Geosyntec consultants

289 Great Road, Suite 105
Acton, MA 01720
Phone: (978) 263-9588
Fax: (978) 263-9594

TO:	Joseph Lemay	DATE:	22 August 2011
COMPANY:	USEPA Region 1	PROJECT NAME:	Wells G&H Superfund VI
ADDRESS:	1 Post Office Square	PROJECT NO.:	BR0200
	Boston, MA 02109		

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REMARKS: Dear Mr. Lemay –

On behalf of W.R. Grace & Co., please find two compact discs attached to this transmittal. The discs contain electronic copies of the Vapor Intrusion Assessment (Sub-slab Soil Gas / Indoor Air / Outdoor Air) Vapor Intrusion Evaluation Report for a portion of the Wells G&H Superfund Site in Woburn, MA.

If you have any questions, please call Clayton Smith at (781) 642-8775

COPY TO:

Clayton Smith – de maximis, inc.
David Sullivan – TRC
Joe Coyne – MassDEP
Tim Cosgrave – Harvard Project Services
John Guswa – JG Environmental
Anne Sheehan – TetraTech GEO
Seth Jaffe – Foley Hoag LLP
Robert Medler – Remedium Group
Lydia Duff – W.R. Grace & Co.

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Prepared for

WR Grace & Co. – Conn.
62 Whittemore Avenue
Cambridge, Massachusetts 02140

VAPOR INTRUSION ASSESSMENT

(Sub-slab Soil Gas / Indoor Air / Outdoor Air)

VAPOR INTRUSION EVALUATION REPORT

Wells G&H Superfund Site
Woburn, Massachusetts

Prepared by

Geosyntec consultants
engineers | scientists | innovators
289 Great Road, Suite 105
Acton, Massachusetts 01720

Project Number BR0200

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1. INTRODUCTION

This Vapor Intrusion Evaluation Report has been prepared on behalf of W.R Grace & Co. – Conn (Grace) by Geosyntec Consultants, Inc. (Geosyntec), to document methods and results of the vapor intrusion (VI) evaluation performed at properties located at the Wells G&H Superfund Site in Woburn, Massachusetts. The scope of the VI evaluation was specified by United States Environmental Protection Agency (USEPA) to include first an assessment of shallow groundwater in the vicinity of the Grace property at 369 Washington Street, Woburn Massachusetts followed by an evaluation of potential VI in structures near monitoring wells where the tetrachloroethene (PCE) concentration in shallow groundwater equaled or exceeded 5 micrograms per liter (µg/L) (see USEPA Factsheet: Wells G&H Site 2011a). Though some groundwater samples could not be collected in 2010 (TetraTech GEO and JG Environmental, 2011a, 2011b), the USEPA requested that sub-slab soil gas, indoor air and outdoor air samples be collected at two residential structures and the northern portion of one commercial structure located near the Grace property. This report provides a summary of the sub-slab soil gas, indoor air and outdoor air samples collected for those structures identified by tax assessor identification numbers (Map/Block/Lots [MBL]), as noted below:

- Residential Structure #1: MBL 26/09/02;
- Residential Structure #2: MBL 26/09/03; and
- Commercial Structure #1: MBL 26/04/07.

Soil gas, indoor air and outdoor air samples were collected using the methods described in Geosyntec's Soil Gas, Indoor and Outdoor Air Sample Collection Work Plan submitted to the USEPA on 11 March 2011 (Work Plan) and the Quality Assurance Project Plan (QAPP) prepared by The Johnson Company, Inc. (2010). The objectives of this investigation were to:

- Measure concentrations of volatile organic compounds (VOCs) in sub-slab soil gas and indoor air at each commercial and residential structure identified in this report; and
- Measure concentrations of VOCs in outdoor air near these structures to evaluate atmospheric conditions at the time sub-slab soil gas and indoor air samples were collected.

The analyte list for this investigation comprised PCE plus 32 other analytes, including the Massachusetts Air-Phase Petroleum Hydrocarbons (MassAPH), as indicated in the Vapor Intrusion Assessment Work Plan, Revision 1 and Quality Assurance Project Plan for Vapor Intrusion Assessment (GeoTrans, 2010a) submitted to the USEPA on 25 March 2010 with an update submitted on 14 April 2010 (GeoTrans, 2010b) and approved by USEPA (2010).

2. SCOPE OF WORK

The following activities were completed as part of the evaluation of potential vapor intrusion:

- pre-sampling communication with property owners;
- execution of access agreements with property owners to allow for entry and continued access to the property in order to perform the activities described in the Work Plan;
- completion of building surveys to document typical building conditions and a chemical product inventory;
- collection of outdoor air and indoor air samples at each residential structure during the heating and cooling seasons;
- collection of outdoor air and indoor air samples at the northern portion of the commercial structure during the heating and cooling seasons;
- collection of sub-slab soil gas samples from below the basement of each residential structure and from below the lowest level of the commercial structure during the heating and cooling seasons; and
- evaluation of the subsurface-to-indoor air vapor intrusion pathway at the three structures discussed above.

3. METHODS

This section presents a brief overview of the methods used in this study.

3.1 Pre-Sampling Communication

Prior to sampling, Geosyntec worked with USEPA to obtain access from the property owners. After initial contact was made with property owners and access agreements were signed, Geosyntec coordinated directly with the property owners to schedule the sampling events.

3.2 Building Surveys

Prior to the first round of sample collection, Geosyntec completed a building survey at each structure to inventory household chemical products that may contain VOCs, which can confound analysis of the vapor intrusion pathway. In some cases, Geosyntec requested that household products containing or suspected to contain VOCs, such as paints, solvents and some cleaning supplies, be removed from the structures at least 48 hours prior to sampling, and that use of these kinds of products indoors be restricted prior to and during sample collection. The building surveys were also conducted to document the building and foundation condition, building materials, heating, ventilation, and air conditioning (HVAC) operation, and potential preferential vapor migration pathways (e.g., sumps, floor drains, foundation cracks). During the building survey, Geosyntec worked with the property owners and the USEPA to select sample locations for sub-slab soil gas, indoor air and outdoor air. Geosyntec maintained a field log and photographic record to document potential indoor VOC sources, sample locations, and site-specific conditions. Photographs were taken with each homeowner's or tenant's verbal consent. Prior to the second round of sample collection, Geosyntec conducted a site walk in each structure

with the property owners and/or tenants to update the original building surveys and note relevant changes to building conditions or contents.

3.3 Indoor and Outdoor Air Sampling

Indoor air and outdoor air samples were collected according to procedures documented in the Work Plan. Indoor air and outdoor air samples were collected using individually-certified 6-liter Summa™ canisters with attached laboratory-calibrated flow controllers. Flow controllers for indoor and outdoor air sampling at the residential structures were calibrated to provide uniform sample collection over a 24-hour period. Flow controllers for indoor and outdoor air sampling at the commercial structure were calibrated to an 8-hour period. Flow controller intakes for indoor air and outdoor air samples were set to breathing height for a seated person, approximately 3 to 4 feet above ground or floor surface. The indoor and outdoor air sampling was completed prior to the installation of the sub-slab probes.

Two Summa™ canisters were deployed in the basement of each residential structure at the planned locations of the sub-slab soil gas probes (see Figures 1 through 3). A third Summa™ canister was deployed on the first floor in the living room of residential structure #1 during the heating season at the owner's request. Five indoor air samples were collected from the ground floor of the northern portion of the commercial structure.

One outdoor air sample was collected from an upwind location at each residential structure at the same time as indoor air sampling. Two outdoor air samples were collected at the commercial structure, one each from upwind and downwind locations, and at the same time as indoor air sampling. Summa™ canister valves for outdoor air samples were opened before and closed after the valves on canisters used for indoor air sampling. At the time valves were opened, the upwind direction and wind speed were determined in the field by observation, and by using a digital anemometer. Later, climate data from the weather station at the Laurence G. Hanscom Field Airport located in Bedford, Massachusetts were downloaded. Geosyntec maintained a field log and photographic record to document sample locations and site-specific conditions during sampling. Photographs were taken with each homeowner's or tenant's verbal consent.

3.4 Sub-slab Soil Gas Probe Installation and Sampling

After collection of indoor and outdoor air samples, flush-mounted sub-slab probes were installed at the locations shown on Figures 1, 2 and 3 using methods outlined in the Work Plan. Heating season sub-slab soil gas samples were collected on the same day as probe installation. Samples from the cooling season were collected using the same sub-slab probes. As specified in the work plan, sampling steps included shut-in tests, purging, helium tracer tests and sample collection into Summa™ canisters. Food-grade nylon tubing was used during the residential heating season event and Teflon® tubing was used for all subsequent sample collection. Geosyntec maintained a field log and photographic record to document sample locations and site-specific conditions. Photographs were taken with each homeowner's verbal consent.

Following the heating season sampling event, the sub-slab soil gas sampling points were temporarily plugged with a flush, threaded cap to prevent air and water migration across the slab. Following the cooling season sampling event using the same probes, the probes in the residential

and commercial structures were abandoned, either by removal of the steel probe and plugging with anchoring cement or by plugging with anchoring cement alone.

3.5 Differential Pressure Monitoring

Measurements of differential pressure across the floor slab were collected at the time of sub-slab soil gas sample collection using a Magnehelic® differential pressure gauge capable of reading to 0.01 inches of water column. In addition, a data-logging micromanometer was connected to sub-slab probe 260407-17-SS1 in the commercial structure to log sub-slab to indoor air pressure differential overnight from 31 March to 01 April 2011.

3.6 Sample Analysis

Summa™ canisters containing samples were submitted under chain of custody protocols to Alpha Analytical, Inc. of Mansfield, Massachusetts (Alpha), a National Environmental Laboratory Accreditation Conference (NELAC) certified laboratory (#E87814), for analysis of selected compounds in accordance with USEPA Method TO-15 using Selective Ion Monitoring (SIM) and MassAPH method. The analyte list and reporting limits are presented in Form K of the QAPP. Acetone and ethyl acetate were later added to the analyte list for samples collected at the commercial structure because they were anticipated to be present at elevated concentrations due to normal business operations at a nail salon in one of the leased spaces.

4. RESULTS

The findings of this study are presented below.

4.1 Pre-Sampling Communication

Access agreements were executed on the following dates and later transmitted to the USEPA:

- 17 February 2011 for Residential Structure #1: MBL 26/09/02;
- 28 January 2011 for Residential Structure #2: MBL 26/09/03; and
- 28 March 2011 for Commercial Structure #1: MBL 26/04/07.

4.2 Building Surveys

Findings from site walks are summarized below. To identify target analytes in consumer products, products observed during the surveys were compared against a searchable Household Products Database maintained by the U.S. Department of Health & Human Services (HHS, 2010). Surveys completed prior to the first round of sampling were transmitted to the USEPA on 18 May 2011. Surveys updated prior to the second sampling event are included in Appendix A.

4.2.1 Residential Structures

4.2.1.1 Residential Structure #1 Summary

Following the initial building survey, and at Geosyntec's request, the homeowner removed five items to a detached outdoor shed prior to the heating season sampling event, including the following:

- WD-40® Aerosol Lubricant;
- Rust-Oleum® Bright Coat Metallic Finish;
- Chrome Rust-Oleum® Premium Satin Aerosol 7791 Satin White;
- Autoguard® Gas Treatment; and
- Unknown furniture polish wipes.

Following the walkthrough prior to the second sampling event, the homeowner also removed one-gallon containers of Thompson's Water Seal and charcoal lighter fluid as well as a small gasoline-powered snow blower which had been present in the southeast corner of the basement during the heating season sampling event.

The residence has a full finished basement with a mostly tiled concrete floor and poured concrete walls. There was neither a sump nor visible cracks in the concrete slab, but there were penetrations for pipes and utilities. There was fuel oil stored in a tank in the basement. The home is heated by an oil-fired furnace with steam radiators and cooled by window-mounted air conditioning units.

4.2.1.2 Residential Structure #2 Summary

Of the potential VOC sources identified during the building surveys, none contained target analytes when compared against the Household Products Database. Therefore, no items were removed from the residence prior to either sampling event.

The residence has a full, finished basement with a painted concrete floor. The basement has a floor drain in the northwest corner that was plugged with a threaded PVC cap. There were two visible fine cracks in the concrete slab (less than approximately 1-2 mm wide) and penetrations for pipes and utilities. The residence is heated by natural gas and forced hot air circulation and cooled by central air conditioning.

4.2.2 Commercial Structure

Several VOC sources were identified during the building survey, including products containing benzene, cyclohexane, toluene, xylenes, and one or more up to one-gallon sized containers of acetone, chlorobenzene, chloroform, ethyl acetate, methyl-tert butyl ether (MTBE), and 2,2,4-trimethylpentane (isooctane). Many of these compounds (e.g., acetone, chloroform and ethyl acetate) are used in normal business operations for either or both the nail salon and commercial laboratory. Following discussion and after reaching agreement with the USEPA, Geosyntec and de maximis elected not to remove these VOC sources prior to either the heating or cooling season sampling events because of the significant interruption this would have caused for these two businesses.

The building survey was conducted in the northern portion of the commercial structure that has five leased commercial spaces, including a nail salon, a hair salon, a retail store, a medical office, and a commercial laboratory. The building is constructed with concrete cinder block walls and has two equal-sized slab-on-grade sections. The eastern section is recessed slightly into the ground and is occupied by the laboratory. The western side is slightly above grade and is occupied by the other four tenants (see Figure 3). Each leased space has a separate heating, ventilation and air conditioning (HVAC) system. The laboratory has office and laboratory spaces separated by doors. The laboratory space has four fume hoods that operate daily. Fine cracks in the concrete slab (less than approximately 1-2 mm wide) were identified in the laboratory space. After reaching agreement with the USEPA, sampling locations were selected in each of the leased commercial spaces except for the hair salon because: 1) samples to either side of the hair salon would provide adequate coverage for the purpose of this investigation and, 2) the entire floor of the hair salon was tiled. The tiled floor would have made installation of sub-slab probes unnecessarily invasive compared to other parts of the building.

4.3 Indoor and Outdoor Air Sampling

This section briefly reviews indoor air and outdoor air sampling results and documents the dates of submittal for raw and validated data to the USEPA. Complete, validated analytical results are presented in Tables 1, 2 and 3.

4.3.1 Residential Structures

Indoor and outdoor air samples were collected during heating season (17 to 18 March 2011) and cooling season sampling events (06 to 07 June 2011) at locations shown on Figures 1 and 2. Raw and validated analytical data were transmitted to the USEPA on 05 April 2011 and 26 April 2011, respectively, for samples collected during the heating season. Raw analytical data for samples collected during the cooling season were transmitted to the USEPA on 28 June 2011. Field forms are included in Appendix B. Laboratory Analytical Reports are presented in Appendix C, and the validated analytical data for all samples are attached to this report in Appendix D. Hourly climatological observations recorded at the Laurence G. Hanscom Field Airport located in Bedford, Massachusetts are provided in Table 4.

A total of 21 of 35 analytes were detected in residential samples, 12 of which were petroleum hydrocarbons, present mostly at low concentrations, generally less than 4 $\mu g/m^3$. The nine other analytes were detected at generally less than 0.5 $\mu g/m^3$. PCE was reported at low concentrations in both residences, below 0.2 $\mu g/m^3$ in residence #1 (very similar to outdoor air), and between approximately 0.5 and 1 $\mu g/m^3$ in residence #2. There was little seasonal variability with one exception. In residential structure #1, petroleum hydrocarbons (e.g., benzene, ethylbenzene, toluene, xylenes, 1,2,4-trimethylbenzene, C5-C8 aliphatics and C9-C12 aliphatics) were detected at approximately one order of magnitude lower concentration during the cooling season than were detected during the heating season event. This change is likely attributable to the removal of the gasoline-powered snow blower from the basement prior to the cooling season sampling event (see Section 4.2.1.1).

4.3.2 Commercial Structure

Indoor and outdoor air samples were collected during the heating season sampling event (31 March 2011) and cooling season sampling event (07 June 2011) at the locations shown on Figure 3. Raw and validated analytical data from samples collected during the heating season were transmitted to the USEPA on 25 April 2011 and 11 May 2011, respectively. Raw analytical data for samples collected during the cooling season were transmitted to the USEPA on 28 June 2011. Field forms are included in Appendix B. Laboratory Analytical Reports are presented in Appendix C and validated analytical data for all samples are attached to this report in Appendix D. Hourly climatological observations recorded at the Laurence G. Hanscom Field Airport in Bedford, Massachusetts are provided in Table 4.

Throughout the commercial structure over both sampling rounds, 24 of 35 analytes were detected, generally at less than 2 $\mu g/m^3$. Acetone was reported at up to 8,690 $\mu g/m^3$ in the nail salon and 1,050 $\mu g/m^3$ in the laboratory. Ethyl acetate was also reported at concentrations up to 367 $\mu g/m^3$ in the nail salon. As was noted during the building survey, acetone is used in normal business operations in both the nail salon and laboratory and ethyl acetate is used in the nail salon. PCE was reported at nearly uniform concentrations at less than 1 $\mu g/m^3$ throughout the commercial structure, and was not detected in outdoor air.

4.4 Sub-slab Soil Gas Sampling

This section briefly reviews sub-slab soil gas sampling results and documents the dates of submittal for raw and validated data to the USEPA. Complete, validated analytical results are presented in Tables 1, 2 and 3. Field screening data for the sub-slab samples collected from the residential and commercial structures are summarized in Table 5.

4.4.1 Residential Structures

Immediately following the collection of the indoor and outdoor air samples during the heating and cooling season sampling events (18 March and 07 June 2011, respectively), Geosyntec sampled two sub-slab soil probes in each of the residential structures at the locations shown on Figures 1 and 2. Raw and validated analytical data were transmitted to the USEPA on 05 April 2011 and 26 April 2011, respectively, for samples collected during the heating season. Raw analytical data for samples collected during the cooling season were transmitted to the USEPA on 28 June 2011. Field forms are included in Appendix B. Laboratory Analytical Reports are presented in Appendix C and the corresponding validated analytical data are attached to this report as Appendix D.

In residential sub-slab soil gas, 20 of 35 analytes were detected, at concentrations generally less than 0.5 $\mu g/m^3$. Sub-slab concentrations of PCE were very low, less than 0.5 $\mu g/m^3$ at both residences.

4.4.2 Commercial Structure

Immediately following the collection of the indoor and outdoor air samples during the heating (31 March - 01 April 2011) and cooling (07 - 08 June 2011) seasons, Geosyntec sampled five sub-slab soil probes in the commercial structure at the locations shown on Figure 3. Raw and validated analytical data from samples collected during the heating season were transmitted to

the USEPA on 25 April 2011 and 11 May 2011, respectively. Raw analytical data for samples collected during the cooling season were transmitted to the USEPA on 28 June 2011.

In commercial sub-slab soil gas, 25 of 35 analytes were detected, at concentrations generally less than 3 $\mu g/m^3$. A notable exception is acetone, which was reported at up to 1,380 $\mu g/m^3$ in sub-slab soil gas under the nail salon and 140 $\mu g/m^3$ under the laboratory. Concentrations of PCE reported in sub-slab soil gas ranged from approximately 4 to 23 $\mu g/m^3$ under the western half of the investigation area and increased from west to east over the full width of the building. The maximum reported concentration during both sampling events (approximately 1000 to 2000 $\mu g/m^3$) was restricted to the easternmost sampling point.

4.5 Differential Pressure Monitoring

Differential pressure across the foundation slabs at the residences were generally too small to measure (less than 0.01 inches of water column) and instantaneous differential pressures in the commercial building, ranged from 0.00 to negative 0.03 inches of water column indicating that the indoor air was at slightly lower pressure than the sub-slab. Results from the data-logging micromanometer were similar to instantaneous measurements and are included in Appendix B. No seasonal variation was apparent in the differential pressure measurements. The strongest under-pressurization was observed in the laboratory where fume hoods were operating. Data are presented in Table 5.

5. DATA VALIDATION AND USABILITY

Analytical data reported by the laboratory were validated as specified in the QAPP. All results are considered to be valid. The data review included field documentation, chain-of-custody, holding times, dilution factors, surrogate recoveries, analytical quantitation limits (QLs), and laboratory QC samples. The laboratory analytical data reported from this sampling event are considered to be usable, as qualified, for meeting project objectives as documented in Form D in the QAPP. Data validation reports are included in Appendix D.

6. DISCUSSION

In this section, the completeness of the vapor intrusion pathway is evaluated. In the conceptual site model for this study, a complete pathway is defined as migration of a VOC from groundwater near the subject structures to soil gas and then into indoor air. As a complication to evaluating the pathway, VOCs observed in the indoor air also may be derived from outdoor air and/or from indoor sources such as household chemical products, gasoline-powered equipment, or commercial chemical products. For a subsurface-to-indoor air vapor intrusion pathway to be considered complete, at least the following conditions must be present:

- A target VOC is present in shallow (i.e., at the water table) groundwater near an occupied structure;
- The VOC is of sufficient volatility and concentration in groundwater to act as a measurable source of the VOC to soil gas and to indoor air;

- The VOC is present in sub-slab soil gas and in indoor air; and
- A concentration gradient is observed from source (groundwater) to receptor (indoor air).

Below, the potential vapor intrusion pathway is evaluated for both residential and commercial structures.

6.1 Residential Structures

The nearest shallow groundwater monitoring wells to the subject properties are UG14 and S22 (see Figure 4), located approximately 50 ft east and 50 ft south, respectively of residence #1. In groundwater samples collected from these two wells at 24 feet and 10 feet below ground surface (bgs), respectively in April 2011, PCE was not detected at reporting limits of 0.63 µg/L and 0.050 µg/L respectively (TetraTech GEO and JG Environmental, in preparation 2011a). Both of these results are below the USEPA groundwater screening level of 5 µg/L used as a threshold for initiating this vapor intrusion evaluation prior to completion of the second round of groundwater sampling that had been planned (see USEPA Factsheet: Wells G&H Site 2011a). No VOCs, including PCE breakdown products (trichloroethene [TCE], cis-1,2-dichloroethene [cis-1,2-DCE] and vinyl chloride [VC]), were detected in the groundwater samples. Based on these groundwater results and the conceptual model for the vapor intrusion pathway discussed in Section 6 above, the vapor intrusion pathway is considered to be incomplete for the residential structures. For completeness of presentation, the air-phase data are discussed below.

Very low and comparable concentrations of PCE were detected at both residences in sub-slab soil gas, indoor air and outdoor air. All detections of PCE in indoor air were below the 50th percentile (1.4 µg/m^3) for Typical Indoor Air Concentrations measured in homes in Massachusetts that were not associated with subsurface contamination (MassDEP, 2008), and below the 50th percentile background concentrations of PCE in indoor air (less than 2.2 µg/m^3) from empirical studies conducted throughout North America (USEPA, 2011b). Thus, the presence of PCE in indoor air at these residences is consistent with that observed in residences with no sub-surface source of PCE to indoor air. Additionally, during the heating season sampling, PCE was detected in outdoor air at concentrations similar to indoor air.

The observed distribution of PCE in sub-slab soil gas and indoor air does not constitute a concentration gradient indicative of vapor intrusion, as would be necessary in the case of a completed VI pathway. In fact, the opposite was observed in residence #2, with PCE concentrations in indoor air slightly higher than PCE concentrations in sub-slab soil gas. In addition, the spatial and temporal variability of PCE in indoor air, outdoor air and sub-slab soil gas in both residences was very low. Multiple lines of evidence point to an incomplete VI pathway at the residences and a very low concentration of PCE in indoor air derived from a combination of indoor sources and outdoor air:

1. VOCs were not detected in nearby shallow groundwater;
2. All PCE concentrations measured in indoor air were below the median values from empirical studies of indoor air in residences not associated with subsurface contamination.
3. Similar concentrations of PCE were detected in indoor air and outdoor air; and

4. Concentrations of PCE detected in indoor air were similar or slightly higher than in sub-slab soil gas.

6.2 Commercial Structure

The nearest shallow groundwater monitoring wells to the commercial structure are UG15, G39S and UG16, located approximately 10 ft west, 20 ft north and 100 ft east of the structure, respectively (see Figure 4). Table 6 summarizes VOC detections and depths to groundwater most recently measured in these three wells in 2011. Only acetone and PCE were detected at concentrations of 61 µg/L and 11 µg/L, respectively, at monitoring well G39S. Neither PCE breakdown products (e.g., TCE, cis-1,2-DCE or VC) nor other target analytes were detected in the groundwater samples. Therefore, only acetone and PCE were considered in evaluating a potential vapor intrusion pathway to the commercial structure.

The evidence indicates that the source of acetone to indoor air is indoors. The highest concentrations measured in indoor air (approximately 1000-8000 µg/m^3) were from samples collected in spaces where acetone is used routinely in the course of conducting business (i.e., a nail salon and a commercial lab) and where acetone storage was observed and documented (see Appendix A). The highest acetone concentrations were reported in sub-slab soil gas (>1000 µg/m^3) beneath the nail salon. However, the acetone concentrations in sub-slab soil gas below the nail salon were lower than the acetone concentrations measured in indoor air in the nail salon, indicating a concentration gradient from indoor air to sub-slab soil gas. Acetone was reported at 61 µg/L in a sample from monitoring well G39S, but because of acetone's affinity for water, the idealized equilibrium (i.e., maximum) concentration for acetone in the vapor phase adjacent to this groundwater would be just 97 µg/m^3 (using a dimensionless Henry's Law coefficient of 0.0016). Thus, the groundwater data indicate a concentration gradient from sub-slab soil gas to groundwater. Together, the data from the building surveys, indoor air, sub-slab soil gas and groundwater describe a concentration gradient for acetone from indoor locations to sub-slab locations to groundwater. That is, vapor extrusion of acetone from indoor air into the subsurface.

Measurements of PCE concentration in indoor air from both heating and cooling season sampling events ranged between 0.15 and 0.63 µg/m^3, well below the 50th percentile background concentrations of PCE in indoor air (less than 2.2 µg/m^3) from empirical studies conducted throughout North America (USEPA, 2011b) and less than the USEPA Industrial Regional Screening Level (RSL) of 2.1 µg/m^3. During both sampling events, the concentrations of PCE measured in sub-slab soil gas ranged from less than 10 µg/m^3 on the western side of the structure, to approximately 1000-2000 µg/m^3 on the eastern side. Although the concentrations of PCE measured in sub-slab soil gas exceeded those measured in indoor air, the data from sampling location 260407-22-IA2 and 260407-22-SS2 (see Figure 3) indicate that sub-slab soil gas, and therefore PCE, was being diluted more than 1000-fold during both heating and cooling season sampling events, as indicated below:

$$Winter\ dilution\ factor\ (unitless) = \frac{[PCE\ indoor\ air]0.63\ \mu g/m^3}{[PCE\ subslab]2310\ \mu g/m^3} = 0.00027$$

Because at least some, if not most, of the PCE observed in indoor air is likely from indoor air sources typical of human-occupied spaces, this calculation using PCE concentrations likely

underestimates the true amount by which sub-slab soil gas is typically diluted into indoor air in commercial structure #1.

A 1000 to 1 dilution ratio, or a sub-slab-to-indoor air attenuation factor of 0.001, has been found to be within the range typically encountered in empirical studies. For example, Golder (2007) reported that the upper range for empirically-derived attenuation factors for sub-slab to indoor air was 0.02, and Dawson (2006) reported that the vast majority of empirically-derived attenuation factors for sub-slab to indoor air in residences ranged from approximately 0.01 to 0.0003. The Dawson study of residential sites represents a conservative range for the purpose of this evaluation because commercial buildings typically have higher indoor air exchange rates than residences, resulting in more attenuation.

Given very low concentrations of PCE in indoor air, below the USEPA RSL, and an observed dilution ratio (i.e., attenuation factor) of at least 1000 to 1, which falls in the range of published empirically-derived attenuation factors, the vapor intrusion pathway is considered to be incomplete. In summary, multiple lines of evidence point to an incomplete pathway for PCE vapor intrusion in the commercial structure:

1. PCE was present in indoor air at concentrations well within published background concentrations for locations not associated with subsurface contamination (USEPA 2011b);
2. PCE was present in indoor air at concentrations below USEPA Commercial RSLs;
3. Sub-slab and indoor air data suggest that PCE concentrations are being attenuated at least 1000-fold between the sub-slab and the inside of the building, which is consistent with empirical attenuation factors documented for other commercial structures; and
4. Because sub-slab soil gas appears to be attenuated into indoor air by at least 1000-fold, PCE reported in indoor air and sub-slab soil gas pairs at apparently much lower attenuations (e.g., sampling location 260407-17) suggests the presence of typical indoor sources of PCE and, in turn, that the contribution of PCE to indoor air from vapor intrusion is insignificant.

7. CONCLUSIONS AND RECOMMENDATIONS

Key conclusions and recommendations relevant to this investigation are summarized below.

- The data collected during this study are consistent with requirements approved by the USEPA in the Work Plan and QAPP and are fit for the purpose of assessing subsurface vapor intrusion potential to indoor air in the properties investigated.
- PCE and acetone are the only VOCs for which the vapor intrusion pathway could be evaluated in this study because they were the only VOCs detected in shallow groundwater near subject structures in 2011.
- Multiple lines of evidence indicate that the vapor intrusion pathways from underlying groundwater are incomplete at all three structures. Lines of evidence include:
  - The building surveys indicated indoor VOC sources;
  - Data from independent empirical studies show that all observed concentrations of PCE in indoor air for all three structures (19 samples) were below the median for the typical or background concentrations of PCE in indoor air in residences in Massachusetts and throughout North America (MassDEP, 2008 and USEPA, 2011b);
  - Indoor air in the residences had comparable or greater concentrations of PCE than sub-slab soil gas;
  - PCE in outdoor air is a significant contributor to PCE in indoor air in at least some cases;
  - Concentrations of PCE in groundwater near the residences was non-detect and the reporting limits were below the USEPA screening criterion;
  - Reported concentrations of acetone in groundwater were insufficient to produce the measured concentrations of acetone in indoor air;
  - Samples collected during both heating and cooling seasons indicated very low temporal variability in VOC distribution; and
  - Multiple samples collected in each occupied structure indicated very low spatial variability in VOC distribution.

It is not appropriate to conduct a human health risk assessment using either PCE or the other target analytes from this study because the pathways are determined to be incomplete. As such, mitigation is also not appropriate and additional monitoring is not needed.

8. REFERENCES

Dawson, H., 2006. *Updated J&E Model - VIAModel.xls*. *http://iavi.rti.org/attachments/ WorkshopsAndConferences/1115_-_Dawson.pdf*. Association for Environmental Health and Sciences Foundation, March.

Geosyntec Consultants, 2011. Soil Gas, Indoor and Outdoor Air Sample Collection Work Plan: Wells G&H Superfund Site, Woburn, Massachusetts. March.

GeoTrans, 2010a. Vapor Intrusion Assessment Work Plan, Revision 1 and Quality Assurance Project Plan for Vapor Intrusion Assessment, Well G&H Superfund Site, Woburn, Massachusetts, March 25, 2010.

GeoTrans, 2010b. Letter to USEPA RE: Updated Form K for Quality Assurance Project Plan for Vapor Intrusion Assessment, Wells G&H Superfund Site, April 14, 2010.

GeoTrans and JG Environmental, 2010. Annual Report, October 1, 2009 – September 30, 2010, W. R. Grace Remedial Action, Wells G&H Superfund Site, Woburn, Massachusetts. November 15, 2010.

Golder Associates Ltd. 2007. Updated Soil Vapour Intrusion Guidance for Screening Level Risk Assessment (SLRA) (Draft). In-process guidance being prepared for Health Canada [citation obtained from Ontario MOE, 2010 DRAFT Soil Vapour Guidance].

The Johnson Company Inc., 2010. Quality Assurance Project Plan, Revision 1. Indoor Air Quality and Vapor Intrusion Assessment. UniFirst Property, Wells G&H Superfund Property. Woburn, Massachusetts. March.

Massachusetts Department of Environmental Protection, 2010. Technical Update: Residential Typical Indoor Air Concentrations. Bureau of Waste Site Cleanup. December.

TetraTech GEO and JG Environmental, in preparation 2011a. Vapor Intrusion Assessment Groundwater Data Report, Wells G&H Superfund Site, Woburn, Massachusetts.

TetraTech GEO and JG Environmental, in preparation 2011b. Annual Report, October 1, 2010 – September 30, 2011, W. R. Grace Remedial Action, Wells G&H Superfund Site, Woburn, Massachusetts.

United States Department of Health & Human Services, 2010. Household Products Database: Health & Safety Information on Household Products. http://householdproducts.nlm.nih.gov/. June.

United States Environmental Protection Agency, 2011a. Fact Sheet: Vapor Intrusion (VI) Investigation, January 2011. Wells G&H Site, Woburn, MA. U.S. EPA Hazardous Waste Program at EPA New England. January.

United States Environmental Protection Agency, 2011b. Background Indoor Air Concentrations of Volatile Organic Compounds in North American Residences (1990-2005): A Compilation of Statistics for Assessing Vapor Intrusion, Office of Solid Waste and Emergency Response, EPA 530-R-10-001, June.

United States Environmental Protection Agency, 2010. Letter RE: WR Grace and UniFirst VIA Work Plan Revision 1 and QAPP submitted March 25, 2009, April 15, 2010.

TABLES

Table 1
Data Summary for Residential Structure #1
Wells G and H Superfund Site
Woburn, Massachusetts

Method Group	Parameter	Units	MADEP TIAC 50%	EPA RSL Residential Air	MADEP IA Threshold	260902-IA1		260902-IA2				260902-IA3
						260902-IA1-3/18/2011 3/18/2011	260902-IA1-6/7/2011 6/7/2011	260902-IA2-3/18/2011 3/18/2011	BD01-3/18/2011 3/18/2011	260902-IA2-6/7/2011 6/7/2011	BD01-6/7/2011 6/7/2011	260902-IA3-3/18/2011 3/18/2011
APH												
	Adjusted C5-C8 Aliphatics	µg/m3				590	89	500	510	85	83	190
	Adjusted C9-C12 Aliphatics	µg/m3				89	54	72	75	52	52	170
	Aromatics C9-C10	µg/m3	0		10	67	<10	52	47	<10	<10	14
	Benzene	µg/m3	2.3	0.31	2.3	11	<2	9.5	9.8	<2	<2	3.2
	Butadiene	µg/m3		0.081		<2	<2	<2	<2	<2	<2	<2
	Ethyl benzene	µg/m3	1.5	0.97	7.4	15	<2	12	12	<2	<2	3.4
	m&p-Xylene	µg/m3				49	<4	38	38	<4	<4	11
	Methyl tert-butyl ether (MTBE)	µg/m3	3.5	9.4	39	<2	<2	<2	<2	<2	<2	<2
	Naphthalene	µg/m3	0	0.072	0.61	<2	<2	<2	<2	<2	<2	<2
	o-Xylene	µg/m3		730		18	<2	14	14	<2	<2	3.9
	Toluene	µg/m3	11	5200	54	66	4.4	55	58	4.3	3.9	16
Volatile Organic Compounds												
	1,1,1-Trichloroethane	µg/m3	0.5	5200	3	<0.109	<0.109	<0.109	<0.109	<0.109	<0.109	<0.109
	1,1,2-Trichloroethane	µg/m3	0	0.15	0.15	<0.109	<0.109	<0.109	<0.109	<0.109	<0.109	<0.109
	1,1-Dichloroethane	µg/m3	0	1.5	0.8	<0.081	<0.081	<0.081	<0.081	<0.081	<0.081	<0.081
	1,1-Dichloroethene	µg/m3	0	210	0.8	<0.079	<0.079	<0.079	<0.079	<0.079	<0.079	<0.079
	1,2,4-Trimethylbenzene	µg/m3		7.3		13.3	0.732	12.6	12.7	0.836	1.03	3.31
	1,2-Dichloroethane	µg/m3	0	0.094	0.09	1.3	2.33	1.44	1.4	2.74	2.13	4.74
	1,2-Dichloropropane	µg/m3	0	0.24	0.13	<0.092	<0.092	<0.092	<0.092	<0.092	<0.092	<0.092
	1,3-Dichlorobenzene	µg/m3	0		0.6	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12
	1,4-Dichlorobenzene	µg/m3	0.5	0.22	0.5	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12
	Benzene	µg/m3	2.3	0.31	2.3	9.35	0.735	8.78	8.54	0.837	0.68	2.79
	Bromodichloromethane	µg/m3	0	0.066	0.14	<0.134	0.107J	<0.134	<0.134	0.120J	0.0940J	<0.134
	Bromoform	µg/m3	0	2.2	2.2	<0.206	<0.207	<0.206	<0.206	<0.207	<0.207	<0.206
	Butadiene	µg/m3		0.081		0.102	0.086	0.102	0.093	0.106J	0.058J	0.124
	Carbon tetrachloride	µg/m3	0.54	0.41	0.54	0.534	0.402	0.603	0.566	0.484	0.402	0.578
	Chlorobenzene	µg/m3	0	52	2.3	<0.092	<0.092	<0.092	<0.092	<0.092	<0.092	<0.092
	Chloroform	µg/m3	1.9	0.11	1.9	0.185	0.249	0.254	0.244	0.293J	0.381J	0.229
	cis-1,2-Dichloroethene	µg/m3	0		0.8	<0.079	<0.079	<0.079	<0.079	<0.079	<0.079	<0.079
	Dichloromethane (Methylene chloride)	µg/m3	1.4	5.2	5	<1.74	<1.74	<1.74	<1.74	11.1J	3.27J	<1.74
	Ethyl benzene	µg/m3	1.5	0.97	7.4	12.3	0.53	11.7	11.8	0.586J	0.76J	3.33
	Ethylene dibromide	µg/m3	0	0.0041	0.011	<0.154	<0.0770	<0.154	<0.154	<0.0770	<0.0770	<0.154
	Isopropylbenzene	µg/m3		420		<2.46	<2.46	<2.46	<2.46	<2.46	<2.46	<2.46
	Methyl tert-butyl ether (MTBE)	µg/m3	3.5	9.4	39	<0.072	<0.072	<0.072	<0.072	<0.072	<0.072	<0.072
	Naphthalene	µg/m3	0	0.072	0.61	<0.723	<0.131	<0.608	<0.571	0.435J	0.246J	<0.267
	Tetrachloroethene	µg/m3	1.4	0.41	1.4	0.176	<0.136	0.183	0.183	<0.136	0.156J	0.264
	Toluene	µg/m3	11	5200	54	52.5	3.24J	50.7	51.9	3.29J	4.22	14.3
	trans-1,2-Dichloroethene	µg/m3	0	63	0.8	<0.079	<0.079	<0.079	<0.079	<0.079	<0.079	<0.079
	trans-1,3-Dichloropropene	µg/m3	0		0.6	<0.091	<0.091	<0.091	<0.091	<0.091	<0.091	<0.091
	Trichloroethene	µg/m3	0.29	1.2	0.8	<0.107	<0.107	<0.107	<0.107	<0.107	<0.107	<0.107
	Vinyl Chloride	µg/m3	0	0.16	0.27	<0.051	<0.051	<0.051	<0.051	<0.051	<0.051	<0.051
	Xylenes (unspecified)	µg/m3	5.9	100	20	54.8	2.22	51.6	51.9	2.44J	3.31J	14.5

Notes: < = less than laboratory reporting limit.
J = Compound detected below method quantitation limit, estimated value provided.
B = Compound detected in Laboratory blank analysis.

Table 1
Data Summary for Residential Structure #1
Wells G and H Superfund Site
Woburn, Massachusetts

Method Group	Parameter	Units	MADEP TIAC 50%	EPA RSL Residential Air	MADEP IA Threshold	260902-OA		260902-SS1		260902-SS2	
						260902-OA-3/18/2011 3/18/2011	260902-OA-6/7/2011 6/7/2011	260902-SS1-3/18/2011 3/18/2011	260902-SS1-6/7/2011 6/7/2011	260902-SS2-3/18/2011 3/18/2011	260902-SS2-6/7/2011 6/7/2011
APH											
	Adjusted C5-C8 Aliphatics	µg/m3				<12	22	67J	37	46	30
	Adjusted C9-C12 Aliphatics	µg/m3				26	<14	130J	<14	31	72
	Aromatics C9-C10	µg/m3	0		10	<10	<10	<10	<10	<10	<10
	Benzene	µg/m3	2.3	0.31	2.3	<2	<2	<2	<2	<2	<2
	Butadiene	µg/m3		0.081		<2	<2	<2	<2	<2	<2
	Ethyl benzene	µg/m3	1.5	0.97	7.4	<2	<2	<2	<2	<2	<2
	m&p-Xylene	µg/m3				<4	<4	7J	<4	5.7	<4
	Methyl tert-butyl ether (MTBE)	µg/m3	3.5	9.4	39	<2	<2	<2	<2	<2	<2
	Naphthalene	µg/m3	0	0.072	0.61	<2	<2	2.3J	<2	<2	<2
	o-Xylene	µg/m3		730		<2	<2	3J	<2	3.5	<2
	Toluene	µg/m3	11	5200	54	<2	<2	5.5J	<2	2.4	<2
Volatile Organic Compounds											
	1,1,1-Trichloroethane	µg/m3	0.5	5200	3	<0.109	<0.109	<0.109	<0.109	<0.109	<0.109
	1,1,2-Trichloroethane	µg/m3	0	0.15	0.15	<0.109	<0.109	<0.109	<0.109	<0.109	<0.109
	1,1-Dichloroethane	µg/m3	0	1.5	0.8	<0.081	<0.081	<0.081	<0.081	<0.081	<0.081
	1,1-Dichloroethene	µg/m3	0	210	0.8	<0.079	<0.079	<0.079	<0.079	<0.079	<0.079
	1,2,4-Trimethylbenzene	µg/m3		7.3		0.147	0.216	1.6J	<0.098	1.37	0.103
	1,2-Dichloroethane	µg/m3	0	0.094	0.09	<0.081	<0.081	0.101J	<0.081	<0.081	<0.081
	1,2-Dichloropropane	µg/m3	0	0.24	0.13	<0.092	<0.092	<0.092	<0.092	<0.092	<0.092
	1,3-Dichlorobenzene	µg/m3	0		0.6	<0.12	<0.12	0.18J	<0.12	<0.12	<0.12
	1,4-Dichlorobenzene	µg/m3	0.5	0.22	0.5	<0.12	<0.12	0.198J	<0.12	<0.12	<0.12
	Benzene	µg/m3	2.3	0.31	2.3	0.501	0.463	0.744J	<0.224	0.574	<0.224
	Bromodichloromethane	µg/m3	0	0.066	0.14	<0.134	<0.0670	<0.0670	<0.0670	<0.134	<0.0670
	Bromoform	µg/m3	0	2.2	2.2	<0.206	<0.207	<0.206	<0.207	<0.206	<0.207
	Butadiene	µg/m3		0.081		<0.044	0.044	<0.044	<0.044	0.044	<0.044
	Carbon tetrachloride	µg/m3	0.54	0.41	0.54	0.509	0.396	0.17J	0.17	<0.126	<0.126
	Chlorobenzene	µg/m3	0	52	2.3	<0.092	<0.092	<0.092	<0.092	<0.092	<0.092
	Chloroform	µg/m3	1.9	0.11	1.9	0.102	0.107	0.298J	0.303	1.58	1.66
	cis-1,2-Dichloroethene	µg/m3	0		0.8	<0.079	<0.079	<0.079	<0.079	<0.079	<0.079
	Dichloromethane (Methylene chloride)	µg/m3	1.4	5.2	5	<1.74	<1.74	<1.74	20.1	<1.74	<1.74
	Ethyl benzene	µg/m3	1.5	0.97	7.4	0.152	0.213	1.42J	<0.087	1.06	<0.087
	Ethylene dibromide	µg/m3	0	0.0041	0.011	<0.154	<0.0770	<0.154	<0.0770	<0.154	<0.0770
	Isopropylbenzene	µg/m3		420		<2.46	<2.46	<2.46	<2.46	<2.46	<2.46
	Methyl tert-butyl ether (MTBE)	µg/m3	3.5	9.4	39	<0.072	<0.072	<0.072	<0.072	0.4	<0.072
	Naphthalene	µg/m3	0	0.072	0.61	<0.262	0.215J	2.38J	<0.131	<0.241	<0.131
	Tetrachloroethene	µg/m3	1.4	0.41	1.4	0.149	<0.136	0.258J	0.325	0.23	0.305
	Toluene	µg/m3	11	5200	54	0.885	1.37J	4.48J	0.305	2.06	<0.188
	trans-1,2-Dichloroethene	µg/m3	0	63	0.8	<0.079	<0.079	<0.079	<0.079	<0.079	<0.079
	trans-1,3-Dichloropropene	µg/m3	0		0.6	<0.091	<0.091	<0.091	<0.091	<0.091	<0.091
	Trichloroethene	µg/m3	0.29	1.2	0.8	<0.107	<0.107	<0.107	<0.107	<0.107	<0.107
	Vinyl Chloride	µg/m3	0	0.16	0.27	<0.051	<0.051	<0.051	<0.051	<0.051	<0.051
	Xylenes (unspecified)	µg/m3	5.9	100	20	0.512	0.808	8.38J	<0.261	8.4	<0.261

Notes: < = less than laboratory reporting limit.
J = Compound detected below method quantitation limit, estimated value provided.
B = Compound detected in Laboratory blank analysis.

Table 2
Data Summary for Residential Structure #2
Wells G and H Superfund Site
Woburn, Massachusetts

Method Group	Parameter	Units	MADEP TIAC 50%	EPA RSL Residential Air	MADEP IA Threshold	260903-IA1		260903-IA2		260903-OA	
						260903-IA1-3/18/2011	260903-IA1-6/7/2011	260903-IA2-3/18/2011	260903-IA2-6/7/2011	260903-OA-3/18/2011	260903-OA-6/7/2011
						3/18/2011	6/7/2011	3/18/2011	6/7/2011	3/18/2011	6/7/2011
APH											
	Adjusted C5-C8 Aliphatics	µg/m3				110	140	110	150	<12	31
	Adjusted C9-C12 Aliphatics	µg/m3				83	56	80	60	<14	<14
	Aromatics C9-C10	µg/m3	0		10	<10	<10	<10	<10	<10	<10
	Benzene	µg/m3	2.3	0.31	2.3	<2	<2	<2	<2	<2	<2
	Butadiene	µg/m3		0.081		<2	<2	<2	<2	<2	<2
	Ethyl benzene	µg/m3	1.5	0.97	7.4	<2	<2	<2	<2	<2	<2
	m&p-Xylene	µg/m3				<4	<4	<4	<4	<4	<4
	Methyl tert-butyl ether (MTBE)	µg/m3	3.5	9.4	39	<2	<2	<2	<2	<2	<2
	Naphthalene	µg/m3	0	0.072	0.61	<2	<2	<2	<2	<2	<2
	o-Xylene	µg/m3		730		<2	<2	<2	<2	<2	<2
	Toluene	µg/m3	11	5200	54	5.2	4.4	5.1	4.1	<2	2.1
Volatile Organic Compounds											
	1,1,1-Trichloroethane	µg/m3	0.5	5200	3	0.114	0.158	0.12	0.158	<0.109	<0.109
	1,1,2-Trichloroethane	µg/m3	0	0.15	0.15	<0.109	<0.109	<0.109	<0.109	<0.109	<0.109
	1,1-Dichloroethane	µg/m3	0	1.5	0.8	<0.081	<0.081	<0.081	<0.081	<0.081	<0.081
	1,1-Dichloroethene	µg/m3	0	210	0.8	<0.079	<0.079	<0.079	<0.079	<0.079	<0.079
	1,2,4-Trimethylbenzene	µg/m3		7.3		0.624	0.885	0.673	0.89	0.157	0.246
	1,2-Dichloroethane	µg/m3	0	0.094	0.09	8.03	1.26	7.61	1.18	<0.081	0.121
	1,2-Dichloropropane	µg/m3	0	0.24	0.13	0.508	<0.092	0.489	<0.092	<0.092	<0.092
	1,3-Dichlorobenzene	µg/m3	0		0.6	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12
	1,4-Dichlorobenzene	µg/m3	0.5	0.22	0.5	0.985	3.22	1.15	3.2	<0.12	<0.12
	Benzene	µg/m3	2.3	0.31	2.3	0.658	0.498	0.677	0.524	0.485	0.53
	Bromodichloromethane	µg/m3	0	0.066	0.14	<0.134	0.141	<0.134	0.141	<0.134	<0.0670
	Bromoform	µg/m3	0	2.2	2.2	<0.206	<0.207	<0.206	<0.207	<0.206	<0.207
	Butadiene	µg/m3		0.081		0.044	0.053	0.046	0.053	<0.044	0.082
	Carbon tetrachloride	µg/m3	0.54	0.41	0.54	0.673	0.616	0.723	0.642	0.515	0.428
	Chlorobenzene	µg/m3	0	52	2.3	<0.092	<0.092	<0.092	<0.092	<0.092	<0.092
	Chloroform	µg/m3	1.9	0.11	1.9	0.634	1.24	0.59	1.35	0.107	0.117
	cis-1,2-Dichloroethene	µg/m3	0		0.8	<0.079	<0.079	<0.079	<0.079	<0.079	<0.079
	Dichloromethane (Methylene chloride)	µg/m3	1.4	5.2	5	<1.74	<1.74	<1.74	<1.74	<1.74	1.85
	Ethyl benzene	µg/m3	1.5	0.97	7.4	0.577	0.825	0.564	0.877	0.134	0.239
	Ethylene dibromide	µg/m3	0	0.0041	0.011	<0.154	<0.0770	<0.154	<0.0770	<0.154	<0.0770
	Isopropylbenzene	µg/m3		420		<2.46	<2.46	<2.46	<2.46	<2.46	<2.46
	Methyl tert-butyl ether (MTBE)	µg/m3	3.5	9.4	39	<0.072	<0.072	<0.072	<0.072	<0.072	<0.072
	Naphthalene	µg/m3	0	0.072	0.61	<0.173	0.367J	<0.194	0.288J	<0.131	0.173J
	Tetrachloroethene	µg/m3	1.4	0.41	1.4	0.549	1.03	0.562	1.12	0.156	<0.136
	Toluene	µg/m3	11	5200	54	4.49	4.26	4.34	4.37	0.919	1.47J
	trans-1,2-Dichloroethene	µg/m3	0	63	0.8	<0.079	<0.079	<0.079	<0.079	<0.079	<0.079
	trans-1,3-Dichloropropene	µg/m3	0		0.6	<0.091	<0.091	<0.091	<0.091	<0.091	<0.091
	Trichloroethene	µg/m3	0.29	1.2	0.8	<0.107	<0.107	<0.107	<0.107	<0.107	<0.107
	Vinyl Chloride	µg/m3	0	0.16	0.27	<0.051	<0.051	<0.051	<0.051	<0.051	<0.051
	Xylenes (unspecified)	µg/m3	5.9	100	20	1.93	2.8	1.89	2.95	0.482	0.903

Notes: < = less than laboratory reporting limit.
J = Compound detected below method quantitation limit, estimated value provided.
B = Compound detected in Laboratory blank analysis.

Table 2
Data Summary for Residential Structure #2
Wells G and H Superfund Site
Woburn, Massachusetts

Method Group	Parameter	Units	MADEP TIAC 50%	EPA RSL Residential Air	MADEP IA Threshold	260903-SS1				260903-SS-2	
						260903-SS1-3/18/2011	BD02-3/18/2011	260903-SS1-6/7/2011	BD02-6/7/2011	260903-SS2-3/18/2011	260903-SS2-6/7/2011
						3/18/2011	3/18/2011	6/7/2011	6/7/2011	3/18/2011	6/7/2011
APH											
	Adjusted C5-C8 Aliphatics	µg/m3				25	29	20	18	68	<12
	Adjusted C9-C12 Aliphatics	µg/m3				14J	<14	<14	<14	190	<14
	Aromatics C9-C10	µg/m3	0		10	<10	<10	<10	<10	<10	<10
	Benzene	µg/m3	2.3	0.31	2.3	<2	<2	<2	<2	<2	<2
	Butadiene	µg/m3		0.081		<2	<2	<2	<2	<2	<2
	Ethyl benzene	µg/m3	1.5	0.97	7.4	<2	<2	<2	<2	<2	<2
	m&p-Xylene	µg/m3				<4	<4	<4	<4	<4	<4
	Methyl tert-butyl ether (MTBE)	µg/m3	3.5	9.4	39	<2	<2	<2	<2	<2	<2
	Naphthalene	µg/m3	0	0.072	0.61	<2	<2	<2	<2	<2	<2
	o-Xylene	µg/m3		730		<2	<2	<2	<2	<2	<2
	Toluene	µg/m3	11	5200	54	<2	<2	<2	<2	<2	<2
Volatile Organic Compounds											
	1,1,1-Trichloroethane	µg/m3	0.5	5200	3	<0.109	<0.109	<0.109	<0.109	<0.109	<0.109
	1,1,2-Trichloroethane	µg/m3	0	0.15	0.15	<0.109	<0.109	<0.109	<0.109	<0.109	<0.109
	1,1-Dichloroethane	µg/m3	0	1.5	0.8	<0.081	<0.081	<0.081	<0.081	<0.081	<0.081
	1,1-Dichloroethene	µg/m3	0	210	0.8	<0.079	<0.079	<0.079	<0.079	<0.079	<0.079
	1,2,4-Trimethylbenzene	µg/m3		7.3		0.113	0.098	<0.098	<0.098	0.182	<0.098
	1,2-Dichloroethane	µg/m3	0	0.094	0.09	0.093J	<0.081	<0.081	<0.081	0.348	<0.081
	1,2-Dichloropropane	µg/m3	0	0.24	0.13	<0.092	<0.092	<0.092	<0.092	<0.092	<0.092
	1,3-Dichlorobenzene	µg/m3	0		0.6	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12
	1,4-Dichlorobenzene	µg/m3	0.5	0.22	0.5	0.132	0.12	<0.12	<0.12	0.312	<0.12
	Benzene	µg/m3	2.3	0.31	2.3	<0.223	<0.223	<0.224	<0.224	<0.223	<0.224
	Bromodichloromethane	µg/m3	0	0.066	0.14	<0.134	<0.134	<0.0670	<0.0670	<0.134	<0.0670
	Bromoform	µg/m3	0	2.2	2.2	<0.206	<0.206	<0.207	<0.207	<0.206	<0.207
	Butadiene	µg/m3		0.081		<0.044	<0.044	<0.044	<0.044	<0.044	<0.044
	Carbon tetrachloride	µg/m3	0.54	0.41	0.54	<0.126	<0.126	<0.126	<0.126	0.157	<0.126
	Chlorobenzene	µg/m3	0	52	2.3	<0.092	<0.092	<0.092	<0.092	<0.092	<0.092
	Chloroform	µg/m3	1.9	0.11	1.9	0.102J	<0.098	<0.098	0.19	7.17	3.88
	cis-1,2-Dichloroethene	µg/m3	0		0.8	<0.079	<0.079	<0.079	<0.079	<0.079	<0.079
	Dichloromethane (Methylene chloride)	µg/m3	1.4	5.2	5	<1.74	<1.74	24.1	23.3	<1.74	27.3
	Ethyl benzene	µg/m3	1.5	0.97	7.4	<0.087	<0.087	<0.087	<0.087	0.121	<0.087
	Ethylene dibromide	µg/m3	0	0.0041	0.011	<0.154	<0.154	<0.0770	<0.0770	<0.154	<0.0770
	Isopropylbenzene	µg/m3		420		<2.46	<2.46	<2.46	<2.46	<2.46	<2.46
	Methyl tert-butyl ether (MTBE)	µg/m3	3.5	9.4	39	<0.072	<0.072	<0.072	<0.072	<0.072	<0.072
	Naphthalene	µg/m3	0	0.072	0.61	<0.246	<0.361	<0.131	<0.131	<0.828	<0.131
	Tetrachloroethene	µg/m3	1.4	0.41	1.4	0.38	0.393	0.271	0.346	0.373	0.441
	Toluene	µg/m3	11	5200	54	0.644	0.621	0.241	0.2	0.802	0.275
	trans-1,2-Dichloroethene	µg/m3	0	63	0.8	<0.079	<0.079	<0.079	<0.079	<0.079	<0.079
	trans-1,3-Dichloropropene	µg/m3	0		0.6	<0.091	<0.091	<0.091	<0.091	<0.091	<0.091
	Trichloroethene	µg/m3	0.29	1.2	0.8	<0.107	<0.107	<0.107	<0.107	0.145	0.124
	Vinyl Chloride	µg/m3	0	0.16	0.27	<0.051	<0.051	<0.051	<0.051	<0.051	<0.051
	Xylenes (unspecified)	µg/m3	5.9	100	20	0.295	0.265	<0.261	<0.261	0.49	<0.261

Notes: < = less than laboratory reporting limit.
J = Compound detected below method quantitation limit, estimated value provided.
B = Compound detected in Laboratory blank analysis.

Table 3
Data Summary for Commercial Structure
Wells G and H Superfund Site
Woburn, Massachusetts

Method Group	Parameter	Units	MADEP TIAC 50%	EPA RSL Industrial Air	MADEP IA Threshold	260407-17-IA1		260407-17-SS1			260407-19-IA1		260407-19-SS1		
						260407-17-IA1-3/31/2011 3/31/2011	260407-17-IA1-6/7/2011 6/7/2011	260407-17-SS1-3/31/2011 3/31/2011	BD03-3/31/2011 3/31/2011	260407-17-SS1-6/7/2011 6/7/2011	260407-19-IA1-3/31/2011 3/31/2011	260407-19-IA1-6/7/2011 6/7/2011	260407-19-SS1-4/1/2011 4/1/2011	BD04-4/1/2011 4/1/2011	260407-19-SS1-6/8/2011 6/8/2011
APH															
	Adjusted C5-C8 Aliphatics	µg/m3				2,200	1,900	200	190	16	130	330	230J	300J	53
	Adjusted C9-C12 Aliphatics	µg/m3				460	28	18	20	<14	120	180	310J	420J	73
	Aromatics C9-C10	µg/m3	0		10	14	<10	<10	<10	<10	14	14	13J	18J	<10
	Benzene	µg/m3	2.3	1.6	2.3	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
	Butadiene	µg/m3		0.41		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
	Ethyl benzene	µg/m3	1.5	4.9	7.4	<2	<2	<2	<2	<2	<2	<2	2.6	3	<2
	m&p-Xylene	µg/m3				<4	<4	<4	<4	<4	<4	<4	13	15	<4
	Methyl tert-butyl ether (MTBE)	µg/m3	3.5	47	39	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
	Naphthalene	µg/m3	0	0.36	0.61	<2	<2	<2	<2	<2	<2	<2	2.5J	3.3J	<2
	o-Xylene	µg/m3		3100		<2	<2	<2	<2	<2	<2	<2	4.6	5.8	<2
	Toluene	µg/m3	11	22000	54	71	21	3.1	3.4	<2	11	16	<2	<2	<2
Volatile Organic Compounds															
	1,1,1-Trichloroethane	µg/m3	0.5	22000	3	0.153	0.202	0.365	0.365	0.524	<0.109	1.17	3.97	5.08	4
	1,1,2-Trichloroethane	µg/m3	0	0.77	0.15	<0.109	<0.109	<0.109	<0.109	<0.109	<0.109	<0.109	<0.109	<0.109	<0.109
	1,1-Dichloroethane	µg/m3	0	7.7	0.8	<0.081	<0.081	<0.081	<0.081	<0.081	<0.081	<0.081	<0.081	<0.081	<0.081
	1,1-Dichloroethene	µg/m3	0	880	0.8	<0.079	<0.079	<0.079	<0.079	<0.079	<0.079	<0.079	<0.079	<0.079	<0.079
	1,2,4-Trimethylbenzene	µg/m3		31		0.668	0.418	0.246	0.255	<0.098	1.94	2.34	1.53J	1.98J	0.334
	1,2-Dichloroethane	µg/m3	0	0.47	0.09	0.408	0.158	<0.081	<0.081	<0.081	0.214	0.425	<0.081	<0.081	<0.081
	1,2-Dichloropropane	µg/m3	0	1.2	0.13	<0.092	<0.092	<0.092	<0.092	<0.092	<0.092	<0.092	<0.092	<0.092	<0.092
	1,3-Dichlorobenzene	µg/m3	0		0.6	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12
	1,4-Dichlorobenzene	µg/m3	0.5	1.1	0.5	<0.12	<0.12	<0.12	<0.12	<0.12	1.15	3.08	0.45	0.559	<0.12
	Acetone	µg/m3	26	140000	91	3,480	8,690	1,070	1,380	230	55.6J	209	76	90.4	22.2
	Benzene	µg/m3	2.3	1.6	2.3	0.769	0.629	<0.223	<0.223	<0.224	0.935	0.613	0.421	0.453	<0.224
	Bromodichloromethane	µg/m3	0	0.33	0.14	<0.134	<0.0670	<0.134	<0.134	<0.0670	<0.134	<0.0670	<0.134	<0.134	<0.0670
	Bromoform	µg/m3	0	11	2.2	<0.206	<0.207	<0.206	0.32J	<0.207	<0.206	<0.207	<0.206	<0.206	<0.207
	Butadiene	µg/m3		0.41		0.115	0.133	<0.044	<0.044	<0.044	0.21	<0.044	0.046	0.049	<0.044
	Carbon tetrachloride	µg/m3	0.54	2	0.54	0.647	0.598	0.408	0.415	0.503	0.478	0.384	0.176J	<0.126	0.126
	Chlorobenzene	µg/m3	0	220	2.3	<0.092	<0.092	<0.092	<0.092	<0.092	0.202	<0.092	<0.092	<0.092	<0.092
	Chloroform	µg/m3	1.9	0.53	1.9	0.337	0.454	0.22	0.22	0.278	0.185	0.928J	1.46	1.86	1.68
	cis-1,2-Dichloroethene	µg/m3	0		0.8	<0.079	<0.079	<0.079	<0.079	<0.079	<0.079	<0.079	<0.079	<0.079	<0.079
	Dichloromethane (Methylene chloride)	µg/m3	1.4	26	5	<1.74	3.86	<1.74	<1.74	23.1	<1.74	5.07J	14.4J	<1.74	20.6
	Ethyl acetate	µg/m3				367	347	<1.8	2.31J	0.721J	4.84	10.7	<1.8	<1.8	<0.54
	Ethyl benzene	µg/m3	1.5	4.9	7.4	0.928	0.426	0.104	0.126	<0.087	1.23	1.22	2.38	2.98	0.43
	Ethylene dibromide	µg/m3	0	0.02	0.011	<0.154	<0.0770	<0.154	<0.154	<0.0770	<0.154	<0.0770	<0.154	<0.154	<0.0770
	Isopropylbenzene	µg/m3		1800		<2.46	<2.46	<2.46	<2.46	<2.46	<2.46	<2.46	<2.46	<2.46	<2.46
	Methyl tert-butyl ether (MTBE)	µg/m3	3.5	47	39	<0.072	<0.072	<0.072	<0.072	<0.072	<0.072	<0.072	<0.072	<0.072	0.094
	Naphthalene	µg/m3	0	0.36	0.61	<0.32	0.273J	<0.498	<0.592	<0.131	<0.581	0.493J	2.03J	2.7J	<0.131
	Tetrachloroethene	µg/m3	1.4	2.1	1.4	0.352	0.183	4.45	5.54	8.07	0.149	0.292	12.9J	16.7J	17.4
	Toluene	µg/m3	11	22000	54	64.5	22	2.59	2.75	0.618	10	15.3	1.16	1.46	0.716
	trans-1,2-Dichloroethene	µg/m3	0	260	0.8	<0.079	<0.079	<0.079	<0.079	<0.079	<0.079	<0.079	<0.079	<0.079	<0.079
	trans-1,3-Dichloropropene	µg/m3	0		0.6	<0.091	<0.091	<0.091	<0.091	<0.091	<0.091	<0.091	<0.091	<0.091	<0.091
	Trichloroethene	µg/m3	0.29	6.1	0.8	<0.107	<0.107	<0.107	<0.107	<0.107	<0.107	<0.107	0.15	0.177	0.14
	Vinyl Chloride	µg/m3	0	2.8	0.27	<0.051	<0.051	<0.051	<0.051	<0.051	<0.051	<0.051	<0.051	<0.051	<0.051
	Xylenes (unspecified)	µg/m3	5.9	440	20	4.24	1.54	0.547	0.564	<0.261	4.95	4.56	17	21.2	2.72

Notes: < = less than laboratory reporting limit.
J = Compound detected below method quantitation limit, estimated value provided.
B = Compound detected in Laboratory blank analysis.

Table 3
Data Summary for Commercial Structure
Wells G and H Superfund Site
Woburn, Massachusetts

Method Group	Parameter	Units	MADEP TIAC 50%	EPA RSL Industrial Air	MADEP IA Threshold	260407-20-IA1		260407-20-SS1		260407-22-IA1			260407-22-IA2	
						260407-20-IA1-3/31/2011 3/31/2011	260407-20-IA1-6/7/2011 6/7/2011	260407-20-SS1-3/31/2011 3/31/2011	260407-20-SS1-6/8/2011 6/8/2011	260407-22-IA1-3/31/2011 3/31/2011	260407-22-IA1-6/7/2011 6/7/2011	BD03-6/7/2011 6/7/2011	260407-22-IA2-3/31/2011 3/31/2011	260407-22-IA2-6/7/2011 6/7/2011
APH														
	Adjusted C5-C8 Aliphatics	µg/m3				1,000	860	90	24	160	160	360	180	180
	Adjusted C9-C12 Aliphatics	µg/m3				99	100	120	<14	140	60	180	200	46
	Aromatics C9-C10	µg/m3	0		10	15	<10	19	<10	10J	<10	12	<10	<10
	Benzene	µg/m3	2.3	1.6	2.3	<2	<2	<2	<2	<2	<2	<2	<2	<2
	Butadiene	µg/m3		0.41		<2	<2	<2	<2	<2	<2	<2	<2	<2
	Ethyl benzene	µg/m3	1.5	4.9	7.4	<2	<2	36	<2	<2	<2	<2	<2	<2
	m&p-Xylene	µg/m3				5.2	<4	180	<4	5.1	<4	<4	4.6	<4
	Methyl tert-butyl ether (MTBE)	µg/m3	3.5	47	39	<2	<2	<2	<2	<2	<2	<2	<2	<2
	Naphthalene	µg/m3	0	0.36	0.61	<2	<2	<2	<2	<2	<2	<2	<2	<2
	o-Xylene	µg/m3		3100		<2	2J	140	<2	<2	<2	<2	<2	<2
	Toluene	µg/m3	11	22000	54	58	9	3	<2	23	8.9	16	23	7.6
Volatile Organic Compounds														
	1,1,1-Trichloroethane	µg/m3	0.5	22000	3	0.174	3.1	4.18	5.1	<0.109	0.655	1.3	<0.109	0.507
	1,1,2-Trichloroethane	µg/m3	0	0.77	0.15	<0.109	<0.109	<0.109	<0.109	<0.109	<0.109	<0.109	<0.109	<0.109
	1,1-Dichloroethane	µg/m3	0	7.7	0.8	<0.081	<0.081	<0.081	<0.081	<0.081	<0.081	<0.081	<0.081	<0.081
	1,1-Dichloroethene	µg/m3	0	880	0.8	<0.079	<0.079	<0.079	<0.079	<0.079	<0.079	<0.079	<0.079	<0.079
	1,2,4-Trimethylbenzene	µg/m3		31		1	0.757	3.46	<0.098	1.16	0.752	2.47	1.1	0.59
	1,2-Dichloroethane	µg/m3	0	0.47	0.09	9.52	20.2	0.271	0.146	0.489	0.894	0.47	0.437	0.85
	1,2-Dichloropropane	µg/m3	0	1.2	0.13	<0.092	<0.092	<0.092	<0.092	<0.092	<0.092	<0.092	<0.092	<0.092
	1,3-Dichlorobenzene	µg/m3	0		0.6	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12
	1,4-Dichlorobenzene	µg/m3	0.5	1.1	0.5	<0.12	<0.12	0.222	<0.12	<0.12	<0.12	3.35	<0.12	<0.12
	Acetone	µg/m3	26	140000	91	89.8	214	167	11.4	128	234	261	1,050	294
	Benzene	µg/m3	2.3	1.6	2.3	0.938	0.764	0.677	<0.224	0.718	0.846	0.655	0.766	0.898
	Bromodichloromethane	µg/m3	0	0.33	0.14	<0.134	0.0800J	<0.134	<0.0670	<0.134	<0.0670	<0.0670	<0.134	<0.0670
	Bromoform	µg/m3	0	11	2.2	<0.206	<0.207	<0.206	<0.207	<0.206	<0.207	<0.207	<0.206	<0.207
	Butadiene	µg/m3		0.41		0.128	0.1	0.214	<0.044	<0.044	0.104	0.055J	<0.044	0.124
	Carbon tetrachloride	µg/m3	0.54	2	0.54	0.515	0.402	0.163	0.132	0.484	0.44	0.39	0.471	0.39
	Chlorobenzene	µg/m3	0	220	2.3	<0.092	<0.092	<0.092	<0.092	<0.092	<0.092	<0.092	0.097	<0.092
	Chloroform	µg/m3	1.9	0.53	1.9	0.629	0.825	1.91	1.58	1.1	1.24	0.327J	63.2	7.42
	cis-1,2-Dichloroethene	µg/m3	0		0.8	<0.079	<0.079	<0.079	<0.079	<0.079	<0.079	<0.079	<0.079	<0.079
	Dichloromethane (Methylene chloride)	µg/m3	1.4	26	5	<1.74	5	4.46	17	<1.74	4.17	1.94J	<1.74	3.22
	Ethyl acetate	µg/m3				22.2	19.9	<1.8	<0.54	10.5	14.2	12.2	9.24	13.7
	Ethyl benzene	µg/m3	1.5	4.9	7.4	1.46	1.31	35	0.365	1.34	0.838	1.28	1.24	0.93
	Ethylene dibromide	µg/m3	0	0.02	0.011	<0.154	<0.0770	<0.154	<0.0770	<0.154	<0.0770	<0.0770	<0.154	<0.0770
	Isopropylbenzene	µg/m3		1800		<2.46	<2.46	4.33	<2.46	<2.46	<2.46	<2.46	<2.46	<2.46
	Methyl tert-butyl ether (MTBE)	µg/m3	3.5	47	39	<0.072	<0.072	<0.072	<0.072	<0.072	<0.072	<0.072	<0.072	<0.072
	Naphthalene	µg/m3	0	0.36	0.61	<0.445	0.351J	1.2J	<0.131	<0.382	0.257J	0.744J	<0.393	0.168J
	Tetrachloroethene	µg/m3	1.4	2.1	1.4	0.488	0.373	19.2	23.2	0.454	0.339	0.312	0.63	0.353
	Toluene	µg/m3	11	22000	54	53.6	8.86	2.68	0.407	21.5	9.12	16	21.7	8.55
	trans-1,2-Dichloroethene	µg/m3	0	260	0.8	<0.079	<0.079	<0.079	<0.079	<0.079	<0.079	<0.079	<0.079	<0.079
	trans-1,3-Dichloropropene	µg/m3	0		0.6	<0.091	<0.091	<0.091	<0.091	<0.091	<0.091	<0.091	<0.091	<0.091
	Trichloroethene	µg/m3	0.29	6.1	0.8	<0.107	0.107	0.113	<0.107	<0.107	0.113	<0.107	<0.107	0.107
	Vinyl Chloride	µg/m3	0	2.8	0.27	<0.051	<0.051	<0.051	<0.051	<0.051	<0.051	<0.051	<0.051	<0.051
	Xylenes (unspecified)	µg/m3	5.9	440	20	6.94	6.17	321	2.87	6.76	3.3	4.78	6.17	3.82

Notes: < = less than laboratory reporting limit.
J = Compound detected below method quantitation limit, estimated value provided.
B = Compound detected in Laboratory blank analysis.

Table 3
Data Summary for Commercial Structure
Wells G and H Superfund Site
Woburn, Massachusetts

Method Group	Parameter	Units	MADEP TIAC 50%	EPA RSL Industrial Air	MADEP IA Threshold	260407-22-SS1			260407-22-SS2		260407-OA1		260407-OA2	
						260407-22-SS1-4/1/2011 4/1/2011	260407-22-SS1-6/8/2011 6/8/2011	BD04-6/8/2011 6/8/2011	260407-22-SS2-4/1/2011 4/1/2011	260407-22-SS2-6/8/2011 6/8/2011	260407-OA1-3/31/2011 3/31/2011	260407-OA1-6/7/2011 6/7/2011	260407-OA2-3/31/2011 3/31/2011	260407-OA2-6/7/2011 6/7/2011
APH														
	Adjusted C5-C8 Aliphatics	µg/m3				140	33	39	<58	29	<12	20	<12	<12
	Adjusted C9-C12 Aliphatics	µg/m3				1,300	<14	14J	<14	<28	<14	<14	<14	<14
	Aromatics C9-C10	µg/m3	0		10	14	<10	<10	<10	<20	<10	<10	<10	<10
	Benzene	µg/m3	2.3	1.6	2.3	<2	<2	<2	<2	<4	<2	<2	<2	<2
	Butadiene	µg/m3		0.41		<2	<2	<2	<2	<4	<2	<2	<2	<2
	Ethyl benzene	µg/m3	1.5	4.9	7.4	<2	<2	<2	2.8	<4	<2	<2	<2	<2
	m&p-Xylene	µg/m3				<4	<4	<4	14	<8	<4	<4	<4	<4
	Methyl tert-butyl ether (MTBE)	µg/m3	3.5	47	39	<2	<2	<2	<2	<4	<2	<2	<2	<2
	Naphthalene	µg/m3	0	0.36	0.61	<2	<2	<2	<2	<4	<2	<2	<2	<2
	o-Xylene	µg/m3		3100		<2	<2	<2	14	<4	<2	<2	<2	<2
	Toluene	µg/m3	11	22000	54	<2	<2	3.3J	<2	<4	<2	<2	<2	<2
Volatile Organic Compounds														
	1,1,1-Trichloroethane	µg/m3	0.5	22000	3	0.469	5.89J	4.4J	1.48	0.513	<0.109	<0.109	<0.109	<0.109
	1,1,2-Trichloroethane	µg/m3	0	0.77	0.15	<0.109	<0.109	<0.109	<0.109	<0.218	<0.109	<0.109	<0.109	<0.109
	1,1-Dichloroethane	µg/m3	0	7.7	0.8	<0.081	<0.081	<0.081	<0.081	<0.162	<0.081	<0.081	<0.081	<0.081
	1,1-Dichloroethene	µg/m3	0	880	0.8	<0.079	<0.079	<0.079	<0.079	<0.158	<0.079	<0.079	<0.079	<0.079
	1,2,4-Trimethylbenzene	µg/m3		31		0.55	<0.098	0.202J	0.265	<0.197	0.138	0.172	0.113	0.118
	1,2-Dichloroethane	µg/m3	0	0.47	0.09	<0.081	<0.081	0.304J	<0.081	<0.162	<0.081	<0.081	<0.081	<0.081
	1,2-Dichloropropane	µg/m3	0	1.2	0.13	<0.092	<0.092	<0.092	<0.092	<0.185	<0.092	<0.092	<0.092	<0.092
	1,3-Dichlorobenzene	µg/m3	0		0.6	<0.12	<0.12	<0.12	<0.12	<0.24	<0.12	<0.12	<0.12	<0.12
	1,4-Dichlorobenzene	µg/m3	0.5	1.1	0.5	0.12	<0.12	<0.12	<0.12	<0.24	<0.12	<0.12	<0.12	<0.12
	Acetone	µg/m3	26	140000	91	95.6	17.6J	94.5J	140	25.2	6	11.8	4.95	13.8
	Benzene	µg/m3	2.3	1.6	2.3	0.348	<0.224	0.268J	<0.223	<0.447	0.562	0.45	0.46	0.508
	Bromodichloromethane	µg/m3	0	0.33	0.14	<0.134	<0.0670	<0.0670	<0.134	<0.134	<0.134	<0.0670	<0.134	<0.0670
	Bromoform	µg/m3	0	11	2.2	<0.206	<0.207	<0.207	<0.206	<0.414	<0.206	<0.207	<0.206	<0.207
	Butadiene	µg/m3		0.41		<0.044	<0.044	<0.044	<0.044	<0.089	0.077	<0.044	0.044	0.049
	Carbon tetrachloride	µg/m3	0.54	2	0.54	0.295	0.176J	0.252J	0.308	0.352	0.497	0.428	0.471	0.409
	Chlorobenzene	µg/m3	0	220	2.3	<0.092	<0.092	<0.092	<0.092	<0.184	<0.092	<0.092	<0.092	<0.092
	Chloroform	µg/m3	1.9	0.53	1.9	<0.098	<0.098	0.317J	0.161	0.244	<0.098	<0.098	<0.098	<0.098
	cis-1,2-Dichloroethene	µg/m3	0		0.8	<0.079	<0.079	<0.079	<0.079	<0.158	<0.079	<0.079	<0.079	<0.079
	Dichloromethane (Methylene chloride)	µg/m3	1.4	26	5	17	<1.74	<1.74	10.3	<3.47	1.96	<1.74	<1.74	3.13
	Ethyl acetate	µg/m3				<1.8	<0.54	4.25J	<1.8	<0.54	<1.8	<0.54	<1.8	<0.54
	Ethyl benzene	µg/m3	1.5	4.9	7.4	0.178	<0.087	0.282J	2.7	0.295	0.13	0.148	0.1	0.174
	Ethylene dibromide	µg/m3	0	0.02	0.011	<0.154	<0.0770	<0.0770	<0.154	<0.154	<0.154	<0.0770	<0.154	<0.0770
	Isopropylbenzene	µg/m3		1800		<2.46	<2.46	<2.46	<2.46	<4.92	<2.46	<2.46	<2.46	<2.46
	Methyl tert-butyl ether (MTBE)	µg/m3	3.5	47	39	<0.072	<0.072	<0.072	<0.072	<0.144	<0.072	<0.072	<0.072	<0.072
	Naphthalene	µg/m3	0	0.36	0.61	<0.733	<0.131	<0.131	<0.215	<0.262	<0.131	<0.131	<0.131	<0.131
	Tetrachloroethene	µg/m3	1.4	2.1	1.4	80	102J	77.3J	2,310	1,070	<0.136	<0.136	<0.136	<0.136
	Toluene	µg/m3	11	22000	54	0.493	0.32J	3.01J	0.554	0.399	0.757	1.22J	0.621	1.29J
	trans-1,2-Dichloroethene	µg/m3	0	260	0.8	<0.079	<0.079	<0.079	<0.079	<0.158	<0.079	<0.079	<0.079	<0.079
	trans-1,3-Dichloropropene	µg/m3	0		0.6	<0.091	<0.091	<0.091	<0.091	<0.182	<0.091	<0.091	<0.091	<0.091
	Trichloroethene	µg/m3	0.29	6.1	0.8	0.177	0.193J	0.301J	3.83	1.32	<0.107	<0.107	<0.107	<0.107
	Vinyl Chloride	µg/m3	0	2.8	0.27	<0.051	<0.051	<0.051	<0.051	<0.102	<0.051	<0.051	<0.051	<0.051
	Xylenes (unspecified)	µg/m3	5.9	440	20	1.08	<0.261	1.16J	27.8	2.12	0.499	0.452	0.369	0.543

Notes: < = less than laboratory reporting limit.
J = Compound detected below method quantitation limit, estimated value provided.
B = Compound detected in Laboratory blank analysis.

Table 4
Hourly Climatological Observations During Sampling Events
Laurence G Hanscom Field Airport (14702)
Bedford, MA

Date	Time (EDT)	Weather	Dry Bulb Temperature (F)	Wind Speed (MPH)	Wind Direction*	Wind Gusts (MPH)	Pressure (in. hg)
17 March 2011	0756	Patches Fog	31	0	-		30.10
	0856	Patches Fog	41	7	W		30.12
	0956	Partly Cloudy	45	0	-		30.13
	1056	Fair	48	6	WSW		30.13
	1156	Fair	51	5	-		30.11
	1256	Fair	54	0	-		30.10
	1356	Fair	57	7	SSW		30.07
	1456	Fair	60	8	W		30.04
	1556	Fair	62	9	WNW		30.03
	1656	Fair	62	9	W		30.03
	1756	Fair	59	9	WSW		30.03
	1856	Fair	55	6	S		30.01
	1956	Fair	52	3	SSW		30.01
	2056	Fair	49	8	SW		30.01
	2156	Fair	50	10	SSW		29.99
	2256	Fair	49	7	WSW		29.98
	2356	Fair	48	6	SSW		29.95
18 March 2011	0056	Fair	48	6	S		29.92
	0156	Fair	49	13	SSW	20	29.90
	0256	Fair	47	9	SSW		29.88
	0356	Fair	47	8	SSW		29.83
	0456	Fair	48	10	SSW		29.79
	0556	Fair	48	8	SSW		29.77
	0656	Mostly Cloudy	51	11	SW	21	29.73
	0756	Overcast	52	14	SW	23	29.72
	0856	Mostly Cloudy	52	20	SW	28	29.70
	0956	Fair	58	17	SW	24	29.68
	1056	Fair	61	11	SW	21	29.67
	1156	Overcast and Breezy	66	21	W	29	29.66
	1256	Fair	68	20	W	34	29.65
	1356	Fair and Breezy	69	23	W	41	29.64
	1456	Fair and Breezy	68	21	W	39	29.65
	1556	Fair and Breezy	67	23	W	40	29.68
31 March 2011	0756	Overcast	39	0	-		29.92
	0856	Overcast	40	0	-		29.92
	0956	Overcast	44	5	ENE		29.92
	1056	Clear	45	9	ESE		29.91
	1156	Overcast	46	11	ESE	20	29.91
	1256	Partly Cloudy	46	17	E		29.90
	1356	Partly Cloudy	44	14	E		29.88
	1456	Overcast	45	11	E		29.86
	1556	Clear	44	13	E		29.86
	1656	Overcast	42	16	ESE		29.85
	1727	Rain	37	18	E		29.85
	1754	Rain	37	9	E		29.86
	1756	Rain	37	9	E		29.86
	1829	Snow Mist	36	10	E		29.86
1 April 2011	0846	Snow Mist	34	11	N		29.36
	0856	Snow Mist	33	10	N		29.36
	0909	Snow Mist	34	10	N		29.36
	0918	Snow Mist	34	10	N		29.35
	0938	Snow Mist	34	9	N		29.33
	0956	Snow Mist	33	10	N		29.32
	1017	Snow Mist	34	11	N		29.30
	1032	Rain Mist	34	13	N	20	29.29
	1054	Rain Mist	34	14	N	21	29.27
	1056	Rain Mist	34	11	N	21	29.27
	1108	Rain Mist	34	14	N		29.26
	1156	Rain Mist	34	10	N		29.24
	1243	Rain Mist	36	10	WNW		29.23
	1256	Rain Mist	35	11	WNW		29.22
	1310	Rain Mist	36	11	NW		29.22
	1321	Rain Mist	36	11	NW	20	29.22
	1328	Rain Mist	36	11	NW		29.21
	1356	Rain Mist	35	14	NW		29.20
	1358	Rain Mist	36	13	NW		29.20
	1456	Rain	36	11	NW	20	29.19

Table 4
Hourly Climatological Observations During Sampling Events
Laurence G Hanscom Field Airport (14702)
Bedford, MA

Date	Time (EDT)	Weather	Dry Bulb Temperature (F)	Wind Speed (MPH)	Wind Direction*	Wind Gusts (MPH)	Pressure (in. hg)
06 June 2011	0656	Fair	54	Calm			30.00
	0756	Fair	62	3	NW		30.00
	0856	Fair	68	7	N		30.00
	0956	Fair	72	3	N		30.00
	1056	Fair	74	5	N		30.00
	1156	Fair	77	7	NE		29.99
	1256	Partly Cloudy	76	Calm			29.97
	1356	Mostly Cloudy	75	9	SE		29.96
	1456	A Few Clouds	76	10	SE		29.96
	1556	Fair	76	9	SE		29.95
	1656	Fair	75	6	Variable		29.94
	1756	Fair	74	9	SE		29.93
	1856	Fair	72	9	SE		29.94
	1956	Fair	69	7	SE		29.93
	2056	Fair	67	5	SE		29.94
	2156	Fair	63	Calm			29.95
	2256	Fair	61	Calm			29.95
	2356	Fair	62	3	S		29.94
07 June 2011	0056	Fair	61	3	S		29.93
	0156	Fair	58	Calm			29.93
	0256	Fair	55	Calm			29.92
	0356	Fair	54	Calm			29.92
	0456	Fair	53	Calm			29.92
	0556	Fair	53	Calm			29.93
	0656	Fair	59	Calm			29.93
	0756	Fair	66	3	W		29.93
	0856	Fair	71	5	W		29.93
	0956	Fair	76	Calm			29.92
	1056	Fair	79	Calm			29.90
	1156	NA	NA	3	Variable		NA
	1256	Fair	85	7	NW		29.87
	1356	Fair	84	3	Variable		29.85
	1556	Fair	86	15	E	18	29.81
	1656	Fair	80	13	SE		29.82
	1756	Fair	79	13	E		29.82
	1856	Fair	77	8	E		29.82
	1956	Fair	75	5	E		29.82
08 June 2011	0756	Partly Cloudy	70	Calm			29.88
	0856	Partly Cloudy	75	Calm			29.87
	0956	Fair	80	Calm			29.85
	1056	Partly Cloudy	83	NA			29.85
	1156	Fair	86	3	Variable		29.84
	1256	Fair	87	3	NW		29.84
	1356	Fair	88	5	S		29.82
	1456	Fair	88	5	S		29.80

Weather Data are selected from Quality Controlled Local Climatological (final) Hourly Obervations Table from the Laurance G Hanscom Field Airport (14702) in Bedford, Ma provided by the National Oceanic & Atmospheric Administra
*wind direction converted from direction in degrees, each of 16 wind directions spans 22.5 degrees

Table 5
Purging and Field Screening Data
Wells G and H Superfund Site, Woburn, Massachusetts

Probe ID	Date	Elapsed Time (min)	Sample Flow Rate (L/min) [1]	Cumulative Volume Purged (L)	Helium Tracer Gas			Instantaneous Differential Pressure (inches H_20)
					Shroud (%)		Sample (%)	
					Minimum	Maximum		
260902-SS1	18-Mar-11	2.0	0.20	0.4	38.0	52.0	2.8	-
		2.0	0.20	0.8	44.0	48.0	3.8	
		1.0	0.20	1.0	39.0	50.0	1.6	
		1.0	0.20	1.2	36.0	48.0	1.1	
		1.0	0.20	1.4	40.0	48.0	1.2	
		1.0	0.20	1.6	-	-	-	
		2.0	0.20	2.0	14.5	19.0	0.3	
	7-Jun-11	3.0	0.16	0.5	36.9	48.2	0.0	0.00
		3.0	0.16	1.0	27.0	50.2	0.0	
260902-SS2	18-Mar-11	2.0	0.20	0.4	39.0	48.0	0.0	-
	7-Jun-11	4.5	0.16	0.7	36.2	43.4	0.0	-
260903-SS1	18-Mar-11	3.0	0.20	0.6	36.0	48.0	0.0	-
	7-Jun-11	3.0	0.16	0.5	39.2	53.0	0.03	0.00
260903-SS2	18-Mar-11	2.0	0.20	0.4	16.0	20.0	0.07	-
		2.0	0.20	0.8	22.0	20.0	0.05	
		2.0	0.20	1.2	38.0	38.0	0.01	
	7-Jun-11	5.0	0.16	0.8	40.0	50.4	0.2	0.00
260407-17-SS1	31-Mar-11	2.5	0.20	0.5	36.0	41.0	0.0	0.02
	7-Jun-11	4.0	0.16	0.6	32.0	52.0	0.2	0.00
260407-19-SS1	1-Apr-11	3.0	0.16	0.5	37.0	57.0	0.0	0.00
	8-Jun-11	3.0	0.16	0.5	48.1	53.3	0.5	0.00
		4.0	0.16	1.1	38.8	50.2	0.7	
		1.0	0.16	1.3	34.0	34.0	0.2	
260407-20-SS1	31-Mar-11	2.3	0.16	0.4	35.0	37.0	0.0	-
	8-Jun-11	3.0	0.16	0.5	36.3	53.1	0.0	-0.01
260407-22-SS1	1-Apr-11	2.5	0.16	0.4	37.0	45.2	0.0	0.02
	8-Jun-11	3.0	0.16	0.5	39.8	56.0	0.2	-0.01
260407-22-SS2	1-Apr-11	2.5	0.16	0.4	28.0	41.0	0.2	-0.01
	7-Jun-11	4.5	0.16	0.7	36.2	43.4	0.0	-0.03

Notes:

[1] - flow controller calibrated to indicated flow rate by laboratory
min - minutes
L/min - liters per minute
L - liters
% - percent

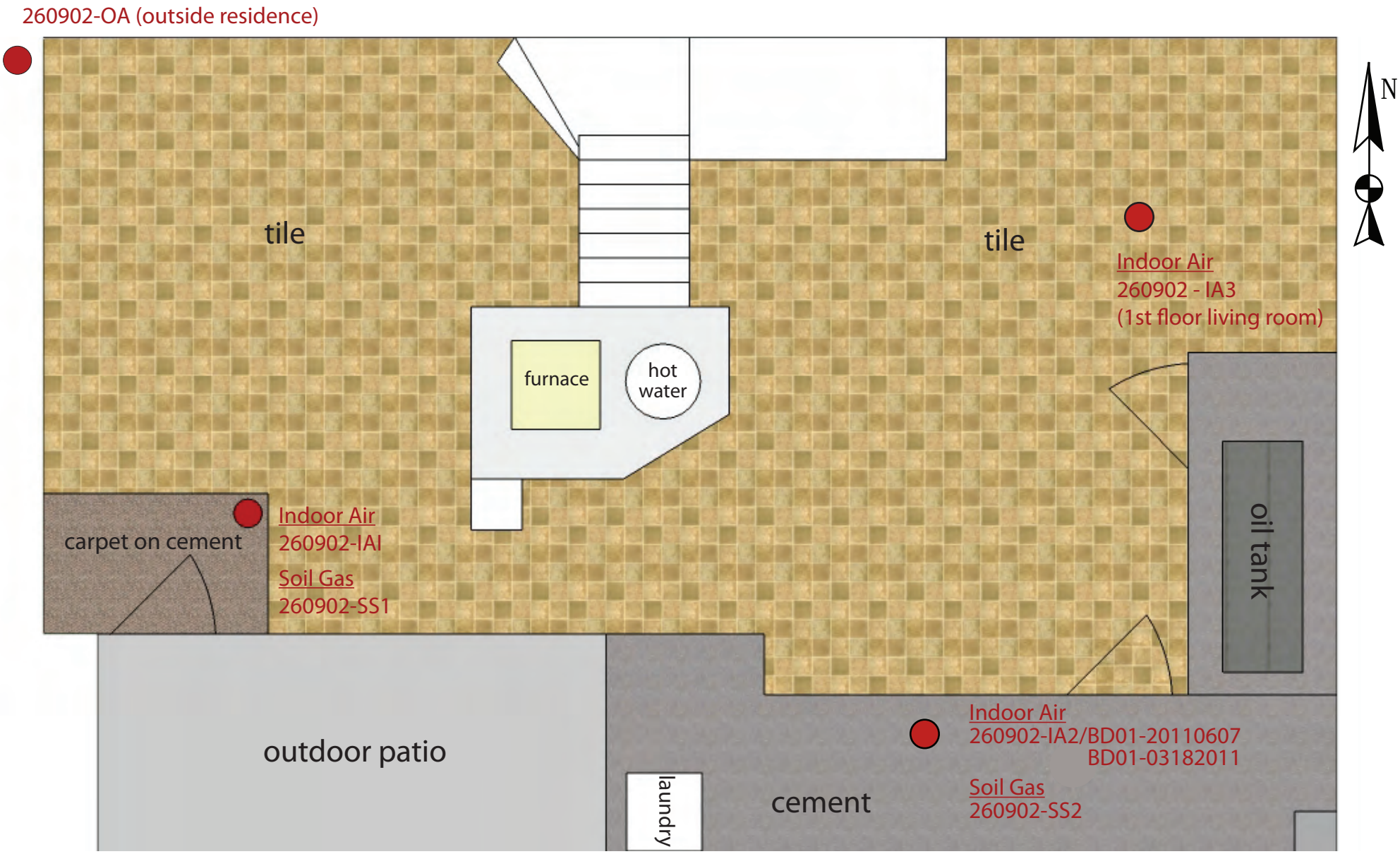
Table 6.
Summary of Selected Analytes in Groundwater
Near Commercial Structure #1

Location	Parameter	2011
UG15	Chloroform	ND (0.10)
	cis-1,2-DCE	ND J (0.050)
	PCE	ND J (1)
	Depth to water (bgs)	19
UG16	Chloroform	ND (0.10)
	cis-1,2-DCE	ND J (0.050)
	PCE	ND J (0.054)
	TCE	ND (1)
	Depth to water (bgs)	11
G39S	Acetone	61
	PCE	11
	TCE	ND (1.0)
	Depth to water (bgs)	17

Notes: ND = Not detected with laboratory reporting limit in parentheses.
J = Compound detected below method quantitation limit, estimated value provided.

