96		60-140
bromochloromethane	97		60-140
chlorobenzene-d5	94		60-140

Project Name: ALVAREZ HIGH SCHOOL

Lab Number: L1111433

Project Number: 14687.01

Report Date: 08/03/11

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15-SIM

Analytical Date: 07/29/11 14:02

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-09 Batch: WG481898-4								
Dichlorodifluoromethane	ND	0.050	--	ND	0.247	--		1
Chloromethane	ND	0.500	--	ND	1.03	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	ND	2.00	--	ND	4.75	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.08	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	1.00	--	ND	3.47	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.020	--	ND	0.072	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1



Project Name: ALVAREZ HIGH SCHOOL

Lab Number: L1111433

Project Number: 14687.01

Report Date: 08/03/11

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15-SIM

Analytical Date: 07/29/11 14:02

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-09 Batch: WG481898-4								
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.020	--	ND	0.092	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.500	--	ND	2.46	--		1
1,3,5-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.500	--	ND	2.74	--		1
p-Isopropyltoluene	ND	0.500	--	ND	2.74	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.500	--	ND	2.74	--		1

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** ALVAREZ HIGH SCHOOL

**Lab Number:** L1111433

**Project Number:** 14687.01

**Report Date:** 08/03/11

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-09 Batch: WG481898-3								
Dichlorodifluoromethane	101		-		70-130	-		25
Chloromethane	96		-		70-130	-		25
Vinyl chloride	101		-		70-130	-		25
Chloroethane	100		-		70-130	-		25
Acetone	99		-		70-130	-		25
Trichlorofluoromethane	104		-		70-130	-		25
Acrylonitrile	103		-		70-130	-		25
1,1-Dichloroethene	102		-		70-130	-		25
Methylene chloride	88		-		70-130	-		25
trans-1,2-Dichloroethene	97		-		70-130	-		25
1,1-Dichloroethane	101		-		70-130	-		25
Methyl tert butyl ether	102		-		70-130	-		25
2-Butanone	99		-		70-130	-		25
cis-1,2-Dichloroethene	101		-		70-130	-		25
Chloroform	104		-		70-130	-		25
1,2-Dichloroethane	97		-		70-130	-		25
1,1,1-Trichloroethane	83		-		70-130	-		25
Benzene	90		-		70-130	-		25
Carbon tetrachloride	92		-		70-130	-		25
1,2-Dichloropropane	96		-		70-130	-		25
Bromodichloromethane	91		-		70-130	-		25

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** ALVAREZ HIGH SCHOOL

**Lab Number:** L1111433

**Project Number:** 14687.01

**Report Date:** 08/03/11

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-09 Batch: WG481898-3								
Trichloroethene	95		-		70-130	-		25
cis-1,3-Dichloropropene	99		-		70-130	-		25
4-Methyl-2-pentanone	88		-		70-130	-		25
trans-1,3-Dichloropropene	84		-		70-130	-		25
1,1,2-Trichloroethane	99		-		70-130	-		25
Toluene	93		-		70-130	-		25
Dibromochloromethane	89		-		70-130	-		25
1,2-Dibromoethane	101		-		70-130	-		25
Tetrachloroethene	96		-		70-130	-		25
1,1,1,2-Tetrachloroethane	102		-		70-130	-		25
Chlorobenzene	102		-		70-130	-		25
Ethylbenzene	102		-		70-130	-		25
p/m-Xylene	104		-		70-130	-		25
Bromoform	84		-		70-130	-		25
Styrene	109		-		70-130	-		25
1,1,2,2-Tetrachloroethane	107		-		70-130	-		25
o-Xylene	103		-		70-130	-		25
Isopropylbenzene	111		-		70-130	-		25
1,3,5-Trimethylbenzene	108		-		70-130	-		25
1,2,4-Trimethylbenzene	110		-		70-130	-		25
1,3-Dichlorobenzene	107		-		70-130	-		25

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** ALVAREZ HIGH SCHOOL

**Project Number:** 14687.01

**Lab Number:** L1111433

**Report Date:** 08/03/11

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-09 Batch: WG481898-3								
1,4-Dichlorobenzene	103		-		70-130	-		25
sec-Butylbenzene	114		-		70-130	-		25
p-Isopropyltoluene	105		-		70-130	-		25
1,2-Dichlorobenzene	112		-		70-130	-		25
n-Butylbenzene	117		-		70-130	-		25



## Lab Duplicate Analysis

Batch Quality Control

Project Name: ALVAREZ HIGH SCHOOL

Project Number: 14687.01

Lab Number: L1111433

Report Date: 08/03/11

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-09 QC Batch ID: WG481898-5 QC Sample: L1111434-04 Client ID: DUP Sample						
Dichlorodifluoromethane	0.463	0.447	ppbV	4		25
Chloromethane	ND	ND	ppbV	NC		25
Vinyl chloride	ND	ND	ppbV	NC		25
Chloroethane	ND	ND	ppbV	NC		25
Acetone	50.4	47.7	ppbV	6		25
Trichlorofluoromethane	0.233	0.223	ppbV	4		25
Acrylonitrile	ND	ND	ppbV	NC		25
1,1-Dichloroethene	ND	ND	ppbV	NC		25
Methylene chloride	ND	ND	ppbV	NC		25
trans-1,2-Dichloroethene	ND	ND	ppbV	NC		25
1,1-Dichloroethane	ND	ND	ppbV	NC		25
Methyl tert butyl ether	ND	ND	ppbV	NC		25
2-Butanone	28.1	26.5	ppbV	6		25
cis-1,2-Dichloroethene	ND	ND	ppbV	NC		25
Chloroform	ND	ND	ppbV	NC		25
1,2-Dichloroethane	ND	ND	ppbV	NC		25
1,1,1-Trichloroethane	ND	ND	ppbV	NC		25
Benzene	ND	ND	ppbV	NC		25
Carbon tetrachloride	ND	ND	ppbV	NC		25

## Lab Duplicate Analysis

Batch Quality Control

Project Name: ALVAREZ HIGH SCHOOL

Project Number: 14687.01

Lab Number: L1111433

Report Date: 08/03/11

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-09 QC Batch ID: WG481898-5 QC Sample: L1111434-04 Client ID: DUP Sample					
1,2-Dichloropropane	ND	ND	ppbV	NC	25
Bromodichloromethane	ND	ND	ppbV	NC	25
Trichloroethene	ND	ND	ppbV	NC	25
cis-1,3-Dichloropropene	ND	ND	ppbV	NC	25
4-Methyl-2-pentanone	ND	ND	ppbV	NC	25
trans-1,3-Dichloropropene	ND	ND	ppbV	NC	25
1,1,2-Trichloroethane	ND	ND	ppbV	NC	25
Toluene	1.05	1.02	ppbV	3	25
Dibromochloromethane	ND	ND	ppbV	NC	25
1,2-Dibromoethane	ND	ND	ppbV	NC	25
Tetrachloroethene	0.123	0.120	ppbV	2	25
1,1,1,2-Tetrachloroethane	ND	ND	ppbV	NC	25
Chlorobenzene	ND	ND	ppbV	NC	25
Ethylbenzene	0.217	0.203	ppbV	7	25
p/m-Xylene	0.913	0.870	ppbV	5	25
Bromoform	ND	ND	ppbV	NC	25
Styrene	0.183	0.173	ppbV	6	25
1,1,2,2-Tetrachloroethane	ND	ND	ppbV	NC	25
o-Xylene	0.333	0.320	ppbV	4	25

## Lab Duplicate Analysis

Batch Quality Control

Project Name: ALVAREZ HIGH SCHOOL

Project Number: 14687.01

Lab Number: L1111433

Report Date: 08/03/11

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-09 QC Batch ID: WG481898-5 QC Sample: L1111434-04 Client ID: DUP Sample					
Isopropylbenzene	ND	ND	ppbV	NC	25
1,3,5-Trimethylbenzene	0.180	0.170	ppbV	6	25
1,2,4-Trimethylbenzene	0.543	0.513	ppbV	6	25
1,3-Dichlorobenzene	ND	ND	ppbV	NC	25
1,4-Dichlorobenzene	0.866	0.836	ppbV	4	25
sec-Butylbenzene	ND	ND	ppbV	NC	25
p-Isopropyltoluene	ND	ND	ppbV	NC	25
1,2-Dichlorobenzene	ND	ND	ppbV	NC	25
n-Butylbenzene	ND	ND	ppbV	NC	25

**Canister and Flow Controller Information**

Samplenum	Client ID	Media ID	Media Type	Cleaning Batch ID	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Out mL/min	Flow In mL/min	% RSD
L1111433-01	GYMNASIUM	0338	#90 AMB		-	-	160	174	8
L1111433-01	GYMNASIUM	1664	6.0L Can	L1110632	-29.4	-3.2	-	-	-
L1111433-02	CAFETERIA	0332	#90 SV		-	-	159	168	6
L1111433-02	CAFETERIA	1535	6.0L Can	L1110632	-29.0	-5.0	-	-	-
L1111433-03	KITCHEN STORAGE RM	0099	#90 AMB		-	-	157	175	11
L1111433-03	KITCHEN STORAGE RM	1531	6.0L Can	L1110632	-29.5	-3.5	-	-	-
L1111433-04	ELEVATOR HALLWAY	0358	#16 AMB		-	-	158	175	10
L1111433-04	ELEVATOR HALLWAY	1060	6.0L Can	L1110632	-29.4	-4.0	-	-	-
L1111433-05	RM 145	0445	#90 SV		-	-	160	169	5
L1111433-05	RM 145	963	6.0L Can	L1110632	-29.3	-4.6	-	-	-
L1111433-06	RM 152	0342	#30 SV		-	-	154	158	3
L1111433-06	RM 152	1769	6.0L Can	L1110632	-28.3	-3.1	-	-	-
L1111433-07	RM 118	0025	#20 AMB		-	-	156	160	3
L1111433-07	RM 118	1712	6.0L Can	L1110632	-29.5	-5.7	-	-	-
L1111433-08	RM 110	0424	#90 SV		-	-	154	170	10
L1111433-08	RM 110	903	6.0L Can	L1110016	-29.4	-2.9	-	-	-
L1111433-09	AMBIENT OUTDOOR	0288	#90 AMB		-	-	160	185	14



**Project Name:** ALVAREZ HIGH SCHOOL

Serial\_No:08031117:09

**Lab Number:** L1111433

**Project Number:** 14687.01

**Report Date:** 08/03/11

**Canister and Flow Controller Information**

Samplenum	Client ID	Media ID	Media Type	Cleaning Batch ID	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Out mL/min	Flow In mL/min	% RSD
L1111433-09	AMBIENT OUTDOOR	1524	6.0L Can	L1110632	-29.0	-4.0	-	-	-



# **Air Volatiles Can Certification**

**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-01  
 Client ID: CAN 1632 SHELF 47  
 Sample Location:  
 Matrix: Air  
 Analytical Method: 48,TO-15  
 Analytical Date: 07/08/11 10:06  
 Analyst: RY

Date Collected: 06/30/11 00:00  
 Date Received: 06/30/11  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.860	--		1
Propane	ND	0.200	--	ND	0.361	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	2.50	--	ND	4.71	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.200	--	ND	0.434	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-01

Date Collected: 06/30/11 00:00

Client ID: CAN 1632 SHELF 47

Date Received: 06/30/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab								
Methylene chloride	ND	1.00	--	ND	3.47	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	0.200	--	ND	0.704	--		1
2-Butanone	ND	0.200	--	ND	0.590	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.200	--	ND	0.590	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1





**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-01

Date Collected: 06/30/11 00:00

Client ID: CAN 1632 SHELF 47

Date Received: 06/30/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab								
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
2,4,4-trimethyl-1-pentene	ND	0.500	--	ND	2.29	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.200	--	ND	0.820	--		1
2,4,4-trimethyl-2-pentene	ND	0.500	--	ND	2.29	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.20	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-01

Date Collected: 06/30/11 00:00

Client ID: CAN 1632 SHELF 47

Date Received: 06/30/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab								
Bromobenzene	ND	0.200	--	ND	0.793	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-01

Date Collected: 06/30/11 00:00

Client ID: CAN 1632 SHELF 47

Date Received: 06/30/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	101		60-140
Bromochloromethane	99		60-140
chlorobenzene-d5	89		60-140

**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-01  
 Client ID: CAN 1632 SHELF 47  
 Sample Location:  
 Matrix: Air  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 07/08/11 10:06  
 Analyst: RY

Date Collected: 06/30/11 00:00  
 Date Received: 06/30/11  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air by SIM - Mansfield Lab</b>								
Dichlorodifluoromethane	ND	0.050	--	ND	0.247	--		1
Chloromethane	ND	0.500	--	ND	1.03	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	ND	2.00	--	ND	4.75	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.08	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	1.00	--	ND	3.47	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
Halothane	ND	0.050	--	ND	0.404	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.020	--	ND	0.072	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-01  
 Client ID: CAN 1632 SHELF 47  
 Sample Location:

Date Collected: 06/30/11 00:00  
 Date Received: 06/30/11  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.020	--	ND	0.092	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	0.072	0.040	--	0.313	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.500	--	ND	2.46	--		1
1,3,5-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.500	--	ND	2.74	--		1
p-Isopropyltoluene	ND	0.500	--	ND	2.74	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.500	--	ND	2.74	--		1



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-01

Date Collected: 06/30/11 00:00

Client ID: CAN 1632 SHELF 47

Date Received: 06/30/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-01

Date Collected: 06/30/11 00:00

Client ID: CAN 1632 SHELF 47

Date Received: 06/30/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	101		60-140
bromochloromethane	98		60-140
chlorobenzene-d5	90		60-140

**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-02  
 Client ID: CAN 1546 SHELF 52  
 Sample Location:  
 Matrix: Air  
 Analytical Method: 48,TO-15  
 Analytical Date: 07/07/11 19:58  
 Analyst: RY

Date Collected: 07/07/11 00:00  
 Date Received: 07/07/11  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.860	--		1
Propane	ND	0.200	--	ND	0.361	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	2.50	--	ND	4.71	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.200	--	ND	0.434	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1





**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-02

Date Collected: 07/07/11 00:00

Client ID: CAN 1546 SHELF 52

Date Received: 07/07/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab								
Methylene chloride	ND	1.00	--	ND	3.47	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	0.200	--	ND	0.704	--		1
2-Butanone	ND	0.200	--	ND	0.590	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.200	--	ND	0.590	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-02

Date Collected: 07/07/11 00:00

Client ID: CAN 1546 SHELF 52

Date Received: 07/07/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab								
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
2,4,4-trimethyl-1-pentene	ND	0.500	--	ND	2.29	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.200	--	ND	0.820	--		1
2,4,4-trimethyl-2-pentene	ND	0.500	--	ND	2.29	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.20	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1

**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-02

Date Collected: 07/07/11 00:00

Client ID: CAN 1546 SHELF 52

Date Received: 07/07/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab								
Bromobenzene	ND	0.200	--	ND	0.793	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

**Project Name:** BATCH CANISTER CERTIFICATION

**Lab Number:** L1110016

**Project Number:** CANISTER QC BAT

**Report Date:** 08/03/11

**Air Canister Certification Results**

Lab ID: L1110016-02

Date Collected: 07/07/11 00:00

Client ID: CAN 1546 SHELF 52

Date Received: 07/07/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	96		60-140
Bromochloromethane	96		60-140
chlorobenzene-d5	92		60-140



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-02  
 Client ID: CAN 1546 SHELF 52  
 Sample Location:  
 Matrix: Air  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 07/07/11 19:58  
 Analyst: RY

Date Collected: 07/07/11 00:00  
 Date Received: 07/07/11  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.050	--	ND	0.247	--		1
Chloromethane	ND	0.500	--	ND	1.03	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	ND	2.00	--	ND	4.75	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.08	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	1.00	--	ND	3.47	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
Halothane	ND	0.050	--	ND	0.404	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.020	--	ND	0.072	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-02

Date Collected: 07/07/11 00:00

Client ID: CAN 1546 SHELF 52

Date Received: 07/07/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.020	--	ND	0.092	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.500	--	ND	2.46	--		1
1,3,5-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.500	--	ND	2.74	--		1
p-Isopropyltoluene	ND	0.500	--	ND	2.74	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.500	--	ND	2.74	--		1



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-02

Date Collected: 07/07/11 00:00

Client ID: CAN 1546 SHELF 52

Date Received: 07/07/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-02

Date Collected: 07/07/11 00:00

Client ID: CAN 1546 SHELF 52

Date Received: 07/07/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	96		60-140
bromochloromethane	95		60-140
chlorobenzene-d5	94		60-140



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-03  
 Client ID: CAN 705 SHELF 41  
 Sample Location:  
 Matrix: Air  
 Analytical Method: 48,TO-15  
 Analytical Date: 07/15/11 16:26  
 Analyst: RY

Date Collected: 07/07/11 00:00  
 Date Received: 07/07/11  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.860	--		1
Propane	ND	0.200	--	ND	0.361	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	2.50	--	ND	4.71	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.200	--	ND	0.434	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-03

Date Collected: 07/07/11 00:00

Client ID: CAN 705 SHELF 41

Date Received: 07/07/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab								
Methylene chloride	ND	1.00	--	ND	3.47	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	0.200	--	ND	0.704	--		1
2-Butanone	ND	0.200	--	ND	0.590	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.200	--	ND	0.590	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-03

Date Collected: 07/07/11 00:00

Client ID: CAN 705 SHELF 41

Date Received: 07/07/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab								
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
2,4,4-trimethyl-1-pentene	ND	0.500	--	ND	2.29	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.200	--	ND	0.820	--		1
2,4,4-trimethyl-2-pentene	ND	0.500	--	ND	2.29	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.20	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-03

Date Collected: 07/07/11 00:00

Client ID: CAN 705 SHELF 41

Date Received: 07/07/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab								
Bromobenzene	ND	0.200	--	ND	0.793	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

**Project Name:** BATCH CANISTER CERTIFICATION

**Lab Number:** L1110016

**Project Number:** CANISTER QC BAT

**Report Date:** 08/03/11

**Air Canister Certification Results**

Lab ID: L1110016-03

Date Collected: 07/07/11 00:00

Client ID: CAN 705 SHELF 41

Date Received: 07/07/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	94		60-140
Bromochloromethane	97		60-140
chlorobenzene-d5	82		60-140



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-03  
 Client ID: CAN 705 SHELF 41  
 Sample Location:  
 Matrix: Air  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 07/15/11 16:26  
 Analyst: RY

Date Collected: 07/07/11 00:00  
 Date Received: 07/07/11  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.050	--	ND	0.247	--		1
Chloromethane	ND	0.500	--	ND	1.03	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	ND	2.00	--	ND	4.75	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.08	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	1.00	--	ND	3.47	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
Halothane	ND	0.050	--	ND	0.404	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.020	--	ND	0.072	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-03

Date Collected: 07/07/11 00:00

Client ID: CAN 705 SHELF 41

Date Received: 07/07/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.020	--	ND	0.092	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.500	--	ND	2.46	--		1
1,3,5-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.500	--	ND	2.74	--		1
p-Isopropyltoluene	ND	0.500	--	ND	2.74	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.500	--	ND	2.74	--		1