Sources: TetraTech GEO and JGEnvironmental (in preparation 2011a)
TetraTech GEO and JGEnvironmental (in preparation 2011b)

FIGURES



Not to Scale

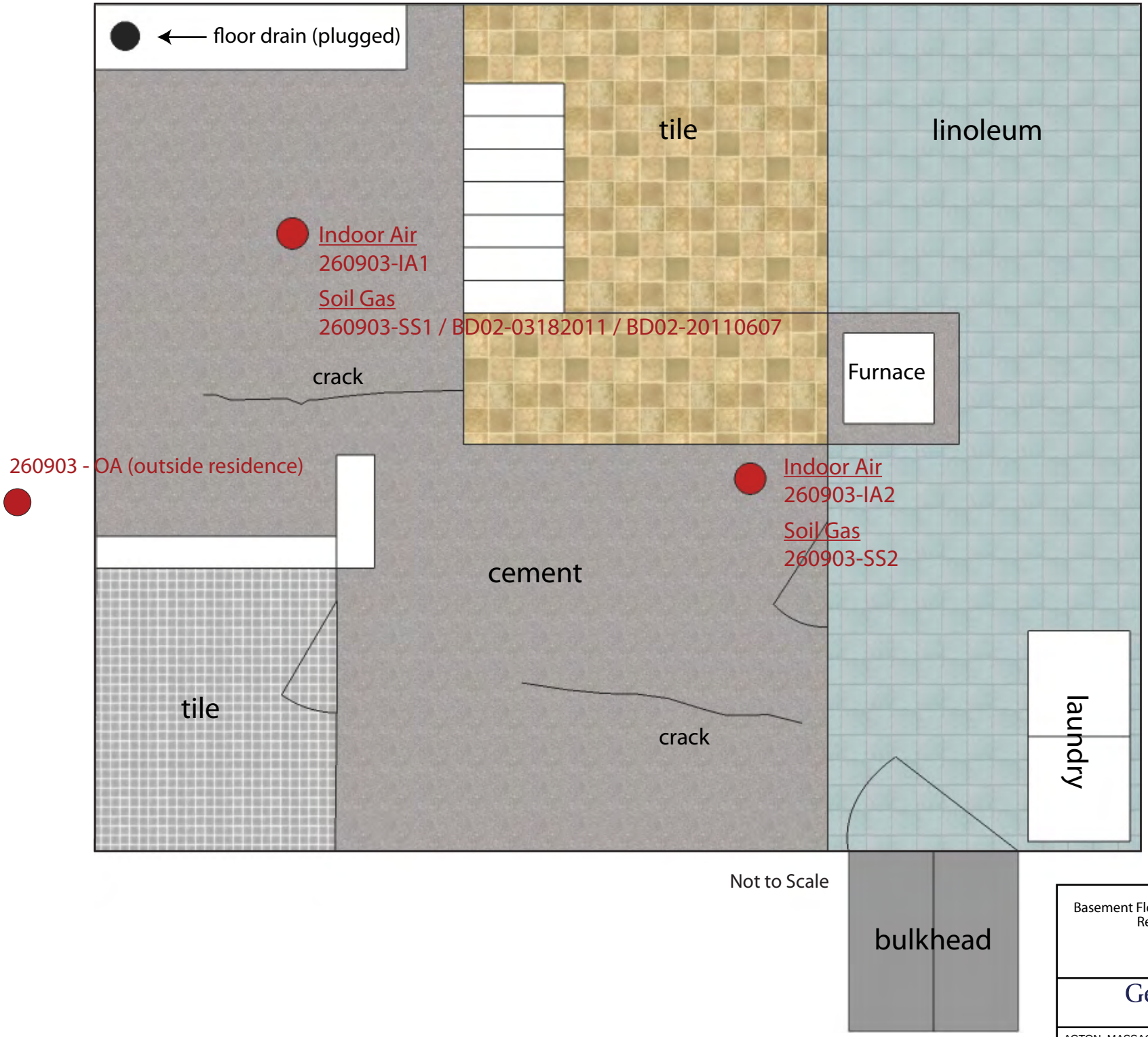
Basement Floor Plan and Sampling Locations
Residential Structure #1

Wells G&H Superfund Site
Woburn, Massachusetts

Geosyntec consultants

ACTON, MASSACHUSETTS | JULY 2011

FIGURE 1



Basement Floor Plan and Sampling Locations
Residential Structure #2

Wells G&H Superfund Site
Woburn, Massachusetts

Geosyntec consultants

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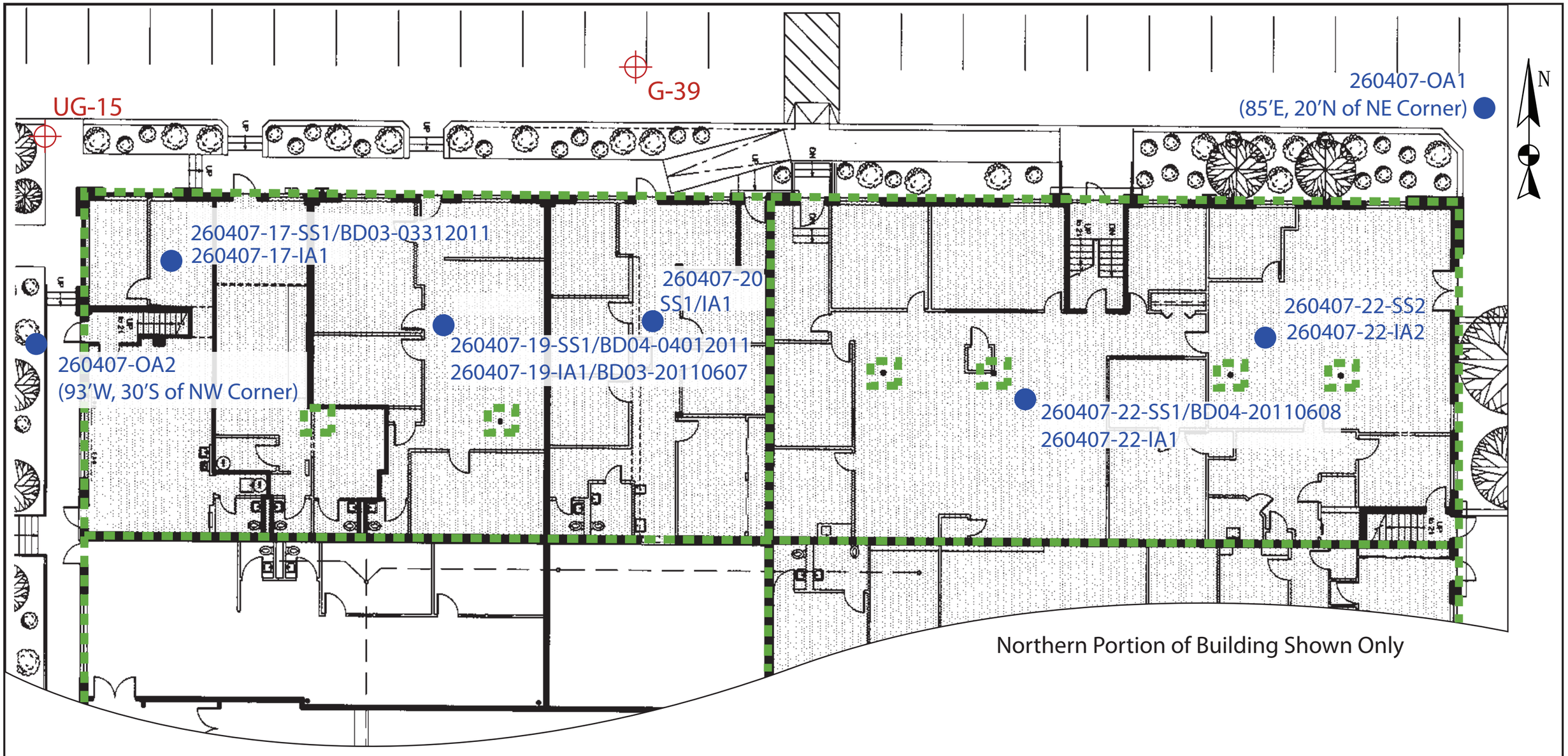
FIGURE 2



Monitoring Well

Co-located sub-slab soil gas and indoor air sampling location

Load-bearing structure with sub-surface footer

0 5' 10' 25'

Northern Portion of Floor Plan and Sampling Locations
Commercial Structure #1

Wells G&H Superfund Site
Woburn, Massachusetts

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FIGURE 3

Legend

- Monitoring Well
- Residential and Commercial Buildings for Sub-Slab & Indoor Air Sampling
- Building Footprint
- Assessor's Parcel Boundary

100 50 0 100 200 Feet

Groundwater Monitoring Well Locations

Wells G&H Superfund Site
Woburn, Massachusetts

Geosyntec consultants

ACTON, MASSACHUSETTS

18 JUL 2011

Figure 4

Q:\GISProjects\BR0200 - WRGRACE\PROPOSED_SS_IA_SAMPLING.mxd

APPENDIX A

BUILDING SURVEYS

THE JOHNSON COMPANY, INC.
100 State Street, Suite 600
Montpelier, Vermont 05602
(802) 229-4600

DRAFT

Indoor Air Quality Building Survey

Sampler: SWB/TC Date: 18 February 2011 JCO #: _____

Address: REDACTED 260902
Woburn, Massachusetts 01801

Contact Name: REDACTED

List of Current Occupants/Occupation:

Age (if under 18)	Sex (m/f)	Occupation
N/A	m	Realtor

Building Construction Characteristics:

What type of building is it? (Circle appropriate responses)

Single Family Multi-Family School Commercial Industrial

Ranch
Raised Ranch
Cape
Colonial
Split Level
Mobile Home

2-Family
Duplex
Apartment House (# of units ___)
Condominium (# of units ___)
Other (specify) _____

General description of building construction materials: plaster walls, hardwood floors, vinyl siding, Asphalt/Fiberglass shingles,

Number of occupied stories: 2 Year built? 1951

Has the building been weatherized with any of the following? (Circle all that apply)

Insulation Storm windows Energy-efficient windows Other (specify)

Attached garage? (Y/N) N Vehicle(s) present? (Y/N) Y

Source: MaDEP, 2002, "Indoor Air Sampling and Evaluation Guide, WSC Policy #02-430", Office of Research and Standards, Massachusetts Department of Environmental Protection, April, 2002.

What type of basement does the building have? (Circle all that apply)

Full basement Crawlspace Slab-on-grade Other (specify)

What are the characteristics of the basement? (Circle all that apply)

Finished	Basement Floor:	Foundation Walls:	Moisture:
Unfinished	Concrete	Poured concrete	Wet
Partially finished (%)	Dirt	Block	Damp
	Other (specify)	Field stone	Dry

Is a basement sump present? (Y/N) N Is sump sealed to indoor air? (Y/N) N/A

Does the basement have any of the following characteristics (e.g., preferential vapor pathways) that might permit soil vapor entry? (Circle all that apply)

No sump no cracks in visible concrete slab

Cracks Pipe/utility conduits Other (specify)
Foundation/slab drainage Sump pumps

Heating and Ventilation System(s) Present:

What types of heating system(s) are used in this building? (Circle all that apply)

Hot air circulation Heat pump Steam Radiation Wood stove
Other (specify) Air conditioner (central/window) Fireplace (wood/gas)

What types of fuels are used in this building? (Circle all that apply)

Natural gas Electric Coal Other (specify)
Fuel oil Wood Solar

forced hot water

What type of mechanical ventilation systems are present and/or currently operating in this building? (Circle all that apply)

Central air conditioning Mechanical fans Bathroom vent fan
Individual air conditioning Kitchen range hood Air-to-air heat exchanger
Open windows Other (specify)

drain on patio once clogged with leaves making only time in 6 years water in basement

Sources of Chemical Contaminants:

Source: MaDEP, 2002, "Indoor Air Sampling and Evaluation Guide, WSC Policy #02-430", Office of Research and Standards, Massachusetts Department of Environmental Protection, April, 2002.

Which of these are present in the building?

Potential VOC Source	Location of Source	Major Ingredients	Removed Prior to Air Sampling (Y/N/NA)
Paint or paint thinners			
Gas-powered equipment	see Attached table of		
Gasoline storage cans			
Cleaning solvents	products identified during the		
Air fresheners			
Oven cleaners			
Carpet/ upholstery cleaners	Building survey		
Hairspray			
Nail polish/ remover			
Bathroom cleaner			
Appliance cleaner			
Furniture/ floor polish			
Moth balls			
Fuel oil tank			
Wood stove			
Fireplace			
Perfume/ colognes			
Hobby supplies			
Scented potpourri, etc			
Brake cleaner			
Liquid Wrench			
Other			
Other			
Other			

Do one or more smokers occupy this building on a regular basis? NO

Has anyone smoked in the building in the last 48 hours? (Y/N) NO

Do the occupants frequently have clothes dry-cleaned? (Y/N) NO

Any recent remodeling or repainting (Y/N, describe) NO

Any obvious pressed wood products (e.g. hardwood plywood paneling, particleboard, fiberboard)? (Y/N)
wood paneling in northernmost room in basement

Are there any new upholstery, drapes, carpets, or other textiles? (Y/N) NO

Source: MaDEP, 2002, "Indoor Air Sampling and Evaluation Guide, WSC Policy #02-430", Office of Research and Standards, Massachusetts Department of Environmental Protection, April, 2002.

Has the building been treated with any insecticides/pesticides? If so, how often and what chemicals were used? No

Do any of the occupants apply pesticides/herbicides in the yard or garden? If so, how often and what chemicals are used? No

Outdoor Sources of Contamination:

Is there any stationary emission source in the vicinity of the building? Not at this time ~~(station~~ (sub)

Are there any mobile emission sources (e.g., highway; bus stop; high-traffic area) in the vicinity of the building?
Bordering busy road: Washington St; Interstates 93 & 95, each less than ½ mile to east & north

Weather Conditions During Sampling:

Outside Temperature (°F): 40 - 60

Prevailing wind direction: WNW - S

Describe the general weather conditions (e.g., sunny, cloudy, rain):
P. cloudy/fair on 17 March 2011 0800 - 18 March 2011 0600 then cloudy

Was there any significant precipitation (0.1 inches) within 12 hours preceding the sampling event? N

Type of ground cover (e.g., grass, pavement, etc.) outside the building: grass, paved drive & sidewalk

½" rain on 16 March 2011 done by 1500

General Comments

Is there any other information about the structural features of this building, the habits of its occupants or potential sources of chemical contaminants to the indoor air that may be of importance in facilitating the evaluation of the indoor air quality of the building?

Source: MaDEP, 2002, "Indoor Air Sampling and Evaluation Guide, WSC Policy #02-430", Office of Research and Standards, Massachusetts Department of Environmental Protection, April, 2002.

THE JOHNSON COMPANY, INC.
100 State Street, Suite 600
Montpelier, Vermont 05602
(802) 229-4600

DRAFT

Indoor Air Quality Building Survey

Sampler: SWB/TC Date: 28 January 2011 JCO #: _____

REDACTED

Address: 260903

Woburn, Massachusetts 01801

REDACTED

Contact Name: _____

List of Current Occupants/Occupation:

Age (if under 18)	Sex (m/f)	Occupation
N/A	f	retired
N/A	f	

Building Construction Characteristics:

What type of building is it? (Circle appropriate responses)

Single Family Multi-Family School Commercial Industrial

Ranch
Raised Ranch
Cape
Colonial
Split Level
Mobile Home

2-Family
Duplex
Apartment House (# of units ___)
Condominium (# of units ___)
Other (specify) _____

General description of building construction materials: clapboard, asphalt/fiberglass shingles drywall, hardwood floors

Number of occupied stories: 2 Year built? 1955

Has the building been weatherized with any of the following? (Circle all that apply)

Insulation Storm windows Energy-efficient windows Other (specify)

Attached garage? (Y/N) N Vehicle(s) present? (Y/N) _____

Source: MaDEP, 2002, "Indoor Air Sampling and Evaluation Guide, WSC Policy #02-430", Office of Research and Standards, Massachusetts Department of Environmental Protection, April, 2002.

What type of basement does the building have? (Circle all that apply)

Full basement Crawlspace Slab-on-grade Other (specify)

What are the characteristics of the basement? (Circle all that apply)

Finished	Basement Floor:	Foundation Walls:	Moisture:
Unfinished	Concrete	Poured concrete	Wet
Partially finished (%)	Dirt	Block	Damp
	Other (specify)	Field stone	Dry

Is a basement sump present? (Y/N) Y Is sump sealed to indoor air? (Y/N) Y

Does the basement have any of the following characteristics (e.g., preferential vapor pathways) that might permit soil vapor entry? (Circle all that apply)

Cracks Pipe/utility conduits Other (specify)
Foundation/slab drainage Sump pumps

water in basement twice over last 2½ years water comes through bulkhead & cracks in slab

Heating and Ventilation System(s) Present:

What types of heating system(s) are used in this building? (Circle all that apply)

Hot air circulation Heat pump Steam Radiation Wood stove
Other (specify) Air conditioner (central/window) Fireplace (wood/gas)

What types of fuels are used in this building? (Circle all that apply)

Natural gas Electric Coal Other (specify)
Fuel oil Wood Solar

overland water down road and in drive way

What type of mechanical ventilation systems are present and/or currently operating in this building? (Circle all that apply)

Central air conditioning Mechanical fans Bathroom vent fan
Individual air conditioning Kitchen range hood Air-to-air heat exchanger
Open windows Other (specify)

Sources of Chemical Contaminants:

Source: MaDEP, 2002, "Indoor Air Sampling and Evaluation Guide, WSC Policy #02-430", Office of Research and Standards, Massachusetts Department of Environmental Protection, April, 2002.

Which of these are present in the building?

Potential VOC Source	Location of Source	Major Ingredients	Removed Prior to Air Sampling (Y/N/NA)
Paint or paint thinners	see Attached table of		
Gas-powered equipment			
Gasoline storage cans	products identified during		
Cleaning solvents			
Air fresheners			
Oven cleaners	the Building Survey		
Carpet/ upholstery cleaners			
Hairspray			
Nail polish/ remover			
Bathroom cleaner			
Appliance cleaner			
Furniture/ floor polish			
Moth balls			
Fuel oil tank			
Wood stove			
Fireplace			
Perfume/ colognes			
Hobby supplies			
Scented potpourri, etc			
Brake cleaner			
Liquid Wrench			
Other			
Other			
Other			

Do one or more smokers occupy this building on a regular basis? N

Has anyone smoked in the building in the last 48 hours? (Y/N) N

Do the occupants frequently have clothes dry-cleaned? (Y/N) not frequent N

Any recent remodeling or repainting (Y/N, describe) N

Any obvious pressed wood products (e.g. hardwood plywood paneling, particleboard, fiberboard)? (Y/N)

Are there any new upholstery, drapes, carpets, or other textiles? (Y/N) N

Source: MaDEP, 2002, "Indoor Air Sampling and Evaluation Guide, WSC Policy #02-430", Office of Research and Standards, Massachusetts Department of Environmental Protection, April, 2002.

Has the building been treated with any insecticides/pesticides? If so, how often and what chemicals were used? NO

Do any of the occupants apply pesticides/herbicides in the yard or garden? If so, how often and what chemicals are used? NO

Outdoor Sources of Contamination:

Is there any stationary emission source in the vicinity of the building? NO

Are there any mobile emission sources (e.g., highway; bus stop; high-traffic area) in the vicinity of the building?

Bordering busy road: Washington Street; Interstates 93 & 95, each less than ½ mile to east & north

Weather Conditions During Sampling:

Outside Temperature (°F): 47 - 69

Prevailing wind direction: WNW - S

Describe the general weather conditions (e.g., sunny, cloudy, rain):

fair on 17 March 1500 until 0700 on 18 March when it was cloudy

Was there any significant precipitation (0.1 inches) within 12 hours preceding the sampling event? N

Type of ground cover (e.g., grass, pavement, etc.) outside the building: grass

General Comments

Is there any other information about the structural features of this building, the habits of its occupants or potential sources of chemical contaminants to the indoor air that may be of importance in facilitating the evaluation of the indoor air quality of the building?

Source: MaDEP, 2002, "Indoor Air Sampling and Evaluation Guide, WSC Policy #02-430", Office of Research and Standards, Massachusetts Department of Environmental Protection, April, 2002.

Consumer Product Chemical Survey Summary, Residential Structures
Wells G and H Superfund Site, Woburn, Massachusetts

Product Identified During Building Survey	Known or Suspected to Contain Target Analytes
Residential Structure #1: MBL 26/09/02 - 18 February 2011	
Ajax Cleanser with Bleach	-
Armor All Multipurpose Auto Cleaner-Old Product	-
Armor All Original Protectant	-
Armor All Gels Sytem (PowerWash & Wax-It-Dry)	-
Autoguard Gas Treatment	BTEX
Benjamin Moore REGAL PREMIUM INTERIOR 100% ACRYLIC MATTE FINISH N2	-
Black Magic Tire Wet Foam	-
Furniture Polish Wipes with Pre-Moistened Lemon Scent	BTEX
Glass Plus Cleaner	-
Heet Antifreeze/Water Remover	-
Murphy's Oil Soap	-
Payless Rain & Stain Guard	-
Pine Cleaner (off-brand)	-
Rental Equipment Company Carpet Cleaner	-
Rust Oleum Bright Coat Metallic Finish, Chrome	TEX
Rust Oleum Premium Satin Aerosol 7791 Satin White	TEX
Spectracide Stump Remover	-
Swiffer Dust & Shine	-
TAT Roach Killer	-
Tuff Stuff Multi Purpose Foam Cleaner (aerosol) 22 Fl. Oz.	-
Valspar Stone SprayPaint	-
Valspar Ultra Premium Interior Flat Base 2, 94837	-
WD 40 Aerosol Lubricant	petroleum
Residential Structure #2: MBL 26/09/03 - 28 January 2011	
Clorox Clean-Up Cleaner with Bleach	-
Clorox Toilet Wand	-
Clorox Ultra Regular Bleach	-
Finish Powerball Tablets	-
Lysol Brand Disinfecting Wipes, 4 In 1, Citrus	-
Oxygen Power Stain Remover (off-brand)	-
Purex Ultra Concentrate Natural Elements Laundry Detergent, Linen and Lillies	-
Woolite For All Colors, Fabric Wash Liquid	-

Notes:
- BTEX refers to the compounds benzene, toluene, ethylbenzene and xylenes collectively.

THE JOHNSON COMPANY, INC.
100 State Street, Suite 600
Montpelier, Vermont 05602
(802) 229-4600

DRAFT

Indoor Air Quality Building Survey

Sampler: SWB/TC Date: 17 March 2011 & 31 March 2011 JCO #:

Address: 345 Washington Street
Woburn, MA

Contact Name: Craig Ziady

List of Current Occupants/Occupation:

Age (if under 18)	Sex (m/f)	Occupation
		commercial building consisting of
		Nail gallery, hair salon, chiropractor,
		analytical lab, and store

Building Construction Characteristics:

What type of building is it? (Circle appropriate responses)

Single Family Multi-Family School (Commercial) Industrial

Ranch
Raised Ranch
Cape
Colonial
Split Level
Mobile Home

2-Family
Duplex
Apartment House (# of units ___)
Condominium (# of units ___)
(Other) (specify) Shopping Mall

General description of building construction materials: Concrete cinder block, flat, tar & gravel roof, drywall + masonry interior walls, concrete/carpet floor

Number of occupied stories: 1 Year built? 1984

Has the building been weatherized with any of the following? (Circle all that apply)

Insulation Storm windows Energy-efficient windows Other (specify)

Attached garage? (Y/N) N Vehicle(s) present? (Y/N) Y

Source: MaDEP, 2002, "Indoor Air Sampling and Evaluation Guide, WSC Policy #02-430", Office of Research and Standards, Massachusetts Department of Environmental Protection, April, 2002.

What type of basement does the building have? (Circle all that apply)

Full basement Crawlspace Slab-on-grade Other (specify) garden level in lab

What are the characteristics of the basement? (Circle all that apply)

Finished	Basement Floor:	Foundation Walls:	Moisture:
Unfinished	Concrete	Poured concrete	Wet
Partially finished (%)	Dirt	Block	Damp
	Other (specify)	Field stone	Dry

Is a basement sump present? (Y/N) _____ Is sump sealed to indoor air? (Y/N) _____

Does the basement have any of the following characteristics (e.g., preferential vapor pathways) that might permit soil vapor entry? (Circle all that apply)

observed in laboratory only"

Cracks Pipe/utility conduits Other (specify)

Foundation/slab drainage Sump pumps

Heating and Ventilation System(s) Present:

Each commercial unit has a separate HVAC system

What types of heating system(s) are used in this building? (Circle all that apply)

Hot air circulation Heat pump Steam Radiation Wood stove

Other (specify) Air conditioner (central/window) Fireplace (wood/gas)

What types of fuels are used in this building? (Circle all that apply)

Natural gas Electric Coal Other (specify)

Fuel oil Wood Solar

What type of mechanical ventilation systems are present and/or currently operating in this building? (Circle all that apply)

Central air conditioning Mechanical fans Bathroom vent fan

Individual air conditioning Kitchen range hood Air-to-air heat exchanger

Open windows Other (specify) laboratory fume hoods

Sources of Chemical Contaminants:

Source: MaDEP, 2002, "Indoor Air Sampling and Evaluation Guide, WSC Policy #02-430", Office of Research and Standards, Massachusetts Department of Environmental Protection, April, 2002.

Which of these are present in the building?

Potential VOC Source	Location of Source	Major Ingredients	Removed Prior to Air Sampling (Y/N/NA)
Paint or paint thinners	see attached table		
Gas-powered equipment			
Gasoline storage cans	of products identified		
Cleaning solvents			
Air fresheners	during building surveys		
Oven cleaners			
Carpet/ upholstery cleaners			
Hairspray			
Nail polish/ remover			
Bathroom cleaner			
Appliance cleaner			
Furniture/ floor polish			
Moth balls			
Fuel oil tank			
Wood stove			
Fireplace			
Perfume/ colognes			
Hobby supplies			
Scented potpourri, etc			
Brake cleaner			
Liquid Wrench			
Other			
Other			
Other			

Do one or more smokers occupy this building on a regular basis? No

Has anyone smoked in the building in the last 48 hours? (Y/N) NO

Do the occupants frequently have clothes dry-cleaned? (Y/N) unknown, multiple occupants & customers

Any recent remodeling or repainting (Y/N, describe) NO

Any obvious pressed wood products (e.g. hardwood plywood paneling, particleboard, fiberboard)? (Y/N) NO

Are there any new upholstery, drapes, carpets, or other textiles? (Y/N) NO

Source: MaDEP, 2002, "Indoor Air Sampling and Evaluation Guide, WSC Policy #02-430", Office of Research and Standards, Massachusetts Department of Environmental Protection, April, 2002.

Has the building been treated with any insecticides/pesticides? If so, how often and what chemicals were used? unknown

Do any of the occupants apply pesticides/herbicides in the yard or garden? If so, how often and what chemicals are used? unknown

Outdoor Sources of Contamination:

Is there any stationary emission source in the vicinity of the building? none suspected

Are there any mobile emission sources (e.g., highway; bus stop; high-traffic area) in the vicinity of the building?

Bordering busy road: Washington St; Interstates 93 & 95, each less than ½ mile to east & north; also heavy traffic on N side of bldg in parking lot throughout the day

Weather Conditions During Sampling:

Outside Temperature (°F): 36-46

Prevailing wind direction: ENE-ESE

Describe the general weather conditions (e.g., sunny, cloudy, rain):

overcast / cloudy w/ rain/snow mist starting @ 1730 on 31 March 2011

Was there any significant precipitation (0.1 inches) within 12 hours preceding the sampling event? N

Type of ground cover (e.g., grass, pavement, etc.) outside the building: paved parking

General Comments

Is there any other information about the structural features of this building, the habits of its occupants or potential sources of chemical contaminants to the indoor air that may be of importance in facilitating the evaluation of the indoor air quality of the building?

both the nail salon and laboratory store quantities of VOCs, including target VOCs, inside the occupied space.

Source: MaDEP, 2002, "Indoor Air Sampling and Evaluation Guide, WSC Policy #02-430", Office of Research and Standards, Massachusetts Department of Environmental Protection, April, 2002.

Consumer Product Chemical Survey Summary, Commercial Structures
Wells G and H Superfund Site, Woburn, Massachusetts

Product Identified During Building Survey	Known or Suspected to Contain Target Analytes
17 Cummings Park - Nail Gallery	
Divina Nail Polish Remover - Pure Acetone	-
Clorox Clean Up Cleaner with Bleach	-
Pink Paint	-
Divina Isopropyl Alcohol - 70% By Volume	-
Creative Nail Design, Inc Products	-
18 Cummings Park - Jillian's Hair Salon	
Various Hair Products	-
Matrix SoLite 20 Volume Developer	-
Olympic Premium 25-Year Premium Paint, Interior Latex Satin White	-
Americas Finest Interior Acrylic Latex Flat Wall Paint	-
19 Cummings Park - Time Communications	
Armor All On-The-Go Auto Glass Wipes	-
Monitor Wipes	-
Office Depot® Brand Cleaning Duster	-
Airwick Freshmatic Automatic Spray	-
Love My Carpet Pardon My Pet 2-in-1 Carpet & Room Deodorizer	-
Febreze Air Effects 9.7 oz	-
Ronsonol Lighter Fuel	Benzene, Aliphatics
Zippo Lighter Fluid	Aliphatics, BTX, Cyclohexane
Ronson MultiFill Butane Fuel	Aliphatic
20 Cummings Park - North Shore Spine & Rehab (Chiropractor)	
Darkroom chemicals	-
WD 40 Aerosol Lubricant	Petroleum
ALOE-SOUND LOTION	-
Diluted Alcohol for Cleaning/Sterilizing Purposes Only	-
22 Cummings Park - ProScience Analytical Services	
Febreze Air Effects 9.7 oz	-
Lysol Brand III Disinfectant Aerosol Spray, Early Morning Breeze	-
Hazardous Waste Sample Containers - Lead	-
Hazardous Waste Sample Containers - Hydrochloric Acid	-
Hazardous Waste Sample Containers - Nitric Acid	-
Acidified Rinse - Nitric Acid	-
Oxygen Canister	-
Acetylene Canister	C2 Aliphatic
1,1,2-Trichloro-1,2,2-Trifluoro-ethane	-
Ethyl Acetate	-
Methyl t-Butyl Ether	MTBE
Methanol	-
Hydrochloric Acid	-

Consumer Product Chemical Survey Summary, Commercial Structures
Wells G and H Superfund Site, Woburn, Massachusetts

Product Identified During Building Survey	Known or Suspected to Contain Target Analytes
Acetone	-
Reagent Alcohol, 200 Proof	-
Polyvinyl Butyral	-
Chloroform	Chloroform
Dichloro-methane	-
Amyl Acetate	-
Chlorobenzene	Chlorobenzene
Pyridine	-
2,2,4-Trimethyl-pentane	C8 Aliphatic
darkroom related chemicals	-
DUST-OFF DUSTER	-
SoftGUARD Hand Cream	-

Notes:

- BTEX refers to the compounds benzene, toluene, ethylbenzene and xylenes collectively.

DAILY FIELD REPORT

Geosyntec consultants
289 Great Road
Acton, Massachusetts, 01720
(978) 263-9588 Fax (978) 263-9594

Project Name: WR Grace VI Assessment
Date: 1 June 2011

Project Number: BR0200
Primary Activities: site walk
Field Personnel: Todd Creamer
260902, 260903, 260407
Recorded By: SWB
Weather: low 80's, wind from S to SSW 13-16 mph, cloudy
rain earlier

Time	Description of activities - location of work, work performed, equipment & personnel used, incidental information
1200	TC arrived @ 260902 for building walkthrough
	2 potential indoor air sources identified
	and moved to outdoor shed:
	- Thompson's Water Seal, 1 gallon
	- charcoal lighter, 1 gallon
	Owner stated: snow blower was removed
	from the residence 1-2 weeks ago.
	• using spray-lysol in the house.
	• dehumidifier running 24/7 in basement
1230	TC spoke with owner of 260903 in the kitchen
	• home operates on central air conditioning
	• no new consumer products in home
	• no new dry cleaning
1310	260407
	-17 • 4 bottles acetone in use, stored
	in fire cabinet
	• 3 cases unopened bottles stacked
	- 1 case isopropyl alcohol
	- 2 cases likely to be acetone
	-19 • no changes, 2 photos
	-20 • no new cleaning products, etc
	• does not book patients between
	12-2 pm
	-22 • no changes
	• asked Stephanie for no acetone
	use on day of IA samples (Tues)
	-17 requested subslab sampling ~7pm
1340	offsite

APPENDIX B

FIELD FORMS

DAILY FIELD REPORT

Geosyntec consultants
www.geosyntec.com

Project Name: WR Grace VI Assessment
Project Number: BR0200
Field Personnel: SB/TC
Recorded By: SMB
Weather: Fair, calm, mid 30's @ 0800, Fair wind from west @ 8 mph, 50s @ 1500

Date: 17 March 2011
Page 1 of 1
Primary Activities: Set indoor/outdoor ambient air canisters @ 260902 & 260903, performed building survey @ 260407

Time	Description of activities - location of work, work performed, equipment & personnel used, incidental information
0745	SB/TC onsite calibrating instruments & checking canister pressures @ 260902
0800	met Jamie Stapleton outside residence *
0825	opened 260902-OA p1: -0.28, p2: -30.07, I: 36"
0828	opened 260902-IA3 (1st floor) p1: -0.00, p2: -29.93, I: 37"
0829	opened 260902-IA1 p1: -0.00, p2: -29.72, I: 39"
0830	opened 260902-IA2 p1: 0.00, p2: -29.63
	opened BD01-03182011 p1: 0.00, p2: -29.84
0835	Owner removed Autoguard SGS treatment + 2 cans rustolaum
0840	outside residence discussing schedule w/ Jamie
0845	off site
1300	TC, SB, Clayton Smith, Jamie Stapleton (TRC), Craig Ziady (Cummings) REDACTED (Cummings), Joe Lemay (EPA) met for walk through of 260407
1410	Joe Lemay offsite
1435	offsite 260407
1440	onsite @ 260903
1515	opened 260903-IA1 p1: 0.00, p2: 30.21, I: 36"
1516	opened 260903-IA2 p1: 0.00, p2: 30.40, I: 44"
1523	opened 260903-OA p1: 0.00, p2: 30.10, I: 33"
1530	offsite

PID: 0 ppb/zero; 7960 ppb/10 ppm; fresh air peak @ 61 ppb

weather station: 36°F 84% humidity 30.12 in Hg

weather station: 78°F (high 50s actual) 30.07", 51% humidity; wind 3-5 mph from W/SW

PID: peak @ 12 ppb

* safety tailgate: be aware of surroundings, avoid slips trips & falls, take extra trips, stairs are narrow, watch your pathway

Daily Field Report

DAILY FIELD REPORT

Geosyntec consultants

www.geosyntec.com

Project Name: WR Grace VI Assessment
Project Number: BR0200
Field Personnel: SB/TC
Recorded By: SB
Weather: 0800: overcast, wind from SW, 50s

Date: 18 March 2011
Page 1 of 1
Primary Activities: collect OA/IA canisters @ 260902 & 260905, sub slab sample @ 260902 & 260903

Time	Description of activities - location of work, work performed, equipment & personnel used, incidental information
0745	onsite @ 260902 unloading equipment (TC/SB), Jamie Stapleton
0805	closed 260902-IA1 @ -5.78
0806	closed 260902-IA2 @ -5.78 and BD01-03182011 @ -5.52
0810	closed 260902-IA3 @ -7.73, took canisters out of house
0815	safety tailgate: take extra trips carrying, ear plugs while drilling
	safety glasses ~~& ear plugs~~ while working w/ tank & drill
0818	started drilling 260902-SS1 & SS-2
0855	finished setting probes
0925	connected @ 260902-SS2, shut-in test, purge test, 0ppm direct read from tubing
0949	opened 260902-SS2
1017	closed 260902-SS2, purge test
1030	connected @ 260902-SS1, shut-in test @ 1040, purge test
	- measured He in tedlar bag, tightened fittings, purged
	several times, tried various things 1045-1140, pulled out
	probe, redrilled hole, set probe @ 1200, lunch
1229	purge test new probe, still measured He in tedlar, see
	field form, made decision to sample, 5000 ppm (direct reading He from tubing)
1337	opened 260902-SS1
1404	closed 260902-SS1, 1410-1450 mob to 260903
(SWS) ~~1500~~ 1456	closed 260903-IA1 @ -5.95, 260903-IA2 @ -5.84
1458	closed 260903-OA @ -4.27
1520	set 260903-SS2 <5 min between drilling/sealing
1525	set 260903-SS1 <5 min between drilling/sealing
(SWS) ~~1640~~	purge test @ 260903-SS2, 38% He 100 ppm direct from tube
1640	opened 260903-SS2
1735	purge test @ 260903-SS1, BD02-03182011, direct read from tubing trends down from 900 ppm (ambient)
1736	closed 260903-SS2
1742	opened 260903-SS1, BD02-03182011
1842	closed 260903-SS1, BD02-03182011
1903	offsite

weather 1535 station
74°F (high 60s actual) 9-11 mph NNW 29.68" Hg

Daily Field Report

METER CALIBRATION

Geosyntec consultants
www.geosyntec.com

Project Name: W.R. Grace Date: 17 March 2011 Recorded By: SWB Page 1 of 1

Project Number: BR0200 Weather: PrimaryActivities:

PIDs ppb RAE Model PGM-7240 PINE ID: 7240

Serial Number		Ambient Air (ppm)	~~100ppm~~ 1000ppb Isobutylene (ppm)
250-102013	Initial Time: 0745	~~0745~~ SWB 0	9960
	Final Time: 1530	8	1020
	Initial Time:		
	~~Final Time:~~		
	Initial Time:	SWB	
	Final Time:	3/17/11	
	Initial Time:		
	Final Time:		

GEMs

Serial Number		Ambient Air			Calibration Gas			Ambient Air		
		CH_4(%)	CO_2(%)	CH_4(%)	CO_2(%)	O_2(%)	O_2(%)	CH_4:(15%)	CO_2:(15%)	O_2:(0%)
	Initial Time:									
	Final Time:									
	Initial Time:						SWB 3/17/11			
	Final Time:									
	Initial Time:									
	Final Time:									
	Initial Time:									
	Final Time:									

NOTES: —

Personnel Signature: SWB Date: 3/17/2011

Meter Calibration.xl

SOIL GAS PROBE MEASUREMENTS

Geosyntec consultants

① Project Name: WR Grace VI Assessment
Date: 18 March 2011 Project Number: BF0020
Site Location: 260902
Weather:
Field Personnel: TC/SB
Recorded By: SB

Probe No.: 260902-SS1 ☒ Sub-slab probe ☐ Soil gas probe
Mini Rae 2000 Serial No.: N/A Lamp: 10.6 / 11.7 eV
Landtech GEM 2000 Landfill Gas Meter Serial No. M: N/A
MDG 2002 Helium detector Serial No.: 17740
Tracer Gas: ☒ Helium ☐ Other UHP He

② Surface Type: ☐ Asphalt ☒ Concrete ☐ Grass ☐ Other
Surface Thickness 4.5 (inches/centimeters) ☐ Unknown
(i.e., asphalt or concrete)

③ 1 Casing Volume
☐ Sub-slab <0.1 L
Soil gas probe _____ (L)

④ Initial Vacuum (prior to pumping) N/A in. H_2O

⑤ Shut in test prior to pneumatic test completed. 54 in. H_2O held for 10 seconds.

⑥ Start of Pneumatic Test: N/A

Elapsed Time (min.)	Pump Flow Rate (LPM)	Well Head Vacuum in. H_2O
	0.1	
	0.2	
	0.5	

⑦ Field tubing blank reading (ppm_v) completed? ☐ Yes ☒ No PID Reading N/A ppm_v

⑧ Shut in test prior to purging completed? Yes ☒ No ☐

⑨ Purging

Date	Start Time	End Time	Elapsed Time (min.)	Bag Volume (L)	Purge Rate ~~(LPM)~~ mL/min	Cumulative Volume ~~(L)~~ mL	CH_4 (%)	CO_2 (%)	O_2 (%)	Tracer Gas Shroud (%) Min	Tracer Gas Shroud (%) Max	Tracer Gas Sample (ppm_v, %) (circle one)	VOCs by PID (ppm_v)
3/18/2011	1048	1050	2	1	200	400	–	–	–	38	52	7.4%	–
3/18/2011	1103	1105	2	1	200	400	–	–	–	44	48	8.7%	–
3/18/2011	1124/1139	1125/1140	1	1	200	200	–	–	–	39/36	50/48	4%/3%	–
3/18/2011	1229/1245	1230/1246	1	1	200	200	–	–	–	40/0	48/0	3%/3%	–
3/18/2011	1316	1318	2	1	200	400	–	–	–	38	45	2.3%	–

⑩ Helium concentration in field screened samples is less than 5% of minimum concentration in the shroud? ☐ Yes ☐ No
Note: 1% helium = 10,000 ppm_v

⑪ Shut in test prior to sample collection completed? Yes ☒ No ☐

⑫ Sample Collection

Date	Time	Sample ID	Summa Canister ID	Flow Controller #	Vacuum Gauge #	Initial Vacuum (in. Hg)	Final Vacuum (in. Hg)
3/18/2011	1337/1404	260902-SS1	586	0331	1	-29.57	-3.47
		SB 3/18/11					

Comments:

SGP-manual-monitoring-pneumatic testing.xls

SOIL GAS PROBE MEASUREMENTS

Geosyntec consultants

① Project Name: WR Grace VI Assessment
Date: 3/18/2011 Project Number: BR0200
Site Location: 260902
Weather:
Field Personnel: TC/SB
Recorded By: SB

Probe No.: 260902-SS2 ☒ Sub-slab probe ☐ Soil gas probe
Mini Rae 2000 Serial No.: N/A Lamp: 10.6 / 11.7 eV
Landtech GEM 2000 Landfill Gas Meter Serial No. M: N/A
MDG 2002 Helium detector Serial No.: 17740
Tracer Gas: ☒ Helium ☐ Other UHP He

② Surface Type: ☐ Asphalt ☒ Concrete ☐ Grass ☐ Other_____
Surface Thickness 4.5 inches/centimeters ☐ Unknown
(i.e., asphalt or concrete)

③ 1 Casing Volume
☐ Sub-slab <0.1 L
Soil gas probe _____ (L)

④ Initial Vacuum (prior to pumping) N/A in. H_2O

⑤ Shut in test prior to pneumatic test completed 66 in. H_2O held for 10 seconds.

⑥ Start of Pneumatic Test: N/A

Elapsed Time (min.)	Pump Flow Rate (LPM)	Well Head Vacuum in. H_2O
	0.1	
	0.2	
	0.5	

⑦ Field tubing blank reading (ppm_v) completed? ☐ Yes ☒ No PID Reading N/A ppm_v

⑧ Shut in test prior to purging completed? Yes ☒ No ☐

⑨ Purging

Date	Start Time	End Time	Elapsed Time (min.)	Bag Volume (L)	Purge Rate ~~(LPM)~~ ml/min	Cumulative Volume ~~(L)~~ ml	CH_4 (%)	CO_2 (%)	O_2 (%)	Tracer Gas Shroud (%) Min	Tracer Gas Shroud (%) Max	Tracer Gas Sample (ppm_v, %) (circle one)	VOCs by PID (ppm_v)
3/18/2011	0940	0942	2	1	200	400	–	–	–	39	48	0	–
3/18/2011	1020	1022	2	1	200	400	–	–	–	~~35~~ 25 Sub	35	825	–

Sub 3/18/11

⑩ Helium concentration in field screened samples is less than 5% of minimum concentration in the shroud? ☒ Yes ☐ No **Note:** 1% helium = 10,000 ppm_v

⑪ Shut in test prior to sample collection completed? Yes ☒ No ☐

⑫ Sample Collection

Date	Time	Sample ID	Summa Canister ID	Flow Controller #	Vacuum Gauge #	Initial Vacuum (in. Hg)	Final Vacuum (in. Hg)
3/18/2011	0949-1017	260902-SS-2	937	0038	1	-29.52	-2.84

Sub 3/18/11

Comments: ✓

SGP monitoring - pneumatic testing

SOIL GAS PROBE MEASUREMENTS

Geosyntec consultants

① Project Name: WR Grace VI Assessment
Date: 18 March 2011 Project Number: BR0200
Site Location: 260903
Weather:
Field Personnel: TC/SB
Recorded By: SB

Probe No.: 260903-SS1 ☒ Sub-slab probe ☐ Soil gas probe
Mini Rae 2000 Serial No.: N/A Lamp: 10.6 / 11.7 eV
Landtech GEM 2000 Landfill Gas Meter Serial No. M: N/A
MDG 2002 Helium detector Serial No.: 17740
Tracer Gas: ☒ Helium ☐ Other UHP He

② Surface Type: ☐ Asphalt ☒ Concrete ☐ Grass ☐ Other_____
Surface Thickness 6 inches/centimeters ☐ Unknown
(i.e., asphalt or concrete)

③ 1 Casing Volume
☐ Sub-slab <0.1 L
Soil gas probe _____ (L)

④ Initial Vacuum (prior to pumping) N/A in. H_2O

⑤ Shut in test prior to pneumatic test completed 42 in. H_2O held for 10 seconds.

⑥ Start of Pneumatic Test: N/A

Elapsed Time (min.)	Pump Flow Rate (LPM)	Well Head Vacuum in. H_2O
	0.1	
	0.2	
	0.5	

⑦ Field tubing blank reading (ppm_v) completed? ☐ Yes ☒ No PID Reading – ppm_v

⑧ Shut in test prior to purging completed? Yes ☒ No ☐

⑨ Purging

Date	Start Time	End Time	Elapsed Time (min.)	Bag Volume (L)	Purge Rate ~~(LPM)~~ ml/min	Cumulative Volume ~~(L)~~ ml	CH_4 (%)	CO_2 (%)	O_2 (%)	Tracer Gas Shroud (%) Min	Tracer Gas Shroud (%) Max	Tracer Gas Sample (ppm_v, %) (circle one)	VOCs by PID (ppm_v)
3/18/2011	~~1735~~ 1736	~~1738~~ 1738	3	1	200	600	–	–	–	36	48	0	–
	SUB												
						SUB 3/18/11							

⑩ Helium concentration in field screened samples is less than 5% of minimum concentration in the shroud? ☒ Yes ☐ No **Note:** 1% helium = 10,000 ppm_v

⑪ Shut in test prior to sample collection completed? Yes ☒ No ☐

⑫ Sample Collection

Date	Time	Sample ID	Summa Canister ID	Flow Controller #	Vacuum Gauge #	Initial Vacuum (in. Hg)	Final Vacuum (in. Hg)
3/18/2011	1742/1842	260903-SS1	725	0443	1	-29.52	-2.50
3/18/2011	1742/1842	BD02-03182011	1552	0443	1	-29.51	-2.58
–	–	–	–	–	–	–	–

Comments: –

SOIL GAS PROBE MEASUREMENTS

Geosyntec consultants

① Project Name: WR Grace VI Assessment
Date: 18 March 2011 Project Number: BP0200
Site Location: 260903
Weather:
Field Personnel: SB/TC
Recorded By: SB

Probe No.: 260903-SS2 ☒ Sub-slab probe ☐ Soil gas probe
Mini Rae 2000 Serial No.: N/A Lamp: 10.6 / 11.7 eV
Landtech GEM 2000 Landfill Gas Meter Serial No. M: N/A
MDG 2002 Helium detector Serial No.: 17740
Tracer Gas: ☒ Helium ☐ Other UHP He

② Surface Type: ☐ Asphalt ☒ Concrete ☐ Grass ☐ Other
Surface Thickness 6 inches/centimeters ☐ Unknown
(i.e., asphalt or concrete)

③ 1 Casing Volume
☐ Sub-slab <0.1 L
Soil gas probe _____ (L)

④ Initial Vacuum (prior to pumping) N/A in. H_2O

⑤ Shut in test prior to pneumatic test completed, 40 in. H_2O held for 10 seconds.

⑥ Start of Pneumatic Test:

Elapsed Time (min.)	Pump Flow Rate (LPM)	Well Head Vacuum in. H_2O
	0.1	
	0.2	
	0.5	

⑦ Field tubing blank reading (ppm_v) completed? ☐ Yes ☒ No PID Reading — ppm_v

⑧ Shut in test prior to purging completed? Yes ☒ No ☐

⑨ Purging

	Date	Start Time	End Time	Elapsed Time (min.)	Bag Volume (L)	Purge Rate (LPM)	Cumulative Volume (L)	CH_4 (%)	CO_2 (%)	O_2 (%)	Tracer Gas Shroud (%) Min	Tracer Gas Shroud (%) Max	Tracer Gas Sample (ppm_v, %) (circle one)	VOCs by PID (ppm_v)
	3/18/2011	1640	1642	2	1	200	400	–	–	–	16	20	675	–
*	3/18/2011	1752	1754	2	–	–	–	–	–	–	22	20	300-500	–
*	3/18/2011	1815	1817	2	–	–	–	–	–	–	36	36	100	–

⑩ Helium concentration in field screened samples is less than 5% of minimum concentration in the shroud? ☐ Yes ☐ No **Note: 1% helium = 10,000 ppm_v**

⑪ Shut in test prior to sample collection completed? Yes ☐ No ☐

⑫ Sample Collection

Date	Time	Sample ID	Summa Canister ID	Flow Controller #	Vacuum Gauge #	Initial Vacuum (in. Hg)	Final Vacuum (in. Hg)
3/18/2011	1645/1736	260903-SS2	1594	0442	–	-29.50	-2.46

Comments: * direct reading from tubing

AIR ANALYSIS

PAGE 1 OF 2

CHAIN OF CUSTODY

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

Date Rec'd in Lab:

ALPHA Job #:

Client Information

Client: GeoSyntec Consultants
Address: 289 Great Rd, Ste 105
Acton, MA 01720
Phone: (978) 263-9588
Fax: (978) 263-9594
Email: tcreamer@geosyntec.com

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: WR Grace VI Assessment
Project Location: Woburn, MA
Project #: 320200
Project Manager: Todd Creamer
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)

Date Due: Time:

Report Information - Data Deliverables

☐ FAX
☒ ADEx
Criteria Checker: TBD
(Default based on Regulatory Criteria Indicated)
Other Formats:
☒ EMAIL (standard pdf report)
☐ Additional Deliverables:

Report to: (if different than Project Manager)

Billing Information

☒ Same as Client info PO #: 320200

Regulatory Requirements/Report Limits

State/Fed	Program	Criteria
See	QAPP	

Other Project Specific Requirements/Comments:

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	I D Can	I D - Flow Controller	TO-14A by TO-15	TO-15	TO-15 SIM	APH	FIXED GASES	TO-13A	TO-4 / TO-10	Sample Comments (i.e. PID)
	260902-OA		0825 3/17/2011	0825 3/18/2011	-29.94	-5.19	AA	SWB	6L	811	0497			X	X				
	260902-IA1		0829 3/17/2011	0805 3/18/2011	-29.90	-5.04	AA	SWB	6L	653	0459			X	X				
	260902-IA2		0830 3/17/2011	0806 3/18/2011	-29.91	-5.00	AA	SWB	6L	620	0267			X	X				
	260902-IA3		0828 3/17/2011	0808 3/18/2011	-29.92	-7.73	AA	SWB	6L	787	0287			X	X				
	260903-OA		1523 3/17/2011	1458 3/18/2011	-29.80	-4.27	AA	SWB	6L	789	0010			X	X				
	260903-IA1		1515 3/17/2011	1456 3/18/2011	-29.80	-5.95	AA	SWB	6L	1578	0299			X	X				
	260903-IA2		1516 3/17/2011	1456 3/18/2011	-29.88	-5.84	AA	SWB	6L	936	0436			X	X				
	BD01-03182011		— 3/17/2011	— 3/18/2011	-29.92	-4.66	AA	SWB	6L	1550	0363			X	X				

SWB 3/21/11

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

Container Type

Relinquished By:	Date/Time	Received By:	Date/Time:
[signature]	3/21/2011 1400	[signature]	3/21/11 1400

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.

Form No: 101-02 (19-Jun-09)

AIR ANALYSIS

PAGE 2 OF 2

ALPHA ANALYTICAL — *CHAIN OF CUSTODY*

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

Date Rec'd in Lab:

ALPHA Job #:

Client Information

Client: Geosyntec Consultants
Address: 289 Great Road
Suite 105, Acton, MA 01720
Phone: (978) 263-9555
Fax: (978) 263-9594
Email: tcreamer@geosyntec.com

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: UR Group V Assessment
Project Location: Woburn, MA
Project #: BR0200
Project Manager: Todd Creamer
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)

Date Due: Time:

Report Information - Data Deliverables

☐ FAX
☒ ADEx
Criteria Checker: TRO
(Default based on Regulatory Criteria Indicated)
Other Formats:
☒ EMAIL (standard pdf report)
☐ Additional Deliverables:

Report to: (if different than Project Manager)

Billing Information

☒ Same as Client info PO #: BR0200

Regulatory Requirements/Report Limits

State/Fed	Program	Criteria
see	GAPP	

Other Project Specific Requirements/Comments:

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection 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	TO-15 SIM	APH	FIXED GASES	TO-13A	TO-4 / TO-10	Sample Comments (i.e. PID)
	260902-SS1	3/18/2011	1337	1404	-29.57	-3.47	SV	SWB	6L	586	0331			X	X				
	260902-SS2	3/18/2011	0949	1017	-29.52	-2.54	SV	SWB	6L	937	0038			X	X				
	260903-SS1	3/18/2011	1742	1842	-29.52	-2.50	SV	SWB	6L	725	0443			X	X				
	260903-SS2	3/18/2011	1645	1736	-29.50	-2.46	SV	SWB	6L	594	0442			X	X				
	BD02-03182011	3/18/2011	–	–	-29.51	-2.58	SV	SWB	6L	1552	-ee			X	X				
	TB01-03182011	3/18/2011	–	–	–	-29.74	AIR	–	6L	970	N/A			X	X			*	can lost a little ~~pressure~~ when reading vacuum ~~vacuum in office~~ SWB 3/22/11

SWB 3/21/11

*SAMPLE MATRIX CODES

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

Container Type

Relinquished By:	Date/Time	Received By:	Date/Time:
SWBate	3/18/2011 1400	Rec Lappe	3/[illegible] 1400

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.

Form No: 101-02 (19-Jun-09)

DAILY FIELD REPORT

Geosyntec consultants

www.geosyntec.com

Project Name: WR Grace VI Assessment
Project Number: BRC200
Field Personnel: T. Creamer, C. Sullivan, S. Baushke
Recorded By:
Weather: 0900: overcast 39°F, calm/ENE @ 1mph

Date: 31 March 2011
Page 1 of 3
Primary Activities: Summa Can Deployment For indoor Air & out Door Air Sampling

Time	Description of activities - location of work, work performed, equipment & personnel used, incidental information
0850	On Site prepping Equipment.
900	Meet w/ Charlie Foster From TRC (EPA oversight)
	weather Readings 450 FT PER MINUTE From The
	EAST / NORTH EAST.
905	Craig on Site to Meet w/ Todd
	And Talk Through "Game plan"
910	Craig off site will Return @ 930
910	Health & Safety Meeting Performed (See Attached
	Sheet)
920	Sam Prepping Suma Cans (All Cans From Alpha
	Labs 6 Liters)
920	Calibrate PPB RAE From Pine Env. (See Attached
	Sheet)
930	Craig Back on Site w/ us.
	Walk The Buildings w/ Todd to Get Sample
	ID.
	Sample IDs 260407 - OA1 - Rear Center Island Flag Pole
	260407 - OA2 - Front tree
	260407 - 19 - IA1 - Time
	260407 - 20 - IA1 - ~~[illegible]~~ CAS NSS
	260407 - 22 - IA1 - PS
945	Set 260407 - OA2 on front Tree intake is
	@ 48" PPB RAE Reads 0.0 Will open
	@ 950 initial pressure Readings Documented
948	Set 260407 - OA1 on Center Island flag pole Intake is
	@ 38" From Ground. PPB Rae Reads = 0
949	Opened OA1
950	Opened OA2

Daily Field Report

DAILY FIELD REPORT

Geosyntec consultants
www.geosyntec.com

Project Name: Wells 6 & 4
Project Number: BR0200
Field Personnel: C. Sullivan, S. Bauckey, T. Creamer
Recorded By: C. Sullivan
Weather: Over-cast 40

Date: 3/31/2010 Page 2 of 3
Primary Activities: Air Sampling

Time	Description of activities - location of work, work performed, equipment & personnel used, incidental information
0940	Todd & Charlie & Craig over to Time Communication to set can. Scheduled opening
956	opened 260407 - 19 - IA-1 (-29.40)
1010	opened 260407 - 17 - IA-1
1015	opened 260407 - 20 - IA1 (-29.70)
1020	over to Lab to set 260407 - 22 - IA1 set @ 44.5" opened @ 1021 (-29.42)
	setting 260407 - 22 - IA2 inside Lab. set @ 40" opened @ 1025 (-29.58)
1035	off site will return @ 1700 for can pick up
1700	C. Sullivan, S Bauckey & T Creamer on site. Checking outdoor air cans vacuum
1715	Checking vacuum on cans for sub slab samples to be performed tonight and / or tomorrow
	CAN - 596 -29.57 initial vac.
	CAN - 1640 -29.64 initial vac.
	CAN - 744 -29.63 initial vac.
	CAN - 1619 -29.64 initial vac
1730	Craig on site. weather reading 400 ft/s from East, 42°F, 29.85"
1742	Picked up REDACTED 2600407-19 See other Sheet. w/ Adjusted Data
1750	Picked up REDACTED 2600407-20 (-6.33)
1752	~~Picked up~~ shut REDACTED 2600407-17 (-5.42) Pick up later
1757	Picked up! REDACTED REDACTED 2600407-22 (-5.85) IA-1
1800	Picked up REDACTED #2600407-22 (-2.70) IA-2
1805	Picked up DA-2 (Washington St side) (-2.38)
1807	Picked up DA-1 (Flag Pole Rear Pk) (-7.90)

Daily Field Report

DAILY FIELD REPORT

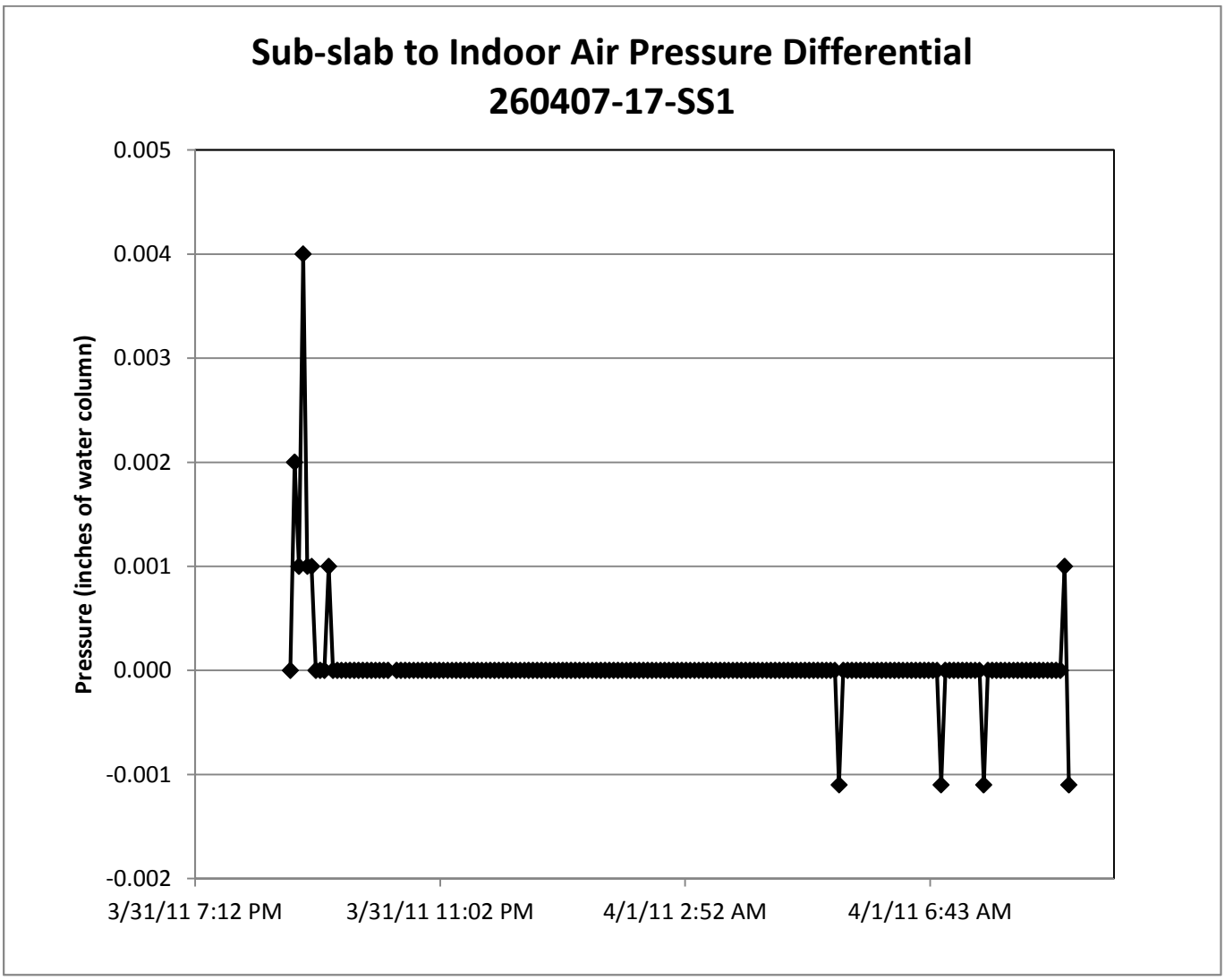
Geosyntec consultants
www.geosyntec.com

Project Name: Wells G & H
Project Number: BR0200
Field Personnel: C. Sullivan, Sam Bouchike, T. Creager
Recorded By: C. Sullivan
Weather: Overcast 40

Date: 7/21/2011
Primary Activities: Air Sampling

Time	Description of activities - location of work, work performed, equipment & personnel used, incidental information
1825	Penetrated the SLAB @ 20 Cummings
1835	Set Probe WITH Concrete
1840	Set equipment
1855	Performed leak Test. Leak Identified.
	Tighten Parts
1900	Retested. Well pressure @ 92 inches of
	water Opened Through CAN to top of
	Well. Well Steady once equilibrated
	with Pressure @ 62 inches of WATER
1911	std purge test passed, direct reading 100 ppm, shroud
	remeasured @ 11.9 % helium from tube
1918	canister opened
1935	drilled through @ 260704-17-SS1
1939	probe set @ 260407-17
2005	post sample purge @ 260407-80-SS1
2100	shut-in test @ 260407-17-SS1, purge passed (5/10)
2115	direct reading from tube @ 30% helium dropping
	from 2400 ppm, quickly
2115	opened canisters @ 260407 17-SS1 (-30.51)
2215	Shut Both Cans - 2.63" of Hg.
2240	post sampling direct reading from tube, shroud @
	24%, 300 ppm
2315	off Site

Daily Field Report


Sub-slab to Indoor Air Pressure Differential
260407-17-SS1
Pressure (inches of water column)
0.005
0.004
0.003
0.002
0.001
0.000
-0.001
-0.002
3/31/11 7:12 PM
3/31/11 11:02 PM
4/1/11 2:52 AM
4/1/11 6:43 AM

TAILGATE SAFETY MEETING REPORT

Geosyntec consultants
289 Great Road, Acton, MA 01720
Phone: 978-263-9588, Fax: 978-263-9594

Project Name:	Wells G & H	Date:	3/31/2011 Page 1 of 1
Project Number:	BR0200	Subcontractor:	NA
Field Personnel:	C. Sullivan, S Bauske	City	Woburn
(Geosyntec)		State	MA
Conducted By:	C. Sullivan	Weather:	Overcast 40°
Signature:	Chris Sullivan		

Work Summary

Placing indoor air summa cans as well as ambient out door cans. Later in day collecting sub slab soil gas samples from inside building.

Work Hazards

Slips / Trips / Falls, Active Parking lot, unknown work spaces in occupied building. Drilling later w/ Eye protection & Hand Tools.

Meeting started at:	910 (time)	Meeting ended at:	915 (time)

Name	Company	Signature
Chris Sullivan	Geosyntec	
Todd Cramer	Geosyntec	
Sam Bauske	Geosyntec	
Charlie Foster	TRC	

Geosyntec consultants

www.geosyntec.com

METER CALIBRATION

Project Name: Wells G & H Date: 3/31/2011 Recorded By: C. Sullivan Page 1 of 1

Project Number: BR0200 Weather: OVERCAST 40 PrimaryActivities: AIR & S.

PIDs

Serial Number		Ambient Air (ppm) (charcoal filter) 10 PPM	~~ppm~~ Isobutylene (ppm)
4151	Initial Time: 920	0.0	10.0 PPM
	Final Time:		
	Initial Time:		
	Final Time:		
	Initial Time:		
	Final Time:		
	Initial Time:		
	Final Time:		

GEMs

Serial Number		Ambient Air			Calibration Gas			Ambient Air		
		CH_4(%)	CO_2(%)	CH_4(%)	CO_2(%)	O_2(%)	O_2(%)	CH_4:(15%)	CO_2:(15%)	O_2:(0%)
	Initial Time:									
	Final Time:									
	Initial Time:									
	Final Time:									
	Initial Time:									
	Final Time:									
	Initial Time:									
	Final Time:									

NOTES:

Personnel Signature: [signature] Date: 3/31/2011

Meter Calibration.xls

SOIL GAS PROBE MEASUREMENTS

Geosyntec consultants

① Project Name: WR Grace VI Assessment
Date: 31 March 2011 Project Number: BR0200
Site Location: 260407-20-SS1
Weather: See DFR
Field Personnel: SWB, TC, GS
Recorded By: SWB

Probe No.: 260407-20-SS1 ☐ Sub-slab probe ☐ Soil gas probe
Mini Rae 2000 Serial No.: N/A Lamp: 10.6 / 11.7 eV
Landtech GEM 2000 Landfill Gas Meter Serial No. M: N/A
MDG 2002 Helium detector Serial No.: PINE 08228
Tracer Gas: ☒ Helium ☐ Other UHP

② Surface Type: ☐ Asphalt ☒ Concrete ☐ Grass ☐ Other____
Surface Thickness (i.e., asphalt or concrete) SWB X 5 inches/centimeters ☐ Unknown

③ 1 Casing Volume
☐ Sub-slab <0.1 L
Soil gas probe 0.4 (L)

④ Initial Vacuum (prior to pumping) — in. H_2O

⑤ Shut in test prior to pneumatic test completed 62 in. H_2O held for 10 seconds.

⑥ Start of Pneumatic Test: N/A

Elapsed Time (min.)	Pump Flow Rate (LPM)	Well Head Vacuum in. H_2O
—	0.1	—
—	0.2	—
—	0.5	—
—		—

⑦ Field tubing blank reading (ppm_v) completed? ☐ Yes ☒ No PID Reading N/A ppm_v

⑧ Shut in test prior to purging completed? Yes ☒ No ☐

⑨ Purging

Date	Start Time	End Time	Elapsed Time (min.)	Bag Volume (L)	Purge Rate (LPM)	Cumulative Volume (L)	CH_4 (%)	CO_2 (%)	O_2 (%)	Tracer Gas Shroud (%) Min	Tracer Gas Shroud (%) Max	Tracer Gas Sample (ppm_v %) (circle one)	VOCs by PID (ppm_v)
3/31/2011	1909	1911	2.25	1	0.180	0.405	—	—	—	35	37	0	—
3/31/2011	2002	2005	3	1	0.160	0.500	—	—	—	23	16	0	—

Post sample screen

⑩ Helium concentration in field screened samples is less than 5% of minimum concentration in the shroud? ☒ Yes ☐ No **Note:** 1% helium = 10,000 ppm_v

⑪ Shut in test prior to sample collection completed? Yes ☒ No ☐

⑫ Sample Collection

Date	Time	Sample ID	Summa Canister ID	Flow Controller #	Vacuum Gauge #	Initial Vacuum (in. Hg)	Final Vacuum (in. Hg)
3/31/2011	1918 1954	260407-20-SS1	1619	070	—	-29.64	-3.61

Comments:

SGP measurements - pneumatic testing.al

SOIL GAS PROBE MEASUREMENTS

Geosyntec consultants

① Project Name: WR Grace VI Assessment
Date: 31 March 2011 Project Number:
Site Location: 260407-17
Weather: see DFI
Field Personnel: SWB/CAS/TC
Recorded By: SWB

Probe No.: 260407-17-SS1 ☐ Sub-slab probe ☐ Soil gas probe
Mini Rae 2000 Serial No.: N/A Lamp: 10.6 / 11.7 eV
Landtech GEM 2000 Landfill Gas Meter Serial No. M: N/A
MDG 2002 Helium detector Serial No.: PNE: 08028
Tracer Gas: ☒ Helium ☐ Other UHP

② Surface Type: ☐ Asphalt ☒ Concrete ☐ Grass ☐ Other
Surface Thickness 5 inches/centimeters ☐ Unknown
(i.e., asphalt or concrete)

③ 1 Casing Volume
☐ Sub-slab <0.1 L
Soil gas probe 0.6 (L)

④ Initial Vacuum (prior to pumping) +0.05 in. H_2O

⑤ Shut in test prior to pneumatic test completed, 70 in. H_2O held for 10 seconds.

⑥ Start of Pneumatic Test: N/A

Elapsed Time (min.)	Pump Flow Rate (LPM)	Well Head Vacuum in. H_2O
–	0.1	–
–	0.2	–
–	0.5	–
–		–

⑦ Field tubing blank reading (ppm_v) completed? ☐ Yes ☒ No PID Reading N/A ppm_v

⑧ Shut in test prior to purging completed? Yes ☐ No ☐

⑨ Purging

Date	Start Time	End Time	Elapsed Time (min.)	Bag Volume (L)	Purge Rate (LPM)	Cumulative Volume (L)	CH_4 (%)	CO_2 (%)	O_2 (%)	Tracer Gas Shroud (%) Min	Tracer Gas Shroud (%) Max	Tracer Gas Sample (ppm_v, %) (circle one)	VOCs by PID (ppm_v)
3/31/11	2109	2112	32.5	1	0.200	0.500	–	–	–	36	41	0	–

⑩ Helium concentration in field screened samples is less than 5% of minimum concentration in the shroud? ☒ Yes ☐ No
Note: 1% helium = 10,000 ppm_v

⑪ Shut in test prior to sample collection completed? Yes ☒ No ☐

⑫ Sample Collection

Date	Time	Sample ID	Summa Canister ID	Flow Controller #	Vacuum Gauge #	Initial Vacuum (in. Hg)	Final Vacuum (in. Hg)
3/31/11	2118-	260407-17-SS1	596	0426		-29.57	
3/31/11	2118-	BD03-03312011	1640	0426		-26.64	

Comments:

SGP measurements • pneumatic testing of

DAILY FIELD REPORT

Geosyntec consultants
www.geosyntec.com

Project Name: Wells G & H
Project Number: BR0200
Field Personnel: C. Sullivan, Sam Baushke, & Todd Creamer
Recorded By: C. Sullivan
Weather: Rain / snow mix. 35°

Date: 4/1/2011
Page 1 of 2
Primary Activities: Sub slab soil gas sampling

Time	Description of activities - location of work, work performed, equipment & personnel used, incidental information
0845	C. Sullivan & Sam Baushke & Todd Creamer on site.
	prepping field work
	Sam checking pressures on cans & recording
	initial pressures.
0904	Craig on site talk game plan for todays
	work & yesterdays work
915	Setting up in 19.
925	Charlie Foster on site from TRC.
0928	started drilling @ 260407-19-SS1 vacuumed 5/8" before
0930	drilled through slab breaking through
0943	probe installed
0950	Probe set w/ concrete
	Cleaning work area & setting up canisters
1035	opened cans
1100	drilled through @ 260407-20-SS1
1109	probe set
1117	drilled through @ 260407-20-SS2
1123	probe set
1142	260407-19-SS1 closed and sealed
1150	Cleaning up & packing equipment @ 1st location.
1215	out to lunch.
	NOTE Please see other field forms for closing
	& can readings.
12.50	Back @ SS-3 setting up equipment
1300	Pressure test
1311	Opened can @ SS-3 (-29.32 initial vac)
1318	while SUMA can samples @ SS-3, setting up
	other set up @ SS-4

Daily Field Report

DAILY FIELD REPORT

Geosyntec consultants

www.geosyntec.com

Project Name: Wells G&H

Date: 4/1/2011

Project Number: BRO200

Primary Activities: Sub Slab Sampling.

Field Personnel: C. SULLIVAN, S. Baushke, T. CREAMER.

Recorded By: C. Sullivan

Weather: RAIN 35° Cold

Time	Description of activities - location of work, work performed, equipment & personnel used, incidental information
1350	Shut Can Final VACCUUM READING (-4.66)
1354	Performing ~~VACCU~~ Helium Final Test.
1359	Shut in @ 260407-22-SS2, 62" H_2O, 30S
1416	after std purge passed, direct from tube, 125 ppm
	31% in shroud
1419	opened can, guage read -28.3
1451	Shut Gauge (-3.78 VACCUUM Left)
	@ 260407-22-SS02
	Helium Check Performed on ~~ch~~ collection train.
	17.2% in Shroud & 200 PPM in Line
1500	0.014" H_2O differential pressure @ 260407-22-SS2
1525	Packing up & Heading off site

Daily Field Report

SOIL GAS PROBE MEASUREMENTS

Geosyntec consultants

① Project Name: WR Grace VI Assessment
Date: 1 April 2011 Project Number:
Site Location: 260407-19
Weather: See DFR
Field Personnel: SWB/CAS/TC
Recorded By: SWB

Probe No.: 260407-19-SS1 ☒ Sub-slab probe ☐ Soil gas probe
Mini Rae 2000 Serial No.: N/T Lamp: 10.6 / 11.7 eV
Landtech GEM 2000 Landfill Gas Meter Serial No. M: N/A
MDG 2002 Helium detector Serial No.: DNE : 08228
Tracer Gas: ☒ Helium ☐ Other UHP

② Surface Type: ☐ Asphalt ☒ Concrete ☐ Grass ☐ Other
Surface Thickness 5 inches/centimeters ☐ Unknown
(i.e., asphalt or concrete)

③ 1 Casing Volume
☐ Sub-slab <0.1 L
Soil gas probe 0.5 (L)

④ Initial Vacuum (prior to pumping) 0 in. H_2O

⑤ Shut in test prior to pneumatic test completed: 32 in. H_2O held for 10 seconds.

⑥ Start of Pneumatic Test: N/A

Elapsed Time (min.)	Pump Flow Rate (LPM)	Well Head Vacuum in. H_2O
-	0.1	-
-	0.2	-
-	0.5	-
-		-

⑦ Field tubing blank reading (ppm_v) completed? ☐ Yes ☒ No PID Reading — ppm_v

⑧ Shut in test prior to purging completed? Yes ☒ No ☐

⑨ Purging

Date	Start Time	End Time	Elapsed Time (min.)	Bag Volume (L)	Purge Rate (LPM)	Cumulative Volume (L)	CH_4 (%)	CO_2 (%)	O_2 (%)	Tracer Gas Shroud (%) Min	Tracer Gas Shroud (%) Max	Tracer Gas Sample (ppm_v, %) (circle one)	VOCs by PID (ppm_v)
4/1/2011	1027	1030	3	1	0.160	480	-	-	-	37	57	0	-

⑩ Helium concentration in field screened samples is less than 5% of minimum concentration in the shroud? ☒ Yes ☐ No **Note:** 1% helium = 10,000 ppm_v

⑪ Shut in test prior to sample collection completed? Yes ☒ No ☐

⑫ Sample Collection

Date	Time	Sample ID	Summa Canister ID	Flow Controller #	Vacuum Gauge #	Initial Vacuum (in. Hg)	Final Vacuum (in. Hg)
4/1/2011	1035-	260407-19-SS1	984	0496	-	-29.13	
4/1/2011	1035-	BD04-0401 2011	1615	0496	-	-29.98	
-	-	-	-	-	-	-	-

Comments:

SGP measurements • pneumatic testing.pdf

SOIL GAS PROBE MEASUREMENTS

Geosyntec consultants

① Project Name: Wells G & H
Date: 4/1/2011 Project Number: BR2200
Site Location: Worcester
Weather: Rain Cold 35
Field Personnel: C. Sullivan, S. Bauschke
Recorded By: C. Sullivan

Probe No.: ~~SS~~ SP-B 260407-22-SS1 ☒ Sub-slab probe ☐ Soil gas probe
Mini Rae 2000 Serial No.: N/A Lamp: 10.6 / 11.7 eV
Landtech GEM 2000 Landfill Gas Meter Serial No. M: N/A
MDG 2002 Helium detector Serial No.: 08228
Tracer Gas: ☒ Helium ☐ Other LHP

② Surface Type: ☐ Asphalt ☒ Concrete ☐ Grass ☐ Other_____
Surface Thickness 5 (inches) centimeters ☐ Unknown
(i.e., asphalt or concrete)

③ :1 Casing Volume
☐ Sub-slab <0.1 L
Soil gas probe .05 (L)

⑤ Shut in test prior to pneumatic test completed. 52 in. H_2O held for 60 seconds.

⑥ Start of Pneumatic Test: N/A

Elapsed Time (min.)	Pump Flow Rate (LPM)	Well Head Vacuum in. H_2O
–	0.1	–
–	0.2	–
–	0.5	–
–		–

④ Initial Vacuum (prior to pumping) 0.015 in. H_2O

⑦ Field tubing blank reading (ppm_v) completed? ☐ Yes ☒ No PID Reading N/A ppm_v

⑧ Shut in test prior to purging completed? Yes ☒ No ☐

⑨ Purging

Date	Start Time	End Time	Elapsed Time (min.)	Bag Volume (L)	Purge Rate (LPM)	Cumulative Volume (L)	CH_4 (%)	CO_2 (%)	O_2 (%)	Tracer Gas Shroud (%) Min	Tracer Gas Shroud (%) Max	Tracer Gas Sample (~~ppm_v~~ %) (circle one)	VOCs by PID (ppm_v)
4/1/2011	1302	1304	2.5	1	160	400	–	–	–	37.0	45.2	0	–

⑩ Helium concentration in field screened samples is less than 5% of minimum concentration in the shroud? ☒ Yes ☐ No
Note: 1% helium = 10,000 ppm_v

⑪ Shut in test prior to sample collection completed? Yes ☒ No ☐

⑫ Sample Collection

Date	Time	Sample ID	Summa Canister ID	Flow Controller #	Vacuum Gauge #	Initial Vacuum (in. Hg)	Final Vacuum (in. Hg)
4/1/2011	1311-1359	260407-22-SS01	744	0061	–	-29.14	-4.43

Comments:

SOP measurements - pneumatic testing.doc

SOIL GAS PROBE MEASUREMENTS

Geosyntec consultants

① Project Name: WR Grace VI Assessment
Date: 1 April 2011 Project Number: BR0200
Site Location: 260407-22
Weather: see DFR
Field Personnel: SWB/CAS/TC
Recorded By: SWB

Probe No.: 260407-22-SS2 ☐ Sub-slab probe ☐ Soil gas probe
Mini Rae 2000 Serial No.: N/A Lamp: 10.6 / 11.7 eV
Landtech GEM 2000 Landfill Gas Meter Serial No. M: N/A
MDG 2002 Helium detector Serial No.: PING: 08228
Tracer Gas: ☒ Helium ☐ Other UHP

② Surface Type: ☐ Asphalt ☒ Concrete ☐ Grass ☐ Other_____
Surface Thickness 5 inches/centimeters ☐ Unknown
(i.e., asphalt or concrete)

③ 1 Casing Volume
☐ Sub-slab
i<0.1 L
Soil gas probe 0.4 (L)

⑤ Shut in test prior to pneumatic test completed, 62 in. H_2O held for 30 seconds.

⑥ Start of Pneumatic Test: _____

Elapsed Time (min.)	Pump Flow Rate (LPM)	Well Head Vacuum in. H_2O
	0.1	
	0.2	
	0.5	

④ Initial Vacuum (prior to pumping) _____ in. H_2O

⑦ Field tubing blank reading (ppm_v) completed? ☐ Yes ☒ No PID Reading — ppm_v

⑧ Shut in test prior to purging completed? Yes ☒ No ☐

⑨ Purging

Date	Start Time	End Time	Elapsed Time (min.)	Bag Volume (L)	Purge Rate (LPM)	Cumulative Volume (L)	CH_4 (%)	CO_2 (%)	O_2 (%)	Tracer Gas Shroud (%) Min	Tracer Gas Shroud (%) Max	Tracer Gas Sample (ppm_v, %) (circle one)	VOCs by PID (ppm_v)
4/1/11	1410	1412	2.5	1	0.160	0.4	–	–	–	28	41	1975	–

⑩ Helium concentration in field screened samples is less than 5% of minimum concentration in the shroud? ☒ Yes ☐ No **Note:** 1% helium = 10,000 ppm_v

⑪ Shut in test prior to sample collection completed? Yes ☒ No ☐

⑫ Sample Collection

Date	Time	Sample ID	Summa Canister ID	Flow Controller #	Vacuum Gauge #	Initial Vacuum (in. Hg)	Final Vacuum (in. Hg)
4/1/2011	1418	260407-22-SS2	782	0304	–	-28.42	

Comments:

SGP measurements - pneumatic testing.xl

AIR ANALYSIS

PAGE 1 OF 2

CHAIN OF CUSTODY

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

Date Rec'd in Lab:

ALPHA Job #: L1104363

Client Information

Client: Geosyntec Consultants
Address: 289 Great Rd, Ste 105
Acton, MA 01720
Phone: (978) 263-9588
Fax: (978) 263-9594
Email: tcreamer@geosyntec.com
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: WR Grace VI Assessment
Project Location: BP0200
Project #: Woburn MA
Project Manager: Todd Creamer
ALPHA Quote #:

Turn-Around Time

☑ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due: Time:

Report Information - Data Deliverables

☐ FAX
☒ ADEx
Criteria Checker: TBD
(Default based on Regulatory Criteria Indicated)
Other Formats:
☒ EMAIL (standard pdf report)
☐ Additional Deliverables:
Report to: (if different than Project Manager)

Billing Information

☒ Same as Client info PO #: BP0200

Regulatory Requirements/Report Limits

State/Fed	Program	Criteria
See QAPP		

Other Project Specific Requirements/Comments:

All Columns Below Must Be Filled Out

ANALYSIS

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	I D Can	I D - Flow Controller	TO-14A by TO-15	~~TO-15~~ acetone ethyl acetate	TO-15 SIM	APH	FIXED GASES	TO-13A	TO-4 / TO-10	Sample Comments (i.e. PID)
-1	260407-OA1	3/31/11	0949	1807	-29.79	-7.91	AA	SWB	6L	634	0464	X		X	X				
-2	260407-OA2	3/31/11	0950	1805	-29.73	-2.20	AA	SWB	6L	1052	0112	X		X	X				
-3	260407-17-IA1	3/31/11	1010	1752	-29.72	-6.53	AA	SWB	6L	688	0335	X		X	X				
-4	260407-22-IA1	3/31/11	1021	1757	-29.60	-6.17	AA	SWB	6L	1592	0029	X		X	X				
-5	260407-22-IA2	3/31/11	1025	1800	-29.57	-3.21	AA	SWB	6L	992	0256	X		X	X				
-6	260407-20-IA1	3/31/11	1015	1750	-29.80	-6.53	AA	SWB	6L	968	0205	X		X	X				
-7	260407-19-IA1	3/31/11	0957	1742	-29.68	-3.95	AA	SWB	6L	642	0065	X		X	X				
-8	260407-17-SS1	3/31/11	2118	2215	-29.57	-1.22	SV	SWB	6L	596	0426	X		X	X				
-9	260407-22-SS1	4/1/11	1311	1350	-29.14	-4.43	SV	SWB	6L	744	0061	X		X	X				
-10	260407-22-SS2	4/1/11	1418	1451	-28.42	-3.58	SV	SWB	6L	782	0304	X		X	X				

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

Container Type

Relinquished By:	Date/Time	Received By:	Date/Time:
[signature]	4/2/2011 1150	[signature]	4-4-11 1135
[signature]	4/4/11 1330	[signature]	4/4/11 1330

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.