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-03

Date Collected: 07/07/11 00:00

Client ID: CAN 705 SHELF 41

Date Received: 07/07/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-03

Date Collected: 07/07/11 00:00

Client ID: CAN 705 SHELF 41

Date Received: 07/07/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	95		60-140
bromochloromethane	101		60-140
chlorobenzene-d5	89		60-140

**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-04  
 Client ID: CAN 111 SHELF 1  
 Sample Location:  
 Matrix: Air  
 Analytical Method: 48,TO-15  
 Analytical Date: 07/15/11 17:00  
 Analyst: RY

Date Collected: 07/07/11 00:00  
 Date Received: 07/07/11  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.860	--		1
Propane	ND	0.200	--	ND	0.361	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	2.50	--	ND	4.71	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.200	--	ND	0.434	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-04

Date Collected: 07/07/11 00:00

Client ID: CAN 111 SHELF 1

Date Received: 07/07/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab								
Methylene chloride	ND	1.00	--	ND	3.47	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	0.200	--	ND	0.704	--		1
2-Butanone	ND	0.200	--	ND	0.590	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.200	--	ND	0.590	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-04

Date Collected: 07/07/11 00:00

Client ID: CAN 111 SHELF 1

Date Received: 07/07/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab								
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
2,4,4-trimethyl-1-pentene	ND	0.500	--	ND	2.29	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.200	--	ND	0.820	--		1
2,4,4-trimethyl-2-pentene	ND	0.500	--	ND	2.29	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.20	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1

**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-04

Date Collected: 07/07/11 00:00

Client ID: CAN 111 SHELF 1

Date Received: 07/07/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab								
Bromobenzene	ND	0.200	--	ND	0.793	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

**Project Name:** BATCH CANISTER CERTIFICATION

**Lab Number:** L1110016

**Project Number:** CANISTER QC BAT

**Report Date:** 08/03/11

**Air Canister Certification Results**

Lab ID: L1110016-04

Date Collected: 07/07/11 00:00

Client ID: CAN 111 SHELF 1

Date Received: 07/07/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	87		60-140
Bromochloromethane	90		60-140
chlorobenzene-d5	83		60-140



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-04  
 Client ID: CAN 111 SHELF 1  
 Sample Location:  
 Matrix: Air  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 07/15/11 17:00  
 Analyst: RY

Date Collected: 07/07/11 00:00  
 Date Received: 07/07/11  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.050	--	ND	0.247	--		1
Chloromethane	ND	0.500	--	ND	1.03	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	ND	2.00	--	ND	4.75	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.08	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	1.00	--	ND	3.47	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
Halothane	ND	0.050	--	ND	0.404	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.020	--	ND	0.072	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-04

Date Collected: 07/07/11 00:00

Client ID: CAN 111 SHELF 1

Date Received: 07/07/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.020	--	ND	0.092	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.500	--	ND	2.46	--		1
1,3,5-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.500	--	ND	2.74	--		1
p-Isopropyltoluene	ND	0.500	--	ND	2.74	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.500	--	ND	2.74	--		1



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-04

Date Collected: 07/07/11 00:00

Client ID: CAN 111 SHELF 1

Date Received: 07/07/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-04

Date Collected: 07/07/11 00:00

Client ID: CAN 111 SHELF 1

Date Received: 07/07/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	89		60-140
bromochloromethane	93		60-140
chlorobenzene-d5	90		60-140

**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-05  
 Client ID: CAN 1497 SHELF 14  
 Sample Location:  
 Matrix: Air  
 Analytical Method: 48,TO-15  
 Analytical Date: 07/12/11 18:35  
 Analyst: AR

Date Collected: 07/07/11 00:00  
 Date Received: 07/07/11  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.860	--		1
Propane	ND	0.200	--	ND	0.361	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	2.50	--	ND	4.71	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.200	--	ND	0.434	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-05

Date Collected: 07/07/11 00:00

Client ID: CAN 1497 SHELF 14

Date Received: 07/07/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab								
Methylene chloride	ND	1.00	--	ND	3.47	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	0.200	--	ND	0.704	--		1
2-Butanone	ND	0.200	--	ND	0.590	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.200	--	ND	0.590	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1

**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-05

Date Collected: 07/07/11 00:00

Client ID: CAN 1497 SHELF 14

Date Received: 07/07/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab								
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
2,4,4-trimethyl-1-pentene	ND	0.500	--	ND	2.29	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.200	--	ND	0.820	--		1
2,4,4-trimethyl-2-pentene	ND	0.500	--	ND	2.29	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.20	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1

**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-05

Date Collected: 07/07/11 00:00

Client ID: CAN 1497 SHELF 14

Date Received: 07/07/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab								
Bromobenzene	ND	0.200	--	ND	0.793	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-05

Date Collected: 07/07/11 00:00

Client ID: CAN 1497 SHELF 14

Date Received: 07/07/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	95		60-140
Bromochloromethane	94		60-140
chlorobenzene-d5	94		60-140

**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-05  
 Client ID: CAN 1497 SHELF 14  
 Sample Location:  
 Matrix: Air  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 07/15/11 17:35  
 Analyst: RY

Date Collected: 07/07/11 00:00  
 Date Received: 07/07/11  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.050	--	ND	0.247	--		1
Chloromethane	ND	0.500	--	ND	1.03	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	ND	2.00	--	ND	4.75	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.08	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	1.00	--	ND	3.47	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
Halothane	ND	0.050	--	ND	0.404	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.020	--	ND	0.072	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1





**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-05

Date Collected: 07/07/11 00:00

Client ID: CAN 1497 SHELF 14

Date Received: 07/07/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.020	--	ND	0.092	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.500	--	ND	2.46	--		1
1,3,5-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.500	--	ND	2.74	--		1
p-Isopropyltoluene	ND	0.500	--	ND	2.74	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.500	--	ND	2.74	--		1



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-05

Date Collected: 07/07/11 00:00

Client ID: CAN 1497 SHELF 14

Date Received: 07/07/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-05

Date Collected: 07/07/11 00:00

Client ID: CAN 1497 SHELF 14

Date Received: 07/07/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	84		60-140
bromochloromethane	92		60-140
chlorobenzene-d5	86		60-140

**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110632**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110632-01  
 Client ID: CAN 780 SHELF 47  
 Sample Location:  
 Matrix: Air  
 Analytical Method: 48,TO-15  
 Analytical Date: 07/16/11 16:08  
 Analyst: AJ

Date Collected: 07/14/11 00:00  
 Date Received: 07/14/11  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.860	--		1
Propane	ND	0.200	--	ND	0.361	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	2.50	--	ND	4.71	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.200	--	ND	0.434	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110632**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110632-01

Date Collected: 07/14/11 00:00

Client ID: CAN 780 SHELF 47

Date Received: 07/14/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab								
Methylene chloride	ND	1.00	--	ND	3.47	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	0.200	--	ND	0.704	--		1
2-Butanone	ND	0.200	--	ND	0.590	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.200	--	ND	0.590	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110632**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110632-01

Date Collected: 07/14/11 00:00

Client ID: CAN 780 SHELF 47

Date Received: 07/14/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab								
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
2,4,4-trimethyl-1-pentene	ND	0.500	--	ND	2.29	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.200	--	ND	0.820	--		1
2,4,4-trimethyl-2-pentene	ND	0.500	--	ND	2.29	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.20	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110632**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110632-01

Date Collected: 07/14/11 00:00

Client ID: CAN 780 SHELF 47

Date Received: 07/14/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab								
Bromobenzene	ND	0.200	--	ND	0.793	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110632**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110632-01

Date Collected: 07/14/11 00:00

Client ID: CAN 780 SHELF 47

Date Received: 07/14/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	87		60-140
Bromochloromethane	88		60-140
chlorobenzene-d5	82		60-140



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110632**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110632-01  
 Client ID: CAN 780 SHELF 47  
 Sample Location:  
 Matrix: Air  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 07/16/11 16:08  
 Analyst: RY

Date Collected: 07/14/11 00:00  
 Date Received: 07/14/11  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.050	--	ND	0.247	--		1
Chloromethane	ND	0.500	--	ND	1.03	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	ND	2.00	--	ND	4.75	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.08	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	1.00	--	ND	3.47	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
Halothane	ND	0.050	--	ND	0.404	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.020	--	ND	0.072	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110632**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110632-01

Date Collected: 07/14/11 00:00

Client ID: CAN 780 SHELF 47

Date Received: 07/14/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.020	--	ND	0.092	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.500	--	ND	2.46	--		1
1,3,5-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.500	--	ND	2.74	--		1
p-Isopropyltoluene	ND	0.500	--	ND	2.74	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.500	--	ND	2.74	--		1



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110632**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110632-01

Date Collected: 07/14/11 00:00

Client ID: CAN 780 SHELF 47

Date Received: 07/14/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110632**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110632-01

Date Collected: 07/14/11 00:00

Client ID: CAN 780 SHELF 47

Date Received: 07/14/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	96		60-140
bromochloromethane	91		60-140
chlorobenzene-d5	92		60-140

# **AIR Petro Can Certification**

**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**AIR CAN CERTIFICATION RESULTS**

**Lab ID:** L1110016-02  
**Client ID:** CAN 1546 SHELF 52  
**Sample Location:** Not Specified  
**Matrix:** Air  
**Analytical Method:** 96,APH  
**Analytical Date:** 07/15/11 14:13  
**Analyst:** RY

**Date Collected:** 07/07/11 00:00  
**Date Received:** 07/07/11  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Petroleum Hydrocarbons in Air - Mansfield Lab</b>						
1,3-Butadiene	ND		ug/m3	2.0	--	1
Methyl tert butyl ether	ND		ug/m3	2.0	--	1
Benzene	ND		ug/m3	2.0	--	1
Toluene	ND		ug/m3	2.0	--	1
C5-C8 Aliphatics, Adjusted	ND		ug/m3	12	--	1
Ethylbenzene	ND		ug/m3	2.0	--	1
p/m-Xylene	ND		ug/m3	4.0	--	1
o-Xylene	ND		ug/m3	2.0	--	1
Naphthalene	ND		ug/m3	2.0	--	1
C9-C12 Aliphatics, Adjusted	ND		ug/m3	14	--	1
C9-C10 Aromatics Total	ND		ug/m3	10	--	1

**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**AIR CAN CERTIFICATION RESULTS**

**Lab ID:** L1110016-03  
**Client ID:** CAN 705 SHELF 41  
**Sample Location:** Not Specified  
**Matrix:** Air  
**Analytical Method:** 96,APH  
**Analytical Date:** 07/15/11 14:51  
**Analyst:** RY

**Date Collected:** 07/07/11 00:00  
**Date Received:** 07/07/11  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Petroleum Hydrocarbons in Air - Mansfield Lab</b>						
1,3-Butadiene	ND		ug/m3	2.0	--	1
Methyl tert butyl ether	ND		ug/m3	2.0	--	1
Benzene	ND		ug/m3	2.0	--	1
Toluene	ND		ug/m3	2.0	--	1
C5-C8 Aliphatics, Adjusted	ND		ug/m3	12	--	1
Ethylbenzene	ND		ug/m3	2.0	--	1
p/m-Xylene	ND		ug/m3	4.0	--	1
o-Xylene	ND		ug/m3	2.0	--	1
Naphthalene	ND		ug/m3	2.0	--	1
C9-C12 Aliphatics, Adjusted	ND		ug/m3	14	--	1
C9-C10 Aromatics Total	ND		ug/m3	10	--	1

**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**AIR CAN CERTIFICATION RESULTS**

**Lab ID:** L1110016-04  
**Client ID:** CAN 111 SHELF 1  
**Sample Location:** Not Specified  
**Matrix:** Air  
**Analytical Method:** 96,APH  
**Analytical Date:** 07/15/11 15:30  
**Analyst:** RY

**Date Collected:** 07/07/11 00:00  
**Date Received:** 07/07/11  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Petroleum Hydrocarbons in Air - Mansfield Lab</b>						
1,3-Butadiene	ND		ug/m3	2.0	--	1
Methyl tert butyl ether	ND		ug/m3	2.0	--	1
Benzene	ND		ug/m3	2.0	--	1
Toluene	ND		ug/m3	2.0	--	1
C5-C8 Aliphatics, Adjusted	ND		ug/m3	12	--	1
Ethylbenzene	ND		ug/m3	2.0	--	1
p/m-Xylene	ND		ug/m3	4.0	--	1
o-Xylene	ND		ug/m3	2.0	--	1
Naphthalene	ND		ug/m3	2.0	--	1
C9-C12 Aliphatics, Adjusted	ND		ug/m3	14	--	1
C9-C10 Aromatics Total	ND		ug/m3	10	--	1



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**AIR CAN CERTIFICATION RESULTS**

**Lab ID:** L1110016-05  
**Client ID:** CAN 1497 SHELF 14  
**Sample Location:** Not Specified  
**Matrix:** Air  
**Analytical Method:** 96,APH  
**Analytical Date:** 07/15/11 16:09  
**Analyst:** RY

**Date Collected:** 07/07/11 00:00  
**Date Received:** 07/07/11  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Petroleum Hydrocarbons in Air - Mansfield Lab</b>						
1,3-Butadiene	ND		ug/m3	2.0	--	1
Methyl tert butyl ether	ND		ug/m3	2.0	--	1
Benzene	ND		ug/m3	2.0	--	1
Toluene	ND		ug/m3	2.0	--	1
C5-C8 Aliphatics, Adjusted	ND		ug/m3	12	--	1
Ethylbenzene	ND		ug/m3	2.0	--	1
p/m-Xylene	ND		ug/m3	4.0	--	1
o-Xylene	ND		ug/m3	2.0	--	1
Naphthalene	ND		ug/m3	2.0	--	1
C9-C12 Aliphatics, Adjusted	ND		ug/m3	14	--	1
C9-C10 Aromatics Total	ND		ug/m3	10	--	1

**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110632**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**AIR CAN CERTIFICATION RESULTS**

**Lab ID:** L1110632-01  
**Client ID:** CAN 780 SHELF 47  
**Sample Location:** Not Specified  
**Matrix:** Air  
**Analytical Method:** 96,APH  
**Analytical Date:** 07/19/11 20:54  
**Analyst:** AJ

**Date Collected:** 07/14/11 00:00  
**Date Received:** 07/14/11  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Petroleum Hydrocarbons in Air - Mansfield Lab</b>						
1,3-Butadiene	ND		ug/m3	2.0	--	1
Methyl tert butyl ether	ND		ug/m3	2.0	--	1
Benzene	ND		ug/m3	2.0	--	1
Toluene	ND		ug/m3	2.0	--	1
C5-C8 Aliphatics, Adjusted	ND		ug/m3	12	--	1
Ethylbenzene	ND		ug/m3	2.0	--	1
p/m-Xylene	ND		ug/m3	4.0	--	1
o-Xylene	ND		ug/m3	2.0	--	1
Naphthalene	ND		ug/m3	2.0	--	1
C9-C12 Aliphatics, Adjusted	ND		ug/m3	14	--	1
C9-C10 Aromatics Total	ND		ug/m3	10	--	1

**Project Name:** ALVAREZ HIGH SCHOOL**Project Number:** 14687.01**Lab Number:** L1111433**Report Date:** 08/03/11**Sample Receipt and Container Information**

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

**Cooler Information Custody Seal****Cooler**

N/A Absent

**Container Information**

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1111433-01A	Canister - 6 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1111433-02A	Canister - 6 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1111433-03A	Canister - 6 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1111433-04A	Canister - 6 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1111433-05A	Canister - 6 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1111433-06A	Canister - 6 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1111433-07A	Canister - 6 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1111433-08A	Canister - 6 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1111433-09A	Canister - 6 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)

\*Values in parentheses indicate holding time in days

**Project Name:** ALVAREZ HIGH SCHOOL  
**Project Number:** 14687.01

**Lab Number:** L1111433  
**Report Date:** 08/03/11

## GLOSSARY

### Acronyms

EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NI	- Not Ignitable.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

### Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

### Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

### Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (5x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The RPD between the results for the two columns exceeds the method-specified criteria; however, the lower value has been reported due to obvious interference.
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less

Report Format: Data Usability Report



**Project Name:** ALVAREZ HIGH SCHOOL  
**Project Number:** 14687.01

**Lab Number:** L1111433  
**Report Date:** 08/03/11

**Data Qualifiers**

than 5x the RL. (Metals only.)

**R** - Analytical results are from sample re-analysis.

**RE** - Analytical results are from sample re-extraction.

**J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

**ND** - Not detected at the reporting limit (RL) for the sample.

**Project Name:** ALVAREZ HIGH SCHOOL  
**Project Number:** 14687.01

**Lab Number:** L1111433  
**Report Date:** 08/03/11

## REFERENCES

- 48 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air. Second Edition. EPA/625/R-96/010b, January 1999.

## LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



## Certificate/Approval Program Summary

Last revised July 19, 2011 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held. For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

### **Connecticut Department of Public Health Certificate/Lab ID: PH-0141.**

*Wastewater/Non-Potable Water* (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable), Total Cyanide. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

*Solid Waste/Soil* (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, Zinc, Total Organic Carbon, Total Cyanide, Corrosivity, TCLP 1311. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

### **Florida Department of Health Certificate/Lab ID: E87814. *NELAP Accredited.***

*Non-Potable Water* (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

*Solid & Chemical Materials* (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

*Air & Emissions* (EPA TO-15.)

### **Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. *NELAP Accredited.***

*Non-Potable Water* (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

*Solid & Chemical Materials* (Inorganic Parameters: EPA 1311, 3050, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570B, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

*Biological Tissue* (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

*Air & Emissions* (EPA TO-15.)

### **New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. *NELAP Accredited.***

*Non-Potable Water* (Inorganic Parameters: EPA, 245.1, 245.7, 1631E, 180.1, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B. Organic Parameters: EPA 8081, 8082, 8260B, 8270C.)

*Solid & Chemical Materials* (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 3060A, 6020A, 7470A, 7471A, 9040B, 9045C, 7196A. Organic Parameters: SW-846 3540C, 3580, 3630C, 3640A, 3660B, 3665A, 5035, 8260B, 8270C, 8015D, 8082, 8081A.)

### **New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. *NELAP Accredited.***

*Non-Potable Water* (Inorganic Parameters: SW-846 1312, 3010, 3020A, 3015, SM2320B, SM2540D, 2540G, , EPA 180.1, 1631E, SW-846 7470A, 9040B, 6020. Organic Parameters: SW-846 3510C, 3580A, 5030B, 5035L, 5035H, 3630C, 3640C, 3660B, 3665A, 8015B 8081A, 8082, 8260B, 8270C)

*Solid & Chemical Materials* (Inorganic Parameters: SW-846 6020, 1311, 1312, 3050B, 3051, 3060A, 7196A, 7470A, 7471A, 9040B, 9045C, 9050A, 9060. Organic Parameters: SW-846 3540C, 3570, 3580A, 5030B, 5035L, 5035H, 3630C, 3640A, 3660B, 3665A, 8081A, 8082, 8260B, 8270C, 8015B.)

*Atmospheric Organic Parameters* (EPA TO-15)

*Biological Tissue* (Inorganic Parameters: SW-846 6020 Organic Parameters: SW-846 8270C, 3510C, 3570, 3610C, 3630C, 3640A)

**New York Department of Health** Certificate/Lab ID: 11627. **NELAP Accredited.**

*Non-Potable Water* (Inorganic Parameters: SM2320B, SM2540D, EPA 200.8, 6020, 1631E, 245.1, 245.7, 7470A, 9014, 9040B, 9050, 120.1, 4500CN-E, 4500H-B, EPA 376.2, 180.1, 3020A. Organic Parameters: EPA 8260B, 8270C, 8081A, 8082, 3510C, 5030B.)

*Solid & Hazardous Waste* (Inorganic Parameters: EPA 6020, 7196A, 3060A, 7471A, 7474, 9014, 9040B, 9045C, 9010B. Organic Parameters: EPA 8260B, 8270C, 8081A, DRO 8015B, 8082, 1311, 1312, 3050B, 3580, 3570, 3051, 5035, 5030B.)

*Air & Emissions* (EPA TO-15.)

**Rhode Island Department of Health** Certificate/Lab ID: LAO00299. **NELAP Accredited via LA-DEQ.**

Refer to LA-DEQ Certificate for Non-Potable Water.

**Texas Commission of Environmental Quality** Certificate/Lab ID: T104704419-08-TX. **NELAP Accredited.**

*Solid & Chemical Materials* (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 7196, 9014, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8260, 8081, 8082.)

*Air* (Organic Parameters: EPA TO-15)

**Washington State Department of Ecology** Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 2510B, EPA 120.1, 180.1, 1631E, 245.7.)

*Solid & Chemical Materials* (Inorganic Parameters: EPA 9040, 9060, 6020, 7470, 7471, 7474. Organic Parameters: EPA 8081, 8082, 8015 Mod, 8270, 8260.)

**U.S. Army Corps of Engineers**

**Department of Defense** Certificate/Lab ID: L2217.01.

*Non-Potable Water* (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 5030B, 8260B, 8270C, 8270C-ALK-PAH, 8082, 8081A, 8015D-SHC.)

*Solid & Hazardous Waste* (Inorganic Parameters: EPA 1311, 1312, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 5035A, 8260B, 8270C, 8270-ALK-PAH, 8082, 8081A, 8015D-SHC, 8015-DRO.

*Air & Emissions* (EPA TO-15.)

#### **Analytes Not Accredited by NELAP**

Certification is not available by NELAP for the following analytes: **8270C**: Biphenyl. **TO-15**: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.





# AIR ANALYSIS

PAGE 1 OF 1

## CHAIN OF CUSTODY

320 Forbes Blvd, Mansfield, MA 02048  
 TEL: 508-822-9300 FAX: 508-822-3288

### Client Information

Client: EA Engineering  
 Address: 2374 Post Road  
Suite 102  
 Phone: 401-736-3440  
 Fax: 401-736-3423  
 Email: rmack@eaest.com

### Project Information

Project Name: Alvarez High School  
 Project Location: Providence, RI  
 Project #: 14687.01  
 Project Manager: Frank Postma  
 ALPHA Quote #:

### Turn-Around Time

Standard  RUSH (only confirmed if pre-approved!)

Date Due: \_\_\_\_\_ Time: \_\_\_\_\_

Date Rec'd in Lab:

### Report Information - Data Deliverables

FAX  
 ADEX  
 Criteria Checker: \_\_\_\_\_  
 (Default based on Regulatory Criteria Indicated)  
 Other Formats: \_\_\_\_\_  
 EMAIL (standard pdf report)  
 Additional Deliverables:

Report to: (if different than Project Manager)  
rmack@eaest.com

ALPHA Job #: L111433

### Billing Information

Same as Client info PO #: \_\_\_\_\_

### Regulatory Requirements/Report Limits

State/Fed	Program	Criteria

These samples have been previously analyzed by Alpha

Other Project Specific Requirements/Comments:

### All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection					Sample Matrix*	Sampler's Initials	Can Size	ID Can	ID - Flow Controller	ANALYSIS						Sample Comments (i.e. PID)
		Date	Start Time	End Time	Initial Vacuum	Final Vacuum						TO-14A by TO-15	TO-15	TO-15 SIM	APH	FIXED GASES	TO-13A	
<u>L111433-1</u>	<u>Gymnasium</u>	<u>7/26/n</u>	<u>0802</u>	<u>0831</u>	<u>-29.53</u>	<u>-3.55</u>	<u>AA</u>	<u>PT/MT</u>	<u>6L</u>	<u>1664</u>	<u>0338</u>						<u>0 ppb</u>	
<u>-2</u>	<u>Cafeteria</u>		<u>0803</u>	<u>0833</u>	<u>-29.43</u>	<u>-5.48</u>				<u>1535</u>	<u>0332</u>						<u>0</u>	
<u>-3</u>	<u>Kitchen Storage Rm</u>		<u>0805</u>	<u>0834</u>	<u>-29.42</u>	<u>-4.14</u>				<u>1531</u>	<u>0099</u>						<u>0</u>	
<u>-4</u>	<u>Elevator Hallway</u>		<u>0807</u>	<u>0836</u>	<u>-29.31</u>	<u>-4.37</u>				<u>1060</u>	<u>0358</u>						<u>211</u>	
<u>-5</u>	<u>Rm 145</u>		<u>0815</u>	<u>0846</u>	<u>-29.44</u>	<u>-5.11</u>				<u>963</u>	<u>0445</u>						<u>0</u>	
<u>-6</u>	<u>Rm 152</u>		<u>0816</u>	<u>0847</u>	<u>-28.59</u>	<u>-3.74</u>				<u>1769</u>	<u>0342</u>						<u>0</u>	
<u>-7</u>	<u>Rm 118</u>		<u>0813</u>	<u>0844</u>	<u>-29.35</u>	<u>-6.21</u>				<u>1712</u>	<u>0025</u>						<u>0</u>	
<u>-8</u>	<u>Rm 110</u>		<u>0811</u>	<u>0842</u>	<u>-29.47</u>	<u>-3.23</u>				<u>403</u>	<u>0424</u>						<u>200</u>	
<u>-9</u>	<u>Ambient Outdoor</u>		<u>1100</u>	<u>1129</u>	<u>-29.53</u>	<u>-3.71</u>				<u>1524</u>	<u>0248</u>						<u>0</u>	

### \*SAMPLE MATRIX CODES

AA = Ambient Air (Indoor/Outdoor)  
 SV = Soil Vapor/Landfill Gas/SVE  
 Other = Please Specify \_\_\_\_\_

Container Type

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

Relinquished By:

Date/Time

Received By:

Date/Time:

[Signature]

7/27/11 1500  
7/27/11 1555

[Signature]

7/27/11 1500  
7/27/11 1555



## ***APPENDIX C***

### ***Subslab Vapor Analytical Summary and Lab Report***





## ANALYTICAL REPORT

Lab Number:	L1111434
Client:	EA Engineering, Science and Technology 2374 Post Road Suite 102 Warwick, RI 02886
ATTN:	Frank Postma
Phone:	(401) 736-3440
Project Name:	ALVAREZ HIGH SCHOOL
Project Number:	14687.01
Report Date:	08/03/11

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA030), NY (11627), CT (PH-0141), NH (2206), NJ (MA015), RI (LAO00299), ME (MA0030), PA (Registration #68-02089), LA NELAC (03090), FL NELAC (E87814), US Army Corps of Engineers.

---

320 Forbes Boulevard, Mansfield, MA 02048-1806  
508-822-9300 (Fax) 508-822-3288 800-624-9220 - [www.alphalab.com](http://www.alphalab.com)



**Project Name:** ALVAREZ HIGH SCHOOL  
**Project Number:** 14687.01

**Lab Number:** L1111434  
**Report Date:** 08/03/11

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>
L1111434-01	IMP-1	PROVIDENCE, RI	07/26/11 09:01
L1111434-02	IMP-2	PROVIDENCE, RI	07/26/11 09:28
L1111434-03	MP-1	PROVIDENCE, RI	07/26/11 11:21
L1111434-04	MP-3	PROVIDENCE, RI	07/26/11 11:31
L1111434-05	MP-4	PROVIDENCE, RI	07/26/11 11:50
L1111434-06	MP-6	PROVIDENCE, RI	07/26/11 11:45

**Project Name:** ALVAREZ HIGH SCHOOL  
**Project Number:** 14687.01

**Lab Number:** L1111434  
**Report Date:** 08/03/11

### Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

For additional information, please contact Client Services at 800-624-9220.

---

#### Volatile Organics in Air (SIM)

The canister certification results are provided as an addendum.

L111434-05 The RPD of the pre- and post-flow controller calibration check (25% RPD) was outside acceptable limits (< or = 20% RPD).

L111434-02, -04 and WG481898-5 Duplicate have elevated detection limits due to the dilution required by the elevated concentrations of non-target compounds in the samples.

L111434-03 and -06 have elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the samples.

**Project Name:** ALVAREZ HIGH SCHOOL  
**Project Number:** 14687.01

**Lab Number:** L1111434  
**Report Date:** 08/03/11


**Case Narrative (continued)**

L1111434-03, -05, and -06 were re-analyzed on dilution in order to quantitate the samples within the calibration range. The result should be considered estimated, and is qualified with an E flag, for any compound that exceeded the calibration on the initial analysis. The re-analysis was performed only for the compound that exceeded the calibration range.

L1111434-03 and -05 The presence of Chloromethane could not be determined in these samples due to non-target compounds interfering with the identification and quantification of this compound.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:



Kathleen O'Brien

Title: Technical Director/Representative

Date: 08/03/11



**AIR**

**Project Name:** ALVAREZ HIGH SCHOOL**Lab Number:** L1111434**Project Number:** 14687.01**Report Date:** 08/03/11**SAMPLE RESULTS**

Lab ID: L1111434-01  
 Client ID: IMP-1  
 Sample Location: PROVIDENCE, RI  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 07/30/11 01:09  
 Analyst: RY

Date Collected: 07/26/11 09:01  
 Date Received: 07/27/11  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	0.494	0.050	--	2.44	0.247	--		1
Chloromethane	ND	0.500	--	ND	1.03	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	5.41	2.00	--	12.8	4.75	--		1
Trichlorofluoromethane	0.289	0.050	--	1.62	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.08	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	1.64	1.00	--	5.70	3.47	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.020	--	ND	0.072	--		1
2-Butanone	0.702	0.500	--	2.07	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	0.050	0.020	--	0.244	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	0.064	0.020	--	0.402	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
Trichloroethene	0.046	0.020	--	0.247	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1



**Project Name:** ALVAREZ HIGH SCHOOL**Lab Number:** L1111434**Project Number:** 14687.01**Report Date:** 08/03/11**SAMPLE RESULTS**

Lab ID: L1111434-01

Date Collected: 07/26/11 09:01

Client ID: IMP-1

Date Received: 07/27/11

Sample Location: PROVIDENCE, RI

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	0.614	0.050	--	2.31	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	0.144	0.020	--	0.976	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.020	--	ND	0.092	--		1
Ethylbenzene	0.070	0.020	--	0.304	0.087	--		1
p/m-Xylene	0.220	0.040	--	0.956	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	0.288	0.020	--	1.23	0.085	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	0.084	0.020	--	0.365	0.087	--		1
Isopropylbenzene	ND	0.500	--	ND	2.46	--		1
1,3,5-Trimethylbenzene	0.135	0.020	--	0.664	0.098	--		1
1,2,4-Trimethylbenzene	0.504	0.020	--	2.48	0.098	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	0.921	0.020	--	5.54	0.120	--		1
sec-Butylbenzene	ND	0.500	--	ND	2.74	--		1
p-Isopropyltoluene	ND	0.500	--	ND	2.74	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.500	--	ND	2.74	--		1



**Project Name:** ALVAREZ HIGH SCHOOL**Lab Number:** L1111434**Project Number:** 14687.01**Report Date:** 08/03/11**SAMPLE RESULTS**

Lab ID: L1111434-01

Date Collected: 07/26/11 09:01

Client ID: IMP-1

Date Received: 07/27/11

Sample Location: PROVIDENCE, RI

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	95		60-140
bromochloromethane	97		60-140
chlorobenzene-d5	95		60-140

**Project Name:** ALVAREZ HIGH SCHOOL**Lab Number:** L1111434**Project Number:** 14687.01**Report Date:** 08/03/11**SAMPLE RESULTS**

Lab ID: L1111434-02 D  
 Client ID: IMP-2  
 Sample Location: PROVIDENCE, RI  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 07/30/11 01:43  
 Analyst: RY

Date Collected: 07/26/11 09:28  
 Date Received: 07/27/11  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	0.465	0.250	--	2.30	1.24	--		5
Chloromethane	ND	2.50	--	ND	5.16	--		5
Vinyl chloride	ND	0.100	--	ND	0.256	--		5
Chloroethane	ND	0.100	--	ND	0.264	--		5
Acetone	ND	10.0	--	ND	23.8	--		5
Trichlorofluoromethane	1.79	0.250	--	10.0	1.40	--		5
Acrylonitrile	ND	2.50	--	ND	5.42	--		5
1,1-Dichloroethene	ND	0.100	--	ND	0.396	--		5
Methylene chloride	ND	5.00	--	ND	17.4	--		5
trans-1,2-Dichloroethene	ND	0.100	--	ND	0.396	--		5
1,1-Dichloroethane	ND	0.100	--	ND	0.405	--		5
Methyl tert butyl ether	ND	0.100	--	ND	0.360	--		5
2-Butanone	ND	2.50	--	ND	7.37	--		5
cis-1,2-Dichloroethene	ND	0.100	--	ND	0.396	--		5
Chloroform	ND	0.100	--	ND	0.488	--		5
1,2-Dichloroethane	ND	0.100	--	ND	0.405	--		5
1,1,1-Trichloroethane	ND	0.100	--	ND	0.546	--		5
Benzene	ND	0.500	--	ND	1.60	--		5
Carbon tetrachloride	ND	0.100	--	ND	0.629	--		5
1,2-Dichloropropane	ND	0.100	--	ND	0.462	--		5
Bromodichloromethane	ND	0.100	--	ND	0.670	--		5
Trichloroethene	3.82	0.100	--	20.5	0.537	--		5
cis-1,3-Dichloropropene	ND	0.100	--	ND	0.454	--		5



**Project Name:** ALVAREZ HIGH SCHOOL**Lab Number:** L1111434**Project Number:** 14687.01**Report Date:** 08/03/11**SAMPLE RESULTS**

Lab ID: L1111434-02 D

Date Collected: 07/26/11 09:28

Client ID: IMP-2

Date Received: 07/27/11

Sample Location: PROVIDENCE, RI

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
4-Methyl-2-pentanone	ND	2.50	--	ND	10.2	--		5
trans-1,3-Dichloropropene	ND	0.100	--	ND	0.454	--		5
1,1,2-Trichloroethane	ND	0.100	--	ND	0.546	--		5
Toluene	0.445	0.250	--	1.68	0.942	--		5
Dibromochloromethane	ND	0.100	--	ND	0.852	--		5
1,2-Dibromoethane	ND	0.100	--	ND	0.768	--		5
Tetrachloroethene	1.00	0.100	--	6.78	0.678	--		5
1,1,1,2-Tetrachloroethane	ND	0.100	--	ND	0.687	--		5
Chlorobenzene	ND	0.100	--	ND	0.460	--		5
Ethylbenzene	ND	0.100	--	ND	0.434	--		5
p/m-Xylene	0.290	0.200	--	1.26	0.869	--		5
Bromoform	ND	0.100	--	ND	1.03	--		5
Styrene	0.160	0.100	--	0.681	0.426	--		5
1,1,1,2-Tetrachloroethane	ND	0.100	--	ND	0.687	--		5
o-Xylene	0.100	0.100	--	0.434	0.434	--		5
Isopropylbenzene	ND	2.50	--	ND	12.3	--		5
1,3,5-Trimethylbenzene	ND	0.100	--	ND	0.492	--		5
1,2,4-Trimethylbenzene	0.110	0.100	--	0.541	0.492	--		5
1,3-Dichlorobenzene	ND	0.100	--	ND	0.601	--		5
1,4-Dichlorobenzene	0.780	0.100	--	4.69	0.601	--		5
sec-Butylbenzene	ND	2.50	--	ND	13.7	--		5
p-Isopropyltoluene	ND	2.50	--	ND	13.7	--		5
1,2-Dichlorobenzene	ND	0.100	--	ND	0.601	--		5
n-Butylbenzene	ND	2.50	--	ND	13.7	--		5

**Project Name:** ALVAREZ HIGH SCHOOL**Lab Number:** L1111434**Project Number:** 14687.01**Report Date:** 08/03/11**SAMPLE RESULTS**

Lab ID: L1111434-02 D

Date Collected: 07/26/11 09:28

Client ID: IMP-2

Date Received: 07/27/11

Sample Location: PROVIDENCE, RI

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	99		60-140
bromochloromethane	101		60-140
chlorobenzene-d5	98		60-140

**Project Name:** ALVAREZ HIGH SCHOOL**Lab Number:** L1111434**Project Number:** 14687.01**Report Date:** 08/03/11**SAMPLE RESULTS**

Lab ID: L1111434-03 D  
 Client ID: MP-1  
 Sample Location: PROVIDENCE, RI  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 07/30/11 08:53  
 Analyst: RY

Date Collected: 07/26/11 11:21  
 Date Received: 07/27/11  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	0.487	0.167	--	2.41	0.826	--		3.333
Chloromethane	ND	1.67	--	ND	3.45	--		3.333
Vinyl chloride	ND	0.067	--	ND	0.170	--		3.333
Chloroethane	ND	0.067	--	ND	0.176	--		3.333
Acetone	32.1	6.67	--	76.2	15.8	--		3.333
Trichlorofluoromethane	0.760	0.167	--	4.27	0.938	--		3.333
Acrylonitrile	ND	1.67	--	ND	3.62	--		3.333
1,1-Dichloroethene	ND	0.067	--	ND	0.264	--		3.333
Methylene chloride	ND	3.33	--	ND	11.6	--		3.333
trans-1,2-Dichloroethene	ND	0.067	--	ND	0.264	--		3.333
1,1-Dichloroethane	ND	0.067	--	ND	0.270	--		3.333
Methyl tert butyl ether	ND	0.067	--	ND	0.240	--		3.333
2-Butanone	234	1.67	--	690	4.92	--	E	3.333
cis-1,2-Dichloroethene	ND	0.067	--	ND	0.264	--		3.333
Chloroform	ND	0.067	--	ND	0.326	--		3.333
1,2-Dichloroethane	ND	0.067	--	ND	0.270	--		3.333
1,1,1-Trichloroethane	ND	0.067	--	ND	0.364	--		3.333
Benzene	ND	0.333	--	ND	1.06	--		3.333
Carbon tetrachloride	0.070	0.067	--	0.440	0.420	--		3.333
1,2-Dichloropropane	ND	0.067	--	ND	0.308	--		3.333
Bromodichloromethane	ND	0.067	--	ND	0.447	--		3.333
Trichloroethene	0.220	0.067	--	1.18	0.358	--		3.333
cis-1,3-Dichloropropene	ND	0.067	--	ND	0.303	--		3.333