Form No: 101-02 (19-Jun-09)

AIR ANALYSIS

PAGE 2 OF 2

CHAIN OF CUSTODY

ALPHA ANALYTICAL

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

Date Rec'd in Lab:

ALPHA Job #: L1104363

Client Information

Client: Geosyntec Consultants
Address: 289 Great Rd, Ste 105
Acton, MA 01720
Phone: (978) 263-9588
Fax: (978) 263-9594
Email: tcreamer@geosyntec.com

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: WR Grace VI Assessment
Project Location: Woburn, MA
Project #: BR0200
Project Manager: Todd Creamer
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)

Date Due: Time:

Report Information - Data Deliverables

☐ FAX
☒ ADEx
Criteria Checker: TBD
(Default based on Regulatory Criteria Indicated)
Other Formats:
☒ EMAIL (standard pdf report)
☐ Additional Deliverables:

Report to: (if different than Project Manager)

Billing Information

☒ Same as Client info PO #: BR0200

Regulatory Requirements/Report Limits

State/Fed	Program	Criteria
See QAPP		

Other Project Specific Requirements/Comments:

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	I D Can	I D - Flow Controller	TO-14A by TO-15	~~TO-15~~ acetone ethyl acetone	TO-15 SIM	APH	FIXED GASES	TO-13A	TO-4 / TO-10	Sample Comments (i.e. PID)
-11	260407-20-SS1	3/31/11	1918	1954	-29.64	-3.61	SV	SWB	6L	1619	070		X	X	X				
-12	260407-19-SS1	4/1/11	1035	1142	-29.13	-4.32	SV	SWB	6L	984	0496		X	X	X				
-13	BD03-03312011	3/31/11	-	-	-29.64	-1.38	SV	SWB	6L	1640	tee		X	X	X				
-14	BD04-04012011	4/1/11	-	-	-29.98	-4.44	SV	SWB	6L	1615	tee		X	X	X				
-15	TB02-04012011	4/1/11	-	-	-	-	-	SWB	6L	609	-		X	X	X				

SWB 4/1/11

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

Container Type

Relinquished By:	Date/Time	Received By:	Date/Time:
[signature]	4/2/2011 1150	[signature]	4-4-11 1155
Pat Cole	4/4/11 1330	[signature]	4/4/11 1330

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.

Form No: 101-02 (19-Jun-09)

DAILY FIELD REPORT

Geosyntec consultants
289 Great Road
Acton, Massachusetts, 01720
(978) 263-9588 Fax (978) 263-9594

Project Name: WELLS G & H
Date: 6/6/2011
Page 1 of 2
Project Number: BR0200
Primary Activities: 24 INDOOR AIR Sampling @ RESIDENCES.
Field Personnel: C. Sullivan & S. Baushke
Recorded By: C. Sullivan
Weather: Sunny 70°

Time	Description of activities - location of work, work performed, equipment & personnel used, incidental information
0715	ON Site Getting SUMA CANISTERS READY For
	24 h Sampling For RESIDENCE's
0720	UNPACKING CAR.
0730	Conducted Tail GATE SAFETY MEETING. (See Attached
	Sheet)
0740	CALIBRATING PPB RAE FROM PINE ENVIORNMENTAL
	See ATTAched Sheet
0748	CALIBRATION Complete.
	NOTE DURING This Time S. Baushke measuring initial
	pressures on SUMA CANS
	CANISTER ID — Flow Controller # — Initial Vacuum
	1618 — 0428 — -28.88
	1612 — 0375 — -28.88
	1687 — 0420 — -29.11
	0594 — 0471 — -29.08
	6651 — 0193 — -28.95
	1583 — 497 — -28.95
	0961 — 0185 — -29.07
805	Finished Checking Canister Pressures. Packing
	up Truck Heading out to Residences.
810	Arrive At First Residence REDACTED 26/09/02
	Meet w/ Jamie From TRC ACTING AS USEPA OverSight.
815	Setting outdoor Ambient CAN @ 26/09/02
	Canister ID 1612, intake 37" off ground
	PPB Reading = 0.0
820	Canister open Reading -29.14 on Flow Controller
824	Canisters 1583 & 961 Placed (one w/ Dup) IN Location
	2. Both on Chairs @ 38" Above Floor

DAILY FIELD REPORT

Geosyntec consultants
289 Great Road
Acton, Massachusetts, 01720
(978) 263-9588 Fax (978) 263-9594

Project Name: Wells G & H
Project Number: BR0200
Field Personnel: C. Sullivan & S. Raeke
Recorded By: C. Sullivan
Weather: Sunny 70°

Date: 6/6/2011
Page 2 of 2
Primary Activities: Residence Air Sampling.

Time	Description of activities - location of work, work performed, equipment & personnel used, incidental information
825	opened Both Location 2 CANS
	NOTE opend. 1687 IN Location 1 IN Basement
	intake @ 40 inches. NO Detection on PPB
	Rae @ Either Location.
830	Getting Ready to Go to 26/09/03.
845	Heading over to 26/09/03
	Setting up ~~BS~~ Canister 651 for outdoor Ambient
	Sample. intake @ 37" PPB Rae = 0.0
849	Can open -29.16
850	Down To Basement. Setting up canister 594
	@ Location 1 Canister open @ 852.
	intake ontop of 5 Gal. Home Depot Bucket
	@ 37" Above Ground Surface.
855	Opened Canister 1618 @ Location 2
	intake @ 46"
900	Packing up & Heading off Site.
	NOTE WIND WAS out of West @ 41 Ft/min
	As Measured prior to Deployment of Ambient
	Cans @ Both Residences

Daily Field Report/Jan. 99

DAILY FIELD REPORT

Geosyntec consultants
289 Great Road
Acton, Massachusetts, 01720
(978) 263-9588 Fax (978) 263-9594

Project Name: Wells G & H
Project Number: BR0200
Field Personnel: C. Sullivan & S. Baushke
Recorded By: C. Sullivan
Weather: Sunny 75°

Date: 6/7/2011 Page 1 of 3
Primary Activities: Residential Indoor Air Pickup. Commercial Drop of Residential Sub Slab Sampling

Time	Description of activities - location of work, work performed, equipment & personnel used, incidental information
0710	C. Sullivan & S. Baushke Arrive on Site.
0715	Going through & Recording Intial pressures on Summa canisters.
0720	Tailgate Health & Safety Meeting See Additional Sheets.
0730	G Barr on Site & Going over Task Hazard Analysis.
0735	Calibrating Ppb RAE from Pine Environmental See Attached Sheets
740	G Barr over to Residences to pick up Lock & Chains from outside Ambient Cans for use today.
	T. Creamer on site
0755	Jamie & Jack on site for USEPA oversight.
0815	opened 1589, intake @ 38", east of cummings, OA do not disturb sign up, FC 0137, -29.58
0818	can 1538 & 1653, time connection intake FC 206 FC 174, -29.69 & -29.72, 42", 40"
0820	opened cans ppb RAE reads 141
0821	opened OA2, west of BLDG, 48" intake FC0495 can 1594, -29.61
825	unable to get into REDACTED w/ Cummings Keys will have to wait till 9:00
827	Can / Flow Controller / Vacuum
	635 / 227 / -29.71
	Set @ 20 opened @ 830 @ 44" Above Ground
	ppb Reading = 304
830	over to 22

DAILY FIELD REPORT

Geosyntec consultants
289 Great Road
Acton, Massachusetts, 01720
(978) 263-9588 Fax (978) 263-9594

Project Name: Wells G&H
Project Number: BR0200
Field Personnel: C. Sullivan & S. Barske

Date: 6/7/2011
Page 2 of 3
Primary Activities: indoor & Sub Slab Air Sampling

Recorded By: C. Sullivan
Weather: weather 75 Sunny

Time	Description of activities - location of work, work performed, equipment & personnel used, incidental information
831	Can Flow Controller Vaccum
	967 349 -29.42
	Height 49" Above Ground
	ppb = 18.3
	8:33 opend Can in 22. in Reception
835	Can Flow Controller vaccum
	985 0026 -29.74
	Height 41" Above GROUND
	PPB = 28.5
	8:36 CAN open
6913	Nail Gallery Open can #937 controller 0231
	PID: 3050 40" intake height in back room w/sample
	PID: 1200 in front lobby area
	outdoor = 0ppb

Daily Field Report/Jan. 99

DAILY FIELD REPORT

Geosyntec consultants
289 Great Road
Acton, Massachusetts, 01720
(978) 263-9588 Fax (978) 263-9594

Project Name: Wells G & H
Project Number: BR0200
Field Personnel: C. Sullivan, T. Creamer, S. Barsotti, G. Barr
Recorded By: C. Sullivan
Weather: Sunny 75°

Date: 6/7/2011
Page 3 of 3
Primary Activities: Indoor Air & Soil Gas Sampling

Time	Description of activities - location of work, work performed, equipment & personnel used, incidental information
	Attached fitting
	mixed a small amount of Rockite (cement) with water
	and put around the base of the fitting
940	Performing Shut IN TEST on sample train in
	Laundry Room. 260902-SS2-20110607
	Vaccum Held @ 58" of H_2O for >MIN.
	Field Check Good.
1220	SS1 open @ 260903 plug
1221	valve shut and probe in place
1223	SS2 open plug
1224	valve shut and probe in place
1330	Connecting sample train @ SS-1 260903
1341	Begin sample @ SS-1 with duplicate
1430	connecting sample train @ SS-2 260903
1500	Begin sampling @ SS-2
1600	TCreamer @ 260407 shutting IA/OA canisters
	and collecting them
1542	SS-2 complete, abandoned probes with probe +
	plug in place and cement on top
1650	mob to 260407 waiting for 260407-17 to
	clear out
1730	setting up @ 260407-17-SS1
1800	shut in
1812	purge
1827	opened sample
1855	closed canister
1930	off-site

Daily Field Report/Jan. 99

DAILY FIELD REPORT

Geosyntec consultants
289 Great Road
Acton, Massachusetts, 01720
(978) 263-9588 Fax (978) 263-9594

Project Name: Wells G&H
Project Number: BR0200
Field Personnel: C. Sullivan, S. Baumhke, G. Bass and T. Creamer
Recorded By: GB
Weather: 70s Sunny

Date: 6/7/2011
Page 1 of 1
Primary Activities: Indoor Air Pickup

Time	Description of activities - location of work, work performed, equipment & personnel used, incidental information
0819	Pressure = 2.85" @ 260902 - IA1 - 20110607
	Can ID: 1687 Reg ID: 420
0823	Pressure = 4.90" @ 260902 - IA2 - 20110607
	Can ID: 961, Reg ID: 0185
0823	Pressure 4.72" @ BD01 - 20110607
	Can ID: 1583, Reg ID: 497
0830	Gauge Vac. 5.11" OA can, Can ID: 260902-OA-20110607
	Can ID 1612 Controller 0375
0834	Gauge Vac. 3.39 IA1 260903
	Can 594 controller 471
0836	Gauge Vac 1.88 260903-IA2-20110607
	Can ID 1618 controller 0428
0840	Gauge Vac 5.77 OA 260903
	Can C651 controller 193

Daily Field Report/Jan. 99

DAILY FIELD REPORT

Geosyntec consultants
289 Great Road
Acton, Massachusetts, 01720
(978) 263-9588 Fax (978) 263-9594

Project Name: Wells G & H
Project Number: BR0200
Field Personnel: C. SULLIVAN, S. BAUSHKE, T. CREAMER
Recorded By: C. SULLIVAN
Weather: HOT / SUNNY 90°

Date: 6/8/2011
Page 1 of 2
Primary Activities: SUB SLAB SOIL GAS SAMPLING

Time	Description of activities - location of work, work performed, equipment & personnel used, incidental information
0730	C. Sullivan & T Creamer on site
0745	S. Baushke on site.
750	unloading equipment & bringing into 22.
810	Tailgate H&S Meeting. See attached sheet.
820	Setting up Duplicate Sample in Reception
850	Performed Shut in Test. See Attached Sheet for Purge & Sampling Records. then purge test
0910	opened canister @ 260407-22-SS1
0915	setting up for sampling at second location
0930	shut in test @ 260407-22-SS-2
0945	purge test
0954	open canisters @ 260407-22-SS2
1000	started moving to Tire Communications
1040	differential pressure @ 260407-19-SS1 0.00
1045	shut-in test hold @ 32" H_2O for 60s
1059	failed purge test @ 260407-19-SS1, checked fittings added cement to probe, changed fittings on tubing from sampling tee to gauge board, after another failing test, we had a passing test @ direct from tube
1130	opened canister @ 260407-19-SS1
1145	CAS abandoning probes @ 260407-22
1207	shut can, took lunch
1230	abonded probe, entire probe removed, moved to 260407-20-SS1
1250	installed well head, hole hopen < 1mm
1310	initial vacuum test, -0.01
1322	purge test

DAILY FIELD REPORT

Geosyntec consultants
289 Great Road
Acton, Massachusetts, 01720
(978) 263-9588 Fax (978) 263-9594

Project Name: wells G4H VI
Date: 6/8/2011

Project Number: BR0200
Primary Activities: Sub slab soil gas sampling
Field Personnel: CAS, SWB
Recorded By: SWB
Weather: hot/sunny

Time	Description of activities - location of work, work performed, equipment & personnel used, incidental information
1329	opened can
1355	closed can -4.66 on Alpha gauge
1407	filling ~~out~~ in probe/abandoning 260407-20-SS1
1430	offsite

TAILGATE SAFETY MEETING REPORT

Geosyntec consultants
289 Great Road, Acton, MA 01720
Phone: 978-263-9588, Fax: 978-263-9594

Project Name:	Wells G & H	Date:	6/6/2011 Page 1 of 1
Project Number:	BR0200	Subcontractor:	N/A
Field Personnel:	C. Sullivan & S Bausike	City	Woburn
(Geosyntec)		State	MA
Conducted By:	C. Sullivan	Weather:	Sunny 70°
Signature:	Chris Sullivan		Sam Bausike

Work Summary
INDOOR AIR SAMPLING.
Work Hazards
Active Roads UNKOWN RESIDENCES HAND TOOL SAFETY.

Meeting started at:	730 (time)	Meeting ended at:	740 (time)

Name	Company	Signature
Sam Bausike	Geosyntec	Sam Bausike

TAILGATE SAFETY MEETING REPORT

Geosyntec consultants
289 Great Road, Acton, MA 01720
Phone: 978-263-9588, Fax: 978-263-9594

Project Name:	Wells G & H	Date:	6/7/2011 Page 1 of 1
Project Number:	BR0200	Subcontractor:	N/A
Field Personnel: (Geosyntec)	C. Sullivan & S. Baushka	City	WOBURN
		State	MA
Conducted By:	C. Sullivan	Weather:	SUNNY 75°
Signature:	Chris Sul		

Work Summary

INDOOR AIR & SUB SLAB SOIL GAS SAMPLING.

Work Hazards

Pinch Points
Hand tools
potential Heat stress

Meeting started at:	720 (time)	Meeting ended at:	(time)

Name	Company	Signature
Sam Baushka	Geosyntec	[illegible]
TODD CREAMER	Geosyntec	[illegible]

TAILGATE SAFETY MEETING REPORT

Geosyntec consultants
289 Great Road, Acton, MA 01720
Phone: 978-263-9588, Fax: 978-263-9594

Project Name:	WELLS G & H	Date:	6/8/2011 Page 1 of 1
Project Number:	BRD200	Subcontractor:	N/A
Field Personnel:	C. SULLIVAN, S. BAUSHKA	City	WOBURN
(Geosyntec)	T. CREAMER	State	MA
Conducted By:	C. SULLIVAN	Weather:	SUNNY HOT 90°
Signature:	[signature]		

Work Summary

INDOOR AIR / SUB SLAB SOIL GAS SAMPLING.

Work Hazards

PRESSURIZED CYLINDERS
SLIPS / TRIPS / FALLS
UNKNOWN WORK AREAS

Meeting started at: 810 (time)	Meeting ended at: (time)

Name	Company	Signature
TODD CREAMER	Geosyntec	[signature]
SAM BAUSHKA	GEOSYNTEC	[signature]

METER CALIBRATION

Geosyntec consultants
www.geosyntec.com

Project Name: Wells G & H
Project Number: BR02000
Date: 6/6/2011
Weather: SUNNY 70°
Recorded By: C. SULLIVAN
PrimaryActivities: INDOOR AIR SAMPLING.
Page 1 of 1

PIDs

Serial Number		Ambient Air ~~(ppm)~~ (PPB)	100ppm Isobutylene ~~(ppm)~~ PPB
92590	Initial Time: 743	0	10.1
	Final Time:		
	Initial Time:		
	Final Time:		
	Initial Time:		
	Final Time:		
	Initial Time:		
	Final Time:		

GEMs

Serial Number		Ambient Air			Calibration Gas			Ambient Air		
		CH_4(%)	CO_2(%)	CH_4(%)	CO_2(%)	O_2(%)	O_2(%)	CH_4:(15%)	CO_2:(15%)	O_2:(0%)
	Initial Time:									
	Final Time:									
	Initial Time:									
	Final Time:									
	Initial Time:									
	Final Time:									
	Initial Time:									
	Final Time:									

NOTES: PINE Environmental Rental PPBRAE.

Personnel Signature: —
Date: —

Meter Calibration.xls

METER CALIBRATION

Geosyntec consultants
www.geosyntec.com

Project Name: Wells G & H
Date: 6/1/2011
Recorded By: C Sullivan
Page 1 of 1
Project Number: BR0200
Weather: Sunny 75°
PrimaryActivities: Indoor Air Sampling

PIDs

Serial Number		Ambient Air (ppb)	100ppm Isobutylene (ppm)
92590	Initial Time: 735	0.0	10.1
	Final Time:		
	Initial Time:		
	Final Time:		
	Initial Time:		
	Final Time:		
	Initial Time:		
	Final Time:		

GEMs

Serial Number		Ambient Air			Calibration Gas			Ambient Air		
		CH_4(%)	CO_2(%)	CH_4(%)	CO_2(%)	O_2(%)	O_2(%)	CH_4:(15%)	CO_2:(15%)	O_2:(0%)
	Initial Time:									
	Final Time:									
	Initial Time:									
	Final Time:									
	Initial Time:									
	Final Time:									
	Initial Time:									
	Final Time:									

NOTES:

Personnel Signature: —
Date: —

Meter Calibration.xl

SOIL GAS PROBE MEASUREMENTS

Geosyntec consultants

① Project Name: Wells G&H
Date: 07 June 2011 Project Number: BR0200
Site Location: commercial 260407-17-SS1
Weather: warm ~85F calm sunny
Field Personnel: T Creamer, C. Sullivan
Recorded By: T Creamer

Probe No.: SS-1 ☒ Sub-slab probe ☐ Soil gas probe
Mini Rae 2000 Serial No.: — Lamp: 10.6 / 11.7 eV
Landtech GEM 2000 Landfill Gas Meter Serial No. M: —
MDG 2002 Helium detector Serial No.: 10624 PINE
Tracer Gas: ☒ Helium ☐ Other CHP

② Surface Type: ☐ Asphalt ☒ Concrete ☐ Grass ☐ Other_____
Surface Thickness * see winter forms inches/centimeters ☐ Unknown
(i.e., asphalt or concrete)

③ 1 Casing Volume
☐ Sub-slab <0.1 L
Soil gas probe 0.5 (L)

④ Initial Vacuum (prior to pumping) 0.00 in. H_2O

⑤ Shut in test prior to pneumatic test completed, 60 in. H_2O held for – seconds.

⑥ Start of Pneumatic Test: —

Elapsed Time (min.)	Pump Flow Rate (LPM)	Well Head Vacuum in. H_2O
	0.1	
	0.2	
	0.5	

⑦ Field tubing blank reading (ppm_v) completed? ☐ Yes ☒ No PID Reading — ppm_v

⑧ Shut in test prior to purging completed? Yes ☒ No ☐ 60" H_2O @1800

⑨ Purging

Date	Start Time	End Time	Elapsed Time (min.)	Bag Volume (L)	Purge Rate (LPM)	Cumulative Volume (L)	CH_4 (%)	CO_2 (%)	O_2 (%)	Tracer Gas Shroud (%) Min	Tracer Gas Shroud (%) Max	Tracer Gas Sample (ppm_v, %) (circle one)	VOCs by PID (ppm_v)
2011 June 07	1812	1816	4	1L	158	0.630	–	–	–	32	52	1800 (bag) 1600 (tube)	–

⑩ Helium concentration in field screened samples is less than 5% of minimum concentration in the shroud? ☒ Yes ☐ No **Note:** 1% helium = 10,000 ppm_v

⑪ Shut in test prior to sample collection completed? Yes ☒ No ☐

⑫ Sample Collection

Date	Time	Sample ID	Summa Canister ID	Flow Controller #	Vacuum Gauge #	Initial Vacuum (in. Hg)	Final Vacuum (in. Hg)
20110607	1827 ~~1855~~ 1855	INC. 260407-17-SS1-20110607	972	332	–	-29.05	-4.68

Comments: He background 6580 ppm 1810 helium going into shroud.
door to NW corner room has been open all day 1821 28% in shroud after helium check in tube

SGP measurements - pneumatic testing.xl

SOIL GAS PROBE MEASUREMENTS

Geosyntec consultants

① Project Name: WellsGHYHV1
Date: 8 June 2011 Project Number: BR0200
Site Location: 260407-19
Weather: see DFR2
Field Personnel: SB, TC/CS
Recorded By: SB

Probe No.: SS1 ☒ Sub-slab probe ☐ Soil gas probe
Mini Rae 2000 Serial No.: – Lamp: 10.6 / 11.7 eV
Landtech GEM 2000 Landfill Gas Meter Serial No. M: –
MDG 2002 Helium detector Serial No.: 10624 pump
Tracer Gas: ☒ Helium ☐ Other UHP

② Surface Type: ☐ Asphalt ☒ Concrete ☐ Grass ☐ Other_____
Surface Thickness * see water form inches/centimeters ☐ Unknown
(i.e., asphalt or concrete)

③ 1 Casing Volume
☐ Sub-slab <0.1 L
Soil gas probe 0.5 (L)

⑤ Shut in test prior to pneumatic test completed, 32 in. H_2O held for 20 seconds.

⑥ Start of Pneumatic Test: –

Elapsed Time (min.)	Pump Flow Rate (LPM)	Well Head Vacuum in. H_2O
	0.1	
	0.2	
	0.5	

④ Initial Vacuum (prior to pumping) 0.00 in. H_2O

⑦ Field tubing blank reading (ppm_v) completed? ☐ Yes ☒ No PID Reading – ppm_v

⑧ Shut in test prior to purging completed? Yes ☒ No ☐

⑨ Purging

Date	Start Time	End Time	Elapsed Time (min.)	Bag Volume (L)	Purge Rate (LPM)	Cumulative Volume (L)	CH_4 (%)	CO_2 (%)	O_2 (%)	Tracer Gas Shroud (%) Min	Tracer Gas Shroud (%) Max	Tracer Gas Sample (ppm_v, %) (circle one)	VOCs by PID (ppm_v)
6/8/11	1054	1057	3	1	0.160	1	–	–	–	45.1	53.3	4800	–
6/8/11	1117	1121	4	1	0.160	1	–	–	–	38.8	59.2	6500	–

⑩ Helium concentration in field screened samples is less than 5% of minimum concentration in the shroud? ☒ Yes ☐ No **Note: 1% helium = 10,000 ppm_v**

⑪ Shut in test prior to sample collection completed? Yes ☒ No ☐

⑫ Sample Collection

Date	Time	Sample ID	Summa Canister ID	Flow Controller #	Vacuum Gauge #	Initial Vacuum (in. Hg)	Final Vacuum (in. Hg)
6/8/2011	1130	260407-19-SS1-20110608	787	0216	–	29.57	4.87
	1207						

Comments: ① ~~400~~ 5000 17445 ppm direct from tube 20.5% in shroud after sample
3100 ppm direct from tube 28% 2050 in tube @ 34% in shroud

SGP measurements - pneumatic testing.xl

SOIL GAS PROBE MEASUREMENTS

Geosyntec consultants

① Project Name: Wells G&H
Date: June 8, 2011 Project Number:
Site Location: 260407-20
Weather: see DFR
Field Personnel: SWB, CAS
Recorded By: SWB

Probe No.: SS-1 ☒ Sub-slab probe ☐ Soil gas probe
Mini Rae 2000 Serial No.: – Lamp: 10.6 / 11.7 eV
Landtech GEM 2000 Landfill Gas Meter Serial No. M: –
MDG 2002 Helium detector Serial No.: 10624 pine
Tracer Gas: ☒ Helium ☐ Other UHP

② Surface Type: ☐ Asphalt ☒ Concrete ☐ Grass ☐ Other
Surface Thickness see winter form inches/centimeters ☐ Unknown
(i.e., asphalt or concrete)

③ 1 Casing Volume
☐ Sub-slab <0.1 L
Soil gas probe 0.5 (L)

④ Initial Vacuum (prior to pumping) 0.01 in. H_2O negative cold air return off

⑤ Shut in test prior to pneumatic test completed, 80 in. H_2O held for 0+ seconds.

⑥ Start of Pneumatic Test: –

Elapsed Time (min.)	Pump Flow Rate (LPM)	Well Head Vacuum in. H_2O
	0.1	
	0.2	
	0.5	

⑦ Field tubing blank reading (ppm_v) completed? ☐ Yes ☒ No PID Reading – ppm_v

⑧ Shut in test prior to purging completed? Yes ☒ No ☐

⑨ Purging

Date	Start Time	End Time	Elapsed Time (min.)	Bag Volume (L)	Purge Rate (LPM)	Cumulative Volume (L)	CH_4 (%)	CO_2 (%)	O_2 (%)	Tracer Gas Shroud (%) Min	Tracer Gas Shroud (%) Max	Tracer Gas Sample (ppm_v, %) (circle one)	VOCs by PID (ppm_v)
6/8/2011	1322	1325	3	1	0.160	0.5	–	–	–	36.3	53.1	0	–

⑩ Helium concentration in field screened samples is less than 5% of minimum concentration in the shroud? ☒ Yes ☐ No **Note:** 1% helium = 10,000 ppm_v

⑪ Shut in test prior to sample collection completed? Yes ☒ No ☐

⑫ Sample Collection

Date	Time	Sample ID	Summa Canister ID	Flow Controller #	Vacuum Gauge #	Initial Vacuum (in. Hg)	Final Vacuum (in. Hg)
6/8/2011	1329	260407-20-SS1-20110608	943	0081	–	-29.32	<4.35
	1355						

Comments: * shut-in test failed suspect gauge board, Alpha gauge -5.41 stuck after shutting sample valve, direct from tube 3000 → 1900 on Fellis 1711 – [illegible]

SGP measurements - pneumatic testing.xl

SOIL GAS PROBE MEASUREMENTS

Geosyntec consultants

① Project Name: ~~WP Grace~~ TNC Wells G&H VI
Date: 260407-22 SWB Project Number: BR200
Site Location: 6/8/2011
Weather: See DF2
Field Personnel: SWB, CAS, TC
Recorded By: SWB

Probe No.: SS-1 ☒ Sub-slab probe ☐ Soil gas probe
Mini Rae 2000 Serial No.: – Lamp: 10.6 / 11.7 eV
Landtech GEM 2000 Landfill Gas Meter Serial No. M: –
MDG 2002 Helium detector Serial No.: 10624 Pine
Tracer Gas: ☒ Helium ☐ Other UHP

② Surface Type: ☐ Asphalt ☒ Concrete ☐ Grass ☐ Other____
Surface Thickness See water form inches/centimeters ☐ Unknown
(i.e., asphalt or concrete)

③ 1 Casing Volume
☐ Sub-slab <0.1 L
Soil gas probe 0.5 (L)

⑤ Shut in test prior to pneumatic test completed, 62* in. H_2O held for 0 seconds.

⑥ Start of Pneumatic Test: –

Elapsed Time (min.)	Pump Flow Rate (LPM)	Well Head Vacuum in. H_2O
	0.1	
	0.2	
	0.5	

1034am

④ Initial Vacuum (prior to pumping) <0.005 in. H_2O needle twitched left (negative) following sample collection

⑦ Field tubing blank reading (ppm_v) completed? ☐ Yes ☒ No PID Reading – ppm_v

⑧ Shut in test prior to purging completed? Yes ☒ No ☐

⑨ Purging

Date	Start Time	End Time	Elapsed Time (min.)	Bag Volume (L)	Purge Rate (LPM)	Cumulative Volume (L)	CH_4 (%)	CO_2 (%)	O_2 (%)	Tracer Gas Shroud (%) Min	Tracer Gas Shroud (%) Max	Tracer Gas Sample (ppm_v, %) (circle one)	VOCs by PID (ppm_v)
6/8/2011	0903:25	0906	3	1	0.160	0.5	–	–	–	39.8	56	1525	–

⑩ Helium concentration in field screened samples is less than 5% of minimum concentration in the shroud? ☒ Yes ☐ No **Note:** 1% helium = 10,000 ppm_v

⑪ Shut in test prior to sample collection completed? Yes ☐ No ☐

⑫ Sample Collection -4.27 gauge final vacuum (flow controller

Date	Time	Sample ID	Summa Canister ID	Flow Controller #	Vacuum Gauge #	Initial Vacuum (in. Hg)	Final Vacuum (in. Hg)
6/8/2011	0910 -	260407-~~SS1~~ 22-SS-1-20110608	1520 7535	0052	–	-29.37	-4.26
6/8/2011	0910 -	BD04-20110608	1713 8075	0052	–	-29.56	-4.24

1031 closed both cans

Comments: * slow leak isolated to gauge board, self on purge test for tightness
direct reading from tube dropped from 1525 to 850

SGP measurements - pneumatic testing.ai

SOIL GAS PROBE MEASUREMENTS

Geosyntec consultants

① Project Name: Wells G&H VI
Date: 08 June 2011 Project Number: BR0200
Site Location: 260407-22
Weather: warm, sunny, calm, 75°F
Field Personnel: SB, TC, CS
Recorded By: TZ

Probe No.: SS-2 ☒ Sub-slab probe ☐ Soil gas probe
Mini Rae 2000 Serial No.: — Lamp: 10.6 / 11.7 eV
Landtech GEM 2000 Landfill Gas Meter Serial No. M: —
MDG 2002 Helium detector Serial No.: 10624 pine
Tracer Gas: ☒ Helium ☐ Other UHP

② Surface Type: ☐ Asphalt ☒ Concrete ☐ Grass ☐ Other ____
Surface Thickness ____ inches/centimeters ☐ Unknown
(i.e., asphalt or concrete)

③ 1 Casing Volume
☐ Sub-slab <0.1 L
Soil gas probe 0.5 (L)

④ Initial Vacuum (prior to pumping) 0.03 in. H_2O negative 0925 *

⑤ Shut in test prior to pneumatic test completed, 70+ in. H_2O held for 0 seconds.

⑥ Start of Pneumatic Test: —

Elapsed Time (min.)	Pump Flow Rate (LPM)	Well Head Vacuum in. H_2O
NA	0.1	
	0.2	
	0.5	

⑦ Field tubing blank reading (ppm_v) completed? ☐ Yes ☒ No PID Reading — ppm_v

⑧ Shut in test prior to purging completed? Yes ☒ No ☐

⑨ Purging

Date	Start Time	End Time	Elapsed Time (min.)	Bag Volume (L)	Purge Rate (LPM)	Cumulative Volume (L)	CH_4 (%)	CO_2 (%)	O_2 (%)	Tracer Gas Shroud (%) Min	Tracer Gas Shroud (%) Max	Tracer Gas Sample (ppm_v, %) (circle one)	VOCs by PID (ppm_v)
6/8/11	0945	0949	4	1	0.60	0.640	—	—	—	37.6	52.3	425	—

⑩ Helium concentration in field screened samples is less than 5% of minimum concentration in the shroud? ☒ Yes ☐ No **Note:** 1% helium = 10,000 ppm_v

⑪ Shut in test prior to sample collection completed? Yes ☒ No ☐

⑫ Sample Collection

Date	Time	Sample ID	Summa Canister ID	Flow Controller #	Vacuum Gauge #	Initial Vacuum (in. Hg)	Final Vacuum (in. Hg)
6/8/11	0954	260407-22-SS2-20110608	1630	0398	—	-29.15	-1.40
closed	1026						

Comments: *4 fume hoods operating. They run on "low" at night + slow leak on shut-in test
Lab runs metals, asbestos "no organic preparation" rely on He test for shut in
direct reading from tube 425 ppm 18.6% in shroud

SGP measurements - pneumatic testing.ai

SOIL GAS PROBE MEASUREMENTS

Geosyntec consultants

① Project Name: Wells G & H
Date: 6/7/2011 Project Number: BR0200
Site Location: 260902 - SS1 - 20110607
Weather: Sunny 75
Field Personnel: T. Creamer, S. Bauschke, G. Barr, C. Sullivan
Recorded By: GB

Probe No.: SS1 ☒ Sub-slab probe ☐ Soil gas probe
Mini Rae 2000 Serial No.: — Lamp: 10.6 / 11.7 eV
Landtech GEM 2000 Landfill Gas Meter Serial No. M: NA
MDG 2002 Helium detector Serial No.: 10624 Pine Env.
Tracer Gas: ☒ Helium ☐ Other CH4

② Surface Type: ☐ Asphalt ☒ Concrete ☐ Grass ☐ Other____
Surface Thickness see winter form inches/centimeters ☐ Unknown
(i.e., asphalt or concrete)

③ 1 Casing Volume
☐ Sub-slab <0.1 L
Soil gas probe 0.5 (L)

④ Initial Vacuum (prior to pumping) 0.00 in. H_2O

⑤ Shut in test prior to pneumatic test completed, 52 in. H_2O held for ___ seconds.
2nd test = 50 in H_2O. very slight leak

⑥ Start of Pneumatic Test: —

Elapsed Time (min.)	Pump Flow Rate (LPM)	Well Head Vacuum in. H_2O
	0.1	
	0.2	
	0.5	

⑦ Field tubing blank reading (ppm_v) completed? ☐ Yes ☒ No PID Reading — ppm_v

⑧ Shut in test prior to purging completed? Yes ☒ No ☐

⑨ Purging

Date	Start Time	End Time	Elapsed Time (min.)	Bag Volume (L)	Purge Rate (LPM)	Cumulative Volume (L)	CH_4 (%)	CO_2 (%)	O_2 (%)	Tracer Gas Shroud (%) Min	Tracer Gas Shroud (%) Max	Tracer Gas Sample (ppm_v, %) (circle one)	VOCs by PID (ppm_v)
~~6/7/2011~~	~~1108~~										~~44.7%~~		GB
6/7/2011	1111	1114	3	1 L	.160	.480	—	—	—	36.9%	48.2%	0.0	—
6/7/2011	1129	1132	3	1 L	.160	.480	—	—	—	27.0%	50.2%	0.0	—

⑩ Helium concentration in field screened samples is less than 5% of minimum concentration in the shroud? ☒ Yes ☐ No **Note: 1% helium = 10,000 ppm_v**

⑪ Shut in test prior to sample collection completed? Yes ☒ No ☐

⑫ Sample Collection

Date	Time	Sample ID	Summa Canister ID	Flow Controller #	Vacuum Gauge #	Initial Vacuum (in. Hg)	Final Vacuum (in. Hg)
6/7/2011	1135 (start)	260902 - SS1 - 20110607	1569	0031	—	-29.26	-4.85
	1205 (end)						

Comments: Sample chem = 1200 ppm ; repeating purge test 2nd time, 1st test the valve was not positioned to isolate summa canister, final controller reading = 4.72 in Hg

SOP measurements - pneumatic testing.xls

SOIL GAS PROBE MEASUREMENTS

Geosyntec consultants

① Project Name: Wells G & H
Date: 6/7/2011 Project Number: BR0200
Site Location: 260902 - SS2 - 20110607
Weather: Sunny 75
Field Personnel: T. Creamer, S. Bauschke, G. Batt, C. Sullivan
Recorded By: C. Sullivan

Probe No.: SS2 ☒ Sub-slab probe ☐ Soil gas probe
Mini Rae 2000 Serial No.: Lamp: 10.6 / 11.7 eV
Landtech GEM 2000 Landfill Gas Meter Serial No. M: NA
MDG 2002 Helium detector Serial No.: GB ~~17740~~ - Pine Env. 10624
Tracer Gas: ☒ Helium ☐ Other UHP

② Surface Type: ☐ Asphalt ☒ Concrete ☐ Grass ☐ Other_____
Surface Thickness _____ inches/centimeters ☐ Unknown
(i.e., asphalt or concrete)

③ 1 Casing Volume
☐ Sub-slab 0.5 <0.1 L
Soil gas probe GB ~~720 mL~~ (L)

⑤ Shut in test prior to pneumatic test completed 58 in. H_2O held for 120 seconds.

⑥ Start of Pneumatic Test: NA

Elapsed Time (min.)	Pump Flow Rate (LPM)	Well Head Vacuum in. H_2O
	0.1	
	0.2	
	0.5	

④ Initial Vacuum (prior to pumping) — in. H_2O

⑦ Field tubing blank reading (ppm_v) completed? ☐ Yes ☒ No PID Reading _____ ppm_v

⑧ Shut in test prior to purging completed? Yes ☒ No ☐

⑨ Purging

Date	Start Time	End Time	Elapsed Time (min.)	Bag Volume (L)	Purge Rate (LPM)	Cumulative Volume (L)	CH_4 (%)	CO_2 (%)	O_2 (%)	Tracer Gas Shroud (%) Min	Tracer Gas Shroud (%) Max	Tracer Gas Sample (ppm_v, %) (circle one)	VOCs by PID (ppm_v)
6/7/2011	1030	1034.5	4.5	1 L	.160	.720	—	—	—	36.2%	43.4%	0.0	—

⑩ Helium concentration in field screened samples is less than 5% of minimum concentration in the shroud? ☒ Yes ☐ No
Note: 1% helium = 10,000 ppm_v

⑪ Shut in test prior to sample collection completed? Yes ☐ No ☒

⑫ Sample Collection

Date	Time	Sample ID	Summa Canister ID	Flow Controller #	Vacuum Gauge #	Initial Vacuum (in. Hg)	Final Vacuum (in. Hg)
6/7/2011	1035 (start)	260902-SS2-20110607	GB ~~7315~~ 1572	0295	-	-29.22	-1.88
	1107 (end)						

Comments: ambient helium reading = 250 ppm

SGP measurements - pneumatic testing.xls

SOIL GAS PROBE MEASUREMENTS

Geosyntec consultants

① Project Name: Wells G&H
Date: 6/7/2011 Project Number: B0200
Site Location: 260903
Weather: See DPR
Field Personnel: T. Creamer, S. Boughby, C. Sullivan
Recorded By: SWB

Probe No.: SS-1 ☒ Sub-slab probe ☐ Soil gas probe
Mini Rae 2000 Serial No.: — Lamp: 10.6 / 11.7 eV
Landtech GEM 2000 Landfill Gas Meter Serial No. M: —
MDG 2002 Helium detector Serial No.: 10624 Pine Env
Tracer Gas: ☒ Helium ☐ Other UHP

② Surface Type: ☐ Asphalt ☒ Concrete ☐ Grass ☐ Other_____
Surface Thickness see winter form inches/centimeters ☐ Unknown
(i.e., asphalt or concrete)

③ 1 Casing Volume
☐ Sub-slab <0.1 L
Soil gas probe 0.5 (L)

⑤ Shut in test prior to pneumatic test completed, 80* in. H_2O held for 0 seconds.

⑥ Start of Pneumatic Test: _____

Elapsed Time (min.)	Pump Flow Rate (LPM)	Well Head Vacuum in. H_2O
	0.1	
	0.2	
	0.5	

④ Initial Vacuum (prior to pumping) 0.00" in. H_2O

⑦ Field tubing blank reading (ppm_v) completed? ☐ Yes ☒ No PID Reading — ppm_v

⑧ Shut in test prior to purging completed? Yes ☒ No ☐

⑨ Purging

Date	Start Time	End Time	Elapsed Time (min.)	Bag Volume (L)	Purge Rate (LPM)	Cumulative Volume (L)	CH_4 (%)	CO_2 (%)	O_2 (%)	Tracer Gas Shroud (%) Min	Tracer Gas Shroud (%) Max	Tracer Gas Sample (ppm_v, %) (circle one)	VOCs by PID (ppm_v)
6/7/2011	1334	1337	3	1	160	0.5	—	—	—	39.2	53.0	300	—

⑩ Helium concentration in field screened samples is less than 5% of minimum concentration in the shroud? ☒ Yes ☐ No **Note:** 1% helium = 10,000 ppm_v

⑪ Shut in test prior to sample collection completed? Yes ☒ No ☐

⑫ Sample Collection

Date	Time	Sample ID	Summa Canister ID	Flow Controller #	Vacuum Gauge #	Initial Vacuum (in. Hg)	Final Vacuum (in. Hg)
6/7/2011	1334	260903-SS1-20110607	724	293	—	-28.98	-4.28
6/7/2011	1450	BD-02-20110607	1610	293	—	-29.00	-4.05

Comments: Sample tubing 1200 → 825 in tubing
* slow leak on shut-in but no helium in purge

SGP measurements - pneumatic testing.xl

SOIL GAS PROBE MEASUREMENTS

Geosyntec consultants

① Project Name: Wells G&H
Date: 07 JUNE 2011 Project Number: BR0200
Site Location: 260903
Weather: Sunny 85°F calm
Field Personnel: S Baushke, T Creamer
Recorded By: T Creamer, SB

Probe No.: SS-2 ☒ Sub-slab probe ☐ Soil gas probe
Mini Rae 2000 Serial No.: — Lamp: 10.6 / 11.7 eV
Landtech GEM 2000 Landfill Gas Meter Serial No. M: —
MDG 2002 Helium detector Serial No.: 10624 Pine
Tracer Gas: ☒ Helium ☐ Other UHP

② Surface Type: ☐ Asphalt ☒ Concrete ☐ Grass ☐ Other ____
Surface Thickness see winter form inches/centimeters ☐ Unknown
(i.e., asphalt or concrete)

③ 1 Casing Volume
☐ Sub-slab <0.1 L
Soil gas probe 0.5 (L)

④ Initial Vacuum (prior to pumping) 0.00 in. H_2O @ 1435

⑤ Shut in test prior to pneumatic test completed, N/A in. H_2O held for ___ seconds.

⑥ Start of Pneumatic Test: N/A

Elapsed Time (min.)	Pump Flow Rate (LPM)	Well Head Vacuum in. H_2O
	0.1	
	0.2	
	0.5	

⑦ Field tubing blank reading (ppm_v) completed? ☐ Yes ☒ No PID Reading ____ ppm_v

⑧ Shut in test prior to purging completed? Yes ☒ No ☐

⑨ Purging

Date	Start Time	End Time	Elapsed Time (min.)	Bag Volume (L)	Purge Rate (LPM)	Cumulative Volume (L)	CH_4 (%)	CO_2 (%)	O_2 (%)	Tracer Gas Shroud (%) Min	Tracer Gas Shroud (%) Max	Tracer Gas Sample (ppm_v, %) (circle one)	VOCs by PID (ppm_v)
07 June 2011	~~1439~~	T.C.	—	—	—	—	—	—	—	40.0	50.4	2300	—
7 June 2011	1455	1500	5	1L	160	1L	-	-	-				-

⑩ Helium concentration in field screened samples is less than 5% of minimum concentration in the shroud? ☒ Yes ☐ No **Note:** 1% helium = 10,000 ppm_v

⑪ Shut in test prior to sample collection completed? Yes ☒ No ☐

⑫ Sample Collection

Date	Time	Sample ID	Summa Canister ID	Flow Controller #	Vacuum Gauge #	Initial Vacuum (in. Hg)	Final Vacuum (in. Hg)
6/7/2011	1503-1542	260903-SS2-20110607	1676	0353	-	~~-28.98~~	~~-4.38~~
~~6/7/2011~~	~~1503~~	~~BD02-20110607~~ SWB				-28.93	-5.00 SWB

Comments: shroud ~~36~~ 36.8% after reading in tubing (direct) 0 ppm helium

SGP measurements - pneumatic testing.ai

AIR ANALYSIS

PAGE 1 OF 3

CHAIN OF CUSTODY

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

Date Rec'd in Lab:

ALPHA Job #:

Client Information

Client: Geosyntec Consultants
Address: 289 Great Rd, Ste 105
Acton, MA 01720
Phone: (978) 263-9588
Fax: (978) 263-9594
Email: tcreamer@geosyntec.com

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: WR Grace VI Assessment
Project Location: Woburn, MA
Project #: BR0200
Project Manager: Todd Creamer
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)
Mark Packard
Todd Creamer

Billing Information

☒ Same as Client info PO #: BR0200

Regulatory Requirements/Report Limits

State/Fed	Program	Criteria
	See QAPP	

Other Project Specific Requirements/Comments:

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Start Time	Collection End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	I D Can	I D - Flow Controller	TO-14A by TO-15	TO-15	TO-15 SIM	APH	FIXED GASES	TO-13A	TO-4 / TO-10	Sample Comments (i.e. PID)
	260902-IA1-20110607	6/6/11-6/7/11	6/6/11 0825	6/7/11 0819	-29.11	-2.42	AA	GB	6L	1687	420			X	X				
	260902-IA2-20110607	6/6/11-6/7/11	6/6/11 0825	6/7/11 0823	-29.07	-4.44	AA	GB	6L	961	0185			X	X				
	260902-OA-20110607	6/6/11-6/7/11	6/6/11 0820	6/7/11 0830	-28.88	-4.48	AA	GB	6L	1612	0375			X	X				
	260902-SS1-20110607	6/7/11	1135	1205	-29.26	-4.85	SV	SB	6L	1569	0031			X	X				
	260902-SS2-20110607	6/7/11	1035	1107	-29.22	-1.88	SV	TC/SB	6L	1572	0295			X	X				
	260903-IA1-20110607	6/6/11-6/7/11	6/6/11 0852	6/7/11 0834	-29.08	-2.66	AA	TC/GB	6L	594	0471			X	X				
	260903-IA2-20110607	6/6/11-6/7/11	6/6/11 0855	6/7/11 0836	-28.88	-1.31	AA	TC/GB	6L	1618	0428			X	X				
	260903-OA-20110607	6/6/11-6/7/11	6/6/11 0849	6/7/11 0840	-28.95	-5.19	AA	GB	6L	651	0193			X	X				
	260903-SS1-20110607	6/7/11	1341	1503	-28.98	-4.28	SV	SB	6L	724	293			X	X				
	260903-SS2-20110607	6/7/11	1503	1542	-28.93	-5.10	SV	SB	6L	1676	0353			X	X				

No supplemental Acetone or Ethyl Acetate analysis

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

Container Type

Relinquished By:	Date/Time	Received By:	Date/Time:
[signature]	6/9/11 1001	[signature]	6/9/11 1001

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.

Form No: 101-02 (19-Jun-09)

AIR ANALYSIS

PAGE 2 OF 3

ALPHA ANALYTICAL

CHAIN OF CUSTODY

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

Date Rec'd in Lab:

ALPHA Job #:

Client Information

Client: Geosyntec Consultants
Address: 289 Great Rd, Ste 105
Acton, MA, 01720
Phone: (978) 263-9588
Fax: (978) 263-9594
Email: tcreamer@geosyntec.com

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: WR Grace VI Assessment
Project Location: Woburn, MA
Project #: BR0200
Project Manager: Todd Creamer
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)
Mark Packard
Todd Creamer

Billing Information

☒ Same as Client info PO #: BR0200

Regulatory Requirements/Report Limits

State/Fed	Program	Criteria
	See QAPP	

Other Project Specific Requirements/Comments:

All Columns Below Must Be Filled Out

ANALYSIS

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	I D Can	I D - Flow Controller	TO-14A by TO-15	TO-15	TO-15 SIM	APH	FIXED GASES	TO-13A	TO-4 / TO-10	Sample Comments (i.e. PID)
	260407-17-IA1-20110607	6/7/11	09:3	1713	-29.62	-5.53	AA	TC	6L	937	0231			X	X				
	260407-17-SS1-20110607	6/7/11	1827	1855	-29.05	-4.48	SV	TC	6L	972	0332			X	X				
	~~260407-19-IA1-20110607~~	~~6/7/11~~	~~0820~~	~~1629~~	~~-29.71~~	~~-3.88~~	~~AA~~	~~TC~~	~~6L~~	~~635~~	~~0227~~								SWB 6/8/11
	260407-19-SS1-20110608	6/8/11	1130	1207	-29.57	-4.87	SV	SB	6L	787	0216			X	X				
	260407-20-IA1-20110607	6/7/11	0830	1629	-29.71	-3.88	AA	TC	6L	635	0277			X	X				
	260407-20-SS1-20110608	6/8/11	1329	1355	-29.32	-4.35	SV	SB	6L	943	0081			X	X				
	260407-22-IA1-20110607	6/7/11	0533	1635	-29.42	-4.08	AA	SB	6L	0349	967 (SWB)			X	X				
	260407-22-IA2-20110607	6/7/11	0836	1636	-29.74	-3.82	AA	TC	6L	985	0026			X	X				
	260407-22-SS1-20110608	6/8/11	0910	1031	-29.37	-4.26	SV	TG	6L	1520	0052			X	X				
	260407-22-SS2-20110608	6/8/11	0954	1026	-29.15	-1.40	SV	TC	6L	1630	0398			X	X				

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

Container Type

Relinquished By:	Date/Time	Received By:	Date/Time:
SWB	6/9/11 1000	[illegible]	6/9/11 1000

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.

Form No: 101-02 (19-Jun-09)

AIR ANALYSIS

PAGE 3 OF 3

ALPHA ANALYTICAL — *CHAIN OF CUSTODY*

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

Date Rec'd in Lab:

ALPHA Job #:

Client Information

Client: Geosyntec Consultants
Address: 289 Great Rd, Ste 105
Acton, MA 01720
Phone: (978) 263-9588
Fax: (978) 263-9594
Email: tcreamer@geosyntec.com

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: WR Grace VI Assessment
Project Location: Woburn, MA
Project #: BR0200
Project Manager: Todd Creamer
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)
Mark Packard
Todd Creamer

Billing Information

☒ Same as Client info PO #: BR0200

Regulatory Requirements/Report Limits

State/Fed	Program	Criteria
	See QAPP	

Other Project Specific Requirements/Comments: Do not analyze the following 5 canisters 1578, 707, 765, 1598, 970

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	I D Can	I D - Flow Controller	TO-14A by TO-15	TO-15	TO-15 SIM	APH	FIXED GASES	TO-13A	TO-4/TO-10	Sample Comments (i.e. PID)
	260407-OA1-20110607	6/7/11	0815	1621	-29.58	-4.29	AA	TC	6L	1589	0137			X	X				
	260407-OA2-20110607	6/7/11	0821	1618	-29.61	-4.52	AA	TC	6L	1594	0495			X	X				
	BD01-20110607	6/7/11	–	–	-28.95	-4.30	–	GB	6L	1583	–			X	X				X
	BD02-20110607	6/7/11	–	–	-29.00	-4.05	–	SB	6L	1610	–			X	X				X
	BD03-20110607	6/7/11	–	–	-29.72	-4.62	–	TC	6L	1653	–			X	X				
	BD04-20110608	6/8/11	–	–	-29.56	-4.24	–	SB	6L	1713	–			X	X				
	TB-20110608	6/8/11	–	–	-29.4	–	–	TC	6L	653	–			X	X				
	260407-19-IA1-20110607	6/7/11	0820	1626	-29.69	-4.06	AA	SWB	6L	1538	0206			X	X				

ANALYSIS: No supplemental acetone or ethyl acetate analysis (+)

SWB 6/9/11

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

Container Type

Relinquished By:	Date/Time	Received By:	Date/Time:
SWB	6/9/11 1000	[illegible]	6/9/11 1000

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.

Form No: 101-02 (19-Jun-09)

APPENDIX C

LABORATORY ANALYTICAL REPORTS

ANALYTICAL REPORT

Lab Number:	L1103698
Client:	GeoSyntec Consultants 289 Great Road Suite 105 Acton, MA 01720
ATTN:	Todd Creamer
Phone:	(978) 263-9588
Project Name:	WR GRACE VI ASSESSMENT
Project Number:	BR0200
Report Date:	04/04/11

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

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200

Lab Number: L1103698
Report Date: 04/04/11

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1103698-01	260902-OA	WOBURN, MA	03/18/11 08:25
L1103698-02	260902-IA1	WOBURN, MA	03/18/11 08:05
L1103698-03	260902-IA2	WOBURN, MA	03/18/11 08:06
L1103698-04	260902-IA3	WOBURN, MA	03/18/11 08:08
L1103698-05	260903-OA	WOBURN, MA	03/18/11 14:58
L1103698-06	260903-IA1	WOBURN, MA	03/18/11 14:56
L1103698-07	260903-IA2	WOBURN, MA	03/18/11 14:56
L1103698-08	BD01-03182011	WOBURN, MA	03/18/11 00:00
L1103698-09	260902-SS1	WOBURN, MA	03/18/11 14:04
L1103698-10	260902-SS2	WOBURN, MA	03/18/11 10:17
L1103698-11	260903-SS1	WOBURN, MA	03/18/11 18:42
L1103698-12	260903-SS2	WOBURN, MA	03/18/11 17:36
L1103698-13	BD02-03182011	WOBURN, MA	03/18/11 00:00
L1103698-14	TB01-03182011	WOBURN, MA	03/18/11 00:00

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1103698
Project Number: BR0200 **Report Date:** 04/04/11

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.

MCP Related Narratives

Canisters were released from the laboratory on March 15, 2011.

The canister certification data is provided as an addendum.

Volatile Organics in Air (SIM)

1,2-Dibromoethane and Naphthalene were evaluated to 1/2 the RL and are 'J' qualified if the concentration is below the quantitation limit (RDL), but greater than or equal to 1/2 the RDL. Values are estimated.

Method blank, WG460891-4, has Naphthalene which is J qualified.

The WG460891-3 LCS recovery for Naphthalene (64%) is outside the 70%-130% acceptance limit. The LCS was within overall method allowances, therefore the analysis proceeded.

Project Name:	WR GRACE VI ASSESSMENT	**Lab Number:**	L1103698
Project Number:	BR0200	**Report Date:**	04/04/11

Case Narrative (continued)

Petroleum Hydrocarbons in Air

In reference to question H:

The WG460890-3 LCS recovery for o-Xylene (131%) is outside the 70%-130% acceptance limit. Samples associated with this LCS were non-detect for o-Xylene, therefore the results were released without qualification.

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: 04/04/11

AIR

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1103698
Report Date: 04/04/11

SAMPLE RESULTS

Lab ID:	L1103698-01	Date Collected:	03/18/11 08:25
Client ID:	260902-OA	Date Received:	03/21/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/30/11 21:42		
Analyst:	BS		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	0.030	0.020	0.020	0.147	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	0.157	0.070	0.070	0.501	0.223	0.223		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.206	0.206		1
Carbon tetrachloride	0.081	0.020	0.020	0.509	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	0.021	0.020	0.020	0.102	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	0.035	0.020	0.020	0.152	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
XYLENE (TOTAL)	0.118	0.060	0.060	0.512	0.260	0.260		1
Tetrachloroethene	0.022	0.020	0.020	0.149	0.136	0.136		1
Toluene	0.235	0.050	0.050	0.885	0.188	0.188		1

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1103698
Report Date: 04/04/11

SAMPLE RESULTS

Lab ID: L1103698-01
Client ID: 260902-OA
Sample Location: WOBURN, MA

Date Collected: 03/18/11 08:25
Date Received: 03/21/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	99		60-140
bromochloromethane	100		60-140
chlorobenzene-d5	96		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1103698
Report Date: 04/04/11

SAMPLE RESULTS

Lab ID:	L1103698-02	Date Collected:	03/18/11 08:05
Client ID:	260902-IA1	Date Received:	03/21/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/30/11 22:57		
Analyst:	BS		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	2.70	0.020	0.020	13.3	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	0.321	0.020	0.020	1.30	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	0.046	0.020	0.020	0.102	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	2.93	0.070	0.070	9.35	0.223	0.223		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.206	0.206		1
Carbon tetrachloride	0.085	0.020	0.020	0.534	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	0.038	0.020	0.020	0.185	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	2.84	0.020	0.020	12.3	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	0.138	0.050	0.025	0.723	0.262	0.131		1
XYLENE (TOTAL)	12.6	0.060	0.060	54.8	0.260	0.260		1
Tetrachloroethene	0.026	0.020	0.020	0.176	0.136	0.136		1
Toluene	13.9	0.050	0.050	52.5	0.188	0.188		1

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1103698
Report Date: 04/04/11

SAMPLE RESULTS

Lab ID: L1103698-02
Client ID: 260902-IA1
Sample Location: WOBURN, MA

Date Collected: 03/18/11 08:05
Date Received: 03/21/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

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

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1103698
Report Date: 04/04/11

SAMPLE RESULTS

Lab ID:	L1103698-03	Date Collected:	03/18/11 08:06
Client ID:	260902-IA2	Date Received:	03/21/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/30/11 23:34		
Analyst:	BS		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	2.58	0.020	0.020	12.6	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	0.355	0.020	0.020	1.44	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	0.046	0.020	0.020	0.102	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	2.75	0.070	0.070	8.78	0.223	0.223		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.206	0.206		1
Carbon tetrachloride	0.096	0.020	0.020	0.603	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	0.052	0.020	0.020	0.254	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	2.69	0.020	0.020	11.7	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	0.116	0.050	0.025	0.608	0.262	0.131		1
XYLENE (TOTAL)	11.9	0.060	0.060	51.6	0.260	0.260		1
Tetrachloroethene	0.027	0.020	0.020	0.183	0.136	0.136		1
Toluene	13.5	0.050	0.050	50.7	0.188	0.188		1

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1103698
Report Date: 04/04/11

SAMPLE RESULTS

Lab ID: L1103698-03
Client ID: 260902-IA2
Sample Location: WOBURN, MA

Date Collected: 03/18/11 08:06
Date Received: 03/21/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	90		60-140
bromochloromethane	94		60-140
chlorobenzene-d5	92		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1103698
Report Date: 04/04/11

SAMPLE RESULTS

Lab ID:	L1103698-04	Date Collected:	03/18/11 08:08
Client ID:	260902-IA3	Date Received:	03/21/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/31/11 00:12		
Analyst:	BS		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	0.674	0.020	0.020	3.31	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	1.17	0.020	0.020	4.74	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	0.056	0.020	0.020	0.124	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	0.873	0.070	0.070	2.79	0.223	0.223		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.206	0.206		1
Carbon tetrachloride	0.092	0.020	0.020	0.578	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	0.047	0.020	0.020	0.229	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	0.767	0.020	0.020	3.33	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	0.051	0.050	0.025	0.267	0.262	0.131		1
XYLENE (TOTAL)	3.33	0.060	0.060	14.5	0.260	0.260		1
Tetrachloroethene	0.039	0.020	0.020	0.264	0.136	0.136		1
Toluene	3.80	0.050	0.050	14.3	0.188	0.188		1

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1103698
Report Date: 04/04/11

SAMPLE RESULTS

Lab ID: L1103698-04
Client ID: 260902-IA3
Sample Location: WOBURN, MA
Date Collected: 03/18/11 08:08
Date Received: 03/21/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	88		60-140
bromochloromethane	93		60-140
chlorobenzene-d5	88		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1103698
Report Date: 04/04/11

SAMPLE RESULTS

Lab ID:	L1103698-05	Date Collected:	03/18/11 14:58
Client ID:	260903-OA	Date Received:	03/21/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/30/11 22:20		
Analyst:	BS		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	0.032	0.020	0.020	0.157	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	0.152	0.070	0.070	0.485	0.223	0.223		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.206	0.206		1
Carbon tetrachloride	0.082	0.020	0.020	0.515	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	0.022	0.020	0.020	0.107	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	0.031	0.020	0.020	0.134	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
XYLENE (TOTAL)	0.111	0.060	0.060	0.482	0.260	0.260		1
Tetrachloroethene	0.023	0.020	0.020	0.156	0.136	0.136		1
Toluene	0.244	0.050	0.050	0.919	0.188	0.188		1

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1103698
Report Date: 04/04/11

SAMPLE RESULTS

Lab ID: L1103698-05
Client ID: 260903-OA
Sample Location: WOBURN, MA

Date Collected: 03/18/11 14:58
Date Received: 03/21/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	97		60-140
bromochloromethane	99		60-140
chlorobenzene-d5	94		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1103698
Report Date: 04/04/11

SAMPLE RESULTS

Lab ID:	L1103698-06	Date Collected:	03/18/11 14:56
Client ID:	260903-IA1	Date Received:	03/21/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/31/11 00:49		
Analyst:	BS		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	0.021	0.020	0.020	0.114	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	0.127	0.020	0.020	0.624	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	1.98	0.020	0.020	8.03	0.081	0.081		1
1,2-Dichloropropane	0.110	0.020	0.020	0.508	0.092	0.092		1
1,3-Butadiene	0.020	0.020	0.020	0.044	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	0.164	0.020	0.020	0.985	0.120	0.120		1
Benzene	0.206	0.070	0.070	0.658	0.223	0.223		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.206	0.206		1
Carbon tetrachloride	0.107	0.020	0.020	0.673	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	0.130	0.020	0.020	0.634	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	0.133	0.020	0.020	0.577	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	0.033	0.050	0.025	0.173	0.262	0.131	J	1
XYLENE (TOTAL)	0.445	0.060	0.060	1.93	0.260	0.260		1
Tetrachloroethene	0.081	0.020	0.020	0.549	0.136	0.136		1
Toluene	1.19	0.050	0.050	4.49	0.188	0.188		1

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1103698
Report Date: 04/04/11

SAMPLE RESULTS

Lab ID: L1103698-06
Client ID: 260903-IA1
Sample Location: WOBURN, MA

Date Collected: 03/18/11 14:56
Date Received: 03/21/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

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

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1103698
Report Date: 04/04/11

SAMPLE RESULTS

Lab ID: L1103698-07
Client ID: 260903-IA2
Sample Location: WOBURN, MA
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 03/31/11 01:26
Analyst: BS

Date Collected: 03/18/11 14:56
Date Received: 03/21/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	0.022	0.020	0.020	0.120	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	0.137	0.020	0.020	0.673	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	1.88	0.020	0.020	7.61	0.081	0.081		1
1,2-Dichloropropane	0.106	0.020	0.020	0.489	0.092	0.092		1
1,3-Butadiene	0.021	0.020	0.020	0.046	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	0.192	0.020	0.020	1.15	0.120	0.120		1
Benzene	0.212	0.070	0.070	0.677	0.223	0.223		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.206	0.206		1
Carbon tetrachloride	0.115	0.020	0.020	0.723	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	0.121	0.020	0.020	0.590	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	0.130	0.020	0.020	0.564	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	0.037	0.050	0.025	0.194	0.262	0.131	J	1
XYLENE (TOTAL)	0.435	0.060	0.060	1.89	0.260	0.260		1
Tetrachloroethene	0.083	0.020	0.020	0.562	0.136	0.136		1
Toluene	1.15	0.050	0.050	4.34	0.188	0.188		1

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1103698
Report Date: 04/04/11

SAMPLE RESULTS

Lab ID: L1103698-07
Client ID: 260903-IA2
Sample Location: WOBURN, MA

Date Collected: 03/18/11 14:56
Date Received: 03/21/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	94		60-140
bromochloromethane	95		60-140
chlorobenzene-d5	92		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1103698
Report Date: 04/04/11

SAMPLE RESULTS

Lab ID:	L1103698-08	Date Collected:	03/18/11 00:00
Client ID:	BD01-03182011	Date Received:	03/21/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/31/11 02:03		
Analyst:	BS		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	2.58	0.020	0.020	12.7	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	0.347	0.020	0.020	1.40	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	0.042	0.020	0.020	0.093	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	2.68	0.070	0.070	8.54	0.223	0.223		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.206	0.206		1
Carbon tetrachloride	0.090	0.020	0.020	0.566	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	0.050	0.020	0.020	0.244	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	2.72	0.020	0.020	11.8	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	0.109	0.050	0.025	0.571	0.262	0.131		1
XYLENE (TOTAL)	12.0	0.060	0.060	51.9	0.260	0.260		1
Tetrachloroethene	0.027	0.020	0.020	0.183	0.136	0.136		1
Toluene	13.8	0.050	0.050	51.9	0.188	0.188		1

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1103698
Report Date: 04/04/11

SAMPLE RESULTS

Lab ID: L1103698-08
Client ID: BD01-03182011
Sample Location: WOBURN, MA
Date Collected: 03/18/11 00:00
Date Received: 03/21/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	93		60-140
bromochloromethane	96		60-140
chlorobenzene-d5	92		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1103698
Report Date: 04/04/11

SAMPLE RESULTS

Lab ID:	L1103698-09	Date Collected:	03/18/11 14:04
Client ID:	260902-SS1	Date Received:	03/21/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/31/11 02:41		
Analyst:	BS		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	0.326	0.020	0.020	1.60	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	0.025	0.020	0.020	0.101	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	0.030	0.020	0.020	0.180	0.120	0.120		1
1,4-Dichlorobenzene	0.033	0.020	0.020	0.198	0.120	0.120		1
Benzene	0.233	0.070	0.070	0.744	0.223	0.223		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.206	0.206		1
Carbon tetrachloride	0.027	0.020	0.020	0.170	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	0.061	0.020	0.020	0.298	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	0.327	0.020	0.020	1.42	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	0.454	0.050	0.025	2.38	0.262	0.131		1
XYLENE (TOTAL)	1.93	0.060	0.060	8.38	0.260	0.260		1
Tetrachloroethene	0.038	0.020	0.020	0.258	0.136	0.136		1
Toluene	1.19	0.050	0.050	4.48	0.188	0.188		1

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1103698
Report Date: 04/04/11

SAMPLE RESULTS

Lab ID: L1103698-09
Client ID: 260902-SS1
Sample Location: WOBURN, MA
Date Collected: 03/18/11 14:04
Date Received: 03/21/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	78		60-140
bromochloromethane	96		60-140
chlorobenzene-d5	93		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1103698
Report Date: 04/04/11

SAMPLE RESULTS

Lab ID:	L1103698-10	Date Collected:	03/18/11 10:17
Client ID:	260902-SS2	Date Received:	03/21/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/31/11 03:18		
Analyst:	BS		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	0.279	0.020	0.020	1.37	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	0.020	0.020	0.020	0.044	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	0.180	0.070	0.070	0.574	0.223	0.223		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.206	0.206		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	0.323	0.020	0.020	1.58	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	0.244	0.020	0.020	1.06	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	0.111	0.020	0.020	0.400	0.072	0.072		1
Naphthalene	0.046	0.050	0.025	0.241	0.262	0.131	J	1
XYLENE (TOTAL)	1.94	0.060	0.060	8.40	0.260	0.260		1
Tetrachloroethene	0.034	0.020	0.020	0.230	0.136	0.136		1
Toluene	0.547	0.050	0.050	2.06	0.188	0.188		1

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1103698
Report Date: 04/04/11

SAMPLE RESULTS

Lab ID: L1103698-10
Client ID: 260902-SS2
Sample Location: WOBURN, MA
Date Collected: 03/18/11 10:17
Date Received: 03/21/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

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

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1103698
Report Date: 04/04/11

SAMPLE RESULTS

Lab ID:	L1103698-11	Date Collected:	03/18/11 18:42
Client ID:	260903-SS1	Date Received:	03/21/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/31/11 03:55		
Analyst:	BS		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	0.023	0.020	0.020	0.113	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	0.023	0.020	0.020	0.093	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	0.022	0.020	0.020	0.132	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.223	0.223		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.206	0.206		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	0.021	0.020	0.020	0.102	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	0.047	0.050	0.025	0.246	0.262	0.131	J	1
XYLENE (TOTAL)	0.068	0.060	0.060	0.295	0.260	0.260		1
Tetrachloroethene	0.056	0.020	0.020	0.380	0.136	0.136		1
Toluene	0.171	0.050	0.050	0.644	0.188	0.188		1

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1103698
Report Date: 04/04/11

SAMPLE RESULTS

Lab ID: L1103698-11
Client ID: 260903-SS1
Sample Location: WOBURN, MA

Date Collected: 03/18/11 18:42
Date Received: 03/21/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	88		60-140
bromochloromethane	93		60-140
chlorobenzene-d5	85		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1103698
Report Date: 04/04/11

SAMPLE RESULTS

Lab ID: L1103698-12
Client ID: 260903-SS2
Sample Location: WOBURN, MA
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15-SIM
Analytical Date: 03/31/11 05:09
Analyst: BS

Date Collected: 03/18/11 17:36
Date Received: 03/21/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	0.037	0.020	0.020	0.182	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	0.086	0.020	0.020	0.348	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	0.052	0.020	0.020	0.312	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.223	0.223		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.206	0.206		1
Carbon tetrachloride	0.025	0.020	0.020	0.157	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	1.47	0.020	0.020	7.17	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	0.028	0.020	0.020	0.121	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	0.158	0.050	0.025	0.828	0.262	0.131		1
XYLENE (TOTAL)	0.113	0.060	0.060	0.490	0.260	0.260		1
Tetrachloroethene	0.055	0.020	0.020	0.373	0.136	0.136		1
Toluene	0.213	0.050	0.050	0.802	0.188	0.188		1

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1103698
Report Date: 04/04/11

SAMPLE RESULTS

Lab ID: L1103698-12
Client ID: 260903-SS2
Sample Location: WOBURN, MA

Date Collected: 03/18/11 17:36
Date Received: 03/21/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	0.027	0.020	0.020	0.145	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

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

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1103698
Report Date: 04/04/11

SAMPLE RESULTS

Lab ID:	L1103698-13	Date Collected:	03/18/11 00:00
Client ID:	BD02-03182011	Date Received:	03/21/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/31/11 05:46		
Analyst:	BS		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	0.020	0.020	0.020	0.098	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	0.020	0.020	0.020	0.120	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.223	0.223		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.206	0.206		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	0.069	0.050	0.025	0.361	0.262	0.131		1
XYLENE (TOTAL)	0.061	0.060	0.060	0.265	0.260	0.260		1
Tetrachloroethene	0.058	0.020	0.020	0.393	0.136	0.136		1
Toluene	0.165	0.050	0.050	0.621	0.188	0.188		1

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1103698
Report Date: 04/04/11

SAMPLE RESULTS

Lab ID: L1103698-13
Client ID: BD02-03182011
Sample Location: WOBURN, MA
Date Collected: 03/18/11 00:00
Date Received: 03/21/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	77		60-140
bromochloromethane	94		60-140
chlorobenzene-d5	91		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1103698
Report Date: 04/04/11

SAMPLE RESULTS

Lab ID: L1103698-14
Client ID: TB01-03182011
Sample Location: WOBURN, MA
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15-SIM
Analytical Date: 03/31/11 14:06
Analyst: BS

Date Collected: 03/18/11 00:00
Date Received: 03/21/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.223	0.223		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.206	0.206		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.260	0.260		1
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1103698
Report Date: 04/04/11

SAMPLE RESULTS

Lab ID: L1103698-14
Client ID: TB01-03182011
Sample Location: WOBURN, MA
Date Collected: 03/18/11 00:00
Date Received: 03/21/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

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

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1103698

Project Number: BR0200 **Report Date:** 04/04/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15-SIM
Analytical Date: 03/30/11 20:28

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-14 Batch: WG460891-4								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.223	0.223		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.206	0.206		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	0.032	0.050	0.025	0.168	0.262	0.131	J	1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.260	0.260		1
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1103698

Project Number: BR0200 **Report Date:** 04/04/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15-SIM
Analytical Date: 03/30/11 20:28

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-14 Batch: WG460891-4								
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Lab Control Sample Analysis
Batch Quality Control

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1103698
Report Date: 04/04/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-14 Batch: WG460891-3								
1,1,1-Trichloroethane	102		-		70-130	-		25
1,1,2-Trichloroethane	96		-		70-130	-		25
1,1-Dichloroethane	105		-		70-130	-		25
1,1-Dichloroethene	105		-		70-130	-		25
1,2,4-Trimethylbenzene	118		-		70-130	-		25
1,2-Dibromoethane	107		-		70-130	-		25
1,2-Dichloroethane	120		-		70-130	-		25
1,2-Dichloropropane	87		-		70-130	-		25
1,3-Butadiene	98		-		70-130	-		25
1,3-Dichlorobenzene	117		-		70-130	-		25
1,4-Dichlorobenzene	111		-		70-130	-		25
Benzene	88		-		70-130	-		25
Bromodichloromethane	91		-		70-130	-		25
Bromoform	99		-		70-130	-		25
Carbon tetrachloride	113		-		70-130	-		25
Chlorobenzene	106		-		70-130	-		25
Chloroform	117		-		70-130	-		25
cis-1,2-Dichloroethene	107		-		70-130	-		25
Ethylbenzene	109		-		70-130	-		25
Methylene chloride	92		-		70-130	-		25
Methyl tert butyl ether	112		-		70-130	-		25

Lab Control Sample Analysis
Batch Quality Control

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200

Lab Number: L1103698
Report Date: 04/04/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-14 Batch: WG460891-3								
Naphthalene	**64**	Q	-		70-130	-		25
p/m-Xylene	113		-		70-130	-		25
o-Xylene	114		-		70-130	-		25
Tetrachloroethene	109		-		70-130	-		25
Toluene	90		-		70-130	-		25
trans-1,2-Dichloroethene	97		-		70-130	-		25
trans-1,3-Dichloropropene	85		-		70-130	-		25
Trichloroethene	92		-		70-130	-		25
Vinyl chloride	101		-		70-130	-		25
Isopropylbenzene	125		-		70-130	-		25

Lab Duplicate Analysis
Batch Quality Control

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200

Lab Number: L1103698
Report Date: 04/04/11

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-14 QC Batch ID: WG460891-5 QC Sample: L1103698-11 Client ID: 260903-SS1						
1,1,1-Trichloroethane	ND	ND	ppbV	NC		25
1,1,2-Trichloroethane	ND	ND	ppbV	NC		25
1,1-Dichloroethane	ND	ND	ppbV	NC		25
1,1-Dichloroethene	ND	ND	ppbV	NC		25
1,2,4-Trimethylbenzene	0.023	0.022	ppbV	4		25
1,2-Dibromoethane	ND	ND	ppbV	NC		25
1,2-Dichloroethane	0.023	0.027	ppbV	16		25
1,2-Dichloropropane	ND	ND	ppbV	NC		25
1,3-Butadiene	ND	ND	ppbV	NC		25
1,3-Dichlorobenzene	ND	ND	ppbV	NC		25
1,4-Dichlorobenzene	0.022	0.021	ppbV	5		25
Benzene	ND	ND	ppbV	NC		25
Bromodichloromethane	ND	ND	ppbV	NC		25
Bromoform	ND	ND	ppbV	NC		25
Carbon tetrachloride	ND	ND	ppbV	NC		25
Chlorobenzene	ND	ND	ppbV	NC		25
Chloroform	0.021	0.022	ppbV	5		25
cis-1,2-Dichloroethene	ND	ND	ppbV	NC		25
Ethylbenzene	ND	ND	ppbV	NC		25

Lab Duplicate Analysis
Batch Quality Control

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200

Lab Number: L1103698
Report Date: 04/04/11

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-14 QC Batch ID: WG460891-5 QC Sample: L1103698-11 Client ID: 260903-SS1					
Methylene chloride	ND	ND	ppbV	NC	25
Methyl tert butyl ether	ND	ND	ppbV	NC	25
Naphthalene	0.047J	0.049J	ppbV	NC	25
XYLENE (TOTAL)	0.068	0.072	ppbV	6	25
Tetrachloroethene	0.056	0.056	ppbV	0	25
Toluene	0.171	0.174	ppbV	2	25
trans-1,2-Dichloroethene	ND	ND	ppbV	NC	25
trans-1,3-Dichloropropene	ND	ND	ppbV	NC	25
Trichloroethene	ND	ND	ppbV	NC	25
Vinyl chloride	ND	ND	ppbV	NC	25
Isopropylbenzene	ND	ND	ppbV	NC	25

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1103698

Project Number: BR0200 **Report Date:** 04/04/11

SAMPLE RESULTS

Lab ID:	L1103698-01	Date Collected:	03/18/11 08:25
Client ID:	260902-OA	Date Received:	03/21/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	03/30/11 21:42		
Analyst:	BS		

Quality Control Information

Sample Type:	24 Hour Composite
Sample Container Type:	Canister - 6 Liter
Sampling Flow Controller:	Mechanical
Sampling Zone:	Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check:	<=20%
Were all QA/QC procedures REQUIRED by the method followed?	Yes
Were all performance/acceptance standards for the required procedures achieved?	Yes
Were significant modifications made to the method as specified in Sect 11.1.2?	No

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbons in Air - Mansfield Lab						
1,3-Butadiene	ND		ug/m3	2.0	2.0	1
Methyl tert butyl ether	ND		ug/m3	2.0	2.0	1
Benzene	ND		ug/m3	2.0	2.0	1
Toluene	ND		ug/m3	2.0	2.0	1
C5-C8 Aliphatics, Adjusted	ND		ug/m3	12	12.	1
Ethylbenzene	ND		ug/m3	2.0	2.0	1
p/m-Xylene	ND		ug/m3	4.0	4.0	1
o-Xylene	ND		ug/m3	2.0	2.0	1
Naphthalene	ND		ug/m3	2.0	2.0	1
C9-C12 Aliphatics, Adjusted	26		ug/m3	14	14.	1
C9-C10 Aromatics Total	ND		ug/m3	10	10.	1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	93		50-200
Bromochloromethane	95		50-200
Chlorobenzene-d5	92		50-200

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1103698

Project Number: BR0200 **Report Date:** 04/04/11

SAMPLE RESULTS

Lab ID:	L1103698-02	Date Collected:	03/18/11 08:05
Client ID:	260902-IA1	Date Received:	03/21/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	04/01/11 21:28		
Analyst:	BS		

Quality Control Information

Sample Type:	24 Hour Composite
Sample Container Type:	Canister - 6 Liter
Sampling Flow Controller:	Mechanical
Sampling Zone:	Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check:	<=20%
Were all QA/QC procedures REQUIRED by the method followed?	Yes
Were all performance/acceptance standards for the required procedures achieved?	Yes
Were significant modifications made to the method as specified in Sect 11.1.2?	No

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbons in Air - Mansfield Lab						
1,3-Butadiene	ND		ug/m3	2.0	2.0	1
Methyl tert butyl ether	ND		ug/m3	2.0	2.0	1
Benzene	11		ug/m3	2.0	2.0	1
Toluene	66		ug/m3	2.0	2.0	1
C5-C8 Aliphatics, Adjusted	590		ug/m3	12	12.	1
Ethylbenzene	15		ug/m3	2.0	2.0	1
p/m-Xylene	49		ug/m3	4.0	4.0	1
o-Xylene	18		ug/m3	2.0	2.0	1
Naphthalene	ND		ug/m3	2.0	2.0	1
C9-C12 Aliphatics, Adjusted	89		ug/m3	14	14.	1
C9-C10 Aromatics Total	67		ug/m3	10	10.	1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	103		50-200
Bromochloromethane	100		50-200
Chlorobenzene-d5	99		50-200

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1103698

Project Number: BR0200 **Report Date:** 04/04/11

SAMPLE RESULTS

Lab ID:	L1103698-03	Date Collected:	03/18/11 08:06
Client ID:	260902-IA2	Date Received:	03/21/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	04/01/11 22:05		
Analyst:	BS		

Quality Control Information

Sample Type:	24 Hour Composite
Sample Container Type:	Canister - 6 Liter
Sampling Flow Controller:	Mechanical
Sampling Zone:	Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check:	<=20%
Were all QA/QC procedures REQUIRED by the method followed?	Yes
Were all performance/acceptance standards for the required procedures achieved?	Yes
Were significant modifications made to the method as specified in Sect 11.1.2?	No

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbons in Air - Mansfield Lab						
1,3-Butadiene	ND		ug/m3	2.0	2.0	1
Methyl tert butyl ether	ND		ug/m3	2.0	2.0	1
Benzene	9.5		ug/m3	2.0	2.0	1
Toluene	55		ug/m3	2.0	2.0	1
C5-C8 Aliphatics, Adjusted	500		ug/m3	12	12.	1
Ethylbenzene	12		ug/m3	2.0	2.0	1
p/m-Xylene	38		ug/m3	4.0	4.0	1
o-Xylene	14		ug/m3	2.0	2.0	1
Naphthalene	ND		ug/m3	2.0	2.0	1
C9-C12 Aliphatics, Adjusted	72		ug/m3	14	14.	1
C9-C10 Aromatics Total	52		ug/m3	10	10.	1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	102		50-200
Bromochloromethane	98		50-200
Chlorobenzene-d5	100		50-200

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1103698

Project Number: BR0200 **Report Date:** 04/04/11

SAMPLE RESULTS

Lab ID:	L1103698-04	Date Collected:	03/18/11 08:08
Client ID:	260902-IA3	Date Received:	03/21/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	04/01/11 22:43		
Analyst:	BS		

Quality Control Information

Sample Type:	24 Hour Composite
Sample Container Type:	Canister - 6 Liter
Sampling Flow Controller:	Mechanical
Sampling Zone:	Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check:	<=20%
Were all QA/QC procedures REQUIRED by the method followed?	Yes
Were all performance/acceptance standards for the required procedures achieved?	Yes
Were significant modifications made to the method as specified in Sect 11.1.2?	No

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbons in Air - Mansfield Lab						
1,3-Butadiene	ND		ug/m3	2.0	2.0	1
Methyl tert butyl ether	ND		ug/m3	2.0	2.0	1
Benzene	3.2		ug/m3	2.0	2.0	1
Toluene	16		ug/m3	2.0	2.0	1
C5-C8 Aliphatics, Adjusted	190		ug/m3	12	12.	1
Ethylbenzene	3.4		ug/m3	2.0	2.0	1
p/m-Xylene	11		ug/m3	4.0	4.0	1
o-Xylene	3.9		ug/m3	2.0	2.0	1
Naphthalene	ND		ug/m3	2.0	2.0	1
C9-C12 Aliphatics, Adjusted	170		ug/m3	14	14.	1
C9-C10 Aromatics Total	14		ug/m3	10	10.	1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	106		50-200
Bromochloromethane	101		50-200
Chlorobenzene-d5	101		50-200

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1103698

Project Number: BR0200 **Report Date:** 04/04/11

SAMPLE RESULTS

Lab ID:	L1103698-05	Date Collected:	03/18/11 14:58
Client ID:	260903-OA	Date Received:	03/21/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	03/30/11 22:20		
Analyst:	BS		

Quality Control Information

Sample Type:	24 Hour Composite
Sample Container Type:	Canister - 6 Liter
Sampling Flow Controller:	Mechanical
Sampling Zone:	Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check:	<=20%
Were all QA/QC procedures REQUIRED by the method followed?	Yes
Were all performance/acceptance standards for the required procedures achieved?	Yes
Were significant modifications made to the method as specified in Sect 11.1.2?	No

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	93		50-200
Bromochloromethane	93		50-200
Chlorobenzene-d5	89		50-200

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1103698

Project Number: BR0200 **Report Date:** 04/04/11

SAMPLE RESULTS

Lab ID:	L1103698-06	Date Collected:	03/18/11 14:56
Client ID:	260903-IA1	Date Received:	03/21/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	03/31/11 00:49		
Analyst:	BS		

Quality Control Information

Sample Type:	24 Hour Composite
Sample Container Type:	Canister - 6 Liter
Sampling Flow Controller:	Mechanical
Sampling Zone:	Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check:	<=20%
Were all QA/QC procedures REQUIRED by the method followed?	Yes
Were all performance/acceptance standards for the required procedures achieved?	Yes
Were significant modifications made to the method as specified in Sect 11.1.2?	No

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbons in Air - Mansfield Lab						
1,3-Butadiene	ND		ug/m3	2.0	2.0	1
Methyl tert butyl ether	ND		ug/m3	2.0	2.0	1
Benzene	ND		ug/m3	2.0	2.0	1
Toluene	5.2		ug/m3	2.0	2.0	1
C5-C8 Aliphatics, Adjusted	110		ug/m3	12	12.	1
Ethylbenzene	ND		ug/m3	2.0	2.0	1
p/m-Xylene	ND		ug/m3	4.0	4.0	1
o-Xylene	ND		ug/m3	2.0	2.0	1
Naphthalene	ND		ug/m3	2.0	2.0	1
C9-C12 Aliphatics, Adjusted	83		ug/m3	14	14.	1
C9-C10 Aromatics Total	ND		ug/m3	10	10.	1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	94		50-200
Bromochloromethane	95		50-200
Chlorobenzene-d5	92		50-200

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1103698

Project Number: BR0200 **Report Date:** 04/04/11

SAMPLE RESULTS

Lab ID:	L1103698-07	Date Collected:	03/18/11 14:56
Client ID:	260903-IA2	Date Received:	03/21/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	03/31/11 01:26		
Analyst:	BS		

Quality Control Information

Sample Type:	24 Hour Composite
Sample Container Type:	Canister - 6 Liter
Sampling Flow Controller:	Mechanical
Sampling Zone:	Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check:	<=20%
Were all QA/QC procedures REQUIRED by the method followed?	Yes
Were all performance/acceptance standards for the required procedures achieved?	Yes
Were significant modifications made to the method as specified in Sect 11.1.2?	No

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbons in Air - Mansfield Lab						
1,3-Butadiene	ND		ug/m3	2.0	2.0	1
Methyl tert butyl ether	ND		ug/m3	2.0	2.0	1
Benzene	ND		ug/m3	2.0	2.0	1
Toluene	5.1		ug/m3	2.0	2.0	1
C5-C8 Aliphatics, Adjusted	110		ug/m3	12	12.	1
Ethylbenzene	ND		ug/m3	2.0	2.0	1
p/m-Xylene	ND		ug/m3	4.0	4.0	1
o-Xylene	ND		ug/m3	2.0	2.0	1
Naphthalene	ND		ug/m3	2.0	2.0	1
C9-C12 Aliphatics, Adjusted	80		ug/m3	14	14.	1
C9-C10 Aromatics Total	ND		ug/m3	10	10.	1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	89		50-200
Bromochloromethane	92		50-200
Chlorobenzene-d5	88		50-200

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1103698

Project Number: BR0200 **Report Date:** 04/04/11

SAMPLE RESULTS

Lab ID:	L1103698-08	Date Collected:	03/18/11 00:00
Client ID:	BD01-03182011	Date Received:	03/21/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	04/01/11 23:20		
Analyst:	BS		

Quality Control Information

Sample Type:	24 Hour Composite
Sample Container Type:	Canister - 6 Liter
Sampling Flow Controller:	Mechanical
Sampling Zone:	Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check:	<=20%
Were all QA/QC procedures REQUIRED by the method followed?	Yes
Were all performance/acceptance standards for the required procedures achieved?	Yes
Were significant modifications made to the method as specified in Sect 11.1.2?	No

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbons in Air - Mansfield Lab						
1,3-Butadiene	ND		ug/m3	2.0	2.0	1
Methyl tert butyl ether	ND		ug/m3	2.0	2.0	1
Benzene	9.8		ug/m3	2.0	2.0	1
Toluene	58		ug/m3	2.0	2.0	1
C5-C8 Aliphatics, Adjusted	510		ug/m3	12	12.	1
Ethylbenzene	12		ug/m3	2.0	2.0	1
p/m-Xylene	38		ug/m3	4.0	4.0	1
o-Xylene	14		ug/m3	2.0	2.0	1
Naphthalene	ND		ug/m3	2.0	2.0	1
C9-C12 Aliphatics, Adjusted	75		ug/m3	14	14.	1
C9-C10 Aromatics Total	47		ug/m3	10	10.	1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	103		50-200
Bromochloromethane	97		50-200
Chlorobenzene-d5	104		50-200

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1103698

Project Number: BR0200 **Report Date:** 04/04/11

SAMPLE RESULTS

Lab ID:	L1103698-09	Date Collected:	03/18/11 14:04
Client ID:	260902-SS1	Date Received:	03/21/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Analytical Method:	96,APH		
Analytical Date:	04/01/11 23:57		
Analyst:	BS		

Quality Control Information

Sample Type:	200 ml/minute Composite
Sample Container Type:	Canister - 6 Liter
Sampling Flow Controller:	Mechanical
Sampling Zone:	Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check:	<=20%
Were all QA/QC procedures REQUIRED by the method followed?	Yes
Were all performance/acceptance standards for the required procedures achieved?	Yes
Were significant modifications made to the method as specified in Sect 11.1.2?	No

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbons in Air - Mansfield Lab						
1,3-Butadiene	ND		ug/m3	2.0	2.0	1
Methyl tert butyl ether	ND		ug/m3	2.0	2.0	1
Benzene	ND		ug/m3	2.0	2.0	1
Toluene	5.5		ug/m3	2.0	2.0	1
C5-C8 Aliphatics, Adjusted	67		ug/m3	12	12.	1
Ethylbenzene	ND		ug/m3	2.0	2.0	1
p/m-Xylene	7.0		ug/m3	4.0	4.0	1
o-Xylene	3.0		ug/m3	2.0	2.0	1
Naphthalene	2.3		ug/m3	2.0	2.0	1
C9-C12 Aliphatics, Adjusted	130		ug/m3	14	14.	1
C9-C10 Aromatics Total	ND		ug/m3	10	10.	1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	103		50-200
Bromochloromethane	98		50-200
Chlorobenzene-d5	102		50-200

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1103698

Project Number: BR0200 **Report Date:** 04/04/11

SAMPLE RESULTS

Lab ID:	L1103698-10	Date Collected:	03/18/11 10:17
Client ID:	260902-SS2	Date Received:	03/21/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Analytical Method:	96,APH		
Analytical Date:	04/02/11 00:34		
Analyst:	BS		

Quality Control Information

Sample Type:	200 ml/minute Composite
Sample Container Type:	Canister - 6 Liter
Sampling Flow Controller:	Mechanical
Sampling Zone:	Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check:	<=20%
Were all QA/QC procedures REQUIRED by the method followed?	Yes
Were all performance/acceptance standards for the required procedures achieved?	Yes
Were significant modifications made to the method as specified in Sect 11.1.2?	No

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbons in Air - Mansfield Lab						
1,3-Butadiene	ND		ug/m3	2.0	2.0	1
Methyl tert butyl ether	ND		ug/m3	2.0	2.0	1
Benzene	ND		ug/m3	2.0	2.0	1
Toluene	2.4		ug/m3	2.0	2.0	1
C5-C8 Aliphatics, Adjusted	46		ug/m3	12	12.	1
Ethylbenzene	ND		ug/m3	2.0	2.0	1
p/m-Xylene	5.7		ug/m3	4.0	4.0	1
o-Xylene	3.5		ug/m3	2.0	2.0	1
Naphthalene	ND		ug/m3	2.0	2.0	1
C9-C12 Aliphatics, Adjusted	31		ug/m3	14	14.	1
C9-C10 Aromatics Total	ND		ug/m3	10	10.	1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	104		50-200
Bromochloromethane	97		50-200
Chlorobenzene-d5	100		50-200

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1103698

Project Number: BR0200 **Report Date:** 04/04/11

SAMPLE RESULTS

Lab ID:	L1103698-11	Date Collected:	03/18/11 18:42
Client ID:	260903-SS1	Date Received:	03/21/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Analytical Method:	96,APH		
Analytical Date:	03/31/11 03:55		
Analyst:	BS		

Quality Control Information

Sample Type:	200 ml/minute Composite
Sample Container Type:	Canister - 6 Liter
Sampling Flow Controller:	Mechanical
Sampling Zone:	Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check:	<=20%
Were all QA/QC procedures REQUIRED by the method followed?	Yes
Were all performance/acceptance standards for the required procedures achieved?	Yes
Were significant modifications made to the method as specified in Sect 11.1.2?	No

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbons in Air - Mansfield Lab						
1,3-Butadiene	ND		ug/m3	2.0	2.0	1
Methyl tert butyl ether	ND		ug/m3	2.0	2.0	1
Benzene	ND		ug/m3	2.0	2.0	1
Toluene	ND		ug/m3	2.0	2.0	1
C5-C8 Aliphatics, Adjusted	25		ug/m3	12	12.	1
Ethylbenzene	ND		ug/m3	2.0	2.0	1
p/m-Xylene	ND		ug/m3	4.0	4.0	1
o-Xylene	ND		ug/m3	2.0	2.0	1
Naphthalene	ND		ug/m3	2.0	2.0	1
C9-C12 Aliphatics, Adjusted	14		ug/m3	14	14.	1
C9-C10 Aromatics Total	ND		ug/m3	10	10.	1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	82		50-200
Bromochloromethane	89		50-200
Chlorobenzene-d5	82		50-200

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1103698

Project Number: BR0200 **Report Date:** 04/04/11

SAMPLE RESULTS

Lab ID:	L1103698-12	Date Collected:	03/18/11 17:36
Client ID:	260903-SS2	Date Received:	03/21/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Analytical Method:	96,APH		
Analytical Date:	03/31/11 05:09		
Analyst:	BS		

Quality Control Information

Sample Type:	200 ml/minute Composite
Sample Container Type:	Canister - 6 Liter
Sampling Flow Controller:	Mechanical
Sampling Zone:	Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check:	<=20%
Were all QA/QC procedures REQUIRED by the method followed?	Yes
Were all performance/acceptance standards for the required procedures achieved?	Yes
Were significant modifications made to the method as specified in Sect 11.1.2?	No

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbons in Air - Mansfield Lab						
1,3-Butadiene	ND		ug/m3	2.0	2.0	1
Methyl tert butyl ether	ND		ug/m3	2.0	2.0	1
Benzene	ND		ug/m3	2.0	2.0	1
Toluene	ND		ug/m3	2.0	2.0	1
C5-C8 Aliphatics, Adjusted	68		ug/m3	12	12.	1
Ethylbenzene	ND		ug/m3	2.0	2.0	1
p/m-Xylene	ND		ug/m3	4.0	4.0	1
o-Xylene	ND		ug/m3	2.0	2.0	1
Naphthalene	ND		ug/m3	2.0	2.0	1
C9-C12 Aliphatics, Adjusted	190		ug/m3	14	14.	1
C9-C10 Aromatics Total	ND		ug/m3	10	10.	1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	86		50-200
Bromochloromethane	89		50-200
Chlorobenzene-d5	88		50-200

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1103698

Project Number: BR0200 **Report Date:** 04/04/11

SAMPLE RESULTS

Lab ID:	L1103698-13	Date Collected:	03/18/11 00:00
Client ID:	BD02-03182011	Date Received:	03/21/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Analytical Method:	96,APH		
Analytical Date:	03/31/11 05:46		
Analyst:	BS		

Quality Control Information

Sample Type:	200 ml/minute Composite
Sample Container Type:	Canister - 6 Liter
Sampling Flow Controller:	Mechanical
Sampling Zone:	Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check:	<=20%
Were all QA/QC procedures REQUIRED by the method followed?	Yes
Were all performance/acceptance standards for the required procedures achieved?	Yes
Were significant modifications made to the method as specified in Sect 11.1.2?	No

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbons in Air - Mansfield Lab						
1,3-Butadiene	ND		ug/m3	2.0	2.0	1
Methyl tert butyl ether	ND		ug/m3	2.0	2.0	1
Benzene	ND		ug/m3	2.0	2.0	1
Toluene	ND		ug/m3	2.0	2.0	1
C5-C8 Aliphatics, Adjusted	29		ug/m3	12	12.	1
Ethylbenzene	ND		ug/m3	2.0	2.0	1
p/m-Xylene	ND		ug/m3	4.0	4.0	1
o-Xylene	ND		ug/m3	2.0	2.0	1
Naphthalene	ND		ug/m3	2.0	2.0	1
C9-C12 Aliphatics, Adjusted	ND		ug/m3	14	14.	1
C9-C10 Aromatics Total	ND		ug/m3	10	10.	1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	74		50-200
Bromochloromethane	89		50-200
Chlorobenzene-d5	87		50-200

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1103698

Project Number: BR0200 **Report Date:** 04/04/11

SAMPLE RESULTS

Lab ID:	L1103698-14	Date Collected:	03/18/11 00:00
Client ID:	TB01-03182011	Date Received:	03/21/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Analytical Method:	96,APH		
Analytical Date:	03/31/11 14:06		
Analyst:	BS		

Quality Control Information

Sample Type:	None
Sample Container Type:	Canister - 6 Liter
Sampling Flow Controller:	Mechanical
Sampling Zone:	Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check:	<=20%
Were all QA/QC procedures REQUIRED by the method followed?	Yes
Were all performance/acceptance standards for the required procedures achieved?	Yes
Were significant modifications made to the method as specified in Sect 11.1.2?	No

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	95		50-200
Bromochloromethane	97		50-200
Chlorobenzene-d5	91		50-200

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1103698

Project Number: BR0200 **Report Date:** 04/04/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 96,APH
Analytical Date: 03/30/11 20:28
Analyst: BS

Parameter	Result	Qualifier	Units	RL	MDL
Petroleum Hydrocarbons in Air - Mansfield Lab for sample(s): 01,05-07,11-14 Batch: WG460890-4					
1,3-Butadiene	ND		ug/m3	2.0	2.0
Methyl tert butyl ether	ND		ug/m3	2.0	2.0
Benzene	ND		ug/m3	2.0	2.0
Toluene	ND		ug/m3	2.0	2.0
C5-C8 Aliphatics, Adjusted	ND		ug/m3	12	12.
Ethylbenzene	ND		ug/m3	2.0	2.0
p/m-Xylene	ND		ug/m3	4.0	4.0
o-Xylene	ND		ug/m3	2.0	2.0
Naphthalene	ND		ug/m3	2.0	2.0
C9-C12 Aliphatics, Adjusted	ND		ug/m3	14	14.
C9-C10 Aromatics Total	ND		ug/m3	10	10.