**Project Name:** ALVAREZ HIGH SCHOOL**Lab Number:** L1111434**Project Number:** 14687.01**Report Date:** 08/03/11**SAMPLE RESULTS**

Lab ID: L1111434-03 D

Date Collected: 07/26/11 11:21

Client ID: MP-1

Date Received: 07/27/11

Sample Location: PROVIDENCE, RI

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
4-Methyl-2-pentanone	ND	1.67	--	ND	6.84	--		3.333
trans-1,3-Dichloropropene	ND	0.067	--	ND	0.303	--		3.333
1,1,2-Trichloroethane	ND	0.067	--	ND	0.364	--		3.333
Toluene	2.20	0.167	--	8.29	0.629	--		3.333
Dibromochloromethane	ND	0.067	--	ND	0.568	--		3.333
1,2-Dibromoethane	ND	0.067	--	ND	0.512	--		3.333
Tetrachloroethene	0.493	0.067	--	3.34	0.452	--		3.333
1,1,1,2-Tetrachloroethane	ND	0.067	--	ND	0.458	--		3.333
Chlorobenzene	ND	0.067	--	ND	0.307	--		3.333
Ethylbenzene	0.900	0.067	--	3.91	0.290	--		3.333
p/m-Xylene	2.30	0.133	--	9.99	0.578	--		3.333
Bromoform	ND	0.067	--	ND	0.690	--		3.333
Styrene	0.170	0.067	--	0.724	0.284	--		3.333
1,1,1,2,2-Tetrachloroethane	ND	0.067	--	ND	0.458	--		3.333
o-Xylene	0.430	0.067	--	1.87	0.290	--		3.333
Isopropylbenzene	ND	1.67	--	ND	8.21	--		3.333
1,3,5-Trimethylbenzene	0.140	0.067	--	0.688	0.328	--		3.333
1,2,4-Trimethylbenzene	0.263	0.067	--	1.29	0.328	--		3.333
1,3-Dichlorobenzene	ND	0.067	--	ND	0.401	--		3.333
1,4-Dichlorobenzene	0.906	0.067	--	5.45	0.401	--		3.333
sec-Butylbenzene	ND	1.67	--	ND	9.17	--		3.333
p-Isopropyltoluene	ND	1.67	--	ND	9.17	--		3.333
1,2-Dichlorobenzene	ND	0.067	--	ND	0.401	--		3.333
n-Butylbenzene	ND	1.67	--	ND	9.17	--		3.333



**Project Name:** ALVAREZ HIGH SCHOOL**Lab Number:** L1111434**Project Number:** 14687.01**Report Date:** 08/03/11**SAMPLE RESULTS**

Lab ID: L1111434-03 D

Date Collected: 07/26/11 11:21

Client ID: MP-1

Date Received: 07/27/11

Sample Location: PROVIDENCE, RI

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	91		60-140
bromochloromethane	94		60-140
chlorobenzene-d5	88		60-140

**Project Name:** ALVAREZ HIGH SCHOOL**Lab Number:** L1111434**Project Number:** 14687.01**Report Date:** 08/03/11**SAMPLE RESULTS**

Lab ID: L1111434-03 D2

Date Collected: 07/26/11 11:21

Client ID: MP-1

Date Received: 07/27/11

Sample Location: PROVIDENCE, RI

Field Prep: Not Specified

Matrix: Soil\_Vapor

Analytical Method: 48,TO-15-SIM

Analytical Date: 07/30/11 02:16

Analyst: RY

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
2-Butanone	179	5.00	--	528	14.7	--		10

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	97		60-140
bromochloromethane	101		60-140
chlorobenzene-d5	96		60-140

**Project Name:** ALVAREZ HIGH SCHOOL**Lab Number:** L1111434**Project Number:** 14687.01**Report Date:** 08/03/11**SAMPLE RESULTS**

Lab ID: L1111434-04 D  
 Client ID: MP-3  
 Sample Location: PROVIDENCE, RI  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 07/30/11 09:27  
 Analyst: RY

Date Collected: 07/26/11 11:31  
 Date Received: 07/27/11  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	0.463	0.167	--	2.29	0.826	--		3.333
Chloromethane	ND	1.67	--	ND	3.45	--		3.333
Vinyl chloride	ND	0.067	--	ND	0.170	--		3.333
Chloroethane	ND	0.067	--	ND	0.176	--		3.333
Acetone	50.4	6.67	--	120	15.8	--		3.333
Trichlorofluoromethane	0.233	0.167	--	1.31	0.938	--		3.333
Acrylonitrile	ND	1.67	--	ND	3.62	--		3.333
1,1-Dichloroethene	ND	0.067	--	ND	0.264	--		3.333
Methylene chloride	ND	3.33	--	ND	11.6	--		3.333
trans-1,2-Dichloroethene	ND	0.067	--	ND	0.264	--		3.333
1,1-Dichloroethane	ND	0.067	--	ND	0.270	--		3.333
Methyl tert butyl ether	ND	0.067	--	ND	0.240	--		3.333
2-Butanone	28.1	1.67	--	82.9	4.92	--		3.333
cis-1,2-Dichloroethene	ND	0.067	--	ND	0.264	--		3.333
Chloroform	ND	0.067	--	ND	0.326	--		3.333
1,2-Dichloroethane	ND	0.067	--	ND	0.270	--		3.333
1,1,1-Trichloroethane	ND	0.067	--	ND	0.364	--		3.333
Benzene	ND	0.333	--	ND	1.06	--		3.333
Carbon tetrachloride	ND	0.067	--	ND	0.420	--		3.333
1,2-Dichloropropane	ND	0.067	--	ND	0.308	--		3.333
Bromodichloromethane	ND	0.067	--	ND	0.447	--		3.333
Trichloroethene	ND	0.067	--	ND	0.358	--		3.333
cis-1,3-Dichloropropene	ND	0.067	--	ND	0.303	--		3.333



**Project Name:** ALVAREZ HIGH SCHOOL**Lab Number:** L1111434**Project Number:** 14687.01**Report Date:** 08/03/11**SAMPLE RESULTS**

Lab ID: L1111434-04 D

Date Collected: 07/26/11 11:31

Client ID: MP-3

Date Received: 07/27/11

Sample Location: PROVIDENCE, RI

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
4-Methyl-2-pentanone	ND	1.67	--	ND	6.84	--		3.333
trans-1,3-Dichloropropene	ND	0.067	--	ND	0.303	--		3.333
1,1,2-Trichloroethane	ND	0.067	--	ND	0.364	--		3.333
Toluene	1.05	0.167	--	3.96	0.629	--		3.333
Dibromochloromethane	ND	0.067	--	ND	0.568	--		3.333
1,2-Dibromoethane	ND	0.067	--	ND	0.512	--		3.333
Tetrachloroethene	0.123	0.067	--	0.834	0.452	--		3.333
1,1,1,2-Tetrachloroethane	ND	0.067	--	ND	0.458	--		3.333
Chlorobenzene	ND	0.067	--	ND	0.307	--		3.333
Ethylbenzene	0.217	0.067	--	0.942	0.290	--		3.333
p/m-Xylene	0.913	0.133	--	3.96	0.578	--		3.333
Bromoform	ND	0.067	--	ND	0.690	--		3.333
Styrene	0.183	0.067	--	0.779	0.284	--		3.333
1,1,1,2-Tetrachloroethane	ND	0.067	--	ND	0.458	--		3.333
o-Xylene	0.333	0.067	--	1.45	0.290	--		3.333
Isopropylbenzene	ND	1.67	--	ND	8.21	--		3.333
1,3,5-Trimethylbenzene	0.180	0.067	--	0.885	0.328	--		3.333
1,2,4-Trimethylbenzene	0.543	0.067	--	2.67	0.328	--		3.333
1,3-Dichlorobenzene	ND	0.067	--	ND	0.401	--		3.333
1,4-Dichlorobenzene	0.866	0.067	--	5.21	0.401	--		3.333
sec-Butylbenzene	ND	1.67	--	ND	9.17	--		3.333
p-Isopropyltoluene	ND	1.67	--	ND	9.17	--		3.333
1,2-Dichlorobenzene	ND	0.067	--	ND	0.401	--		3.333
n-Butylbenzene	ND	1.67	--	ND	9.17	--		3.333



**Project Name:** ALVAREZ HIGH SCHOOL**Lab Number:** L1111434**Project Number:** 14687.01**Report Date:** 08/03/11**SAMPLE RESULTS**

Lab ID: L1111434-04 D

Date Collected: 07/26/11 11:31

Client ID: MP-3

Date Received: 07/27/11

Sample Location: PROVIDENCE, RI

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	95		60-140
bromochloromethane	98		60-140
chlorobenzene-d5	94		60-140

**Project Name:** ALVAREZ HIGH SCHOOL**Lab Number:** L1111434**Project Number:** 14687.01**Report Date:** 08/03/11**SAMPLE RESULTS**

Lab ID: L1111434-05  
 Client ID: MP-4  
 Sample Location: PROVIDENCE, RI  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 07/30/11 10:45  
 Analyst: RY

Date Collected: 07/26/11 11:50  
 Date Received: 07/27/11  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	0.462	0.050	--	2.28	0.247	--		1
Chloromethane	ND	0.500	--	ND	1.03	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	0.044	0.020	--	0.116	0.053	--		1
Acetone	64.9	2.00	--	154	4.75	--	E	1
Trichlorofluoromethane	7.34	0.050	--	41.2	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.08	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	1.00	--	ND	3.47	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.020	--	ND	0.072	--		1
2-Butanone	31.6	0.500	--	93.2	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	0.049	0.020	--	0.239	0.098	--		1
1,2-Dichloroethane	0.025	0.020	--	0.101	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	0.136	0.100	--	0.434	0.319	--		1
Carbon tetrachloride	0.065	0.020	--	0.409	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
Trichloroethene	5.51	0.020	--	29.6	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1



**Project Name:** ALVAREZ HIGH SCHOOL**Lab Number:** L1111434**Project Number:** 14687.01**Report Date:** 08/03/11**SAMPLE RESULTS**

Lab ID: L1111434-05

Date Collected: 07/26/11 11:50

Client ID: MP-4

Date Received: 07/27/11

Sample Location: PROVIDENCE, RI

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	0.305	0.050	--	1.15	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	0.382	0.020	--	2.59	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.020	--	ND	0.092	--		1
Ethylbenzene	0.078	0.020	--	0.339	0.087	--		1
p/m-Xylene	0.236	0.040	--	1.02	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	0.204	0.020	--	0.868	0.085	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	0.077	0.020	--	0.334	0.087	--		1
Isopropylbenzene	ND	0.500	--	ND	2.46	--		1
1,3,5-Trimethylbenzene	0.037	0.020	--	0.182	0.098	--		1
1,2,4-Trimethylbenzene	0.124	0.020	--	0.610	0.098	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	1.19	0.020	--	7.15	0.120	--		1
sec-Butylbenzene	ND	0.500	--	ND	2.74	--		1
p-Isopropyltoluene	ND	0.500	--	ND	2.74	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.500	--	ND	2.74	--		1



**Project Name:** ALVAREZ HIGH SCHOOL**Lab Number:** L1111434**Project Number:** 14687.01**Report Date:** 08/03/11**SAMPLE RESULTS**

Lab ID: L1111434-05

Date Collected: 07/26/11 11:50

Client ID: MP-4

Date Received: 07/27/11

Sample Location: PROVIDENCE, RI

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	93		60-140
bromochloromethane	98		60-140
chlorobenzene-d5	93		60-140

**Project Name:** ALVAREZ HIGH SCHOOL**Lab Number:** L1111434**Project Number:** 14687.01**Report Date:** 08/03/11**SAMPLE RESULTS**

Lab ID: L1111434-05 D  
 Client ID: MP-4  
 Sample Location: PROVIDENCE, RI  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 07/31/11 12:02  
 Analyst: RY

Date Collected: 07/26/11 11:50  
 Date Received: 07/27/11  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Acetone	57.7	5.00	--	137	11.9	--		2.5

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	98		60-140
bromochloromethane	98		60-140
chlorobenzene-d5	97		60-140



**Project Name:** ALVAREZ HIGH SCHOOL**Lab Number:** L1111434**Project Number:** 14687.01**Report Date:** 08/03/11**SAMPLE RESULTS**

Lab ID: L1111434-06 D  
 Client ID: MP-6  
 Sample Location: PROVIDENCE, RI  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 07/30/11 11:19  
 Analyst: RY

Date Collected: 07/26/11 11:45  
 Date Received: 07/27/11  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	0.420	0.250	--	2.08	1.24	--		5
Chloromethane	ND	2.50	--	ND	5.16	--		5
Vinyl chloride	ND	0.100	--	ND	0.256	--		5
Chloroethane	ND	0.100	--	ND	0.264	--		5
Acetone	801	10.0	--	1900	23.8	--	E	5
Trichlorofluoromethane	2.72	0.250	--	15.3	1.40	--		5
Acrylonitrile	ND	2.50	--	ND	5.42	--		5
1,1-Dichloroethene	ND	0.100	--	ND	0.396	--		5
Methylene chloride	ND	5.00	--	ND	17.4	--		5
trans-1,2-Dichloroethene	ND	0.100	--	ND	0.396	--		5
1,1-Dichloroethane	ND	0.100	--	ND	0.405	--		5
Methyl tert butyl ether	ND	0.100	--	ND	0.360	--		5
2-Butanone	2660	2.50	--	7840	7.37	--	E	5
cis-1,2-Dichloroethene	ND	0.100	--	ND	0.396	--		5
Chloroform	0.280	0.100	--	1.37	0.488	--		5
1,2-Dichloroethane	ND	0.100	--	ND	0.405	--		5
1,1,1-Trichloroethane	0.160	0.100	--	0.873	0.546	--		5
Benzene	ND	0.500	--	ND	1.60	--		5
Carbon tetrachloride	ND	0.100	--	ND	0.629	--		5
1,2-Dichloropropane	ND	0.100	--	ND	0.462	--		5
Bromodichloromethane	ND	0.100	--	ND	0.670	--		5
Trichloroethene	1.95	0.100	--	10.5	0.537	--		5
cis-1,3-Dichloropropene	ND	0.100	--	ND	0.454	--		5



**Project Name:** ALVAREZ HIGH SCHOOL**Lab Number:** L1111434**Project Number:** 14687.01**Report Date:** 08/03/11**SAMPLE RESULTS**

Lab ID: L1111434-06 D

Date Collected: 07/26/11 11:45

Client ID: MP-6

Date Received: 07/27/11

Sample Location: PROVIDENCE, RI

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
4-Methyl-2-pentanone	ND	2.50	--	ND	10.2	--		5
trans-1,3-Dichloropropene	ND	0.100	--	ND	0.454	--		5
1,1,2-Trichloroethane	ND	0.100	--	ND	0.546	--		5
Toluene	0.430	0.250	--	1.62	0.942	--		5
Dibromochloromethane	ND	0.100	--	ND	0.852	--		5
1,2-Dibromoethane	ND	0.100	--	ND	0.768	--		5
Tetrachloroethene	1.37	0.100	--	9.29	0.678	--		5
1,1,1,2-Tetrachloroethane	ND	0.100	--	ND	0.687	--		5
Chlorobenzene	ND	0.100	--	ND	0.460	--		5
Ethylbenzene	ND	0.100	--	ND	0.434	--		5
p/m-Xylene	0.230	0.200	--	0.999	0.869	--		5
Bromoform	ND	0.100	--	ND	1.03	--		5
Styrene	0.185	0.100	--	0.788	0.426	--		5
1,1,2,2-Tetrachloroethane	ND	0.100	--	ND	0.687	--		5
o-Xylene	ND	0.100	--	ND	0.434	--		5
Isopropylbenzene	ND	2.50	--	ND	12.3	--		5
1,3,5-Trimethylbenzene	ND	0.100	--	ND	0.492	--		5
1,2,4-Trimethylbenzene	0.110	0.100	--	0.541	0.492	--		5
1,3-Dichlorobenzene	ND	0.100	--	ND	0.601	--		5
1,4-Dichlorobenzene	0.875	0.100	--	5.26	0.601	--		5
sec-Butylbenzene	ND	2.50	--	ND	13.7	--		5
p-Isopropyltoluene	ND	2.50	--	ND	13.7	--		5
1,2-Dichlorobenzene	ND	0.100	--	ND	0.601	--		5
n-Butylbenzene	ND	2.50	--	ND	13.7	--		5

**Project Name:** ALVAREZ HIGH SCHOOL**Lab Number:** L1111434**Project Number:** 14687.01**Report Date:** 08/03/11**SAMPLE RESULTS**

Lab ID: L1111434-06 D

Date Collected: 07/26/11 11:45

Client ID: MP-6

Date Received: 07/27/11

Sample Location: PROVIDENCE, RI

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	98		60-140
bromochloromethane	103		60-140
chlorobenzene-d5	91		60-140

**Project Name:** ALVAREZ HIGH SCHOOL**Lab Number:** L1111434**Project Number:** 14687.01**Report Date:** 08/03/11**SAMPLE RESULTS**

Lab ID: L1111434-06 D2  
 Client ID: MP-6  
 Sample Location: PROVIDENCE, RI  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 07/31/11 12:36  
 Analyst: RY

Date Collected: 07/26/11 11:45  
 Date Received: 07/27/11  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Acetone	1150	162	--	2730	385	--		80.97
2-Butanone	3750	40.5	--	11000	119	--		80.97

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	94		60-140
bromochloromethane	100		60-140
chlorobenzene-d5	93		60-140



Project Name: ALVAREZ HIGH SCHOOL

Lab Number: L1111434

Project Number: 14687.01

Report Date: 08/03/11

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15-SIM

Analytical Date: 07/29/11 14:02

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-06 Batch: WG481898-4								
Dichlorodifluoromethane	ND	0.050	--	ND	0.247	--		1
Chloromethane	ND	0.500	--	ND	1.03	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	ND	2.00	--	ND	4.75	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.08	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	1.00	--	ND	3.47	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.020	--	ND	0.072	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1

Project Name: ALVAREZ HIGH SCHOOL

Lab Number: L1111434

Project Number: 14687.01

Report Date: 08/03/11

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15-SIM

Analytical Date: 07/29/11 14:02

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-06 Batch: WG481898-4								
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.020	--	ND	0.092	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.500	--	ND	2.46	--		1
1,3,5-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.500	--	ND	2.74	--		1
p-Isopropyltoluene	ND	0.500	--	ND	2.74	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.500	--	ND	2.74	--		1



Project Name: ALVAREZ HIGH SCHOOL

Lab Number: L1111434

Project Number: 14687.01

Report Date: 08/03/11

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15-SIM

Analytical Date: 07/30/11 14:46

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 05-06 Batch: WG481898-9								
Dichlorodifluoromethane	ND	0.050	--	ND	0.247	--		1
Chloromethane	ND	0.500	--	ND	1.03	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	ND	2.00	--	ND	4.75	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.08	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	1.00	--	ND	3.47	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.020	--	ND	0.072	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1



Project Name: ALVAREZ HIGH SCHOOL

Lab Number: L1111434

Project Number: 14687.01

Report Date: 08/03/11

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15-SIM

Analytical Date: 07/30/11 14:46

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 05-06 Batch: WG481898-9								
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.020	--	ND	0.092	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.500	--	ND	2.46	--		1
1,3,5-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.500	--	ND	2.74	--		1
p-Isopropyltoluene	ND	0.500	--	ND	2.74	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.500	--	ND	2.74	--		1

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** ALVAREZ HIGH SCHOOL

**Project Number:** 14687.01

**Lab Number:** L1111434

**Report Date:** 08/03/11

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-06 Batch: WG481898-3								
Dichlorodifluoromethane	101		-		70-130	-		25
Chloromethane	96		-		70-130	-		25
Vinyl chloride	101		-		70-130	-		25
Chloroethane	100		-		70-130	-		25
Acetone	99		-		70-130	-		25
Trichlorofluoromethane	104		-		70-130	-		25
Acrylonitrile	103		-		70-130	-		25
1,1-Dichloroethene	102		-		70-130	-		25
Methylene chloride	88		-		70-130	-		25
trans-1,2-Dichloroethene	97		-		70-130	-		25
1,1-Dichloroethane	101		-		70-130	-		25
Methyl tert butyl ether	102		-		70-130	-		25
2-Butanone	99		-		70-130	-		25
cis-1,2-Dichloroethene	101		-		70-130	-		25
Chloroform	104		-		70-130	-		25
1,2-Dichloroethane	97		-		70-130	-		25
1,1,1-Trichloroethane	83		-		70-130	-		25
Benzene	90		-		70-130	-		25
Carbon tetrachloride	92		-		70-130	-		25
1,2-Dichloropropane	96		-		70-130	-		25
Bromodichloromethane	91		-		70-130	-		25

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ALVAREZ HIGH SCHOOL

Project Number: 14687.01

Lab Number: L1111434

Report Date: 08/03/11

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-06 Batch: WG481898-3								
Trichloroethene	95		-		70-130	-		25
cis-1,3-Dichloropropene	99		-		70-130	-		25
4-Methyl-2-pentanone	88		-		70-130	-		25
trans-1,3-Dichloropropene	84		-		70-130	-		25
1,1,2-Trichloroethane	99		-		70-130	-		25
Toluene	93		-		70-130	-		25
Dibromochloromethane	89		-		70-130	-		25
1,2-Dibromoethane	101		-		70-130	-		25
Tetrachloroethene	96		-		70-130	-		25
1,1,1,2-Tetrachloroethane	102		-		70-130	-		25
Chlorobenzene	102		-		70-130	-		25
Ethylbenzene	102		-		70-130	-		25
p/m-Xylene	104		-		70-130	-		25
Bromoform	84		-		70-130	-		25
Styrene	109		-		70-130	-		25
1,1,2,2-Tetrachloroethane	107		-		70-130	-		25
o-Xylene	103		-		70-130	-		25
Isopropylbenzene	111		-		70-130	-		25
1,3,5-Trimethylbenzene	108		-		70-130	-		25
1,2,4-Trimethylbenzene	110		-		70-130	-		25
1,3-Dichlorobenzene	107		-		70-130	-		25

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** ALVAREZ HIGH SCHOOL

**Project Number:** 14687.01

**Lab Number:** L1111434

**Report Date:** 08/03/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-06 Batch: WG481898-3								
1,4-Dichlorobenzene	103		-		70-130	-		25
sec-Butylbenzene	114		-		70-130	-		25
p-Isopropyltoluene	105		-		70-130	-		25
1,2-Dichlorobenzene	112		-		70-130	-		25
n-Butylbenzene	117		-		70-130	-		25

Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 05-06 Batch: WG481898-8								
Dichlorodifluoromethane	102		-		70-130	-		25
Chloromethane	98		-		70-130	-		25
1,2-Dichloro-1,1,2,2-tetrafluoroethane	98		-		70-130	-		25
Vinyl chloride	104		-		70-130	-		25
1,3-Butadiene	108		-		70-130	-		25
Bromomethane	103		-		70-130	-		25
Chloroethane	104		-		70-130	-		25
Acetone	93		-		70-130	-		25
Trichlorofluoromethane	106		-		70-130	-		25

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ALVAREZ HIGH SCHOOL

Project Number: 14687.01

Lab Number: L1111434

Report Date: 08/03/11

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 05-06 Batch: WG481898-8								
Acrylonitrile	98		-		70-130	-		25
1,1-Dichloroethene	105		-		70-130	-		25
Methylene chloride	89		-		70-130	-		25
1,1,2-Trichloro-1,2,2-Trifluoroethane	107		-		70-130	-		25
Halothane	82		-		70-130	-		25
trans-1,2-Dichloroethene	99		-		70-130	-		25
1,1-Dichloroethane	102		-		70-130	-		25
Methyl tert butyl ether	95		-		70-130	-		25
2-Butanone	94		-		70-130	-		25
cis-1,2-Dichloroethene	103		-		70-130	-		25
Chloroform	104		-		70-130	-		25
1,2-Dichloroethane	96		-		70-130	-		25
1,1,1-Trichloroethane	83		-		70-130	-		25
Benzene	91		-		70-130	-		25
Carbon tetrachloride	92		-		70-130	-		25
1,2-Dichloropropane	97		-		70-130	-		25
Bromodichloromethane	91		-		70-130	-		25
Trichloroethene	99		-		70-130	-		25
1,4-Dioxane	89		-		70-130	-		25
cis-1,3-Dichloropropene	98		-		70-130	-		25
4-Methyl-2-pentanone	89		-		70-130	-		25

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** ALVAREZ HIGH SCHOOL

**Lab Number:** L1111434

**Project Number:** 14687.01

**Report Date:** 08/03/11

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 05-06 Batch: WG481898-8								
trans-1,3-Dichloropropene	81		-		70-130	-		25
1,1,2-Trichloroethane	99		-		70-130	-		25
Toluene	91		-		70-130	-		25
Dibromochloromethane	84		-		70-130	-		25
1,2-Dibromoethane	99		-		70-130	-		25
Tetrachloroethene	98		-		70-130	-		25
1,1,1,2-Tetrachloroethane	97		-		70-130	-		25
Chlorobenzene	99		-		70-130	-		25
Ethylbenzene	97		-		70-130	-		25
p/m-Xylene	99		-		70-130	-		25
Bromoform	77		-		70-130	-		25
Styrene	104		-		70-130	-		25
1,1,1,2-Tetrachloroethane	100		-		70-130	-		25
o-Xylene	96		-		70-130	-		25
Isopropylbenzene	104		-		70-130	-		25
1,3,5-Trimethylbenzene	98		-		70-130	-		25
1,2,4-Trimethylbenzene	100		-		70-130	-		25
1,3-Dichlorobenzene	100		-		70-130	-		25
1,4-Dichlorobenzene	97		-		70-130	-		25
sec-Butylbenzene	103		-		70-130	-		25
p-Isopropyltoluene	95		-		70-130	-		25

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** ALVAREZ HIGH SCHOOL

**Project Number:** 14687.01

**Lab Number:** L1111434

**Report Date:** 08/03/11

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 05-06 Batch: WG481898-8								
1,2-Dichlorobenzene	104		-		70-130	-		25
n-Butylbenzene	105		-		70-130	-		25
1,2,4-Trichlorobenzene	95		-		70-130	-		25
Naphthalene	96		-		70-130	-		25
1,2,3-Trichlorobenzene	96		-		70-130	-		25
Hexachlorobutadiene	93		-		70-130	-		25



## Lab Duplicate Analysis

Batch Quality Control

Project Name: ALVAREZ HIGH SCHOOL

Project Number: 14687.01

Lab Number: L1111434

Report Date: 08/03/11

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-06 QC Batch ID: WG481898-5 QC Sample: L1111434-04 Client ID: MP-3						
Dichlorodifluoromethane	0.463	0.447	ppbV	4		25
Chloromethane	ND	ND	ppbV	NC		25
Vinyl chloride	ND	ND	ppbV	NC		25
Chloroethane	ND	ND	ppbV	NC		25
Acetone	50.4	47.7	ppbV	6		25
Trichlorofluoromethane	0.233	0.223	ppbV	4		25
Acrylonitrile	ND	ND	ppbV	NC		25
1,1-Dichloroethene	ND	ND	ppbV	NC		25
Methylene chloride	ND	ND	ppbV	NC		25
trans-1,2-Dichloroethene	ND	ND	ppbV	NC		25
1,1-Dichloroethane	ND	ND	ppbV	NC		25
Methyl tert butyl ether	ND	ND	ppbV	NC		25
2-Butanone	28.1	26.5	ppbV	6		25
cis-1,2-Dichloroethene	ND	ND	ppbV	NC		25
Chloroform	ND	ND	ppbV	NC		25
1,2-Dichloroethane	ND	ND	ppbV	NC		25
1,1,1-Trichloroethane	ND	ND	ppbV	NC		25
Benzene	ND	ND	ppbV	NC		25
Carbon tetrachloride	ND	ND	ppbV	NC		25

## Lab Duplicate Analysis

Batch Quality Control

Project Name: ALVAREZ HIGH SCHOOL

Project Number: 14687.01

Lab Number: L1111434

Report Date: 08/03/11

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-06 QC Batch ID: WG481898-5 QC Sample: L1111434-04 Client ID: MP-3					
1,2-Dichloropropane	ND	ND	ppbV	NC	25
Bromodichloromethane	ND	ND	ppbV	NC	25
Trichloroethene	ND	ND	ppbV	NC	25
cis-1,3-Dichloropropene	ND	ND	ppbV	NC	25
4-Methyl-2-pentanone	ND	ND	ppbV	NC	25
trans-1,3-Dichloropropene	ND	ND	ppbV	NC	25
1,1,2-Trichloroethane	ND	ND	ppbV	NC	25
Toluene	1.05	1.02	ppbV	3	25
Dibromochloromethane	ND	ND	ppbV	NC	25
1,2-Dibromoethane	ND	ND	ppbV	NC	25
Tetrachloroethene	0.123	0.120	ppbV	2	25
1,1,1,2-Tetrachloroethane	ND	ND	ppbV	NC	25
Chlorobenzene	ND	ND	ppbV	NC	25
Ethylbenzene	0.217	0.203	ppbV	7	25
p/m-Xylene	0.913	0.870	ppbV	5	25
Bromoform	ND	ND	ppbV	NC	25
Styrene	0.183	0.173	ppbV	6	25
1,1,2,2-Tetrachloroethane	ND	ND	ppbV	NC	25
o-Xylene	0.333	0.320	ppbV	4	25

## Lab Duplicate Analysis

Batch Quality Control

Project Name: ALVAREZ HIGH SCHOOL

Project Number: 14687.01

Lab Number: L1111434

Report Date: 08/03/11

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-06 QC Batch ID: WG481898-5 QC Sample: L1111434-04 Client ID: MP-3					
Isopropylbenzene	ND	ND	ppbV	NC	25
1,3,5-Trimethylbenzene	0.180	0.170	ppbV	6	25
1,2,4-Trimethylbenzene	0.543	0.513	ppbV	6	25
1,3-Dichlorobenzene	ND	ND	ppbV	NC	25
1,4-Dichlorobenzene	0.866	0.836	ppbV	4	25
sec-Butylbenzene	ND	ND	ppbV	NC	25
p-Isopropyltoluene	ND	ND	ppbV	NC	25
1,2-Dichlorobenzene	ND	ND	ppbV	NC	25
n-Butylbenzene	ND	ND	ppbV	NC	25

**Canister and Flow Controller Information**

Samplenum	Client ID	Media ID	Media Type	Cleaning Batch ID	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Out mL/min	Flow In mL/min	% RSD
L1111434-01	IMP-1	0429	#90 SV		-	-	68	74	8
L1111434-01	IMP-1	393	2.7L Can	L1110016-04	-28.8	-3.1	-	-	-
L1111434-02	IMP-2	0200	#90 SV		-	-	67	71	6
L1111434-02	IMP-2	496	2.7L Can	L1110016-04	-29.1	-4.8	-	-	-
L1111434-03	MP-1	0493	#90 SV		-	-	69	75	8
L1111434-03	MP-1	504	2.7L Can	L1110016-04	-28.8	-5.1	-	-	-
L1111434-04	MP-3	0419	#90 SV		-	-	71	76	7
L1111434-04	MP-3	389	2.7L Can	L1110016-04	-29.4	-5.2	-	-	-
L1111434-05	MP-4	0423	#90 SV		-	-	69	89	25
L1111434-05	MP-4	532	2.7L Can	L1110016-04	-29.4	-1.0	-	-	-
L1111434-06	MP-6	0408	#90 SV		-	-	66	70	6
L1111434-06	MP-6	111	2.7L Can	L1110016-04	-28.8	-9.1	-	-	-



# **Air Volatiles Can Certification**

**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-01  
 Client ID: CAN 1632 SHELF 47  
 Sample Location:  
 Matrix: Air  
 Analytical Method: 48,TO-15  
 Analytical Date: 07/08/11 10:06  
 Analyst: RY

Date Collected: 06/30/11 00:00  
 Date Received: 06/30/11  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.860	--		1
Propane	ND	0.200	--	ND	0.361	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	2.50	--	ND	4.71	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.200	--	ND	0.434	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-01

Date Collected: 06/30/11 00:00

Client ID: CAN 1632 SHELF 47

Date Received: 06/30/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab								
Methylene chloride	ND	1.00	--	ND	3.47	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	0.200	--	ND	0.704	--		1
2-Butanone	ND	0.200	--	ND	0.590	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.200	--	ND	0.590	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1

**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-01  
 Client ID: CAN 1632 SHELF 47  
 Sample Location:

Date Collected: 06/30/11 00:00  
 Date Received: 06/30/11  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab								
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
2,4,4-trimethyl-1-pentene	ND	0.500	--	ND	2.29	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.200	--	ND	0.820	--		1
2,4,4-trimethyl-2-pentene	ND	0.500	--	ND	2.29	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.20	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-01

Date Collected: 06/30/11 00:00

Client ID: CAN 1632 SHELF 47

Date Received: 06/30/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab								
Bromobenzene	ND	0.200	--	ND	0.793	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-01

Date Collected: 06/30/11 00:00

Client ID: CAN 1632 SHELF 47

Date Received: 06/30/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	101		60-140
Bromochloromethane	99		60-140
chlorobenzene-d5	89		60-140

**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-01  
 Client ID: CAN 1632 SHELF 47  
 Sample Location:  
 Matrix: Air  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 07/08/11 10:06  
 Analyst: RY

Date Collected: 06/30/11 00:00  
 Date Received: 06/30/11  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air by SIM - Mansfield Lab</b>								
Dichlorodifluoromethane	ND	0.050	--	ND	0.247	--		1
Chloromethane	ND	0.500	--	ND	1.03	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	ND	2.00	--	ND	4.75	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.08	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	1.00	--	ND	3.47	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
Halothane	ND	0.050	--	ND	0.404	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.020	--	ND	0.072	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-01

Date Collected: 06/30/11 00:00

Client ID: CAN 1632 SHELF 47

Date Received: 06/30/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.020	--	ND	0.092	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	0.072	0.040	--	0.313	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.500	--	ND	2.46	--		1
1,3,5-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.500	--	ND	2.74	--		1
p-Isopropyltoluene	ND	0.500	--	ND	2.74	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.500	--	ND	2.74	--		1

**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-01

Date Collected: 06/30/11 00:00

Client ID: CAN 1632 SHELF 47

Date Received: 06/30/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1



**Project Name:** BATCH CANISTER CERTIFICATION

**Lab Number:** L1110016

**Project Number:** CANISTER QC BAT

**Report Date:** 08/03/11

**Air Canister Certification Results**

Lab ID: L1110016-01

Date Collected: 06/30/11 00:00

Client ID: CAN 1632 SHELF 47

Date Received: 06/30/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	101		60-140
bromochloromethane	98		60-140
chlorobenzene-d5	90		60-140



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-02  
 Client ID: CAN 1546 SHELF 52  
 Sample Location:  
 Matrix: Air  
 Analytical Method: 48,TO-15  
 Analytical Date: 07/07/11 19:58  
 Analyst: RY

Date Collected: 07/07/11 00:00  
 Date Received: 07/07/11  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.860	--		1
Propane	ND	0.200	--	ND	0.361	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	2.50	--	ND	4.71	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.200	--	ND	0.434	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-02

Date Collected: 07/07/11 00:00

Client ID: CAN 1546 SHELF 52

Date Received: 07/07/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab								
Methylene chloride	ND	1.00	--	ND	3.47	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	0.200	--	ND	0.704	--		1
2-Butanone	ND	0.200	--	ND	0.590	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.200	--	ND	0.590	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1





**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-02

Date Collected: 07/07/11 00:00

Client ID: CAN 1546 SHELF 52

Date Received: 07/07/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab								
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
2,4,4-trimethyl-1-pentene	ND	0.500	--	ND	2.29	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.200	--	ND	0.820	--		1
2,4,4-trimethyl-2-pentene	ND	0.500	--	ND	2.29	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.20	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1

**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-02

Date Collected: 07/07/11 00:00

Client ID: CAN 1546 SHELF 52

Date Received: 07/07/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab								
Bromobenzene	ND	0.200	--	ND	0.793	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-02

Date Collected: 07/07/11 00:00

Client ID: CAN 1546 SHELF 52

Date Received: 07/07/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	96		60-140
Bromochloromethane	96		60-140
chlorobenzene-d5	92		60-140

**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-02  
 Client ID: CAN 1546 SHELF 52  
 Sample Location:  
 Matrix: Air  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 07/07/11 19:58  
 Analyst: RY

Date Collected: 07/07/11 00:00  
 Date Received: 07/07/11  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air by SIM - Mansfield Lab</b>								
Dichlorodifluoromethane	ND	0.050	--	ND	0.247	--		1
Chloromethane	ND	0.500	--	ND	1.03	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	ND	2.00	--	ND	4.75	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.08	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	1.00	--	ND	3.47	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
Halothane	ND	0.050	--	ND	0.404	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.020	--	ND	0.072	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-02

Date Collected: 07/07/11 00:00

Client ID: CAN 1546 SHELF 52

Date Received: 07/07/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.020	--	ND	0.092	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.500	--	ND	2.46	--		1
1,3,5-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.500	--	ND	2.74	--		1
p-Isopropyltoluene	ND	0.500	--	ND	2.74	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.500	--	ND	2.74	--		1