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1103698

Project Number: BR0200 **Report Date:** 04/04/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 96,APH
Analytical Date: 04/01/11 14:41
Analyst: BS

Parameter	Result	Qualifier	Units	RL	MDL
Petroleum Hydrocarbons in Air - Mansfield Lab for sample(s): 02-04,08-10 Batch: WG461272-4					
1,3-Butadiene	ND		ug/m3	2.0	2.0
Methyl tert butyl ether	ND		ug/m3	2.0	2.0
Benzene	ND		ug/m3	2.0	2.0
Toluene	ND		ug/m3	2.0	2.0
C5-C8 Aliphatics, Adjusted	ND		ug/m3	12	12.
Ethylbenzene	ND		ug/m3	2.0	2.0
p/m-Xylene	ND		ug/m3	4.0	4.0
o-Xylene	ND		ug/m3	2.0	2.0
Naphthalene	ND		ug/m3	2.0	2.0
C9-C12 Aliphatics, Adjusted	ND		ug/m3	14	14.
C9-C10 Aromatics Total	ND		ug/m3	10	10.

Lab Control Sample Analysis
Batch Quality Control

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200

Lab Number: L1103698
Report Date: 04/04/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Petroleum Hydrocarbons in Air - Mansfield Lab Associated sample(s): 01,05-07,11-14 Batch: WG460890-3								
1,3-Butadiene	70		-		70-130	-		
Methyl tert butyl ether	107		-		70-130	-		
Benzene	96		-		70-130	-		
Toluene	110		-		70-130	-		
C5-C8 Aliphatics, Adjusted	89		-		70-130	-		
Ethylbenzene	124		-		70-130	-		
p/m-Xylene	127		-		70-130	-		
o-Xylene	**131**	Q	-		70-130	-		
Naphthalene	99		-		50-150	-		
C9-C12 Aliphatics, Adjusted	110		-		70-130	-		
C9-C10 Aromatics Total	130		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200

Lab Number: L1103698
Report Date: 04/04/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Petroleum Hydrocarbons in Air - Mansfield Lab Associated sample(s): 02-04,08-10 Batch: WG461272-3								
1,3-Butadiene	70		-		70-130	-		
Methyl tert butyl ether	84		-		70-130	-		
Benzene	102		-		70-130	-		
Toluene	112		-		70-130	-		
C5-C8 Aliphatics, Adjusted	95		-		70-130	-		
Ethylbenzene	109		-		70-130	-		
p/m-Xylene	111		-		70-130	-		
o-Xylene	114		-		70-130	-		
Naphthalene	114		-		50-150	-		
C9-C12 Aliphatics, Adjusted	102		-		70-130	-		
C9-C10 Aromatics Total	106		-		70-130	-		

Lab Duplicate Analysis
Batch Quality Control

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200

Lab Number: L1103698
Report Date: 04/04/11

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Petroleum Hydrocarbons in Air - Mansfield Lab Associated sample(s): 01,05-07,11-14 QC Batch ID: WG460890-5 QC Sample: L1103698-11 Client ID: 260903-SS1						
1,3-Butadiene	ND	ND	ug/m3	NC		30
Methyl tert butyl ether	ND	ND	ug/m3	NC		30
Benzene	ND	ND	ug/m3	NC		30
Toluene	ND	ND	ug/m3	NC		30
C5-C8 Aliphatics, Adjusted	25.	25	ug/m3	0		30
Ethylbenzene	ND	ND	ug/m3	NC		30
p/m-Xylene	ND	ND	ug/m3	NC		30
o-Xylene	ND	ND	ug/m3	NC		30
Naphthalene	ND	ND	ug/m3	NC		30
C9-C12 Aliphatics, Adjusted	14.	ND	ug/m3	NC		30
C9-C10 Aromatics Total	ND	ND	ug/m3	NC		30

Lab Duplicate Analysis
Batch Quality Control

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200

Lab Number: L1103698
Report Date: 04/04/11

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Petroleum Hydrocarbons in Air - Mansfield Lab Associated sample(s): 02-04,08-10 QC Batch ID: WG461272-5 QC Sample: L1104036-01 Client ID: DUP Sample					
1,3-Butadiene	ND	ND	ug/m3	NC	30
Methyl tert butyl ether	ND	ND	ug/m3	NC	30
Benzene	ND	ND	ug/m3	NC	30
Toluene	ND	ND	ug/m3	NC	30
C5-C8 Aliphatics, Adjusted	ND	ND	ug/m3	NC	30
Ethylbenzene	ND	ND	ug/m3	NC	30
p/m-Xylene	ND	ND	ug/m3	NC	30
o-Xylene	ND	ND	ug/m3	NC	30
Naphthalene	ND	ND	ug/m3	NC	30
C9-C12 Aliphatics, Adjusted	ND	ND	ug/m3	NC	30
C9-C10 Aromatics Total	ND	ND	ug/m3	NC	30

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1103698

Project Number: BR0200 **Report Date:** 04/04/11

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
L1103698-01	260902-OA	0497	#16 AMB		-	-	3.3	3.3	0
L1103698-01	260902-OA	811	6.0L Can	I1102937	-30.0	-4.8	-	-	-
L1103698-02	260902-IA1	0459	#16 AMB		-	-	3.3	3.2	3
L1103698-02	260902-IA1	653	6.0L Can	I1102937	-30.0	-4.6	-	-	-
L1103698-03	260902-IA2	0267	#16 AMB		-	-	3.3	3.4	3
L1103698-03	260902-IA2	620	6.0L Can	I1102937	-30.0	-4.5	-	-	-
L1103698-04	260902-IA3	0287	#16 AMB		-	-	3.1	3.0	3
L1103698-04	260902-IA3	787	6.0L Can	I1102937	-30.0	-7.4	-	-	-
L1103698-05	260903-OA	0010	#16 AMB		-	-	3.3	3.3	0
L1103698-05	260903-OA	789	6.0L Can	I1102937	-30.0	-3.7	-	-	-
L1103698-06	260903-IA1	0299	#16 AMB		-	-	3.3	3.2	3
L1103698-06	260903-IA1	1578	6.0L Can	I1102937	-30.0	-5.4	-	-	-
L1103698-07	260903-IA2	0436	#16 AMB		-	-	3.3	3.1	6
L1103698-07	260903-IA2	936	6.0L Can	I1102937	-30.0	-5.3	-	-	-
L1103698-08	BD01-03182011	0363	#16 AMB		-	-	3.3	3.1	6
L1103698-08	BD01-03182011	1550	6.0L Can	I1102937	-30.0	-4.2	-	-	-
L1103698-09	260902-SS1	0331	#16 AMB		-	-	200	200	0

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1103698

Project Number: BR0200 **Report Date:** 04/04/11

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
L1103698-09	260902-SS1	586	6.0L Can	I1102937	-30.0	-3.0	-	-	-
L1103698-10	260902-SS2	0038	#90 SV		-	-	200	200	0
L1103698-10	260902-SS2	937	6.0L Can	I1102937	-30.0	-2.1	-	-	-
L1103698-11	260903-SS1	0443	#90 SV		-	-	200	197	2
L1103698-11	260903-SS1	725	6.0L Can	I1102937	-30.0	-2.1	-	-	-
L1103698-12	260903-SS2	0442	#90 SV		-	-	200	210	5
L1103698-12	260903-SS2	1594	6.0L Can	I1102937	-30.0	-2.1	-	-	-
L1103698-13	BD02-03182011	1552	6.0L Can	I1102937	-30.0	-2.1	-	-	-
L1103698-14	TB01-03182011	970	6.0L Can	I1102937	-30.0	-30.0	-	-	-

Air Volatiles Can Certification

Project Name:

Project Number: Not Specified

Lab Number: L1102937

Report Date: 04/04/11

Air Canister Certification Results

Lab ID:	L1102937-01	Date Collected:	03/07/11 00:00
Client ID:	CAN 789 FC 436	Date Received:	03/07/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/07/11 20:32		
Analyst:	BS		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.223	0.223		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.206	0.206		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
p/m-Xylene	ND	0.040	0.040	ND	0.174	0.174		1
o-Xylene	ND	0.020	0.020	ND	0.087	0.087		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.260	0.260		1

Project Name:

Project Number: Not Specified

Lab Number: L1102937

Report Date: 04/04/11

Air Canister Certification Results

Lab ID: L1102937-01

Client ID: CAN 789 FC 436

Sample Location:

Date Collected: 03/07/11 00:00

Date Received: 03/07/11

Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Project Name:

Project Number: Not Specified

Lab Number: L1102937

Report Date: 04/04/11

Air Canister Certification Results

Lab ID:	L1102937-01	Date Collected:	03/07/11 00:00
Client ID:	CAN 789 FC 436	Date Received:	03/07/11
Sample Location:		Field Prep:	Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	90		60-140
bromochloromethane	94		60-140
chlorobenzene-d5	87		60-140

Project Name:

Project Number: Not Specified

Lab Number: L1102937

Report Date: 04/04/11

Air Canister Certification Results

Lab ID:	L1102937-02	Date Collected:	03/07/11 00:00
Client ID:	CAN 586 FC 363	Date Received:	03/07/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/07/11 21:08		
Analyst:	BS		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.223	0.223		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.206	0.206		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
p/m-Xylene	ND	0.040	0.040	ND	0.174	0.174		1
o-Xylene	ND	0.020	0.020	ND	0.087	0.087		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.260	0.260		1

Project Name:

Project Number: Not Specified

Lab Number: L1102937

Report Date: 04/04/11

Air Canister Certification Results

Lab ID: L1102937-02

Client ID: CAN 586 FC 363

Sample Location:

Date Collected: 03/07/11 00:00

Date Received: 03/07/11

Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Project Name:

Project Number: Not Specified

Lab Number: L1102937

Report Date: 04/04/11

Air Canister Certification Results

Lab ID:	L1102937-02	Date Collected:	03/07/11 00:00
Client ID:	CAN 586 FC 363	Date Received:	03/07/11
Sample Location:		Field Prep:	Not Specified

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

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

Project Name:

Project Number: Not Specified

Lab Number: L1102937

Report Date: 04/04/11

Air Canister Certification Results

Lab ID:	L1102937-03	Date Collected:	03/07/11 00:00
Client ID:	CAN 937 FC 287	Date Received:	03/07/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/07/11 21:44		
Analyst:	BS		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.223	0.223		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.206	0.206		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
p/m-Xylene	ND	0.040	0.040	ND	0.174	0.174		1
o-Xylene	ND	0.020	0.020	ND	0.087	0.087		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.260	0.260		1

Project Name:

Project Number: Not Specified

Lab Number: L1102937

Report Date: 04/04/11

Air Canister Certification Results

Lab ID: L1102937-03
Client ID: CAN 937 FC 287
Sample Location:

Date Collected: 03/07/11 00:00
Date Received: 03/07/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Project Name:

Project Number: Not Specified

Lab Number: L1102937

Report Date: 04/04/11

Air Canister Certification Results

Lab ID:	L1102937-03	Date Collected:	03/07/11 00:00
Client ID:	CAN 937 FC 287	Date Received:	03/07/11
Sample Location:		Field Prep:	Not Specified

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
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	94		60-140

Project Name:

Project Number: Not Specified

Lab Number: L1102937

Report Date: 04/04/11

Air Canister Certification Results

Lab ID:	L1102937-04	Date Collected:	03/07/11 00:00
Client ID:	CAN 725 FC 459	Date Received:	03/07/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/07/11 22:20		
Analyst:	BS		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.223	0.223		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.206	0.206		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
p/m-Xylene	ND	0.040	0.040	ND	0.174	0.174		1
o-Xylene	ND	0.020	0.020	ND	0.087	0.087		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.260	0.260		1

Project Name:

Project Number: Not Specified

Lab Number: L1102937

Report Date: 04/04/11

Air Canister Certification Results

Lab ID: L1102937-04

Client ID: CAN 725 FC 459

Sample Location:

Date Collected: 03/07/11 00:00

Date Received: 03/07/11

Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Project Name:

Project Number: Not Specified

Lab Number: L1102937

Report Date: 04/04/11

Air Canister Certification Results

Lab ID:	L1102937-04	Date Collected:	03/07/11 00:00
Client ID:	CAN 725 FC 459	Date Received:	03/07/11
Sample Location:		Field Prep:	Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	84		60-140
bromochloromethane	90		60-140
chlorobenzene-d5	86		60-140

Project Name:

Project Number: Not Specified

Lab Number: L1102937

Report Date: 04/04/11

Air Canister Certification Results

Lab ID:	L1102937-05	Date Collected:	03/07/11 00:00
Client ID:	CAN 1550 FC 267	Date Received:	03/07/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/07/11 23:32		
Analyst:	BS		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.223	0.223		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.206	0.206		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
p/m-Xylene	ND	0.040	0.040	ND	0.174	0.174		1
o-Xylene	ND	0.020	0.020	ND	0.087	0.087		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.260	0.260		1

Project Name: ***Lab Number:*** L1102937

Project Number: Not Specified ***Report Date:*** 04/04/11

Air Canister Certification Results

Lab ID: L1102937-05
Client ID: CAN 1550 FC 267
Sample Location:

Date Collected: 03/07/11 00:00
Date Received: 03/07/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Project Name:

Project Number: Not Specified

Lab Number: L1102937

Report Date: 04/04/11

Air Canister Certification Results

Lab ID:	L1102937-05	Date Collected:	03/07/11 00:00
Client ID:	CAN 1550 FC 267	Date Received:	03/07/11
Sample Location:		Field Prep:	Not Specified

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
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	91		60-140

Project Name:

Project Number: Not Specified

Lab Number: L1102937

Report Date: 04/04/11

Air Canister Certification Results

Lab ID:	L1102937-06	Date Collected:	03/07/11 00:00
Client ID:	CAN 1640 FC 299	Date Received:	03/07/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/07/11 22:56		
Analyst:	BS		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.223	0.223		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.206	0.206		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
p/m-Xylene	ND	0.040	0.040	ND	0.174	0.174		1
o-Xylene	ND	0.020	0.020	ND	0.087	0.087		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.260	0.260		1

Project Name:

Project Number: Not Specified

Lab Number: L1102937

Report Date: 04/04/11

Air Canister Certification Results

Lab ID: L1102937-06

Client ID: CAN 1640 FC 299

Sample Location:

Date Collected: 03/07/11 00:00

Date Received: 03/07/11

Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Project Name: ***Lab Number:*** L1102937

Project Number: Not Specified ***Report Date:*** 04/04/11

Air Canister Certification Results

Lab ID:	L1102937-06	Date Collected:	03/07/11 00:00
Client ID:	CAN 1640 FC 299	Date Received:	03/07/11
Sample Location:		Field Prep:	Not Specified

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

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	92		60-140
bromochloromethane	95		60-140
chlorobenzene-d5	91		60-140

Project Name:

Project Number: Not Specified

Lab Number: L1102937

Report Date: 04/04/11

Air Canister Certification Results

Lab ID:	L1102937-08	Date Collected:	03/07/11 00:00
Client ID:	CAN 1594 FC 442	Date Received:	03/07/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/08/11 11:34		
Analyst:	BS		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.223	0.223		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.206	0.206		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
p/m-Xylene	ND	0.040	0.040	ND	0.174	0.174		1
o-Xylene	ND	0.020	0.020	ND	0.087	0.087		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.260	0.260		1

Project Name: ***Lab Number:*** L1102937

Project Number: Not Specified ***Report Date:*** 04/04/11

Air Canister Certification Results

Lab ID: L1102937-08 Date Collected: 03/07/11 00:00

Client ID: CAN 1594 FC 442 Date Received: 03/07/11

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Project Name:

Project Number: Not Specified

Lab Number: L1102937

Report Date: 04/04/11

Air Canister Certification Results

Lab ID:	L1102937-08	Date Collected:	03/07/11 00:00
Client ID:	CAN 1594 FC 442	Date Received:	03/07/11
Sample Location:		Field Prep:	Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	87		60-140
bromochloromethane	93		60-140
chlorobenzene-d5	88		60-140

Project Name:

Project Number: Not Specified

Lab Number: L1102937

Report Date: 04/04/11

Air Canister Certification Results

Lab ID:	L1102937-09	Date Collected:	03/07/11 00:00
Client ID:	CAN 787 FC 331	Date Received:	03/07/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/08/11 12:11		
Analyst:	BS		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.223	0.223		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.206	0.206		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
p/m-Xylene	ND	0.040	0.040	ND	0.174	0.174		1
o-Xylene	ND	0.020	0.020	ND	0.087	0.087		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.260	0.260		1

Project Name: ***Lab Number:*** L1102937

Project Number: Not Specified ***Report Date:*** 04/04/11

Air Canister Certification Results

Lab ID: L1102937-09 Date Collected: 03/07/11 00:00

Client ID: CAN 787 FC 331 Date Received: 03/07/11

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Project Name:

Project Number: Not Specified

Lab Number: L1102937

Report Date: 04/04/11

Air Canister Certification Results

Lab ID:	L1102937-09	Date Collected:	03/07/11 00:00
Client ID:	CAN 787 FC 331	Date Received:	03/07/11
Sample Location:		Field Prep:	Not Specified

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
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	90		60-140

Project Name:

Project Number: Not Specified

Lab Number: L1102937

Report Date: 04/04/11

Air Canister Certification Results

Lab ID:	L1102937-10	Date Collected:	03/07/11 00:00
Client ID:	CAN 1578 FC 443	Date Received:	03/07/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/08/11 12:47		
Analyst:	BS		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.223	0.223		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.206	0.206		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
p/m-Xylene	ND	0.040	0.040	ND	0.174	0.174		1
o-Xylene	ND	0.020	0.020	ND	0.087	0.087		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.260	0.260		1

Project Name:

Project Number: Not Specified

Lab Number: L1102937

Report Date: 04/04/11

Air Canister Certification Results

Lab ID: L1102937-10
Client ID: CAN 1578 FC 443
Sample Location:

Date Collected: 03/07/11 00:00
Date Received: 03/07/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Project Name:

Project Number: Not Specified

Lab Number: L1102937

Report Date: 04/04/11

Air Canister Certification Results

Lab ID:	L1102937-10	Date Collected:	03/07/11 00:00
Client ID:	CAN 1578 FC 443	Date Received:	03/07/11
Sample Location:		Field Prep:	Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	88		60-140
bromochloromethane	93		60-140
chlorobenzene-d5	87		60-140

Project Name:

Project Number: Not Specified

Lab Number: L1102937

Report Date: 04/04/11

Air Canister Certification Results

Lab ID:	L1102937-11	Date Collected:	03/07/11 00:00
Client ID:	CAN 1552 FC 426 T1	Date Received:	03/07/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/08/11 13:19		
Analyst:	BS		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.223	0.223		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.206	0.206		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
p/m-Xylene	ND	0.040	0.040	ND	0.174	0.174		1
o-Xylene	ND	0.020	0.020	ND	0.087	0.087		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.260	0.260		1

Project Name: ***Lab Number:*** L1102937

Project Number: Not Specified ***Report Date:*** 04/04/11

Air Canister Certification Results

Lab ID: L1102937-11 Date Collected: 03/07/11 00:00

Client ID: CAN 1552 FC 426 T1 Date Received: 03/07/11

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Project Name:

Lab Number: L1102937

Project Number: Not Specified

Report Date: 04/04/11

Air Canister Certification Results

Lab ID:	L1102937-11	Date Collected:	03/07/11 00:00
Client ID:	CAN 1552 FC 426 T1	Date Received:	03/07/11
Sample Location:		Field Prep:	Not Specified

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

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	87		60-140
bromochloromethane	107		60-140
chlorobenzene-d5	83		60-140

Project Name:

Project Number: Not Specified

Lab Number: L1102937

Report Date: 04/04/11

Air Canister Certification Results

Lab ID:	L1102937-12	Date Collected:	03/07/11 00:00
Client ID:	CAN 609 FC 038 T2	Date Received:	03/07/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/08/11 10:22		
Analyst:	BS		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.223	0.223		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.206	0.206		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
p/m-Xylene	ND	0.040	0.040	ND	0.174	0.174		1
o-Xylene	ND	0.020	0.020	ND	0.087	0.087		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.260	0.260		1

Project Name:

Project Number: Not Specified

Lab Number: L1102937

Report Date: 04/04/11

Air Canister Certification Results

Lab ID: L1102937-12

Client ID: CAN 609 FC 038 T2

Sample Location:

Date Collected: 03/07/11 00:00

Date Received: 03/07/11

Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Project Name:

Project Number: Not Specified

Lab Number: L1102937

Report Date: 04/04/11

Air Canister Certification Results

Lab ID:	L1102937-12	Date Collected:	03/07/11 00:00
Client ID:	CAN 609 FC 038 T2	Date Received:	03/07/11
Sample Location:		Field Prep:	Not Specified

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
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	98		60-140

Project Name:

Project Number: Not Specified

Lab Number: L1102937

Report Date: 04/04/11

Air Canister Certification Results

Lab ID:	L1102937-13	Date Collected:	03/07/11 00:00
Client ID:	CAN 811	Date Received:	03/07/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/08/11 23:05		
Analyst:	BS		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.223	0.223		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.206	0.206		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
p/m-Xylene	ND	0.040	0.040	ND	0.174	0.174		1
o-Xylene	ND	0.020	0.020	ND	0.087	0.087		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.260	0.260		1

Project Name:

Project Number: Not Specified

Lab Number: L1102937

Report Date: 04/04/11

Air Canister Certification Results

Lab ID: L1102937-13
Client ID: CAN 811
Sample Location:

Date Collected: 03/07/11 00:00
Date Received: 03/07/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Project Name:

Lab Number: L1102937

Project Number: Not Specified

Report Date: 04/04/11

Air Canister Certification Results

Lab ID:	L1102937-13	Date Collected:	03/07/11 00:00
Client ID:	CAN 811	Date Received:	03/07/11
Sample Location:		Field Prep:	Not Specified

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

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	94		60-140
bromochloromethane	112		60-140
chlorobenzene-d5	93		60-140

Project Name:

Project Number: Not Specified

Lab Number: L1102937

Report Date: 04/04/11

Air Canister Certification Results

Lab ID:	L1102937-14	Date Collected:	03/07/11 00:00
Client ID:	CAN 970	Date Received:	03/07/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/08/11 23:41		
Analyst:	BS		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.223	0.223		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.206	0.206		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
p/m-Xylene	ND	0.040	0.040	ND	0.174	0.174		1
o-Xylene	ND	0.020	0.020	ND	0.087	0.087		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.260	0.260		1

Project Name:

Project Number: Not Specified

Lab Number: L1102937

Report Date: 04/04/11

Air Canister Certification Results

Lab ID: L1102937-14
Client ID: CAN 970
Sample Location:

Date Collected: 03/07/11 00:00
Date Received: 03/07/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Project Name:

Lab Number: L1102937

Project Number: Not Specified

Report Date: 04/04/11

Air Canister Certification Results

Lab ID:	L1102937-14	Date Collected:	03/07/11 00:00
Client ID:	CAN 970	Date Received:	03/07/11
Sample Location:		Field Prep:	Not Specified

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

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	96		60-140
bromochloromethane	113		60-140
chlorobenzene-d5	90		60-140

Project Name:

Project Number: Not Specified

Lab Number: L1102937

Report Date: 04/04/11

Air Canister Certification Results

Lab ID:	L1102937-15	Date Collected:	03/07/11 00:00
Client ID:	CAN 936 FC 350	Date Received:	03/07/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/09/11 00:18		
Analyst:	BS		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.223	0.223		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.206	0.206		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
p/m-Xylene	ND	0.040	0.040	ND	0.174	0.174		1
o-Xylene	ND	0.020	0.020	ND	0.087	0.087		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.260	0.260		1

Project Name:

Project Number: Not Specified

Lab Number: L1102937

Report Date: 04/04/11

Air Canister Certification Results

Lab ID: L1102937-15
Client ID: CAN 936 FC 350
Sample Location:

Date Collected: 03/07/11 00:00
Date Received: 03/07/11
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Project Name:

Project Number: Not Specified

Lab Number: L1102937

Report Date: 04/04/11

Air Canister Certification Results

Lab ID:	L1102937-15	Date Collected:	03/07/11 00:00
Client ID:	CAN 936 FC 350	Date Received:	03/07/11
Sample Location:		Field Prep:	Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	93		60-140
bromochloromethane	114		60-140
chlorobenzene-d5	92		60-140

Project Name:

Project Number: Not Specified

Lab Number: L1102937

Report Date: 04/04/11

Air Canister Certification Results

Lab ID:	L1102937-16	Date Collected:	03/07/11 00:00
Client ID:	CAN 653 FC 497	Date Received:	03/07/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/09/11 00:53		
Analyst:	BS		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.223	0.223		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.206	0.206		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
p/m-Xylene	ND	0.040	0.040	ND	0.174	0.174		1
o-Xylene	ND	0.020	0.020	ND	0.087	0.087		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.260	0.260		1

Project Name:

Lab Number: L1102937

Project Number: Not Specified

Report Date: 04/04/11

Air Canister Certification Results

Lab ID: L1102937-16

Client ID: CAN 653 FC 497

Sample Location:

Date Collected: 03/07/11 00:00

Date Received: 03/07/11

Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Project Name:

Project Number: Not Specified

Lab Number: L1102937

Report Date: 04/04/11

Air Canister Certification Results

Lab ID:	L1102937-16	Date Collected:	03/07/11 00:00
Client ID:	CAN 653 FC 497	Date Received:	03/07/11
Sample Location:		Field Prep:	Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	99		60-140
bromochloromethane	115		60-140
chlorobenzene-d5	93		60-140

Project Name:

Project Number: Not Specified

Lab Number: L1102937

Report Date: 04/04/11

Air Canister Certification Results

Lab ID:	L1102937-17	Date Collected:	03/07/11 00:00
Client ID:	CAN 620 FC 010	Date Received:	03/07/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/09/11 01:30		
Analyst:	BS		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.223	0.223		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.206	0.206		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
p/m-Xylene	ND	0.040	0.040	ND	0.174	0.174		1
o-Xylene	ND	0.020	0.020	ND	0.087	0.087		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.260	0.260		1

Project Name: ***Lab Number:*** L1102937

Project Number: Not Specified ***Report Date:*** 04/04/11

Air Canister Certification Results

Lab ID: L1102937-17 Date Collected: 03/07/11 00:00

Client ID: CAN 620 FC 010 Date Received: 03/07/11

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Project Name:

Lab Number: L1102937

Project Number: Not Specified

Report Date: 04/04/11

Air Canister Certification Results

Lab ID:	L1102937-17	Date Collected:	03/07/11 00:00
Client ID:	CAN 620 FC 010	Date Received:	03/07/11
Sample Location:		Field Prep:	Not Specified

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

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	99		60-140
bromochloromethane	115		60-140
chlorobenzene-d5	93		60-140

AIR Petro Can Certification

Project Name: Not Specified
Project Number: Not Specified
Lab Number: L1102937
Report Date: 04/04/11

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1102937-01	Date Collected:	03/07/11 00:00
Client ID:	CAN 789 FC 436	Date Received:	03/07/11
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	03/07/11 20:32		
Analyst:	BS		

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

Project Name: Not Specified
Project Number: Not Specified
Lab Number: L1102937
Report Date: 04/04/11

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1102937-02	Date Collected:	03/07/11 00:00
Client ID:	CAN 586 FC 363	Date Received:	03/07/11
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	03/07/11 21:08		
Analyst:	BS		

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

Project Name: Not Specified
Project Number: Not Specified
Lab Number: L1102937
Report Date: 04/04/11

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1102937-03	Date Collected:	03/07/11 00:00
Client ID:	CAN 937 FC 287	Date Received:	03/07/11
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	03/07/11 21:44		
Analyst:	BS		

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

Project Name: Not Specified
Project Number: Not Specified
Lab Number: L1102937
Report Date: 04/04/11

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1102937-04	Date Collected:	03/07/11 00:00
Client ID:	CAN 725 FC 459	Date Received:	03/07/11
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	03/07/11 22:20		
Analyst:	BS		

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

Project Name: Not Specified **Lab Number:** L1102937

Project Number: Not Specified **Report Date:** 04/04/11

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1102937-05	Date Collected:	03/07/11 00:00
Client ID:	CAN 1550 FC 267	Date Received:	03/07/11
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	03/07/11 23:32		
Analyst:	BS		

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

Project Name: Not Specified **Lab Number:** L1102937

Project Number: Not Specified **Report Date:** 04/04/11

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1102937-06	Date Collected:	03/07/11 00:00
Client ID:	CAN 1640 FC 299	Date Received:	03/07/11
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	03/07/11 22:56		
Analyst:	BS		

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

Project Name: Not Specified
Project Number: Not Specified

Lab Number: L1102937
Report Date: 04/04/11

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1102937-08	Date Collected:	03/07/11 00:00
Client ID:	CAN 1594 FC 442	Date Received:	03/07/11
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	03/08/11 11:34		
Analyst:	BS		

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

Project Name: Not Specified
Project Number: Not Specified
Lab Number: L1102937
Report Date: 04/04/11

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1102937-09	Date Collected:	03/07/11 00:00
Client ID:	CAN 787 FC 331	Date Received:	03/07/11
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	03/08/11 12:11		
Analyst:	BS		

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

Project Name: Not Specified **Lab Number:** L1102937

Project Number: Not Specified **Report Date:** 04/04/11

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1102937-10	Date Collected:	03/07/11 00:00
Client ID:	CAN 1578 FC 443	Date Received:	03/07/11
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	03/08/11 12:47		
Analyst:	BS		

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

Project Name: Not Specified **Lab Number:** L1102937

Project Number: Not Specified **Report Date:** 04/04/11

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1102937-11	Date Collected:	03/07/11 00:00
Client ID:	CAN 1552 FC 426 T1	Date Received:	03/07/11
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	03/08/11 13:19		
Analyst:	BS		

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

Project Name: Not Specified **Lab Number:** L1102937

Project Number: Not Specified **Report Date:** 04/04/11

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1102937-12	Date Collected:	03/07/11 00:00
Client ID:	CAN 609 FC 038 T2	Date Received:	03/07/11
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	03/08/11 10:22		
Analyst:	BS		

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

Project Name: Not Specified
Project Number: Not Specified
Lab Number: L1102937
Report Date: 04/04/11

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1102937-13	Date Collected:	03/07/11 00:00
Client ID:	CAN 811	Date Received:	03/07/11
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	03/08/11 23:05		
Analyst:	BS		

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

Project Name: Not Specified
Project Number: Not Specified

Lab Number: L1102937
Report Date: 04/04/11

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1102937-14	Date Collected:	03/07/11 00:00
Client ID:	CAN 970	Date Received:	03/07/11
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	03/08/11 23:41		
Analyst:	BS		

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

Project Name: Not Specified **Lab Number:** L1102937

Project Number: Not Specified **Report Date:** 04/04/11

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1102937-15	Date Collected:	03/07/11 00:00
Client ID:	CAN 936 FC 350	Date Received:	03/07/11
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	03/09/11 00:18		
Analyst:	BS		

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

Project Name: Not Specified **Lab Number:** L1102937

Project Number: Not Specified **Report Date:** 04/04/11

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1102937-16	Date Collected:	03/07/11 00:00
Client ID:	CAN 653 FC 497	Date Received:	03/07/11
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	03/09/11 00:53		
Analyst:	BS		

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

Project Name: Not Specified
Project Number: Not Specified
Lab Number: L1102937
Report Date: 04/04/11

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1102937-17	Date Collected:	03/07/11 00:00
Client ID:	CAN 620 FC 010	Date Received:	03/07/11
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	03/09/11 01:30		
Analyst:	BS		

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

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200

Lab Number: L1103698
Report Date: 04/04/11

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information

Cooler	Custody Seal
N/A	Present/Intact

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1103698-01A	Canister - 6 Liter	N/A	N/A		Y	Present/Intact	FLOW-CERT(),CAN-CERT(),APH-10(30),TO15-SIM-UNI(30)
L1103698-02A	Canister - 6 Liter	N/A	N/A		Y	Present/Intact	FLOW-CERT(),CAN-CERT(),APH-10(30),TO15-SIM-UNI(30)
L1103698-03A	Canister - 6 Liter	N/A	N/A		Y	Present/Intact	FLOW-CERT(),CAN-CERT(),APH-10(30),TO15-SIM-UNI(30)
L1103698-04A	Canister - 6 Liter	N/A	N/A		Y	Present/Intact	FLOW-CERT(),CAN-CERT(),APH-10(30),TO15-SIM-UNI(30)
L1103698-05A	Canister - 6 Liter	N/A	N/A		Y	Present/Intact	FLOW-CERT(),CAN-CERT(),APH-10(30),TO15-SIM-UNI(30)
L1103698-06A	Canister - 6 Liter	N/A	N/A		Y	Present/Intact	FLOW-CERT(),CAN-CERT(),APH-10(30),TO15-SIM-UNI(30)
L1103698-07A	Canister - 6 Liter	N/A	N/A		Y	Present/Intact	FLOW-CERT(),CAN-CERT(),APH-10(30),TO15-SIM-UNI(30)
L1103698-08A	Canister - 6 Liter	N/A	N/A		Y	Present/Intact	FLOW-CERT(),CAN-CERT(),APH-10(30),TO15-SIM-UNI(30)
L1103698-09A	Canister - 6 Liter	N/A	N/A		Y	Present/Intact	APH-10(30),TO15-SIM-UNI(30)
L1103698-10A	Canister - 6 Liter	N/A	N/A		Y	Present/Intact	APH-10(30),TO15-SIM-UNI(30)
L1103698-11A	Canister - 6 Liter	N/A	N/A		Y	Present/Intact	APH-10(30),TO15-SIM-UNI(30)
L1103698-12A	Canister - 6 Liter	N/A	N/A		Y	Present/Intact	APH-10(30),TO15-SIM-UNI(30)
L1103698-13A	Canister - 6 Liter	N/A	N/A		Y	Present/Intact	APH-10(30),TO15-SIM-UNI(30)
L1103698-14A	Canister - 6 Liter	N/A	N/A		Y	Present/Intact	APH-10(30),TO15-SIM-UNI(30)

*Values in parentheses indicate holding time in days

Project Name:	WR GRACE VI ASSESSMENT	**Lab Number:**	L1103698
Project Number:	BR0200	**Report Date:**	04/04/11

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.
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.

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.
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.
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

Project Name:	WR GRACE VI ASSESSMENT	**Lab Number:**	L1103698
Project Number:	BR0200	**Report Date:**	04/04/11

Data Qualifiers

the sample concentrations are less 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. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL). This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample.

Report Format: DU Report with "J" Qualifiers

REFERENCES

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

96 Method for the Determination of Air-Phase Petroleum Hydrocarbons (APH), MassDEP, December 2009, Revision 1 with QC Requirements & Performance Standards for the Analysis of APH by GC/MS under the Massachusetts Contingency Plan, WSC-CAM-IXA, July 2010.

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 March 23, 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.)

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.)

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

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, EPA 200.8, SM2540D, 2540G, EPA 120.1, SM2510B, EPA 180.1, 245.1, 1631E, SW-846 7470A, 9040B, 6020, 9010B, 9014 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, 9010B, 9014, 1311, 1312, 3050B, 3051, 3060A, 7196A, 7470A, 7471A, 9040B, 9045C, 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, 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, 9014, 9040B, 120.1, SM2510B, 4500CN-E, 4500H-B, EPA 376.2, 180.1, 9010B. 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 2

CHAIN OF CUSTODY

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

Date Rec'd in Lab:

ALPHA Job #: L1103698

Client Information

Client: GeoSyntec Consultants
Address: 289 Great Rd, Ste 105
Acton, MA 01720
Phone: (978) 263-9588
Fax: (978) 263-9594
Email: tcreamer@geosyntec.com

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: WR Grace VI Assessment
Project Location: Woburn, MA
Project #: BR0200
Project Manager: Todd Creamer
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)

Date Due: Time:

Report Information - Data Deliverables

☐ FAX
☒ ADEx
Criteria Checker: TBD
(Default based on Regulatory Criteria Indicated)
Other Formats:
☒ EMAIL (standard pdf report)
☐ Additional Deliverables:

Report to: (if different than Project Manager)

Billing Information

☒ Same as Client info PO #: BR0200

Regulatory Requirements/Report Limits

State/Fed	Program	Criteria
See	QAPP	

Other Project Specific Requirements/Comments:

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	I D Can	I D - Flow Controller	TO-14A by TO-15	TO-15	TO-15 SIM	APH	FIXED GASES	TO-13A	TO-4 / TO-10	Sample Comments (i.e. PID)
L1103698-1	260902-OA		0825 3/17/2011	0825 3/18/2011	-29.94	-5.19	AA	SWB	6L	311	0497			X	X				
-2	260902-IA1		0829 3/17/2011	0805 3/18/2011	-29.90	-5.04	AA	SWB	6L	653	0459			X	X				
-3	260902-IA2		0830 3/17/2011	0806 3/18/2011	-29.91	-5.00	AA	SWB	6L	620	0267			X	X				
-4	260902-IA3		0828 3/17/2011	0808 3/18/2011	-29.92	-7.73	AA	SWB	6L	787	0287			X	X				
-5	260903-OA		1523 3/17/2011	1458 3/18/2011	-29.80	-4.27	AA	SWB	6L	789	0010			X	X				
-6	260903-IA1		1515 3/17/2011	1456 3/18/2011	-29.80	-5.95	AA	SWB	6L	1578	0299			X	X				
-7	260903-IA2		1516 3/17/2011	1456 3/18/2011	-29.88	-5.84	AA	SWB	6L	936	0436			X	X				
-8	BD01-03182011		3/17/2011	3/18/2011	-29.92	-4.66	AA	SWB	6L	1550	0363			X	X				
								SWB 3/21/11											

*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:
[illegible]	3/21/2011 1400	[illegible]	3/21/11 1400
[illegible]	3/21/11 1530	[illegible]	3/22/11 715
[illegible]	3-22-11 810	[illegible]	3/22/11 0810

Serial_No:04041117:10

AIR ANALYSIS

PAGE 2 OF 2

CHAIN OF CUSTODY

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

Date Rec'd in Lab:

ALPHA Job #: L1103698

Client Information

Client: Geosyntec Consultants
Address: 289 Great Road, Suite 105, Acton, MA 01720
Phone: (978) 263-9588
Fax: (978) 263-9594
Email: tcreamer@geosyntec.com

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: WR Grace VI Assessment
Project Location: Woburn, MA
Project #: BR0200
Project Manager: Todd Creamer
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)

Date Due: Time:

Report Information - Data Deliverables

☐ FAX
☒ ADEx
Criteria Checker: TBD
(Default based on Regulatory Criteria Indicated)
Other Formats:
☒ EMAIL (standard pdf report)
☐ Additional Deliverables:

Report to: (if different than Project Manager)

Billing Information

☒ Same as Client info PO #: BR0200

Regulatory Requirements/Report Limits

State/Fed	Program	Criteria
see	QAPP	

Other Project Specific Requirements/Comments:

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	I D Can	I D - Flow Controller	TO-14A by TO-15	TO-15	TO-15 SIM	APH	FIXED GASES	TO-13A	TO-4 / TO-10	Sample Comments (i.e. PID)
L1103698-9	260902-SS1	3/18/2011	1337	1404	-29.57	-3.47	SV	SWB	6L	586	0331			X	X				
-10	260902-SS2	3/18/2011	0949	1017	-29.52	-2.84	SV	SWB	6L	937	0038			X	X				
-11	260903-SS1	3/18/2011	1742	1842	-29.52	-2.50	SV	SWB	6L	725	0443			X	X				
-12	260903-SS2	3/18/2011	1645	1736	-29.50	-2.46	SV	SWB	6L	1594	0442			X	X				
-13	BD02-03182011	3/18/2011	-	-	-29.51	-2.58	SV	SWB	6L	1552	tee			X	X				
-14	TB01-03182011	3/18/2011	-	-	-	-29.74	AIR	-	6L	970	N/A			X	X				

SWB 3/21/11

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

Container Type

Relinquished By:	Date/Time	Received By:	Date/Time:
[signature]	3/21/2011 1400	[signature]	3/21/11 1400
[signature]	3/21/11 1530	[signature]	3/22/11 715
[signature]	3/22/11 810	[signature]	3/22/11 0810

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.

ANALYTICAL REPORT

Lab Number:	L1104363
Client:	GeoSyntec Consultants 289 Great Road Suite 105 Acton, MA 01720
ATTN:	Todd Creamer
Phone:	(978) 263-9588
Project Name:	WR GRACE VI ASSESSMENT
Project Number:	BR0200
Report Date:	04/19/11

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

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200

Lab Number: L1104363
Report Date: 04/19/11

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1104363-01	260407-OA1	WOBURN, MA	03/31/11 18:07
L1104363-02	260407-OA2	WOBURN, MA	03/31/11 18:05
L1104363-03	260407-17-IA1	WOBURN, MA	03/31/11 17:52
L1104363-04	260407-22-IA1	WOBURN, MA	03/31/11 17:57
L1104363-05	260407-22-IA2	WOBURN, MA	03/31/11 18:00
L1104363-06	260407-20-IA1	WOBURN, MA	03/31/11 17:50
L1104363-07	260407-19-IA1	WOBURN, MA	03/31/11 17:42
L1104363-08	260407-17-SS1	WOBURN, MA	03/31/11 22:15
L1104363-09	260407-22-SS1	WOBURN, MA	04/01/11 13:50
L1104363-10	260407-22-SS2	WOBURN, MA	04/01/11 14:51
L1104363-11	260407-20-SS1	WOBURN, MA	03/31/11 19:54
L1104363-12	260407-19-SS1	WOBURN, MA	04/01/11 11:42
L1104363-13	BD03-03312011	WOBURN, MA	03/31/11 00:00
L1104363-14	BD04-04012011	WOBURN, MA	04/01/11 13:50
L1104363-15	TB02-04012011	WOBURN, MA	04/01/11 13:50

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1104363

Project Number: BR0200 **Report Date:** 04/19/11

MADEP MCP Response Action Analytical Report Certification

This form provides certifications for all samples performed by MCP methods. Please refer to the Sample Results and Container Information sections of this report for specification of MCP methods used for each analysis. The following questions pertain only to MCP Analytical Methods.

An affirmative response to questions A through F is required for "Presumptive Certainty" status		
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	YES
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	YES
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	YES
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?"	YES
E a.	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	YES
E b.	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	YES
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	YES

A response to questions G, H and I is required for "Presumptive Certainty" status		
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	YES
H	Were all QC performance standards specified in the CAM protocol(s) achieved?	YES
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	YES

For any questions answered "No", please refer to the case narrative section on the following page(s).

Please note that sample matrix information is located in the Sample Results section of this report.

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1104363
Project Number: BR0200 **Report Date:** 04/19/11

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.

MCP Related Narratives

Canisters were released from the laboratory on March 10 and 23, 2011.

The canister certification data is provided as an addendum.

Volatile Organics in Air (TO-15)

L1104363-03, -05, -08 and -13 were re-analyzed on dilution in order to quantitate the sample 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.

L1104363-07 results for Acetone should be considered estimated due to co-elution with a non-target peak.

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1104363
Project Number: BR0200 **Report Date:** 04/19/11

Case Narrative (continued)

Volatile Organics in Air (TO-15-SIM)
1,2-Dibromoethane, Bromodichloromethane and Naphthalene were evaluated to 1/2 the RL and are 'J' qualified if the concentration is below the quantitation limit (RDL), but greater than or equal to 1/2 the RDL. Values are estimated.

L1104363-10 was re-analyzed on dilution in order to quantitate the sample 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.

Method blank, WG461822-4, has Naphthalene which is J qualified.

Petroleum Hydrocarbons in Air
L1104363 -01 through -15 and WG461821-5 Duplicate: All significant concentrations of non-petroleum VOCs detected in the TO-15 analysis were subtracted from the corresponding hydrocarbon ranges.

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 M. O'Brien Kathleen O'Brien

Title: Technical Director/Representative Date: 04/19/11

AIR

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1104363
Report Date: 04/19/11

SAMPLE RESULTS

Lab ID:	L1104363-01	Date Collected:	03/31/11 18:07
Client ID:	260407-OA1	Date Received:	04/04/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15		
Analytical Date:	04/09/11 19:55		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Acetone	2.53	1.00	0.078	6.00	2.37	0.185		1
Ethyl Acetate	ND	0.500	0.151	ND	1.80	0.544		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	98		60-140
Bromochloromethane	101		60-140
chlorobenzene-d5	96		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1104363
Report Date: 04/19/11

SAMPLE RESULTS

Lab ID:	L1104363-01	Date Collected:	03/31/11 18:07
Client ID:	260407-OA1	Date Received:	04/04/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	04/09/11 19:55		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	0.028	0.020	0.020	0.138	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	0.035	0.020	0.020	0.077	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	0.176	0.070	0.070	0.562	0.223	0.223		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.206	0.206		1
Carbon tetrachloride	0.079	0.020	0.020	0.497	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	0.030	0.020	0.020	0.130	0.087	0.087		1
Methylene chloride	0.564	0.500	0.500	1.96	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
XYLENE (TOTAL)	0.115	0.060	0.060	0.499	0.260	0.260		1
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	0.201	0.050	0.050	0.757	0.188	0.188		1

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1104363
Report Date: 04/19/11

SAMPLE RESULTS

Lab ID: L1104363-01
Client ID: 260407-OA1
Sample Location: WOBURN, MA

Date Collected: 03/31/11 18:07
Date Received: 04/04/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	100		60-140
bromochloromethane	101		60-140
chlorobenzene-d5	90		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1104363
Report Date: 04/19/11

SAMPLE RESULTS

Lab ID:	L1104363-02	Date Collected:	03/31/11 18:05
Client ID:	260407-OA2	Date Received:	04/04/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15		
Analytical Date:	04/09/11 20:32		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Acetone	2.09	1.00	0.078	4.95	2.37	0.185		1
Ethyl Acetate	ND	0.500	0.151	ND	1.80	0.544		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	102		60-140
Bromochloromethane	98		60-140
chlorobenzene-d5	101		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1104363
Report Date: 04/19/11

SAMPLE RESULTS

Lab ID: L1104363-02
Client ID: 260407-OA2
Sample Location: WOBURN, MA
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 04/09/11 20:32
Analyst: RY

Date Collected: 03/31/11 18:05
Date Received: 04/04/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	0.023	0.020	0.020	0.113	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	0.020	0.020	0.020	0.044	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	0.144	0.070	0.070	0.460	0.223	0.223		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.206	0.206		1
Carbon tetrachloride	0.075	0.020	0.020	0.471	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	0.023	0.020	0.020	0.10	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
XYLENE (TOTAL)	0.085	0.060	0.060	0.369	0.260	0.260		1
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	0.165	0.050	0.050	0.621	0.188	0.188		1

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1104363
Report Date: 04/19/11

SAMPLE RESULTS

Lab ID: L1104363-02
Client ID: 260407-OA2
Sample Location: WOBURN, MA

Date Collected: 03/31/11 18:05
Date Received: 04/04/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	105		60-140
bromochloromethane	98		60-140
chlorobenzene-d5	96		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1104363
Report Date: 04/19/11

SAMPLE RESULTS

Lab ID:	L1104363-03	Date Collected:	03/31/11 17:52
Client ID:	260407-17-IA1	Date Received:	04/04/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15		
Analytical Date:	04/10/11 03:59		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Acetone	2000	1.00	0.078	4750	2.37	0.185	E	1
Ethyl Acetate	102	0.500	0.151	367	1.80	0.544		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	81		60-140
Bromochloromethane	88		60-140
chlorobenzene-d5	83		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1104363
Report Date: 04/19/11

SAMPLE RESULTS

Lab ID:	L1104363-03	Date Collected:	03/31/11 17:52
Client ID:	260407-17-IA1	Date Received:	04/04/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	04/10/11 03:59		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	0.028	0.020	0.020	0.153	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	0.136	0.020	0.020	0.668	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	0.101	0.020	0.020	0.408	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	0.052	0.020	0.020	0.115	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	0.241	0.070	0.070	0.769	0.223	0.223		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.206	0.206		1
Carbon tetrachloride	0.103	0.020	0.020	0.647	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	0.069	0.020	0.020	0.337	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	0.214	0.020	0.020	0.928	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	0.061	0.050	0.025	0.320	0.262	0.131		1
XYLENE (TOTAL)	0.977	0.060	0.060	4.24	0.260	0.260		1
Tetrachloroethene	0.052	0.020	0.020	0.352	0.136	0.136		1
Toluene	17.1	0.050	0.050	64.5	0.188	0.188		1

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1104363
Report Date: 04/19/11

SAMPLE RESULTS

Lab ID: L1104363-03
Client ID: 260407-17-IA1
Sample Location: WOBURN, MA

Date Collected: 03/31/11 17:52
Date Received: 04/04/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	82		60-140
bromochloromethane	85		60-140
chlorobenzene-d5	78		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1104363
Report Date: 04/19/11

SAMPLE RESULTS

Lab ID:	L1104363-03	D	Date Collected:	03/31/11 17:52
Client ID:	260407-17-IA1		Date Received:	04/04/11
Sample Location:	WOBURN, MA		Field Prep:	Not Specified
Matrix:	Air			
Anaytical Method:	48,TO-15			
Analytical Date:	04/14/11 15:43			
Analyst:	RY			

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Acetone	1470	35.0	2.73	3480	83.0	6.48		34.98

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	72		60-140
Bromochloromethane	100		60-140
chlorobenzene-d5	101		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1104363
Report Date: 04/19/11

SAMPLE RESULTS

Lab ID:	L1104363-04	Date Collected:	03/31/11 17:57
Client ID:	260407-22-IA1	Date Received:	04/04/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15		
Analytical Date:	04/09/11 21:09		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Acetone	54.0	1.00	0.078	128	2.37	0.185		1
Ethyl Acetate	2.92	0.500	0.151	10.5	1.80	0.544		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	96		60-140
Bromochloromethane	94		60-140
chlorobenzene-d5	93		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1104363
Report Date: 04/19/11

SAMPLE RESULTS

Lab ID: L1104363-04
Client ID: 260407-22-IA1
Sample Location: WOBURN, MA
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 04/09/11 21:09
Analyst: RY

Date Collected: 03/31/11 17:57
Date Received: 04/04/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	0.236	0.020	0.020	1.16	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	0.121	0.020	0.020	0.489	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	0.225	0.070	0.070	0.718	0.223	0.223		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.206	0.206		1
Carbon tetrachloride	0.077	0.020	0.020	0.484	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	0.226	0.020	0.020	1.10	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	0.310	0.020	0.020	1.34	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	0.073	0.050	0.025	0.382	0.262	0.131		1
XYLENE (TOTAL)	1.56	0.060	0.060	6.76	0.260	0.260		1
Tetrachloroethene	0.067	0.020	0.020	0.454	0.136	0.136		1
Toluene	5.72	0.050	0.050	21.5	0.188	0.188		1

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1104363
Report Date: 04/19/11

SAMPLE RESULTS

Lab ID: L1104363-04
Client ID: 260407-22-IA1
Sample Location: WOBURN, MA

Date Collected: 03/31/11 17:57
Date Received: 04/04/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	97		60-140
bromochloromethane	94		60-140
chlorobenzene-d5	89		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1104363
Report Date: 04/19/11

SAMPLE RESULTS

Lab ID:	L1104363-05	Date Collected:	03/31/11 18:00
Client ID:	260407-22-IA2	Date Received:	04/04/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15		
Analytical Date:	04/10/11 00:53		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Acetone	480	1.00	0.078	1140	2.37	0.185	E	1
Ethyl Acetate	2.57	0.500	0.151	9.24	1.80	0.544		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	99		60-140
Bromochloromethane	95		60-140
chlorobenzene-d5	101		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1104363
Report Date: 04/19/11

SAMPLE RESULTS

Lab ID:	L1104363-05	Date Collected:	03/31/11 18:00
Client ID:	260407-22-IA2	Date Received:	04/04/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	04/10/11 00:53		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	0.224	0.020	0.020	1.10	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	0.108	0.020	0.020	0.437	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	0.240	0.070	0.070	0.766	0.223	0.223		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.206	0.206		1
Carbon tetrachloride	0.075	0.020	0.020	0.471	0.126	0.126		1
Chlorobenzene	0.021	0.020	0.020	0.097	0.092	0.092		1
Chloroform	13.0	0.020	0.020	63.2	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	0.286	0.020	0.020	1.24	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	0.075	0.050	0.025	0.393	0.262	0.131		1
XYLENE (TOTAL)	1.42	0.060	0.060	6.17	0.260	0.260		1
Tetrachloroethene	0.093	0.020	0.020	0.630	0.136	0.136		1
Toluene	5.76	0.050	0.050	21.7	0.188	0.188		1

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1104363
Report Date: 04/19/11

SAMPLE RESULTS

Lab ID: L1104363-05
Client ID: 260407-22-IA2
Sample Location: WOBURN, MA

Date Collected: 03/31/11 18:00
Date Received: 04/04/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	101		60-140
bromochloromethane	94		60-140
chlorobenzene-d5	94		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1104363
Report Date: 04/19/11

SAMPLE RESULTS

Lab ID:	L1104363-05	D	Date Collected:	03/31/11 18:00
Client ID:	260407-22-IA2		Date Received:	04/04/11
Sample Location:	WOBURN, MA		Field Prep:	Not Specified
Matrix:	Air			
Anaytical Method:	48,TO-15			
Analytical Date:	04/10/11 08:57			
Analyst:	RY			

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Acetone	444	10.0	0.780	1050	23.7	1.85		10

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	101		60-140
Bromochloromethane	96		60-140
chlorobenzene-d5	95		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1104363
Report Date: 04/19/11

SAMPLE RESULTS

Lab ID:	L1104363-06	Date Collected:	03/31/11 17:50
Client ID:	260407-20-IA1	Date Received:	04/04/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15		
Analytical Date:	04/10/11 01:30		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Acetone	37.8	1.00	0.078	89.8	2.37	0.185		1
Ethyl Acetate	6.15	0.500	0.151	22.2	1.80	0.544		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	97		60-140
Bromochloromethane	93		60-140
chlorobenzene-d5	96		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1104363
Report Date: 04/19/11

SAMPLE RESULTS

Lab ID:	L1104363-06	Date Collected:	03/31/11 17:50
Client ID:	260407-20-IA1	Date Received:	04/04/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	04/10/11 01:30		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	0.032	0.020	0.020	0.174	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	0.204	0.020	0.020	1.00	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	2.35	0.020	0.020	9.52	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	0.058	0.020	0.020	0.128	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	0.294	0.070	0.070	0.938	0.223	0.223		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.206	0.206		1
Carbon tetrachloride	0.082	0.020	0.020	0.515	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	0.129	0.020	0.020	0.629	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	0.337	0.020	0.020	1.46	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	0.085	0.050	0.025	0.445	0.262	0.131		1
XYLENE (TOTAL)	1.60	0.060	0.060	6.94	0.260	0.260		1
Tetrachloroethene	0.072	0.020	0.020	0.488	0.136	0.136		1
Toluene	14.2	0.050	0.050	53.6	0.188	0.188		1

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1104363
Report Date: 04/19/11

SAMPLE RESULTS

Lab ID: L1104363-06
Client ID: 260407-20-IA1
Sample Location: WOBURN, MA

Date Collected: 03/31/11 17:50
Date Received: 04/04/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	99		60-140
bromochloromethane	92		60-140
chlorobenzene-d5	92		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1104363
Report Date: 04/19/11

SAMPLE RESULTS

Lab ID:	L1104363-07	Date Collected:	03/31/11 17:42
Client ID:	260407-19-IA1	Date Received:	04/04/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15		
Analytical Date:	04/09/11 22:24		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Acetone	23.4	1.00	0.078	55.6	2.37	0.185		1
Ethyl Acetate	1.34	0.500	0.151	4.84	1.80	0.544		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	98		60-140
Bromochloromethane	98		60-140
chlorobenzene-d5	100		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1104363
Report Date: 04/19/11

SAMPLE RESULTS

Lab ID:	L1104363-07	Date Collected:	03/31/11 17:42
Client ID:	260407-19-IA1	Date Received:	04/04/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	04/09/11 22:24		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	0.395	0.020	0.020	1.94	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	0.053	0.020	0.020	0.214	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	0.095	0.020	0.020	0.210	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	0.192	0.020	0.020	1.15	0.120	0.120		1
Benzene	0.293	0.070	0.070	0.935	0.223	0.223		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.206	0.206		1
Carbon tetrachloride	0.076	0.020	0.020	0.478	0.126	0.126		1
Chlorobenzene	0.044	0.020	0.020	0.202	0.092	0.092		1
Chloroform	0.038	0.020	0.020	0.185	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	0.284	0.020	0.020	1.23	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	0.111	0.050	0.025	0.581	0.262	0.131		1
XYLENE (TOTAL)	1.14	0.060	0.060	4.95	0.260	0.260		1
Tetrachloroethene	0.022	0.020	0.020	0.149	0.136	0.136		1
Toluene	2.66	0.050	0.050	10.0	0.188	0.188		1

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1104363
Report Date: 04/19/11

SAMPLE RESULTS

Lab ID: L1104363-07
Client ID: 260407-19-IA1
Sample Location: WOBURN, MA

Date Collected: 03/31/11 17:42
Date Received: 04/04/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	100		60-140
bromochloromethane	96		60-140
chlorobenzene-d5	95		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1104363
Report Date: 04/19/11

SAMPLE RESULTS

Lab ID:	L1104363-08	Date Collected:	03/31/11 22:15
Client ID:	260407-17-SS1	Date Received:	04/04/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Anaytical Method:	48,TO-15		
Analytical Date:	04/10/11 02:07		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Acetone	685	1.00	0.078	1620	2.37	0.185	E	1
Ethyl Acetate	ND	0.500	0.151	ND	1.80	0.544		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	92		60-140
Bromochloromethane	99		60-140
chlorobenzene-d5	104		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1104363
Report Date: 04/19/11

SAMPLE RESULTS

Lab ID:	L1104363-08	Date Collected:	03/31/11 22:15
Client ID:	260407-17-SS1	Date Received:	04/04/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	04/10/11 02:07		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	0.067	0.020	0.020	0.365	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	0.050	0.020	0.020	0.246	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.223	0.223		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.206	0.206		1
Carbon tetrachloride	0.065	0.020	0.020	0.408	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	0.045	0.020	0.020	0.220	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	0.024	0.020	0.020	0.104	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	0.095	0.050	0.025	0.498	0.262	0.131		1
XYLENE (TOTAL)	0.126	0.060	0.060	0.547	0.260	0.260		1
Tetrachloroethene	0.657	0.020	0.020	4.45	0.136	0.136		1
Toluene	0.689	0.050	0.050	2.59	0.188	0.188		1

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1104363
Report Date: 04/19/11

SAMPLE RESULTS

Lab ID: L1104363-08
Client ID: 260407-17-SS1
Sample Location: WOBURN, MA

Date Collected: 03/31/11 22:15
Date Received: 04/04/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	92		60-140
bromochloromethane	97		60-140
chlorobenzene-d5	98		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1104363
Report Date: 04/19/11

SAMPLE RESULTS

Lab ID:	L1104363-08	D	Date Collected:	03/31/11 22:15
Client ID:	260407-17-SS1		Date Received:	04/04/11
Sample Location:	WOBURN, MA		Field Prep:	Not Specified
Matrix:	Soil_Vapor			
Anaytical Method:	48,TO-15			
Analytical Date:	04/10/11 09:33			
Analyst:	RY			

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Acetone	450	10.0	0.780	1070	23.7	1.85		10

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	88		60-140
Bromochloromethane	94		60-140
chlorobenzene-d5	98		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1104363
Report Date: 04/19/11

SAMPLE RESULTS

Lab ID:	L1104363-09	Date Collected:	04/01/11 13:50
Client ID:	260407-22-SS1	Date Received:	04/04/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Anaytical Method:	48,TO-15		
Analytical Date:	04/09/11 23:38		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Acetone	40.3	1.00	0.078	95.6	2.37	0.185		1
Ethyl Acetate	ND	0.500	0.151	ND	1.80	0.544		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	91		60-140
Bromochloromethane	97		60-140
chlorobenzene-d5	104		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1104363
Report Date: 04/19/11

SAMPLE RESULTS

Lab ID:	L1104363-09	Date Collected:	04/01/11 13:50
Client ID:	260407-22-SS1	Date Received:	04/04/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	04/09/11 23:38		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	0.086	0.020	0.020	0.469	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	0.112	0.020	0.020	0.550	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	0.020	0.020	0.020	0.120	0.120	0.120		1
Benzene	0.109	0.070	0.070	0.348	0.223	0.223		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.206	0.206		1
Carbon tetrachloride	0.047	0.020	0.020	0.295	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	0.041	0.020	0.020	0.178	0.087	0.087		1
Methylene chloride	4.91	0.500	0.500	17.0	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	0.140	0.050	0.025	0.733	0.262	0.131		1
XYLENE (TOTAL)	0.248	0.060	0.060	1.08	0.260	0.260		1
Tetrachloroethene	11.8	0.020	0.020	80.0	0.136	0.136		1
Toluene	0.131	0.050	0.050	0.493	0.188	0.188		1

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1104363
Report Date: 04/19/11

SAMPLE RESULTS

Lab ID: L1104363-09
Client ID: 260407-22-SS1
Sample Location: WOBURN, MA

Date Collected: 04/01/11 13:50
Date Received: 04/04/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	0.033	0.020	0.020	0.177	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	91		60-140
bromochloromethane	96		60-140
chlorobenzene-d5	99		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1104363
Report Date: 04/19/11

SAMPLE RESULTS

Lab ID:	L1104363-10	Date Collected:	04/01/11 14:51
Client ID:	260407-22-SS2	Date Received:	04/04/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Anaytical Method:	48,TO-15		
Analytical Date:	04/10/11 04:37		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Acetone	59.0	1.00	0.078	140	2.37	0.185		1
Ethyl Acetate	ND	0.500	0.151	ND	1.80	0.544		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	91		60-140
Bromochloromethane	96		60-140
chlorobenzene-d5	105		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1104363
Report Date: 04/19/11

SAMPLE RESULTS

Lab ID: L1104363-10
Client ID: 260407-22-SS2
Sample Location: WOBURN, MA
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15-SIM
Analytical Date: 04/10/11 04:37
Analyst: RY

Date Collected: 04/01/11 14:51
Date Received: 04/04/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	0.272	0.020	0.020	1.48	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	0.054	0.020	0.020	0.265	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.223	0.223		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.206	0.206		1
Carbon tetrachloride	0.049	0.020	0.020	0.308	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	0.033	0.020	0.020	0.161	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	0.622	0.020	0.020	2.70	0.087	0.087		1
Methylene chloride	2.96	0.500	0.500	10.3	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	0.041	0.050	0.025	0.215	0.262	0.131	J	1
XYLENE (TOTAL)	6.41	0.060	0.060	27.8	0.260	0.260		1
Tetrachloroethene	251	0.020	0.020	1700	0.136	0.136	E	1
Toluene	0.147	0.050	0.050	0.554	0.188	0.188		1

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1104363
Report Date: 04/19/11

SAMPLE RESULTS

Lab ID: L1104363-10
Client ID: 260407-22-SS2
Sample Location: WOBURN, MA

Date Collected: 04/01/11 14:51
Date Received: 04/04/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	0.713	0.020	0.020	3.83	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	91		60-140
bromochloromethane	95		60-140
chlorobenzene-d5	99		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1104363
Report Date: 04/19/11

SAMPLE RESULTS

Lab ID:	L1104363-10	D	Date Collected:	04/01/11 14:51
Client ID:	260407-22-SS2		Date Received:	04/04/11
Sample Location:	WOBURN, MA		Field Prep:	Not Specified
Matrix:	Soil_Vapor			
Anaytical Method:	48,TO-15-SIM			
Analytical Date:	04/10/11 08:21			
Analyst:	RY			

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	341	0.200	0.200	2310	1.36	1.36		10

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	91		60-140
bromochloromethane	96		60-140
chlorobenzene-d5	103		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1104363
Report Date: 04/19/11

SAMPLE RESULTS

Lab ID:	L1104363-11	Date Collected:	03/31/11 19:54
Client ID:	260407-20-SS1	Date Received:	04/04/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Anaytical Method:	48,TO-15		
Analytical Date:	04/10/11 00:15		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Acetone	70.4	1.00	0.078	167	2.37	0.185		1
Ethyl Acetate	ND	0.500	0.151	ND	1.80	0.544		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	100		60-140
Bromochloromethane	95		60-140
chlorobenzene-d5	100		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1104363
Report Date: 04/19/11

SAMPLE RESULTS

Lab ID:	L1104363-11	Date Collected:	03/31/11 19:54
Client ID:	260407-20-SS1	Date Received:	04/04/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	04/10/11 00:15		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	0.766	0.020	0.020	4.18	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	0.705	0.020	0.020	3.46	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	0.067	0.020	0.020	0.271	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	0.097	0.020	0.020	0.214	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	0.037	0.020	0.020	0.222	0.120	0.120		1
Benzene	0.212	0.070	0.070	0.677	0.223	0.223		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.206	0.206		1
Carbon tetrachloride	0.026	0.020	0.020	0.163	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	0.392	0.020	0.020	1.91	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	8.07	0.020	0.020	35.0	0.087	0.087		1
Methylene chloride	1.29	0.500	0.500	4.46	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	0.230	0.050	0.025	1.20	0.262	0.131		1
XYLENE (TOTAL)	73.9	0.060	0.060	321	0.260	0.260		1
Tetrachloroethene	2.84	0.020	0.020	19.2	0.136	0.136		1
Toluene	0.713	0.050	0.050	2.68	0.188	0.188		1

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1104363
Report Date: 04/19/11

SAMPLE RESULTS

Lab ID: L1104363-11
Client ID: 260407-20-SS1
Sample Location: WOBURN, MA

Date Collected: 03/31/11 19:54
Date Received: 04/04/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	0.021	0.020	0.020	0.113	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	0.881	0.500	0.500	4.33	2.46	2.46		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	101		60-140
bromochloromethane	93		60-140
chlorobenzene-d5	96		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1104363
Report Date: 04/19/11

SAMPLE RESULTS

Lab ID:	L1104363-12	Date Collected:	04/01/11 11:42
Client ID:	260407-19-SS1	Date Received:	04/04/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Anaytical Method:	48,TO-15		
Analytical Date:	04/09/11 23:01		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Acetone	32.0	1.00	0.078	76.0	2.37	0.185		1
Ethyl Acetate	ND	0.500	0.151	ND	1.80	0.544		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	93		60-140
Bromochloromethane	98		60-140
chlorobenzene-d5	105		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1104363
Report Date: 04/19/11

SAMPLE RESULTS

Lab ID: L1104363-12
Client ID: 260407-19-SS1
Sample Location: WOBURN, MA
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15-SIM
Analytical Date: 04/09/11 23:01
Analyst: RY

Date Collected: 04/01/11 11:42
Date Received: 04/04/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	0.728	0.020	0.020	3.97	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	0.312	0.020	0.020	1.53	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	0.021	0.020	0.020	0.046	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	0.075	0.020	0.020	0.450	0.120	0.120		1
Benzene	0.132	0.070	0.070	0.421	0.223	0.223		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.206	0.206		1
Carbon tetrachloride	0.028	0.020	0.020	0.176	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	0.299	0.020	0.020	1.46	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	0.548	0.020	0.020	2.38	0.087	0.087		1
Methylene chloride	4.14	0.500	0.500	14.4	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	0.387	0.050	0.025	2.03	0.262	0.131		1
XYLENE (TOTAL)	3.92	0.060	0.060	17.0	0.260	0.260		1
Tetrachloroethene	1.90	0.020	0.020	12.9	0.136	0.136		1
Toluene	0.308	0.050	0.050	1.16	0.188	0.188		1

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1104363
Report Date: 04/19/11

SAMPLE RESULTS

Lab ID: L1104363-12
Client ID: 260407-19-SS1
Sample Location: WOBURN, MA

Date Collected: 04/01/11 11:42
Date Received: 04/04/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	0.028	0.020	0.020	0.150	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	92		60-140
bromochloromethane	97		60-140
chlorobenzene-d5	100		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1104363
Report Date: 04/19/11

SAMPLE RESULTS

Lab ID:	L1104363-13	Date Collected:	03/31/11 00:00
Client ID:	BD03-03312011	Date Received:	04/04/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Anaytical Method:	48,TO-15		
Analytical Date:	04/10/11 02:44		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Acetone	720	1.00	0.078	1710	2.37	0.185	E	1
Ethyl Acetate	0.641	0.500	0.151	2.31	1.80	0.544		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	92		60-140
Bromochloromethane	97		60-140
chlorobenzene-d5	103		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1104363
Report Date: 04/19/11

SAMPLE RESULTS

Lab ID: L1104363-13
Client ID: BD03-03312011
Sample Location: WOBURN, MA
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15-SIM
Analytical Date: 04/10/11 02:44
Analyst: RY

Date Collected: 03/31/11 00:00
Date Received: 04/04/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	0.067	0.020	0.020	0.365	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	0.052	0.020	0.020	0.255	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.223	0.223		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	0.031	0.020	0.020	0.320	0.206	0.206		1
Carbon tetrachloride	0.066	0.020	0.020	0.415	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	0.045	0.020	0.020	0.220	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	0.029	0.020	0.020	0.126	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	0.113	0.050	0.025	0.592	0.262	0.131		1
XYLENE (TOTAL)	0.130	0.060	0.060	0.564	0.260	0.260		1
Tetrachloroethene	0.817	0.020	0.020	5.54	0.136	0.136		1
Toluene	0.731	0.050	0.050	2.75	0.188	0.188		1

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1104363
Report Date: 04/19/11

SAMPLE RESULTS

Lab ID: L1104363-13
Client ID: BD03-03312011
Sample Location: WOBURN, MA
Date Collected: 03/31/11 00:00
Date Received: 04/04/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	92		60-140
bromochloromethane	95		60-140
chlorobenzene-d5	96		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1104363
Report Date: 04/19/11

SAMPLE RESULTS

Lab ID:	L1104363-13 D	Date Collected:	03/31/11 00:00
Client ID:	BD03-03312011	Date Received:	04/04/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Anaytical Method:	48,TO-15		
Analytical Date:	04/10/11 10:09		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Acetone	580	10.0	0.780	1380	23.7	1.85		10

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	93		60-140
Bromochloromethane	96		60-140
chlorobenzene-d5	105		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1104363
Report Date: 04/19/11

SAMPLE RESULTS

Lab ID:	L1104363-14	Date Collected:	04/01/11 13:50
Client ID:	BD04-04012011	Date Received:	04/04/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Anaytical Method:	48,TO-15		
Analytical Date:	04/10/11 03:22		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Acetone	38.1	1.00	0.078	90.4	2.37	0.185		1
Ethyl Acetate	ND	0.500	0.151	ND	1.80	0.544		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	88		60-140
Bromochloromethane	93		60-140
chlorobenzene-d5	102		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1104363
Report Date: 04/19/11

SAMPLE RESULTS

Lab ID: L1104363-14
Client ID: BD04-04012011
Sample Location: WOBURN, MA
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15-SIM
Analytical Date: 04/10/11 03:22
Analyst: RY

Date Collected: 04/01/11 13:50
Date Received: 04/04/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	0.932	0.020	0.020	5.08	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	0.403	0.020	0.020	1.98	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	0.022	0.020	0.020	0.049	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	0.093	0.020	0.020	0.559	0.120	0.120		1
Benzene	0.142	0.070	0.070	0.453	0.223	0.223		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.206	0.206		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	0.382	0.020	0.020	1.86	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	0.687	0.020	0.020	2.98	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	0.515	0.050	0.025	2.70	0.262	0.131		1
XYLENE (TOTAL)	4.89	0.060	0.060	21.2	0.260	0.260		1
Tetrachloroethene	2.46	0.020	0.020	16.7	0.136	0.136		1
Toluene	0.388	0.050	0.050	1.46	0.188	0.188		1

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1104363
Report Date: 04/19/11

SAMPLE RESULTS

Lab ID: L1104363-14
Client ID: BD04-04012011
Sample Location: WOBURN, MA

Date Collected: 04/01/11 13:50
Date Received: 04/04/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	0.033	0.020	0.020	0.177	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	89		60-140
bromochloromethane	92		60-140
chlorobenzene-d5	96		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1104363
Report Date: 04/19/11

SAMPLE RESULTS

Lab ID:	L1104363-15	Date Collected:	04/01/11 13:50
Client ID:	TB02-04012011	Date Received:	04/04/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15		
Analytical Date:	04/09/11 19:18		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Acetone	ND	1.00	0.078	ND	2.37	0.185		1
Ethyl Acetate	ND	0.500	0.151	ND	1.80	0.544		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	103		60-140
Bromochloromethane	103		60-140
chlorobenzene-d5	101		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1104363
Report Date: 04/19/11

SAMPLE RESULTS

Lab ID: L1104363-15
Client ID: TB02-04012011
Sample Location: WOBURN, MA
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 04/15/11 22:02
Analyst: RY

Date Collected: 04/01/11 13:50
Date Received: 04/04/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.223	0.223		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.206	0.206		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.260	0.260		1
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1104363
Report Date: 04/19/11

SAMPLE RESULTS

Lab ID: L1104363-15
Client ID: TB02-04012011
Sample Location: WOBURN, MA
Date Collected: 04/01/11 13:50
Date Received: 04/04/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	78		60-140
bromochloromethane	80		60-140
chlorobenzene-d5	74		60-140

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1104363

Project Number: BR0200 **Report Date:** 04/19/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 04/09/11 18:07

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air (Low Level) - Mansfield Lab for sample(s): 01-15 Batch: WG461820-4								
Acetone	ND	1.00	0.078	ND	2.37	0.185		1
Ethyl Acetate	ND	0.500	0.151	ND	1.80	0.544		1

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1104363

Project Number: BR0200 **Report Date:** 04/19/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15-SIM
Analytical Date: 04/09/11 18:07

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-14 Batch: WG461822-4								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.223	0.223		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.206	0.206		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	0.029	0.050	0.025	0.152	0.262	0.131	J	1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.260	0.260		1
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1104363

Project Number: BR0200 **Report Date:** 04/19/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15-SIM
Analytical Date: 04/09/11 18:07

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-14 Batch: WG461822-4								
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1104363

Project Number: BR0200 **Report Date:** 04/19/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15-SIM
Analytical Date: 04/15/11 14:29

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 15 Batch: WG461822-9								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.223	0.223		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.206	0.206		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.260	0.260		1
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1104363

Project Number: BR0200 **Report Date:** 04/19/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15-SIM
Analytical Date: 04/15/11 14:29

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 15 Batch: WG461822-9								
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Lab Control Sample Analysis
Batch Quality Control

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200

Lab Number: L1104363
Report Date: 04/19/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air (Low Level) - Mansfield Lab Associated sample(s): 01-15 Batch: WG461820-3								
Acetone	102		-		70-130	-		
Ethyl Acetate	103		-		70-130	-		
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-14 Batch: WG461822-3								
1,1,1-Trichloroethane	96		-		70-130	-		25
1,1,2-Trichloroethane	99		-		70-130	-		25
1,1-Dichloroethane	92		-		70-130	-		25
1,1-Dichloroethene	93		-		70-130	-		25
1,2,4-Trimethylbenzene	98		-		70-130	-		25
1,2-Dibromoethane	95		-		70-130	-		25
1,2-Dichloroethane	89		-		70-130	-		25
1,2-Dichloropropane	95		-		70-130	-		25
1,3-Butadiene	96		-		70-130	-		25

Lab Control Sample Analysis
Batch Quality Control

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200

Lab Number: L1104363
Report Date: 04/19/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-14 Batch: WG461822-3								
1,3-Dichlorobenzene	91		-		70-130	-		25
1,4-Dichlorobenzene	91		-		70-130	-		25
Benzene	86		-		70-130	-		25
Bromodichloromethane	98		-		70-130	-		25
Bromoform	87		-		70-130	-		25
Carbon tetrachloride	89		-		70-130	-		25
Chlorobenzene	95		-		70-130	-		25
Chloroform	93		-		70-130	-		25
cis-1,2-Dichloroethene	92		-		70-130	-		25
Ethylbenzene	97		-		70-130	-		25
Methylene chloride	83		-		70-130	-		25
Methyl tert butyl ether	86		-		70-130	-		25
Naphthalene	81		-		70-130	-		25
p/m-Xylene	96		-		70-130	-		25
o-Xylene	95		-		70-130	-		25
Tetrachloroethene	94		-		70-130	-		25
Toluene	88		-		70-130	-		25
trans-1,2-Dichloroethene	86		-		70-130	-		25
trans-1,3-Dichloropropene	89		-		70-130	-		25
Trichloroethene	97		-		70-130	-		25
Vinyl chloride	96		-		70-130	-		25