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-02

Date Collected: 07/07/11 00:00

Client ID: CAN 1546 SHELF 52

Date Received: 07/07/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-02

Date Collected: 07/07/11 00:00

Client ID: CAN 1546 SHELF 52

Date Received: 07/07/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	96		60-140
bromochloromethane	95		60-140
chlorobenzene-d5	94		60-140

**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-03  
 Client ID: CAN 705 SHELF 41  
 Sample Location:  
 Matrix: Air  
 Analytical Method: 48,TO-15  
 Analytical Date: 07/15/11 16:26  
 Analyst: RY

Date Collected: 07/07/11 00:00  
 Date Received: 07/07/11  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.860	--		1
Propane	ND	0.200	--	ND	0.361	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	2.50	--	ND	4.71	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.200	--	ND	0.434	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1





**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-03

Date Collected: 07/07/11 00:00

Client ID: CAN 705 SHELF 41

Date Received: 07/07/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab								
Methylene chloride	ND	1.00	--	ND	3.47	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	0.200	--	ND	0.704	--		1
2-Butanone	ND	0.200	--	ND	0.590	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.200	--	ND	0.590	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1

**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-03

Date Collected: 07/07/11 00:00

Client ID: CAN 705 SHELF 41

Date Received: 07/07/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab								
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
2,4,4-trimethyl-1-pentene	ND	0.500	--	ND	2.29	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.200	--	ND	0.820	--		1
2,4,4-trimethyl-2-pentene	ND	0.500	--	ND	2.29	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.20	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-03

Date Collected: 07/07/11 00:00

Client ID: CAN 705 SHELF 41

Date Received: 07/07/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab								
Bromobenzene	ND	0.200	--	ND	0.793	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

**Project Name:** BATCH CANISTER CERTIFICATION

**Lab Number:** L1110016

**Project Number:** CANISTER QC BAT

**Report Date:** 08/03/11

**Air Canister Certification Results**

Lab ID: L1110016-03

Date Collected: 07/07/11 00:00

Client ID: CAN 705 SHELF 41

Date Received: 07/07/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	94		60-140
Bromochloromethane	97		60-140
chlorobenzene-d5	82		60-140



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-03  
 Client ID: CAN 705 SHELF 41  
 Sample Location:  
 Matrix: Air  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 07/15/11 16:26  
 Analyst: RY

Date Collected: 07/07/11 00:00  
 Date Received: 07/07/11  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.050	--	ND	0.247	--		1
Chloromethane	ND	0.500	--	ND	1.03	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	ND	2.00	--	ND	4.75	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.08	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	1.00	--	ND	3.47	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
Halothane	ND	0.050	--	ND	0.404	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.020	--	ND	0.072	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-03  
 Client ID: CAN 705 SHELF 41  
 Sample Location:

Date Collected: 07/07/11 00:00  
 Date Received: 07/07/11  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.020	--	ND	0.092	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.500	--	ND	2.46	--		1
1,3,5-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.500	--	ND	2.74	--		1
p-Isopropyltoluene	ND	0.500	--	ND	2.74	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.500	--	ND	2.74	--		1



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-03

Date Collected: 07/07/11 00:00

Client ID: CAN 705 SHELF 41

Date Received: 07/07/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

**Project Name:** BATCH CANISTER CERTIFICATION

**Lab Number:** L1110016

**Project Number:** CANISTER QC BAT

**Report Date:** 08/03/11

**Air Canister Certification Results**

Lab ID: L1110016-03

Date Collected: 07/07/11 00:00

Client ID: CAN 705 SHELF 41

Date Received: 07/07/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	95		60-140
bromochloromethane	101		60-140
chlorobenzene-d5	89		60-140





**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-04  
 Client ID: CAN 111 SHELF 1  
 Sample Location:  
 Matrix: Air  
 Analytical Method: 48,TO-15  
 Analytical Date: 07/15/11 17:00  
 Analyst: RY

Date Collected: 07/07/11 00:00  
 Date Received: 07/07/11  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.860	--		1
Propane	ND	0.200	--	ND	0.361	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	2.50	--	ND	4.71	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.200	--	ND	0.434	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-04

Date Collected: 07/07/11 00:00

Client ID: CAN 111 SHELF 1

Date Received: 07/07/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab								
Methylene chloride	ND	1.00	--	ND	3.47	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	0.200	--	ND	0.704	--		1
2-Butanone	ND	0.200	--	ND	0.590	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.200	--	ND	0.590	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1

**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-04

Date Collected: 07/07/11 00:00

Client ID: CAN 111 SHELF 1

Date Received: 07/07/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab								
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
2,4,4-trimethyl-1-pentene	ND	0.500	--	ND	2.29	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.200	--	ND	0.820	--		1
2,4,4-trimethyl-2-pentene	ND	0.500	--	ND	2.29	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.20	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-04

Date Collected: 07/07/11 00:00

Client ID: CAN 111 SHELF 1

Date Received: 07/07/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab								
Bromobenzene	ND	0.200	--	ND	0.793	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

**Project Name:** BATCH CANISTER CERTIFICATION

**Lab Number:** L1110016

**Project Number:** CANISTER QC BAT

**Report Date:** 08/03/11

**Air Canister Certification Results**

Lab ID: L1110016-04

Date Collected: 07/07/11 00:00

Client ID: CAN 111 SHELF 1

Date Received: 07/07/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	87		60-140
Bromochloromethane	90		60-140
chlorobenzene-d5	83		60-140



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-04  
 Client ID: CAN 111 SHELF 1  
 Sample Location:  
 Matrix: Air  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 07/15/11 17:00  
 Analyst: RY

Date Collected: 07/07/11 00:00  
 Date Received: 07/07/11  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.050	--	ND	0.247	--		1
Chloromethane	ND	0.500	--	ND	1.03	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	ND	2.00	--	ND	4.75	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.08	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	1.00	--	ND	3.47	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
Halothane	ND	0.050	--	ND	0.404	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.020	--	ND	0.072	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-04

Date Collected: 07/07/11 00:00

Client ID: CAN 111 SHELF 1

Date Received: 07/07/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.020	--	ND	0.092	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.500	--	ND	2.46	--		1
1,3,5-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.500	--	ND	2.74	--		1
p-Isopropyltoluene	ND	0.500	--	ND	2.74	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.500	--	ND	2.74	--		1



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-04

Date Collected: 07/07/11 00:00

Client ID: CAN 111 SHELF 1

Date Received: 07/07/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-04

Date Collected: 07/07/11 00:00

Client ID: CAN 111 SHELF 1

Date Received: 07/07/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	89		60-140
bromochloromethane	93		60-140
chlorobenzene-d5	90		60-140

**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-05  
 Client ID: CAN 1497 SHELF 14  
 Sample Location:  
 Matrix: Air  
 Analytical Method: 48,TO-15  
 Analytical Date: 07/12/11 18:35  
 Analyst: AR

Date Collected: 07/07/11 00:00  
 Date Received: 07/07/11  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.860	--		1
Propane	ND	0.200	--	ND	0.361	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	2.50	--	ND	4.71	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.200	--	ND	0.434	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-05

Date Collected: 07/07/11 00:00

Client ID: CAN 1497 SHELF 14

Date Received: 07/07/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab								
Methylene chloride	ND	1.00	--	ND	3.47	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	0.200	--	ND	0.704	--		1
2-Butanone	ND	0.200	--	ND	0.590	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.200	--	ND	0.590	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-05  
 Client ID: CAN 1497 SHELF 14  
 Sample Location:

Date Collected: 07/07/11 00:00  
 Date Received: 07/07/11  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab								
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
2,4,4-trimethyl-1-pentene	ND	0.500	--	ND	2.29	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.200	--	ND	0.820	--		1
2,4,4-trimethyl-2-pentene	ND	0.500	--	ND	2.29	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.20	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1

**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-05

Date Collected: 07/07/11 00:00

Client ID: CAN 1497 SHELF 14

Date Received: 07/07/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab								
Bromobenzene	ND	0.200	--	ND	0.793	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-05

Date Collected: 07/07/11 00:00

Client ID: CAN 1497 SHELF 14

Date Received: 07/07/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	95		60-140
Bromochloromethane	94		60-140
chlorobenzene-d5	94		60-140

**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-05  
 Client ID: CAN 1497 SHELF 14  
 Sample Location:  
 Matrix: Air  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 07/15/11 17:35  
 Analyst: RY

Date Collected: 07/07/11 00:00  
 Date Received: 07/07/11  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.050	--	ND	0.247	--		1
Chloromethane	ND	0.500	--	ND	1.03	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	ND	2.00	--	ND	4.75	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.08	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	1.00	--	ND	3.47	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
Halothane	ND	0.050	--	ND	0.404	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.020	--	ND	0.072	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-05

Date Collected: 07/07/11 00:00

Client ID: CAN 1497 SHELF 14

Date Received: 07/07/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.020	--	ND	0.092	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.500	--	ND	2.46	--		1
1,3,5-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.500	--	ND	2.74	--		1
p-Isopropyltoluene	ND	0.500	--	ND	2.74	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.500	--	ND	2.74	--		1





**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-05

Date Collected: 07/07/11 00:00

Client ID: CAN 1497 SHELF 14

Date Received: 07/07/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-05

Date Collected: 07/07/11 00:00

Client ID: CAN 1497 SHELF 14

Date Received: 07/07/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	84		60-140
bromochloromethane	92		60-140
chlorobenzene-d5	86		60-140

# **AIR Petro Can Certification**

**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**AIR CAN CERTIFICATION RESULTS**

**Lab ID:** L1110016-02  
**Client ID:** CAN 1546 SHELF 52  
**Sample Location:** Not Specified  
**Matrix:** Air  
**Analytical Method:** 96,APH  
**Analytical Date:** 07/15/11 14:13  
**Analyst:** RY

**Date Collected:** 07/07/11 00:00  
**Date Received:** 07/07/11  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Petroleum Hydrocarbons in Air - Mansfield Lab</b>						
1,3-Butadiene	ND		ug/m3	2.0	--	1
Methyl tert butyl ether	ND		ug/m3	2.0	--	1
Benzene	ND		ug/m3	2.0	--	1
Toluene	ND		ug/m3	2.0	--	1
C5-C8 Aliphatics, Adjusted	ND		ug/m3	12	--	1
Ethylbenzene	ND		ug/m3	2.0	--	1
p/m-Xylene	ND		ug/m3	4.0	--	1
o-Xylene	ND		ug/m3	2.0	--	1
Naphthalene	ND		ug/m3	2.0	--	1
C9-C12 Aliphatics, Adjusted	ND		ug/m3	14	--	1
C9-C10 Aromatics Total	ND		ug/m3	10	--	1

**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**AIR CAN CERTIFICATION RESULTS**

**Lab ID:** L1110016-03  
**Client ID:** CAN 705 SHELF 41  
**Sample Location:** Not Specified  
**Matrix:** Air  
**Analytical Method:** 96,APH  
**Analytical Date:** 07/15/11 14:51  
**Analyst:** RY

**Date Collected:** 07/07/11 00:00  
**Date Received:** 07/07/11  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Petroleum Hydrocarbons in Air - Mansfield Lab</b>						
1,3-Butadiene	ND		ug/m3	2.0	--	1
Methyl tert butyl ether	ND		ug/m3	2.0	--	1
Benzene	ND		ug/m3	2.0	--	1
Toluene	ND		ug/m3	2.0	--	1
C5-C8 Aliphatics, Adjusted	ND		ug/m3	12	--	1
Ethylbenzene	ND		ug/m3	2.0	--	1
p/m-Xylene	ND		ug/m3	4.0	--	1
o-Xylene	ND		ug/m3	2.0	--	1
Naphthalene	ND		ug/m3	2.0	--	1
C9-C12 Aliphatics, Adjusted	ND		ug/m3	14	--	1
C9-C10 Aromatics Total	ND		ug/m3	10	--	1

**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**AIR CAN CERTIFICATION RESULTS**

**Lab ID:** L1110016-04  
**Client ID:** CAN 111 SHELF 1  
**Sample Location:** Not Specified  
**Matrix:** Air  
**Analytical Method:** 96,APH  
**Analytical Date:** 07/15/11 15:30  
**Analyst:** RY

**Date Collected:** 07/07/11 00:00  
**Date Received:** 07/07/11  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Petroleum Hydrocarbons in Air - Mansfield Lab</b>						
1,3-Butadiene	ND		ug/m3	2.0	--	1
Methyl tert butyl ether	ND		ug/m3	2.0	--	1
Benzene	ND		ug/m3	2.0	--	1
Toluene	ND		ug/m3	2.0	--	1
C5-C8 Aliphatics, Adjusted	ND		ug/m3	12	--	1
Ethylbenzene	ND		ug/m3	2.0	--	1
p/m-Xylene	ND		ug/m3	4.0	--	1
o-Xylene	ND		ug/m3	2.0	--	1
Naphthalene	ND		ug/m3	2.0	--	1
C9-C12 Aliphatics, Adjusted	ND		ug/m3	14	--	1
C9-C10 Aromatics Total	ND		ug/m3	10	--	1

**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**AIR CAN CERTIFICATION RESULTS**

**Lab ID:** L1110016-05  
**Client ID:** CAN 1497 SHELF 14  
**Sample Location:** Not Specified  
**Matrix:** Air  
**Analytical Method:** 96,APH  
**Analytical Date:** 07/15/11 16:09  
**Analyst:** RY

**Date Collected:** 07/07/11 00:00  
**Date Received:** 07/07/11  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Petroleum Hydrocarbons in Air - Mansfield Lab</b>						
1,3-Butadiene	ND		ug/m3	2.0	--	1
Methyl tert butyl ether	ND		ug/m3	2.0	--	1
Benzene	ND		ug/m3	2.0	--	1
Toluene	ND		ug/m3	2.0	--	1
C5-C8 Aliphatics, Adjusted	ND		ug/m3	12	--	1
Ethylbenzene	ND		ug/m3	2.0	--	1
p/m-Xylene	ND		ug/m3	4.0	--	1
o-Xylene	ND		ug/m3	2.0	--	1
Naphthalene	ND		ug/m3	2.0	--	1
C9-C12 Aliphatics, Adjusted	ND		ug/m3	14	--	1
C9-C10 Aromatics Total	ND		ug/m3	10	--	1

**Project Name:** ALVAREZ HIGH SCHOOL**Lab Number:** L1111434**Project Number:** 14687.01**Report Date:** 08/03/11**Sample Receipt and Container Information**

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

**Cooler Information Custody Seal****Cooler**

N/A Absent

**Container Information**

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1111434-01A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1111434-02A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1111434-03A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1111434-04A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1111434-05A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1111434-06A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)

\*Values in parentheses indicate holding time in days



**Project Name:** ALVAREZ HIGH SCHOOL  
**Project Number:** 14687.01

**Lab Number:** L1111434  
**Report Date:** 08/03/11

## GLOSSARY

### Acronyms

EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NI	- Not Ignitable.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

### Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

### Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

### Data Qualifiers

- |          |  |
|----------|--|
| <b>A</b> | - Spectra identified as "Aldol Condensation Product".  |
| <b>B</b> | - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (5x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. |
| <b>C</b> | - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.   |
| <b>D</b> | - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.  |
| <b>E</b> | - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.   |
| <b>G</b> | - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.   |
| <b>H</b> | - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.   |
| <b>I</b> | - The RPD between the results for the two columns exceeds the method-specified criteria; however, the lower value has been reported due to obvious interference.   |
| <b>M</b> | - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.   |
| <b>P</b> | - The RPD between the results for the two columns exceeds the method-specified criteria.   |
| <b>Q</b> | - The quality control sample exceeds the associated acceptance criteria. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less   |

Report Format: Data Usability Report



**Project Name:** ALVAREZ HIGH SCHOOL  
**Project Number:** 14687.01

**Lab Number:** L1111434  
**Report Date:** 08/03/11

**Data Qualifiers**

than 5x the RL. (Metals only.)

**R** - Analytical results are from sample re-analysis.

**RE** - Analytical results are from sample re-extraction.

**J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

**ND** - Not detected at the reporting limit (RL) for the sample.

**Project Name:** ALVAREZ HIGH SCHOOL  
**Project Number:** 14687.01

**Lab Number:** L1111434  
**Report Date:** 08/03/11

## REFERENCES

- 48 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air. Second Edition. EPA/625/R-96/010b, January 1999.

## LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



## Certificate/Approval Program Summary

Last revised July 19, 2011 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held. For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

### **Connecticut Department of Public Health Certificate/Lab ID: PH-0141.**

*Wastewater/Non-Potable Water* (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable), Total Cyanide. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

*Solid Waste/Soil* (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, Zinc, Total Organic Carbon, Total Cyanide, Corrosivity, TCLP 1311. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

### **Florida Department of Health Certificate/Lab ID: E87814. *NELAP Accredited.***

*Non-Potable Water* (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

*Solid & Chemical Materials* (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

*Air & Emissions* (EPA TO-15.)

### **Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. *NELAP Accredited.***

*Non-Potable Water* (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

*Solid & Chemical Materials* (Inorganic Parameters: EPA 1311, 3050, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570B, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

*Biological Tissue* (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

*Air & Emissions* (EPA TO-15.)

### **New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. *NELAP Accredited.***

*Non-Potable Water* (Inorganic Parameters: EPA, 245.1, 245.7, 1631E, 180.1, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B. Organic Parameters: EPA 8081, 8082, 8260B, 8270C.)

*Solid & Chemical Materials* (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 3060A, 6020A, 7470A, 7471A, 9040B, 9045C, 7196A. Organic Parameters: SW-846 3540C, 3580, 3630C, 3640A, 3660B, 3665A, 5035, 8260B, 8270C, 8015D, 8082, 8081A.)

### **New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. *NELAP Accredited.***

*Non-Potable Water* (Inorganic Parameters: SW-846 1312, 3010, 3020A, 3015, SM2320B, SM2540D, 2540G, , EPA 180.1, 1631E, SW-846 7470A, 9040B, 6020. Organic Parameters: SW-846 3510C, 3580A, 5030B, 5035L, 5035H, 3630C, 3640C, 3660B, 3665A, 8015B 8081A, 8082, 8260B, 8270C)

*Solid & Chemical Materials* (Inorganic Parameters: SW-846 6020, 1311, 1312, 3050B, 3051, 3060A, 7196A, 7470A, 7471A, 9040B, 9045C, 9050A, 9060. Organic Parameters: SW-846 3540C, 3570, 3580A, 5030B, 5035L, 5035H, 3630C, 3640A, 3660B, 3665A, 8081A, 8082, 8260B, 8270C, 8015B.)

*Atmospheric Organic Parameters* (EPA TO-15)

*Biological Tissue* (Inorganic Parameters: SW-846 6020 Organic Parameters: SW-846 8270C, 3510C, 3570, 3610C, 3630C, 3640A)

**New York Department of Health** Certificate/Lab ID: 11627. **NELAP Accredited.**

*Non-Potable Water* (Inorganic Parameters: SM2320B, SM2540D, EPA 200.8, 6020, 1631E, 245.1, 245.7, 7470A, 9014, 9040B, 9050, 120.1, 4500CN-E, 4500H-B, EPA 376.2, 180.1, 3020A. Organic Parameters: EPA 8260B, 8270C, 8081A, 8082, 3510C, 5030B.)