Lab Control Sample Analysis
Batch Quality Control

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200

Lab Number: L1104363
Report Date: 04/19/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-14 Batch: WG461822-3								
Isopropylbenzene	101		-		70-130	-		25
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 15 Batch: WG461822-8								
1,1,1-Trichloroethane	83		-		70-130	-		25
1,1,2-Trichloroethane	87		-		70-130	-		25
1,1-Dichloroethane	73		-		70-130	-		25
1,1-Dichloroethene	97		-		70-130	-		25
1,2,4-Trimethylbenzene	81		-		70-130	-		25
1,2-Dibromoethane	80		-		70-130	-		25
1,2-Dichloroethane	83		-		70-130	-		25
1,2-Dichloropropane	96		-		70-130	-		25
1,3-Butadiene	103		-		70-130	-		25

Lab Control Sample Analysis
Batch Quality Control

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200

Lab Number: L1104363
Report Date: 04/19/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 15 Batch: WG461822-8								
1,3-Dichlorobenzene	77		-		70-130	-		25
1,4-Dichlorobenzene	77		-		70-130	-		25
Benzene	84		-		70-130	-		25
Bromodichloromethane	89		-		70-130	-		25
Bromoform	78		-		70-130	-		25
Carbon tetrachloride	84		-		70-130	-		25
Chlorobenzene	77		-		70-130	-		25
Chloroform	108		-		70-130	-		25
cis-1,2-Dichloroethene	76		-		70-130	-		25
Ethylbenzene	78		-		70-130	-		25
Methylene chloride	113		-		70-130	-		25
Methyl tert butyl ether	72		-		70-130	-		25
Naphthalene	84		-		70-130	-		25
p/m-Xylene	79		-		70-130	-		25
o-Xylene	79		-		70-130	-		25
Tetrachloroethene	73		-		70-130	-		25
Toluene	71		-		70-130	-		25
trans-1,2-Dichloroethene	82		-		70-130	-		25
trans-1,3-Dichloropropene	81		-		70-130	-		25
Trichloroethene	80		-		70-130	-		25
Vinyl chloride	101		-		70-130	-		25

Lab Control Sample Analysis

Batch Quality Control

Project Name: WR GRACE VI ASSESSMENT

Project Number: BR0200

Lab Number: L1104363

Report Date: 04/19/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 15 Batch: WG461822-8								
Isopropylbenzene	76		-		70-130	-		25

Lab Duplicate Analysis
Batch Quality Control

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200

Lab Number: L1104363
Report Date: 04/19/11

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air (Low Level) - Mansfield Lab Associated sample(s): 01-15 QC Batch ID: WG461820-5 QC Sample: L1104363-04 Client ID: 260407-22-IA1						
Acetone	54.0	50.3	ppbV	7		25
Ethyl Acetate	2.92	2.83	ppbV	3		25

Lab Duplicate Analysis
Batch Quality Control

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200

Lab Number: L1104363
Report Date: 04/19/11

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-15 QC Batch ID: WG461822-5 QC Sample: L1104363-04 Client ID: 260407-22-IA1					
1,1,1-Trichloroethane	ND	ND	ppbV	NC	25
1,1,2-Trichloroethane	ND	ND	ppbV	NC	25
1,1-Dichloroethane	ND	ND	ppbV	NC	25
1,1-Dichloroethene	ND	ND	ppbV	NC	25
1,2,4-Trimethylbenzene	0.236	0.215	ppbV	9	25
1,2-Dibromoethane	ND	ND	ppbV	NC	25
1,2-Dichloroethane	0.121	0.126	ppbV	4	25
1,2-Dichloropropane	ND	ND	ppbV	NC	25
1,3-Butadiene	ND	ND	ppbV	NC	25
1,3-Dichlorobenzene	ND	ND	ppbV	NC	25
1,4-Dichlorobenzene	ND	ND	ppbV	NC	25
Benzene	0.225	0.229	ppbV	2	25
Bromodichloromethane	ND	ND	ppbV	NC	25
Bromoform	ND	ND	ppbV	NC	25
Carbon tetrachloride	0.077	0.076	ppbV	1	25
Chlorobenzene	ND	ND	ppbV	NC	25
Chloroform	0.226	0.233	ppbV	3	25
cis-1,2-Dichloroethene	ND	ND	ppbV	NC	25
Ethylbenzene	0.310	0.294	ppbV	5	25

Lab Duplicate Analysis
Batch Quality Control

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200

Lab Number: L1104363
Report Date: 04/19/11

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-15 QC Batch ID: WG461822-5 QC Sample: L1104363-04 Client ID: 260407-22-IA1					
Methylene chloride	ND	ND	ppbV	NC	25
Methyl tert butyl ether	ND	ND	ppbV	NC	25
Naphthalene	0.073	0.076	ppbV	4	25
XYLENE (TOTAL)	1.56	1.50	ppbV	4	25
Tetrachloroethene	0.067	0.067	ppbV	0	25
Toluene	5.72	5.35	ppbV	7	25
trans-1,2-Dichloroethene	ND	ND	ppbV	NC	25
trans-1,3-Dichloropropene	ND	ND	ppbV	NC	25
Trichloroethene	ND	ND	ppbV	NC	25
Vinyl chloride	ND	ND	ppbV	NC	25
Isopropylbenzene	ND	ND	ppbV	NC	25

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1104363

Project Number: BR0200 **Report Date:** 04/19/11

SAMPLE RESULTS

Lab ID:	L1104363-01	Date Collected:	03/31/11 18:07
Client ID:	260407-OA1	Date Received:	04/04/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	04/09/11 19:55		
Analyst:	BS		

Quality Control Information

Sample Type:	8 Hour Composite
Sample Container Type:	Canister - 6 Liter
Sampling Flow Controller:	Mechanical
Sampling Zone:	Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check:	<=20%
Were all QA/QC procedures REQUIRED by the method followed?	Yes
Were all performance/acceptance standards for the required procedures achieved?	Yes
Were significant modifications made to the method as specified in Sect 11.1.2?	No

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	95		50-200
Bromochloromethane	109		50-200
Chlorobenzene-d5	98		50-200

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1104363

Project Number: BR0200 **Report Date:** 04/19/11

SAMPLE RESULTS

Lab ID:	L1104363-02	Date Collected:	03/31/11 18:05
Client ID:	260407-OA2	Date Received:	04/04/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	04/09/11 20:32		
Analyst:	BS		

Quality Control Information

Sample Type:	8 Hour Composite
Sample Container Type:	Canister - 6 Liter
Sampling Flow Controller:	Mechanical
Sampling Zone:	Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check:	<=20%
Were all QA/QC procedures REQUIRED by the method followed?	Yes
Were all performance/acceptance standards for the required procedures achieved?	Yes
Were significant modifications made to the method as specified in Sect 11.1.2?	No

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	100		50-200
Bromochloromethane	103		50-200
Chlorobenzene-d5	102		50-200

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1104363

Project Number: BR0200 **Report Date:** 04/19/11

SAMPLE RESULTS

Lab ID:	L1104363-03	Date Collected:	03/31/11 17:52
Client ID:	260407-17-IA1	Date Received:	04/04/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	04/10/11 03:59		
Analyst:	BS		

Quality Control Information

Sample Type:	8 Hour Composite
Sample Container Type:	Canister - 6 Liter
Sampling Flow Controller:	Mechanical
Sampling Zone:	Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check:	<=20%
Were all QA/QC procedures REQUIRED by the method followed?	Yes
Were all performance/acceptance standards for the required procedures achieved?	Yes
Were significant modifications made to the method as specified in Sect 11.1.2?	No

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbons in Air - Mansfield Lab						
1,3-Butadiene	ND		ug/m3	2.0	2.0	1
Methyl tert butyl ether	ND		ug/m3	2.0	2.0	1
Benzene	ND		ug/m3	2.0	2.0	1
Toluene	71		ug/m3	2.0	2.0	1
C5-C8 Aliphatics, Adjusted	2200		ug/m3	12	12.	1
Ethylbenzene	ND		ug/m3	2.0	2.0	1
p/m-Xylene	ND		ug/m3	4.0	4.0	1
o-Xylene	ND		ug/m3	2.0	2.0	1
Naphthalene	ND		ug/m3	2.0	2.0	1
C9-C12 Aliphatics, Adjusted	460		ug/m3	14	14.	1
C9-C10 Aromatics Total	14		ug/m3	10	10.	1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	79		50-200
Bromochloromethane	90		50-200
Chlorobenzene-d5	85		50-200

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1104363

Project Number: BR0200 **Report Date:** 04/19/11

SAMPLE RESULTS

Lab ID:	L1104363-04	Date Collected:	03/31/11 17:57
Client ID:	260407-22-IA1	Date Received:	04/04/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	04/09/11 21:09		
Analyst:	BS		

Quality Control Information

Sample Type:	8 Hour Composite
Sample Container Type:	Canister - 6 Liter
Sampling Flow Controller:	Mechanical
Sampling Zone:	Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check:	<=20%
Were all QA/QC procedures REQUIRED by the method followed?	Yes
Were all performance/acceptance standards for the required procedures achieved?	Yes
Were significant modifications made to the method as specified in Sect 11.1.2?	No

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbons in Air - Mansfield Lab						
1,3-Butadiene	ND		ug/m3	2.0	2.0	1
Methyl tert butyl ether	ND		ug/m3	2.0	2.0	1
Benzene	ND		ug/m3	2.0	2.0	1
Toluene	23		ug/m3	2.0	2.0	1
C5-C8 Aliphatics, Adjusted	160		ug/m3	12	12.	1
Ethylbenzene	ND		ug/m3	2.0	2.0	1
p/m-Xylene	5.1		ug/m3	4.0	4.0	1
o-Xylene	ND		ug/m3	2.0	2.0	1
Naphthalene	ND		ug/m3	2.0	2.0	1
C9-C12 Aliphatics, Adjusted	140		ug/m3	14	14.	1
C9-C10 Aromatics Total	10		ug/m3	10	10.	1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	93		50-200
Bromochloromethane	100		50-200
Chlorobenzene-d5	96		50-200

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1104363

Project Number: BR0200 **Report Date:** 04/19/11

SAMPLE RESULTS

Lab ID:	L1104363-05	Date Collected:	03/31/11 18:00
Client ID:	260407-22-IA2	Date Received:	04/04/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	04/10/11 00:53		
Analyst:	BS		

Quality Control Information

Sample Type:	8 Hour Composite
Sample Container Type:	Canister - 6 Liter
Sampling Flow Controller:	Mechanical
Sampling Zone:	Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check:	<=20%
Were all QA/QC procedures REQUIRED by the method followed?	Yes
Were all performance/acceptance standards for the required procedures achieved?	Yes
Were significant modifications made to the method as specified in Sect 11.1.2?	No

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbons in Air - Mansfield Lab						
1,3-Butadiene	ND		ug/m3	2.0	2.0	1
Methyl tert butyl ether	ND		ug/m3	2.0	2.0	1
Benzene	ND		ug/m3	2.0	2.0	1
Toluene	23		ug/m3	2.0	2.0	1
C5-C8 Aliphatics, Adjusted	180		ug/m3	12	12.	1
Ethylbenzene	ND		ug/m3	2.0	2.0	1
p/m-Xylene	4.6		ug/m3	4.0	4.0	1
o-Xylene	ND		ug/m3	2.0	2.0	1
Naphthalene	ND		ug/m3	2.0	2.0	1
C9-C12 Aliphatics, Adjusted	200		ug/m3	14	14.	1
C9-C10 Aromatics Total	ND		ug/m3	10	10.	1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	97		50-200
Bromochloromethane	101		50-200
Chlorobenzene-d5	103		50-200

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1104363

Project Number: BR0200 **Report Date:** 04/19/11

SAMPLE RESULTS

Lab ID:	L1104363-06	Date Collected:	03/31/11 17:50
Client ID:	260407-20-IA1	Date Received:	04/04/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	04/10/11 01:30		
Analyst:	BS		

Quality Control Information

Sample Type:	8 Hour Composite
Sample Container Type:	Canister - 6 Liter
Sampling Flow Controller:	Mechanical
Sampling Zone:	Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check:	<=20%
Were all QA/QC procedures REQUIRED by the method followed?	Yes
Were all performance/acceptance standards for the required procedures achieved?	Yes
Were significant modifications made to the method as specified in Sect 11.1.2?	No

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbons in Air - Mansfield Lab						
1,3-Butadiene	ND		ug/m3	2.0	2.0	1
Methyl tert butyl ether	ND		ug/m3	2.0	2.0	1
Benzene	ND		ug/m3	2.0	2.0	1
Toluene	58		ug/m3	2.0	2.0	1
C5-C8 Aliphatics, Adjusted	1000		ug/m3	12	12.	1
Ethylbenzene	ND		ug/m3	2.0	2.0	1
p/m-Xylene	5.2		ug/m3	4.0	4.0	1
o-Xylene	ND		ug/m3	2.0	2.0	1
Naphthalene	ND		ug/m3	2.0	2.0	1
C9-C12 Aliphatics, Adjusted	99		ug/m3	14	14.	1
C9-C10 Aromatics Total	15		ug/m3	10	10.	1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	94		50-200
Bromochloromethane	97		50-200
Chlorobenzene-d5	99		50-200

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1104363

Project Number: BR0200 **Report Date:** 04/19/11

SAMPLE RESULTS

Lab ID:	L1104363-07	Date Collected:	03/31/11 17:42
Client ID:	260407-19-IA1	Date Received:	04/04/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	04/09/11 22:24		
Analyst:	BS		

Quality Control Information

Sample Type:	8 Hour Composite
Sample Container Type:	Canister - 6 Liter
Sampling Flow Controller:	Mechanical
Sampling Zone:	Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check:	<=20%
Were all QA/QC procedures REQUIRED by the method followed?	Yes
Were all performance/acceptance standards for the required procedures achieved?	Yes
Were significant modifications made to the method as specified in Sect 11.1.2?	No

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbons in Air - Mansfield Lab						
1,3-Butadiene	ND		ug/m3	2.0	2.0	1
Methyl tert butyl ether	ND		ug/m3	2.0	2.0	1
Benzene	ND		ug/m3	2.0	2.0	1
Toluene	11		ug/m3	2.0	2.0	1
C5-C8 Aliphatics, Adjusted	130		ug/m3	12	12.	1
Ethylbenzene	ND		ug/m3	2.0	2.0	1
p/m-Xylene	ND		ug/m3	4.0	4.0	1
o-Xylene	ND		ug/m3	2.0	2.0	1
Naphthalene	ND		ug/m3	2.0	2.0	1
C9-C12 Aliphatics, Adjusted	120		ug/m3	14	14.	1
C9-C10 Aromatics Total	14		ug/m3	10	10.	1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	96		50-200
Bromochloromethane	103		50-200
Chlorobenzene-d5	102		50-200

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1104363

Project Number: BR0200 **Report Date:** 04/19/11

SAMPLE RESULTS

Lab ID:	L1104363-08	Date Collected:	03/31/11 22:15
Client ID:	260407-17-SS1	Date Received:	04/04/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Analytical Method:	96,APH		
Analytical Date:	04/10/11 02:07		
Analyst:	BS		

Quality Control Information

Sample Type:	30 Minute Composite
Sample Container Type:	Canister - 6 Liter
Sampling Flow Controller:	Mechanical
Sampling Zone:	Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check:	<=20%
Were all QA/QC procedures REQUIRED by the method followed?	Yes
Were all performance/acceptance standards for the required procedures achieved?	Yes
Were significant modifications made to the method as specified in Sect 11.1.2?	No

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbons in Air - Mansfield Lab						
1,3-Butadiene	ND		ug/m3	2.0	2.0	1
Methyl tert butyl ether	ND		ug/m3	2.0	2.0	1
Benzene	ND		ug/m3	2.0	2.0	1
Toluene	3.1		ug/m3	2.0	2.0	1
C5-C8 Aliphatics, Adjusted	200		ug/m3	12	12.	1
Ethylbenzene	ND		ug/m3	2.0	2.0	1
p/m-Xylene	ND		ug/m3	4.0	4.0	1
o-Xylene	ND		ug/m3	2.0	2.0	1
Naphthalene	ND		ug/m3	2.0	2.0	1
C9-C12 Aliphatics, Adjusted	18		ug/m3	14	14.	1
C9-C10 Aromatics Total	ND		ug/m3	10	10.	1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	90		50-200
Bromochloromethane	104		50-200
Chlorobenzene-d5	106		50-200

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1104363

Project Number: BR0200 **Report Date:** 04/19/11

SAMPLE RESULTS

Lab ID:	L1104363-09	Date Collected:	04/01/11 13:50
Client ID:	260407-22-SS1	Date Received:	04/04/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Analytical Method:	96,APH		
Analytical Date:	04/09/11 23:38		
Analyst:	BS		

Quality Control Information

Sample Type:	30 Minute Composite
Sample Container Type:	Canister - 6 Liter
Sampling Flow Controller:	Mechanical
Sampling Zone:	Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check:	<=20%
Were all QA/QC procedures REQUIRED by the method followed?	Yes
Were all performance/acceptance standards for the required procedures achieved?	Yes
Were significant modifications made to the method as specified in Sect 11.1.2?	No

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbons in Air - Mansfield Lab						
1,3-Butadiene	ND		ug/m3	2.0	2.0	1
Methyl tert butyl ether	ND		ug/m3	2.0	2.0	1
Benzene	ND		ug/m3	2.0	2.0	1
Toluene	ND		ug/m3	2.0	2.0	1
C5-C8 Aliphatics, Adjusted	140		ug/m3	12	12.	1
Ethylbenzene	ND		ug/m3	2.0	2.0	1
p/m-Xylene	ND		ug/m3	4.0	4.0	1
o-Xylene	ND		ug/m3	2.0	2.0	1
Naphthalene	ND		ug/m3	2.0	2.0	1
C9-C12 Aliphatics, Adjusted	1300		ug/m3	14	14.	1
C9-C10 Aromatics Total	14		ug/m3	10	10.	1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	89		50-200
Bromochloromethane	100		50-200
Chlorobenzene-d5	107		50-200

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1104363

Project Number: BR0200 **Report Date:** 04/19/11

SAMPLE RESULTS

Lab ID:	L1104363-10	Date Collected:	04/01/11 14:51
Client ID:	260407-22-SS2	Date Received:	04/04/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Analytical Method:	96,APH		
Analytical Date:	04/10/11 04:37		
Analyst:	BS		

Quality Control Information

Sample Type:	30 Minute Composite
Sample Container Type:	Canister - 6 Liter
Sampling Flow Controller:	Mechanical
Sampling Zone:	Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check:	<=20%
Were all QA/QC procedures REQUIRED by the method followed?	Yes
Were all performance/acceptance standards for the required procedures achieved?	Yes
Were significant modifications made to the method as specified in Sect 11.1.2?	No

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbons in Air - Mansfield Lab						
1,3-Butadiene	ND		ug/m3	2.0	2.0	1
Methyl tert butyl ether	ND		ug/m3	2.0	2.0	1
Benzene	ND		ug/m3	2.0	2.0	1
Toluene	ND		ug/m3	2.0	2.0	1
C5-C8 Aliphatics, Adjusted	58		ug/m3	12	12.	1
Ethylbenzene	2.8		ug/m3	2.0	2.0	1
p/m-Xylene	14		ug/m3	4.0	4.0	1
o-Xylene	14		ug/m3	2.0	2.0	1
Naphthalene	ND		ug/m3	2.0	2.0	1
C9-C12 Aliphatics, Adjusted	ND		ug/m3	14	14.	1
C9-C10 Aromatics Total	ND		ug/m3	10	10.	1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	89		50-200
Bromochloromethane	103		50-200
Chlorobenzene-d5	107		50-200

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1104363

Project Number: BR0200 **Report Date:** 04/19/11

SAMPLE RESULTS

Lab ID:	L1104363-11	Date Collected:	03/31/11 19:54
Client ID:	260407-20-SS1	Date Received:	04/04/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Analytical Method:	96,APH		
Analytical Date:	04/10/11 00:15		
Analyst:	BS		

Quality Control Information

Sample Type:	30 Minute Composite
Sample Container Type:	Canister - 6 Liter
Sampling Flow Controller:	Mechanical
Sampling Zone:	Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check:	<=20%
Were all QA/QC procedures REQUIRED by the method followed?	Yes
Were all performance/acceptance standards for the required procedures achieved?	Yes
Were significant modifications made to the method as specified in Sect 11.1.2?	No

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbons in Air - Mansfield Lab						
1,3-Butadiene	ND		ug/m3	2.0	2.0	1
Methyl tert butyl ether	ND		ug/m3	2.0	2.0	1
Benzene	ND		ug/m3	2.0	2.0	1
Toluene	3.0		ug/m3	2.0	2.0	1
C5-C8 Aliphatics, Adjusted	90		ug/m3	12	12.	1
Ethylbenzene	36		ug/m3	2.0	2.0	1
p/m-Xylene	180		ug/m3	4.0	4.0	1
o-Xylene	140		ug/m3	2.0	2.0	1
Naphthalene	ND		ug/m3	2.0	2.0	1
C9-C12 Aliphatics, Adjusted	120		ug/m3	14	14.	1
C9-C10 Aromatics Total	19		ug/m3	10	10.	1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	97		50-200
Bromochloromethane	97		50-200
Chlorobenzene-d5	102		50-200

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1104363

Project Number: BR0200 **Report Date:** 04/19/11

SAMPLE RESULTS

Lab ID:	L1104363-12	Date Collected:	04/01/11 11:42
Client ID:	260407-19-SS1	Date Received:	04/04/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Analytical Method:	96,APH		
Analytical Date:	04/09/11 23:01		
Analyst:	BS		

Quality Control Information

Sample Type:	30 Minute Composite
Sample Container Type:	Canister - 6 Liter
Sampling Flow Controller:	Mechanical
Sampling Zone:	Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check:	<=20%
Were all QA/QC procedures REQUIRED by the method followed?	Yes
Were all performance/acceptance standards for the required procedures achieved?	Yes
Were significant modifications made to the method as specified in Sect 11.1.2?	No

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbons in Air - Mansfield Lab						
1,3-Butadiene	ND		ug/m3	2.0	2.0	1
Methyl tert butyl ether	ND		ug/m3	2.0	2.0	1
Benzene	ND		ug/m3	2.0	2.0	1
Toluene	ND		ug/m3	2.0	2.0	1
C5-C8 Aliphatics, Adjusted	230		ug/m3	12	12.	1
Ethylbenzene	2.6		ug/m3	2.0	2.0	1
p/m-Xylene	13		ug/m3	4.0	4.0	1
o-Xylene	4.6		ug/m3	2.0	2.0	1
Naphthalene	2.5		ug/m3	2.0	2.0	1
C9-C12 Aliphatics, Adjusted	310		ug/m3	14	14.	1
C9-C10 Aromatics Total	13		ug/m3	10	10.	1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	91		50-200
Bromochloromethane	103		50-200
Chlorobenzene-d5	106		50-200

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1104363

Project Number: BR0200 **Report Date:** 04/19/11

SAMPLE RESULTS

Lab ID:	L1104363-13	Date Collected:	03/31/11 00:00
Client ID:	BD03-03312011	Date Received:	04/04/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Analytical Method:	96,APH		
Analytical Date:	04/10/11 02:44		
Analyst:	BS		

Quality Control Information

Sample Type:	30 Minute Composite
Sample Container Type:	Canister - 6 Liter
Sampling Flow Controller:	Mechanical
Sampling Zone:	Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check:	<=20%
Were all QA/QC procedures REQUIRED by the method followed?	Yes
Were all performance/acceptance standards for the required procedures achieved?	Yes
Were significant modifications made to the method as specified in Sect 11.1.2?	No

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbons in Air - Mansfield Lab						
1,3-Butadiene	ND		ug/m3	2.0	2.0	1
Methyl tert butyl ether	ND		ug/m3	2.0	2.0	1
Benzene	ND		ug/m3	2.0	2.0	1
Toluene	3.4		ug/m3	2.0	2.0	1
C5-C8 Aliphatics, Adjusted	190		ug/m3	12	12.	1
Ethylbenzene	ND		ug/m3	2.0	2.0	1
p/m-Xylene	ND		ug/m3	4.0	4.0	1
o-Xylene	ND		ug/m3	2.0	2.0	1
Naphthalene	ND		ug/m3	2.0	2.0	1
C9-C12 Aliphatics, Adjusted	20		ug/m3	14	14.	1
C9-C10 Aromatics Total	ND		ug/m3	10	10.	1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	90		50-200
Bromochloromethane	104		50-200
Chlorobenzene-d5	105		50-200

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1104363

Project Number: BR0200 **Report Date:** 04/19/11

SAMPLE RESULTS

Lab ID:	L1104363-14	Date Collected:	04/01/11 13:50
Client ID:	BD04-04012011	Date Received:	04/04/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Analytical Method:	96,APH		
Analytical Date:	04/10/11 03:22		
Analyst:	BS		

Quality Control Information

Sample Type:	30 Minute Composite
Sample Container Type:	Canister - 6 Liter
Sampling Flow Controller:	Mechanical
Sampling Zone:	Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check:	<=20%
Were all QA/QC procedures REQUIRED by the method followed?	Yes
Were all performance/acceptance standards for the required procedures achieved?	Yes
Were significant modifications made to the method as specified in Sect 11.1.2?	No

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbons in Air - Mansfield Lab						
1,3-Butadiene	ND		ug/m3	2.0	2.0	1
Methyl tert butyl ether	ND		ug/m3	2.0	2.0	1
Benzene	ND		ug/m3	2.0	2.0	1
Toluene	ND		ug/m3	2.0	2.0	1
C5-C8 Aliphatics, Adjusted	300		ug/m3	12	12.	1
Ethylbenzene	3.0		ug/m3	2.0	2.0	1
p/m-Xylene	15		ug/m3	4.0	4.0	1
o-Xylene	5.8		ug/m3	2.0	2.0	1
Naphthalene	3.3		ug/m3	2.0	2.0	1
C9-C12 Aliphatics, Adjusted	420		ug/m3	14	14.	1
C9-C10 Aromatics Total	18		ug/m3	10	10.	1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	86		50-200
Bromochloromethane	99		50-200
Chlorobenzene-d5	104		50-200

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1104363

Project Number: BR0200 **Report Date:** 04/19/11

SAMPLE RESULTS

Lab ID:	L1104363-15	Date Collected:	04/01/11 13:50
Client ID:	TB02-04012011	Date Received:	04/04/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	04/09/11 19:18		
Analyst:	BS		

Quality Control Information

Sample Type:	None
Sample Container Type:	Canister - 6 Liter
Sampling Flow Controller:	Mechanical
Sampling Zone:	Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check:	<=20%
Were all QA/QC procedures REQUIRED by the method followed?	Yes
Were all performance/acceptance standards for the required procedures achieved?	Yes
Were significant modifications made to the method as specified in Sect 11.1.2?	No

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	100		50-200
Bromochloromethane	106		50-200
Chlorobenzene-d5	103		50-200

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1104363

Project Number: BR0200 **Report Date:** 04/19/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 96,APH
Analytical Date: 04/09/11 18:07
Analyst: BS

Parameter	Result	Qualifier	Units	RL	MDL
Petroleum Hydrocarbons in Air - Mansfield Lab for sample(s): 01-15 Batch: WG461821-4					
1,3-Butadiene	ND		ug/m3	2.0	2.0
Methyl tert butyl ether	ND		ug/m3	2.0	2.0
Benzene	ND		ug/m3	2.0	2.0
Toluene	ND		ug/m3	2.0	2.0
C5-C8 Aliphatics, Adjusted	ND		ug/m3	12	12.
Ethylbenzene	ND		ug/m3	2.0	2.0
p/m-Xylene	ND		ug/m3	4.0	4.0
o-Xylene	ND		ug/m3	2.0	2.0
Naphthalene	ND		ug/m3	2.0	2.0
C9-C12 Aliphatics, Adjusted	ND		ug/m3	14	14.
C9-C10 Aromatics Total	ND		ug/m3	10	10.

Lab Control Sample Analysis
Batch Quality Control

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200

Lab Number: L1104363
Report Date: 04/19/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Petroleum Hydrocarbons in Air - Mansfield Lab Associated sample(s): 01-15 Batch: WG461821-3								
1,3-Butadiene	87		-		70-130	-		
Methyl tert butyl ether	92		-		70-130	-		
Benzene	98		-		70-130	-		
Toluene	96		-		70-130	-		
C5-C8 Aliphatics, Adjusted	95		-		70-130	-		
Ethylbenzene	106		-		70-130	-		
p/m-Xylene	106		-		70-130	-		
o-Xylene	108		-		70-130	-		
Naphthalene	114		-		50-150	-		
C9-C12 Aliphatics, Adjusted	114		-		70-130	-		
C9-C10 Aromatics Total	103		-		70-130	-		

Lab Duplicate Analysis
Batch Quality Control

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200

Lab Number: L1104363
Report Date: 04/19/11

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Petroleum Hydrocarbons in Air - Mansfield Lab Associated sample(s): 01-15 QC Batch ID: WG461821-5 QC Sample: L1104363-04 Client ID: 260407-22-IA1						
1,3-Butadiene	ND	ND	ug/m3	NC		30
Methyl tert butyl ether	ND	ND	ug/m3	NC		30
Benzene	ND	ND	ug/m3	NC		30
Toluene	23.	22	ug/m3	4		30
C5-C8 Aliphatics, Adjusted	160	150	ug/m3	6		30
Ethylbenzene	ND	ND	ug/m3	NC		30
p/m-Xylene	5.1	4.9	ug/m3	4		30
o-Xylene	ND	ND	ug/m3	NC		30
Naphthalene	ND	ND	ug/m3	NC		30
C9-C12 Aliphatics, Adjusted	140	130	ug/m3	7		30
C9-C10 Aromatics Total	10.	ND	ug/m3	NC		30

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1104363

Project Number: BR0200 **Report Date:** 04/19/11

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
L1104363-01	260407-OA1	0464	#16 AMB		-	-	10.0	9.7	3
L1104363-01	260407-OA1	634	6.0L Can	L1103657-04	-29.2	-5.2	-	-	-
L1104363-02	260407-OA2	0112	#16 AMB		-	-	10.0	10.0	0
L1104363-02	260407-OA2	1052	6.0L Can	L1103657-13	-29.2	0.6	-	-	-
L1104363-03	260407-17-IA1	0335	#16 AMB		-	-	10.0	10.4	4
L1104363-03	260407-17-IA1	688	6.0L Can	L1103657-03	-29.2	-3.6	-	-	-
L1104363-04	260407-22-IA1	0029	#20 AMB		-	-	10.0	9.8	2
L1104363-04	260407-22-IA1	1592	6.0L Can	L1103657-06	-29.2	-4.6	-	-	-
L1104363-05	260407-22-IA2	0256	#20 AMB		-	-	10.0	11.1	10
L1104363-05	260407-22-IA2	992	6.0L Can	L1103657-09	-29.2	-1.5	-	-	-
L1104363-06	260407-20-IA1	0205	#20 AMB		-	-	10.0	10.0	0
L1104363-06	260407-20-IA1	968	6.0L Can	L1103657-02	-29.2	-5.0	-	-	-
L1104363-07	260407-19-IA1	0065	#20 AMB		-	-	10.0	10.6	6
L1104363-07	260407-19-IA1	642	6.0L Can	L1103657-15	-29.2	-2.1	-	-	-
L1104363-08	260407-17-SS1	0426	#90 SV		-	-	200	192	4
L1104363-08	260407-17-SS1	596	6.0L Can	L1103657-05	-29.2	0.5	-	-	-
L1104363-09	260407-22-SS1	0061	#16 AMB		-	-	160	159	1

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1104363

Project Number: BR0200 **Report Date:** 04/19/11

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
L1104363-09	260407-22-SS1	744	6.0L Can	L1103657-01	-29.2	-3.8	-	-	-
L1104363-10	260407-22-SS2	0304	#30 SV		-	-	160	146	9
L1104363-10	260407-22-SS2	782	6.0L Can	L1103657-07	-29.2	-2.8	-	-	-
L1104363-11	260407-20-SS1	0070	#16 AMB		-	-	160	148	8
L1104363-11	260407-20-SS1	1619	6.0L Can	L1103657-14	-29.2	-2.2	-	-	-
L1104363-12	260407-19-SS1	0496	#16 AMB		-	-	160	152	5
L1104363-12	260407-19-SS1	984	6.0L Can	L1103657-12	-29.2	-1.9	-	-	-
L1104363-13	BD03-03312011	1640	6.0L Can	L1102937-06	-30.0	0.4	-	-	-
L1104363-14	BD04-04012011	1615	6.0L Can	L1103657-10	-29.0	-1.9	-	-	-
L1104363-15	TB02-04012011	609	6.0L Can	L1102937-12	-30.0	-28.5	-	-	-

Air Volatiles Can Certification

Project Name:

Project Number: Not Specified

Lab Number: L1102937

Report Date: 04/19/11

Air Canister Certification Results

Lab ID:	L1102937-01	Date Collected:	03/07/11 00:00
Client ID:	CAN 789 FC 436	Date Received:	03/07/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/07/11 20:32		
Analyst:	BS		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.223	0.223		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.206	0.206		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
p/m-Xylene	ND	0.040	0.040	ND	0.174	0.174		1
o-Xylene	ND	0.020	0.020	ND	0.087	0.087		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.260	0.260		1

Project Name: ***Lab Number:*** L1102937

Project Number: Not Specified ***Report Date:*** 04/19/11

Air Canister Certification Results

Lab ID: L1102937-01 Date Collected: 03/07/11 00:00

Client ID: CAN 789 FC 436 Date Received: 03/07/11

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Project Name:

Project Number: Not Specified

Lab Number: L1102937

Report Date: 04/19/11

Air Canister Certification Results

Lab ID:	L1102937-01	Date Collected:	03/07/11 00:00
Client ID:	CAN 789 FC 436	Date Received:	03/07/11
Sample Location:		Field Prep:	Not Specified

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

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	90		60-140
bromochloromethane	94		60-140
chlorobenzene-d5	87		60-140

Project Name:

Project Number: Not Specified

Lab Number: L1102937

Report Date: 04/19/11

Air Canister Certification Results

Lab ID:	L1102937-02	Date Collected:	03/07/11 00:00
Client ID:	CAN 586 FC 363	Date Received:	03/07/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/07/11 21:08		
Analyst:	BS		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.223	0.223		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.206	0.206		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
p/m-Xylene	ND	0.040	0.040	ND	0.174	0.174		1
o-Xylene	ND	0.020	0.020	ND	0.087	0.087		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.260	0.260		1

Project Name:

Project Number: Not Specified

Lab Number: L1102937

Report Date: 04/19/11

Air Canister Certification Results

Lab ID: L1102937-02
Client ID: CAN 586 FC 363
Sample Location:

Date Collected: 03/07/11 00:00
Date Received: 03/07/11
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Project Name: ***Lab Number:*** L1102937

Project Number: Not Specified ***Report Date:*** 04/19/11

Air Canister Certification Results

Lab ID:	L1102937-02	Date Collected:	03/07/11 00:00
Client ID:	CAN 586 FC 363	Date Received:	03/07/11
Sample Location:		Field Prep:	Not Specified

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

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

Project Name:

Project Number: Not Specified

Lab Number: L1102937

Report Date: 04/19/11

Air Canister Certification Results

Lab ID:	L1102937-03	Date Collected:	03/07/11 00:00
Client ID:	CAN 937 FC 287	Date Received:	03/07/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/07/11 21:44		
Analyst:	BS		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.223	0.223		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.206	0.206		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
p/m-Xylene	ND	0.040	0.040	ND	0.174	0.174		1
o-Xylene	ND	0.020	0.020	ND	0.087	0.087		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.260	0.260		1

Project Name:

Project Number: Not Specified

Lab Number: L1102937

Report Date: 04/19/11

Air Canister Certification Results

Lab ID: L1102937-03
Client ID: CAN 937 FC 287
Sample Location:

Date Collected: 03/07/11 00:00
Date Received: 03/07/11
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Project Name:

Project Number: Not Specified

Lab Number: L1102937

Report Date: 04/19/11

Air Canister Certification Results

Lab ID:	L1102937-03	Date Collected:	03/07/11 00:00
Client ID:	CAN 937 FC 287	Date Received:	03/07/11
Sample Location:		Field Prep:	Not Specified

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
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	94		60-140

Project Name:

Project Number: Not Specified

Lab Number: L1102937

Report Date: 04/19/11

Air Canister Certification Results

Lab ID:	L1102937-04	Date Collected:	03/07/11 00:00
Client ID:	CAN 725 FC 459	Date Received:	03/07/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/07/11 22:20		
Analyst:	BS		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.223	0.223		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.206	0.206		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
p/m-Xylene	ND	0.040	0.040	ND	0.174	0.174		1
o-Xylene	ND	0.020	0.020	ND	0.087	0.087		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.260	0.260		1

Project Name:

Project Number: Not Specified

Lab Number: L1102937

Report Date: 04/19/11

Air Canister Certification Results

Lab ID: L1102937-04
Client ID: CAN 725 FC 459
Sample Location:

Date Collected: 03/07/11 00:00
Date Received: 03/07/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Project Name:

Project Number: Not Specified

Lab Number: L1102937

Report Date: 04/19/11

Air Canister Certification Results

Lab ID:	L1102937-04	Date Collected:	03/07/11 00:00
Client ID:	CAN 725 FC 459	Date Received:	03/07/11
Sample Location:		Field Prep:	Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	84		60-140
bromochloromethane	90		60-140
chlorobenzene-d5	86		60-140

Project Name:

Project Number: Not Specified

Lab Number: L1102937

Report Date: 04/19/11

Air Canister Certification Results

Lab ID:	L1102937-05	Date Collected:	03/07/11 00:00
Client ID:	CAN 1550 FC 267	Date Received:	03/07/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/07/11 23:32		
Analyst:	BS		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.223	0.223		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.206	0.206		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
p/m-Xylene	ND	0.040	0.040	ND	0.174	0.174		1
o-Xylene	ND	0.020	0.020	ND	0.087	0.087		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.260	0.260		1

Project Name:

Project Number: Not Specified

Lab Number: L1102937

Report Date: 04/19/11

Air Canister Certification Results

Lab ID: L1102937-05
Client ID: CAN 1550 FC 267
Sample Location:

Date Collected: 03/07/11 00:00
Date Received: 03/07/11
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Project Name: ***Lab Number:*** L1102937

Project Number: Not Specified ***Report Date:*** 04/19/11

Air Canister Certification Results

Lab ID:	L1102937-05	Date Collected:	03/07/11 00:00
Client ID:	CAN 1550 FC 267	Date Received:	03/07/11
Sample Location:		Field Prep:	Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
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	91		60-140

Project Name:

Project Number: Not Specified

Lab Number: L1102937

Report Date: 04/19/11

Air Canister Certification Results

Lab ID:	L1102937-06	Date Collected:	03/07/11 00:00
Client ID:	CAN 1640 FC 299	Date Received:	03/07/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/07/11 22:56		
Analyst:	BS		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.223	0.223		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.206	0.206		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
p/m-Xylene	ND	0.040	0.040	ND	0.174	0.174		1
o-Xylene	ND	0.020	0.020	ND	0.087	0.087		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.260	0.260		1

Project Name:

Project Number: Not Specified

Lab Number: L1102937

Report Date: 04/19/11

Air Canister Certification Results

Lab ID: L1102937-06
Client ID: CAN 1640 FC 299
Sample Location:

Date Collected: 03/07/11 00:00
Date Received: 03/07/11
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Project Name:

Project Number: Not Specified

Lab Number: L1102937

Report Date: 04/19/11

Air Canister Certification Results

Lab ID:	L1102937-06	Date Collected:	03/07/11 00:00
Client ID:	CAN 1640 FC 299	Date Received:	03/07/11
Sample Location:		Field Prep:	Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	92		60-140
bromochloromethane	95		60-140
chlorobenzene-d5	91		60-140

Project Name:

Project Number: Not Specified

Lab Number: L1102937

Report Date: 04/19/11

Air Canister Certification Results

Lab ID:	L1102937-08	Date Collected:	03/07/11 00:00
Client ID:	CAN 1594 FC 442	Date Received:	03/07/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/08/11 11:34		
Analyst:	BS		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.223	0.223		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.206	0.206		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
p/m-Xylene	ND	0.040	0.040	ND	0.174	0.174		1
o-Xylene	ND	0.020	0.020	ND	0.087	0.087		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.260	0.260		1

Project Name:

Project Number: Not Specified

Lab Number: L1102937

Report Date: 04/19/11

Air Canister Certification Results

Lab ID: L1102937-08
Client ID: CAN 1594 FC 442
Sample Location:

Date Collected: 03/07/11 00:00
Date Received: 03/07/11
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Project Name:

Project Number: Not Specified

Lab Number: L1102937

Report Date: 04/19/11

Air Canister Certification Results

Lab ID:	L1102937-08	Date Collected:	03/07/11 00:00
Client ID:	CAN 1594 FC 442	Date Received:	03/07/11
Sample Location:		Field Prep:	Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	87		60-140
bromochloromethane	93		60-140
chlorobenzene-d5	88		60-140

Project Name:

Project Number: Not Specified

Lab Number: L1102937

Report Date: 04/19/11

Air Canister Certification Results

Lab ID:	L1102937-09	Date Collected:	03/07/11 00:00
Client ID:	CAN 787 FC 331	Date Received:	03/07/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/08/11 12:11		
Analyst:	BS		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.223	0.223		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.206	0.206		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
p/m-Xylene	ND	0.040	0.040	ND	0.174	0.174		1
o-Xylene	ND	0.020	0.020	ND	0.087	0.087		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.260	0.260		1

Project Name:

Project Number: Not Specified

Lab Number: L1102937

Report Date: 04/19/11

Air Canister Certification Results

Lab ID: L1102937-09
Client ID: CAN 787 FC 331
Sample Location:

Date Collected: 03/07/11 00:00
Date Received: 03/07/11
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Project Name:

Project Number: Not Specified

Lab Number: L1102937

Report Date: 04/19/11

Air Canister Certification Results

Lab ID:	L1102937-09	Date Collected:	03/07/11 00:00
Client ID:	CAN 787 FC 331	Date Received:	03/07/11
Sample Location:		Field Prep:	Not Specified

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
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	90		60-140

Project Name:

Project Number: Not Specified

Lab Number: L1102937

Report Date: 04/19/11

Air Canister Certification Results

Lab ID:	L1102937-10	Date Collected:	03/07/11 00:00
Client ID:	CAN 1578 FC 443	Date Received:	03/07/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/08/11 12:47		
Analyst:	BS		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.223	0.223		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.206	0.206		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
p/m-Xylene	ND	0.040	0.040	ND	0.174	0.174		1
o-Xylene	ND	0.020	0.020	ND	0.087	0.087		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.260	0.260		1

Project Name:

Project Number: Not Specified

Lab Number: L1102937

Report Date: 04/19/11

Air Canister Certification Results

Lab ID: L1102937-10

Client ID: CAN 1578 FC 443

Sample Location:

Date Collected: 03/07/11 00:00

Date Received: 03/07/11

Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Project Name:

Lab Number: L1102937

Project Number: Not Specified

Report Date: 04/19/11

Air Canister Certification Results

Lab ID:	L1102937-10	Date Collected:	03/07/11 00:00
Client ID:	CAN 1578 FC 443	Date Received:	03/07/11
Sample Location:		Field Prep:	Not Specified

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

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	88		60-140
bromochloromethane	93		60-140
chlorobenzene-d5	87		60-140

Project Name:

Project Number: Not Specified

Lab Number: L1102937

Report Date: 04/19/11

Air Canister Certification Results

Lab ID:	L1102937-11	Date Collected:	03/07/11 00:00
Client ID:	CAN 1552 FC 426 T1	Date Received:	03/07/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/08/11 13:19		
Analyst:	BS		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.223	0.223		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.206	0.206		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
p/m-Xylene	ND	0.040	0.040	ND	0.174	0.174		1
o-Xylene	ND	0.020	0.020	ND	0.087	0.087		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.260	0.260		1

Project Name:

Project Number: Not Specified

Lab Number: L1102937

Report Date: 04/19/11

Air Canister Certification Results

Lab ID: L1102937-11

Client ID: CAN 1552 FC 426 T1

Sample Location:

Date Collected: 03/07/11 00:00

Date Received: 03/07/11

Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Project Name: ***Lab Number:*** L1102937

Project Number: Not Specified ***Report Date:*** 04/19/11

Air Canister Certification Results

Lab ID:	L1102937-11	Date Collected:	03/07/11 00:00
Client ID:	CAN 1552 FC 426 T1	Date Received:	03/07/11
Sample Location:		Field Prep:	Not Specified

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

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	87		60-140
bromochloromethane	107		60-140
chlorobenzene-d5	83		60-140

Project Name:

Project Number: Not Specified

Lab Number: L1102937

Report Date: 04/19/11

Air Canister Certification Results

Lab ID:	L1102937-12	Date Collected:	03/07/11 00:00
Client ID:	CAN 609 FC 038 T2	Date Received:	03/07/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/08/11 10:22		
Analyst:	BS		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.223	0.223		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.206	0.206		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
p/m-Xylene	ND	0.040	0.040	ND	0.174	0.174		1
o-Xylene	ND	0.020	0.020	ND	0.087	0.087		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.260	0.260		1

Project Name:

Project Number: Not Specified

Lab Number: L1102937

Report Date: 04/19/11

Air Canister Certification Results

Lab ID: L1102937-12

Client ID: CAN 609 FC 038 T2

Sample Location:

Date Collected: 03/07/11 00:00

Date Received: 03/07/11

Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Project Name:

Project Number: Not Specified

Lab Number: L1102937

Report Date: 04/19/11

Air Canister Certification Results

Lab ID:	L1102937-12	Date Collected:	03/07/11 00:00
Client ID:	CAN 609 FC 038 T2	Date Received:	03/07/11
Sample Location:		Field Prep:	Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
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	98		60-140

Project Name:

Project Number: Not Specified

Lab Number: L1102937

Report Date: 04/19/11

Air Canister Certification Results

Lab ID:	L1102937-13	Date Collected:	03/07/11 00:00
Client ID:	CAN 811	Date Received:	03/07/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/08/11 23:05		
Analyst:	BS		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.223	0.223		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.206	0.206		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
p/m-Xylene	ND	0.040	0.040	ND	0.174	0.174		1
o-Xylene	ND	0.020	0.020	ND	0.087	0.087		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.260	0.260		1

Project Name:

Project Number: Not Specified

Lab Number: L1102937

Report Date: 04/19/11

Air Canister Certification Results

Lab ID: L1102937-13
Client ID: CAN 811
Sample Location:

Date Collected: 03/07/11 00:00
Date Received: 03/07/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Project Name:

Lab Number: L1102937

Project Number: Not Specified

Report Date: 04/19/11

Air Canister Certification Results

Lab ID:	L1102937-13	Date Collected:	03/07/11 00:00
Client ID:	CAN 811	Date Received:	03/07/11
Sample Location:		Field Prep:	Not Specified

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

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	94		60-140
bromochloromethane	112		60-140
chlorobenzene-d5	93		60-140

Project Name:

Project Number: Not Specified

Lab Number: L1102937

Report Date: 04/19/11

Air Canister Certification Results

Lab ID:	L1102937-14	Date Collected:	03/07/11 00:00
Client ID:	CAN 970	Date Received:	03/07/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/08/11 23:41		
Analyst:	BS		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.223	0.223		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.206	0.206		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
p/m-Xylene	ND	0.040	0.040	ND	0.174	0.174		1
o-Xylene	ND	0.020	0.020	ND	0.087	0.087		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.260	0.260		1

Project Name:

Project Number: Not Specified

Lab Number: L1102937

Report Date: 04/19/11

Air Canister Certification Results

Lab ID: L1102937-14
Client ID: CAN 970
Sample Location:

Date Collected: 03/07/11 00:00
Date Received: 03/07/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Project Name:

Project Number: Not Specified

Lab Number: L1102937

Report Date: 04/19/11

Air Canister Certification Results

Lab ID:	L1102937-14	Date Collected:	03/07/11 00:00
Client ID:	CAN 970	Date Received:	03/07/11
Sample Location:		Field Prep:	Not Specified

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

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	96		60-140
bromochloromethane	113		60-140
chlorobenzene-d5	90		60-140

Project Name:

Project Number: Not Specified

Lab Number: L1102937

Report Date: 04/19/11

Air Canister Certification Results

Lab ID:	L1102937-15	Date Collected:	03/07/11 00:00
Client ID:	CAN 936 FC 350	Date Received:	03/07/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/09/11 00:18		
Analyst:	BS		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.223	0.223		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.206	0.206		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
p/m-Xylene	ND	0.040	0.040	ND	0.174	0.174		1
o-Xylene	ND	0.020	0.020	ND	0.087	0.087		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.260	0.260		1

Project Name:

Project Number: Not Specified

Lab Number: L1102937

Report Date: 04/19/11

Air Canister Certification Results

Lab ID: L1102937-15
Client ID: CAN 936 FC 350
Sample Location:

Date Collected: 03/07/11 00:00
Date Received: 03/07/11
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Project Name:

Lab Number: L1102937

Project Number: Not Specified

Report Date: 04/19/11

Air Canister Certification Results

Lab ID:	L1102937-15	Date Collected:	03/07/11 00:00
Client ID:	CAN 936 FC 350	Date Received:	03/07/11
Sample Location:		Field Prep:	Not Specified

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

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	93		60-140
bromochloromethane	114		60-140
chlorobenzene-d5	92		60-140

Project Name:

Project Number: Not Specified

Lab Number: L1102937

Report Date: 04/19/11

Air Canister Certification Results

Lab ID:	L1102937-16	Date Collected:	03/07/11 00:00
Client ID:	CAN 653 FC 497	Date Received:	03/07/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/09/11 00:53		
Analyst:	BS		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.223	0.223		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.206	0.206		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
p/m-Xylene	ND	0.040	0.040	ND	0.174	0.174		1
o-Xylene	ND	0.020	0.020	ND	0.087	0.087		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.260	0.260		1

Project Name:

Project Number: Not Specified

Lab Number: L1102937

Report Date: 04/19/11

Air Canister Certification Results

Lab ID: L1102937-16
Client ID: CAN 653 FC 497
Sample Location:

Date Collected: 03/07/11 00:00
Date Received: 03/07/11
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Project Name:

Project Number: Not Specified

Lab Number: L1102937

Report Date: 04/19/11

Air Canister Certification Results

Lab ID:	L1102937-16	Date Collected:	03/07/11 00:00
Client ID:	CAN 653 FC 497	Date Received:	03/07/11
Sample Location:		Field Prep:	Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	99		60-140
bromochloromethane	115		60-140
chlorobenzene-d5	93		60-140

Project Name:

Project Number: Not Specified

Lab Number: L1102937

Report Date: 04/19/11

Air Canister Certification Results

Lab ID:	L1102937-17	Date Collected:	03/07/11 00:00
Client ID:	CAN 620 FC 010	Date Received:	03/07/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/09/11 01:30		
Analyst:	BS		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.223	0.223		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.206	0.206		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
p/m-Xylene	ND	0.040	0.040	ND	0.174	0.174		1
o-Xylene	ND	0.020	0.020	ND	0.087	0.087		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.260	0.260		1

Project Name:

Project Number: Not Specified

Lab Number: L1102937

Report Date: 04/19/11

Air Canister Certification Results

Lab ID: L1102937-17
Client ID: CAN 620 FC 010
Sample Location:

Date Collected: 03/07/11 00:00
Date Received: 03/07/11
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Project Name: ***Lab Number:*** L1102937

Project Number: Not Specified ***Report Date:*** 04/19/11

Air Canister Certification Results

Lab ID:	L1102937-17	Date Collected:	03/07/11 00:00
Client ID:	CAN 620 FC 010	Date Received:	03/07/11
Sample Location:		Field Prep:	Not Specified

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

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	99		60-140
bromochloromethane	115		60-140
chlorobenzene-d5	93		60-140

Project Name: W.R. GRACE
Project Number: BR0200
Lab Number: L1103657
Report Date: 04/19/11

Air Canister Certification Results

Lab ID:	L1103657-01	Date Collected:	03/21/11 00:00
Client ID:	CAN 744 FC 335	Date Received:	03/21/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15		
Analytical Date:	03/21/11 18:07		
Analyst:	BS		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Acetone	0.089	1.00	0.078	0.211	2.37	0.185	J	1
Ethyl Acetate	ND	0.500	0.151	ND	1.80	0.544		1

Project Name: W.R. GRACE
Project Number: BR0200
Lab Number: L1103657
Report Date: 04/19/11

Air Canister Certification Results

Lab ID: L1103657-01
Client ID: CAN 744 FC 335
Sample Location:
Date Collected: 03/21/11 00:00
Date Received: 03/21/11
Field Prep: Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	86		60-140
Bromochloromethane	89		60-140
chlorobenzene-d5	87		60-140

Project Name: W.R. GRACE
Project Number: BR0200
Lab Number: L1103657
Report Date: 04/19/11

Air Canister Certification Results

Lab ID:	L1103657-01	Date Collected:	03/21/11 00:00
Client ID:	CAN 744 FC 335	Date Received:	03/21/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/21/11 18:07		
Analyst:	BS		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.223	0.223		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.206	0.206		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
p/m-Xylene	ND	0.040	0.040	ND	0.174	0.174		1
o-Xylene	ND	0.020	0.020	ND	0.087	0.087		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.260	0.260		1

Project Name: W.R. GRACE
Project Number: BR0200
Lab Number: L1103657
Report Date: 04/19/11

Air Canister Certification Results

Lab ID: L1103657-01
Client ID: CAN 744 FC 335
Sample Location:
Date Collected: 03/21/11 00:00
Date Received: 03/21/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Project Name: W.R. GRACE
Project Number: BR0200
Lab Number: L1103657
Report Date: 04/19/11

Air Canister Certification Results

Lab ID: L1103657-01
Client ID: CAN 744 FC 335
Sample Location:
Date Collected: 03/21/11 00:00
Date Received: 03/21/11
Field Prep: Not Specified

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

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

Project Name: W.R. GRACE
Project Number: BR0200
Lab Number: L1103657
Report Date: 04/19/11

Air Canister Certification Results

Lab ID:	L1103657-02	Date Collected:	03/21/11 00:00
Client ID:	CAN 968 FC 205	Date Received:	03/21/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15		
Analytical Date:	03/21/11 18:44		
Analyst:	BS		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Acetone	0.095	1.00	0.078	0.225	2.37	0.185	J	1
Ethyl Acetate	ND	0.500	0.151	ND	1.80	0.544		1

Project Name: W.R. GRACE
Project Number: BR0200
Lab Number: L1103657
Report Date: 04/19/11

Air Canister Certification Results

Lab ID: L1103657-02
Client ID: CAN 968 FC 205
Sample Location:
Date Collected: 03/21/11 00:00
Date Received: 03/21/11
Field Prep: Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	92		60-140
Bromochloromethane	90		60-140
chlorobenzene-d5	92		60-140

Project Name: W.R. GRACE
Project Number: BR0200
Lab Number: L1103657
Report Date: 04/19/11

Air Canister Certification Results

Lab ID:	L1103657-02	Date Collected:	03/21/11 00:00
Client ID:	CAN 968 FC 205	Date Received:	03/21/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/21/11 18:44		
Analyst:	BS		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.223	0.223		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.206	0.206		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
p/m-Xylene	ND	0.040	0.040	ND	0.174	0.174		1
o-Xylene	ND	0.020	0.020	ND	0.087	0.087		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.260	0.260		1

Project Name: W.R. GRACE
Project Number: BR0200
Lab Number: L1103657
Report Date: 04/19/11

Air Canister Certification Results

Lab ID: L1103657-02
Client ID: CAN 968 FC 205
Sample Location:

Date Collected: 03/21/11 00:00
Date Received: 03/21/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Project Name: W.R. GRACE
Project Number: BR0200
Lab Number: L1103657
Report Date: 04/19/11

Air Canister Certification Results

Lab ID: L1103657-02
Client ID: CAN 968 FC 205
Sample Location:

Date Collected: 03/21/11 00:00
Date Received: 03/21/11
Field Prep: Not Specified

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

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

Project Name: W.R. GRACE
Project Number: BR0200
Lab Number: L1103657
Report Date: 04/19/11

Air Canister Certification Results

Lab ID:	L1103657-03	Date Collected:	03/21/11 00:00
Client ID:	CAN 688 FC 112	Date Received:	03/21/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15		
Analytical Date:	03/21/11 19:21		
Analyst:	BS		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Acetone	0.097	1.00	0.078	0.230	2.37	0.185	J	1
Ethyl Acetate	ND	0.500	0.151	ND	1.80	0.544		1

Project Name: W.R. GRACE
Project Number: BR0200
Lab Number: L1103657
Report Date: 04/19/11

Air Canister Certification Results

Lab ID: L1103657-03
Client ID: CAN 688 FC 112
Sample Location:
Date Collected: 03/21/11 00:00
Date Received: 03/21/11
Field Prep: Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	84		60-140
Bromochloromethane	86		60-140
chlorobenzene-d5	88		60-140

Project Name: W.R. GRACE
Project Number: BR0200
Lab Number: L1103657
Report Date: 04/19/11

Air Canister Certification Results

Lab ID:	L1103657-03	Date Collected:	03/21/11 00:00
Client ID:	CAN 688 FC 112	Date Received:	03/21/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/21/11 19:21		
Analyst:	BS		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.223	0.223		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.206	0.206		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
p/m-Xylene	ND	0.040	0.040	ND	0.174	0.174		1
o-Xylene	ND	0.020	0.020	ND	0.087	0.087		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.260	0.260		1

Project Name: W.R. GRACE
Project Number: BR0200
Lab Number: L1103657
Report Date: 04/19/11

Air Canister Certification Results

Lab ID: L1103657-03
Client ID: CAN 688 FC 112
Sample Location:

Date Collected: 03/21/11 00:00
Date Received: 03/21/11
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Project Name: W.R. GRACE
Project Number: BR0200
Lab Number: L1103657
Report Date: 04/19/11

Air Canister Certification Results

Lab ID: L1103657-03
Client ID: CAN 688 FC 112
Sample Location:

Date Collected: 03/21/11 00:00
Date Received: 03/21/11
Field Prep: Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	86		60-140
bromochloromethane	90		60-140
chlorobenzene-d5	89		60-140

Project Name: W.R. GRACE
Project Number: BR0200
Lab Number: L1103657
Report Date: 04/19/11

Air Canister Certification Results

Lab ID:	L1103657-04	Date Collected:	03/21/11 00:00
Client ID:	CAN 634 FC 065	Date Received:	03/21/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15		
Analytical Date:	03/21/11 19:58		
Analyst:	BS		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Acetone	ND	1.00	0.078	ND	2.37	0.185		1
Ethyl Acetate	ND	0.500	0.151	ND	1.80	0.544		1

Project Name: W.R. GRACE
Project Number: BR0200
Lab Number: L1103657
Report Date: 04/19/11

Air Canister Certification Results

Lab ID: L1103657-04
Client ID: CAN 634 FC 065
Sample Location:
Date Collected: 03/21/11 00:00
Date Received: 03/21/11
Field Prep: Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	78		60-140
Bromochloromethane	82		60-140
chlorobenzene-d5	78		60-140

Project Name: W.R. GRACE
Project Number: BR0200
Lab Number: L1103657
Report Date: 04/19/11

Air Canister Certification Results

Lab ID:	L1103657-04	Date Collected:	03/21/11 00:00
Client ID:	CAN 634 FC 065	Date Received:	03/21/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/21/11 19:58		
Analyst:	BS		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.223	0.223		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.206	0.206		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
p/m-Xylene	ND	0.040	0.040	ND	0.174	0.174		1
o-Xylene	ND	0.020	0.020	ND	0.087	0.087		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.260	0.260		1

Project Name: W.R. GRACE
Project Number: BR0200
Lab Number: L1103657
Report Date: 04/19/11

Air Canister Certification Results

Lab ID: L1103657-04
Client ID: CAN 634 FC 065
Sample Location:

Date Collected: 03/21/11 00:00
Date Received: 03/21/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Project Name: W.R. GRACE
Project Number: BR0200
Lab Number: L1103657
Report Date: 04/19/11

Air Canister Certification Results

Lab ID: L1103657-04
Client ID: CAN 634 FC 065
Sample Location:
Date Collected: 03/21/11 00:00
Date Received: 03/21/11
Field Prep: Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	80		60-140
bromochloromethane	86		60-140
chlorobenzene-d5	80		60-140

Project Name: W.R. GRACE
Project Number: BR0200
Lab Number: L1103657
Report Date: 04/19/11

Air Canister Certification Results

Lab ID:	L1103657-05	Date Collected:	03/21/11 00:00
Client ID:	CAN 596 FC 256	Date Received:	03/21/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15		
Analytical Date:	03/21/11 20:34		
Analyst:	BS		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Acetone	ND	1.00	0.078	ND	2.37	0.185		1
Ethyl Acetate	ND	0.500	0.151	ND	1.80	0.544		1

Project Name: W.R. GRACE
Project Number: BR0200
Lab Number: L1103657
Report Date: 04/19/11

Air Canister Certification Results

Lab ID: L1103657-05
Client ID: CAN 596 FC 256
Sample Location:
Date Collected: 03/21/11 00:00
Date Received: 03/21/11
Field Prep: Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	90		60-140
Bromochloromethane	89		60-140
chlorobenzene-d5	89		60-140

Project Name: W.R. GRACE
Project Number: BR0200
Lab Number: L1103657
Report Date: 04/19/11

Air Canister Certification Results

Lab ID:	L1103657-05	Date Collected:	03/21/11 00:00
Client ID:	CAN 596 FC 256	Date Received:	03/21/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/21/11 20:34		
Analyst:	BS		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.223	0.223		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.206	0.206		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
p/m-Xylene	ND	0.040	0.040	ND	0.174	0.174		1
o-Xylene	ND	0.020	0.020	ND	0.087	0.087		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.260	0.260		1

Project Name: W.R. GRACE
Project Number: BR0200
Lab Number: L1103657
Report Date: 04/19/11

Air Canister Certification Results

Lab ID: L1103657-05
Client ID: CAN 596 FC 256
Sample Location:
Date Collected: 03/21/11 00:00
Date Received: 03/21/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Project Name: W.R. GRACE
Project Number: BR0200
Lab Number: L1103657
Report Date: 04/19/11

Air Canister Certification Results

Lab ID: L1103657-05
Client ID: CAN 596 FC 256
Sample Location:

Date Collected: 03/21/11 00:00
Date Received: 03/21/11
Field Prep: Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	93		60-140
bromochloromethane	94		60-140
chlorobenzene-d5	90		60-140

Project Name: W.R. GRACE
Project Number: BR0200
Lab Number: L1103657
Report Date: 04/19/11

Air Canister Certification Results

Lab ID:	L1103657-06	Date Collected:	03/21/11 00:00
Client ID:	CAN 1592 FC 464	Date Received:	03/21/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15		
Analytical Date:	03/21/11 21:11		
Analyst:	BS		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Acetone	0.086	1.00	0.078	0.204	2.37	0.185	J	1
Ethyl Acetate	ND	0.500	0.151	ND	1.80	0.544		1

Project Name: W.R. GRACE
Project Number: BR0200
Lab Number: L1103657
Report Date: 04/19/11

Air Canister Certification Results

Lab ID: L1103657-06
Client ID: CAN 1592 FC 464
Sample Location:
Date Collected: 03/21/11 00:00
Date Received: 03/21/11
Field Prep: Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	83		60-140
Bromochloromethane	85		60-140
chlorobenzene-d5	85		60-140

Project Name: W.R. GRACE
Project Number: BR0200
Lab Number: L1103657
Report Date: 04/19/11

Air Canister Certification Results

Lab ID:	L1103657-06	Date Collected:	03/21/11 00:00
Client ID:	CAN 1592 FC 464	Date Received:	03/21/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/21/11 21:11		
Analyst:	BS		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.223	0.223		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.206	0.206		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
p/m-Xylene	ND	0.040	0.040	ND	0.174	0.174		1
o-Xylene	ND	0.020	0.020	ND	0.087	0.087		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.260	0.260		1

Project Name: W.R. GRACE
Project Number: BR0200
Lab Number: L1103657
Report Date: 04/19/11

Air Canister Certification Results

Lab ID: L1103657-06
Client ID: CAN 1592 FC 464
Sample Location:

Date Collected: 03/21/11 00:00
Date Received: 03/21/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Project Name: W.R. GRACE
Project Number: BR0200
Lab Number: L1103657
Report Date: 04/19/11

Air Canister Certification Results

Lab ID: L1103657-06
Client ID: CAN 1592 FC 464
Sample Location:

Date Collected: 03/21/11 00:00
Date Received: 03/21/11
Field Prep: Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	85		60-140
bromochloromethane	90		60-140
chlorobenzene-d5	86		60-140

Project Name: W.R. GRACE
Project Number: BR0200
Lab Number: L1103657
Report Date: 04/19/11

Air Canister Certification Results

Lab ID:	L1103657-07	Date Collected:	03/21/11 00:00
Client ID:	CAN 782 FC 029	Date Received:	03/21/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15		
Analytical Date:	03/21/11 21:47		
Analyst:	BS		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Acetone	0.082	1.00	0.078	0.195	2.37	0.185	J	1
Ethyl Acetate	ND	0.500	0.151	ND	1.80	0.544		1

Project Name: W.R. GRACE
Project Number: BR0200
Lab Number: L1103657
Report Date: 04/19/11

Air Canister Certification Results

Lab ID: L1103657-07
Client ID: CAN 782 FC 029
Sample Location:
Date Collected: 03/21/11 00:00
Date Received: 03/21/11
Field Prep: Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	80		60-140
Bromochloromethane	84		60-140
chlorobenzene-d5	81		60-140

Project Name: W.R. GRACE
Project Number: BR0200
Lab Number: L1103657
Report Date: 04/19/11

Air Canister Certification Results

Lab ID:	L1103657-07	Date Collected:	03/21/11 00:00
Client ID:	CAN 782 FC 029	Date Received:	03/21/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/21/11 21:47		
Analyst:	BS		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.223	0.223		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.206	0.206		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
p/m-Xylene	ND	0.040	0.040	ND	0.174	0.174		1
o-Xylene	ND	0.020	0.020	ND	0.087	0.087		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.260	0.260		1

Project Name: W.R. GRACE
Project Number: BR0200
Lab Number: L1103657
Report Date: 04/19/11

Air Canister Certification Results

Lab ID: L1103657-07
Client ID: CAN 782 FC 029
Sample Location:

Date Collected: 03/21/11 00:00
Date Received: 03/21/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Project Name: W.R. GRACE
Project Number: BR0200
Lab Number: L1103657
Report Date: 04/19/11

Air Canister Certification Results

Lab ID: L1103657-07
Client ID: CAN 782 FC 029
Sample Location:
Date Collected: 03/21/11 00:00
Date Received: 03/21/11
Field Prep: Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	83		60-140
bromochloromethane	89		60-140
chlorobenzene-d5	81		60-140

Project Name: W.R. GRACE
Project Number: BR0200
Lab Number: L1103657
Report Date: 04/19/11

Air Canister Certification Results

Lab ID:	L1103657-09	Date Collected:	03/21/11 00:00
Client ID:	CAN 992	Date Received:	03/21/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15		
Analytical Date:	03/21/11 23:01		
Analyst:	BS		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Acetone	ND	1.00	0.078	ND	2.37	0.185		1
Ethyl Acetate	ND	0.500	0.151	ND	1.80	0.544		1

Project Name: W.R. GRACE
Project Number: BR0200
Lab Number: L1103657
Report Date: 04/19/11

Air Canister Certification Results

Lab ID: L1103657-09
Client ID: CAN 992
Sample Location:

Date Collected: 03/21/11 00:00
Date Received: 03/21/11
Field Prep: Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	98		60-140
Bromochloromethane	94		60-140
chlorobenzene-d5	94		60-140

Project Name: W.R. GRACE
Project Number: BR0200
Lab Number: L1103657
Report Date: 04/19/11

Air Canister Certification Results

Lab ID:	L1103657-09	Date Collected:	03/21/11 00:00
Client ID:	CAN 992	Date Received:	03/21/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/21/11 23:01		
Analyst:	BS		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.223	0.223		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.206	0.206		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
p/m-Xylene	ND	0.040	0.040	ND	0.174	0.174		1
o-Xylene	ND	0.020	0.020	ND	0.087	0.087		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.260	0.260		1

Project Name: W.R. GRACE
Project Number: BR0200
Lab Number: L1103657
Report Date: 04/19/11

Air Canister Certification Results

Lab ID: L1103657-09
Client ID: CAN 992
Sample Location:

Date Collected: 03/21/11 00:00
Date Received: 03/21/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Project Name: W.R. GRACE
Project Number: BR0200
Lab Number: L1103657
Report Date: 04/19/11

Air Canister Certification Results

Lab ID: L1103657-09
Client ID: CAN 992
Sample Location:

Date Collected: 03/21/11 00:00
Date Received: 03/21/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
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	95		60-140

Project Name: W.R. GRACE
Project Number: BR0200
Lab Number: L1103657
Report Date: 04/19/11

Air Canister Certification Results

Lab ID:	L1103657-10	Date Collected:	03/21/11 00:00
Client ID:	CAN 1615 FC 070	Date Received:	03/21/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15		
Analytical Date:	03/23/11 18:42		
Analyst:	BS		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Acetone	ND	1.00	0.078	ND	2.37	0.185		1
Ethyl Acetate	ND	0.500	0.151	ND	1.80	0.544		1

Project Name: W.R. GRACE
Project Number: BR0200
Lab Number: L1103657
Report Date: 04/19/11

Air Canister Certification Results

Lab ID: L1103657-10
Client ID: CAN 1615 FC 070
Sample Location:

Date Collected: 03/21/11 00:00
Date Received: 03/21/11
Field Prep: Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	82		60-140
Bromochloromethane	94		60-140
chlorobenzene-d5	84		60-140

Project Name: W.R. GRACE
Project Number: BR0200
Lab Number: L1103657
Report Date: 04/19/11

Air Canister Certification Results

Lab ID:	L1103657-10	Date Collected:	03/21/11 00:00
Client ID:	CAN 1615 FC 070	Date Received:	03/21/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/23/11 18:42		
Analyst:	BS		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.223	0.223		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.206	0.206		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
p/m-Xylene	ND	0.040	0.040	ND	0.174	0.174		1
o-Xylene	ND	0.020	0.020	ND	0.087	0.087		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.260	0.260		1

Project Name: W.R. GRACE
Project Number: BR0200
Lab Number: L1103657
Report Date: 04/19/11

Air Canister Certification Results

Lab ID: L1103657-10
Client ID: CAN 1615 FC 070
Sample Location:
Date Collected: 03/21/11 00:00
Date Received: 03/21/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Project Name: W.R. GRACE
Project Number: BR0200
Lab Number: L1103657
Report Date: 04/19/11

Air Canister Certification Results

Lab ID: L1103657-10
Client ID: CAN 1615 FC 070
Sample Location:

Date Collected: 03/21/11 00:00
Date Received: 03/21/11
Field Prep: Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	81		60-140
bromochloromethane	97		60-140
chlorobenzene-d5	84		60-140

Project Name: W.R. GRACE
Project Number: BR0200
Lab Number: L1103657
Report Date: 04/19/11

Air Canister Certification Results

Lab ID:	L1103657-12	Date Collected:	03/21/11 00:00
Client ID:	CAN 984 FC 061	Date Received:	03/21/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15		
Analytical Date:	03/22/11 10:36		
Analyst:	BS		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Acetone	0.096	1.00	0.078	0.228	2.37	0.185	J	1
Ethyl Acetate	ND	0.500	0.151	ND	1.80	0.544		1

Project Name: W.R. GRACE
Project Number: BR0200
Lab Number: L1103657
Report Date: 04/19/11

Air Canister Certification Results

Lab ID:	L1103657-12	Date Collected:	03/21/11 00:00
Client ID:	CAN 984 FC 061	Date Received:	03/21/11
Sample Location:		Field Prep:	Not Specified

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

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	87		60-140
Bromochloromethane	82		60-140
chlorobenzene-d5	86		60-140

Project Name: W.R. GRACE
Project Number: BR0200
Lab Number: L1103657
Report Date: 04/19/11

Air Canister Certification Results

Lab ID:	L1103657-12	Date Collected:	03/21/11 00:00
Client ID:	CAN 984 FC 061	Date Received:	03/21/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/22/11 10:36		
Analyst:	BS		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.223	0.223		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.206	0.206		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
p/m-Xylene	ND	0.040	0.040	ND	0.174	0.174		1
o-Xylene	ND	0.020	0.020	ND	0.087	0.087		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.260	0.260		1

Project Name: W.R. GRACE
Project Number: BR0200
Lab Number: L1103657
Report Date: 04/19/11

Air Canister Certification Results

Lab ID: L1103657-12
Client ID: CAN 984 FC 061
Sample Location:

Date Collected: 03/21/11 00:00
Date Received: 03/21/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Project Name: W.R. GRACE
Project Number: BR0200
Lab Number: L1103657
Report Date: 04/19/11

Air Canister Certification Results

Lab ID: L1103657-12
Client ID: CAN 984 FC 061
Sample Location:

Date Collected: 03/21/11 00:00
Date Received: 03/21/11
Field Prep: Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	90		60-140
bromochloromethane	88		60-140
chlorobenzene-d5	88		60-140

Project Name: W.R. GRACE
Project Number: BR0200
Lab Number: L1103657
Report Date: 04/19/11

Air Canister Certification Results

Lab ID:	L1103657-13	Date Collected:	03/21/11 00:00
Client ID:	CAN 1052 FC 304	Date Received:	03/21/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15		
Analytical Date:	03/22/11 11:13		
Analyst:	BS		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Acetone	0.089	1.00	0.078	0.211	2.37	0.185	J	1
Ethyl Acetate	ND	0.500	0.151	ND	1.80	0.544		1

Project Name: W.R. GRACE
Project Number: BR0200
Lab Number: L1103657
Report Date: 04/19/11

Air Canister Certification Results

Lab ID: L1103657-13
Client ID: CAN 1052 FC 304
Sample Location:

Date Collected: 03/21/11 00:00
Date Received: 03/21/11
Field Prep: Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	92		60-140
Bromochloromethane	86		60-140
chlorobenzene-d5	89		60-140

Project Name: W.R. GRACE
Project Number: BR0200
Lab Number: L1103657
Report Date: 04/19/11

Air Canister Certification Results

Lab ID:	L1103657-13	Date Collected:	03/21/11 00:00
Client ID:	CAN 1052 FC 304	Date Received:	03/21/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/22/11 11:13		
Analyst:	BS		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.223	0.223		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.206	0.206		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
p/m-Xylene	ND	0.040	0.040	ND	0.174	0.174		1
o-Xylene	ND	0.020	0.020	ND	0.087	0.087		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.260	0.260		1

Project Name: W.R. GRACE
Project Number: BR0200
Lab Number: L1103657
Report Date: 04/19/11

Air Canister Certification Results

Lab ID: L1103657-13
Client ID: CAN 1052 FC 304
Sample Location:

Date Collected: 03/21/11 00:00
Date Received: 03/21/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Project Name: W.R. GRACE
Project Number: BR0200
Lab Number: L1103657
Report Date: 04/19/11

Air Canister Certification Results

Lab ID:	L1103657-13	Date Collected:	03/21/11 00:00
Client ID:	CAN 1052 FC 304	Date Received:	03/21/11
Sample Location:		Field Prep:	Not Specified

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

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	94		60-140
bromochloromethane	91		60-140
chlorobenzene-d5	90		60-140

Project Name: W.R. GRACE
Project Number: BR0200
Lab Number: L1103657
Report Date: 04/19/11

Air Canister Certification Results

Lab ID:	L1103657-14	Date Collected:	03/21/11 00:00
Client ID:	CAN 1619 FC 496	Date Received:	03/21/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15		
Analytical Date:	03/22/11 11:50		
Analyst:	BS		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Acetone	0.085	1.00	0.078	0.202	2.37	0.185	J	1
Ethyl Acetate	ND	0.500	0.151	ND	1.80	0.544		1

Project Name: W.R. GRACE
Project Number: BR0200
Lab Number: L1103657
Report Date: 04/19/11

Air Canister Certification Results

Lab ID: L1103657-14
Client ID: CAN 1619 FC 496
Sample Location:

Date Collected: 03/21/11 00:00
Date Received: 03/21/11
Field Prep: Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	91		60-140
Bromochloromethane	85		60-140
chlorobenzene-d5	87		60-140

Project Name: W.R. GRACE
Project Number: BR0200
Lab Number: L1103657
Report Date: 04/19/11

Air Canister Certification Results

Lab ID:	L1103657-14	Date Collected:	03/21/11 00:00
Client ID:	CAN 1619 FC 496	Date Received:	03/21/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/22/11 11:50		
Analyst:	BS		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.223	0.223		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.206	0.206		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
p/m-Xylene	ND	0.040	0.040	ND	0.174	0.174		1
o-Xylene	ND	0.020	0.020	ND	0.087	0.087		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.260	0.260		1

Project Name: W.R. GRACE
Project Number: BR0200
Lab Number: L1103657
Report Date: 04/19/11

Air Canister Certification Results

Lab ID: L1103657-14
Client ID: CAN 1619 FC 496
Sample Location:

Date Collected: 03/21/11 00:00
Date Received: 03/21/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Project Name: W.R. GRACE
Project Number: BR0200
Lab Number: L1103657
Report Date: 04/19/11

Air Canister Certification Results

Lab ID: L1103657-14
Client ID: CAN 1619 FC 496
Sample Location:

Date Collected: 03/21/11 00:00
Date Received: 03/21/11
Field Prep: Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	94		60-140
bromochloromethane	90		60-140
chlorobenzene-d5	88		60-140

Project Name: W.R. GRACE
Project Number: BR0200
Lab Number: L1103657
Report Date: 04/19/11

Air Canister Certification Results

Lab ID:	L1103657-15	Date Collected:	03/21/11 00:00
Client ID:	CAN 642 FC 365	Date Received:	03/21/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15		
Analytical Date:	03/23/11 19:19		
Analyst:	BS		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Acetone	ND	1.00	0.078	ND	2.37	0.185		1
Ethyl Acetate	ND	0.500	0.151	ND	1.80	0.544		1

Project Name: W.R. GRACE
Project Number: BR0200
Lab Number: L1103657
Report Date: 04/19/11

Air Canister Certification Results

Lab ID: L1103657-15
Client ID: CAN 642 FC 365
Sample Location:
Date Collected: 03/21/11 00:00
Date Received: 03/21/11
Field Prep: Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	81		60-140
Bromochloromethane	91		60-140
chlorobenzene-d5	85		60-140

Project Name: W.R. GRACE
Project Number: BR0200
Lab Number: L1103657
Report Date: 04/19/11

Air Canister Certification Results

Lab ID:	L1103657-15	Date Collected:	03/21/11 00:00
Client ID:	CAN 642 FC 365	Date Received:	03/21/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/23/11 19:19		
Analyst:	BS		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.223	0.223		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.206	0.206		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
p/m-Xylene	ND	0.040	0.040	ND	0.174	0.174		1
o-Xylene	ND	0.020	0.020	ND	0.087	0.087		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.260	0.260		1

Project Name: W.R. GRACE
Project Number: BR0200
Lab Number: L1103657
Report Date: 04/19/11

Air Canister Certification Results

Lab ID: L1103657-15
Client ID: CAN 642 FC 365
Sample Location:
Date Collected: 03/21/11 00:00
Date Received: 03/21/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Project Name: W.R. GRACE
Project Number: BR0200
Lab Number: L1103657
Report Date: 04/19/11

Air Canister Certification Results

Lab ID: L1103657-15
Client ID: CAN 642 FC 365
Sample Location:
Date Collected: 03/21/11 00:00
Date Received: 03/21/11
Field Prep: Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	80		60-140
bromochloromethane	93		60-140
chlorobenzene-d5	86		60-140

AIR Petro Can Certification

Project Name: Not Specified
Project Number: Not Specified
Lab Number: L1102937
Report Date: 04/19/11

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1102937-01	Date Collected:	03/07/11 00:00
Client ID:	CAN 789 FC 436	Date Received:	03/07/11
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	03/07/11 20:32		
Analyst:	BS		

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

Project Name: Not Specified
Project Number: Not Specified
Lab Number: L1102937
Report Date: 04/19/11

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1102937-02	Date Collected:	03/07/11 00:00
Client ID:	CAN 586 FC 363	Date Received:	03/07/11
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	03/07/11 21:08		
Analyst:	BS		

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

Project Name: Not Specified
Project Number: Not Specified

Lab Number: L1102937
Report Date: 04/19/11

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1102937-03	Date Collected:	03/07/11 00:00
Client ID:	CAN 937 FC 287	Date Received:	03/07/11
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	03/07/11 21:44		
Analyst:	BS		

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

Project Name: Not Specified
Project Number: Not Specified

Lab Number: L1102937
Report Date: 04/19/11

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1102937-04	Date Collected:	03/07/11 00:00
Client ID:	CAN 725 FC 459	Date Received:	03/07/11
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	03/07/11 22:20		
Analyst:	BS		

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

Project Name: Not Specified
Project Number: Not Specified
Lab Number: L1102937
Report Date: 04/19/11

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1102937-05	Date Collected:	03/07/11 00:00
Client ID:	CAN 1550 FC 267	Date Received:	03/07/11
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	03/07/11 23:32		
Analyst:	BS		

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

Project Name: Not Specified
Project Number: Not Specified
Lab Number: L1102937
Report Date: 04/19/11

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1102937-06	Date Collected:	03/07/11 00:00
Client ID:	CAN 1640 FC 299	Date Received:	03/07/11
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	03/07/11 22:56		
Analyst:	BS		

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

Project Name: Not Specified
Project Number: Not Specified
Lab Number: L1102937
Report Date: 04/19/11

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1102937-08	Date Collected:	03/07/11 00:00
Client ID:	CAN 1594 FC 442	Date Received:	03/07/11
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	03/08/11 11:34		
Analyst:	BS		

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

Project Name: Not Specified
Project Number: Not Specified
Lab Number: L1102937
Report Date: 04/19/11

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1102937-09	Date Collected:	03/07/11 00:00
Client ID:	CAN 787 FC 331	Date Received:	03/07/11
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	03/08/11 12:11		
Analyst:	BS		

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

Project Name: Not Specified
Project Number: Not Specified
Lab Number: L1102937
Report Date: 04/19/11

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1102937-10	Date Collected:	03/07/11 00:00
Client ID:	CAN 1578 FC 443	Date Received:	03/07/11
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	03/08/11 12:47		
Analyst:	BS		

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

Project Name: Not Specified **Lab Number:** L1102937

Project Number: Not Specified **Report Date:** 04/19/11

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1102937-11	Date Collected:	03/07/11 00:00
Client ID:	CAN 1552 FC 426 T1	Date Received:	03/07/11
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	03/08/11 13:19		
Analyst:	BS		

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

Project Name: Not Specified **Lab Number:** L1102937

Project Number: Not Specified **Report Date:** 04/19/11

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1102937-12	Date Collected:	03/07/11 00:00
Client ID:	CAN 609 FC 038 T2	Date Received:	03/07/11
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	03/08/11 10:22		
Analyst:	BS		

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

Project Name: Not Specified
Project Number: Not Specified

Lab Number: L1102937
Report Date: 04/19/11

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1102937-13	Date Collected:	03/07/11 00:00
Client ID:	CAN 811	Date Received:	03/07/11
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	03/08/11 23:05		
Analyst:	BS		

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

Project Name: Not Specified
Project Number: Not Specified

Lab Number: L1102937
Report Date: 04/19/11

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1102937-14	Date Collected:	03/07/11 00:00
Client ID:	CAN 970	Date Received:	03/07/11
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	03/08/11 23:41		
Analyst:	BS		

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

Project Name: Not Specified **Lab Number:** L1102937

Project Number: Not Specified **Report Date:** 04/19/11

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1102937-15	Date Collected:	03/07/11 00:00
Client ID:	CAN 936 FC 350	Date Received:	03/07/11
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	03/09/11 00:18		
Analyst:	BS		

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

Project Name: Not Specified
Project Number: Not Specified
Lab Number: L1102937
Report Date: 04/19/11

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1102937-16	Date Collected:	03/07/11 00:00
Client ID:	CAN 653 FC 497	Date Received:	03/07/11
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	03/09/11 00:53		
Analyst:	BS		

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

Project Name: Not Specified
Project Number: Not Specified

Lab Number: L1102937
Report Date: 04/19/11

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1102937-17	Date Collected:	03/07/11 00:00
Client ID:	CAN 620 FC 010	Date Received:	03/07/11
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	03/09/11 01:30		
Analyst:	BS		

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

Project Name: W.R. GRACE **Lab Number:** L1103657

Project Number: BR0200 **Report Date:** 04/19/11

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1103657-01	Date Collected:	03/21/11 00:00
Client ID:	CAN 744 FC 335	Date Received:	03/21/11
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	03/21/11 18:07		
Analyst:	BS		

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

Project Name: W.R. GRACE **Lab Number:** L1103657

Project Number: BR0200 **Report Date:** 04/19/11

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1103657-02	Date Collected:	03/21/11 00:00
Client ID:	CAN 968 FC 205	Date Received:	03/21/11
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	03/21/11 18:44		
Analyst:	BS		

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

Project Name: W.R. GRACE **Lab Number:** L1103657

Project Number: BR0200 **Report Date:** 04/19/11

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1103657-03	Date Collected:	03/21/11 00:00
Client ID:	CAN 688 FC 112	Date Received:	03/21/11
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	03/21/11 19:21		
Analyst:	BS		

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

Project Name: W.R. GRACE **Lab Number:** L1103657

Project Number: BR0200 **Report Date:** 04/19/11

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1103657-04	Date Collected:	03/21/11 00:00
Client ID:	CAN 634 FC 065	Date Received:	03/21/11
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	03/21/11 19:58		
Analyst:	BS		

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

Project Name: W.R. GRACE **Lab Number:** L1103657

Project Number: BR0200 **Report Date:** 04/19/11

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1103657-05	Date Collected:	03/21/11 00:00
Client ID:	CAN 596 FC 256	Date Received:	03/21/11
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	03/21/11 20:34		
Analyst:	BS		

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

Project Name: W.R. GRACE **Lab Number:** L1103657

Project Number: BR0200 **Report Date:** 04/19/11

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1103657-06	Date Collected:	03/21/11 00:00
Client ID:	CAN 1592 FC 464	Date Received:	03/21/11
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	03/21/11 21:11		
Analyst:	BS		

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

Project Name: W.R. GRACE **Lab Number:** L1103657

Project Number: BR0200 **Report Date:** 04/19/11

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1103657-07	Date Collected:	03/21/11 00:00
Client ID:	CAN 782 FC 029	Date Received:	03/21/11
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	03/21/11 21:47		
Analyst:	BS		

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

Project Name: W.R. GRACE **Lab Number:** L1103657

Project Number: BR0200 **Report Date:** 04/19/11

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1103657-09	Date Collected:	03/21/11 00:00
Client ID:	CAN 992	Date Received:	03/21/11
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	03/21/11 23:01		
Analyst:	BS		

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

Project Name: W.R. GRACE **Lab Number:** L1103657

Project Number: BR0200 **Report Date:** 04/19/11

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1103657-10	Date Collected:	03/21/11 00:00
Client ID:	CAN 1615 FC 070	Date Received:	03/21/11
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	03/23/11 00:07		
Analyst:	BS		

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

Project Name: W.R. GRACE **Lab Number:** L1103657

Project Number: BR0200 **Report Date:** 04/19/11

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1103657-12	Date Collected:	03/21/11 00:00
Client ID:	CAN 984 FC 061	Date Received:	03/21/11
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	03/22/11 10:36		
Analyst:	BS		

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

Project Name: W.R. GRACE **Lab Number:** L1103657

Project Number: BR0200 **Report Date:** 04/19/11

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1103657-13	Date Collected:	03/21/11 00:00
Client ID:	CAN 1052 FC 304	Date Received:	03/21/11
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	03/22/11 11:13		
Analyst:	BS		

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

Project Name: W.R. GRACE **Lab Number:** L1103657

Project Number: BR0200 **Report Date:** 04/19/11

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1103657-14	Date Collected:	03/21/11 00:00
Client ID:	CAN 1619 FC 496	Date Received:	03/21/11
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	03/22/11 11:50		
Analyst:	BS		

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

Project Name: W.R. GRACE **Lab Number:** L1103657

Project Number: BR0200 **Report Date:** 04/19/11

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1103657-15	Date Collected:	03/21/11 00:00
Client ID:	CAN 642 FC 365	Date Received:	03/21/11
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	03/23/11 15:45		
Analyst:	BS		

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

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200

Lab Number: L1104363
Report Date: 04/19/11

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information

Cooler	Custody Seal
N/A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1104363-01A	Canister - 6 Liter	N/A	N/A		Y	Absent	APH-10(30),TO15-LL(30),TO15-SIM-UNI(30)
L1104363-02A	Canister - 6 Liter	N/A	N/A		Y	Absent	APH-10(30),TO15-LL(30),TO15-SIM-UNI(30)
L1104363-03A	Canister - 6 Liter	N/A	N/A		Y	Absent	APH-10(30),TO15-LL(30),TO15-SIM-UNI(30)
L1104363-04A	Canister - 6 Liter	N/A	N/A		Y	Absent	APH-10(30),TO15-LL(30),TO15-SIM-UNI(30)
L1104363-05A	Canister - 6 Liter	N/A	N/A		Y	Absent	APH-10(30),TO15-LL(30),TO15-SIM-UNI(30)
L1104363-06A	Canister - 6 Liter	N/A	N/A		Y	Absent	APH-10(30),TO15-LL(30),TO15-SIM-UNI(30)
L1104363-07A	Canister - 6 Liter	N/A	N/A		Y	Absent	APH-10(30),TO15-LL(30),TO15-SIM-UNI(30)
L1104363-08A	Canister - 6 Liter	N/A	N/A		Y	Absent	APH-10(30),TO15-SIM-UNI(30)
L1104363-09A	Canister - 6 Liter	N/A	N/A		Y	Absent	APH-10(30),TO15-SIM-UNI(30)
L1104363-10A	Canister - 6 Liter	N/A	N/A		Y	Absent	APH-10(30),TO15-SIM-UNI(30)
L1104363-11A	Canister - 6 Liter	N/A	N/A		Y	Absent	APH-10(30),TO15-SIM-UNI(30)
L1104363-12A	Canister - 6 Liter	N/A	N/A		Y	Absent	APH-10(30),TO15-SIM-UNI(30)
L1104363-13A	Canister - 6 Liter	N/A	N/A		Y	Absent	APH-10(30),TO15-SIM-UNI(30)
L1104363-14A	Canister - 6 Liter	N/A	N/A		Y	Absent	APH-10(30),TO15-SIM-UNI(30)
L1104363-15A	Canister - 6 Liter	N/A	N/A		Y	Absent	APH-10(30),TO15-LL(30),TO15-SIM-UNI(30)

*Values in parentheses indicate holding time in days

Project Name:	WR GRACE VI ASSESSMENT	**Lab Number:**	L1104363
Project Number:	BR0200	**Report Date:**	04/19/11

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.
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.