*Solid & Hazardous Waste* (Inorganic Parameters: EPA 6020, 7196A, 3060A, 7471A, 7474, 9014, 9040B, 9045C, 9010B. Organic Parameters: EPA 8260B, 8270C, 8081A, DRO 8015B, 8082, 1311, 1312, 3050B, 3580, 3570, 3051, 5035, 5030B.)

*Air & Emissions* (EPA TO-15.)

**Rhode Island Department of Health** Certificate/Lab ID: LAO00299. **NELAP Accredited via LA-DEQ.**

Refer to LA-DEQ Certificate for Non-Potable Water.

**Texas Commission of Environmental Quality** Certificate/Lab ID: T104704419-08-TX. **NELAP Accredited.**

*Solid & Chemical Materials* (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 7196, 9014, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8260, 8081, 8082.)

*Air* (Organic Parameters: EPA TO-15)

**Washington State Department of Ecology** Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 2510B, EPA 120.1, 180.1, 1631E, 245.7.)

*Solid & Chemical Materials* (Inorganic Parameters: EPA 9040, 9060, 6020, 7470, 7471, 7474. Organic Parameters: EPA 8081, 8082, 8015 Mod, 8270, 8260.)

**U.S. Army Corps of Engineers**

**Department of Defense** Certificate/Lab ID: L2217.01.

*Non-Potable Water* (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 5030B, 8260B, 8270C, 8270C-ALK-PAH, 8082, 8081A, 8015D-SHC.)

*Solid & Hazardous Waste* (Inorganic Parameters: EPA 1311, 1312, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 5035A, 8260B, 8270C, 8270-ALK-PAH, 8082, 8081A, 8015D-SHC, 8015-DRO.

*Air & Emissions* (EPA TO-15.)

#### **Analytes Not Accredited by NELAP**

Certification is not available by NELAP for the following analytes: **8270C**: Biphenyl. **TO-15**: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.



# AIR ANALYSIS

CHAIN OF CUSTODY

320 Forbes Blvd, Mansfield, MA 02048  
 TEL: 508-822-9300 FAX: 508-822-3288

PAGE \_\_\_\_\_ OF \_\_\_\_\_

Date Rec'd in Lab:

ALPHA Job #: **L1111434**

**Client Information**

Client: **EA Engineering**  
 Address: **2374 Post Road**  
**Suite 102**  
 Phone: **401-736-3440**  
 Fax: **401-736-3423**  
 Email: **rmark@eest.com**

**Project Information**

Project Name: **Alvarez High School**  
 Project Location: **Providence, RI**  
 Project #: **14687.01**  
 Project Manager: **Frank Postma**  
 ALPHA Quote #:

**Turn-Around Time**

Standard  RUSH (only confirmed if pre-approved!)  
 Date Due: \_\_\_\_\_ Time: \_\_\_\_\_

**Report Information - Data Deliverables**

FAX  ADEx  
 Criteria Checker: \_\_\_\_\_  
 (Default based on Regulatory Criteria Indicated)  
 Other Formats: \_\_\_\_\_  
 EMAIL (standard pdf report)  
 Additional Deliverables: \_\_\_\_\_  
 Report to: (if different than Project Manager)  
**rmark@eest.com**

**Billing Information**

Same as Client info PO #: \_\_\_\_\_

**Regulatory Requirements/Report Limits**

State/Fed	Program	Criteria

These samples have been previously analyzed by Alpha

Other Project Specific Requirements/Comments:

**All Columns Below Must Be Filled Out**

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection					Sample Matrix*	Sampler's Initials	Can Size	ID Can	ID - Flow Controller	ANALYSIS						Sample Comments (i.e. PID)
		Date	Start Time	End Time	Initial Vacuum	Final Vacuum						TO-14A by TO-15	TO-15	TO-15 SIM	APH	FIXED GASES	TO-13A	
L1111434-1	IMP-1	7/26/11	0830	0901	-29.12	-2.87	SV	PT/MT	2.7	393	0424		X					306 ppb
-2	IMP-2		0857	0928	-29.36	-4.76				496	0200		X					697 ppb
-3	MP-1		1051	1121	-29.36	-4.72				504	0493		X					581 ppb
-4	MP-3		1059	1131	-29.46	-4.60				389	0419		X					9361 ppb
-5	MP-4		1118	1150	-29.92	-0.29				532	0423		X					297 ppb
-6	MP-6		1111	<del>1145</del> 2885	<del>-28.85</del> -8.65					111	0408		X					6911 ppb

**\*SAMPLE MATRIX CODES**

AA = Ambient Air (Indoor/Outdoor)  
 SV = Soil Vapor/Landfill Gas/SVE  
 Other = Please Specify

Container Type

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

Relinquished By:

Date/Time

Received By:

Date/Time:

*[Signature]*

7/27/11 1500  
7/27/11 1555

*[Signature]*

7/27/11 1500  
7/27/11 1555

***APPENDIX D***

***Rooftop Effluent  
Analytical Summary***







## ANALYTICAL REPORT

Lab Number:	L1111435
Client:	EA Engineering, Science and Technology 2374 Post Road Suite 102 Warwick, RI 02886
ATTN:	Frank Postma
Phone:	(401) 736-3440
Project Name:	ALVAREZ HIGH SCHOOL
Project Number:	14687.01
Report Date:	08/03/11

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA030), NY (11627), CT (PH-0141), NH (2206), NJ (MA015), RI (LAO00299), ME (MA0030), PA (Registration #68-02089), LA NELAC (03090), FL NELAC (E87814), US Army Corps of Engineers.

---

320 Forbes Boulevard, Mansfield, MA 02048-1806  
508-822-9300 (Fax) 508-822-3288 800-624-9220 - [www.alphalab.com](http://www.alphalab.com)



**Project Name:** ALVAREZ HIGH SCHOOL  
**Project Number:** 14687.01

**Lab Number:** L1111435  
**Report Date:** 08/03/11

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>
L1111435-01	RTF-1	PROVIDENCE, RI	07/26/11 10:22
L1111435-02	RTF-2	PROVIDENCE, RI	07/26/11 10:14
L1111435-03	RTF-3	PROVIDENCE, RI	07/26/11 09:57

**Project Name:** ALVAREZ HIGH SCHOOL  
**Project Number:** 14687.01

**Lab Number:** L1111435  
**Report Date:** 08/03/11

### Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

For additional information, please contact Client Services at 800-624-9220.


---

#### Volatile Organics in Air (SIM)

The canister certification results are provided as an addendum.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:



Kathleen O'Brien

Title: Technical Director/Representative

Date: 08/03/11

**AIR**

**Project Name:** ALVAREZ HIGH SCHOOL**Lab Number:** L1111435**Project Number:** 14687.01**Report Date:** 08/03/11**SAMPLE RESULTS**

Lab ID: L1111435-01  
 Client ID: RTF-1  
 Sample Location: PROVIDENCE, RI  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 07/31/11 10:16  
 Analyst: RY

Date Collected: 07/26/11 10:22  
 Date Received: 07/27/11  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	0.485	0.050	--	2.40	0.247	--		1
Chloromethane	ND	0.500	--	ND	1.03	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	4.66	2.00	--	11.1	4.75	--		1
Trichlorofluoromethane	9.48	0.050	--	53.3	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.08	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	2.30	1.00	--	7.99	3.47	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.020	--	ND	0.072	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	0.065	0.020	--	0.317	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	0.377	0.020	--	2.06	0.109	--		1
Benzene	0.170	0.100	--	0.543	0.319	--		1
Carbon tetrachloride	0.068	0.020	--	0.428	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
Trichloroethene	15.6	0.020	--	83.8	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1



**Project Name:** ALVAREZ HIGH SCHOOL**Lab Number:** L1111435**Project Number:** 14687.01**Report Date:** 08/03/11**SAMPLE RESULTS**

Lab ID: L1111435-01

Date Collected: 07/26/11 10:22

Client ID: RTF-1

Date Received: 07/27/11

Sample Location: PROVIDENCE, RI

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	0.411	0.050	--	1.55	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	3.95	0.020	--	26.8	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.020	--	ND	0.092	--		1
Ethylbenzene	0.054	0.020	--	0.234	0.087	--		1
p/m-Xylene	0.154	0.040	--	0.669	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	0.050	0.020	--	0.213	0.085	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	0.068	0.020	--	0.295	0.087	--		1
Isopropylbenzene	ND	0.500	--	ND	2.46	--		1
1,3,5-Trimethylbenzene	0.038	0.020	--	0.187	0.098	--		1
1,2,4-Trimethylbenzene	0.068	0.020	--	0.334	0.098	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.500	--	ND	2.74	--		1
p-Isopropyltoluene	ND	0.500	--	ND	2.74	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.500	--	ND	2.74	--		1



**Project Name:** ALVAREZ HIGH SCHOOL**Lab Number:** L1111435**Project Number:** 14687.01**Report Date:** 08/03/11**SAMPLE RESULTS**

Lab ID: L1111435-01

Date Collected: 07/26/11 10:22

Client ID: RTF-1

Date Received: 07/27/11

Sample Location: PROVIDENCE, RI

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	101		60-140
bromochloromethane	97		60-140
chlorobenzene-d5	99		60-140

**Project Name:** ALVAREZ HIGH SCHOOL**Lab Number:** L1111435**Project Number:** 14687.01**Report Date:** 08/03/11**SAMPLE RESULTS**

Lab ID: L1111435-02  
 Client ID: RTF-2  
 Sample Location: PROVIDENCE, RI  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 07/31/11 10:52  
 Analyst: RY

Date Collected: 07/26/11 10:14  
 Date Received: 07/27/11  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	0.492	0.050	--	2.43	0.247	--		1
Chloromethane	ND	0.500	--	ND	1.03	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	0.040	0.020	--	0.106	0.053	--		1
Acetone	3.49	2.00	--	8.29	4.75	--		1
Trichlorofluoromethane	19.7	0.050	--	111	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.08	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	1.00	--	ND	3.47	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.020	--	ND	0.072	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	0.172	0.020	--	0.840	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	0.248	0.020	--	1.35	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	0.064	0.020	--	0.402	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
Trichloroethene	14.1	0.020	--	75.8	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1





**Project Name:** ALVAREZ HIGH SCHOOL**Lab Number:** L1111435**Project Number:** 14687.01**Report Date:** 08/03/11**SAMPLE RESULTS**

Lab ID: L1111435-02

Date Collected: 07/26/11 10:14

Client ID: RTF-2

Date Received: 07/27/11

Sample Location: PROVIDENCE, RI

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	0.189	0.050	--	0.712	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	1.82	0.020	--	12.3	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.020	--	ND	0.092	--		1
Ethylbenzene	0.030	0.020	--	0.130	0.087	--		1
p/m-Xylene	0.120	0.040	--	0.521	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	0.120	0.020	--	0.511	0.085	--		1
1,1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	0.051	0.020	--	0.222	0.087	--		1
Isopropylbenzene	ND	0.500	--	ND	2.46	--		1
1,3,5-Trimethylbenzene	0.028	0.020	--	0.138	0.098	--		1
1,2,4-Trimethylbenzene	0.059	0.020	--	0.290	0.098	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.500	--	ND	2.74	--		1
p-Isopropyltoluene	ND	0.500	--	ND	2.74	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.500	--	ND	2.74	--		1



**Project Name:** ALVAREZ HIGH SCHOOL**Lab Number:** L1111435**Project Number:** 14687.01**Report Date:** 08/03/11**SAMPLE RESULTS**

Lab ID: L1111435-02

Date Collected: 07/26/11 10:14

Client ID: RTF-2

Date Received: 07/27/11

Sample Location: PROVIDENCE, RI

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	105		60-140
bromochloromethane	99		60-140
chlorobenzene-d5	100		60-140

**Project Name:** ALVAREZ HIGH SCHOOL**Lab Number:** L1111435**Project Number:** 14687.01**Report Date:** 08/03/11**SAMPLE RESULTS**

Lab ID: L1111435-03  
 Client ID: RTF-3  
 Sample Location: PROVIDENCE, RI  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 07/31/11 11:28  
 Analyst: RY

Date Collected: 07/26/11 09:57  
 Date Received: 07/27/11  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	0.483	0.050	--	2.39	0.247	--		1
Chloromethane	ND	0.500	--	ND	1.03	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	ND	2.00	--	ND	4.75	--		1
Trichlorofluoromethane	3.12	0.050	--	17.5	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.08	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	1.00	--	ND	3.47	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.020	--	ND	0.072	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	0.067	0.020	--	0.327	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	0.204	0.020	--	1.11	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	0.065	0.020	--	0.409	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
Trichloroethene	5.34	0.020	--	28.7	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1



**Project Name:** ALVAREZ HIGH SCHOOL**Lab Number:** L1111435**Project Number:** 14687.01**Report Date:** 08/03/11**SAMPLE RESULTS**

Lab ID: L1111435-03

Date Collected: 07/26/11 09:57

Client ID: RTF-3

Date Received: 07/27/11

Sample Location: PROVIDENCE, RI

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	0.297	0.050	--	1.12	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	9.68	0.020	--	65.6	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.020	--	ND	0.092	--		1
Ethylbenzene	0.134	0.020	--	0.582	0.087	--		1
p/m-Xylene	0.305	0.040	--	1.32	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	0.021	0.020	--	0.089	0.085	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	0.069	0.020	--	0.300	0.087	--		1
Isopropylbenzene	ND	0.500	--	ND	2.46	--		1
1,3,5-Trimethylbenzene	0.056	0.020	--	0.275	0.098	--		1
1,2,4-Trimethylbenzene	0.101	0.020	--	0.496	0.098	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.500	--	ND	2.74	--		1
p-Isopropyltoluene	ND	0.500	--	ND	2.74	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.500	--	ND	2.74	--		1

**Project Name:** ALVAREZ HIGH SCHOOL**Lab Number:** L1111435**Project Number:** 14687.01**Report Date:** 08/03/11**SAMPLE RESULTS**

Lab ID: L1111435-03

Date Collected: 07/26/11 09:57

Client ID: RTF-3

Date Received: 07/27/11

Sample Location: PROVIDENCE, RI

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	99		60-140
bromochloromethane	97		60-140
chlorobenzene-d5	99		60-140

Project Name: ALVAREZ HIGH SCHOOL

Lab Number: L1111435

Project Number: 14687.01

Report Date: 08/03/11

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15-SIM

Analytical Date: 07/30/11 14:46

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-03 Batch: WG481898-9								
Dichlorodifluoromethane	ND	0.050	--	ND	0.247	--		1
Chloromethane	ND	0.500	--	ND	1.03	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	ND	2.00	--	ND	4.75	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.08	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	1.00	--	ND	3.47	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.020	--	ND	0.072	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1



Project Name: ALVAREZ HIGH SCHOOL

Lab Number: L1111435

Project Number: 14687.01

Report Date: 08/03/11

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15-SIM

Analytical Date: 07/30/11 14:46

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-03 Batch: WG481898-9								
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.020	--	ND	0.092	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.500	--	ND	2.46	--		1
1,3,5-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.500	--	ND	2.74	--		1
p-Isopropyltoluene	ND	0.500	--	ND	2.74	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.500	--	ND	2.74	--		1

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** ALVAREZ HIGH SCHOOL

**Project Number:** 14687.01

**Lab Number:** L1111435

**Report Date:** 08/03/11

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-03 Batch: WG481898-8								
Dichlorodifluoromethane	102		-		70-130	-		25
Chloromethane	98		-		70-130	-		25
1,2-Dichloro-1,1,2,2-tetrafluoroethane	98		-		70-130	-		25
Vinyl chloride	104		-		70-130	-		25
1,3-Butadiene	108		-		70-130	-		25
Bromomethane	103		-		70-130	-		25
Chloroethane	104		-		70-130	-		25
Acetone	93		-		70-130	-		25
Trichlorofluoromethane	106		-		70-130	-		25
Acrylonitrile	98		-		70-130	-		25
1,1-Dichloroethene	105		-		70-130	-		25
Methylene chloride	89		-		70-130	-		25
1,1,2-Trichloro-1,2,2-Trifluoroethane	107		-		70-130	-		25
Halothane	82		-		70-130	-		25
trans-1,2-Dichloroethene	99		-		70-130	-		25
1,1-Dichloroethane	102		-		70-130	-		25
Methyl tert butyl ether	95		-		70-130	-		25
2-Butanone	94		-		70-130	-		25
cis-1,2-Dichloroethene	103		-		70-130	-		25
Chloroform	104		-		70-130	-		25
1,2-Dichloroethane	96		-		70-130	-		25



## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** ALVAREZ HIGH SCHOOL

**Lab Number:** L1111435

**Project Number:** 14687.01

**Report Date:** 08/03/11

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-03 Batch: WG481898-8								
1,1,1-Trichloroethane	83		-		70-130	-		25
Benzene	91		-		70-130	-		25
Carbon tetrachloride	92		-		70-130	-		25
1,2-Dichloropropane	97		-		70-130	-		25
Bromodichloromethane	91		-		70-130	-		25
Trichloroethene	99		-		70-130	-		25
1,4-Dioxane	89		-		70-130	-		25
cis-1,3-Dichloropropene	98		-		70-130	-		25
4-Methyl-2-pentanone	89		-		70-130	-		25
trans-1,3-Dichloropropene	81		-		70-130	-		25
1,1,2-Trichloroethane	99		-		70-130	-		25
Toluene	91		-		70-130	-		25
Dibromochloromethane	84		-		70-130	-		25
1,2-Dibromoethane	99		-		70-130	-		25
Tetrachloroethene	98		-		70-130	-		25
1,1,1,2-Tetrachloroethane	97		-		70-130	-		25
Chlorobenzene	99		-		70-130	-		25
Ethylbenzene	97		-		70-130	-		25
p/m-Xylene	99		-		70-130	-		25
Bromoform	77		-		70-130	-		25
Styrene	104		-		70-130	-		25

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** ALVAREZ HIGH SCHOOL

**Project Number:** 14687.01

**Lab Number:** L1111435

**Report Date:** 08/03/11

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-03 Batch: WG481898-8								
1,1,2,2-Tetrachloroethane	100		-		70-130	-		25
o-Xylene	96		-		70-130	-		25
Isopropylbenzene	104		-		70-130	-		25
1,3,5-Trimethylbenzene	98		-		70-130	-		25
1,2,4-Trimethylbenzene	100		-		70-130	-		25
1,3-Dichlorobenzene	100		-		70-130	-		25
1,4-Dichlorobenzene	97		-		70-130	-		25
sec-Butylbenzene	103		-		70-130	-		25
p-Isopropyltoluene	95		-		70-130	-		25
1,2-Dichlorobenzene	104		-		70-130	-		25
n-Butylbenzene	105		-		70-130	-		25
1,2,4-Trichlorobenzene	95		-		70-130	-		25
Naphthalene	96		-		70-130	-		25
1,2,3-Trichlorobenzene	96		-		70-130	-		25
Hexachlorobutadiene	93		-		70-130	-		25

## Lab Duplicate Analysis

### Batch Quality Control

Project Name: ALVAREZ HIGH SCHOOL

Project Number: 14687.01

Lab Number: L1111435

Report Date: 08/03/11

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG481898-5 QC Sample: L1111434-04 Client ID: DUP Sample						
Dichlorodifluoromethane	0.463	0.447	ppbV	4		25
Chloromethane	ND	ND	ppbV	NC		25
Vinyl chloride	ND	ND	ppbV	NC		25
Chloroethane	ND	ND	ppbV	NC		25
Acetone	50.4	47.7	ppbV	6		25
Trichlorofluoromethane	0.233	0.223	ppbV	4		25
Acrylonitrile	ND	ND	ppbV	NC		25
1,1-Dichloroethene	ND	ND	ppbV	NC		25
Methylene chloride	ND	ND	ppbV	NC		25
trans-1,2-Dichloroethene	ND	ND	ppbV	NC		25
1,1-Dichloroethane	ND	ND	ppbV	NC		25
Methyl tert butyl ether	ND	ND	ppbV	NC		25
2-Butanone	28.1	26.5	ppbV	6		25
cis-1,2-Dichloroethene	ND	ND	ppbV	NC		25
Chloroform	ND	ND	ppbV	NC		25
1,2-Dichloroethane	ND	ND	ppbV	NC		25
1,1,1-Trichloroethane	ND	ND	ppbV	NC		25
Benzene	ND	ND	ppbV	NC		25
Carbon tetrachloride	ND	ND	ppbV	NC		25

## Lab Duplicate Analysis

Batch Quality Control

Project Name: ALVAREZ HIGH SCHOOL

Project Number: 14687.01

Lab Number: L1111435

Report Date: 08/03/11

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG481898-5 QC Sample: L1111434-04 Client ID: DUP Sample					
1,2-Dichloropropane	ND	ND	ppbV	NC	25
Bromodichloromethane	ND	ND	ppbV	NC	25
Trichloroethene	ND	ND	ppbV	NC	25
cis-1,3-Dichloropropene	ND	ND	ppbV	NC	25
4-Methyl-2-pentanone	ND	ND	ppbV	NC	25
trans-1,3-Dichloropropene	ND	ND	ppbV	NC	25
1,1,2-Trichloroethane	ND	ND	ppbV	NC	25
Toluene	1.05	1.02	ppbV	3	25
Dibromochloromethane	ND	ND	ppbV	NC	25
1,2-Dibromoethane	ND	ND	ppbV	NC	25
Tetrachloroethene	0.123	0.120	ppbV	2	25
1,1,1,2-Tetrachloroethane	ND	ND	ppbV	NC	25
Chlorobenzene	ND	ND	ppbV	NC	25
Ethylbenzene	0.217	0.203	ppbV	7	25
p/m-Xylene	0.913	0.870	ppbV	5	25
Bromoform	ND	ND	ppbV	NC	25
Styrene	0.183	0.173	ppbV	6	25
1,1,2,2-Tetrachloroethane	ND	ND	ppbV	NC	25
o-Xylene	0.333	0.320	ppbV	4	25

## Lab Duplicate Analysis

Batch Quality Control

Project Name: ALVAREZ HIGH SCHOOL

Project Number: 14687.01

Lab Number: L1111435

Report Date: 08/03/11

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG481898-5 QC Sample: L1111434-04 Client ID: DUP Sample					
Isopropylbenzene	ND	ND	ppbV	NC	25
1,3,5-Trimethylbenzene	0.180	0.170	ppbV	6	25
1,2,4-Trimethylbenzene	0.543	0.513	ppbV	6	25
1,3-Dichlorobenzene	ND	ND	ppbV	NC	25
1,4-Dichlorobenzene	0.866	0.836	ppbV	4	25
sec-Butylbenzene	ND	ND	ppbV	NC	25
p-Isopropyltoluene	ND	ND	ppbV	NC	25
1,2-Dichlorobenzene	ND	ND	ppbV	NC	25
n-Butylbenzene	ND	ND	ppbV	NC	25

**Project Name:** ALVAREZ HIGH SCHOOL

Serial\_No:08031116:53

**Lab Number:** L1111435

**Project Number:** 14687.01

**Report Date:** 08/03/11

**Canister and Flow Controller Information**

Samplenum	Client ID	Media ID	Media Type	Cleaning Batch ID	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Out mL/min	Flow In mL/min	% RSD
L1111435-01	RTF-1	387	2.7L Can	L1110016-04	-28.4	-5.3	-	-	-
L1111435-02	RTF-2	356	2.7L Can	L1110016-04	-29.3	-1.5	-	-	-
L1111435-03	RTF-3	419	2.7L Can	L1110016-04	-29.4	-4.3	-	-	-



# **Air Volatiles Can Certification**

**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-04  
 Client ID: CAN 111 SHELF 1  
 Sample Location:  
 Matrix: Air  
 Analytical Method: 48,TO-15  
 Analytical Date: 07/15/11 17:00  
 Analyst: RY

Date Collected: 07/07/11 00:00  
 Date Received: 07/07/11  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.860	--		1
Propane	ND	0.200	--	ND	0.361	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	2.50	--	ND	4.71	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.200	--	ND	0.434	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1





**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-04

Date Collected: 07/07/11 00:00

Client ID: CAN 111 SHELF 1

Date Received: 07/07/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab								
Methylene chloride	ND	1.00	--	ND	3.47	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	0.200	--	ND	0.704	--		1
2-Butanone	ND	0.200	--	ND	0.590	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.200	--	ND	0.590	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-04

Date Collected: 07/07/11 00:00

Client ID: CAN 111 SHELF 1

Date Received: 07/07/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab								
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
2,4,4-trimethyl-1-pentene	ND	0.500	--	ND	2.29	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.200	--	ND	0.820	--		1
2,4,4-trimethyl-2-pentene	ND	0.500	--	ND	2.29	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.20	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1

**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-04

Date Collected: 07/07/11 00:00

Client ID: CAN 111 SHELF 1

Date Received: 07/07/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab								
Bromobenzene	ND	0.200	--	ND	0.793	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-04

Date Collected: 07/07/11 00:00

Client ID: CAN 111 SHELF 1

Date Received: 07/07/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air (Low Level) - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	87		60-140
Bromochloromethane	90		60-140
chlorobenzene-d5	83		60-140

**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-04  
 Client ID: CAN 111 SHELF 1  
 Sample Location:  
 Matrix: Air  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 07/15/11 17:00  
 Analyst: RY

Date Collected: 07/07/11 00:00  
 Date Received: 07/07/11  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.050	--	ND	0.247	--		1
Chloromethane	ND	0.500	--	ND	1.03	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	ND	2.00	--	ND	4.75	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.08	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	1.00	--	ND	3.47	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
Halothane	ND	0.050	--	ND	0.404	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.020	--	ND	0.072	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-04

Date Collected: 07/07/11 00:00

Client ID: CAN 111 SHELF 1

Date Received: 07/07/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.020	--	ND	0.092	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.500	--	ND	2.46	--		1
1,3,5-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.500	--	ND	2.74	--		1
p-Isopropyltoluene	ND	0.500	--	ND	2.74	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.500	--	ND	2.74	--		1



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-04

Date Collected: 07/07/11 00:00

Client ID: CAN 111 SHELF 1

Date Received: 07/07/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**Air Canister Certification Results**

Lab ID: L1110016-04

Date Collected: 07/07/11 00:00

Client ID: CAN 111 SHELF 1

Date Received: 07/07/11

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	89		60-140
bromochloromethane	93		60-140
chlorobenzene-d5	90		60-140



# **AIR Petro Can Certification**

**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1110016**Project Number:** CANISTER QC BAT**Report Date:** 08/03/11**AIR CAN CERTIFICATION RESULTS**

**Lab ID:** L1110016-04  
**Client ID:** CAN 111 SHELF 1  
**Sample Location:** Not Specified  
**Matrix:** Air  
**Analytical Method:** 96,APH  
**Analytical Date:** 07/15/11 15:30  
**Analyst:** RY

**Date Collected:** 07/07/11 00:00  
**Date Received:** 07/07/11  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Petroleum Hydrocarbons in Air - Mansfield Lab</b>						
1,3-Butadiene	ND		ug/m3	2.0	--	1
Methyl tert butyl ether	ND		ug/m3	2.0	--	1
Benzene	ND		ug/m3	2.0	--	1
Toluene	ND		ug/m3	2.0	--	1
C5-C8 Aliphatics, Adjusted	ND		ug/m3	12	--	1
Ethylbenzene	ND		ug/m3	2.0	--	1
p/m-Xylene	ND		ug/m3	4.0	--	1
o-Xylene	ND		ug/m3	2.0	--	1
Naphthalene	ND		ug/m3	2.0	--	1
C9-C12 Aliphatics, Adjusted	ND		ug/m3	14	--	1
C9-C10 Aromatics Total	ND		ug/m3	10	--	1

**Project Name:** ALVAREZ HIGH SCHOOL**Lab Number:** L1111435**Project Number:** 14687.01**Report Date:** 08/03/11**Sample Receipt and Container Information**

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

**Cooler Information Custody Seal****Cooler**

N/A Absent

**Container Information**

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1111435-01A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1111435-02A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1111435-03A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)

\*Values in parentheses indicate holding time in days

**Project Name:** ALVAREZ HIGH SCHOOL  
**Project Number:** 14687.01

**Lab Number:** L1111435  
**Report Date:** 08/03/11

## GLOSSARY

### Acronyms

EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NI	- Not Ignitable.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

### Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

### Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

### Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (5x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The RPD between the results for the two columns exceeds the method-specified criteria; however, the lower value has been reported due to obvious interference.
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less

Report Format: Data Usability Report



**Project Name:** ALVAREZ HIGH SCHOOL  
**Project Number:** 14687.01

**Lab Number:** L1111435  
**Report Date:** 08/03/11

**Data Qualifiers**

than 5x the RL. (Metals only.)

**R** - Analytical results are from sample re-analysis.

**RE** - Analytical results are from sample re-extraction.

**J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

**ND** - Not detected at the reporting limit (RL) for the sample.

**Project Name:** ALVAREZ HIGH SCHOOL  
**Project Number:** 14687.01

**Lab Number:** L1111435  
**Report Date:** 08/03/11

## REFERENCES

- 48 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air. Second Edition. EPA/625/R-96/010b, January 1999.

## LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



## Certificate/Approval Program Summary

Last revised July 19, 2011 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held. For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

### **Connecticut Department of Public Health Certificate/Lab ID: PH-0141.**

*Wastewater/Non-Potable Water* (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable), Total Cyanide. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

*Solid Waste/Soil* (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, Zinc, Total Organic Carbon, Total Cyanide, Corrosivity, TCLP 1311. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

### **Florida Department of Health Certificate/Lab ID: E87814. *NELAP Accredited.***

*Non-Potable Water* (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

*Solid & Chemical Materials* (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

*Air & Emissions* (EPA TO-15.)

### **Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. *NELAP Accredited.***

*Non-Potable Water* (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

*Solid & Chemical Materials* (Inorganic Parameters: EPA 1311, 3050, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570B, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

*Biological Tissue* (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

*Air & Emissions* (EPA TO-15.)

### **New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. *NELAP Accredited.***

*Non-Potable Water* (Inorganic Parameters: EPA, 245.1, 245.7, 1631E, 180.1, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B. Organic Parameters: EPA 8081, 8082, 8260B, 8270C.)

*Solid & Chemical Materials* (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 3060A, 6020A, 7470A, 7471A, 9040B, 9045C, 7196A. Organic Parameters: SW-846 3540C, 3580, 3630C, 3640A, 3660B, 3665A, 5035, 8260B, 8270C, 8015D, 8082, 8081A.)

### **New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. *NELAP Accredited.***

*Non-Potable Water* (Inorganic Parameters: SW-846 1312, 3010, 3020A, 3015, SM2320B, SM2540D, 2540G, , EPA 180.1, 1631E, SW-846 7470A, 9040B, 6020. Organic Parameters: SW-846 3510C, 3580A, 5030B, 5035L, 5035H, 3630C, 3640C, 3660B, 3665A, 8015B 8081A, 8082, 8260B, 8270C)

*Solid & Chemical Materials* (Inorganic Parameters: SW-846 6020, 1311, 1312, 3050B, 3051, 3060A, 7196A, 7470A, 7471A, 9040B, 9045C, 9050A, 9060. Organic Parameters: SW-846 3540C, 3570, 3580A, 5030B, 5035L, 5035H, 3630C, 3640A, 3660B, 3665A, 8081A, 8082, 8260B, 8270C, 8015B.)

*Atmospheric Organic Parameters* (EPA TO-15)

*Biological Tissue* (Inorganic Parameters: SW-846 6020 Organic Parameters: SW-846 8270C, 3510C, 3570, 3610C, 3630C, 3640A)

**New York Department of Health** Certificate/Lab ID: 11627. **NELAP Accredited.**

*Non-Potable Water* (Inorganic Parameters: SM2320B, SM2540D, EPA 200.8, 6020, 1631E, 245.1, 245.7, 7470A, 9014, 9040B, 9050, 120.1, 4500CN-E, 4500H-B, EPA 376.2, 180.1, 3020A. Organic Parameters: EPA 8260B, 8270C, 8081A, 8082, 3510C, 5030B.)

*Solid & Hazardous Waste* (Inorganic Parameters: EPA 6020, 7196A, 3060A, 7471A, 7474, 9014, 9040B, 9045C, 9010B. Organic Parameters: EPA 8260B, 8270C, 8081A, DRO 8015B, 8082, 1311, 1312, 3050B, 3580, 3570, 3051, 5035, 5030B.)

*Air & Emissions* (EPA TO-15.)

**Rhode Island Department of Health** Certificate/Lab ID: LAO00299. **NELAP Accredited via LA-DEQ.**

Refer to LA-DEQ Certificate for Non-Potable Water.

**Texas Commission of Environmental Quality** Certificate/Lab ID: T104704419-08-TX. **NELAP Accredited.**

*Solid & Chemical Materials* (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 7196, 9014, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8260, 8081, 8082.)

*Air* (Organic Parameters: EPA TO-15)

**Washington State Department of Ecology** Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 2510B, EPA 120.1, 180.1, 1631E, 245.7.)

*Solid & Chemical Materials* (Inorganic Parameters: EPA 9040, 9060, 6020, 7470, 7471, 7474. Organic Parameters: EPA 8081, 8082, 8015 Mod, 8270, 8260.)

**U.S. Army Corps of Engineers**

**Department of Defense** Certificate/Lab ID: L2217.01.

*Non-Potable Water* (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 5030B, 8260B, 8270C, 8270C-ALK-PAH, 8082, 8081A, 8015D-SHC.)

*Solid & Hazardous Waste* (Inorganic Parameters: EPA 1311, 1312, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 5035A, 8260B, 8270C, 8270-ALK-PAH, 8082, 8081A, 8015D-SHC, 8015-DRO.

*Air & Emissions* (EPA TO-15.)

#### **Analytes Not Accredited by NELAP**

Certification is not available by NELAP for the following analytes: **8270C**: Biphenyl. **TO-15**: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.



**ALPHA ANALYSIS** PAGE \_\_\_\_\_ OF \_\_\_\_\_

**CHAIN OF CUSTODY**

320 Forbes Blvd, Mansfield, MA 02048  
 TEL: 508-822-9300 FAX: 508-822-3288

**Client Information**

Client: EA Engineering  
 Address: 2574 Post Road  
 Suite 102  
 Phone: 736-3440  
 Fax: 401-736-3423  
 Email: rmax@east.com

These samples have been previously analyzed by Alpha

Other Project Specific Requirements/Comments:

**Project Information**

Project Name: Alvarez High School  
 Project Location: Providence, RI  
 Project #: 1468.7  
 Project Manager:  
 ALPHA Quote #:  
 Turn-Around Time  RUSH (only confirmed if pre-approved)

**Date Due:** \_\_\_\_\_ **Time:** \_\_\_\_\_

**Report Information - Data Deliverables**

FAX  
 ADEX  
 Criteria Checker: \_\_\_\_\_  
 (Default based on Regulatory Criteria Indicated)  
 Other Formats:  
 EMAIL (standard pdf report)  
 Additional Deliverables:  
 Report to: (if different than Project Manager)  
rmax@east.com

**Regulatory Requirements/Report Limits**

State/Fed \_\_\_\_\_ Program \_\_\_\_\_ Criteria \_\_\_\_\_

**ALPHA Job #:** L111435

**Billing Information**

Same as Client info  PO #:

**ANALYSIS**

ALPHA Lab ID (Lab Use Only)	Sample ID	Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	ID Can	ID - Flow Controller	TO-14A by TO-15	TO-15 SIM	APH	FIXED GASES	TO-13A	TO-4/TO-10	Sample Comments (r.e. PID)	
L111435-1	RTP-1	7/26/11	1022	-	-22	-2	SV	RT/MT	2.7	356	-	X	X					151	387
-2	RTP-2	↓	1014	-	-18	-2	↓	↓	↓	479	-	X	X					210	356
-3	RTP-3	↓	0957	-	-18	-2	↓	↓	↓	1524	-	X	X					148	419

**\*SAMPLE MATRIX CODES**

AA = Ambient Air (Indoor/Outdoor)  
 SV = Soil Vapor/Landfill Gas/SVE  
 Other = Please Specify

Relinquished By: P. Gallant Date/Time: 7/27/11 1500

Received By: P. Gallant Date/Time: 7/27/11 1555

Container Type: \_\_\_\_\_

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time begins are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side

Form No: 101-02 (19-Jun-09)



## ***APPENDIX E***

### ***Laboratory Reporting Limits Correspondence***





October 3, 2011

**To:** Ron Mack  
EA Engineering, Science, & Technology  
2350 Post Road  
Warwick, RI 02886

**From:** Katie O'Brien  
Alpha Analytical  
320 Forbes Blvd  
Mansfield, MA 01581

**Re:** TO15 SIM Reporting Limits

Dear Ron,

As we communicated prior to the TO-15 SIM analyses completed for the Alvarez High School air samples collected on July 27, 2011; the SIM Reporting Limits achieved for the following compounds are the lowest that we can currently achieve at Alpha. Please note that these reporting limits are above the Draft Proposed CT RSR (Residential) Criteria for these compounds:

1,2-Dichloroethane SIM RL = 0.08 ug/m<sup>3</sup>  
Ethylene Dibromide (a.k.a. 1,2-Dibromoethane) SIM RL = 0.15 ug/m<sup>3</sup>  
1,1,1,2- Tetrachloroethane SIM RL = 0.14 ug/m<sup>3</sup>  
1,1,2,2-Tetrachloroethane SIM RL = 0.14 ug/m<sup>3</sup>  
Bromodichloromethane SIM RL = 0.13 ug/m<sup>3</sup>  
Methylene Chloride SIM RL = 3.47 ug/m<sup>3</sup>

Please do not hesitate to contact me at 508-844-4156 if you have any questions.

Best Regards,

Katie O'Brien