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.
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.
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

Project Name:	WR GRACE VI ASSESSMENT	**Lab Number:**	L1104363
Project Number:	BR0200	**Report Date:**	04/19/11

Data Qualifiers

the sample concentrations are less 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. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL). This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample.

Report Format: DU Report with "J" Qualifiers

REFERENCES

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

96 Method for the Determination of Air-Phase Petroleum Hydrocarbons (APH), MassDEP, December 2009, Revision 1 with QC Requirements & Performance Standards for the Analysis of APH by GC/MS under the Massachusetts Contingency Plan, WSC-CAM-IXA, July 2010.

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 March 23, 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.)

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.)

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

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, EPA 200.8, SM2540D, 2540G, EPA 120.1, SM2510B, EPA 180.1, 245.1, 1631E, SW-846 7470A, 9040B, 6020, 9010B, 9014 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, 9010B, 9014, 1311, 1312, 3050B, 3051, 3060A, 7196A, 7470A, 7471A, 9040B, 9045C, 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, 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, 9014, 9040B, 120.1, SM2510B, 4500CN-E, 4500H-B, EPA 376.2, 180.1, 9010B. 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 2

CHAIN OF CUSTODY

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

Date Rec'd in Lab:

ALPHA Job #: L1104363

Client Information

Client: Geosyntec Consultants
Address: 289 Great Rd, Ste 105
Acton, MA 01720
Phone: (978) 263-9588
Fax: (978) 263-9594
Email: tcreamer@geosyntec.com

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: WR Grace VI Assessment
Project Location: BP0200
Project #: Woburn MA
Project Manager: Todd Creamer
ALPHA Quote #:

Turn-Around Time

☑ Standard ☐ RUSH (only confirmed if pre-approved!)

Date Due: Time:

Report Information - Data Deliverables

☐ FAX
☒ ADEx
Criteria Checker: TBD
(Default based on Regulatory Criteria Indicated)
Other Formats:
☒ EMAIL (standard pdf report)
☐ Additional Deliverables:

Report to: (if different than Project Manager)

Billing Information

☒ Same as Client info PO #: BP0200

Regulatory Requirements/Report Limits

State/Fed	Program	Criteria
See QAPP		

Other Project Specific Requirements/Comments:

All Columns Below Must Be Filled Out

ANALYSIS

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	I D Can	I D - Flow Controller	TO-14A by TO-15	~~TO-15~~ acetone ethyl acetate	TO-15 SIM	APH	FIXED GASES	TO-13A	TO-4 / TO-10	Sample Comments (i.e. PID)
-1	260407-OA1	3/31/11	0949	1807	-29.79	-7.91	AA	SWB	6L	634	0464	X		X	X				
-2	260407-OA2	3/31/11	0950	1805	-29.73	-2.20	AA	SWB	6L	1052	0112	X		X	X				
-3	260407-17-IA1	3/31/11	1010	1752	-29.72	-6.53	AA	SWB	6L	688	0335	X		X	X				
-4	260407-22-IA1	3/31/11	1021	1757	-29.60	-6.17	AA	SWB	6L	1592	0029	X		X	X				
-5	260407-22-IA2	3/31/11	1025	1800	-29.57	-3.21	AA	SWB	6L	992	0256	X		X	X				
-6	260407-20-IA1	3/31/11	1015	1750	-29.80	-6.53	AA	SWB	6L	968	0205	X		X	X				
-7	260407-19-IA1	3/31/11	0957	1742	-29.68	-3.95	AA	SWB	6L	642	0065	X		X	X				
-8	260407-17-SS1	3/31/11	2118	2215	-29.57	-1.22	SV	SWB	6L	596	0426	X		X	X				
-9	260407-22-SS1	4/1/11	1311	1350	-29.14	-4.43	SV	SWB	6L	744	0061	X		X	X				
-10	260407-22-SS2	4/1/11	1418	1451	-28.42	-3.58	SV	SWB	6L	782	0304	X		X	X				

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

Container Type

Relinquished By:	Date/Time	Received By:	Date/Time:
	4/2/2011 1150		4-4-11 1135
	4/4/11 1330		4/4/11 1330

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.

Form No: 101-02 (19-Jun-09)

Serial_No:04191116:33

AIR ANALYSIS

PAGE 2 OF 2

CHAIN OF CUSTODY

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

Date Rec'd in Lab:

ALPHA Job #: L1104363

Client Information

Client: Geosyntec Consultants
Address: 289 Great Rd, Ste 105
Acton, MA 01720
Phone: (978) 263-9588
Fax: (978) 263-9594
Email: tcreamer@geosyntec.com

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: WR Grace VI Assessment
Project Location: Woburn, MA
Project #: BR0200
Project Manager: Todd Creamer
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)

Date Due: Time:

Report Information - Data Deliverables

☐ FAX
☒ ADEx
Criteria Checker: TBD
(Default based on Regulatory Criteria Indicated)
Other Formats:
☒ EMAIL (standard pdf report)
☐ Additional Deliverables:

Report to: (if different than Project Manager)

Billing Information

☒ Same as Client info PO #: BR0200

Regulatory Requirements/Report Limits

State/Fed	Program	Criteria
See QAPP		

Other Project Specific Requirements/Comments:

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	I D Can	I D - Flow Controller	TO-14A by TO-15	~~TO-15~~ acetone ethyl acetate	TO-15 SIM	APH	FIXED GASES	TO-13A	TO-4 / TO-10	Sample Comments (i.e. PID)
-11	260407-20-SS1	3/31/11	1918	1954	-29.64	-3.61	SV	SWB	6L	1619	070	X	X	X					
-12	260407-19-SS1	4/1/11	1035	1142	-29.13	-4.32	SV	SWB	6L	984	096	X	X	X					
-13	BD03-03312011	3/31/11	-	-	-29.64	-1.38	SV	SWB	6L	1640	tee	X	X	X					
-14	BD04-04012011	4/1/11	-	-	-29.98	-4.44	SV	SWB	6L	1615	tee	X	X	X					
-15	TB02-04012011	4/1/11	-	-	-	-	-	SWB	6L	609	—	X	X	X					

SWB 4/1/11

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

Container Type

Relinquished By:	Date/Time	Received By:	Date/Time:
[signature]	4/2/2011 1150	[signature]	4/4/11 1155
Pat Gilda	4/4/11 1330	[signature]	4/4/11 1330

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.

Form No: 101-02 (19-Jun-09)

Serial_No:04191116:33

AIR ANALYSIS

PAGE 1 OF 2

CHAIN OF CUSTODY

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

Date Rec'd in Lab:

ALPHA Job #: L1104363

Client Information

Client: Geosyntec Consultants
Address: 289 Great Rd, Ste 105
Acton, MA 01720
Phone: (978) 263-9588
Fax: (978) 263-9594
Email: tcreamer@geosyntec.com

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: WR Grace VI Assessment
Project Location: BP0200
Project #: Woburn, MA
Project Manager: Todd Creamer
ALPHA Quote #:

Turn-Around Time

☑ Standard ☐ RUSH (only confirmed if pre-approved!)

Date Due: Time:

Report Information - Data Deliverables

☐ FAX
☒ ADEx
Criteria Checker: TBD
(Default based on Regulatory Criteria Indicated)
Other Formats:
☒ EMAIL (standard pdf report)
☐ Additional Deliverables:

Report to: (if different than Project Manager)

Billing Information

☒ Same as Client info PO #: BP0200

Regulatory Requirements/Report Limits

State/Fed	Program	Criteria
See QAPP		

Other Project Specific Requirements/Comments:

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	I D Can	I D - Flow Controller	TO-14A by TO-15	TO-15	TO-15 SIM	APH	FIXED GASES	TO-13A	TO-4 / TO-10	Sample Comments (i.e. PID)
-1	260407-OA1	3/31/11	0949	1807	-29.79	-7.91	AA	SWB	6L	634	0464			X	X				
-2	260407-OA2	3/31/11	0950	1805	-29.73	-2.20	AA	SWB	6L	1052	0112			X	X				
-3	260407-17-IA1	3/31/11	1010	1752	-29.72	-6.53	AA	SWB	6L	688	0335			X	X				
-4	260407-22-IA1	3/31/11	1021	1757	-29.60	-6.17	AA	SWB	6L	1592	0029			X	X				
-5	260407-22-IA2	3/31/11	1025	1800	-29.57	-3.21	AA	SWB	6L	992	0256			X	X				
-6	260407-20-IA1	3/31/11	1015	1750	-29.80	-6.53	AA	SWB	6L	968	0205			X	X				
-7	260407-19-IA1	3/31/11	0957	1742	-29.68	-3.95	AA	SWB	6L	642	0065			X	X				
-8	260407-17-SS1	3/31/11	2118	2215	-29.57	-1.22	SV	SWB	6L	596	0426			X	X				
-9	260407-22-SS1	4/1/11	1311	1350	-29.14	-4.43	SV	SWB	6L	744	0061			X	X				
-10	260407-22-SS2	4/1/11	1418	1451	-28.42	-3.58	SV	SWB	6L	782	0304			X	X				

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

Container Type

Relinquished By:	Date/Time	Received By:	Date/Time:
[signature]	4/2/2011 1150	[signature]	4-4-11 1135
Pat [signature]	4/4/11 1330	[signature]	4/4/11 1330

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.

AIR ANALYSIS

PAGE 2 OF 2

CHAIN OF CUSTODY

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

Date Rec'd in Lab:

ALPHA Job #: L1104363

Client Information

Client: Geosyntec Consultants
Address: 289 Great Rd, Ste 105
Acton, MA 01720
Phone: (978) 263-9588
Fax: (978) 263-9594
Email: tcreamer@geosyntec.com

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: WR Grace VI Assessment
Project Location: Woburn, MA
Project #: B20200
Project Manager: Todd Creamer
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)

Date Due: Time:

Report Information - Data Deliverables

☐ FAX
☒ ADEx
Criteria Checker: TBD
(Default based on Regulatory Criteria Indicated)
Other Formats:
☒ EMAIL (standard pdf report)
☐ Additional Deliverables:

Report to: (if different than Project Manager)

Billing Information

☒ Same as Client info PO #: B20200

Regulatory Requirements/Report Limits

State/Fed	Program	Criteria
See QAPP		

Other Project Specific Requirements/Comments:

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	I D Can	I D - Flow Controller	TO-14A by TO-15	TO-15	TO-15 SIM	APH	FIXED GASES	TO-13A	TO-4 / TO-10	Sample Comments (i.e. PID)
-11	260407-20-SS1	3/31/11	1918	1954	-29.64	-3.61	SV	SWB	6L	1619	070			X	X				
-12	260407-19-SS1	4/1/11	1035	1142	-29.13	-4.32	SV	SWB	6L	984	0496			X	X				
-13	BD03-03312011	3/31/11	-	-	-29.64	-1.38	SV	SWB	6L	1646	tee			X	X				
-14	BD04-04012011	4/1/11	-	-	-29.98	-4.44	SV	SWB	6L	1615	tee			X	X				
-15	TB02-04012011	4/1/11	-	-	-	-	-	SWB	6L	609	-			X	X				

SWB 4/1/11

*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]	4/2/2011 1150	[signature]	4/4/11 1135
[signature]	4/4/11 1330	[signature]	4/4/11 1330

ANALYTICAL REPORT

Lab Number:	L1108139
Client:	GeoSyntec Consultants 289 Great Road Suite 105 Acton, MA 01720
ATTN:	Todd Creamer
Phone:	(978) 263-9588
Project Name:	WR GRACE VI ASSESSMENT
Project Number:	BR0200
Report Date:	07/19/11

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

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200

Lab Number: L1108139
Report Date: 07/19/11

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1108139-01	260902-IA1-20110607	WOBURN, MA	06/07/11 08:19
L1108139-02	260902-IA2-20110607	WOBURN, MA	06/07/11 08:23
L1108139-03	260902-OA-20110607	WOBURN, MA	06/07/11 08:30
L1108139-04	260902-SS1-20110607	WOBURN, MA	06/07/11 12:05
L1108139-05	260902-SS2-20110607	WOBURN, MA	06/07/11 11:07
L1108139-06	260903-IA1-20110607	WOBURN, MA	06/07/11 08:34
L1108139-07	260903-IA2-20110607	WOBURN, MA	06/07/11 08:36
L1108139-08	260903-OA-20110607	WOBURN, MA	06/07/11 08:40
L1108139-09	260903-SS1-20110607	WOBURN, MA	06/07/11 15:03
L1108139-10	260903-SS2-20110607	WOBURN, MA	06/07/11 15:42
L1108139-11	260407-17-IA1-20110607	WOBURN, MA	06/07/11 17:13
L1108139-12	260407-17-SS1-20110607	WOBURN, MA	06/07/11 18:55
L1108139-13	260407-19-SS1-20110608	WOBURN, MA	06/08/11 12:07
L1108139-14	260407-20-IA1-20110607	WOBURN, MA	06/07/11 16:29
L1108139-15	260407-20-SS1-20110608	WOBURN, MA	06/08/11 13:55
L1108139-16	260407-22-IA1-20110607	WOBURN, MA	06/07/11 16:35
L1108139-17	260407-22-IA2-20110607	WOBURN, MA	06/07/11 16:36
L1108139-18	260407-22-SS1-20110608	WOBURN, MA	06/08/11 10:31
L1108139-19	260407-22-SS2-20110608	WOBURN, MA	06/08/11 10:26
L1108139-20	260407-OA1-20110607	WOBURN, MA	06/07/11 16:21
L1108139-21	260407-OA2-20110607	WOBURN, MA	06/07/11 16:18
L1108139-22	BD01-20110607	WOBURN, MA	06/07/11 00:00
L1108139-23	BD02-20110607	WOBURN, MA	06/07/11 00:00
L1108139-24	BD03-20110607	WOBURN, MA	06/07/11 00:00
L1108139-25	BD04-20110608	WOBURN, MA	06/08/11 00:00
L1108139-26	TB-20110608	WOBURN, MA	06/08/11 00:00
L1108139-27	260407-19-IA1-20110607	WOBURN, MA	06/07/11 16:26

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1108139

Project Number: BR0200 **Report Date:** 07/19/11

MADEP MCP Response Action Analytical Report Certification

This form provides certifications for all samples performed by MCP methods. Please refer to the Sample Results and Container Information sections of this report for specification of MCP methods used for each analysis. The following questions pertain only to MCP Analytical Methods.

An affirmative response to questions A through F is required for "Presumptive Certainty" status		
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	YES
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	YES
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	YES
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?"	YES
E a.	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	YES
E b.	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	YES
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	YES

A response to questions G, H and I is required for "Presumptive Certainty" status		
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	NO
H	Were all QC performance standards specified in the CAM protocol(s) achieved?	YES
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	YES

For any questions answered "No", please refer to the case narrative section on the following page(s).

Please note that sample matrix information is located in the Sample Results section of this report.

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1108139
Project Number: BR0200 **Report Date:** 07/19/11

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.

Report Submission

This report replaces the report issued on June 23, 2011. The MADEP MCP Response Action Analytical Report Certification form has been amended. The narrative section has also been amended for Petroleum Hydrocarbons in Air.

This report replaces the report issued earlier June 23, 2011. The Sample Type has been amended on several APH samples.

MCP Related Narratives

Canisters were released from the laboratory on June 3, 2011.

The canister certification data is provided as an addendum.

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1108139
Project Number: BR0200 **Report Date:** 07/19/11

Case Narrative (continued)

Volatile Organics in Air (TO-15)
L1108139-11, -17, -24, and -27 were re-analyzed on dilution in order to quantitate the sample 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.

L1108139-19 has elevated detection limits due to the dilution required by the elevated concentrations of non-target compounds in the sample.

Volatile Organics in Air (TO-15 SIM)
1,2-Dibromoethane, Bromodichloromethane and Naphthalene were evaluated to 1/2 the RL and are J qualified if the concentration is below the quantitation limit (RDL), but greater than or equal to 1/2 the RDL. Values are estimated.

L1108139-19 has elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the sample. The sample was re-analyzed on dilution in order to quantitate the sample 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.

The WG474558-3 LCS recovery for Naphthalene (66%) is outside the 70%-130% acceptance limit. The LCS was within overall method allowances, therefore the analysis proceeded.

The WG474617-3 LCS recovery for Methyl tert butyl ether (65%) is outside the 70%-130% acceptance limit. The LCS was within overall method allowances, therefore the analysis proceeded.

Petroleum Hydrocarbons in Air

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1108139
Project Number: BR0200 **Report Date:** 07/19/11

Case Narrative (continued)

In reference to question G:

One or more of the target analytes did not achieve the requested CAM reporting limits.

All significant concentrations of non-petroleum VOCs detected in the TO-15 analysis were subtracted from the corresponding hydrocarbon ranges.

L1108139-19 has elevated detection limits due to the dilution required by the elevated concentrations of non-target compounds in the sample.

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 M. O'Brien Kathleen O'Brien

Title: Technical Director/Representative Date: 07/19/11

AIR

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1108139
Report Date: 07/19/11

SAMPLE RESULTS

Lab ID: L1108139-01
Client ID: 260902-IA1-20110607
Sample Location: WOBURN, MA
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 06/20/11 21:11
Analyst: AR

Date Collected: 06/07/11 08:19
Date Received: 06/09/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	0.149	0.020	0.020	0.732	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	0.575	0.020	0.020	2.33	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	0.039	0.020	0.020	0.086	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	0.230	0.070	0.070	0.735	0.224	0.224		1
Bromodichloromethane	0.016	0.020	0.010	0.107	0.134	0.067	J	1
Bromoform	ND	0.020	0.020	ND	0.207	0.207		1
Carbon tetrachloride	0.064	0.020	0.020	0.402	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	0.051	0.020	0.020	0.249	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	0.122	0.020	0.020	0.530	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
XYLENE (TOTAL)	0.512	0.060	0.060	2.22	0.261	0.261		1

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1108139
Report Date: 07/19/11

SAMPLE RESULTS

Lab ID: L1108139-01
Client ID: 260902-IA1-20110607
Sample Location: WOBURN, MA
Date Collected: 06/07/11 08:19
Date Received: 06/09/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	0.861	0.050	0.050	3.24	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	99		60-140
bromochloromethane	69		60-140
chlorobenzene-d5	94		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1108139
Report Date: 07/19/11

SAMPLE RESULTS

Lab ID: L1108139-02
Client ID: 260902-IA2-20110607
Sample Location: WOBURN, MA
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 06/21/11 08:27
Analyst: AR

Date Collected: 06/07/11 08:23
Date Received: 06/09/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	0.170	0.020	0.020	0.836	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	0.678	0.020	0.020	2.74	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	0.048	0.020	0.020	0.106	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	0.262	0.070	0.070	0.837	0.224	0.224		1
Bromodichloromethane	0.018	0.020	0.010	0.120	0.134	0.067	J	1
Bromoform	ND	0.020	0.020	ND	0.207	0.207		1
Carbon tetrachloride	0.077	0.020	0.020	0.484	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	0.060	0.020	0.020	0.293	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	0.135	0.020	0.020	0.586	0.087	0.087		1
Methylene chloride	3.20	0.500	0.500	11.1	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	0.083	0.050	0.025	0.435	0.262	0.131		1
XYLENE (TOTAL)	0.563	0.060	0.060	2.44	0.261	0.261		1

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1108139
Report Date: 07/19/11

SAMPLE RESULTS

Lab ID: L1108139-02
Client ID: 260902-IA2-20110607
Sample Location: WOBURN, MA
Date Collected: 06/07/11 08:23
Date Received: 06/09/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	0.872	0.050	0.050	3.29	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	96		60-140
bromochloromethane	66		60-140
chlorobenzene-d5	92		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1108139
Report Date: 07/19/11

SAMPLE RESULTS

Lab ID:	L1108139-03	Date Collected:	06/07/11 08:30
Client ID:	260902-OA-20110607	Date Received:	06/09/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	06/20/11 18:50		
Analyst:	AR		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	0.044	0.020	0.020	0.216	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	0.020	0.020	0.020	0.044	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	0.145	0.070	0.070	0.463	0.224	0.224		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.207	0.207		1
Carbon tetrachloride	0.063	0.020	0.020	0.396	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	0.022	0.020	0.020	0.107	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	0.049	0.020	0.020	0.213	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	0.041	0.050	0.025	0.215	0.262	0.131	J	1
XYLENE (TOTAL)	0.186	0.060	0.060	0.808	0.261	0.261		1

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1108139
Report Date: 07/19/11

SAMPLE RESULTS

Lab ID: L1108139-03
Client ID: 260902-OA-20110607
Sample Location: WOBURN, MA
Date Collected: 06/07/11 08:30
Date Received: 06/09/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	0.364	0.050	0.050	1.37	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	104		60-140
bromochloromethane	105		60-140
chlorobenzene-d5	96		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1108139
Report Date: 07/19/11

SAMPLE RESULTS

Lab ID:	L1108139-04	Date Collected:	06/07/11 12:05
Client ID:	260902-SS1-20110607	Date Received:	06/09/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	06/21/11 01:13		
Analyst:	AR		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.224	0.224		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.207	0.207		1
Carbon tetrachloride	0.027	0.020	0.020	0.170	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	0.062	0.020	0.020	0.303	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	5.79	0.500	0.500	20.1	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.261	0.261		1

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1108139
Report Date: 07/19/11

SAMPLE RESULTS

Lab ID: L1108139-04
Client ID: 260902-SS1-20110607
Sample Location: WOBURN, MA
Date Collected: 06/07/11 12:05
Date Received: 06/09/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	0.048	0.020	0.020	0.325	0.136	0.136		1
Toluene	0.081	0.050	0.050	0.305	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	122		60-140
bromochloromethane	111		60-140
chlorobenzene-d5	129		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1108139
Report Date: 07/19/11

SAMPLE RESULTS

Lab ID:	L1108139-05	Date Collected:	06/07/11 11:07
Client ID:	260902-SS2-20110607	Date Received:	06/09/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	06/21/11 01:51		
Analyst:	AR		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	0.021	0.020	0.020	0.103	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.224	0.224		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.207	0.207		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	0.341	0.020	0.020	1.66	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.261	0.261		1

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1108139
Report Date: 07/19/11

SAMPLE RESULTS

Lab ID: L1108139-05
Client ID: 260902-SS2-20110607
Sample Location: WOBURN, MA
Date Collected: 06/07/11 11:07
Date Received: 06/09/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	0.045	0.020	0.020	0.305	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	121		60-140
bromochloromethane	108		60-140
chlorobenzene-d5	123		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1108139
Report Date: 07/19/11

SAMPLE RESULTS

Lab ID:	L1108139-06	Date Collected:	06/07/11 08:34
Client ID:	260903-IA1-20110607	Date Received:	06/09/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	06/21/11 22:57		
Analyst:	AR		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	0.029	0.020	0.020	0.158	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	0.180	0.020	0.020	0.885	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	0.312	0.020	0.020	1.26	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	0.024	0.020	0.020	0.053	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	0.536	0.020	0.020	3.22	0.120	0.120		1
Benzene	0.156	0.070	0.070	0.498	0.224	0.224		1
Bromodichloromethane	0.021	0.020	0.010	0.141	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.207	0.207		1
Carbon tetrachloride	0.098	0.020	0.020	0.616	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	0.254	0.020	0.020	1.24	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	0.190	0.020	0.020	0.825	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	0.070	0.050	0.025	0.367	0.262	0.131		1
XYLENE (TOTAL)	0.646	0.060	0.060	2.80	0.261	0.261		1

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1108139
Report Date: 07/19/11

SAMPLE RESULTS

Lab ID: L1108139-06
Client ID: 260903-IA1-20110607
Sample Location: WOBURN, MA
Date Collected: 06/07/11 08:34
Date Received: 06/09/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	0.152	0.020	0.020	1.03	0.136	0.136		1
Toluene	1.13	0.050	0.050	4.26	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

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

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1108139
Report Date: 07/19/11

SAMPLE RESULTS

Lab ID:	L1108139-07	Date Collected:	06/07/11 08:36
Client ID:	260903-IA2-20110607	Date Received:	06/09/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	06/22/11 00:14		
Analyst:	AR		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	0.029	0.020	0.020	0.158	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	0.181	0.020	0.020	0.890	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	0.293	0.020	0.020	1.18	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	0.024	0.020	0.020	0.053	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	0.533	0.020	0.020	3.20	0.120	0.120		1
Benzene	0.164	0.070	0.070	0.524	0.224	0.224		1
Bromodichloromethane	0.021	0.020	0.010	0.141	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.207	0.207		1
Carbon tetrachloride	0.102	0.020	0.020	0.642	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	0.277	0.020	0.020	1.35	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	0.202	0.020	0.020	0.877	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	0.055	0.050	0.025	0.288	0.262	0.131		1
XYLENE (TOTAL)	0.680	0.060	0.060	2.95	0.261	0.261		1

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1108139
Report Date: 07/19/11

SAMPLE RESULTS

Lab ID: L1108139-07
Client ID: 260903-IA2-20110607
Sample Location: WOBURN, MA
Date Collected: 06/07/11 08:36
Date Received: 06/09/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	0.165	0.020	0.020	1.12	0.136	0.136		1
Toluene	1.16	0.050	0.050	4.37	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

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

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1108139
Report Date: 07/19/11

SAMPLE RESULTS

Lab ID:	L1108139-08	Date Collected:	06/07/11 08:40
Client ID:	260903-OA-20110607	Date Received:	06/09/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	06/20/11 19:26		
Analyst:	AR		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	0.050	0.020	0.020	0.246	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	0.030	0.020	0.020	0.121	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	0.037	0.020	0.020	0.082	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	0.166	0.070	0.070	0.530	0.224	0.224		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.207	0.207		1
Carbon tetrachloride	0.068	0.020	0.020	0.428	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	0.024	0.020	0.020	0.117	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	0.055	0.020	0.020	0.239	0.087	0.087		1
Methylene chloride	0.532	0.500	0.500	1.85	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	0.033	0.050	0.025	0.173	0.262	0.131	J	1
XYLENE (TOTAL)	0.208	0.060	0.060	0.903	0.261	0.261		1

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1108139
Report Date: 07/19/11

SAMPLE RESULTS

Lab ID: L1108139-08
Client ID: 260903-OA-20110607
Sample Location: WOBURN, MA
Date Collected: 06/07/11 08:40
Date Received: 06/09/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	0.390	0.050	0.050	1.47	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	95		60-140
bromochloromethane	65		60-140
chlorobenzene-d5	89		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1108139
Report Date: 07/19/11

SAMPLE RESULTS

Lab ID: L1108139-09
Client ID: 260903-SS1-20110607
Sample Location: WOBURN, MA
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15-SIM
Analytical Date: 06/21/11 02:30
Analyst: AR

Date Collected: 06/07/11 15:03
Date Received: 06/09/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.224	0.224		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.207	0.207		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	6.95	0.500	0.500	24.1	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.261	0.261		1

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1108139
Report Date: 07/19/11

SAMPLE RESULTS

Lab ID: L1108139-09
Client ID: 260903-SS1-20110607
Sample Location: WOBURN, MA
Date Collected: 06/07/11 15:03
Date Received: 06/09/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	0.040	0.020	0.020	0.271	0.136	0.136		1
Toluene	0.064	0.050	0.050	0.241	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	118		60-140
bromochloromethane	108		60-140
chlorobenzene-d5	127		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1108139
Report Date: 07/19/11

SAMPLE RESULTS

Lab ID: L1108139-10
Client ID: 260903-SS2-20110607
Sample Location: WOBURN, MA
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15-SIM
Analytical Date: 06/21/11 03:08
Analyst: AR

Date Collected: 06/07/11 15:42
Date Received: 06/09/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.224	0.224		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.207	0.207		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	0.794	0.020	0.020	3.88	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	7.86	0.500	0.500	27.3	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.261	0.261		1

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1108139
Report Date: 07/19/11

SAMPLE RESULTS

Lab ID: L1108139-10
Client ID: 260903-SS2-20110607
Sample Location: WOBURN, MA
Date Collected: 06/07/11 15:42
Date Received: 06/09/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	0.065	0.020	0.020	0.441	0.136	0.136		1
Toluene	0.073	0.050	0.050	0.275	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	0.023	0.020	0.020	0.124	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	117		60-140
bromochloromethane	106		60-140
chlorobenzene-d5	124		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1108139
Report Date: 07/19/11

SAMPLE RESULTS

Lab ID:	L1108139-11	Date Collected:	06/07/11 17:13
Client ID:	260407-17-IA1-20110607	Date Received:	06/09/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	06/22/11 00:53		
Analyst:	AR		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	0.037	0.020	0.020	0.202	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	0.085	0.020	0.020	0.418	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	0.039	0.020	0.020	0.158	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	0.060	0.020	0.020	0.133	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	0.197	0.070	0.070	0.629	0.224	0.224		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.207	0.207		1
Carbon tetrachloride	0.095	0.020	0.020	0.598	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	0.093	0.020	0.020	0.454	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	0.098	0.020	0.020	0.426	0.087	0.087		1
Methylene chloride	1.11	0.500	0.500	3.86	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	0.052	0.050	0.025	0.273	0.262	0.131		1
XYLENE (TOTAL)	0.355	0.060	0.060	1.54	0.261	0.261		1

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1108139
Report Date: 07/19/11

SAMPLE RESULTS

Lab ID: L1108139-11
Client ID: 260407-17-IA1-20110607
Sample Location: WOBURN, MA
Date Collected: 06/07/11 17:13
Date Received: 06/09/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	0.027	0.020	0.020	0.183	0.136	0.136		1
Toluene	5.84	0.050	0.050	22.0	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	88		60-140
bromochloromethane	92		60-140
chlorobenzene-d5	86		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1108139
Report Date: 07/19/11

SAMPLE RESULTS

Lab ID:	L1108139-11 D	Date Collected:	06/07/11 17:13
Client ID:	260407-17-IA1-20110607	Date Received:	06/09/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15		
Analytical Date:	06/23/11 04:25		
Analyst:	AR		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Acetone	2130	5.00	0.390	5060	11.9	0.926	E	5
Ethyl Acetate	96.2	2.50	0.755	347	9.01	2.72		5

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	91		60-140
Bromochloromethane	90		60-140
chlorobenzene-d5	95		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1108139
Report Date: 07/19/11

SAMPLE RESULTS

Lab ID:	L1108139-11 D2	Date Collected:	06/07/11 17:13
Client ID:	260407-17-IA1-20110607	Date Received:	06/09/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15		
Analytical Date:	06/23/11 10:01		
Analyst:	AR		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Acetone	3660	40.5	3.16	8690	96.2	7.51		40.49

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	97		60-140
Bromochloromethane	101		60-140
chlorobenzene-d5	104		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1108139
Report Date: 07/19/11

SAMPLE RESULTS

Lab ID:	L1108139-12	Date Collected:	06/07/11 18:55
Client ID:	260407-17-SS1-20110607	Date Received:	06/09/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Anaytical Method:	48,TO-15		
Analytical Date:	06/21/11 03:47		
Analyst:	AR		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Acetone	96.8	1.00	0.078	230	2.38	0.185		1
Ethyl Acetate	0.200	0.500	0.151	0.721	1.80	0.544	J	1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	91		60-140
Bromochloromethane	94		60-140
chlorobenzene-d5	94		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1108139
Report Date: 07/19/11

SAMPLE RESULTS

Lab ID:	L1108139-12	Date Collected:	06/07/11 18:55
Client ID:	260407-17-SS1-20110607	Date Received:	06/09/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	06/21/11 03:47		
Analyst:	AR		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	0.096	0.020	0.020	0.524	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.224	0.224		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.207	0.207		1
Carbon tetrachloride	0.080	0.020	0.020	0.503	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	0.057	0.020	0.020	0.278	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	6.66	0.500	0.500	23.1	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.261	0.261		1

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1108139
Report Date: 07/19/11

SAMPLE RESULTS

Lab ID: L1108139-12
Client ID: 260407-17-SS1-20110607
Sample Location: WOBURN, MA
Date Collected: 06/07/11 18:55
Date Received: 06/09/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	1.19	0.020	0.020	8.07	0.136	0.136		1
Toluene	0.164	0.050	0.050	0.618	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	115		60-140
bromochloromethane	107		60-140
chlorobenzene-d5	122		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1108139
Report Date: 07/19/11

SAMPLE RESULTS

Lab ID:	L1108139-13	Date Collected:	06/08/11 12:07
Client ID:	260407-19-SS1-20110608	Date Received:	06/09/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Anaytical Method:	48,TO-15		
Analytical Date:	06/21/11 04:25		
Analyst:	AR		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Acetone	9.37	1.00	0.078	22.2	2.38	0.185		1
Ethyl Acetate	ND	0.500	0.151	ND	1.80	0.544		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	93		60-140
Bromochloromethane	92		60-140
chlorobenzene-d5	96		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1108139
Report Date: 07/19/11

SAMPLE RESULTS

Lab ID:	L1108139-13	Date Collected:	06/08/11 12:07
Client ID:	260407-19-SS1-20110608	Date Received:	06/09/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	06/21/11 04:25		
Analyst:	AR		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	0.733	0.020	0.020	4.00	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	0.068	0.020	0.020	0.334	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.224	0.224		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.207	0.207		1
Carbon tetrachloride	0.020	0.020	0.020	0.126	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	0.343	0.020	0.020	1.68	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	0.099	0.020	0.020	0.430	0.087	0.087		1
Methylene chloride	5.92	0.500	0.500	20.6	1.74	1.74		1
Methyl tert butyl ether	0.026	0.020	0.020	0.094	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
XYLENE (TOTAL)	0.627	0.060	0.060	2.72	0.261	0.261		1

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1108139
Report Date: 07/19/11

SAMPLE RESULTS

Lab ID: L1108139-13
Client ID: 260407-19-SS1-20110608
Sample Location: WOBURN, MA
Date Collected: 06/08/11 12:07
Date Received: 06/09/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	2.56	0.020	0.020	17.4	0.136	0.136		1
Toluene	0.190	0.050	0.050	0.716	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	0.026	0.020	0.020	0.140	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	118		60-140
bromochloromethane	106		60-140
chlorobenzene-d5	127		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1108139
Report Date: 07/19/11

SAMPLE RESULTS

Lab ID:	L1108139-14	Date Collected:	06/07/11 16:29
Client ID:	260407-20-IA1-20110607	Date Received:	06/09/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15		
Analytical Date:	06/22/11 01:32		
Analyst:	AR		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Acetone	89.9	1.00	0.078	214	2.38	0.185		1
Ethyl Acetate	5.53	0.500	0.151	19.9	1.80	0.544		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	109		60-140
Bromochloromethane	104		60-140
chlorobenzene-d5	110		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1108139
Report Date: 07/19/11

SAMPLE RESULTS

Lab ID:	L1108139-14	Date Collected:	06/07/11 16:29
Client ID:	260407-20-IA1-20110607	Date Received:	06/09/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	06/22/11 01:32		
Analyst:	AR		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	0.568	0.020	0.020	3.10	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	0.154	0.020	0.020	0.757	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	5.00	0.020	0.020	20.2	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	0.045	0.020	0.020	0.10	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	0.239	0.070	0.070	0.764	0.224	0.224		1
Bromodichloromethane	0.012	0.020	0.010	0.080	0.134	0.067	J	1
Bromoform	ND	0.020	0.020	ND	0.207	0.207		1
Carbon tetrachloride	0.064	0.020	0.020	0.402	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	0.169	0.020	0.020	0.825	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	0.302	0.020	0.020	1.31	0.087	0.087		1
Methylene chloride	1.44	0.500	0.500	5.00	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	0.067	0.050	0.025	0.351	0.262	0.131		1
XYLENE (TOTAL)	1.42	0.060	0.060	6.17	0.261	0.261		1

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1108139
Report Date: 07/19/11

SAMPLE RESULTS

Lab ID: L1108139-14
Client ID: 260407-20-IA1-20110607
Sample Location: WOBURN, MA
Date Collected: 06/07/11 16:29
Date Received: 06/09/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	0.055	0.020	0.020	0.373	0.136	0.136		1
Toluene	2.35	0.050	0.050	8.86	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	0.020	0.020	0.020	0.107	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	91		60-140
bromochloromethane	94		60-140
chlorobenzene-d5	90		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1108139
Report Date: 07/19/11

SAMPLE RESULTS

Lab ID:	L1108139-15	Date Collected:	06/08/11 13:55
Client ID:	260407-20-SS1-20110608	Date Received:	06/09/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Anaytical Method:	48,TO-15		
Analytical Date:	06/21/11 05:04		
Analyst:	AR		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Acetone	4.82	1.00	0.078	11.4	2.38	0.185		1
Ethyl Acetate	ND	0.500	0.151	ND	1.80	0.544		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	92		60-140
Bromochloromethane	92		60-140
chlorobenzene-d5	97		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1108139
Report Date: 07/19/11

SAMPLE RESULTS

Lab ID:	L1108139-15	Date Collected:	06/08/11 13:55
Client ID:	260407-20-SS1-20110608	Date Received:	06/09/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	06/21/11 05:04		
Analyst:	AR		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	0.934	0.020	0.020	5.10	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	0.036	0.020	0.020	0.146	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.224	0.224		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.207	0.207		1
Carbon tetrachloride	0.021	0.020	0.020	0.132	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	0.324	0.020	0.020	1.58	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	0.084	0.020	0.020	0.365	0.087	0.087		1
Methylene chloride	4.89	0.500	0.500	17.0	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
XYLENE (TOTAL)	0.661	0.060	0.060	2.87	0.261	0.261		1

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1108139
Report Date: 07/19/11

SAMPLE RESULTS

Lab ID: L1108139-15
Client ID: 260407-20-SS1-20110608
Sample Location: WOBURN, MA
Date Collected: 06/08/11 13:55
Date Received: 06/09/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	3.42	0.020	0.020	23.2	0.136	0.136		1
Toluene	0.108	0.050	0.050	0.407	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	116		60-140
bromochloromethane	106		60-140
chlorobenzene-d5	127		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1108139
Report Date: 07/19/11

SAMPLE RESULTS

Lab ID:	L1108139-16	Date Collected:	06/07/11 16:35
Client ID:	260407-22-IA1-20110607	Date Received:	06/09/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15		
Analytical Date:	06/22/11 02:10		
Analyst:	AR		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Acetone	98.4	1.00	0.078	234	2.38	0.185		1
Ethyl Acetate	3.93	0.500	0.151	14.2	1.80	0.544		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	99		60-140
Bromochloromethane	101		60-140
chlorobenzene-d5	102		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1108139
Report Date: 07/19/11

SAMPLE RESULTS

Lab ID:	L1108139-16	Date Collected:	06/07/11 16:35
Client ID:	260407-22-IA1-20110607	Date Received:	06/09/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	06/22/11 02:10		
Analyst:	AR		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	0.120	0.020	0.020	0.655	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	0.153	0.020	0.020	0.752	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	0.221	0.020	0.020	0.894	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	0.047	0.020	0.020	0.104	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	0.265	0.070	0.070	0.846	0.224	0.224		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.207	0.207		1
Carbon tetrachloride	0.070	0.020	0.020	0.440	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	0.255	0.020	0.020	1.24	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	0.193	0.020	0.020	0.838	0.087	0.087		1
Methylene chloride	1.20	0.500	0.500	4.17	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	0.049	0.050	0.025	0.257	0.262	0.131	J	1
XYLENE (TOTAL)	0.761	0.060	0.060	3.30	0.261	0.261		1

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1108139
Report Date: 07/19/11

SAMPLE RESULTS

Lab ID: L1108139-16
Client ID: 260407-22-IA1-20110607
Sample Location: WOBURN, MA

Date Collected: 06/07/11 16:35
Date Received: 06/09/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	0.050	0.020	0.020	0.339	0.136	0.136		1
Toluene	2.42	0.050	0.050	9.12	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	0.021	0.020	0.020	0.113	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	82		60-140
bromochloromethane	91		60-140
chlorobenzene-d5	82		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1108139
Report Date: 07/19/11

SAMPLE RESULTS

Lab ID:	L1108139-17	Date Collected:	06/07/11 16:36
Client ID:	260407-22-IA2-20110607	Date Received:	06/09/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15		
Analytical Date:	06/22/11 02:49		
Analyst:	AR		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Acetone	153	1.00	0.078	363	2.38	0.185	E	1
Ethyl Acetate	3.81	0.500	0.151	13.7	1.80	0.544		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	113		60-140
Bromochloromethane	103		60-140
chlorobenzene-d5	108		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1108139
Report Date: 07/19/11

SAMPLE RESULTS

Lab ID:	L1108139-17	Date Collected:	06/07/11 16:36
Client ID:	260407-22-IA2-20110607	Date Received:	06/09/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	06/22/11 02:49		
Analyst:	AR		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	0.093	0.020	0.020	0.507	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	0.120	0.020	0.020	0.590	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	0.210	0.020	0.020	0.850	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	0.056	0.020	0.020	0.124	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	0.281	0.070	0.070	0.898	0.224	0.224		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.207	0.207		1
Carbon tetrachloride	0.062	0.020	0.020	0.390	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	1.52	0.020	0.020	7.42	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	0.214	0.020	0.020	0.930	0.087	0.087		1
Methylene chloride	0.928	0.500	0.500	3.22	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	0.032	0.050	0.025	0.168	0.262	0.131	J	1
XYLENE (TOTAL)	0.879	0.060	0.060	3.82	0.261	0.261		1

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1108139
Report Date: 07/19/11

SAMPLE RESULTS

Lab ID: L1108139-17
Client ID: 260407-22-IA2-20110607
Sample Location: WOBURN, MA
Date Collected: 06/07/11 16:36
Date Received: 06/09/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	0.052	0.020	0.020	0.353	0.136	0.136		1
Toluene	2.27	0.050	0.050	8.55	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	0.020	0.020	0.020	0.107	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	93		60-140
bromochloromethane	94		60-140
chlorobenzene-d5	90		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1108139
Report Date: 07/19/11

SAMPLE RESULTS

Lab ID:	L1108139-17 D	Date Collected:	06/07/11 16:36
Client ID:	260407-22-IA2-20110607	Date Received:	06/09/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15		
Analytical Date:	06/22/11 12:25		
Analyst:	AR		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Acetone	124	2.00	0.156	294	4.75	0.370		2

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	101		60-140
Bromochloromethane	98		60-140
chlorobenzene-d5	101		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1108139
Report Date: 07/19/11

SAMPLE RESULTS

Lab ID:	L1108139-18	Date Collected:	06/08/11 10:31
Client ID:	260407-22-SS1-20110608	Date Received:	06/09/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Anaytical Method:	48,TO-15		
Analytical Date:	06/21/11 05:43		
Analyst:	AR		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Acetone	7.42	1.00	0.078	17.6	2.38	0.185		1
Ethyl Acetate	ND	0.500	0.151	ND	1.80	0.544		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	93		60-140
Bromochloromethane	91		60-140
chlorobenzene-d5	98		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1108139
Report Date: 07/19/11

SAMPLE RESULTS

Lab ID:	L1108139-18	Date Collected:	06/08/11 10:31
Client ID:	260407-22-SS1-20110608	Date Received:	06/09/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	06/21/11 05:43		
Analyst:	AR		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	1.08	0.020	0.020	5.89	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.224	0.224		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.207	0.207		1
Carbon tetrachloride	0.028	0.020	0.020	0.176	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.261	0.261		1

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1108139
Report Date: 07/19/11

SAMPLE RESULTS

Lab ID: L1108139-18
Client ID: 260407-22-SS1-20110608
Sample Location: WOBURN, MA
Date Collected: 06/08/11 10:31
Date Received: 06/09/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	15.1	0.020	0.020	102	0.136	0.136		1
Toluene	0.085	0.050	0.050	0.320	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	0.036	0.020	0.020	0.193	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	117		60-140
bromochloromethane	107		60-140
chlorobenzene-d5	127		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1108139
Report Date: 07/19/11

SAMPLE RESULTS

Lab ID:	L1108139-19 D	Date Collected:	06/08/11 10:26
Client ID:	260407-22-SS2-20110608	Date Received:	06/09/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Anaytical Method:	48,TO-15		
Analytical Date:	06/21/11 07:38		
Analyst:	AR		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Acetone	10.6	2.00	0.156	25.2	4.75	0.370		2
Ethyl Acetate	ND	1.00	0.302	ND	3.60	1.09		2

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	90		60-140
Bromochloromethane	90		60-140
chlorobenzene-d5	99		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1108139
Report Date: 07/19/11

SAMPLE RESULTS

Lab ID: L1108139-19 D
Client ID: 260407-22-SS2-20110608
Sample Location: WOBURN, MA
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15-SIM
Analytical Date: 06/21/11 07:38
Analyst: AR

Date Collected: 06/08/11 10:26
Date Received: 06/09/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	0.094	0.040	0.040	0.513	0.218	0.218		2
1,1,2-Trichloroethane	ND	0.040	0.040	ND	0.218	0.218		2
1,1-Dichloroethane	ND	0.040	0.040	ND	0.162	0.162		2
1,1-Dichloroethene	ND	0.040	0.040	ND	0.158	0.158		2
1,2,4-Trimethylbenzene	ND	0.040	0.040	ND	0.197	0.197		2
1,2-Dibromoethane	ND	0.040	0.020	ND	0.307	0.154		2
1,2-Dichloroethane	ND	0.040	0.040	ND	0.162	0.162		2
1,2-Dichloropropane	ND	0.040	0.040	ND	0.185	0.185		2
1,3-Butadiene	ND	0.040	0.040	ND	0.089	0.089		2
1,3-Dichlorobenzene	ND	0.040	0.040	ND	0.240	0.240		2
1,4-Dichlorobenzene	ND	0.040	0.040	ND	0.240	0.240		2
Benzene	ND	0.140	0.140	ND	0.447	0.447		2
Bromodichloromethane	ND	0.040	0.020	ND	0.268	0.134		2
Bromoform	ND	0.040	0.040	ND	0.414	0.414		2
Carbon tetrachloride	0.056	0.040	0.040	0.352	0.252	0.252		2
Chlorobenzene	ND	0.040	0.040	ND	0.184	0.184		2
Chloroform	0.050	0.040	0.040	0.244	0.195	0.195		2
cis-1,2-Dichloroethene	ND	0.040	0.040	ND	0.158	0.158		2
Ethylbenzene	0.068	0.040	0.040	0.295	0.174	0.174		2
Methylene chloride	ND	1.00	1.00	ND	3.47	3.47		2
Methyl tert butyl ether	ND	0.040	0.040	ND	0.144	0.144		2
Naphthalene	ND	0.100	0.050	ND	0.524	0.262		2
XYLENE (TOTAL)	0.488	0.120	0.120	2.12	0.521	0.521		2

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1108139

Project Number: BR0200 **Report Date:** 07/19/11

SAMPLE RESULTS

Lab ID: L1108139-19 D
Client ID: 260407-22-SS2-20110608
Sample Location: WOBURN, MA

Date Collected: 06/08/11 10:26
Date Received: 06/09/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	157	0.040	0.040	1060	0.271	0.271	E	2
Toluene	0.106	0.100	0.100	0.399	0.377	0.377		2
trans-1,2-Dichloroethene	ND	0.040	0.040	ND	0.158	0.158		2
trans-1,3-Dichloropropene	ND	0.040	0.040	ND	0.182	0.182		2
Trichloroethene	0.246	0.040	0.040	1.32	0.215	0.215		2
Vinyl chloride	ND	0.040	0.040	ND	0.102	0.102		2
Isopropylbenzene	ND	1.00	1.00	ND	4.92	4.92		2

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	115		60-140
bromochloromethane	105		60-140
chlorobenzene-d5	128		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1108139
Report Date: 07/19/11

SAMPLE RESULTS

Lab ID:	L1108139-19 D2	Date Collected:	06/08/11 10:26
Client ID:	260407-22-SS2-20110608	Date Received:	06/09/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	06/21/11 09:15		
Analyst:	AR		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	158	0.100	0.100	1070	0.678	0.678		5

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	121		60-140
bromochloromethane	110		60-140
chlorobenzene-d5	131		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1108139
Report Date: 07/19/11

SAMPLE RESULTS

Lab ID:	L1108139-20	Date Collected:	06/07/11 16:21
Client ID:	260407-OA1-20110607	Date Received:	06/09/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15		
Analytical Date:	06/22/11 09:41		
Analyst:	AR		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Acetone	4.96	1.00	0.078	11.8	2.38	0.185		1
Ethyl Acetate	ND	0.500	0.151	ND	1.80	0.544		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	123		60-140
Bromochloromethane	112		60-140
chlorobenzene-d5	123		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1108139
Report Date: 07/19/11

SAMPLE RESULTS

Lab ID:	L1108139-20	Date Collected:	06/07/11 16:21
Client ID:	260407-OA1-20110607	Date Received:	06/09/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	06/20/11 20:02		
Analyst:	AR		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	0.035	0.020	0.020	0.172	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	0.141	0.070	0.070	0.450	0.224	0.224		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.207	0.207		1
Carbon tetrachloride	0.068	0.020	0.020	0.428	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	0.034	0.020	0.020	0.148	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
XYLENE (TOTAL)	0.104	0.060	0.060	0.452	0.261	0.261		1

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1108139
Report Date: 07/19/11

SAMPLE RESULTS

Lab ID: L1108139-20
Client ID: 260407-OA1-20110607
Sample Location: WOBURN, MA
Date Collected: 06/07/11 16:21
Date Received: 06/09/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	0.324	0.050	0.050	1.22	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	99		60-140
bromochloromethane	67		60-140
chlorobenzene-d5	94		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1108139
Report Date: 07/19/11

SAMPLE RESULTS

Lab ID:	L1108139-21	Date Collected:	06/07/11 16:18
Client ID:	260407-OA2-20110607	Date Received:	06/09/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15		
Analytical Date:	06/22/11 10:20		
Analyst:	AR		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Acetone	5.81	1.00	0.078	13.8	2.38	0.185		1
Ethyl Acetate	ND	0.500	0.151	ND	1.80	0.544		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	111		60-140
Bromochloromethane	101		60-140
chlorobenzene-d5	109		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1108139
Report Date: 07/19/11

SAMPLE RESULTS

Lab ID:	L1108139-21	Date Collected:	06/07/11 16:18
Client ID:	260407-OA2-20110607	Date Received:	06/09/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	06/20/11 20:37		
Analyst:	AR		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	0.024	0.020	0.020	0.118	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	0.022	0.020	0.020	0.049	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	0.159	0.070	0.070	0.508	0.224	0.224		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.207	0.207		1
Carbon tetrachloride	0.065	0.020	0.020	0.409	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	0.040	0.020	0.020	0.174	0.087	0.087		1
Methylene chloride	0.901	0.500	0.500	3.13	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
XYLENE (TOTAL)	0.125	0.060	0.060	0.543	0.261	0.261		1

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1108139
Report Date: 07/19/11

SAMPLE RESULTS

Lab ID: L1108139-21
Client ID: 260407-OA2-20110607
Sample Location: WOBURN, MA
Date Collected: 06/07/11 16:18
Date Received: 06/09/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	0.343	0.050	0.050	1.29	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	104		60-140
bromochloromethane	68		60-140
chlorobenzene-d5	97		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1108139
Report Date: 07/19/11

SAMPLE RESULTS

Lab ID:	L1108139-22	Date Collected:	06/07/11 00:00
Client ID:	BD01-20110607	Date Received:	06/09/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	06/22/11 04:06		
Analyst:	AR		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	0.210	0.020	0.020	1.03	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	0.527	0.020	0.020	2.13	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	0.026	0.020	0.020	0.058	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	0.213	0.070	0.070	0.680	0.224	0.224		1
Bromodichloromethane	0.014	0.020	0.010	0.094	0.134	0.067	J	1
Bromoform	ND	0.020	0.020	ND	0.207	0.207		1
Carbon tetrachloride	0.064	0.020	0.020	0.402	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	0.078	0.020	0.020	0.381	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	0.175	0.020	0.020	0.760	0.087	0.087		1
Methylene chloride	0.942	0.500	0.500	3.27	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	0.047	0.050	0.025	0.246	0.262	0.131	J	1
XYLENE (TOTAL)	0.763	0.060	0.060	3.31	0.261	0.261		1

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1108139
Report Date: 07/19/11

SAMPLE RESULTS

Lab ID: L1108139-22
Client ID: BD01-20110607
Sample Location: WOBURN, MA
Date Collected: 06/07/11 00:00
Date Received: 06/09/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	0.023	0.020	0.020	0.156	0.136	0.136		1
Toluene	1.12	0.050	0.050	4.22	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

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

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1108139
Report Date: 07/19/11

SAMPLE RESULTS

Lab ID:	L1108139-23	Date Collected:	06/07/11 00:00
Client ID:	BD02-20110607	Date Received:	06/09/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	06/21/11 06:21		
Analyst:	AR		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.224	0.224		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.207	0.207		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	0.039	0.020	0.020	0.190	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	6.72	0.500	0.500	23.3	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.261	0.261		1

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1108139
Report Date: 07/19/11

SAMPLE RESULTS

Lab ID: L1108139-23
Client ID: BD02-20110607
Sample Location: WOBURN, MA

Date Collected: 06/07/11 00:00
Date Received: 06/09/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	0.051	0.020	0.020	0.346	0.136	0.136		1
Toluene	0.053	0.050	0.050	0.200	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	116		60-140
bromochloromethane	106		60-140
chlorobenzene-d5	125		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1108139
Report Date: 07/19/11

SAMPLE RESULTS

Lab ID:	L1108139-24	Date Collected:	06/07/11 00:00
Client ID:	BD03-20110607	Date Received:	06/09/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15		
Analytical Date:	06/22/11 04:44		
Analyst:	AR		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Acetone	120	1.00	0.078	285	2.38	0.185	E	1
Ethyl Acetate	3.38	0.500	0.151	12.2	1.80	0.544		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	105		60-140
Bromochloromethane	101		60-140
chlorobenzene-d5	105		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1108139
Report Date: 07/19/11

SAMPLE RESULTS

Lab ID:	L1108139-24	Date Collected:	06/07/11 00:00
Client ID:	BD03-20110607	Date Received:	06/09/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	06/22/11 04:44		
Analyst:	AR		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	0.238	0.020	0.020	1.30	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	0.502	0.020	0.020	2.47	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	0.116	0.020	0.020	0.470	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	0.025	0.020	0.020	0.055	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	0.558	0.020	0.020	3.35	0.120	0.120		1
Benzene	0.205	0.070	0.070	0.655	0.224	0.224		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.207	0.207		1
Carbon tetrachloride	0.062	0.020	0.020	0.390	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	0.067	0.020	0.020	0.327	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	0.295	0.020	0.020	1.28	0.087	0.087		1
Methylene chloride	0.558	0.500	0.500	1.94	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	0.142	0.050	0.025	0.744	0.262	0.131		1
XYLENE (TOTAL)	1.10	0.060	0.060	4.78	0.261	0.261		1

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1108139
Report Date: 07/19/11

SAMPLE RESULTS

Lab ID: L1108139-24
Client ID: BD03-20110607
Sample Location: WOBURN, MA
Date Collected: 06/07/11 00:00
Date Received: 06/09/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	0.046	0.020	0.020	0.312	0.136	0.136		1
Toluene	4.26	0.050	0.050	16.0	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

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

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1108139
Report Date: 07/19/11

SAMPLE RESULTS

Lab ID:	L1108139-24 D	Date Collected:	06/07/11 00:00
Client ID:	BD03-20110607	Date Received:	06/09/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15		
Analytical Date:	06/23/11 03:48		
Analyst:	AR		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Acetone	110	2.00	0.156	261	4.75	0.370		2

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	90		60-140
Bromochloromethane	91		60-140
chlorobenzene-d5	97		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1108139
Report Date: 07/19/11

SAMPLE RESULTS

Lab ID:	L1108139-25	Date Collected:	06/08/11 00:00
Client ID:	BD04-20110608	Date Received:	06/09/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Anaytical Method:	48,TO-15		
Analytical Date:	06/21/11 07:00		
Analyst:	AR		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Acetone	39.8	1.00	0.078	94.5	2.38	0.185		1
Ethyl Acetate	1.18	0.500	0.151	4.25	1.80	0.544		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	90		60-140
Bromochloromethane	89		60-140
chlorobenzene-d5	94		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1108139
Report Date: 07/19/11

SAMPLE RESULTS

Lab ID: L1108139-25
Client ID: BD04-20110608
Sample Location: WOBURN, MA
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15-SIM
Analytical Date: 06/21/11 07:00
Analyst: AR

Date Collected: 06/08/11 00:00
Date Received: 06/09/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	0.807	0.020	0.020	4.40	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	0.041	0.020	0.020	0.202	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	0.075	0.020	0.020	0.304	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	0.084	0.070	0.070	0.268	0.224	0.224		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.207	0.207		1
Carbon tetrachloride	0.040	0.020	0.020	0.252	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	0.065	0.020	0.020	0.317	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	0.065	0.020	0.020	0.282	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
XYLENE (TOTAL)	0.266	0.060	0.060	1.16	0.261	0.261		1

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1108139
Report Date: 07/19/11

SAMPLE RESULTS

Lab ID: L1108139-25
Client ID: BD04-20110608
Sample Location: WOBURN, MA
Date Collected: 06/08/11 00:00
Date Received: 06/09/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	11.4	0.020	0.020	77.3	0.136	0.136		1
Toluene	0.800	0.050	0.050	3.01	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	0.056	0.020	0.020	0.301	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	113		60-140
bromochloromethane	104		60-140
chlorobenzene-d5	122		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1108139
Report Date: 07/19/11

SAMPLE RESULTS

Lab ID:	L1108139-26	Date Collected:	06/08/11 00:00
Client ID:	TB-20110608	Date Received:	06/09/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15		
Analytical Date:	06/22/11 10:58		
Analyst:	AR		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Acetone	0.149	1.00	0.078	0.354	2.38	0.185	J	1
Ethyl Acetate	ND	0.500	0.151	ND	1.80	0.544		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	108		60-140
Bromochloromethane	98		60-140
chlorobenzene-d5	89		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1108139
Report Date: 07/19/11

SAMPLE RESULTS

Lab ID:	L1108139-26	Date Collected:	06/08/11 00:00
Client ID:	TB-20110608	Date Received:	06/09/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	06/20/11 18:14		
Analyst:	AR		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.224	0.224		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.207	0.207		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.261	0.261		1

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1108139
Report Date: 07/19/11

SAMPLE RESULTS

Lab ID: L1108139-26
Client ID: TB-20110608
Sample Location: WOBURN, MA
Date Collected: 06/08/11 00:00
Date Received: 06/09/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	102		60-140
bromochloromethane	63		60-140
chlorobenzene-d5	82		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1108139
Report Date: 07/19/11

SAMPLE RESULTS

Lab ID:	L1108139-27	Date Collected:	06/07/11 16:26
Client ID:	260407-19-IA1-20110607	Date Received:	06/09/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15		
Analytical Date:	06/22/11 03:27		
Analyst:	AR		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Acetone	108	1.00	0.078	256	2.38	0.185	E	1
Ethyl Acetate	2.97	0.500	0.151	10.7	1.80	0.544		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	110		60-140
Bromochloromethane	103		60-140
chlorobenzene-d5	109		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1108139
Report Date: 07/19/11

SAMPLE RESULTS

Lab ID:	L1108139-27	Date Collected:	06/07/11 16:26
Client ID:	260407-19-IA1-20110607	Date Received:	06/09/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	06/22/11 03:27		
Analyst:	AR		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	0.215	0.020	0.020	1.17	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	0.475	0.020	0.020	2.34	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	0.105	0.020	0.020	0.425	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	0.513	0.020	0.020	3.08	0.120	0.120		1
Benzene	0.192	0.070	0.070	0.613	0.224	0.224		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.207	0.207		1
Carbon tetrachloride	0.061	0.020	0.020	0.384	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	0.190	0.020	0.020	0.928	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	0.280	0.020	0.020	1.22	0.087	0.087		1
Methylene chloride	1.46	0.500	0.500	5.07	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	0.094	0.050	0.025	0.493	0.262	0.131		1
XYLENE (TOTAL)	1.05	0.060	0.060	4.56	0.261	0.261		1

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1108139

Project Number: BR0200 **Report Date:** 07/19/11

SAMPLE RESULTS

Lab ID: L1108139-27 Date Collected: 06/07/11 16:26

Client ID: 260407-19-IA1-20110607 Date Received: 06/09/11

Sample Location: WOBURN, MA Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	0.043	0.020	0.020	0.292	0.136	0.136		1
Toluene	4.06	0.050	0.050	15.3	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	91		60-140
bromochloromethane	93		60-140
chlorobenzene-d5	90		60-140

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1108139
Report Date: 07/19/11

SAMPLE RESULTS

Lab ID:	L1108139-27 D	Date Collected:	06/07/11 16:26
Client ID:	260407-19-IA1-20110607	Date Received:	06/09/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15		
Analytical Date:	06/22/11 13:03		
Analyst:	AR		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Acetone	87.9	2.00	0.156	209	4.75	0.370		2

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	98		60-140
Bromochloromethane	98		60-140
chlorobenzene-d5	104		60-140

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1108139

Project Number: BR0200 **Report Date:** 07/19/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 06/20/11 23:55

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air (Low Level) - Mansfield Lab for sample(s): 12-13,15,18-19,25 Batch: WG474469-4								
Acetone	0.392	1.00	0.078	0.931	2.38	0.185	J	1
Ethyl Acetate	ND	0.500	0.151	ND	1.80	0.544		1

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1108139

Project Number: BR0200 **Report Date:** 07/19/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15-SIM
Analytical Date: 06/20/11 23:55

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 04-05,09-10,12-13,15,18-19,23,25 Batch: WG4744								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.224	0.224		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.207	0.207		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
p/m-Xylene	ND	0.040	0.040	ND	0.174	0.174		1
o-Xylene	ND	0.020	0.020	ND	0.087	0.087		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.261	0.261		1

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1108139

Project Number: BR0200 **Report Date:** 07/19/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15-SIM
Analytical Date: 06/20/11 23:55

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 04-05,09-10,12-13,15,18-19,23,25 Batch: WG4744								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1108139

Project Number: BR0200 **Report Date:** 07/19/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15-SIM
Analytical Date: 06/21/11 19:43

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 06-07,11,14,16-17,22,24,27 Batch: WG474558-4								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.224	0.224		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.207	0.207		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.261	0.261		1
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1108139

Project Number: BR0200 **Report Date:** 07/19/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15-SIM
Analytical Date: 06/21/11 19:43

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 06-07,11,14,16-17,22,24,27 Batch: WG474558-4								
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1108139
Report Date: 07/19/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 06/21/11 19:43

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air (Low Level) - Mansfield Lab for sample(s): 14,16-17,20-21,24,26-27 Batch: WG474612-4								
Acetone	0.381	1.00	0.078	0.905	2.38	0.185	J	1
Ethyl Acetate	ND	0.500	0.151	ND	1.80	0.544		1

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1108139

Project Number: BR0200 **Report Date:** 07/19/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 06/22/11 19:29

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air (Low Level) - Mansfield Lab for sample(s): 11,24 Batch: WG474612-9								
Acetone	0.425	1.00	0.078	1.01	2.38	0.185	J	1
Ethyl Acetate	ND	0.500	0.151	ND	1.80	0.544		1

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1108139

Project Number: BR0200 **Report Date:** 07/19/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15-SIM
Analytical Date: 06/20/11 17:38

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-03,08,20-21,26 Batch: WG474617-4								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.224	0.224		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.207	0.207		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.261	0.261		1
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1108139

Project Number: BR0200 **Report Date:** 07/19/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15-SIM
Analytical Date: 06/20/11 17:38

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-03,08,20-21,26 Batch: WG474617-4								
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Lab Control Sample Analysis
Batch Quality Control

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200

Lab Number: L1108139
Report Date: 07/19/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air (Low Level) - Mansfield Lab Associated sample(s): 12-13,15,18-19,25 Batch: WG474469-3								
Acetone	78		-		70-130	-		
Ethyl Acetate	82		-		70-130	-		
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 04-05,09-10,12-13,15,18-19,23,25 Batch: WG474472-3								
1,1,1-Trichloroethane	104		-		70-130	-		25
1,1,2-Trichloroethane	87		-		70-130	-		25
1,1-Dichloroethane	94		-		70-130	-		25
1,1-Dichloroethene	108		-		70-130	-		25
1,2,4-Trimethylbenzene	111		-		70-130	-		25
1,2-Dibromoethane	95		-		70-130	-		25
1,2-Dichloroethane	84		-		70-130	-		25
1,2-Dichloropropane	86		-		70-130	-		25
1,3-Butadiene	110		-		70-130	-		25

Lab Control Sample Analysis
Batch Quality Control

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200

Lab Number: L1108139
Report Date: 07/19/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 04-05,09-10,12-13,15,18-19,23,25 Batch: WG474472-3								
1,3-Dichlorobenzene	102		-		70-130	-		25
1,4-Dichlorobenzene	103		-		70-130	-		25
Benzene	83		-		70-130	-		25
Bromodichloromethane	93		-		70-130	-		25
Bromoform	85		-		70-130	-		25
Carbon tetrachloride	98		-		70-130	-		25
Chlorobenzene	92		-		70-130	-		25
Chloroform	98		-		70-130	-		25
cis-1,2-Dichloroethene	98		-		70-130	-		25
Ethylbenzene	82		-		70-130	-		25
Methylene chloride	100		-		70-130	-		25
Methyl tert butyl ether	74		-		70-130	-		25
Naphthalene	122		-		70-130	-		25
p/m-Xylene	85		-		70-130	-		25
o-Xylene	86		-		70-130	-		25
Tetrachloroethene	109		-		70-130	-		25
Toluene	81		-		70-130	-		25
trans-1,2-Dichloroethene	101		-		70-130	-		25
trans-1,3-Dichloropropene	72		-		70-130	-		25
Trichloroethene	103		-		70-130	-		25
Vinyl chloride	111		-		70-130	-		25

Lab Control Sample Analysis
Batch Quality Control

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1108139
Report Date: 07/19/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 04-05,09-10,12-13,15,18-19,23,25 Batch: WG474472-3								
Isopropylbenzene	99		-		70-130	-		25
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 06-07,11,14,16-17,22,24,27 Batch: WG474558-3								
1,1,1-Trichloroethane	85		-		70-130	-		25
1,1,2-Trichloroethane	85		-		70-130	-		25
1,1-Dichloroethane	87		-		70-130	-		25
1,1-Dichloroethene	88		-		70-130	-		25
1,2,4-Trimethylbenzene	95		-		70-130	-		25
1,2-Dibromoethane	87		-		70-130	-		25
1,2-Dichloroethane	84		-		70-130	-		25
1,2-Dichloropropane	81		-		70-130	-		25
1,3-Butadiene	90		-		70-130	-		25

Lab Control Sample Analysis
Batch Quality Control

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200

Lab Number: L1108139
Report Date: 07/19/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 06-07,11,14,16-17,22,24,27 Batch: WG474558-3								
1,3-Dichlorobenzene	89		-		70-130	-		25
1,4-Dichlorobenzene	86		-		70-130	-		25
Benzene	76		-		70-130	-		25
Bromodichloromethane	78		-		70-130	-		25
Bromoform	77		-		70-130	-		25
Carbon tetrachloride	80		-		70-130	-		25
Chlorobenzene	88		-		70-130	-		25
Chloroform	88		-		70-130	-		25
cis-1,2-Dichloroethene	88		-		70-130	-		25
Ethylbenzene	88		-		70-130	-		25
Methylene chloride	85		-		70-130	-		25
Methyl tert butyl ether	72		-		70-130	-		25
Naphthalene	**66**	Q	-		70-130	-		25
p/m-Xylene	90		-		70-130	-		25
o-Xylene	90		-		70-130	-		25
Tetrachloroethene	88		-		70-130	-		25
Toluene	79		-		70-130	-		25
trans-1,2-Dichloroethene	84		-		70-130	-		25
trans-1,3-Dichloropropene	72		-		70-130	-		25
Trichloroethene	85		-		70-130	-		25
Vinyl chloride	91		-		70-130	-		25

Lab Control Sample Analysis
Batch Quality Control

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1108139
Report Date: 07/19/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 06-07,11,14,16-17,22,24,27 Batch: WG474558-3								
Isopropylbenzene	102		-		70-130	-		25
Volatile Organics in Air (Low Level) - Mansfield Lab Associated sample(s): 14,16-17,20-21,24,26-27 Batch: WG474612-3								
Acetone	72		-		70-130	-		
Ethyl Acetate	76		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200

Lab Number: L1108139
Report Date: 07/19/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air (Low Level) - Mansfield Lab Associated sample(s): 11,24 Batch: WG474612-8								
Acetone	82		-		70-130	-		
Ethyl Acetate	82		-		70-130	-		
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-03,08,20-21,26 Batch: WG474617-3								
1,1,1-Trichloroethane	113		-		70-130	-		25
1,1,2-Trichloroethane	108		-		70-130	-		25
1,1-Dichloroethane	83		-		70-130	-		25
1,1-Dichloroethene	94		-		70-130	-		25
1,2,4-Trimethylbenzene	78		-		70-130	-		25
1,2-Dibromoethane	83		-		70-130	-		25
1,2-Dichloroethane	82		-		70-130	-		25
1,2-Dichloropropane	120		-		70-130	-		25
1,3-Butadiene	102		-		70-130	-		25

Lab Control Sample Analysis
Batch Quality Control

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200
Lab Number: L1108139
Report Date: 07/19/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-03,08,20-21,26 Batch: WG474617-3								
1,3-Dichlorobenzene	81		-		70-130	-		25
1,4-Dichlorobenzene	79		-		70-130	-		25
Benzene	103		-		70-130	-		25
Bromodichloromethane	117		-		70-130	-		25
Bromoform	78		-		70-130	-		25
Carbon tetrachloride	117		-		70-130	-		25
Chlorobenzene	76		-		70-130	-		25
Chloroform	73		-		70-130	-		25
cis-1,2-Dichloroethene	90		-		70-130	-		25
Ethylbenzene	75		-		70-130	-		25
Methylene chloride	98		-		70-130	-		25
Methyl tert butyl ether	**65**	Q	-		70-130	-		25
Naphthalene	92		-		70-130	-		25
p/m-Xylene	75		-		70-130	-		25
o-Xylene	74		-		70-130	-		25
Tetrachloroethene	80		-		70-130	-		25
Toluene	70		-		70-130	-		25
trans-1,2-Dichloroethene	85		-		70-130	-		25
trans-1,3-Dichloropropene	106		-		70-130	-		25
Trichloroethene	110		-		70-130	-		25
Vinyl chloride	93		-		70-130	-		25

Lab Control Sample Analysis

Batch Quality Control

Project Name: WR GRACE VI ASSESSMENT

Project Number: BR0200

Lab Number: L1108139

Report Date: 07/19/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-03,08,20-21,26 Batch: WG474617-3								
Isopropylbenzene	83		-		70-130	-		25

Lab Duplicate Analysis
Batch Quality Control

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200

Lab Number: L1108139
Report Date: 07/19/11

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air (Low Level) - Mansfield Lab Associated sample(s): 12-13,15,18-19,25 QC Batch ID: WG474469-5 QC Sample: L1108139-13 Client ID: 260407-19-SS1-20110608						
Acetone	9.37	9.56	ppbV	2		25
Ethyl Acetate	ND	ND	ppbV	NC		25

Lab Duplicate Analysis
Batch Quality Control

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200

Lab Number: L1108139
Report Date: 07/19/11

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 04-05,09-10,12-13,15,18-19,23,25 QC Batch ID: WG474472-5 QC Sample: L1108139-13 Client ID: 260407-19-SS1-20110608					
1,1,1-Trichloroethane	0.733	0.722	ppbV	2	25
1,1,2-Trichloroethane	ND	ND	ppbV	NC	25
1,1-Dichloroethane	ND	ND	ppbV	NC	25
1,1-Dichloroethene	ND	ND	ppbV	NC	25
1,2,4-Trimethylbenzene	0.068	0.076	ppbV	11	25
1,2-Dibromoethane	ND	ND	ppbV	NC	25
1,2-Dichloroethane	ND	ND	ppbV	NC	25
1,2-Dichloropropane	ND	ND	ppbV	NC	25
1,3-Butadiene	ND	ND	ppbV	NC	25
1,3-Dichlorobenzene	ND	ND	ppbV	NC	25
1,4-Dichlorobenzene	ND	ND	ppbV	NC	25
Benzene	ND	ND	ppbV	NC	25
Bromodichloromethane	ND	ND	ppbV	NC	25
Bromoform	ND	ND	ppbV	NC	25
Carbon tetrachloride	0.020	0.020	ppbV	0	25
Chlorobenzene	ND	ND	ppbV	NC	25
Chloroform	0.343	0.336	ppbV	2	25
cis-1,2-Dichloroethene	ND	ND	ppbV	NC	25
Ethylbenzene	0.099	0.101	ppbV	2	25

Lab Duplicate Analysis
Batch Quality Control

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200

Lab Number: L1108139
Report Date: 07/19/11

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 04-05,09-10,12-13,15,18-19,23,25 QC Batch ID: WG474472-5 QC Sample: L1108139-13 Client ID: 260407-19-SS1-20110608					
Methylene chloride	5.92	5.80	ppbV	2	25
Methyl tert butyl ether	0.026	0.027	ppbV	4	25
Naphthalene	ND	ND	ppbV	NC	25
XYLENE (TOTAL)	0.627	0.631	ppbV	1	25
Tetrachloroethene	2.56	2.54	ppbV	1	25
Toluene	0.190	0.190	ppbV	0	25
trans-1,2-Dichloroethene	ND	ND	ppbV	NC	25
trans-1,3-Dichloropropene	ND	ND	ppbV	NC	25
Trichloroethene	0.026	0.027	ppbV	4	25
Vinyl chloride	ND	ND	ppbV	NC	25
Isopropylbenzene	ND	ND	ppbV	NC	25

Lab Duplicate Analysis
Batch Quality Control

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200

Lab Number: L1108139
Report Date: 07/19/11

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 06-07,11,14,16-17,22,24,27 QC Batch ID: WG474558-5 QC Sample: L1108139-06 Client ID: 260903-IA1-20110607					
1,1,1-Trichloroethane	0.029	0.029	ppbV	0	25
1,1,2-Trichloroethane	ND	ND	ppbV	NC	25
1,1-Dichloroethane	ND	ND	ppbV	NC	25
1,1-Dichloroethene	ND	ND	ppbV	NC	25
1,2,4-Trimethylbenzene	0.180	0.193	ppbV	7	25
1,2-Dibromoethane	ND	ND	ppbV	NC	25
1,2-Dichloroethane	0.312	0.310	ppbV	1	25
1,2-Dichloropropane	ND	ND	ppbV	NC	25
1,3-Butadiene	0.024	0.025	ppbV	4	25
1,3-Dichlorobenzene	ND	ND	ppbV	NC	25
1,4-Dichlorobenzene	0.536	0.594	ppbV	10	25
Benzene	0.156	0.178	ppbV	13	25
Bromodichloromethane	0.021	0.021	ppbV	0	25
Bromoform	ND	ND	ppbV	NC	25
Carbon tetrachloride	0.098	0.104	ppbV	6	25
Chlorobenzene	ND	ND	ppbV	NC	25
Chloroform	0.254	0.256	ppbV	1	25
cis-1,2-Dichloroethene	ND	ND	ppbV	NC	25
Ethylbenzene	0.190	0.195	ppbV	3	25

Lab Duplicate Analysis
Batch Quality Control

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200

Lab Number: L1108139
Report Date: 07/19/11

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 06-07,11,14,16-17,22,24,27 QC Batch ID: WG474558-5 QC Sample: L1108139-06 Client ID: 260903-IA1-20110607					
Methylene chloride	ND	ND	ppbV	NC	25
Methyl tert butyl ether	ND	ND	ppbV	NC	25
Naphthalene	0.070	0.063	ppbV	11	25
XYLENE (TOTAL)	0.646	0.652	ppbV	1	25
Tetrachloroethene	0.152	0.161	ppbV	6	25
Toluene	1.13	1.16	ppbV	3	25
trans-1,2-Dichloroethene	ND	ND	ppbV	NC	25
trans-1,3-Dichloropropene	ND	ND	ppbV	NC	25
Trichloroethene	ND	ND	ppbV	NC	25
Vinyl chloride	ND	ND	ppbV	NC	25
Isopropylbenzene	ND	ND	ppbV	NC	25
Volatile Organics in Air (Low Level) - Mansfield Lab Associated sample(s): 11,14,16-17,20-21,24,26-27 QC Batch ID: WG474612-5 QC Sample: L1108139-14 Client ID: 260407-20-IA1-20110607					
Acetone	89.9	80.5	ppbV	11	25
Ethyl Acetate	5.53	4.81	ppbV	14	25

Lab Duplicate Analysis
Batch Quality Control

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200

Lab Number: L1108139
Report Date: 07/19/11

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-03,08,20-21,26 QC Batch ID: WG474617-5 QC Sample: L1108139-02 Client ID: 260902-IA2-20110607					
1,1,1-Trichloroethane	ND	ND	ppbV	NC	25
1,1,2-Trichloroethane	ND	ND	ppbV	NC	25
1,1-Dichloroethane	ND	ND	ppbV	NC	25
1,1-Dichloroethene	ND	ND	ppbV	NC	25
1,2,4-Trimethylbenzene	0.170	0.169	ppbV	1	25
1,2-Dibromoethane	ND	ND	ppbV	NC	25
1,2-Dichloroethane	0.678	0.661	ppbV	3	25
1,2-Dichloropropane	ND	ND	ppbV	NC	25
1,3-Butadiene	0.048	0.047	ppbV	2	25
1,3-Dichlorobenzene	ND	ND	ppbV	NC	25
1,4-Dichlorobenzene	ND	ND	ppbV	NC	25
Benzene	0.262	0.238	ppbV	10	25
Bromodichloromethane	0.018J	0.017J	ppbV	NC	25
Bromoform	ND	ND	ppbV	NC	25
Carbon tetrachloride	0.077	0.073	ppbV	5	25
Chlorobenzene	ND	ND	ppbV	NC	25
Chloroform	0.060	0.058	ppbV	3	25
cis-1,2-Dichloroethene	ND	ND	ppbV	NC	25
Ethylbenzene	0.135	0.127	ppbV	6	25

Lab Duplicate Analysis
Batch Quality Control

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200

Lab Number: L1108139
Report Date: 07/19/11

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-03,08,20-21,26 QC Batch ID: WG474617-5 QC Sample: L1108139-02 Client ID: 260902-IA2-20110607					
Methylene chloride	3.20	3.06	ppbV	4	25
Methyl tert butyl ether	ND	ND	ppbV	NC	25
Naphthalene	0.083	0.069	ppbV	18	25
XYLENE (TOTAL)	0.563	0.539	ppbV	4	25
Tetrachloroethene	ND	ND	ppbV	NC	25
Toluene	0.872	0.809	ppbV	7	25
trans-1,2-Dichloroethene	ND	ND	ppbV	NC	25
trans-1,3-Dichloropropene	ND	ND	ppbV	NC	25
Trichloroethene	ND	ND	ppbV	NC	25
Vinyl chloride	ND	ND	ppbV	NC	25
Isopropylbenzene	ND	ND	ppbV	NC	25

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1108139

Project Number: BR0200 **Report Date:** 07/19/11

SAMPLE RESULTS

Lab ID:	L1108139-01	Date Collected:	06/07/11 08:19
Client ID:	260902-IA1-20110607	Date Received:	06/09/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	06/18/11 19:12		
Analyst:	RY		

Quality Control Information

Sample Type:	24 Hour Composite
Sample Container Type:	Canister - 6 Liter
Sampling Flow Controller:	Mechanical
Sampling Zone:	Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check:	<=20%
Were all QA/QC procedures REQUIRED by the method followed?	Yes
Were all performance/acceptance standards for the required procedures achieved?	Yes
Were significant modifications made to the method as specified in Sect 11.1.2?	No

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbons in Air - Mansfield Lab						
1,3-Butadiene	ND		ug/m3	2.0	2.0	1
Methyl tert butyl ether	ND		ug/m3	2.0	2.0	1
Benzene	ND		ug/m3	2.0	2.0	1
Toluene	4.4		ug/m3	2.0	2.0	1
C5-C8 Aliphatics, Adjusted	89		ug/m3	12	12.	1
Ethylbenzene	ND		ug/m3	2.0	2.0	1
p/m-Xylene	ND		ug/m3	4.0	4.0	1
o-Xylene	ND		ug/m3	2.0	2.0	1
Naphthalene	ND		ug/m3	2.0	2.0	1
C9-C12 Aliphatics, Adjusted	54		ug/m3	14	14.	1
C9-C10 Aromatics Total	ND		ug/m3	10	10.	1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	79		50-200
Bromochloromethane	63		50-200
Chlorobenzene-d5	79		50-200

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1108139

Project Number: BR0200 **Report Date:** 07/19/11

SAMPLE RESULTS

Lab ID:	L1108139-02	Date Collected:	06/07/11 08:23
Client ID:	260902-IA2-20110607	Date Received:	06/09/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	06/18/11 19:46		
Analyst:	RY		

Quality Control Information

Sample Type:	24 Hour Composite
Sample Container Type:	Canister - 6 Liter
Sampling Flow Controller:	Mechanical
Sampling Zone:	Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check:	<=20%
Were all QA/QC procedures REQUIRED by the method followed?	Yes
Were all performance/acceptance standards for the required procedures achieved?	Yes
Were significant modifications made to the method as specified in Sect 11.1.2?	No

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbons in Air - Mansfield Lab						
1,3-Butadiene	ND		ug/m3	2.0	2.0	1
Methyl tert butyl ether	ND		ug/m3	2.0	2.0	1
Benzene	ND		ug/m3	2.0	2.0	1
Toluene	4.3		ug/m3	2.0	2.0	1
C5-C8 Aliphatics, Adjusted	85		ug/m3	12	12.	1
Ethylbenzene	ND		ug/m3	2.0	2.0	1
p/m-Xylene	ND		ug/m3	4.0	4.0	1
o-Xylene	ND		ug/m3	2.0	2.0	1
Naphthalene	ND		ug/m3	2.0	2.0	1
C9-C12 Aliphatics, Adjusted	52		ug/m3	14	14.	1
C9-C10 Aromatics Total	ND		ug/m3	10	10.	1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	78		50-200
Bromochloromethane	87		50-200
Chlorobenzene-d5	82		50-200

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1108139

Project Number: BR0200 **Report Date:** 07/19/11

SAMPLE RESULTS

Lab ID:	L1108139-03	Date Collected:	06/07/11 08:30
Client ID:	260902-OA-20110607	Date Received:	06/09/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	06/18/11 16:49		
Analyst:	RY		

Quality Control Information

Sample Type:	24 Hour Composite
Sample Container Type:	Canister - 6 Liter
Sampling Flow Controller:	Mechanical
Sampling Zone:	Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check:	<=20%
Were all QA/QC procedures REQUIRED by the method followed?	Yes
Were all performance/acceptance standards for the required procedures achieved?	Yes
Were significant modifications made to the method as specified in Sect 11.1.2?	No

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbons in Air - Mansfield Lab						
1,3-Butadiene	ND		ug/m3	2.0	2.0	1
Methyl tert butyl ether	ND		ug/m3	2.0	2.0	1
Benzene	ND		ug/m3	2.0	2.0	1
Toluene	ND		ug/m3	2.0	2.0	1
C5-C8 Aliphatics, Adjusted	22		ug/m3	12	12.	1
Ethylbenzene	ND		ug/m3	2.0	2.0	1
p/m-Xylene	ND		ug/m3	4.0	4.0	1
o-Xylene	ND		ug/m3	2.0	2.0	1
Naphthalene	ND		ug/m3	2.0	2.0	1
C9-C12 Aliphatics, Adjusted	ND		ug/m3	14	14.	1
C9-C10 Aromatics Total	ND		ug/m3	10	10.	1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	87		50-200
Bromochloromethane	67		50-200
Chlorobenzene-d5	86		50-200

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1108139

Project Number: BR0200 **Report Date:** 07/19/11

SAMPLE RESULTS

Lab ID:	L1108139-04	Date Collected:	06/07/11 12:05
Client ID:	260902-SS1-20110607	Date Received:	06/09/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Analytical Method:	96,APH		
Analytical Date:	06/22/11 20:07		
Analyst:	RY		

Quality Control Information

Sample Type:	30 Minute Composite
Sample Container Type:	Canister - 6 Liter
Sampling Flow Controller:	Mechanical
Sampling Zone:	Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check:	<=20%
Were all QA/QC procedures REQUIRED by the method followed?	Yes
Were all performance/acceptance standards for the required procedures achieved?	Yes
Were significant modifications made to the method as specified in Sect 11.1.2?	No

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbons in Air - Mansfield Lab						
1,3-Butadiene	ND		ug/m3	2.0	2.0	1
Methyl tert butyl ether	ND		ug/m3	2.0	2.0	1
Benzene	ND		ug/m3	2.0	2.0	1
Toluene	ND		ug/m3	2.0	2.0	1
C5-C8 Aliphatics, Adjusted	37		ug/m3	12	12.	1
Ethylbenzene	ND		ug/m3	2.0	2.0	1
p/m-Xylene	ND		ug/m3	4.0	4.0	1
o-Xylene	ND		ug/m3	2.0	2.0	1
Naphthalene	ND		ug/m3	2.0	2.0	1
C9-C12 Aliphatics, Adjusted	ND		ug/m3	14	14.	1
C9-C10 Aromatics Total	ND		ug/m3	10	10.	1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	92		50-200
Bromochloromethane	95		50-200
Chlorobenzene-d5	91		50-200

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1108139

Project Number: BR0200 **Report Date:** 07/19/11

SAMPLE RESULTS

Lab ID:	L1108139-05	Date Collected:	06/07/11 11:07
Client ID:	260902-SS2-20110607	Date Received:	06/09/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Analytical Method:	96,APH		
Analytical Date:	06/22/11 20:46		
Analyst:	RY		

Quality Control Information

Sample Type:	30 Minute Composite
Sample Container Type:	Canister - 6 Liter
Sampling Flow Controller:	Mechanical
Sampling Zone:	Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check:	<=20%
Were all QA/QC procedures REQUIRED by the method followed?	Yes
Were all performance/acceptance standards for the required procedures achieved?	Yes
Were significant modifications made to the method as specified in Sect 11.1.2?	No

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbons in Air - Mansfield Lab						
1,3-Butadiene	ND		ug/m3	2.0	2.0	1
Methyl tert butyl ether	ND		ug/m3	2.0	2.0	1
Benzene	ND		ug/m3	2.0	2.0	1
Toluene	ND		ug/m3	2.0	2.0	1
C5-C8 Aliphatics, Adjusted	30		ug/m3	12	12.	1
Ethylbenzene	ND		ug/m3	2.0	2.0	1
p/m-Xylene	ND		ug/m3	4.0	4.0	1
o-Xylene	ND		ug/m3	2.0	2.0	1
Naphthalene	ND		ug/m3	2.0	2.0	1
C9-C12 Aliphatics, Adjusted	72		ug/m3	14	14.	1
C9-C10 Aromatics Total	ND		ug/m3	10	10.	1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	86		50-200
Bromochloromethane	92		50-200
Chlorobenzene-d5	87		50-200

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1108139

Project Number: BR0200 **Report Date:** 07/19/11

SAMPLE RESULTS

Lab ID:	L1108139-06	Date Collected:	06/07/11 08:34
Client ID:	260903-IA1-20110607	Date Received:	06/09/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	06/18/11 20:20		
Analyst:	RY		

Quality Control Information

Sample Type:	24 Hour Composite
Sample Container Type:	Canister - 6 Liter
Sampling Flow Controller:	Mechanical
Sampling Zone:	Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check:	<=20%
Were all QA/QC procedures REQUIRED by the method followed?	Yes
Were all performance/acceptance standards for the required procedures achieved?	Yes
Were significant modifications made to the method as specified in Sect 11.1.2?	No

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbons in Air - Mansfield Lab						
1,3-Butadiene	ND		ug/m3	2.0	2.0	1
Methyl tert butyl ether	ND		ug/m3	2.0	2.0	1
Benzene	ND		ug/m3	2.0	2.0	1
Toluene	4.4		ug/m3	2.0	2.0	1
C5-C8 Aliphatics, Adjusted	140		ug/m3	12	12.	1
Ethylbenzene	ND		ug/m3	2.0	2.0	1
p/m-Xylene	ND		ug/m3	4.0	4.0	1
o-Xylene	ND		ug/m3	2.0	2.0	1
Naphthalene	ND		ug/m3	2.0	2.0	1
C9-C12 Aliphatics, Adjusted	56		ug/m3	14	14.	1
C9-C10 Aromatics Total	ND		ug/m3	10	10.	1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	83		50-200
Bromochloromethane	90		50-200
Chlorobenzene-d5	84		50-200

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1108139

Project Number: BR0200 **Report Date:** 07/19/11

SAMPLE RESULTS

Lab ID:	L1108139-07	Date Collected:	06/07/11 08:36
Client ID:	260903-IA2-20110607	Date Received:	06/09/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	06/18/11 20:57		
Analyst:	RY		

Quality Control Information

Sample Type:	24 Hour Composite
Sample Container Type:	Canister - 6 Liter
Sampling Flow Controller:	Mechanical
Sampling Zone:	Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check:	<=20%
Were all QA/QC procedures REQUIRED by the method followed?	Yes
Were all performance/acceptance standards for the required procedures achieved?	Yes
Were significant modifications made to the method as specified in Sect 11.1.2?	No

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbons in Air - Mansfield Lab						
1,3-Butadiene	ND		ug/m3	2.0	2.0	1
Methyl tert butyl ether	ND		ug/m3	2.0	2.0	1
Benzene	ND		ug/m3	2.0	2.0	1
Toluene	4.1		ug/m3	2.0	2.0	1
C5-C8 Aliphatics, Adjusted	150		ug/m3	12	12.	1
Ethylbenzene	ND		ug/m3	2.0	2.0	1
p/m-Xylene	ND		ug/m3	4.0	4.0	1
o-Xylene	ND		ug/m3	2.0	2.0	1
Naphthalene	ND		ug/m3	2.0	2.0	1
C9-C12 Aliphatics, Adjusted	60		ug/m3	14	14.	1
C9-C10 Aromatics Total	ND		ug/m3	10	10.	1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	81		50-200
Bromochloromethane	88		50-200
Chlorobenzene-d5	81		50-200

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1108139

Project Number: BR0200 **Report Date:** 07/19/11

SAMPLE RESULTS

Lab ID:	L1108139-08	Date Collected:	06/07/11 08:40
Client ID:	260903-OA-20110607	Date Received:	06/09/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	06/18/11 17:25		
Analyst:	RY		

Quality Control Information

Sample Type:	24 Hour Composite
Sample Container Type:	Canister - 6 Liter
Sampling Flow Controller:	Mechanical
Sampling Zone:	Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check:	<=20%
Were all QA/QC procedures REQUIRED by the method followed?	Yes
Were all performance/acceptance standards for the required procedures achieved?	Yes
Were significant modifications made to the method as specified in Sect 11.1.2?	No

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbons in Air - Mansfield Lab						
1,3-Butadiene	ND		ug/m3	2.0	2.0	1
Methyl tert butyl ether	ND		ug/m3	2.0	2.0	1
Benzene	ND		ug/m3	2.0	2.0	1
Toluene	2.1		ug/m3	2.0	2.0	1
C5-C8 Aliphatics, Adjusted	31		ug/m3	12	12.	1
Ethylbenzene	ND		ug/m3	2.0	2.0	1
p/m-Xylene	ND		ug/m3	4.0	4.0	1
o-Xylene	ND		ug/m3	2.0	2.0	1
Naphthalene	ND		ug/m3	2.0	2.0	1
C9-C12 Aliphatics, Adjusted	ND		ug/m3	14	14.	1
C9-C10 Aromatics Total	ND		ug/m3	10	10.	1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	84		50-200
Bromochloromethane	90		50-200
Chlorobenzene-d5	83		50-200

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1108139

Project Number: BR0200 **Report Date:** 07/19/11

SAMPLE RESULTS

Lab ID:	L1108139-09	Date Collected:	06/07/11 15:03
Client ID:	260903-SS1-20110607	Date Received:	06/09/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Analytical Method:	96,APH		
Analytical Date:	06/22/11 21:24		
Analyst:	RY		

Quality Control Information

Sample Type:	30 Minute Composite
Sample Container Type:	Canister - 6 Liter
Sampling Flow Controller:	Mechanical
Sampling Zone:	Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check:	<=20%
Were all QA/QC procedures REQUIRED by the method followed?	Yes
Were all performance/acceptance standards for the required procedures achieved?	Yes
Were significant modifications made to the method as specified in Sect 11.1.2?	No

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbons in Air - Mansfield Lab						
1,3-Butadiene	ND		ug/m3	2.0	2.0	1
Methyl tert butyl ether	ND		ug/m3	2.0	2.0	1
Benzene	ND		ug/m3	2.0	2.0	1
Toluene	ND		ug/m3	2.0	2.0	1
C5-C8 Aliphatics, Adjusted	20		ug/m3	12	12.	1
Ethylbenzene	ND		ug/m3	2.0	2.0	1
p/m-Xylene	ND		ug/m3	4.0	4.0	1
o-Xylene	ND		ug/m3	2.0	2.0	1
Naphthalene	ND		ug/m3	2.0	2.0	1
C9-C12 Aliphatics, Adjusted	ND		ug/m3	14	14.	1
C9-C10 Aromatics Total	ND		ug/m3	10	10.	1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	92		50-200
Bromochloromethane	92		50-200
Chlorobenzene-d5	91		50-200

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1108139

Project Number: BR0200 **Report Date:** 07/19/11

SAMPLE RESULTS

Lab ID:	L1108139-10	Date Collected:	06/07/11 15:42
Client ID:	260903-SS2-20110607	Date Received:	06/09/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Analytical Method:	96,APH		
Analytical Date:	06/22/11 22:03		
Analyst:	RY		

Quality Control Information

Sample Type:	30 Minute Composite
Sample Container Type:	Canister - 6 Liter
Sampling Flow Controller:	Mechanical
Sampling Zone:	Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check:	<=20%
Were all QA/QC procedures REQUIRED by the method followed?	Yes
Were all performance/acceptance standards for the required procedures achieved?	Yes
Were significant modifications made to the method as specified in Sect 11.1.2?	No

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	89		50-200
Bromochloromethane	90		50-200
Chlorobenzene-d5	91		50-200

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1108139

Project Number: BR0200 **Report Date:** 07/19/11

SAMPLE RESULTS

Lab ID:	L1108139-11	Date Collected:	06/07/11 17:13
Client ID:	260407-17-IA1-20110607	Date Received:	06/09/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	06/18/11 21:33		
Analyst:	RY		

Quality Control Information

Sample Type:	8 Hour Composite
Sample Container Type:	Canister - 6 Liter
Sampling Flow Controller:	Mechanical
Sampling Zone:	Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check:	<=20%
Were all QA/QC procedures REQUIRED by the method followed?	Yes
Were all performance/acceptance standards for the required procedures achieved?	Yes
Were significant modifications made to the method as specified in Sect 11.1.2?	No

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbons in Air - Mansfield Lab						
1,3-Butadiene	ND		ug/m3	2.0	2.0	1
Methyl tert butyl ether	ND		ug/m3	2.0	2.0	1
Benzene	ND		ug/m3	2.0	2.0	1
Toluene	21		ug/m3	2.0	2.0	1
C5-C8 Aliphatics, Adjusted	1900		ug/m3	12	12.	1
Ethylbenzene	ND		ug/m3	2.0	2.0	1
p/m-Xylene	ND		ug/m3	4.0	4.0	1
o-Xylene	ND		ug/m3	2.0	2.0	1
Naphthalene	ND		ug/m3	2.0	2.0	1
C9-C12 Aliphatics, Adjusted	28		ug/m3	14	14.	1
C9-C10 Aromatics Total	ND		ug/m3	10	10.	1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	76		50-200
Bromochloromethane	83		50-200
Chlorobenzene-d5	78		50-200

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1108139

Project Number: BR0200 **Report Date:** 07/19/11

SAMPLE RESULTS

Lab ID:	L1108139-12	Date Collected:	06/07/11 18:55
Client ID:	260407-17-SS1-20110607	Date Received:	06/09/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Analytical Method:	96,APH		
Analytical Date:	06/22/11 22:41		
Analyst:	RY		

Quality Control Information

Sample Type:	30 Minute Composite
Sample Container Type:	Canister - 6 Liter
Sampling Flow Controller:	Mechanical
Sampling Zone:	Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check:	<=20%
Were all QA/QC procedures REQUIRED by the method followed?	Yes
Were all performance/acceptance standards for the required procedures achieved?	Yes
Were significant modifications made to the method as specified in Sect 11.1.2?	No

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbons in Air - Mansfield Lab						
1,3-Butadiene	ND		ug/m3	2.0	2.0	1
Methyl tert butyl ether	ND		ug/m3	2.0	2.0	1
Benzene	ND		ug/m3	2.0	2.0	1
Toluene	ND		ug/m3	2.0	2.0	1
C5-C8 Aliphatics, Adjusted	16		ug/m3	12	12.	1
Ethylbenzene	ND		ug/m3	2.0	2.0	1
p/m-Xylene	ND		ug/m3	4.0	4.0	1
o-Xylene	ND		ug/m3	2.0	2.0	1
Naphthalene	ND		ug/m3	2.0	2.0	1
C9-C12 Aliphatics, Adjusted	ND		ug/m3	14	14.	1
C9-C10 Aromatics Total	ND		ug/m3	10	10.	1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	90		50-200
Bromochloromethane	94		50-200
Chlorobenzene-d5	90		50-200

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1108139

Project Number: BR0200 **Report Date:** 07/19/11

SAMPLE RESULTS

Lab ID:	L1108139-13	Date Collected:	06/08/11 12:07
Client ID:	260407-19-SS1-20110608	Date Received:	06/09/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Analytical Method:	96,APH		
Analytical Date:	06/22/11 23:20		
Analyst:	RY		

Quality Control Information

Sample Type:	30 Minute Composite
Sample Container Type:	Canister - 6 Liter
Sampling Flow Controller:	Mechanical
Sampling Zone:	Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check:	<=20%
Were all QA/QC procedures REQUIRED by the method followed?	Yes
Were all performance/acceptance standards for the required procedures achieved?	Yes
Were significant modifications made to the method as specified in Sect 11.1.2?	No

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbons in Air - Mansfield Lab						
1,3-Butadiene	ND		ug/m3	2.0	2.0	1
Methyl tert butyl ether	ND		ug/m3	2.0	2.0	1
Benzene	ND		ug/m3	2.0	2.0	1
Toluene	ND		ug/m3	2.0	2.0	1
C5-C8 Aliphatics, Adjusted	53		ug/m3	12	12.	1
Ethylbenzene	ND		ug/m3	2.0	2.0	1
p/m-Xylene	ND		ug/m3	4.0	4.0	1
o-Xylene	ND		ug/m3	2.0	2.0	1
Naphthalene	ND		ug/m3	2.0	2.0	1
C9-C12 Aliphatics, Adjusted	73		ug/m3	14	14.	1
C9-C10 Aromatics Total	ND		ug/m3	10	10.	1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	89		50-200
Bromochloromethane	92		50-200
Chlorobenzene-d5	91		50-200

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1108139

Project Number: BR0200 **Report Date:** 07/19/11

SAMPLE RESULTS

Lab ID:	L1108139-14	Date Collected:	06/07/11 16:29
Client ID:	260407-20-IA1-20110607	Date Received:	06/09/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	06/18/11 22:07		
Analyst:	RY		

Quality Control Information

Sample Type:	8 Hour Composite
Sample Container Type:	Canister - 6 Liter
Sampling Flow Controller:	Mechanical
Sampling Zone:	Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check:	<=20%
Were all QA/QC procedures REQUIRED by the method followed?	Yes
Were all performance/acceptance standards for the required procedures achieved?	Yes
Were significant modifications made to the method as specified in Sect 11.1.2?	No

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbons in Air - Mansfield Lab						
1,3-Butadiene	ND		ug/m3	2.0	2.0	1
Methyl tert butyl ether	ND		ug/m3	2.0	2.0	1
Benzene	ND		ug/m3	2.0	2.0	1
Toluene	9.0		ug/m3	2.0	2.0	1
C5-C8 Aliphatics, Adjusted	860		ug/m3	12	12.	1
Ethylbenzene	ND		ug/m3	2.0	2.0	1
p/m-Xylene	ND		ug/m3	4.0	4.0	1
o-Xylene	2.0		ug/m3	2.0	2.0	1
Naphthalene	ND		ug/m3	2.0	2.0	1
C9-C12 Aliphatics, Adjusted	100		ug/m3	14	14.	1
C9-C10 Aromatics Total	ND		ug/m3	10	10.	1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	74		50-200
Bromochloromethane	85		50-200
Chlorobenzene-d5	75		50-200

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1108139

Project Number: BR0200 **Report Date:** 07/19/11

SAMPLE RESULTS

Lab ID:	L1108139-15	Date Collected:	06/08/11 13:55
Client ID:	260407-20-SS1-20110608	Date Received:	06/09/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Analytical Method:	96,APH		
Analytical Date:	06/23/11 00:37		
Analyst:	RY		

Quality Control Information

Sample Type:	30 Minute Composite
Sample Container Type:	Canister - 6 Liter
Sampling Flow Controller:	Mechanical
Sampling Zone:	Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check:	<=20%
Were all QA/QC procedures REQUIRED by the method followed?	Yes
Were all performance/acceptance standards for the required procedures achieved?	Yes
Were significant modifications made to the method as specified in Sect 11.1.2?	No

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbons in Air - Mansfield Lab						
1,3-Butadiene	ND		ug/m3	2.0	2.0	1
Methyl tert butyl ether	ND		ug/m3	2.0	2.0	1
Benzene	ND		ug/m3	2.0	2.0	1
Toluene	ND		ug/m3	2.0	2.0	1
C5-C8 Aliphatics, Adjusted	24		ug/m3	12	12.	1
Ethylbenzene	ND		ug/m3	2.0	2.0	1
p/m-Xylene	ND		ug/m3	4.0	4.0	1
o-Xylene	ND		ug/m3	2.0	2.0	1
Naphthalene	ND		ug/m3	2.0	2.0	1
C9-C12 Aliphatics, Adjusted	ND		ug/m3	14	14.	1
C9-C10 Aromatics Total	ND		ug/m3	10	10.	1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	86		50-200
Bromochloromethane	89		50-200
Chlorobenzene-d5	88		50-200

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1108139

Project Number: BR0200 **Report Date:** 07/19/11

SAMPLE RESULTS

Lab ID:	L1108139-16	Date Collected:	06/07/11 16:35
Client ID:	260407-22-IA1-20110607	Date Received:	06/09/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	06/18/11 23:16		
Analyst:	RY		

Quality Control Information

Sample Type:	8 Hour Composite
Sample Container Type:	Canister - 6 Liter
Sampling Flow Controller:	Mechanical
Sampling Zone:	Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check:	<=20%
Were all QA/QC procedures REQUIRED by the method followed?	Yes
Were all performance/acceptance standards for the required procedures achieved?	Yes
Were significant modifications made to the method as specified in Sect 11.1.2?	No

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbons in Air - Mansfield Lab						
1,3-Butadiene	ND		ug/m3	2.0	2.0	1
Methyl tert butyl ether	ND		ug/m3	2.0	2.0	1
Benzene	ND		ug/m3	2.0	2.0	1
Toluene	8.9		ug/m3	2.0	2.0	1
C5-C8 Aliphatics, Adjusted	160		ug/m3	12	12.	1
Ethylbenzene	ND		ug/m3	2.0	2.0	1
p/m-Xylene	ND		ug/m3	4.0	4.0	1
o-Xylene	ND		ug/m3	2.0	2.0	1
Naphthalene	ND		ug/m3	2.0	2.0	1
C9-C12 Aliphatics, Adjusted	60		ug/m3	14	14.	1
C9-C10 Aromatics Total	ND		ug/m3	10	10.	1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	75		50-200
Bromochloromethane	86		50-200
Chlorobenzene-d5	77		50-200

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1108139

Project Number: BR0200 **Report Date:** 07/19/11

SAMPLE RESULTS

Lab ID:	L1108139-17	Date Collected:	06/07/11 16:36
Client ID:	260407-22-IA2-20110607	Date Received:	06/09/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	06/18/11 23:50		
Analyst:	RY		

Quality Control Information

Sample Type:	8 Hour Composite
Sample Container Type:	Canister - 6 Liter
Sampling Flow Controller:	Mechanical
Sampling Zone:	Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check:	<=20%
Were all QA/QC procedures REQUIRED by the method followed?	Yes
Were all performance/acceptance standards for the required procedures achieved?	Yes
Were significant modifications made to the method as specified in Sect 11.1.2?	No

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbons in Air - Mansfield Lab						
1,3-Butadiene	ND		ug/m3	2.0	2.0	1
Methyl tert butyl ether	ND		ug/m3	2.0	2.0	1
Benzene	ND		ug/m3	2.0	2.0	1
Toluene	7.6		ug/m3	2.0	2.0	1
C5-C8 Aliphatics, Adjusted	180		ug/m3	12	12.	1
Ethylbenzene	ND		ug/m3	2.0	2.0	1
p/m-Xylene	ND		ug/m3	4.0	4.0	1
o-Xylene	ND		ug/m3	2.0	2.0	1
Naphthalene	ND		ug/m3	2.0	2.0	1
C9-C12 Aliphatics, Adjusted	46		ug/m3	14	14.	1
C9-C10 Aromatics Total	ND		ug/m3	10	10.	1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	82		50-200
Bromochloromethane	91		50-200
Chlorobenzene-d5	86		50-200

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1108139

Project Number: BR0200 **Report Date:** 07/19/11

SAMPLE RESULTS

Lab ID:	L1108139-18	Date Collected:	06/08/11 10:31
Client ID:	260407-22-SS1-20110608	Date Received:	06/09/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Analytical Method:	96,APH		
Analytical Date:	06/23/11 01:15		
Analyst:	RY		

Quality Control Information

Sample Type:	30 Minute Composite
Sample Container Type:	Canister - 6 Liter
Sampling Flow Controller:	Mechanical
Sampling Zone:	Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check:	<=20%
Were all QA/QC procedures REQUIRED by the method followed?	Yes
Were all performance/acceptance standards for the required procedures achieved?	Yes
Were significant modifications made to the method as specified in Sect 11.1.2?	No

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbons in Air - Mansfield Lab						
1,3-Butadiene	ND		ug/m3	2.0	2.0	1
Methyl tert butyl ether	ND		ug/m3	2.0	2.0	1
Benzene	ND		ug/m3	2.0	2.0	1
Toluene	ND		ug/m3	2.0	2.0	1
C5-C8 Aliphatics, Adjusted	33		ug/m3	12	12.	1
Ethylbenzene	ND		ug/m3	2.0	2.0	1
p/m-Xylene	ND		ug/m3	4.0	4.0	1
o-Xylene	ND		ug/m3	2.0	2.0	1
Naphthalene	ND		ug/m3	2.0	2.0	1
C9-C12 Aliphatics, Adjusted	ND		ug/m3	14	14.	1
C9-C10 Aromatics Total	ND		ug/m3	10	10.	1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	89		50-200
Bromochloromethane	88		50-200
Chlorobenzene-d5	88		50-200

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1108139

Project Number: BR0200 **Report Date:** 07/19/11

SAMPLE RESULTS

Lab ID:	L1108139-19 D	Date Collected:	06/08/11 10:26
Client ID:	260407-22-SS2-20110608	Date Received:	06/09/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Analytical Method:	96,APH		
Analytical Date:	06/23/11 03:10		
Analyst:	RY		

Quality Control Information

Sample Type:	30 Minute Composite
Sample Container Type:	Canister - 6 Liter
Sampling Flow Controller:	Mechanical
Sampling Zone:	Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check:	<=20%
Were all QA/QC procedures REQUIRED by the method followed?	Yes
Were all performance/acceptance standards for the required procedures achieved?	Yes
Were significant modifications made to the method as specified in Sect 11.1.2?	No

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbons in Air - Mansfield Lab						
1,3-Butadiene	ND		ug/m3	4.0	4.0	2
Methyl tert butyl ether	ND		ug/m3	4.0	4.0	2
Benzene	ND		ug/m3	4.0	4.0	2
Toluene	ND		ug/m3	4.0	4.0	2
C5-C8 Aliphatics, Adjusted	29		ug/m3	24	24.	2
Ethylbenzene	ND		ug/m3	4.0	4.0	2
p/m-Xylene	ND		ug/m3	8.0	8.0	2
o-Xylene	ND		ug/m3	4.0	4.0	2
Naphthalene	ND		ug/m3	4.0	4.0	2
C9-C12 Aliphatics, Adjusted	ND		ug/m3	28	28.	2
C9-C10 Aromatics Total	ND		ug/m3	20	20.	2

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	87		50-200
Bromochloromethane	87		50-200
Chlorobenzene-d5	92		50-200

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1108139

Project Number: BR0200 **Report Date:** 07/19/11

SAMPLE RESULTS

Lab ID:	L1108139-20	Date Collected:	06/07/11 16:21
Client ID:	260407-OA1-20110607	Date Received:	06/09/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	06/18/11 18:01		
Analyst:	RY		

Quality Control Information

Sample Type:	8 Hour Composite
Sample Container Type:	Canister - 6 Liter
Sampling Flow Controller:	Mechanical
Sampling Zone:	Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check:	<=20%
Were all QA/QC procedures REQUIRED by the method followed?	Yes
Were all performance/acceptance standards for the required procedures achieved?	Yes
Were significant modifications made to the method as specified in Sect 11.1.2?	No

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbons in Air - Mansfield Lab						
1,3-Butadiene	ND		ug/m3	2.0	2.0	1
Methyl tert butyl ether	ND		ug/m3	2.0	2.0	1
Benzene	ND		ug/m3	2.0	2.0	1
Toluene	ND		ug/m3	2.0	2.0	1
C5-C8 Aliphatics, Adjusted	20		ug/m3	12	12.	1
Ethylbenzene	ND		ug/m3	2.0	2.0	1
p/m-Xylene	ND		ug/m3	4.0	4.0	1
o-Xylene	ND		ug/m3	2.0	2.0	1
Naphthalene	ND		ug/m3	2.0	2.0	1
C9-C12 Aliphatics, Adjusted	ND		ug/m3	14	14.	1
C9-C10 Aromatics Total	ND		ug/m3	10	10.	1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	83		50-200
Bromochloromethane	66		50-200
Chlorobenzene-d5	81		50-200

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1108139

Project Number: BR0200 **Report Date:** 07/19/11

SAMPLE RESULTS

Lab ID:	L1108139-21	Date Collected:	06/07/11 16:18
Client ID:	260407-OA2-20110607	Date Received:	06/09/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	06/18/11 18:36		
Analyst:	RY		

Quality Control Information

Sample Type:	8 Hour Composite
Sample Container Type:	Canister - 6 Liter
Sampling Flow Controller:	Mechanical
Sampling Zone:	Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check:	<=20%
Were all QA/QC procedures REQUIRED by the method followed?	Yes
Were all performance/acceptance standards for the required procedures achieved?	Yes
Were significant modifications made to the method as specified in Sect 11.1.2?	No

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	83		50-200
Bromochloromethane	89		50-200
Chlorobenzene-d5	84		50-200

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1108139

Project Number: BR0200 **Report Date:** 07/19/11

SAMPLE RESULTS

Lab ID:	L1108139-22	Date Collected:	06/07/11 00:00
Client ID:	BD01-20110607	Date Received:	06/09/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	06/19/11 01:01		
Analyst:	RY		

Quality Control Information

Sample Type:	24 Hour Composite
Sample Container Type:	Canister - 6 Liter
Sampling Flow Controller:	Mechanical
Sampling Zone:	Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check:	<=20%
Were all QA/QC procedures REQUIRED by the method followed?	Yes
Were all performance/acceptance standards for the required procedures achieved?	Yes
Were significant modifications made to the method as specified in Sect 11.1.2?	No

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbons in Air - Mansfield Lab						
1,3-Butadiene	ND		ug/m3	2.0	2.0	1
Methyl tert butyl ether	ND		ug/m3	2.0	2.0	1
Benzene	ND		ug/m3	2.0	2.0	1
Toluene	3.9		ug/m3	2.0	2.0	1
C5-C8 Aliphatics, Adjusted	83		ug/m3	12	12.	1
Ethylbenzene	ND		ug/m3	2.0	2.0	1
p/m-Xylene	ND		ug/m3	4.0	4.0	1
o-Xylene	ND		ug/m3	2.0	2.0	1
Naphthalene	ND		ug/m3	2.0	2.0	1
C9-C12 Aliphatics, Adjusted	52		ug/m3	14	14.	1
C9-C10 Aromatics Total	ND		ug/m3	10	10.	1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	77		50-200
Bromochloromethane	86		50-200
Chlorobenzene-d5	80		50-200

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1108139

Project Number: BR0200 **Report Date:** 07/19/11

SAMPLE RESULTS

Lab ID:	L1108139-23	Date Collected:	06/07/11 00:00
Client ID:	BD02-20110607	Date Received:	06/09/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Analytical Method:	96,APH		
Analytical Date:	06/23/11 01:54		
Analyst:	RY		

Quality Control Information

Sample Type:	30 Minute Composite
Sample Container Type:	Canister - 6 Liter
Sampling Flow Controller:	Mechanical
Sampling Zone:	Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check:	<=20%
Were all QA/QC procedures REQUIRED by the method followed?	Yes
Were all performance/acceptance standards for the required procedures achieved?	Yes
Were significant modifications made to the method as specified in Sect 11.1.2?	No

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbons in Air - Mansfield Lab						
1,3-Butadiene	ND		ug/m3	2.0	2.0	1
Methyl tert butyl ether	ND		ug/m3	2.0	2.0	1
Benzene	ND		ug/m3	2.0	2.0	1
Toluene	ND		ug/m3	2.0	2.0	1
C5-C8 Aliphatics, Adjusted	18		ug/m3	12	12.	1
Ethylbenzene	ND		ug/m3	2.0	2.0	1
p/m-Xylene	ND		ug/m3	4.0	4.0	1
o-Xylene	ND		ug/m3	2.0	2.0	1
Naphthalene	ND		ug/m3	2.0	2.0	1
C9-C12 Aliphatics, Adjusted	ND		ug/m3	14	14.	1
C9-C10 Aromatics Total	ND		ug/m3	10	10.	1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	86		50-200
Bromochloromethane	87		50-200
Chlorobenzene-d5	88		50-200

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1108139

Project Number: BR0200 **Report Date:** 07/19/11

SAMPLE RESULTS

Lab ID:	L1108139-24	Date Collected:	06/07/11 00:00
Client ID:	BD03-20110607	Date Received:	06/09/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	06/19/11 01:35		
Analyst:	RY		

Quality Control Information

Sample Type:	24 Hour Composite
Sample Container Type:	Canister - 6 Liter
Sampling Flow Controller:	Mechanical
Sampling Zone:	Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check:	<=20%
Were all QA/QC procedures REQUIRED by the method followed?	Yes
Were all performance/acceptance standards for the required procedures achieved?	Yes
Were significant modifications made to the method as specified in Sect 11.1.2?	No

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbons in Air - Mansfield Lab						
1,3-Butadiene	ND		ug/m3	2.0	2.0	1
Methyl tert butyl ether	ND		ug/m3	2.0	2.0	1
Benzene	ND		ug/m3	2.0	2.0	1
Toluene	16		ug/m3	2.0	2.0	1
C5-C8 Aliphatics, Adjusted	360		ug/m3	12	12.	1
Ethylbenzene	ND		ug/m3	2.0	2.0	1
p/m-Xylene	ND		ug/m3	4.0	4.0	1
o-Xylene	ND		ug/m3	2.0	2.0	1
Naphthalene	ND		ug/m3	2.0	2.0	1
C9-C12 Aliphatics, Adjusted	180		ug/m3	14	14.	1
C9-C10 Aromatics Total	12		ug/m3	10	10.	1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	75		50-200
Bromochloromethane	85		50-200
Chlorobenzene-d5	77		50-200

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1108139

Project Number: BR0200 **Report Date:** 07/19/11

SAMPLE RESULTS

Lab ID:	L1108139-25	Date Collected:	06/08/11 00:00
Client ID:	BD04-20110608	Date Received:	06/09/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Analytical Method:	96,APH		
Analytical Date:	06/23/11 02:33		
Analyst:	RY		

Quality Control Information

Sample Type:	30 Minute Composite
Sample Container Type:	Canister - 6 Liter
Sampling Flow Controller:	Mechanical
Sampling Zone:	Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check:	<=20%
Were all QA/QC procedures REQUIRED by the method followed?	Yes
Were all performance/acceptance standards for the required procedures achieved?	Yes
Were significant modifications made to the method as specified in Sect 11.1.2?	No

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbons in Air - Mansfield Lab						
1,3-Butadiene	ND		ug/m3	2.0	2.0	1
Methyl tert butyl ether	ND		ug/m3	2.0	2.0	1
Benzene	ND		ug/m3	2.0	2.0	1
Toluene	3.3		ug/m3	2.0	2.0	1
C5-C8 Aliphatics, Adjusted	39		ug/m3	12	12.	1
Ethylbenzene	ND		ug/m3	2.0	2.0	1
p/m-Xylene	ND		ug/m3	4.0	4.0	1
o-Xylene	ND		ug/m3	2.0	2.0	1
Naphthalene	ND		ug/m3	2.0	2.0	1
C9-C12 Aliphatics, Adjusted	14		ug/m3	14	14.	1
C9-C10 Aromatics Total	ND		ug/m3	10	10.	1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	83		50-200
Bromochloromethane	88		50-200
Chlorobenzene-d5	85		50-200

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1108139

Project Number: BR0200 **Report Date:** 07/19/11

SAMPLE RESULTS

Lab ID:	L1108139-26	Date Collected:	06/08/11 00:00
Client ID:	TB-20110608	Date Received:	06/09/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	06/18/11 16:13		
Analyst:	RY		

Quality Control Information

Sample Type:	None
Sample Container Type:	Canister - 6 Liter
Sampling Flow Controller:	Mechanical
Sampling Zone:	Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check:	<=20%
Were all QA/QC procedures REQUIRED by the method followed?	Yes
Were all performance/acceptance standards for the required procedures achieved?	Yes
Were significant modifications made to the method as specified in Sect 11.1.2?	No

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbons in Air - Mansfield Lab						
1,3-Butadiene	ND		ug/m3	2.0	2.0	1
Methyl tert butyl ether	ND		ug/m3	2.0	2.0	1
Benzene	ND		ug/m3	2.0	2.0	1
Toluene	ND		ug/m3	2.0	2.0	1
C5-C8 Aliphatics, Adjusted	13		ug/m3	12	12.	1
Ethylbenzene	ND		ug/m3	2.0	2.0	1
p/m-Xylene	ND		ug/m3	4.0	4.0	1
o-Xylene	ND		ug/m3	2.0	2.0	1
Naphthalene	ND		ug/m3	2.0	2.0	1
C9-C12 Aliphatics, Adjusted	ND		ug/m3	14	14.	1
C9-C10 Aromatics Total	ND		ug/m3	10	10.	1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	91		50-200
Bromochloromethane	68		50-200
Chlorobenzene-d5	84		50-200

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1108139

Project Number: BR0200 **Report Date:** 07/19/11

SAMPLE RESULTS

Lab ID:	L1108139-27	Date Collected:	06/07/11 16:26
Client ID:	260407-19-IA1-20110607	Date Received:	06/09/11
Sample Location:	WOBURN, MA	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	06/19/11 00:25		
Analyst:	RY		

Quality Control Information

Sample Type:	24 Hour Composite
Sample Container Type:	Canister - 6 Liter
Sampling Flow Controller:	Mechanical
Sampling Zone:	Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check:	<=20%
Were all QA/QC procedures REQUIRED by the method followed?	Yes
Were all performance/acceptance standards for the required procedures achieved?	Yes
Were significant modifications made to the method as specified in Sect 11.1.2?	No

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbons in Air - Mansfield Lab						
1,3-Butadiene	ND		ug/m3	2.0	2.0	1
Methyl tert butyl ether	ND		ug/m3	2.0	2.0	1
Benzene	ND		ug/m3	2.0	2.0	1
Toluene	16		ug/m3	2.0	2.0	1
C5-C8 Aliphatics, Adjusted	330		ug/m3	12	12.	1
Ethylbenzene	ND		ug/m3	2.0	2.0	1
p/m-Xylene	ND		ug/m3	4.0	4.0	1
o-Xylene	ND		ug/m3	2.0	2.0	1
Naphthalene	ND		ug/m3	2.0	2.0	1
C9-C12 Aliphatics, Adjusted	180		ug/m3	14	14.	1
C9-C10 Aromatics Total	14		ug/m3	10	10.	1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	82		50-200
Bromochloromethane	88		50-200
Chlorobenzene-d5	82		50-200

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1108139

Project Number: BR0200 **Report Date:** 07/19/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 96,APH
Analytical Date: 06/18/11 14:35
Analyst: RY

Parameter	Result	Qualifier	Units	RL	MDL
Petroleum Hydrocarbons in Air - Mansfield Lab for sample(s): 01-03,06-08,11,14,16-17,20-22,24,26-27 Batch: WG474048-4					
1,3-Butadiene	ND		ug/m3	2.0	2.0
Methyl tert butyl ether	ND		ug/m3	2.0	2.0
Benzene	ND		ug/m3	2.0	2.0
Toluene	ND		ug/m3	2.0	2.0
C5-C8 Aliphatics, Adjusted	ND		ug/m3	12	12.
Ethylbenzene	ND		ug/m3	2.0	2.0
p/m-Xylene	ND		ug/m3	4.0	4.0
o-Xylene	ND		ug/m3	2.0	2.0
Naphthalene	ND		ug/m3	2.0	2.0
C9-C12 Aliphatics, Adjusted	ND		ug/m3	14	14.
C9-C10 Aromatics Total	ND		ug/m3	10	10.

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1108139

Project Number: BR0200 **Report Date:** 07/19/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 96,APH
Analytical Date: 06/22/11 19:29
Analyst: RY

Parameter	Result	Qualifier	Units	RL	MDL
Petroleum Hydrocarbons in Air - Mansfield Lab for sample(s): 04-05,09-10,12-13,15,18-19,23,25 Batch: WG474470-4					
1,3-Butadiene	ND		ug/m3	2.0	2.0
Methyl tert butyl ether	ND		ug/m3	2.0	2.0
Benzene	ND		ug/m3	2.0	2.0
Toluene	ND		ug/m3	2.0	2.0
C5-C8 Aliphatics, Adjusted	ND		ug/m3	12	12.
Ethylbenzene	ND		ug/m3	2.0	2.0
p/m-Xylene	ND		ug/m3	4.0	4.0
o-Xylene	ND		ug/m3	2.0	2.0
Naphthalene	ND		ug/m3	2.0	2.0
C9-C12 Aliphatics, Adjusted	ND		ug/m3	14	14.
C9-C10 Aromatics Total	ND		ug/m3	10	10.

Lab Control Sample Analysis
Batch Quality Control

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200

Lab Number: L1108139
Report Date: 07/19/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Petroleum Hydrocarbons in Air - Mansfield Lab Associated sample(s): 01-03,06-08,11,14,16-17,20-22,24,26-27 Batch: WG474048-3								
1,3-Butadiene	77		-		70-130	-		
Methyl tert butyl ether	85		-		70-130	-		
Benzene	88		-		70-130	-		
Toluene	92		-		70-130	-		
C5-C8 Aliphatics, Adjusted	84		-		70-130	-		
Ethylbenzene	86		-		70-130	-		
p/m-Xylene	89		-		70-130	-		
o-Xylene	90		-		70-130	-		
Naphthalene	101		-		50-150	-		
C9-C12 Aliphatics, Adjusted	94		-		70-130	-		
C9-C10 Aromatics Total	79		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200

Lab Number: L1108139
Report Date: 07/19/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Petroleum Hydrocarbons in Air - Mansfield Lab Associated sample(s): 04-05,09-10,12-13,15,18-19,23,25 Batch: WG474470-3								
1,3-Butadiene	76		-		70-130	-		
Methyl tert butyl ether	79		-		70-130	-		
Benzene	89		-		70-130	-		
Toluene	96		-		70-130	-		
C5-C8 Aliphatics, Adjusted	82		-		70-130	-		
Ethylbenzene	107		-		70-130	-		
p/m-Xylene	106		-		70-130	-		
o-Xylene	111		-		70-130	-		
Naphthalene	117		-		50-150	-		
C9-C12 Aliphatics, Adjusted	95		-		70-130	-		
C9-C10 Aromatics Total	97		-		70-130	-		

Lab Duplicate Analysis
Batch Quality Control

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200

Lab Number: L1108139
Report Date: 07/19/11

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Petroleum Hydrocarbons in Air - Mansfield Lab Associated sample(s): 01-03,06-08,11,14,16-17,20-22,24,26-27 QC Batch ID: WG474048-5 QC Sample: L1108139-14 Client ID: 260407-20-IA1-20110607						
1,3-Butadiene	ND	ND	ug/m3	NC		30
Methyl tert butyl ether	ND	ND	ug/m3	NC		30
Benzene	ND	ND	ug/m3	NC		30
Toluene	9.0	8.2	ug/m3	9		30
C5-C8 Aliphatics, Adjusted	860	810	ug/m3	6		30
Ethylbenzene	ND	ND	ug/m3	NC		30
p/m-Xylene	ND	ND	ug/m3	NC		30
o-Xylene	2.0	ND	ug/m3	NC		30
Naphthalene	ND	ND	ug/m3	NC		30
C9-C12 Aliphatics, Adjusted	100	100	ug/m3	0		30
C9-C10 Aromatics Total	ND	ND	ug/m3	NC		30

Lab Duplicate Analysis
Batch Quality Control

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200

Lab Number: L1108139
Report Date: 07/19/11

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Petroleum Hydrocarbons in Air - Mansfield Lab Associated sample(s): 04-05,09-10,12-13,15,18-19,23,25 QC Batch ID: WG474470-5 QC Sample: L1108139-13 Client ID: 260407-19-SS1-20110608					
1,3-Butadiene	ND	ND	ug/m3	NC	30
Methyl tert butyl ether	ND	ND	ug/m3	NC	30
Benzene	ND	ND	ug/m3	NC	30
Toluene	ND	ND	ug/m3	NC	30
C5-C8 Aliphatics, Adjusted	53.	52	ug/m3	2	30
Ethylbenzene	ND	ND	ug/m3	NC	30
p/m-Xylene	ND	ND	ug/m3	NC	30
o-Xylene	ND	ND	ug/m3	NC	30
Naphthalene	ND	ND	ug/m3	NC	30
C9-C12 Aliphatics, Adjusted	73.	73	ug/m3	0	30
C9-C10 Aromatics Total	ND	ND	ug/m3	NC	30

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1108139

Project Number: BR0200 **Report Date:** 07/19/11

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
L1108139-01	260902-IA1-20110607	0420	#16 AMB		-	-	3.3	3.4	3
L1108139-01	260902-IA1-20110607	1687	6.0L Can	L1107558-06	-28.7	-2.1	-	-	-
L1108139-02	260902-IA2-20110607	0185	#90 SV		-	-	3.2	3.5	9
L1108139-02	260902-IA2-20110607	961	6.0L Can	L1107558-04	-28.6	-4.0	-	-	-
L1108139-03	260902-OA-20110607	0375	#20 AMB		-	-	3.1	3.3	6
L1108139-03	260902-OA-20110607	1612	6.0L Can	L1107558-23	-28.4	-4.1	-	-	-
L1108139-04	260902-SS1-20110607	0031	#90 SV		-	-	160	177	10
L1108139-04	260902-SS1-20110607	1569	6.0L Can	L1107382-16	-29.4	-4.6	-	-	-
L1108139-05	260902-SS2-20110607	0295	#90 SV		-	-	160	170	6
L1108139-05	260902-SS2-20110607	1572	6.0L Can	L1107558-14	-28.9	-1.4	-	-	-
L1108139-06	260903-IA1-20110607	0471	#16 AMB		-	-	3.3	3.3	0
L1108139-06	260903-IA1-20110607	594	6.0L Can	L1107558-02	-28.6	-2.3	-	-	-
L1108139-07	260903-IA2-20110607	0428	#16 AMB		-	-	3.3	3.6	9
L1108139-07	260903-IA2-20110607	1618	6.0L Can	L1107558-24	-28.4	-1.1	-	-	-
L1108139-08	260903-OA-20110607	0193	#16 AMB		-	-	3.1	3.0	3
L1108139-08	260903-OA-20110607	651	6.0L Can	L1107558-20	-28.6	-4.8	-	-	-
L1108139-09	260903-SS1-20110607	0293	#90 SV		-	-	160	158	1

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1108139

Project Number: BR0200 **Report Date:** 07/19/11

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
L1108139-09	260903-SS1-20110607	724	6.0L Can	L1107558-18	-28.6	-3.7	-	-	-
L1108139-10	260903-SS2-20110607	0353	#90 SV		-	-	160	163	2
L1108139-10	260903-SS2-20110607	1676	6.0L Can	L1107558-07	-28.7	-4.6	-	-	-
L1108139-11	260407-17-IA1-20110607	0231	#20 AMB		-	-	9.9	10.0	1
L1108139-11	260407-17-IA1-20110607	937	6.0L Can	L1107382-10	-29.4	-5.3	-	-	-
L1108139-12	260407-17-SS1-20110607	0332	#90 SV		-	-	158	160	1
L1108139-12	260407-17-SS1-20110607	972	6.0L Can	L1107558-15	-29.0	-4.6	-	-	-
L1108139-13	260407-19-SS1-20110608	0216	#90 SV		-	-	160	170	6
L1108139-13	260407-19-SS1-20110608	787	6.0L Can	L1107382-12	-29.4	-4.8	-	-	-
L1108139-14	260407-20-IA1-20110607	0227	#90 SV		-	-	10.0	10.3	3
L1108139-14	260407-20-IA1-20110607	635	6.0L Can	L1107382-09	-29.4	-3.6	-	-	-
L1108139-15	260407-20-SS1-20110608	0081	#90 SV		-	-	160	190	17
L1108139-15	260407-20-SS1-20110608	943	6.0L Can	L1107382-14	-29.0	-4.2	-	-	-
L1108139-16	260407-22-IA1-20110607	0349	#20 AMB		-	-	9.8	10.0	2
L1108139-16	260407-22-IA1-20110607	967	6.0L Can	L1107382-11	-29.0	-4.2	-	-	-
L1108139-17	260407-22-IA2-20110607	0026	#16 AMB		-	-	9.8	10.7	9
L1108139-17	260407-22-IA2-20110607	985	6.0L Can	L1107382-06	-29.4	-3.6	-	-	-

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1108139

Project Number: BR0200 **Report Date:** 07/19/11

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
L1108139-18	260407-22-SS1-20110608	0052	#90 SV		-	-	155	160	3
L1108139-18	260407-22-SS1-20110608	1520	6.0L Can	L1107382-19	-29.1	-3.6	-	-	-
L1108139-19	260407-22-SS2-20110608	0398	#90 SV		-	-	160	175	9
L1108139-19	260407-22-SS2-20110608	1630	6.0L Can	L1107382-15	-29.4	-0.8	-	-	-
L1108139-20	260407-OA1-20110607	0137	#20 AMB		-	-	10.0	10.7	7
L1108139-20	260407-OA1-20110607	1589	6.0L Can	L1107382-08	-29.4	-4.0	-	-	-
L1108139-21	260407-OA2-20110607	0495	#20 AMB		-	-	10.0	11.0	10
L1108139-21	260407-OA2-20110607	1594	6.0L Can	L1107382-04	-29.4	-4.5	-	-	-
L1108139-22	BD01-20110607	1583	6.0L Can	L1107558-05	-28.6	-3.9	-	-	-
L1108139-23	BD02-20110607	1610	6.0L Can	L1107558-10	-28.7	-3.3	-	-	-
L1108139-24	BD03-20110607	1653	6.0L Can	L1107382-03	-29.4	-4.6	-	-	-
L1108139-25	BD04-20110608	1713	6.0L Can	L1107382-13	-29.4	-3.7	-	-	-
L1108139-26	TB-20110608	653	6.0L Can	L1107558-22	-28.4	-28.4	-	-	-
L1108139-27	260407-19-IA1-20110607	0206	#20 AMB		-	-	9.7	10.5	8
L1108139-27	260407-19-IA1-20110607	1538	6.0L Can	L1107382-05	-29.4	-4.1	-	-	-

Air Volatiles Can Certification

Project Name: W.R. GRACE
Project Number: Not Specified
Lab Number: L1107382
Report Date: 07/19/11

Air Canister Certification Results

Lab ID:	L1107382-03	Date Collected:	05/26/11 00:00
Client ID:	CAN 1653 FC 174	Date Received:	05/26/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15		
Analytical Date:	05/31/11 18:42		
Analyst:	AR		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Acetone	0.125	1.00	0.078	0.297	2.38	0.185	J	1
Ethyl Acetate	ND	0.500	0.151	ND	1.80	0.544		1

Project Name: W.R. GRACE
Project Number: Not Specified
Lab Number: L1107382
Report Date: 07/19/11

Air Canister Certification Results

Lab ID: L1107382-03
Client ID: CAN 1653 FC 174
Sample Location:
Date Collected: 05/26/11 00:00
Date Received: 05/26/11
Field Prep: Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	93		60-140
Bromochloromethane	94		60-140
chlorobenzene-d5	92		60-140

Project Name: W.R. GRACE
Project Number: Not Specified
Lab Number: L1107382
Report Date: 07/19/11

Air Canister Certification Results

Lab ID: L1107382-03
Client ID: CAN 1653 FC 174
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 05/31/11 18:42
Analyst: BS

Date Collected: 05/26/11 00:00
Date Received: 05/26/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.224	0.224		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.207	0.207		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
p/m-Xylene	ND	0.040	0.040	ND	0.174	0.174		1
o-Xylene	ND	0.020	0.020	ND	0.087	0.087		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.261	0.261		1

Project Name: W.R. GRACE
Project Number: Not Specified
Lab Number: L1107382
Report Date: 07/19/11

Air Canister Certification Results

Lab ID: L1107382-03
Client ID: CAN 1653 FC 174
Sample Location:
Date Collected: 05/26/11 00:00
Date Received: 05/26/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Project Name: W.R. GRACE
Project Number: Not Specified
Lab Number: L1107382
Report Date: 07/19/11

Air Canister Certification Results

Lab ID: L1107382-03
Client ID: CAN 1653 FC 174
Sample Location:
Date Collected: 05/26/11 00:00
Date Received: 05/26/11
Field Prep: Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	91		60-140
bromochloromethane	97		60-140
chlorobenzene-d5	91		60-140

Project Name: W.R. GRACE
Project Number: Not Specified
Lab Number: L1107382
Report Date: 07/19/11

Air Canister Certification Results

Lab ID:	L1107382-04	Date Collected:	05/26/11 00:00
Client ID:	CAN 1594 FC 137	Date Received:	05/26/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15		
Analytical Date:	05/31/11 19:18		
Analyst:	AR		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Acetone	0.115	1.00	0.078	0.273	2.38	0.185	J	1
Ethyl Acetate	ND	0.500	0.151	ND	1.80	0.544		1

Project Name: W.R. GRACE
Project Number: Not Specified
Lab Number: L1107382
Report Date: 07/19/11

Air Canister Certification Results

Lab ID: L1107382-04
Client ID: CAN 1594 FC 137
Sample Location:
Date Collected: 05/26/11 00:00
Date Received: 05/26/11
Field Prep: Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	97		60-140
Bromochloromethane	118		60-140
chlorobenzene-d5	88		60-140

Project Name: W.R. GRACE
Project Number: Not Specified
Lab Number: L1107382
Report Date: 07/19/11

Air Canister Certification Results

Lab ID: L1107382-04
Client ID: CAN 1594 FC 137
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 05/31/11 19:18
Analyst: BS

Date Collected: 05/26/11 00:00
Date Received: 05/26/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.224	0.224		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.207	0.207		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
p/m-Xylene	ND	0.040	0.040	ND	0.174	0.174		1
o-Xylene	ND	0.020	0.020	ND	0.087	0.087		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.261	0.261		1

Project Name: W.R. GRACE
Project Number: Not Specified
Lab Number: L1107382
Report Date: 07/19/11

Air Canister Certification Results

Lab ID: L1107382-04
Client ID: CAN 1594 FC 137
Sample Location:
Date Collected: 05/26/11 00:00
Date Received: 05/26/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Project Name: W.R. GRACE
Project Number: Not Specified
Lab Number: L1107382
Report Date: 07/19/11

Air Canister Certification Results

Lab ID: L1107382-04
Client ID: CAN 1594 FC 137
Sample Location:
Date Collected: 05/26/11 00:00
Date Received: 05/26/11
Field Prep: Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	94		60-140
bromochloromethane	123		60-140
chlorobenzene-d5	86		60-140

Project Name: W.R. GRACE
Project Number: Not Specified
Lab Number: L1107382
Report Date: 07/19/11

Air Canister Certification Results

Lab ID:	L1107382-05	Date Collected:	05/26/11 00:00
Client ID:	CAN 1538 FC 495	Date Received:	05/26/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15		
Analytical Date:	05/31/11 19:55		
Analyst:	AR		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Acetone	0.239	1.00	0.078	0.568	2.38	0.185	J	1
Ethyl Acetate	ND	0.500	0.151	ND	1.80	0.544		1

Project Name: W.R. GRACE
Project Number: Not Specified
Lab Number: L1107382
Report Date: 07/19/11

Air Canister Certification Results

Lab ID: L1107382-05
Client ID: CAN 1538 FC 495
Sample Location:
Date Collected: 05/26/11 00:00
Date Received: 05/26/11
Field Prep: Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	98		60-140
Bromochloromethane	117		60-140
chlorobenzene-d5	86		60-140

Project Name: W.R. GRACE
Project Number: Not Specified
Lab Number: L1107382
Report Date: 07/19/11

Air Canister Certification Results

Lab ID: L1107382-05
Client ID: CAN 1538 FC 495
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 05/31/11 19:55
Analyst: BS

Date Collected: 05/26/11 00:00
Date Received: 05/26/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.224	0.224		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.207	0.207		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
p/m-Xylene	ND	0.040	0.040	ND	0.174	0.174		1
o-Xylene	ND	0.020	0.020	ND	0.087	0.087		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.261	0.261		1

Project Name: W.R. GRACE
Project Number: Not Specified
Lab Number: L1107382
Report Date: 07/19/11

Air Canister Certification Results

Lab ID: L1107382-05
Client ID: CAN 1538 FC 495
Sample Location:
Date Collected: 05/26/11 00:00
Date Received: 05/26/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Project Name: W.R. GRACE
Project Number: Not Specified
Lab Number: L1107382
Report Date: 07/19/11

Air Canister Certification Results

Lab ID: L1107382-05
Client ID: CAN 1538 FC 495
Sample Location:

Date Collected: 05/26/11 00:00
Date Received: 05/26/11
Field Prep: Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	96		60-140
bromochloromethane	122		60-140
chlorobenzene-d5	84		60-140

Project Name: W.R. GRACE
Project Number: Not Specified
Lab Number: L1107382
Report Date: 07/19/11

Air Canister Certification Results

Lab ID:	L1107382-06	Date Collected:	05/26/11 00:00
Client ID:	CAN 985 FC 231	Date Received:	05/26/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15		
Analytical Date:	05/31/11 20:31		
Analyst:	AR		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Acetone	0.079	1.00	0.078	0.188	2.38	0.185	J	1
Ethyl Acetate	ND	0.500	0.151	ND	1.80	0.544		1

Project Name: W.R. GRACE
Project Number: Not Specified
Lab Number: L1107382
Report Date: 07/19/11

Air Canister Certification Results

Lab ID: L1107382-06
Client ID: CAN 985 FC 231
Sample Location:
Date Collected: 05/26/11 00:00
Date Received: 05/26/11
Field Prep: Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	100		60-140
Bromochloromethane	118		60-140
chlorobenzene-d5	86		60-140

Project Name: W.R. GRACE
Project Number: Not Specified
Lab Number: L1107382
Report Date: 07/19/11

Air Canister Certification Results

Lab ID: L1107382-06
Client ID: CAN 985 FC 231
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 05/31/11 20:31
Analyst: BS

Date Collected: 05/26/11 00:00
Date Received: 05/26/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.224	0.224		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.207	0.207		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
p/m-Xylene	ND	0.040	0.040	ND	0.174	0.174		1
o-Xylene	ND	0.020	0.020	ND	0.087	0.087		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.261	0.261		1

Project Name: W.R. GRACE
Project Number: Not Specified
Lab Number: L1107382
Report Date: 07/19/11

Air Canister Certification Results

Lab ID: L1107382-06
Client ID: CAN 985 FC 231
Sample Location:
Date Collected: 05/26/11 00:00
Date Received: 05/26/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Project Name: W.R. GRACE
Project Number: Not Specified
Lab Number: L1107382
Report Date: 07/19/11

Air Canister Certification Results

Lab ID: L1107382-06
Client ID: CAN 985 FC 231
Sample Location:
Date Collected: 05/26/11 00:00
Date Received: 05/26/11
Field Prep: Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	97		60-140
bromochloromethane	123		60-140
chlorobenzene-d5	84		60-140

Project Name: W.R. GRACE
Project Number: Not Specified
Lab Number: L1107382
Report Date: 07/19/11

Air Canister Certification Results

Lab ID:	L1107382-08	Date Collected:	05/26/11 00:00
Client ID:	CAN 1589 FC 206	Date Received:	05/26/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15		
Analytical Date:	05/31/11 21:44		
Analyst:	AR		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Acetone	ND	1.00	0.078	ND	2.38	0.185		1
Ethyl Acetate	ND	0.500	0.151	ND	1.80	0.544		1

Project Name: W.R. GRACE
Project Number: Not Specified
Lab Number: L1107382
Report Date: 07/19/11

Air Canister Certification Results

Lab ID: L1107382-08
Client ID: CAN 1589 FC 206
Sample Location:
Date Collected: 05/26/11 00:00
Date Received: 05/26/11
Field Prep: Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	86		60-140
Bromochloromethane	108		60-140
chlorobenzene-d5	80		60-140

Project Name: W.R. GRACE
Project Number: Not Specified
Lab Number: L1107382
Report Date: 07/19/11

Air Canister Certification Results

Lab ID: L1107382-08
Client ID: CAN 1589 FC 206
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 05/31/11 21:44
Analyst: BS

Date Collected: 05/26/11 00:00
Date Received: 05/26/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.224	0.224		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.207	0.207		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
p/m-Xylene	ND	0.040	0.040	ND	0.174	0.174		1
o-Xylene	ND	0.020	0.020	ND	0.087	0.087		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.261	0.261		1

Project Name: W.R. GRACE
Project Number: Not Specified
Lab Number: L1107382
Report Date: 07/19/11

Air Canister Certification Results

Lab ID: L1107382-08
Client ID: CAN 1589 FC 206
Sample Location:
Date Collected: 05/26/11 00:00
Date Received: 05/26/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Project Name: W.R. GRACE
Project Number: Not Specified
Lab Number: L1107382
Report Date: 07/19/11

Air Canister Certification Results

Lab ID: L1107382-08
Client ID: CAN 1589 FC 206
Sample Location:

Date Collected: 05/26/11 00:00
Date Received: 05/26/11
Field Prep: Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	84		60-140
bromochloromethane	114		60-140
chlorobenzene-d5	78		60-140

Project Name: W.R. GRACE
Project Number: Not Specified
Lab Number: L1107382
Report Date: 07/19/11

Air Canister Certification Results

Lab ID:	L1107382-09	Date Collected:	05/26/11 00:00
Client ID:	CAN 635 FC 349	Date Received:	05/26/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15		
Analytical Date:	05/31/11 22:20		
Analyst:	AR		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Acetone	ND	1.00	0.078	ND	2.38	0.185		1
Ethyl Acetate	ND	0.500	0.151	ND	1.80	0.544		1

Project Name: W.R. GRACE
Project Number: Not Specified
Lab Number: L1107382
Report Date: 07/19/11

Air Canister Certification Results

Lab ID: L1107382-09
Client ID: CAN 635 FC 349
Sample Location:
Date Collected: 05/26/11 00:00
Date Received: 05/26/11
Field Prep: Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	88		60-140
Bromochloromethane	111		60-140
chlorobenzene-d5	80		60-140

Project Name: W.R. GRACE
Project Number: Not Specified
Lab Number: L1107382
Report Date: 07/19/11

Air Canister Certification Results

Lab ID: L1107382-09
Client ID: CAN 635 FC 349
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 05/31/11 22:20
Analyst: BS

Date Collected: 05/26/11 00:00
Date Received: 05/26/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.224	0.224		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.207	0.207		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
p/m-Xylene	ND	0.040	0.040	ND	0.174	0.174		1
o-Xylene	ND	0.020	0.020	ND	0.087	0.087		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.261	0.261		1

Project Name: W.R. GRACE
Project Number: Not Specified
Lab Number: L1107382
Report Date: 07/19/11

Air Canister Certification Results

Lab ID: L1107382-09
Client ID: CAN 635 FC 349
Sample Location:
Date Collected: 05/26/11 00:00
Date Received: 05/26/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Project Name: W.R. GRACE
Project Number: Not Specified
Lab Number: L1107382
Report Date: 07/19/11

Air Canister Certification Results

Lab ID: L1107382-09
Client ID: CAN 635 FC 349
Sample Location:
Date Collected: 05/26/11 00:00
Date Received: 05/26/11
Field Prep: Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	86		60-140
bromochloromethane	115		60-140
chlorobenzene-d5	79		60-140

Project Name: W.R. GRACE
Project Number: Not Specified
Lab Number: L1107382
Report Date: 07/19/11

Air Canister Certification Results

Lab ID:	L1107382-10	Date Collected:	05/26/11 00:00
Client ID:	CAN 937 FC 026	Date Received:	05/26/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15		
Analytical Date:	05/31/11 22:56		
Analyst:	AR		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Acetone	0.081	1.00	0.078	0.192	2.38	0.185	J	1
Ethyl Acetate	ND	0.500	0.151	ND	1.80	0.544		1

Project Name: W.R. GRACE
Project Number: Not Specified
Lab Number: L1107382
Report Date: 07/19/11

Air Canister Certification Results

Lab ID: L1107382-10
Client ID: CAN 937 FC 026
Sample Location:

Date Collected: 05/26/11 00:00
Date Received: 05/26/11
Field Prep: Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	93		60-140
Bromochloromethane	113		60-140
chlorobenzene-d5	83		60-140

Project Name: W.R. GRACE
Project Number: Not Specified
Lab Number: L1107382
Report Date: 07/19/11

Air Canister Certification Results

Lab ID: L1107382-10
Client ID: CAN 937 FC 026
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 05/31/11 22:56
Analyst: BS

Date Collected: 05/26/11 00:00
Date Received: 05/26/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.224	0.224		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.207	0.207		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
p/m-Xylene	ND	0.040	0.040	ND	0.174	0.174		1
o-Xylene	ND	0.020	0.020	ND	0.087	0.087		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.261	0.261		1

Project Name: W.R. GRACE
Project Number: Not Specified
Lab Number: L1107382
Report Date: 07/19/11

Air Canister Certification Results

Lab ID: L1107382-10
Client ID: CAN 937 FC 026
Sample Location:
Date Collected: 05/26/11 00:00
Date Received: 05/26/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Project Name: W.R. GRACE
Project Number: Not Specified
Lab Number: L1107382
Report Date: 07/19/11

Air Canister Certification Results

Lab ID: L1107382-10
Client ID: CAN 937 FC 026
Sample Location:
Date Collected: 05/26/11 00:00
Date Received: 05/26/11
Field Prep: Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	91		60-140
bromochloromethane	119		60-140
chlorobenzene-d5	81		60-140

Project Name: W.R. GRACE
Project Number: Not Specified
Lab Number: L1107382
Report Date: 07/19/11

Air Canister Certification Results

Lab ID:	L1107382-11	Date Collected:	05/26/11 00:00
Client ID:	CAN 967 FC 227	Date Received:	05/26/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15		
Analytical Date:	05/31/11 23:33		
Analyst:	AR		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Acetone	0.121	1.00	0.078	0.287	2.38	0.185	J	1
Ethyl Acetate	ND	0.500	0.151	ND	1.80	0.544		1

Project Name: W.R. GRACE
Project Number: Not Specified
Lab Number: L1107382
Report Date: 07/19/11

Air Canister Certification Results

Lab ID: L1107382-11
Client ID: CAN 967 FC 227
Sample Location:
Date Collected: 05/26/11 00:00
Date Received: 05/26/11
Field Prep: Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	95		60-140
Bromochloromethane	115		60-140
chlorobenzene-d5	86		60-140

Project Name: W.R. GRACE
Project Number: Not Specified
Lab Number: L1107382
Report Date: 07/19/11

Air Canister Certification Results

Lab ID: L1107382-11
Client ID: CAN 967 FC 227
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 05/31/11 23:33
Analyst: BS

Date Collected: 05/26/11 00:00
Date Received: 05/26/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.224	0.224		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.207	0.207		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
p/m-Xylene	ND	0.040	0.040	ND	0.174	0.174		1
o-Xylene	ND	0.020	0.020	ND	0.087	0.087		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.261	0.261		1

Project Name: W.R. GRACE
Project Number: Not Specified
Lab Number: L1107382
Report Date: 07/19/11

Air Canister Certification Results

Lab ID: L1107382-11
Client ID: CAN 967 FC 227
Sample Location:
Date Collected: 05/26/11 00:00
Date Received: 05/26/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Project Name: W.R. GRACE
Project Number: Not Specified
Lab Number: L1107382
Report Date: 07/19/11

Air Canister Certification Results

Lab ID: L1107382-11
Client ID: CAN 967 FC 227
Sample Location:
Date Collected: 05/26/11 00:00
Date Received: 05/26/11
Field Prep: Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	93		60-140
bromochloromethane	120		60-140
chlorobenzene-d5	83		60-140

Project Name: W.R. GRACE
Project Number: Not Specified
Lab Number: L1107382
Report Date: 07/19/11

Air Canister Certification Results

Lab ID:	L1107382-12	Date Collected:	05/26/11 00:00
Client ID:	CAN 787 FC 081	Date Received:	05/26/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15		
Analytical Date:	06/01/11 00:09		
Analyst:	AR		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Acetone	ND	1.00	0.078	ND	2.38	0.185		1
Ethyl Acetate	ND	0.500	0.151	ND	1.80	0.544		1

Project Name: W.R. GRACE
Project Number: Not Specified
Lab Number: L1107382
Report Date: 07/19/11

Air Canister Certification Results

Lab ID: L1107382-12
Client ID: CAN 787 FC 081
Sample Location:
Date Collected: 05/26/11 00:00
Date Received: 05/26/11
Field Prep: Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	91		60-140
Bromochloromethane	111		60-140
chlorobenzene-d5	82		60-140

Project Name: W.R. GRACE
Project Number: Not Specified
Lab Number: L1107382
Report Date: 07/19/11

Air Canister Certification Results

Lab ID: L1107382-12
Client ID: CAN 787 FC 081
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 06/01/11 00:09
Analyst: BS

Date Collected: 05/26/11 00:00
Date Received: 05/26/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.224	0.224		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.207	0.207		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
p/m-Xylene	ND	0.040	0.040	ND	0.174	0.174		1
o-Xylene	ND	0.020	0.020	ND	0.087	0.087		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.261	0.261		1

Project Name: W.R. GRACE
Project Number: Not Specified
Lab Number: L1107382
Report Date: 07/19/11

Air Canister Certification Results

Lab ID: L1107382-12
Client ID: CAN 787 FC 081
Sample Location:
Date Collected: 05/26/11 00:00
Date Received: 05/26/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Project Name: W.R. GRACE
Project Number: Not Specified
Lab Number: L1107382
Report Date: 07/19/11

Air Canister Certification Results

Lab ID: L1107382-12
Client ID: CAN 787 FC 081
Sample Location:

Date Collected: 05/26/11 00:00
Date Received: 05/26/11
Field Prep: Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	89		60-140
bromochloromethane	116		60-140
chlorobenzene-d5	79		60-140

Project Name: W.R. GRACE
Project Number: Not Specified
Lab Number: L1107382
Report Date: 07/19/11

Air Canister Certification Results

Lab ID:	L1107382-13	Date Collected:	05/26/11 00:00
Client ID:	CAN 1713 FC 216	Date Received:	05/26/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15		
Analytical Date:	06/01/11 00:46		
Analyst:	AR		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Acetone	ND	1.00	0.078	ND	2.38	0.185		1
Ethyl Acetate	ND	0.500	0.151	ND	1.80	0.544		1

Project Name: W.R. GRACE
Project Number: Not Specified
Lab Number: L1107382
Report Date: 07/19/11

Air Canister Certification Results

Lab ID: L1107382-13
Client ID: CAN 1713 FC 216
Sample Location:
Date Collected: 05/26/11 00:00
Date Received: 05/26/11
Field Prep: Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	92		60-140
Bromochloromethane	111		60-140
chlorobenzene-d5	81		60-140

Project Name: W.R. GRACE
Project Number: Not Specified
Lab Number: L1107382
Report Date: 07/19/11

Air Canister Certification Results

Lab ID: L1107382-13
Client ID: CAN 1713 FC 216
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 06/01/11 00:46
Analyst: BS

Date Collected: 05/26/11 00:00
Date Received: 05/26/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.224	0.224		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.207	0.207		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
p/m-Xylene	ND	0.040	0.040	ND	0.174	0.174		1
o-Xylene	ND	0.020	0.020	ND	0.087	0.087		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.261	0.261		1

Project Name: W.R. GRACE
Project Number: Not Specified
Lab Number: L1107382
Report Date: 07/19/11

Air Canister Certification Results

Lab ID: L1107382-13
Client ID: CAN 1713 FC 216
Sample Location:
Date Collected: 05/26/11 00:00
Date Received: 05/26/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Project Name: W.R. GRACE
Project Number: Not Specified
Lab Number: L1107382
Report Date: 07/19/11

Air Canister Certification Results

Lab ID: L1107382-13
Client ID: CAN 1713 FC 216
Sample Location:
Date Collected: 05/26/11 00:00
Date Received: 05/26/11
Field Prep: Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	89		60-140
bromochloromethane	115		60-140
chlorobenzene-d5	78		60-140

Project Name: W.R. GRACE
Project Number: Not Specified
Lab Number: L1107382
Report Date: 07/19/11

Air Canister Certification Results

Lab ID:	L1107382-14	Date Collected:	05/26/11 00:00
Client ID:	CAN 943 FC 052	Date Received:	05/26/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15		
Analytical Date:	06/01/11 01:22		
Analyst:	AR		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Acetone	ND	1.00	0.078	ND	2.38	0.185		1
Ethyl Acetate	ND	0.500	0.151	ND	1.80	0.544		1

Project Name: W.R. GRACE
Project Number: Not Specified
Lab Number: L1107382
Report Date: 07/19/11

Air Canister Certification Results

Lab ID: L1107382-14
Client ID: CAN 943 FC 052
Sample Location:
Date Collected: 05/26/11 00:00
Date Received: 05/26/11
Field Prep: Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	90		60-140
Bromochloromethane	111		60-140
chlorobenzene-d5	82		60-140

Project Name: W.R. GRACE
Project Number: Not Specified
Lab Number: L1107382
Report Date: 07/19/11

Air Canister Certification Results

Lab ID: L1107382-14
Client ID: CAN 943 FC 052
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 06/01/11 01:22
Analyst: BS

Date Collected: 05/26/11 00:00
Date Received: 05/26/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.224	0.224		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.207	0.207		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
p/m-Xylene	ND	0.040	0.040	ND	0.174	0.174		1
o-Xylene	ND	0.020	0.020	ND	0.087	0.087		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.261	0.261		1

Project Name: W.R. GRACE
Project Number: Not Specified
Lab Number: L1107382
Report Date: 07/19/11

Air Canister Certification Results

Lab ID: L1107382-14
Client ID: CAN 943 FC 052
Sample Location:
Date Collected: 05/26/11 00:00
Date Received: 05/26/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Project Name: W.R. GRACE
Project Number: Not Specified
Lab Number: L1107382
Report Date: 07/19/11

Air Canister Certification Results

Lab ID: L1107382-14
Client ID: CAN 943 FC 052
Sample Location:
Date Collected: 05/26/11 00:00
Date Received: 05/26/11
Field Prep: Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	89		60-140
bromochloromethane	116		60-140
chlorobenzene-d5	79		60-140

Project Name: W.R. GRACE
Project Number: Not Specified
Lab Number: L1107382
Report Date: 07/19/11

Air Canister Certification Results

Lab ID:	L1107382-15	Date Collected:	05/26/11 00:00
Client ID:	CAN 1630 FC 398	Date Received:	05/26/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15		
Analytical Date:	06/01/11 01:59		
Analyst:	AR		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Acetone	ND	1.00	0.078	ND	2.38	0.185		1
Ethyl Acetate	ND	0.500	0.151	ND	1.80	0.544		1

Project Name: W.R. GRACE
Project Number: Not Specified
Lab Number: L1107382
Report Date: 07/19/11

Air Canister Certification Results

Lab ID: L1107382-15
Client ID: CAN 1630 FC 398
Sample Location:
Date Collected: 05/26/11 00:00
Date Received: 05/26/11
Field Prep: Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	91		60-140
Bromochloromethane	110		60-140
chlorobenzene-d5	81		60-140

Project Name: W.R. GRACE
Project Number: Not Specified
Lab Number: L1107382
Report Date: 07/19/11

Air Canister Certification Results

Lab ID: L1107382-15
Client ID: CAN 1630 FC 398
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 06/01/11 01:59
Analyst: BS

Date Collected: 05/26/11 00:00
Date Received: 05/26/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.224	0.224		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.207	0.207		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
p/m-Xylene	ND	0.040	0.040	ND	0.174	0.174		1
o-Xylene	ND	0.020	0.020	ND	0.087	0.087		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.261	0.261		1

Project Name: W.R. GRACE
Project Number: Not Specified
Lab Number: L1107382
Report Date: 07/19/11

Air Canister Certification Results

Lab ID: L1107382-15
Client ID: CAN 1630 FC 398
Sample Location:

Date Collected: 05/26/11 00:00
Date Received: 05/26/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Project Name: W.R. GRACE
Project Number: Not Specified
Lab Number: L1107382
Report Date: 07/19/11

Air Canister Certification Results

Lab ID: L1107382-15
Client ID: CAN 1630 FC 398
Sample Location:
Date Collected: 05/26/11 00:00
Date Received: 05/26/11
Field Prep: Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	88		60-140
bromochloromethane	115		60-140
chlorobenzene-d5	79		60-140

Project Name: W.R. GRACE
Project Number: Not Specified
Lab Number: L1107382
Report Date: 07/19/11

Air Canister Certification Results

Lab ID:	L1107382-16	Date Collected:	05/26/11 00:00
Client ID:	CAN 1569 FC 295	Date Received:	05/26/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15		
Analytical Date:	06/01/11 02:36		
Analyst:	AR		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Acetone	0.166	1.00	0.078	0.394	2.38	0.185	J	1
Ethyl Acetate	ND	0.500	0.151	ND	1.80	0.544		1

Project Name: W.R. GRACE
Project Number: Not Specified
Lab Number: L1107382
Report Date: 07/19/11

Air Canister Certification Results

Lab ID: L1107382-16
Client ID: CAN 1569 FC 295
Sample Location:
Date Collected: 05/26/11 00:00
Date Received: 05/26/11
Field Prep: Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	92		60-140
Bromochloromethane	113		60-140
chlorobenzene-d5	87		60-140

Project Name: W.R. GRACE
Project Number: Not Specified
Lab Number: L1107382
Report Date: 07/19/11

Air Canister Certification Results

Lab ID: L1107382-16
Client ID: CAN 1569 FC 295
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 06/01/11 02:36
Analyst: BS

Date Collected: 05/26/11 00:00
Date Received: 05/26/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.224	0.224		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.207	0.207		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
p/m-Xylene	ND	0.040	0.040	ND	0.174	0.174		1
o-Xylene	ND	0.020	0.020	ND	0.087	0.087		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.261	0.261		1

Project Name: W.R. GRACE
Project Number: Not Specified
Lab Number: L1107382
Report Date: 07/19/11

Air Canister Certification Results

Lab ID: L1107382-16
Client ID: CAN 1569 FC 295
Sample Location:
Date Collected: 05/26/11 00:00
Date Received: 05/26/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Project Name: W.R. GRACE
Project Number: Not Specified
Lab Number: L1107382
Report Date: 07/19/11

Air Canister Certification Results

Lab ID: L1107382-16
Client ID: CAN 1569 FC 295
Sample Location:

Date Collected: 05/26/11 00:00
Date Received: 05/26/11
Field Prep: Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	90		60-140
bromochloromethane	118		60-140
chlorobenzene-d5	85		60-140

Project Name: W.R. GRACE
Project Number: Not Specified
Lab Number: L1107382
Report Date: 07/19/11

Air Canister Certification Results

Lab ID:	L1107382-19	Date Collected:	05/26/11 00:00
Client ID:	CAN 1520 FC 144	Date Received:	05/26/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15		
Analytical Date:	06/01/11 10:39		
Analyst:	AR		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Acetone	0.112	1.00	0.078	0.266	2.38	0.185	J	1
Ethyl Acetate	ND	0.500	0.151	ND	1.80	0.544		1

Project Name: W.R. GRACE
Project Number: Not Specified
Lab Number: L1107382
Report Date: 07/19/11

Air Canister Certification Results

Lab ID: L1107382-19
Client ID: CAN 1520 FC 144
Sample Location:
Date Collected: 05/26/11 00:00
Date Received: 05/26/11
Field Prep: Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	88		60-140
Bromochloromethane	108		60-140
chlorobenzene-d5	82		60-140

Project Name: W.R. GRACE
Project Number: Not Specified
Lab Number: L1107382
Report Date: 07/19/11

Air Canister Certification Results

Lab ID: L1107382-19
Client ID: CAN 1520 FC 144
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 06/01/11 10:39
Analyst: BS

Date Collected: 05/26/11 00:00
Date Received: 05/26/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.224	0.224		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.207	0.207		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
p/m-Xylene	ND	0.040	0.040	ND	0.174	0.174		1
o-Xylene	ND	0.020	0.020	ND	0.087	0.087		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.261	0.261		1

Project Name: W.R. GRACE
Project Number: Not Specified
Lab Number: L1107382
Report Date: 07/19/11

Air Canister Certification Results

Lab ID: L1107382-19
Client ID: CAN 1520 FC 144
Sample Location:
Date Collected: 05/26/11 00:00
Date Received: 05/26/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Project Name: W.R. GRACE
Project Number: Not Specified
Lab Number: L1107382
Report Date: 07/19/11

Air Canister Certification Results

Lab ID: L1107382-19
Client ID: CAN 1520 FC 144
Sample Location:
Date Collected: 05/26/11 00:00
Date Received: 05/26/11
Field Prep: Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	86		60-140
bromochloromethane	114		60-140
chlorobenzene-d5	80		60-140

Project Name:

Project Number: Not Specified

Lab Number: L1107558

Report Date: 07/19/11

Air Canister Certification Results

Lab ID:	L1107558-02	Date Collected:	05/31/11 00:00
Client ID:	CAN 594 FC 471	Date Received:	05/31/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	06/01/11 18:50		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.224	0.224		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.207	0.207		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
p/m-Xylene	ND	0.040	0.040	ND	0.174	0.174		1
o-Xylene	ND	0.020	0.020	ND	0.087	0.087		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.261	0.261		1

Project Name:

Project Number: Not Specified

Lab Number: L1107558

Report Date: 07/19/11

Air Canister Certification Results

Lab ID: L1107558-02
Client ID: CAN 594 FC 471
Sample Location:

Date Collected: 05/31/11 00:00
Date Received: 05/31/11
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Project Name:

Project Number: Not Specified

Lab Number: L1107558

Report Date: 07/19/11

Air Canister Certification Results

Lab ID:	L1107558-02	Date Collected:	05/31/11 00:00
Client ID:	CAN 594 FC 471	Date Received:	05/31/11
Sample Location:		Field Prep:	Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	101		60-140
bromochloromethane	130		60-140
chlorobenzene-d5	90		60-140

Project Name:

Project Number: Not Specified

Lab Number: L1107558

Report Date: 07/19/11

Air Canister Certification Results

Lab ID:	L1107558-04	Date Collected:	05/31/11 00:00
Client ID:	CAN 961 FC 193	Date Received:	05/31/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	06/01/11 19:52		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.224	0.224		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.207	0.207		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
p/m-Xylene	ND	0.040	0.040	ND	0.174	0.174		1
o-Xylene	ND	0.020	0.020	ND	0.087	0.087		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.261	0.261		1

Project Name:

Project Number: Not Specified

Lab Number: L1107558

Report Date: 07/19/11

Air Canister Certification Results

Lab ID: L1107558-04
Client ID: CAN 961 FC 193
Sample Location:

Date Collected: 05/31/11 00:00
Date Received: 05/31/11
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Project Name:

Project Number: Not Specified

Lab Number: L1107558

Report Date: 07/19/11

Air Canister Certification Results

Lab ID:	L1107558-04	Date Collected:	05/31/11 00:00
Client ID:	CAN 961 FC 193	Date Received:	05/31/11
Sample Location:		Field Prep:	Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	100		60-140
bromochloromethane	99		60-140
chlorobenzene-d5	97		60-140

Project Name:

Project Number: Not Specified

Lab Number: L1107558

Report Date: 07/19/11

Air Canister Certification Results

Lab ID:	L1107558-05	Date Collected:	05/31/11 00:00
Client ID:	CAN 1583 FC 185	Date Received:	05/31/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	06/01/11 20:29		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.224	0.224		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.207	0.207		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
p/m-Xylene	ND	0.040	0.040	ND	0.174	0.174		1
o-Xylene	ND	0.020	0.020	ND	0.087	0.087		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.261	0.261		1

Project Name:

Project Number: Not Specified

Lab Number: L1107558

Report Date: 07/19/11

Air Canister Certification Results

Lab ID: L1107558-05
Client ID: CAN 1583 FC 185
Sample Location:

Date Collected: 05/31/11 00:00
Date Received: 05/31/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Project Name:

Project Number: Not Specified

Lab Number: L1107558

Report Date: 07/19/11

Air Canister Certification Results

Lab ID:	L1107558-05	Date Collected:	05/31/11 00:00
Client ID:	CAN 1583 FC 185	Date Received:	05/31/11
Sample Location:		Field Prep:	Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	89		60-140
bromochloromethane	119		60-140
chlorobenzene-d5	79		60-140

Project Name:

Project Number: Not Specified

Lab Number: L1107558

Report Date: 07/19/11

Air Canister Certification Results

Lab ID:	L1107558-06	Date Collected:	05/31/11 00:00
Client ID:	CAN 1687 FC 375	Date Received:	05/31/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	06/01/11 21:05		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.224	0.224		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.207	0.207		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
p/m-Xylene	ND	0.040	0.040	ND	0.174	0.174		1
o-Xylene	ND	0.020	0.020	ND	0.087	0.087		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.261	0.261		1

Project Name:

Project Number: Not Specified

Lab Number: L1107558

Report Date: 07/19/11

Air Canister Certification Results

Lab ID: L1107558-06
Client ID: CAN 1687 FC 375
Sample Location:

Date Collected: 05/31/11 00:00
Date Received: 05/31/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Project Name:

Project Number: Not Specified

Lab Number: L1107558

Report Date: 07/19/11

Air Canister Certification Results

Lab ID:	L1107558-06	Date Collected:	05/31/11 00:00
Client ID:	CAN 1687 FC 375	Date Received:	05/31/11
Sample Location:		Field Prep:	Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	99		60-140
bromochloromethane	127		60-140
chlorobenzene-d5	91		60-140

Project Name:

Project Number: Not Specified

Lab Number: L1107558

Report Date: 07/19/11

Air Canister Certification Results

Lab ID:	L1107558-07	Date Collected:	05/31/11 00:00
Client ID:	CAN 1676 FC 453	Date Received:	05/31/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	06/01/11 21:41		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.224	0.224		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.207	0.207		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
p/m-Xylene	ND	0.040	0.040	ND	0.174	0.174		1
o-Xylene	ND	0.020	0.020	ND	0.087	0.087		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.261	0.261		1

Project Name:

Project Number: Not Specified

Lab Number: L1107558

Report Date: 07/19/11

Air Canister Certification Results

Lab ID: L1107558-07
Client ID: CAN 1676 FC 453
Sample Location:

Date Collected: 05/31/11 00:00
Date Received: 05/31/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Project Name:

Project Number: Not Specified

Lab Number: L1107558

Report Date: 07/19/11

Air Canister Certification Results

Lab ID:	L1107558-07	Date Collected:	05/31/11 00:00
Client ID:	CAN 1676 FC 453	Date Received:	05/31/11
Sample Location:		Field Prep:	Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	102		60-140
bromochloromethane	130		60-140
chlorobenzene-d5	91		60-140

Project Name:

Project Number: Not Specified

Lab Number: L1107558

Report Date: 07/19/11

Air Canister Certification Results

Lab ID:	L1107558-10	Date Collected:	05/31/11 00:00
Client ID:	CAN 1610 FC 484	Date Received:	05/31/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	06/01/11 23:29		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.224	0.224		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.207	0.207		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
p/m-Xylene	ND	0.040	0.040	ND	0.174	0.174		1
o-Xylene	ND	0.020	0.020	ND	0.087	0.087		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.261	0.261		1

Project Name:

Project Number: Not Specified

Lab Number: L1107558

Report Date: 07/19/11

Air Canister Certification Results

Lab ID: L1107558-10
Client ID: CAN 1610 FC 484
Sample Location:

Date Collected: 05/31/11 00:00
Date Received: 05/31/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Project Name:

Project Number: Not Specified

Lab Number: L1107558

Report Date: 07/19/11

Air Canister Certification Results

Lab ID:	L1107558-10	Date Collected:	05/31/11 00:00
Client ID:	CAN 1610 FC 484	Date Received:	05/31/11
Sample Location:		Field Prep:	Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	101		60-140
bromochloromethane	126		60-140
chlorobenzene-d5	87		60-140

Project Name:

Project Number: Not Specified

Lab Number: L1107558

Report Date: 07/19/11

Air Canister Certification Results

Lab ID:	L1107558-14	Date Collected:	05/31/11 00:00
Client ID:	CAN 1572 FC 031	Date Received:	05/31/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15		
Analytical Date:	06/02/11 01:55		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Acetone	0.101	1.00	0.078	0.240	2.38	0.185	J	1
Ethyl Acetate	ND	0.500	0.151	ND	1.80	0.544		1

Project Name:

Project Number: Not Specified

Lab Number: L1107558

Report Date: 07/19/11

Air Canister Certification Results

Lab ID:	L1107558-14	Date Collected:	05/31/11 00:00
Client ID:	CAN 1572 FC 031	Date Received:	05/31/11
Sample Location:		Field Prep:	Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	80		60-140
Bromochloromethane	96		60-140
chlorobenzene-d5	69		60-140

Project Name:

Project Number: Not Specified

Lab Number: L1107558

Report Date: 07/19/11

Air Canister Certification Results

Lab ID:	L1107558-14	Date Collected:	05/31/11 00:00
Client ID:	CAN 1572 FC 031	Date Received:	05/31/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	06/02/11 01:55		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.224	0.224		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.207	0.207		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
p/m-Xylene	ND	0.040	0.040	ND	0.174	0.174		1
o-Xylene	ND	0.020	0.020	ND	0.087	0.087		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.261	0.261		1

Project Name:

Project Number: Not Specified

Lab Number: L1107558

Report Date: 07/19/11

Air Canister Certification Results

Lab ID: L1107558-14
Client ID: CAN 1572 FC 031
Sample Location:

Date Collected: 05/31/11 00:00
Date Received: 05/31/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Project Name:

Project Number: Not Specified

Lab Number: L1107558

Report Date: 07/19/11

Air Canister Certification Results

Lab ID:	L1107558-14	Date Collected:	05/31/11 00:00
Client ID:	CAN 1572 FC 031	Date Received:	05/31/11
Sample Location:		Field Prep:	Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	86		60-140
bromochloromethane	115		60-140
chlorobenzene-d5	79		60-140

Project Name:

Project Number: Not Specified

Lab Number: L1107558

Report Date: 07/19/11

Air Canister Certification Results

Lab ID:	L1107558-15	Date Collected:	05/31/11 00:00
Client ID:	CAN 972 FC 332	Date Received:	05/31/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15		
Analytical Date:	06/02/11 02:32		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Acetone	0.098	1.00	0.078	0.233	2.38	0.185	J	1
Ethyl Acetate	ND	0.500	0.151	ND	1.80	0.544		1

Project Name: ***Lab Number:*** L1107558

Project Number: Not Specified ***Report Date:*** 07/19/11

Air Canister Certification Results

Lab ID:	L1107558-15	Date Collected:	05/31/11 00:00
Client ID:	CAN 972 FC 332	Date Received:	05/31/11
Sample Location:		Field Prep:	Not Specified

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

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	90		60-140
Bromochloromethane	102		60-140
chlorobenzene-d5	76		60-140

Project Name:

Project Number: Not Specified

Lab Number: L1107558

Report Date: 07/19/11

Air Canister Certification Results

Lab ID:	L1107558-15	Date Collected:	05/31/11 00:00
Client ID:	CAN 972 FC 332	Date Received:	05/31/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	06/02/11 02:32		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.224	0.224		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.207	0.207		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
p/m-Xylene	ND	0.040	0.040	ND	0.174	0.174		1
o-Xylene	ND	0.020	0.020	ND	0.087	0.087		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.261	0.261		1

Project Name:

Project Number: Not Specified

Lab Number: L1107558

Report Date: 07/19/11

Air Canister Certification Results

Lab ID: L1107558-15
Client ID: CAN 972 FC 332
Sample Location:

Date Collected: 05/31/11 00:00
Date Received: 05/31/11
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Project Name:

Project Number: Not Specified

Lab Number: L1107558

Report Date: 07/19/11

Air Canister Certification Results

Lab ID:	L1107558-15	Date Collected:	05/31/11 00:00
Client ID:	CAN 972 FC 332	Date Received:	05/31/11
Sample Location:		Field Prep:	Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	97		60-140
bromochloromethane	122		60-140
chlorobenzene-d5	85		60-140

Project Name:

Project Number: Not Specified

Lab Number: L1107558

Report Date: 07/19/11

Air Canister Certification Results

Lab ID:	L1107558-18	Date Collected:	05/31/11 00:00
Client ID:	CAN 724 FC 293	Date Received:	05/31/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	06/02/11 04:21		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.224	0.224		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.207	0.207		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
p/m-Xylene	ND	0.040	0.040	ND	0.174	0.174		1
o-Xylene	ND	0.020	0.020	ND	0.087	0.087		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.261	0.261		1

Project Name:

Project Number: Not Specified

Lab Number: L1107558

Report Date: 07/19/11

Air Canister Certification Results

Lab ID: L1107558-18
Client ID: CAN 724 FC 293
Sample Location:

Date Collected: 05/31/11 00:00
Date Received: 05/31/11
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Project Name:

Project Number: Not Specified

Lab Number: L1107558

Report Date: 07/19/11

Air Canister Certification Results

Lab ID:	L1107558-18	Date Collected:	05/31/11 00:00
Client ID:	CAN 724 FC 293	Date Received:	05/31/11
Sample Location:		Field Prep:	Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	100		60-140
bromochloromethane	123		60-140
chlorobenzene-d5	85		60-140

Project Name:

Project Number: Not Specified

Lab Number: L1107558

Report Date: 07/19/11

Air Canister Certification Results

Lab ID:	L1107558-20	Date Collected:	05/31/11 00:00
Client ID:	CAN 651 FC 428	Date Received:	05/31/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	06/02/11 05:34		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.224	0.224		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.207	0.207		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
p/m-Xylene	ND	0.040	0.040	ND	0.174	0.174		1
o-Xylene	ND	0.020	0.020	ND	0.087	0.087		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.261	0.261		1

Project Name:

Project Number: Not Specified

Lab Number: L1107558

Report Date: 07/19/11

Air Canister Certification Results

Lab ID: L1107558-20
Client ID: CAN 651 FC 428
Sample Location:

Date Collected: 05/31/11 00:00
Date Received: 05/31/11
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Project Name:

Project Number: Not Specified

Lab Number: L1107558

Report Date: 07/19/11

Air Canister Certification Results

Lab ID:	L1107558-20	Date Collected:	05/31/11 00:00
Client ID:	CAN 651 FC 428	Date Received:	05/31/11
Sample Location:		Field Prep:	Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	95		60-140
bromochloromethane	119		60-140
chlorobenzene-d5	81		60-140

Project Name:

Project Number: Not Specified

Lab Number: L1107558

Report Date: 07/19/11

Air Canister Certification Results

Lab ID:	L1107558-22	Date Collected:	06/02/11 00:00
Client ID:	CAN 653 FC 464	Date Received:	06/02/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15		
Analytical Date:	06/02/11 15:23		
Analyst:	BS		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air (Low Level) - Mansfield Lab								
Acetone	0.122	1.00	0.078	0.290	2.38	0.185	J	1
Ethyl Acetate	ND	0.500	0.151	ND	1.80	0.544		1

Project Name:

Project Number: Not Specified

Lab Number: L1107558

Report Date: 07/19/11

Air Canister Certification Results

Lab ID:	L1107558-22	Date Collected:	06/02/11 00:00
Client ID:	CAN 653 FC 464	Date Received:	06/02/11
Sample Location:		Field Prep:	Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	99		60-140
Bromochloromethane	138		60-140
chlorobenzene-d5	92		60-140

Project Name:

Project Number: Not Specified

Lab Number: L1107558

Report Date: 07/19/11

Air Canister Certification Results

Lab ID:	L1107558-22	Date Collected:	06/02/11 00:00
Client ID:	CAN 653 FC 464	Date Received:	06/02/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	06/02/11 15:23		
Analyst:	BS		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.224	0.224		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.207	0.207		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
p/m-Xylene	ND	0.040	0.040	ND	0.174	0.174		1
o-Xylene	ND	0.020	0.020	ND	0.087	0.087		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.261	0.261		1

Project Name:

Project Number: Not Specified

Lab Number: L1107558

Report Date: 07/19/11

Air Canister Certification Results

Lab ID: L1107558-22
Client ID: CAN 653 FC 464
Sample Location:

Date Collected: 06/02/11 00:00
Date Received: 06/02/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Project Name:

Project Number: Not Specified

Lab Number: L1107558

Report Date: 07/19/11

Air Canister Certification Results

Lab ID:	L1107558-22	Date Collected:	06/02/11 00:00
Client ID:	CAN 653 FC 464	Date Received:	06/02/11
Sample Location:		Field Prep:	Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	100		60-140
bromochloromethane	127		60-140
chlorobenzene-d5	93		60-140

Project Name:

Project Number: Not Specified

Lab Number: L1107558

Report Date: 07/19/11

Air Canister Certification Results

Lab ID:	L1107558-23	Date Collected:	06/02/11 00:00
Client ID:	CAN 1612 FC 420	Date Received:	06/02/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	06/02/11 15:59		
Analyst:	BS		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.224	0.224		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.207	0.207		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
p/m-Xylene	ND	0.040	0.040	ND	0.174	0.174		1
o-Xylene	ND	0.020	0.020	ND	0.087	0.087		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.261	0.261		1

Project Name:

Project Number: Not Specified

Lab Number: L1107558

Report Date: 07/19/11

Air Canister Certification Results

Lab ID: L1107558-23
Client ID: CAN 1612 FC 420
Sample Location:

Date Collected: 06/02/11 00:00
Date Received: 06/02/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Project Name:

Project Number: Not Specified

Lab Number: L1107558

Report Date: 07/19/11

Air Canister Certification Results

Lab ID:	L1107558-23	Date Collected:	06/02/11 00:00
Client ID:	CAN 1612 FC 420	Date Received:	06/02/11
Sample Location:		Field Prep:	Not Specified

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
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	103		60-140

Project Name:

Project Number: Not Specified

Lab Number: L1107558

Report Date: 07/19/11

Air Canister Certification Results

Lab ID:	L1107558-24	Date Collected:	06/02/11 00:00
Client ID:	CAN 1618 FC 497	Date Received:	06/02/11
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	06/02/11 16:36		
Analyst:	BS		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,1-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1,2-Trichloroethane	ND	0.020	0.020	ND	0.109	0.109		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	0.020	ND	0.098	0.098		1
1,2-Dibromoethane	ND	0.020	0.010	ND	0.154	0.077		1
1,2-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
1,2-Dichloropropane	ND	0.020	0.020	ND	0.092	0.092		1
1,3-Butadiene	ND	0.020	0.020	ND	0.044	0.044		1
1,3-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
1,4-Dichlorobenzene	ND	0.020	0.020	ND	0.120	0.120		1
Benzene	ND	0.070	0.070	ND	0.224	0.224		1
Bromodichloromethane	ND	0.020	0.010	ND	0.134	0.067		1
Bromoform	ND	0.020	0.020	ND	0.207	0.207		1
Carbon tetrachloride	ND	0.020	0.020	ND	0.126	0.126		1
Chlorobenzene	ND	0.020	0.020	ND	0.092	0.092		1
Chloroform	ND	0.020	0.020	ND	0.098	0.098		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Ethylbenzene	ND	0.020	0.020	ND	0.087	0.087		1
Methylene chloride	ND	0.500	0.500	ND	1.74	1.74		1
Methyl tert butyl ether	ND	0.020	0.020	ND	0.072	0.072		1
Naphthalene	ND	0.050	0.025	ND	0.262	0.131		1
p/m-Xylene	ND	0.040	0.040	ND	0.174	0.174		1
o-Xylene	ND	0.020	0.020	ND	0.087	0.087		1
XYLENE (TOTAL)	ND	0.060	0.060	ND	0.261	0.261		1

Project Name:

Project Number: Not Specified

Lab Number: L1107558

Report Date: 07/19/11

Air Canister Certification Results

Lab ID: L1107558-24
Client ID: CAN 1618 FC 497
Sample Location:

Date Collected: 06/02/11 00:00
Date Received: 06/02/11
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1
Toluene	ND	0.050	0.050	ND	0.188	0.188		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,3-Dichloropropene	ND	0.020	0.020	ND	0.091	0.091		1
Trichloroethene	ND	0.020	0.020	ND	0.107	0.107		1
Vinyl chloride	ND	0.020	0.020	ND	0.051	0.051		1
Isopropylbenzene	ND	0.500	0.500	ND	2.46	2.46		1

Project Name:

Project Number: Not Specified

Lab Number: L1107558

Report Date: 07/19/11

Air Canister Certification Results

Lab ID:	L1107558-24	Date Collected:	06/02/11 00:00
Client ID:	CAN 1618 FC 497	Date Received:	06/02/11
Sample Location:		Field Prep:	Not Specified

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

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	103		60-140
bromochloromethane	123		60-140
chlorobenzene-d5	89		60-140

AIR Petro Can Certification

Project Name: W.R. GRACE **Lab Number:** L1107382

Project Number: Not Specified **Report Date:** 07/19/11

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1107382-03	Date Collected:	05/26/11 00:00
Client ID:	CAN 1653 FC 174	Date Received:	05/26/11
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	05/31/11 18:42		
Analyst:	AR		

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

Project Name: W.R. GRACE **Lab Number:** L1107382

Project Number: Not Specified **Report Date:** 07/19/11

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1107382-04	Date Collected:	05/26/11 00:00
Client ID:	CAN 1594 FC 137	Date Received:	05/26/11
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	05/31/11 19:18		
Analyst:	AR		

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

Project Name: W.R. GRACE **Lab Number:** L1107382

Project Number: Not Specified **Report Date:** 07/19/11

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1107382-05	Date Collected:	05/26/11 00:00
Client ID:	CAN 1538 FC 495	Date Received:	05/26/11
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	05/31/11 19:55		
Analyst:	AR		

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

Project Name: W.R. GRACE **Lab Number:** L1107382

Project Number: Not Specified **Report Date:** 07/19/11

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1107382-06	Date Collected:	05/26/11 00:00
Client ID:	CAN 985 FC 231	Date Received:	05/26/11
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	05/31/11 20:31		
Analyst:	AR		

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

Project Name: W.R. GRACE **Lab Number:** L1107382

Project Number: Not Specified **Report Date:** 07/19/11

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1107382-08	Date Collected:	05/26/11 00:00
Client ID:	CAN 1589 FC 206	Date Received:	05/26/11
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	05/31/11 21:44		
Analyst:	AR		

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

Project Name: W.R. GRACE **Lab Number:** L1107382

Project Number: Not Specified **Report Date:** 07/19/11

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1107382-09	Date Collected:	05/26/11 00:00
Client ID:	CAN 635 FC 349	Date Received:	05/26/11
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	05/31/11 22:20		
Analyst:	AR		

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

Project Name: W.R. GRACE **Lab Number:** L1107382

Project Number: Not Specified **Report Date:** 07/19/11

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1107382-10	Date Collected:	05/26/11 00:00
Client ID:	CAN 937 FC 026	Date Received:	05/26/11
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	05/31/11 22:56		
Analyst:	AR		

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

Project Name: W.R. GRACE **Lab Number:** L1107382

Project Number: Not Specified **Report Date:** 07/19/11

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1107382-11	Date Collected:	05/26/11 00:00
Client ID:	CAN 967 FC 227	Date Received:	05/26/11
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	05/31/11 23:33		
Analyst:	AR		

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

Project Name: W.R. GRACE **Lab Number:** L1107382

Project Number: Not Specified **Report Date:** 07/19/11

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1107382-12	Date Collected:	05/26/11 00:00
Client ID:	CAN 787 FC 081	Date Received:	05/26/11
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	06/01/11 00:09		
Analyst:	AR		

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

Project Name: W.R. GRACE **Lab Number:** L1107382

Project Number: Not Specified **Report Date:** 07/19/11

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1107382-13	Date Collected:	05/26/11 00:00
Client ID:	CAN 1713 FC 216	Date Received:	05/26/11
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	06/01/11 00:46		
Analyst:	AR		

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

Project Name: W.R. GRACE **Lab Number:** L1107382

Project Number: Not Specified **Report Date:** 07/19/11

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1107382-14	Date Collected:	05/26/11 00:00
Client ID:	CAN 943 FC 052	Date Received:	05/26/11
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	06/01/11 01:22		
Analyst:	AR		

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

Project Name: W.R. GRACE **Lab Number:** L1107382

Project Number: Not Specified **Report Date:** 07/19/11

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1107382-15	Date Collected:	05/26/11 00:00
Client ID:	CAN 1630 FC 398	Date Received:	05/26/11
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	06/01/11 01:59		
Analyst:	AR		

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

Project Name: W.R. GRACE **Lab Number:** L1107382

Project Number: Not Specified **Report Date:** 07/19/11

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1107382-16	Date Collected:	05/26/11 00:00
Client ID:	CAN 1569 FC 295	Date Received:	05/26/11
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	06/01/11 02:36		
Analyst:	AR		

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

Project Name: W.R. GRACE **Lab Number:** L1107382

Project Number: Not Specified **Report Date:** 07/19/11

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1107382-19	Date Collected:	05/26/11 00:00
Client ID:	CAN 1520 FC 144	Date Received:	05/26/11
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	06/01/11 10:39		
Analyst:	AR		

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

Project Name: Not Specified
Project Number: Not Specified
Lab Number: L1107558
Report Date: 07/19/11

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1107558-02	Date Collected:	05/31/11 00:00
Client ID:	CAN 594 FC 471	Date Received:	05/31/11
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	06/01/11 18:50		
Analyst:	RY		

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

Project Name: Not Specified
Project Number: Not Specified
Lab Number: L1107558
Report Date: 07/19/11

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1107558-04	Date Collected:	05/31/11 00:00
Client ID:	CAN 961 FC 193	Date Received:	05/31/11
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	06/01/11 19:52		
Analyst:	RY		

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

Project Name: Not Specified
Project Number: Not Specified
Lab Number: L1107558
Report Date: 07/19/11

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1107558-05	Date Collected:	05/31/11 00:00
Client ID:	CAN 1583 FC 185	Date Received:	05/31/11
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	06/01/11 20:29		
Analyst:	RY		

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

Project Name: Not Specified
Project Number: Not Specified
Lab Number: L1107558
Report Date: 07/19/11

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1107558-06	Date Collected:	05/31/11 00:00
Client ID:	CAN 1687 FC 375	Date Received:	05/31/11
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	06/01/11 21:05		
Analyst:	RY		

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

Project Name: Not Specified
Project Number: Not Specified
Lab Number: L1107558
Report Date: 07/19/11

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1107558-07	Date Collected:	05/31/11 00:00
Client ID:	CAN 1676 FC 453	Date Received:	05/31/11
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	06/01/11 21:41		
Analyst:	RY		

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

Project Name: Not Specified
Project Number: Not Specified
Lab Number: L1107558
Report Date: 07/19/11

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1107558-10	Date Collected:	05/31/11 00:00
Client ID:	CAN 1610 FC 484	Date Received:	05/31/11
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	06/01/11 23:29		
Analyst:	RY		

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

Project Name: Not Specified
Project Number: Not Specified

Lab Number: L1107558
Report Date: 07/19/11

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1107558-14	Date Collected:	05/31/11 00:00
Client ID:	CAN 1572 FC 031	Date Received:	05/31/11
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	06/02/11 01:55		
Analyst:	RY		

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

Project Name: Not Specified
Project Number: Not Specified

Lab Number: L1107558
Report Date: 07/19/11

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1107558-15	Date Collected:	05/31/11 00:00
Client ID:	CAN 972 FC 332	Date Received:	05/31/11
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	06/02/11 02:32		
Analyst:	RY		

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

Project Name: Not Specified
Project Number: Not Specified
Lab Number: L1107558
Report Date: 07/19/11

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1107558-18	Date Collected:	05/31/11 00:00
Client ID:	CAN 724 FC 293	Date Received:	05/31/11
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	06/02/11 04:21		
Analyst:	RY		

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

Project Name: Not Specified
Project Number: Not Specified
Lab Number: L1107558
Report Date: 07/19/11

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1107558-20	Date Collected:	05/31/11 00:00
Client ID:	CAN 651 FC 428	Date Received:	05/31/11
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	06/02/11 05:34		
Analyst:	RY		

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

Project Name: Not Specified
Project Number: Not Specified

Lab Number: L1107558
Report Date: 07/19/11

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1107558-22	Date Collected:	06/02/11 00:00
Client ID:	CAN 653 FC 464	Date Received:	06/02/11
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	06/02/11 15:23		
Analyst:	BS		

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

Project Name: Not Specified
Project Number: Not Specified
Lab Number: L1107558
Report Date: 07/19/11

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1107558-23	Date Collected:	06/02/11 00:00
Client ID:	CAN 1612 FC 420	Date Received:	06/02/11
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	06/02/11 15:59		
Analyst:	BS		

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

Project Name: Not Specified
Project Number: Not Specified
Lab Number: L1107558
Report Date: 07/19/11

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1107558-24	Date Collected:	06/02/11 00:00
Client ID:	CAN 1618 FC 497	Date Received:	06/02/11
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	06/02/11 16:36		
Analyst:	BS		

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

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200

Lab Number: L1108139
Report Date: 07/19/11

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	Present/Intact

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1108139-01A	Canister - 6 Liter	N/A	NA		Y	Present/Intact	APH-10(30),TO15-SIM-UNI(30)
L1108139-02A	Canister - 6 Liter	N/A	NA		Y	Present/Intact	APH-10(30),TO15-SIM-UNI(30)
L1108139-03A	Canister - 6 Liter	N/A	NA		Y	Present/Intact	APH-10(30),TO15-SIM-UNI(30)
L1108139-04A	Canister - 6 Liter	N/A	NA		Y	Present/Intact	APH-10(30),TO15-SIM-UNI(30)
L1108139-05A	Canister - 6 Liter	N/A	NA		Y	Present/Intact	APH-10(30),TO15-SIM-UNI(30)
L1108139-06A	Canister - 6 Liter	N/A	NA		Y	Present/Intact	APH-10(30),TO15-SIM-UNI(30)
L1108139-07A	Canister - 6 Liter	N/A	NA		Y	Present/Intact	APH-10(30),TO15-SIM-UNI(30)
L1108139-08A	Canister - 6 Liter	N/A	NA		Y	Present/Intact	APH-10(30),TO15-SIM-UNI(30)
L1108139-09A	Canister - 6 Liter	N/A	NA		Y	Present/Intact	APH-10(30),TO15-SIM-UNI(30)
L1108139-10A	Canister - 6 Liter	N/A	NA		Y	Present/Intact	APH-10(30),TO15-SIM-UNI(30)
L1108139-11A	Canister - 6 Liter	N/A	NA		Y	Present/Intact	APH-10(30),TO15-LL(30),TO15-SIM-UNI(30)
L1108139-12A	Canister - 6 Liter	N/A	NA		Y	Present/Intact	APH-10(30),TO15-LL(30),TO15-SIM-UNI(30)
L1108139-13A	Canister - 6 Liter	N/A	NA		Y	Present/Intact	APH-10(30),TO15-LL(30),TO15-SIM-UNI(30)
L1108139-14A	Canister - 6 Liter	N/A	NA		Y	Present/Intact	APH-10(30),TO15-LL(30),TO15-SIM-UNI(30)
L1108139-15A	Canister - 6 Liter	N/A	NA		Y	Present/Intact	APH-10(30),TO15-LL(30),TO15-SIM-UNI(30)
L1108139-16A	Canister - 6 Liter	N/A	NA		Y	Present/Intact	APH-10(30),TO15-LL(30),TO15-SIM-UNI(30)
L1108139-17A	Canister - 6 Liter	N/A	NA		Y	Present/Intact	APH-10(30),TO15-LL(30),TO15-SIM-UNI(30)
L1108139-18A	Canister - 6 Liter	N/A	NA		Y	Present/Intact	APH-10(30),TO15-LL(30),TO15-SIM-UNI(30)
L1108139-19A	Canister - 6 Liter	N/A	NA		Y	Present/Intact	APH-10(30),TO15-LL(30),TO15-SIM-UNI(30)
L1108139-20A	Canister - 6 Liter	N/A	NA		Y	Present/Intact	APH-10(30),TO15-LL(30),TO15-SIM-UNI(30)
L1108139-21A	Canister - 6 Liter	N/A	NA		Y	Present/Intact	APH-10(30),TO15-LL(30),TO15-SIM-UNI(30)
L1108139-22A	Canister - 6 Liter	N/A	NA		Y	Present/Intact	APH-10(30),TO15-SIM-UNI(30)

*Values in parentheses indicate holding time in days

Project Name: WR GRACE VI ASSESSMENT
Project Number: BR0200

Lab Number: L1108139
Report Date: 07/19/11

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1108139-23A	Canister - 6 Liter	N/A	NA		Y	Present/Intact	APH-10(30),TO15-SIM-UNI(30)
L1108139-24A	Canister - 6 Liter	N/A	NA		Y	Present/Intact	APH-10(30),TO15-LL(30),TO15-SIM-UNI(30)
L1108139-25A	Canister - 6 Liter	N/A	NA		Y	Present/Intact	APH-10(30),TO15-LL(30),TO15-SIM-UNI(30)
L1108139-26A	Canister - 6 Liter	N/A	NA		Y	Present/Intact	APH-10(30),TO15-LL(30),TO15-SIM-UNI(30)
L1108139-27A	Canister - 6 Liter	N/A	NA		Y	Present/Intact	APH-10(30),TO15-LL(30),TO15-SIM-UNI(30)

*Values in parentheses indicate holding time in days

Project Name: WR GRACE VI ASSESSMENT **Lab Number:** L1108139

Project Number: BR0200 **Report Date:** 07/19/11

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: DU Report with "J" Qualifiers

Project Name:	WR GRACE VI ASSESSMENT	**Lab Number:**	L1108139
Project Number:	BR0200	**Report Date:**	07/19/11

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. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL). This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample.

Report Format: DU Report with "J" Qualifiers

REFERENCES

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

96 Method for the Determination of Air-Phase Petroleum Hydrocarbons (APH), MassDEP, December 2009, Revision 1 with QC Requirements & Performance Standards for the Analysis of APH by GC/MS under the Massachusetts Contingency Plan, WSC-CAM-IXA, July 2010.

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 3

CHAIN OF CUSTODY

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

Date Rec'd in Lab:

ALPHA Job #: L1108139

Client Information

Client: Geosyntec Consultants
Address: 289 Great Rd, Ste 105
Acton, MA 01720
Phone: (978) 263-9588
Fax: (978) 263-9594
Email: tcreamer@geosyntec.com
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: WR Grace VI Assessment
Project Location: Woburn, MA
Project #: BR0200
Project Manager: Todd Creamer
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)
Mark Packard
Todd Creamer

Billing Information

☒ Same as Client info PO #: BR0200

Regulatory Requirements/Report Limits

State/Fed	Program	Criteria
See QAPP		

Other Project Specific Requirements/Comments:

All Columns Below Must Be Filled Out

ANALYSIS

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	I D Can	I D - Flow Controller	TO-14A by TO-15	TO-15	TO-15 SIM	APH	FIXED GASES	TO-13A	TO-4 / TO-10	Sample Comments (i.e. PID)
8139-01	260902-IA1-20110607	6/6/11-6/7/11	6/6/11 0825	6/7/11 0819	-29.11	-2.42	AA	GB	6L	1687	420			X	X				
-02	260902-IA2-20110607	6/6/11-6/7/11	6/6/11 0825	6/7/11 0823	-29.07	-4.44	AA	GB	6L	961	0185			X	X				
-03	260902-OA-20110607	6/6/11-6/7/11	6/6/11 0820	6/7/11 0830	-28.88	-4.48	AA	GB	6L	1612	0375			X	X				
-04	260902-SS1-20110607	6/7/11	1135	1205	-29.26	-4.85	SV	SB	6L	1569	0031			X	X				
-05	260902-SS2-20110607	6/7/11	1035	1107	-29.22	-1.88	SV	TC/SB	6L	1572	0295			X	X				
-06	260903-IA1-20110607	6/6/11-6/7/11	6/6/11 0852	6/7/11 0834	-29.08	-2.66	AA	TC/GB	6L	594	0471			X	X				
-07	260903-IA2-20110607	6/6/11-6/7/11	6/6/11 0855	6/7/11 0836	-28.88	-1.31	AA	TC/GB	6L	1618	0428			X	X				
-08	260903-OA-20110607	6/6/11-6/7/11	6/6/11 0849	6/7/11 0840	-28.95	-5.19	AA	GB	6L	651	0193			X	X				
-09	260903-SS1-20110607	6/7/11	1341	1503	-28.98	-4.28	SV	SB	6L	724	293			X	X				
-10	260903-SS2-20110607	6/7/11	1503	1542	-28.93	-5.10	SV	SB	6L	1676	0353			X	X				

No supplemental Acetone or Ethyl Acetate analysis

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

Container Type

Relinquished By:	Date/Time	Received By:	Date/Time:
[illegible]	6/9/11 1000	[illegible]	6/9/11 1000
[illegible]	6/10/11 1110	[illegible]	6/10/11 1110

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.

Form No: 101-02 (19-Jun-09)

AIR ANALYSIS

PAGE 2 OF 3

CHAIN OF CUSTODY

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

Date Rec'd in Lab:

ALPHA Job #: L1108139

Client Information

Client: Geosyntec Consultants
Address: 289 Great Rd, Ste 105
Acton, MA, 01720
Phone: (978) 263-9588
Fax: (978) 263-9594
Email: fcreamer@geosyntec.com
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: WR Grace VI Assessment
Project Location: Woburn, MA
Project #: BR0200
Project Manager: Todd Creamer
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due: Time:

Report Information - Data Deliverables

☐ FAX
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Criteria Checker:
(Default based on Regulatory Criteria Indicated)
Other Formats:
☒ EMAIL (standard pdf report)
☐ Additional Deliverables:
Report to: (if different than Project Manager)
Mark Packard
Todd Creamer

Billing Information

☒ Same as Client info PO #: BR0200

Regulatory Requirements/Report Limits

State/Fed	Program	Criteria
See QAPP		

Other Project Specific Requirements/Comments:

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	I D Can	I D - Flow Controller	TO-14A by TO-15	TO-15	TO-15 SIM	APH	FIXED GASES	TO-13A	TO-4 / TO-10	Sample Comments (i.e. PID)
8139-11	260407-17-IA1-20110607	6/7/11	0913	1713	-29.62	-5.53	AA	TC	6L	937	0231			X	X				
-12	260407-17-SS1-20110607	6/7/11	1827	1855	-29.05	-4.48	SV	TC	6L	972	0332			X	X				
	~~260407-19-IA1-20110607~~	~~6/7/11~~	~~0820~~	~~1629~~	~~-29.71~~	~~-3.88~~	~~AA~~	~~TC~~	~~6L~~	~~635~~	~~0227~~								SWB 6/8/11
-13	260407-19-SS1-20110608	6/8/11	1130	1207	-29.57	-4.87	SV	SB	6L	787	0216			X	X				
-14	260407-20-IA1-20110607	6/7/11	0830	1629	-29.71	-3.88	AA	TC	6L	635	0227			X	X				
-15	260407-20-SS1-20110608	6/8/11	1329	1355	-29.32	-4.35	SV	SB	6L	943	0081 SWB			X	X				
-16	260407-22-IA1-20110607	6/7/11	0833	1635	-29.42	-4.08	AA	SB	6L	0349	967			X	X				
-17	260407-22-IA2-20110607	6/7/11	0836	1636	-29.74	-3.82	AA	TC	6L	985	0026			X	X				
-18	260407-22-SS1-20110608	6/8/11	0910	1031	-29.37	-4.26	SV	TC	6L	1520	0052			X	X				
-19	260407-22-SS2-20110608	6/8/11	0954	1026	-29.15	-1.40	SV	TC	6L	1630	0398			X	X				

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

Container Type

Relinquished By:	Date/Time	Received By:	Date/Time:
[illegible]	6/9/11 1100	[illegible]	6/9/11 1100
[illegible]	6/9/11 1110	[illegible]	6/9/11 11:10

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.

Form No: 101-02 (19-Jun-09)

AIR ANALYSIS

PAGE 3 OF 3

ALPHA ANALYTICAL — **CHAIN OF CUSTODY**

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

Date Rec'd in Lab:

ALPHA Job #: L1108139

Client Information

Client: Geosyntec Consultants
Address: 289 Great Rd, Ste 105
Acton, MA 01720
Phone: (978) 263-9588
Fax: (978) 263-9594
Email: tcreamer@geosyntec.com

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: WR Grace VI Assessment
Project Location: Woburn, MA
Project #: BR0200
Project Manager: Todd Creamer
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)
Mark Packard
Todd Creamer

Billing Information

☒ Same as Client info PO #: BR0200

Regulatory Requirements/Report Limits

State/Fed	Program	Criteria
	See QAPP	

Other Project Specific Requirements/Comments: Do not analyze the following 5 canisters 1578, 707, 765, 1598, 970

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	I D Can	I D - Flow Controller	TO-14A by TO-15	TO-15	TO-15 SIM	APH	FIXED GASES	TO-13A	TO-4 / TO-10	Sample Comments (i.e. PID)
8139-20	260407-OA1-20110607	6/7/11	0815	1621	-29.58	-4.29	AA	TC	6L	1589	0137			X	X				
-21	260407-OA2-20110607	6/7/11	0821	1618	-29.61	-4.52	AA	TC	6L	1594	0495			X	X				
-22	BD01-20110607	6/7/11	–	–	-28.95	-4.30	–	GB	6L	1583	–			X	X				X
-23	BD02-20110607	6/7/11	–	–	-29.00	-4.05	–	SB	6L	1610	–			X	X				X
-24	BD03-20110607	6/7/11	–	–	-29.72	-4.62	–	TC	6L	1653	–			X	X				
-25	BD04-20110608	6/8/11	–	–	-29.56	-4.24	–	SB	6L	1713	–			X	X				
-26	TB-20110608	6/8/11	–	–	-29.4	–	–	TC	6L	653	–			X	X				
-27	260407-19-IA1-20110607	6/7/11	0820	1626	-29.69	-4.06	AA	SWB	6L	1538	0206			X	X				

ANALYSIS: no supplemental acetone or ethyl acetate analysis (X)

SWB 6/9/11

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

Container Type

Relinquished By:	Date/Time	Received By:	Date/Time:
[signature]	6/9/11 1000	[signature]	6/9/11 1000
[signature]	6/9/11 1110	[signature]	6/9/11 11:10

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.

Form No: 101-02 (19-Jun-09)

APPENDIX D

TIER IV DATA VALIDATION REPORTS

Geosyntec consultants

289 Great Road, Suite 105
Acton, Massachusetts 01720
PH 978.263.9588
FAX 978.263.9594
www.geosyntec.com

Memorandum

Date:	26 April 2011
To:	Joseph Lemay, United States Environmental Protection Agency
Copies to:	Clayton Smith, de maximis, inc.
From:	Todd Creamer, Geosyntec Consultants, Inc.
Subject:	Validated Results of Winter 2011 Residential Sampling Event Wells G&H Superfund Site, Woburn, Massachusetts Alpha Analytical Laboratory Report: L1103698

This memorandum is a transmittal for validated data and associated information for the subject sampling event. Specifically, the attached information includes the Tier IV data validation report for eleven air samples, two field duplicate samples, and one trip blank collected on 17 and 18 March 2011, sampling locations specified on attached Figures 1 and 2, field forms generated during the sampling event, and a tabulated summary of household chemicals observed during the building surveys prior to sampling. Raw, unvalidated data for this residential sampling event were transmitted to the USEPA via email on 05 April 2011.

* * * * *

Geosyntec consultants

2240 Sutherland Avenue, Suite 107
Knoxville, TN 37919
PH 865.330.0037
FAX 865.330.9949
www.geosyntec.com

Memorandum

Date: 25 April 2011

To: Todd Creamer

From: Mary Tyler

Copies to: Julia Caprio

Subject: Tier IV Data Validation Alpha Analytical Lab Number L1103698
Wells G&H Superfund Site, Woburn, Massachusetts

---

1. INTRODUCTION AND SUMMARY

This report summarizes the findings of a Tier IV data validation for eleven air samples, two field duplicate samples, and one trip blank collected on 17 and 18 March 2011. These samples were collected as part of the Wells G&H Superfund Site Vapor Intrusion Assessment. Air samples were analyzed by Alpha Analytical (Mansfield, Massachusetts) using the following methods:

- EPA Modified Method TO-15 using Selected Ion Monitoring (SIM) - Volatile Organic Compounds (VOCs); and
- Massachusetts DEP Method APH – Air-Phase Petroleum Hydrocarbons (APH)

All samples collected on 17 and 18 March, once received by the lab, were handled, prepared, and measured in the same manner under similar prescribed conditions.

Data for organic compounds were reviewed based on guidance specified in the project-specific Quality Assurance Project Plan (QAPP) in Form F which lists the USEPA Region 2 Guidance document entitled USEPA Hazardous Water Support Branch: Validating Air Samples, Volatile Organic Analysis of Ambient Air in Canisters by Method TO-15 (SOP#HW-31, Revision #4, October 2006). Data for organic compounds were also reviewed based on the pertinent methods referenced by the data package and professional judgment.

The following samples were analyzed and validated at a Tier IV level in the data set:

Lab ID	Client ID
L1103698-01	260902-OA
L1103698-02	260902-IA1
L1103698-03	260902-IA2
L1103698-04	260902-IA3
L1103698-05	260903-OA
L1103698-06	260903-IA1
L1103698-07	260903-IA2
L1103698-08	BD01-03182011
L1103698-09	260902-SS1
L1103698-10	260902-SS2
L1103698-11	260903-SS1
L1103698-12	260903-SS2
L1103698-13	BD02-03182011
L1103698-14	TB01-03182011

The conclusion from the Tier IV data validation presented herein and covering the QC parameters listed below, is that the data, as qualified, are usable for meeting the project objectives documented in Form D of the QAPP.

2. VOLATILE ORGANIC COMPOUND ANALYSIS (VOCS)

Eleven air samples, two field duplicate samples and one trip blank sample were analyzed for VOCs per EPA modified Method TO-15, using SIM.

Components of the laboratory data package that were reviewed during this Tier IV data validation are listed below. A check mark (✓) indicates components of the data package that are acceptable. A crossed circle (⊗) signifies components of the data package where issues were raised during the course of the validation review and these issues should be considered to determine whether they have an impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Times
- ✓ Instrument Performance Check
- ✓ Initial Calibration
- ⊗ Continuing Calibration Verification
- ⊗ Method Blanks
- ✓ Laboratory Control Sample
- ✓ Laboratory Duplicate
- ✓ Trip Blank
- ⊗ Field Duplicate

- ✓ Internal Standards
- ✓ Target Compound Identifications
- ⊗ Target Compound Quantitations
- ✓ Electronic Data Deliverables Review

2.1 Overall Assessment

The VOC data reported in this package are considered to be usable for meeting the project objectives documented in Form D of the QAPP. The results are considered to be valid; the analytical completeness, defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for analysis, for the project is 100%.

It was noted that for most analytes, reporting limit concentrations were the same as the method detection limit (MDL) concentrations. Review of the reporting limits and MDLs found that the proposed screening levels listed in the QAPP were met.

2.2 Holding Times

The holding time for an air sample collected in a Summa™ canister for TO-15 analysis is 30 days from sample collection. The holding times were met for the sample analyses.

2.3 Instrument Performance Check

An instrument performance check sample (tune standard) was analyzed by Alpha Analytical. All calibration standards, the air samples and QC samples were analyzed within 24-hours after analyzing the tune standard. All ion abundance criteria were met for the tune standard, bromofluorobenzene (BFB).

2.4 Initial Calibration

Appropriate initial calibrations were performed and documented for each analyte. The laboratory calculated percent relative standard deviations (%RSDs) of the relative response factors (RRFs). The %RSDs met the method criteria of less than or equal to 30%, and the minimum average RRFs were above the method criteria of 0.050.

An initial calibration verification (ICV) standard was analyzed after the initial calibration. The ICV RRFs met the method minimum RRF criteria of 0.050. The percent differences (%Ds) between the RRFs in the initial calibration and the ICV were within the method acceptance criteria of less than or equal to 30%.

2.5 Continuing Calibration Verification (CCV)

The CCV was performed after initial calibration on a daily basis after the BFB tune and prior to the analyses of samples. The CCV RRFs met the method minimum RRF criteria of 0.050. The percent differences (%Ds) between the RRFs in the initial calibration and CCV were within the method acceptance criteria of less than or equal to 30%, with the following exceptions:

- The %D for naphthalene was 35%, with a low bias.
- The only samples qualified due to the low %D in the CCV were 260902-OA, 260903-OA, 260902-SS1 and TB01-03182011.
- The other samples were qualified due to method blank contamination and no additional qualifications were applied to these samples due to the low %D in the CCV.
- The detected concentration of naphthalene in sample 260902-SS1 was J qualified as estimated.
- Naphthalene was not detected at concentrations greater than the MDL in samples 260902-OA, 260903-OA, and TB01-03182011 so these results were UJ qualified as estimated less than the MDL. These qualifications are summarized below.

Sample ID	**Compound**	**Laboratory Concentration (µg/m^3)**	**Validation Concentration (µg/ m^3)**	**EDD Reason Code**
260902-OA	Naphthalene	0.131 U	0.131 UJ	9
260903-OA	Naphthalene	0.131 U	0.131 UJ	9
260902-SS1	Naphthalene	2.38	2.38 J	9
TB01-03182011	Naphthalene	0.131 U	0.131 UJ	9

U-not detected at the reported MDL

2.6 Method Blanks

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (i.e., one per batch of 20 samples). One method blank was analyzed and reported for the 14 samples. VOCs were not detected in the method blank above the MDLs, with the exception of naphthalene. Naphthalene was detected in the method blank at an estimated concentration of 0.168 µg/m^3, which is greater than the MDL and less than the reporting limit. Therefore, the estimated concentrations greater than the MDL and less than the reporting limit in samples associated with this method blank were U qualified as not detected at the reporting limit. Concentrations less than five times the blank concentration were U qualified as not detected at the reported concentrations. The undetected concentrations of naphthalene in samples 260902-OA, 260903-OA, and TB01-03182011 were not qualified.

Samples qualified based on data for the method blank are summarized below:

Sample ID	**Compound**	**Laboratory Concentration (µg/m^3)**	**Validation Concentration (µg/ m^3)**	**EDD Reason Code**
260902-IA1	Naphthalene	0.723	0.723 U	3
260902-IA2	Naphthalene	0.608	0.608 U	3
260902-IA3	Naphthalene	0.267	0.267 U	3
260903-IA1	Naphthalene	0.173 J	0.262 U	3
260903-IA2	Naphthalene	0.194 J	0.262 U	3

Sample ID	Compound	Laboratory Concentration (µg/m^3)	Validation Concentration (µg/ m^3)	EDD Reason Code
BD01-03182011	Naphthalene	0.571	0.571 U	3
260902-SS2	Naphthalene	0.241 J	0.262 U	3
260903-SS1	Naphthalene	0.246 J	0.262 U	3
260903-SS2	Naphthalene	0.828	0.828 U	3
BD02-03182011	Naphthalene	0.361	0.361 U	3

J- estimated concentration greater than the MDL and less than the reporting limit

2.7 Laboratory Duplicate

Laboratory duplicates were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One laboratory duplicate was analyzed, using sample 260903-SS1. The results for the laboratory duplicate were within the method-specified acceptance criteria for VOCs of 25% D.

2.8 Laboratory Control Sample

One laboratory control sample (LCS) was analyzed for the 14 samples submitted, which is the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). The results for the LCS were within the method-specified acceptance criteria for recovery of 70-130%, with the exception of naphthalene. The recovery of naphthalene was 64% which is below the minimum acceptance criteria of 70%. However, since the associated samples were qualified due to the method blank contamination (see above) and low CCV %D, no additional qualifications were applied to the data.

2.9 Trip Blank

A trip blank, TB01-03182011, accompanied the sample shipment. No VOCs were detected in the trip blank above the MDL.

2.10 Field Duplicate

Two field duplicate samples, BD01-03182011 and BD02-03182011, were collected with the samples. Acceptable precision (RPD $\leq$25%) was demonstrated between each field duplicate and the associated original samples, 260902-IA2 and 260903-SS1, respectively, with the following exceptions:

- 1,2-Dichloroethane and chloroform were detected above the reporting limits in sample 260903-SS1 and not detected above the reporting limit in duplicate BD02-03182011, resulting in a non-calculable and unacceptable RPD between the results.
- Naphthalene was detected at an estimated concentration greater than the MDL and less than the reporting limit in sample 260903-SS1, and detected above the reporting limit in duplicate BD02-03182011, resulting in a non-calculable and unacceptable RPD between the results.

Based on professional judgment, no qualifications were applied to the naphthalene concentrations due to the field duplicate results; the results were qualified as not detected due to the method blank contamination. However, the detected concentrations of 1,2-dichloroethane and chloroform were J qualified as estimated and the undetected concentrations of 1,2-dichloroethane and chloroform were UJ qualified as estimated less than the MDL in duplicate pair 260903-SS1/ BD02-03182011. The calculated RPD of the duplicate pairs and applicable qualifications are summarized below.

Sample ID	**Compound**	**Laboratory Concentration (µg/m3)**	**RPD**	**Validation Concentration (µg/ m3)**	**EDD Reason Code**
260902-IA2	1,2,4-Trimethylbenzene	12.6	1	NA	NA
BD01-03182011	1,2,4-Trimethylbenzene	12.7		NA	NA
260902-IA2	1,2-Dichloroethane	1.44	3	NA	NA
BD01-03182011	1,2-Dichloroethane	1.40		NA	NA
260902-IA2	1,3-Butadiene	0.102	9	NA	NA
BD01-03182011	1,3-Butadiene	0.093		NA	NA
260902-IA2	Benzene	8.78	3	NA	NA
BD01-03182011	Benzene	8.54		NA	NA
260902-IA2	Carbon tetrachloride	0.603	6	NA	NA
BD01-03182011	Carbon tetrachloride	0.566		NA	NA
260902-IA2	Chloroform	0.254	4	NA	NA
BD01-03182011	Chloroform	0.244		NA	NA
260902-IA2	Ethylbenzene	11.7	1	NA	NA
BD01-03182011	Ethylbenzene	11.8		NA	NA
260902-IA2	Naphthalene	0.608	6	NA	NA
BD01-03182011	Naphthalene	0.571		NA	NA
260902-IA2	Tetrachloroethene	0.183	0	NA	NA
BD01-03182011	Tetrachloroethene	0.183		NA	NA
260902-IA2	Toluene	50.7	2	NA	NA
BD01-03182011	Toluene	51.9		NA	NA
260902-IA2	Total Xylene	51.6	1	NA	NA
BD01-03182011	Total Xylene	51.9		NA	NA
260902-IA2	All other VOCs	ND	0	NA	NA
BD01-03182011	All other VOCs	ND		NA	NA
260903-SS1	1,2,4-Trimethylbenzene	0.113	14	NA	NA
BD02-03182011	1,2,4-Trimethylbenzene	0.098		NA	NA
260903-SS1	1,2-Dichloroethane	0.093	NC	0.093 J	7
BD02-03182011	1,2-Dichloroethane	0.081 U		0.081 UJ	7
260903-SS1	1,4-Dichlorobenzene	0.132	10	NA	NA
BD02-03182011	1,4-Dichlorobenzene	0.120		NA	NA
260903-SS1	Chloroform	0.102	NC	0.102 J	7

Sample ID	Compound	Laboratory Concentration (µg/m3)	RPD	Validation Concentration (µg/ m3)	EDD Reason Code
BD02-03182011	Chloroform	0.098 U		0.098 UJ	7
260903-SS1	Naphthalene	0.246 J	NC	NA*	NA
BD02-03182011	Naphthalene	0.361		NA*	NA
260903-SS1	Tetrachloroethene	0.380	3	NA	NA
BD02-03182011	Tetrachloroethene	0.393		NA	NA
260903-SS1	Toluene	0.644	4	NA	NA
BD02-03182011	Toluene	0.621		NA	NA
260903-SS1	Total Xylene	0.295	11	NA	NA
BD02-03182011	Total Xylene	0.265		NA	NA
260903-SS1	All other VOCs	ND	0	NA	NA
BD02-03182011	All other VOCs	ND		NA	NA

U-not detected at the reported MDL
ND-not detected at the MDL
J- estimated concentration greater than the MDL and less than the reporting limit
NC-not calculable
NA-not applicable
*- no additional qualifications applied to the data based on the field duplicate results; results qualified due to method blank contamination

2.11 Internal Standards

The internal standard areas and retention times (RTs) were within method limits of ±40% of the internal standard areas from the most recent calibration and within 0.33 minutes of the retention times for the internal standards from the most recent calibration.

2.12 Target Compound Identifications

The target compound identifications were within the validation criteria.

2.13 Compound Quantitation

The compound quantitations were within the validation criteria with the one sample exception noted below which is a result of field sample collection conditions and not the laboratory analytical system.

Based on measurements collected in the field, there was a helium leak in the probe during collection of sample 260902-SS1 potentially diluting the sub-slab sample with indoor air. The helium concentration in screening samples of sub-slab soil gas collected immediately prior to sample collection was approximately 6% of the average helium in the shroud covering the probe. The sample collection work plan and project specific QAPP specified a maximum helium concentration in the sample equal to 1% of the shroud concentration. Therefore, based on professional judgment, the concentrations of VOCs detected in sample 260902-SS1 were J qualified as estimated. Similarly, analytes that were undetected were UJ qualified as estimated less than the MDLs. These qualifications are summarized below.

Sample ID	Compound	Laboratory Concentration (µg/m3)	Validation Concentration (µg/m3)	EDD Reason Code
260902-SS1	1,1,1-Trichloroethane	0.109 U	0.109 UJ	13
260902-SS1	1,1,2-Trichloroethane	0.109 U	0.109 UJ	13
260902-SS1	1,1-Dichloroethane	0.081 U	0.081 UJ	13
260902-SS1	1,1-Dichloroethene	0.079 U	0.079 UJ	13
260902-SS1	1,2,4-Trimethylbenzene	1.60	1.60 J	13
260902-SS1	1,2-Dibromoethane	0.154 U	0.154 UJ	13
260902-SS1	1,2-Dichloroethane	0.101	0.101 J	13
260902-SS1	1,2-Dichloropropane	0.092 U	0.092 UJ	13
260902-SS1	1,3-Butadiene	0.044 U	0.044 UJ	13
260902-SS1	1,3-Dichlorobenzene	0.18	0.18 J	13
260902-SS1	1,4-Dichlorobenzene	0.198	0.198 J	13
260902-SS1	Benzene	0.744	0.744 J	13
260902-SS1	Bromodichloromethane	0.067 U	0.067 UJ	13
260902-SS1	Bromoform	0.206 U	0.206 UJ	13
260902-SS1	Carbon tetrachloride	0.170	0.170 J	13
260902-SS1	Chlorobenzene	0.092 U	0.092 UJ	13
260902-SS1	Chloroform	0.298	0.298 J	13
260902-SS1	Ethylbenzene	1.42	1.42 J	13
260902-SS1	Isopropylbenzene	2.46 U	2.46 UJ	13
260902-SS1	Methyl tert butyl ether	0.072 U	0.072 UJ	13
260902-SS1	Methylene chloride	1.74 U	1.74 UJ	13
260902-SS1	Naphthalene	2.38	2.38 J	13
260902-SS1	Tetrachloroethene	0.258	0.258 J	13
260902-SS1	Toluene	4.48	4.48 J	13
260902-SS1	Trichloroethene	0.107 U	0.107 UJ	13
260902-SS1	Vinyl chloride	0.051 U	0.051 UJ	13
260902-SS1	Total Xylenes	8.38	8.38	13
260902-SS1	cis-1,2-Dichloroethene	0.079 U	0.079 UJ	13
260902-SS1	trans-1,2-Dichloroethene	0.079 U	0.079 UJ	13
260902-SS1	trans-1,3-Dichloropropene	0.091 U	0.091 UJ	13

U-not detected at the reported MDL

2.14 Electronic Data Deliverables Review

A minimum of 20% of the results and all sample IDs provided in the electronic data deliverable (EDD) were reviewed against information provided in the Level IV report. No discrepancies were identified between the EDD and the Level IV report.

3. AIR PHASE PETROLEUM HYDROCARBONS (APH)

Eleven air samples, two field duplicate samples and one trip blank sample were analyzed for petroleum hydrocarbons per EPA Massachusetts DEP Method APH.

Components of the laboratory data package that were reviewed during this Tier IV data validation are listed below. A check mark (✓) indicates components of the data package that are acceptable. A crossed circle (⊗) signifies components of the data package where issues were raised during the course of the validation review, and these issues should be considered to determine whether they have an impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Times
- ✓ Instrument Performance Check
- ✓ Initial Calibration
- ✓ Continuing Calibration Verification
- ✓ Method Blanks
- ✓ Laboratory Control Sample
- ⊗ Laboratory Duplicate
- ✓ Trip Blank
- ⊗ Field Duplicate
- ✓ Internal Standards
- ✓ Target Compound Identifications
- ⊗ Target Compound Quantitations
- ✓ Electronic Data Deliverables Review

3.1 Overall Assessment

The APH data reported in this package are considered to be usable for meeting the project objectives documented in Form D of the QAPP. The results are considered to be valid; the analytical completeness, defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for analysis, for the project is 100%.

3.2 Holding Times

The holding time for an air sample collected in a Summa™ canister for APH analysis is 30 days from sample collection. The holding times were met for the sample analyses.

3.3 Instrument Performance Check

An instrument performance check sample (tune standard) was analyzed by Alpha Analytical. All calibration standards, the air samples and QC samples were analyzed within 24-hours after analyzing the tune standard. All ion abundance criteria were met for bromofluorobenzene (BFB).

3.4 Initial Calibration

Appropriate initial calibrations were performed and documented for each analyte. The laboratory calculated %RSDs of the RRFs. The %RSDs met the method criteria of less than or equal to 30% for all compounds except naphthalene, which has a %RSD criteria of less than or equal to 40%.

3.5 Continuing Calibration Verification (CCV)

The CCV was performed after initial calibration on a daily basis after the BFB tune and prior to the analysis of samples. The CCV RRFs met the method minimum RRF criteria of 0.050. The %Ds between the RRFs in the initial and CCVs were within the method acceptance criteria of less than or equal to 30%.

3.6 Method Blanks

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (i.e., one per batch of 20 samples). Two method blanks were analyzed and reported for the 14 samples. APH were not detected in the method blanks above the reporting limits.

3.7 Laboratory Duplicate

Laboratory duplicates were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Two laboratory duplicates were analyzed, using samples 260902-OA and 260903-SS1. The results for the laboratory duplicates were within the method-specified acceptance criteria for APH analytes of 25%D, with the following exception:

- C9-C12 Aliphatics was detected in sample 260903-SS1 above the reporting limit and not detected in the laboratory duplicate, resulting in a non-calculable and unacceptable RPD between the results. Therefore, the detected concentration C9-C12 Aliphatics in sample 260903-SS1 was J qualified as estimated. This qualification is summarized below:

Sample ID	Compound	Laboratory Concentration (µg/m^3)	Validation Concentration (µg/ m^3)	EDD Reason Code
260903-SS1	C9-C12 Aliphatics	14	14 J	12

3.8 Laboratory Control Sample

Two LCSs were analyzed for the 14 samples submitted to the laboratory, which is the proper frequency for the number and types of samples analyzed (i.e., one per batch of 20 samples). The results for the LCSs were within the method-specified acceptance criteria for recovery of 70-130%, with the following exception:

- The recovery of o-xylene in the LCS for batch WG460890-3 was 131%, which is above the method-specified acceptance criteria of 130%.

Since o-xylene was not detected above the reporting limit in any of the samples associated with the LCS in batch WG460890-3, no qualifications were applied to the data.

3.9 Trip Blank

A trip blank, TB01-03182011, accompanied the sample shipment. No APH were detected in the trip blank above the reporting limits.

3.10 Field Duplicate

Two field duplicate samples, BD01-03182011 and BD02-03182011, were collected with the samples. Acceptable precision (i.e., RPD ≤25%) was demonstrated between the field duplicates and the original samples, 260902-IA2 and 260903-SS1, respectively, with the following exception:

- C9-C12 aliphatics were detected in sample 260903-SS1 above the reporting limit but not detected in the duplicate sample, BD02-03182011. This results in a non-calculable and unacceptable RPD between the original and duplicate samples.

Therefore, the detected concentrations of C9-C12 aliphatics in sample 260903-SS1 were J qualified as estimated and the undetected concentration of C9-C12 aliphatics were UJ qualified as estimated less than the reporting limits in duplicate BD02-03182011. The calculated RPDs of the duplicate pair and applicable qualifications are summarized below:

Sample ID	Compound	Laboratory Concentration (µg/m^3)	RPD	Validation Concentration (µg/ m^3)	EDD Reason Code
260902-IA2	Benzene	9.5	3	NA	NA
BD01-03182011	Benzene	9.8		NA	NA
260902-IA2	C5-C8 Aliphatics, Adjusted	500	2	NA	NA
BD01-03182011	C5-C8 Aliphatics, Adjusted	510		NA	NA
260902-IA2	C9-C10 Aromatics Total	52	10	NA	NA
BD01-03182011	C9-C10 Aromatics Total	47		NA	NA
260902-IA2	C9-C12 Aliphatics, Adjusted	72	4	NA	NA
BD01-03182011	C9-C12 Aliphatics, Adjusted	75		NA	NA
260902-IA2	Ethylbenzene	12	0	NA	NA
BD01-03182011	Ethylbenzene	12		NA	NA
260902-IA2	Toluene	55	5	NA	NA

Sample ID	Compound	Laboratory Concentration (µg/m^3)	RPD	Validation Concentration (µg/ m^3)	EDD Reason Code
BD01-03182011	Toluene	58		NA	NA
260902-IA2	o-Xylene	14	0	NA	NA
BD01-03182011	o-Xylene	14		NA	NA
260902-IA2	p/m-Xylene	38	0	NA	NA
BD01-03182011	p/m-Xylene	38		NA	NA
260902-IA2	All other APH	ND	0	NA	NA
BD01-03182011	All other APH	ND		NA	NA
260903-SS1	C5-C8 Aliphatics, Adjusted	25	15	NA	NA
BD02-03182011	C5-C8 Aliphatics, Adjusted	29		NA	NA
260903-SS1	C9-C12 Aliphatics, Adjusted	14	NC	14 J	7
BD02-03182011	C9-C12 Aliphatics, Adjusted	14 U		14 UJ	7
260903-SS1	All other APH	ND	0	NA	NA
BD02-03182011	All other APH	ND		NA	NA

U - not detected at the indicated reporting limit
ND - not detected at the reporting limit

3.11 Internal Standards

The internal standard areas and retention times (RTs) were within method limits of ±40% of the internal standard areas from the most recent calibration and within 0.33 minutes of the retention times for the internal standards from the most recent calibration.

3.12 Target Compound Identifications

The target compound identifications were within the validation criteria.

3.13 Compound Quantitation

The compound quantitations were within the validation criteria except for the condition noted below which is a result of field sample collection conditions and not the laboratory analytical system.

Based on measurements collected in the field, there was a helium leak in the probe during collection of sample 260902-SS1 potentially diluting the sub-slab sample with indoor air. The

helium concentration in sub-slab soil gas screening samples collected immediately prior to sample collection was approximately 6% of the average helium in the shroud covering the probe. The sample collection work plan and project specific QAPP specify a maximum helium concentration in the sample equal to 1% of the shroud concentration. Therefore, based on professional judgment, the concentrations of APH detected in sample 260902-SS1 were J qualified as estimated. Undetected concentrations were UJ qualified as estimated less than the reporting limits. A summary of the qualified data are below:

Sample ID	**Compound**	**Laboratory Concentration (µg/m3)**	**Validation Concentration (µg/ m3)**	**EDD Reason Code**
260902-SS1	1,3-Butadiene	2.0 U	2.0 UJ	13
260902-SS1	Benzene	2.0 U	2.0 UJ	13
260902-SS1	C5-C8 Aliphatics, Adjusted	67	67 J	13
260902-SS1	C9-C10 Aromatics Total	10 U	10 UJ	13
260902-SS1	C9-C12 Aliphatics, Adjusted	130	130 J	13
260902-SS1	Ethylbenzene	2.0 U	2.0 UJ	13
260902-SS1	Methyl tert butyl ether	2.0 U	2.0 UJ	13
260902-SS1	Naphthalene	2.3	2.3 J	13
260902-SS1	Toluene	5.5	5.5 J	13
260902-SS1	o-Xylene	3.0	3.0 J	13
260902-SS1	p/m-Xylene	7.0	7.0 J	13

U-not detected at the stated reporting limit

3.14 Electronic Data Deliverables Review

A minimum of 20% of the results and all sample IDs provided in the EDD were reviewed against the information provided in the Level IV report. No discrepancies were identified between the EDD and the Level IV report.

* * * * *

ATTACHMENT 1
DATA VALIDATION QUALIFIER DEFINITIONS
AND INTERPRETATION KEY
Assigned by Geosyntec's Data Validation Team

DATA QUALIFIER DEFINITIONS

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

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

J+ The analyte was positively identified; however, the associated numerical value is likely to be higher that the concentration of the analyte in the sample due to positive bias of associated QC or calibration data or attributable to matrix interference.

J- The analyte was positively identified; however, the associated numerical value is likely to be lower that the concentration of the analyte in the sample due to negative bias of associated QC or calibration data or attributable to matrix interference.

UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

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

ATTACHMENT 2
DATA VALIDATION REASON CODES
Assigned by Geosyntec's Data Validation Team

Valid Value	Description
1	Preservation requirement not met
2	Analysis holding time exceeded
3	Blank contamination (i.e., method, trip, equipment, etc.)
4	Matrix spike/matrix spike duplicate recovery or RPD outside limits
5	LCS recovery outside limits
6	Surrogate recovery outside limits
7	Field Duplicate RPD exceeded
8	Serial dilution percent difference exceeded
9	Calibration criteria not met
10	Linear range exceeded
11	Internal standard criteria not met
12	Lab duplicates RPD exceeded
13	Other

RPD-relative percent difference

Geosyntec consultants

289 Great Road, Suite 105
Acton, Massachusetts 01720
PH 978.263.9588
FAX 978.263.9594
www.geosyntec.com

Memorandum

Date:	11 May 2011
To:	Joseph Lemay, United States Environmental Protection Agency
Copies to:	Clayton Smith, de maximis, inc.
From:	Todd Creamer, Geosyntec Consultants, Inc.
Subject:	Validated Results of Winter 2011 Commercial Sampling Event Wells G&H Superfund Site, Woburn, Massachusetts Alpha Analytical Laboratory Report: L1104363

This memorandum is a transmittal for validated data and associated information for the subject sampling event. Specifically, the attached information includes the Tier IV data validation report for twelve air samples, two field duplicate samples, and one trip blank collected on 31 March and 01 April 2011, sampling locations specified on attached Figure 1, field forms generated during the sampling event, and a tabulated summary of household chemicals observed during the building surveys prior to sampling. Raw, unvalidated data for this residential sampling event were transmitted to the USEPA via email on 25 April 2011.

* * * * *

Geosyntec consultants

2240 Sutherland Avenue, Suite 107
Knoxville, TN 37919
PH 865.330.0037
FAX 865.330.9949
www.geosyntec.com

Memorandum

Date: 25 April 2011

To: Todd Creamer

From: Mary Tyler

Copies to: Julia Caprio

Subject: Tier IV Data Validation Alpha Analytical Lab Number L1104363
Wells G&H Superfund Site, Woburn, Massachusetts

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1. INTRODUCTION AND SUMMARY

This report summarizes the findings of a Tier IV data validation for twelve air samples, two field duplicate samples, and one trip blank collected on 31 March 2011 and 01 April 2011. These samples were collected as part of the Wells G&H Superfund Site Vapor Intrusion Assessment. Air samples were analyzed by Alpha Analytical (Mansfield, Massachusetts) using the following methods:

- EPA Modified Method TO-15 using Selected Ion Monitoring (SIM) - Volatile Organic Compounds (VOCs)
- EPA Modified Method TO-15 – Acetone and Ethyl Acetate
- Massachusetts DEP Method APH – Air-Phase Petroleum Hydrocarbons (APH)

All samples collected on 31 March 2011 and 01 April 2011, once received by the lab, were handled, prepared, and measured in the same manner under similar prescribed conditions.

Data for the organic compounds were reviewed based on guidance specified in the project-specific Quality Assurance Project Plan (QAPP) in Form F which lists the USEPA Region 2 Guidance document entitled USEPA Hazardous Water Support Branch: Validating Air Samples, Volatile Organic Analysis of Ambient Air in Canisters by Method TO-15 (SOP#HW-31, Revision #4, October 2006). Data for the organic compounds were also reviewed based on the pertinent methods referenced by the data package and professional judgment.

The following samples were analyzed and validated at a Tier IV level in the data set:

Lab ID	Client ID
L1104363-01	260407-OA1
L1104363-02	260407-OA2
L1104363-03	260407-17-IA1
L1104363-04	260407-22-IA1
L1104363-05	260407-22-IA2
L1104363-06	260407-20-IA1
L1104363-07	260407-19-IA1
L1104363-08	260407-17-SS1
L1104363-09	260407-22-SS1
L1104363-10	260407-22-SS2
L1104363-11	260407-20-SS1
L1104363-12	260407-19-SS1
L1104363-13	BD03-03312011
L1104363-14	BD04-04012011
L1104363-15	TB02-04012011

There were two copies of the chain of custody (COC) in the data package, the original COC and a revised COC. The revised COC requested analysis for acetone and ethyl acetate in addition to other compounds listed on the original COC. According to the Alpha Analytical Call Tracker Report form included in the data package, the client (Todd Creamer) requested the additional analyses on 07 April 2011 and sent the amended COC. The form also indicated that there was an identification (ID) discrepancy between the COC and the label for sample L1104363-03; the sample was identified on the COC as 260407-17-IA1 and on the label as 260407-17-IA2. According to the client, the correct client ID was 260407-17-IA1.

Review of the canister cleaning certification documentation included in the data package indicated the following:

- Acetone was detected at estimated concentrations greater than the method detection limit (MDL) and less than the reporting limit in the canisters used to collect samples 260407-OA2, 260407-17-IA1, 260407-20-IA1, 260407-22-SS1, 260407-22-SS2 and 260407-19-SS1. Since acetone was detected in these samples at concentrations above the reporting limit (RL), no qualifications were applied to the data based on professional judgment.

- The canisters used to collect samples BD03-03312011 and TB02-04012011 and the flow controller used to collect sample 260407-17-SS1 did not have certifications for acetone and ethyl acetate. No qualifications were applied to the data based on professional judgment.

The conclusion from the Tier IV data validation presented herein and covering the QC parameters listed below is that the data, as qualified, are usable for meeting the project objectives documented in Form D of the QAPP.

2. VOLATILE ORGANIC COMPOUND ANALYSIS (VOCs)

Twelve air samples, two field duplicate samples and one trip blank sample were analyzed for VOCs per EPA modified Method TO-15, using SIM and for acetone and ethyl acetate and a modified EPA Method TO-15.

Components of the laboratory data package that were reviewed during this Tier IV data validation are listed below. A check mark (✓) indicates components of the data package that are acceptable. A crossed circle (⊗) signifies components of the data package where issues were raised during the course of the validation review and these issues should be considered to determine whether they have an impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Times
- ✓ Instrument Performance Check
- ⊗ Initial Calibration
- ✓ Continuing Calibration Verification
- ⊗ Method Blanks
- ✓ Laboratory Control Sample
- ✓ Laboratory Duplicate
- ✓ Trip Blank
- ⊗ Field Duplicate
- ✓ Internal Standards
- ✓ Target Compound Identifications
- ⊗ Target Compound Quantitations
- ✓ Electronic Data Deliverables Review

2.1 Overall Assessment

The VOC data reported in this package are considered to be usable for meeting the project objectives documented in Form D of the QAPP. The results are considered to be valid; the analytical completeness, defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for analysis, for the project is 100%.

It was noted that for most analytes, reporting limit concentrations were the same as the method detection limit (MDL) concentrations. Review of the reporting limits and MDLs found that the proposed screening levels listed in the QAPP were met.

2.2 Holding Times

The holding time for an air sample collected in a Summa™ canister for TO-15 analysis is 30 days from sample collection. The holding times were met for the sample analyses.

2.3 Instrument Performance Check

Instrument performance check samples (tune standards) were analyzed by Alpha Analytical. All calibration standards, the air samples and QC samples were analyzed within 24-hours after analyzing the tune standards. All ion abundance criteria were met for the tune standard, bromofluorobenzene (BFB).

2.4 Initial Calibration

Appropriate initial calibrations were performed and documented for each analyte. The laboratory calculated percent relative standard deviations (%RSDs) of the relative response factors (RRFs). The %RSDs met the method criteria of less than or equal to 30%, and the minimum average RRFs were above the method criteria of 0.050, with the following exception. The %RSD for naphthalene was 44%. Therefore, the undetected concentrations of naphthalene were UJ qualified as estimated less than the MDL and the detected concentrations were J qualified as estimated. The concentrations of naphthalene in samples 260407-17-IA1, 260407-22-IA1, 260407-22-IA2, 260407-20-IA1, 260407-19-IA1, 260407-17-SS1, 260407-22-SS1, 260407-22-SS2 and BD03-03312011 were U qualified as estimated less than the RL due to method blank contamination (see Section 2.6 below); therefore, based on professional judgment, no additional qualifications were made to these samples due to the initial calibration result outside of the validation criteria. The qualifications applied to the samples are summarized below.

Sample ID	Compound	Laboratory Concentration ($\mu g/m^3$)	Validation Concentration ($\mu g/ m^3$)	EDD Reason Code
260407-OA1	Naphthalene	0.131 U	0.131 UJ	9
260407-OA2	Naphthalene	0.131 U	0.131 UJ	9
260407-20-SS1	Naphthalene	1.2	1.20 J	9
260407-19-SS1	Naphthalene	2.03	2.03 J	9
BD04-04012011	Naphthalene	2.7	2.70 J	9
TB02-04012011	Naphthalene	0.131 U	0.131 UJ	9

J - estimated concentration greater than the MDL and less than the reporting limit
U - not detected at the stated MDL

An initial calibration verification (ICV) standard was analyzed after the initial calibration. The ICV RRFs met the method minimum RRF criteria of 0.050. The percent differences (%Ds) between the RRFs in the initial calibration and the ICV were within the method acceptance criteria of less than or equal to 30%, with the following exception. The %D for trans-1,3-dichloropropene was 33%. Based on professional judgment, no qualifications were applied to the data due to the ICV %D result for trans-1,3-dichloropropene since the continuing calibration verification standards %Ds and the LCS recoveries for trans-1,3-dichloropropene, analyzed on the same days as the samples, were within the method acceptance limits.

2.5 Continuing Calibration Verification (CCV)

CCVs were performed after the initial calibration on a daily basis after the BFB tune and prior to the analyses of samples. The CCVs RRFs met the method minimum RRF criteria of 0.050. The %Ds between the RRFs in the initial calibration and CCVs were within the method acceptance criteria of less than or equal to 30%.

2.6 Method Blanks

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (i.e., one per batch of 20 samples). Three method blanks were analyzed and reported for the 15 samples. VOCs were not detected in the method blanks above the MDLs, with the exception of naphthalene in batch WG461822-4, which is associated with the samples qualified below. Naphthalene was detected in the method blank at an estimated concentration of 0.152 µg/m^3, which is greater than the MDL and less than the reporting limit. Therefore, the estimated concentrations greater than the MDL and less than the reporting limit in the samples associated with this method blank were U qualified as not detected at the reporting limit. Concentrations less than five times the blank concentration were U qualified as not detected at the reported concentrations.

Samples qualified based on data for the method blank are summarized below.

Sample ID	Compound	Laboratory Concentration (µg/m^3)	Validation Concentration (µg/ m^3)	EDD Reason Code
260407-17-IA1	Naphthalene	0.320	0.320 U	3
260407-22-IA1	Naphthalene	0.382	0.382 U	3
260407-22-IA2	Naphthalene	0.393	0.393 U	3
260407-20-IA1	Naphthalene	0.445	0.445 U	3
260407-19-IA1	Naphthalene	0.581	0.581 U	3
260407-17-SS1	Naphthalene	0.498	0.498 U	3
260407-22-SS1	Naphthalene	0.733	0.733 U	3
260407-22-SS2	Naphthalene	0.215 J	0.262 U	3
BD03-03312011	Naphthalene	0.592	0.592 U	3

J - estimated concentration greater than the MDL and less than the reporting limit
U - not detected at the reported concentration

2.7 Laboratory Duplicate

Laboratory duplicates were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One laboratory duplicate was analyzed, using sample 260407-22-IA1. The results for the laboratory duplicate were within the method-specified acceptance criteria for VOCs of 25% D.

2.8 Laboratory Control Sample

Three laboratory control sample (LCSs) were analyzed for the 15 samples submitted, which satisfies the minimum frequency for the number and types of samples analyzed (one per batch of 20 samples). The results for the LCSs were within the method-specified acceptance criteria for recovery of 70-130%.

2.9 Trip Blank

A trip blank, TB02-04012011, accompanied the sample shipment. No VOCs were detected in the trip blank above the MDL.

2.10 Field Duplicate

Two field duplicate samples, BD03-03312011 and BD04-04012011, were collected with the samples. Acceptable precision (RPD $\leq$25%) was demonstrated between each field duplicate and the associated original samples, 26070-17-SS1 and 260704-19-SS1, respectively, with the following exceptions:

- Ethyl acetate and bromoform were detected above the reporting limits in the field duplicate sample and not detected above the MDL in the original sample for the duplicate pair 26070-17-SS1/BD03-03312011, resulting in non-calculable and unacceptable RPDs between the results.
- Carbon tetrachloride and methylene chloride were detected above the reporting limits in the original sample and not detected above the MDL in the field duplicate sample for the duplicate pair 260704-19-SS1/BD04-04012011, resulting in non-calculable and unacceptable RPDs between the results.
- The RPDs were greater than 25% for 1,2,4-trimethylbenzene, naphthalene and tetrachloroethene in the duplicate pair 260704-19-SS1/BD04-04012011.

As a result of these analyses for duplicate samples, the detected concentrations of ethyl acetate, bromoform, carbon tetrachloride, methylene chloride, 1,2,4-trimethylbenzene, naphthalene and tetrachloroethene were J qualified as estimated and the undetected concentrations of ethyl acetate, bromoform, carbon tetrachloride and methylene chloride were UJ qualified as estimated less than the MDL in the duplicate pairs. The calculated RPDs of the duplicate pairs and applicable qualifications are summarized below.

Sample ID		Laboratory Concentration (µg/m3)	RPD	Validation Concentration (µg/ m3)	EDD Reason Code
260407-17-SS1	Acetone	1070	25	NA	NA
BD03-03312011	Acetone	1380		NA	NA
260407-17-SS1	Ethyl Acetate	0.544 U	NC	0.544 UJ	7
BD03-03312011	Ethyl Acetate	2.31		2.31 J	7
260407-17-SS1	1,1,1-Trichloroethane	0.365	0	NA	NA
BD03-03312011	1,1,1-Trichloroethane	0.365		NA	NA
260407-17-SS1	1,2,4-Trimethylbenzene	0.246	4	NA	NA
BD03-03312011	1,2,4-Trimethylbenzene	0.255		NA	NA
260407-17-SS1	Bromoform	0.206 U	NC	0.206 UJ	7
BD03-03312011	Bromoform	0.320		0.320 J	7
260407-17-SS1	Carbon tetrachloride	0.408	2	NA	NA
BD03-03312011	Carbon tetrachloride	0.415		NA	NA
260407-17-SS1	Chloroform	0.220	0	NA	NA
BD03-03312011	Chloroform	0.220		NA	NA
260407-17-SS1	Ethylbenzene	0.104	19	NA	NA
BD03-03312011	Ethylbenzene	0.126		NA	NA
260407-17-SS1	Naphthalene	0.498	17	NA	NA
BD03-03312011	Naphthalene	0.592		NA	NA
260407-17-SS1	Tetrachloroethene	4.45	22	NA	NA
BD03-03312011	Tetrachloroethene	5.54		NA	NA
260407-17-SS1	Toluene	2.59	6	NA	NA
BD03-03312011	Toluene	2.75		NA	NA
260407-17-SS1	Total Xylenes	0.547	3	NA	NA
BD03-03312011	Total Xylenes	0.564		NA	NA
260407-17-SS1	All other VOCs	ND	0	NA	NA
BD03-03312011	All other VOCs	ND		NA	NA
260407-19-SS1	Acetone	76	17	NA	NA
BD04-04012011	Acetone	90.4		NA	NA
260407-19-SS1	1,1,1-Trichloroethane	3.97	25	NA	NA
BD04-04012011	1,1,1-Trichloroethane	5.08		NA	NA
260407-19-SS1	1,2,4-Trimethylbenzene	1.53	26	1.53 J	7
BD04-04012011	1,2,4-Trimethylbenzene	1.98		1.98 J	7
260407-19-SS1	1,3-Butadiene	0.046	6	NA	NA
BD04-04012011	1,3-Butadiene	0.049		NA	NA
260407-19-SS1	1,4-Dichlorobenzene	0.450	22	NA	NA
BD04-04012011	1,4-Dichlorobenzene	0.559		NA	NA
260407-19-SS1	Benzene	0.421	7	NA	NA
BD04-04012011	Benzene	0.453		NA	NA

Sample ID		Laboratory Concentration (µg/m3)	RPD	Validation Concentration (µg/ m3)	EDD Reason Code
260407-19-SS1	Carbon tetrachloride	0.176	NC	0.176 J	7
BD04-04012011	Carbon tetrachloride	0.126 U		0.126 UJ	7
260407-19-SS1	Chloroform	1.46	24	NA	NA
BD04-04012011	Chloroform	1.86		NA	NA
260407-19-SS1	Ethylbenzene	2.38	22	NA	NA
BD04-04012011	Ethylbenzene	2.98		NA	NA
260407-19-SS1	Methylene chloride	14.4	NC	14.4 J	7
BD04-04012011	Methylene chloride	1.74 U		1.74 UJ	7
260407-19-SS1	Naphthalene	2.03	28	2.03 J	7
BD04-04012011	Naphthalene	2.70		2.70 J	7
260407-19-SS1	Tetrachloroethene	12.9	26	12.9 J	7
BD04-04012011	Tetrachloroethene	16.7		16.7 J	7
260407-19-SS1	Toluene	1.16	23	NA	NA
BD04-04012011	Toluene	1.46		NA	NA
260407-19-SS1	Trichloroethene	0.150	17	NA	NA
BD04-04012011	Trichloroethene	0.177		NA	NA
260407-19-SS1	Total Xylenes	17.0	22	NA	NA
BD04-04012011	Total Xylenes	21.2		NA	NA
260407-19-SS1	The other VOCs	ND	0	NA	NA
BD04-04012011	The other VOCs	ND		NA	NA

U - not detected at the reported MDL
ND - not detected at the MDL
J - estimated concentration greater than the MDL and less than the reporting limit
NC - not calculable
NA - not applicable
* - no additional qualifications applied to the data based on the field duplicate results; results qualified due to method blank contamination

2.11 Internal Standards

The internal standard areas and retention times (RTs) were within method limits of ±40% of the internal standard areas from the most recent calibration and within 0.33 minutes of the retention times for the internal standards from the most recent calibration.

2.12 Target Compound Identifications

The target compound identifications were within the validation criteria.

2.13 Target Compound Quantitations

The compound quantitations were within the validation criteria with the one sample exception noted below.

According to the report narrative, the concentration of acetone in sample 260407-19-IA1 should be considered estimated due to coelution of acetone with a non-target peak. Therefore, the concentration of acetone in sample 260407-19-IA1 was J qualified as estimated. This qualification is summarized below.

Sample ID	Compound	Laboratory Concentration (µg/m3)	Validation Concentration (µg/m3)	EDD Reason Code
260407-19-IA1	Acetone	55.6	55.6 J	13

2.14 Electronic Data Deliverables Review

A minimum of 20% of the results and all sample IDs provided in the electronic data deliverable (EDD) were reviewed against information provided in the Level IV report. No discrepancies were identified between the EDD and the Level IV report.

3. AIR PHASE PETROLEUM HYDROCARBONS (APH)

Twelve air samples, two field duplicate samples and one trip blank sample were analyzed for petroleum hydrocarbons per Massachusetts DEP Method APH.

Components of the laboratory data package that were reviewed during this Tier IV data validation are listed below. A check mark (✓) indicates components of the data package that are acceptable. A crossed circle (⊗) signifies components of the data package where issues were raised during the course of the validation review, and these issues should be considered to determine whether they have an impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Times
- ✓ Instrument Performance Check
- ✓ Initial Calibration
- ✓ Continuing Calibration Verification
- ✓ Method Blanks
- ✓ Laboratory Control Sample
- ⊗ Laboratory Duplicate
- ⊗ Trip Blank
- ⊗ Field Duplicate
- ✓ Internal Standards
- ✓ Target Compound Identifications
- ✓ Target Compound Quantitations
- ✓ Electronic Data Deliverables Review

3.1 Overall Assessment

The APH data reported in this package are considered to be usable for meeting the project objectives documented in Form D of the QAPP. The results are considered to be valid; the analytical completeness, defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for analysis, for the project is 100%.

3.2 Holding Times

The holding time for an air sample collected in a Summa™ canister for APH analysis is 30 days from sample collection. The holding times were met for the sample analyses.

3.3 Instrument Performance Check

Instrument performance check samples (tune standards) were analyzed by Alpha Analytical. All calibration standards, the air samples and QC samples were analyzed within 24-hours after analyzing the tune standards. All ion abundance criteria were met for bromofluorobenzene (BFB).

3.4 Initial Calibration

Appropriate initial calibrations were performed and documented for each analyte. The laboratory calculated %RSDs of the RRFs. The %RSDs met the method criteria of less than or equal to 30% for all compounds except naphthalene, which has a %RSD criteria of less than or equal to 40%.

3.5 Continuing Calibration Verification (CCV)

CCVs were performed after the initial calibration on a daily basis after the BFB tune and prior to the analysis of samples. The CCVs RRFs met the method minimum RRF criteria of 0.050. The %Ds between the RRFs in the initial and CCVs were within the method acceptance criteria of less than or equal to 30%.

3.6 Method Blanks

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (i.e., one per batch of 20 samples). One method blank was analyzed and reported for the 15 samples. APH were not detected in the method blank above the reporting limits.

3.7 Laboratory Duplicate

Laboratory duplicates were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One laboratory duplicate was analyzed, using sample 260407-22-IA1. The results for the laboratory duplicate were within the method-specified acceptance criteria for APH analytes of 25%D, with the following exception:

- C9-C10 Aromatics were detected in sample 260407-22-IA1 above the reporting limit and not detected in the laboratory duplicate, resulting in a non-calculable and unacceptable

RPD between the results. Therefore, the detected concentration C9-C10 Aromatics in sample 260407-22-IA1 was J qualified as estimated. This qualification is summarized below.

Sample ID	Compound	Laboratory Concentration (µg/m^3)	Validation Concentration (µg/ m^3)	EDD Reason Code
260407-22-IA1	C9-C10 Aromatics	10	10 J	12

3.8 Laboratory Control Sample

One LCS was analyzed for the 15 samples submitted to the laboratory, which is the proper frequency for the number and types of samples analyzed (i.e., one per batch of 20 samples). The results for the LCS were within the method-specified acceptance criteria for recovery of 70-130%.

3.9 Trip Blank

A trip blank, TB01-03182011, accompanied the sample shipment. No APH were detected in the trip blank above the reporting limits, with the exception of C5-C8 Aliphatics, which were detected at a concentration of 12.0 µg/m^3. Therefore, based on professional judgment, the concentration of C5-C8 Aliphatics in sample 260407-22-SS2 was U qualified as not detected at the reported concentration since the concentration was less than five times the trip blank concentration.

Sample ID	Compound	Laboratory Concentration (µg/m^3)	Validation Concentration (µg/ m^3)	EDD Reason Code
260407-22-SS2	C5-C8 Aliphatics, Adjusted	58	58 U	3

3.10 Field Duplicate

Two field duplicate samples, BD03-03312011 and BD04-04012011, were collected with the samples. Acceptable precision (RPD $\leq$25%) was demonstrated between each field duplicate and the associated original samples, 26070-17-SS1 and 260704-19-SS1, respectively, with the exceptions of C5-C8 Aliphatics, C9-C10 Aromatics, C9-C12 Aliphatics and naphthalene in the duplicate pair 260704-19-SS1/BD04-04012011. Therefore the concentrations of C5-C8 Aliphatics, C9-C10 Aromatics, C9-C12 Aliphatics and naphthalene are J qualified as estimated in the duplicate pair 260704-19-SS1/BD04-04012011.

The calculated RPDs of the duplicate pair and applicable qualifications are summarized below.

Sample ID	Compound	Laboratory Concentration (µg/m^3)	RPD	Validation Concentration (µg/ m^3)	EDD Reason Code
260407-17-SS1	C5-C8 Aliphatics, Adjusted	200	5	NA	NA
BD03-03312011	C5-C8 Aliphatics, Adjusted	190		NA	NA
260407-17-SS1	C9-C12 Aliphatics, Adjusted	18	11	NA	NA
BD03-03312011	C9-C12 Aliphatics, Adjusted	20		NA	NA
260407-17-SS1	Toluene	3.1	9	NA	NA
BD03-03312011	Toluene	3.4		NA	NA
260407-17-SS1	All other APH	ND	0	NA	NA
BD03-03312011	All other APH	ND		NA	NA
260407-19-SS1	C5-C8 Aliphatics, Adjusted	230	26	230 J	7
BD04-04012011	C5-C8 Aliphatics, Adjusted	300		300 J	7
260407-19-SS1	C9-C10 Aromatics Total	13	32	13 J	7
BD04-04012011	C9-C10 Aromatics Total	18		18 J	7
260407-19-SS1	C9-C12 Aliphatics, Adjusted	310	30	310 J	7
BD04-04012011	C9-C12 Aliphatics, Adjusted	420		420 J	7
260407-19-SS1	Ethylbenzene	2.6	14	NA	NA
BD04-04012011	Ethylbenzene	3.0		NA	NA
260407-19-SS1	Naphthalene	2.5	28	2.5 J	7
BD04-04012011	Naphthalene	3.3		3.3 J	7
260407-19-SS1	o-Xylene	4.6	23	NA	NA
BD04-04012011	o-Xylene	5.8		NA	NA
260407-19-SS1	p/m-Xylene	13	14	NA	NA
BD04-04012011	p/m-Xylene	15		NA	NA
260407-17-SS1	All other APH	ND	0	NA	NA
BD03-03312011	All other APH	ND		NA	NA

U - not detected at the indicated reporting limit
ND - not detected at the reporting limit

3.11 Internal Standards

The internal standard areas and retention times were within method limits of ±40% of the internal standard areas from the most recent calibration and within 0.33 minutes of the retention times for the internal standards from the most recent calibration.

3.12 Target Compound Identifications

The target compound identifications were within the validation criteria.

3.13 Target Compound Quantitations

The compound quantitations were within the validation.

3.14 Electronic Data Deliverables Review

A minimum of 20% of the results and all sample IDs provided in the EDD were reviewed against the information provided in the Level IV report. No discrepancies were identified between the EDD and the Level IV report.

* * * * *

ATTACHMENT 1
DATA VALIDATION QUALIFIER DEFINITIONS
AND INTERPRETATION KEY
Assigned by Geosyntec's Data Validation Team

DATA QUALIFIER DEFINITIONS

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

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

J+ The analyte was positively identified; however, the associated numerical value is likely to be higher that the concentration of the analyte in the sample due to positive bias of associated QC or calibration data or attributable to matrix interference.

J- The analyte was positively identified; however, the associated numerical value is likely to be lower that the concentration of the analyte in the sample due to negative bias of associated QC or calibration data or attributable to matrix interference.

UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

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

ATTACHMENT 2
DATA VALIDATION REASON CODES
Assigned by Geosyntec's Data Validation Team

Valid Value	Description
1	Preservation requirement not met
2	Analysis holding time exceeded
3	Blank contamination (i.e., method, trip, equipment, etc.)
4	Matrix spike/matrix spike duplicate recovery or RPD outside limits
5	LCS recovery outside limits
6	Surrogate recovery outside limits
7	Field Duplicate RPD exceeded
8	Serial dilution percent difference exceeded
9	Calibration criteria not met
10	Linear range exceeded
11	Internal standard criteria not met
12	Lab duplicates RPD exceeded
13	Other

RPD-relative percent difference

Geosyntec consultants

289 Great Road, Suite 105
Acton, Massachusetts 01720
PH 978.263.9588
FAX 978.263.9594
www.geosyntec.com

Memorandum

Date:	29 July 2011
To:	Joseph Lemay, United States Environmental Protection Agency
Copies to:	Clayton Smith, de maximis, inc.
From:	Todd Creamer, Geosyntec Consultants, Inc.
Subject:	Validated Results of June 2011 Sampling Event Wells G&H Superfund Site, Woburn, Massachusetts Alpha Analytical Laboratory Report: L1108139

This memorandum is a transmittal for validated data and associated information for the subject sampling event. Specifically, the attached information includes the Tier IV data validation report for 22 samples, four field duplicate samples, and one trip blank collected from 06 through 07 June 2011, an update to the winter building surveys and field forms generated during the sampling event. Unvalidated data for this sampling event were transmitted to the USEPA via email on 28 June 2011.

* * * * *

Geosyntec consultants

2240 Sutherland Avenue, Suite 107
Knoxville, TN 37919
PH 865.330.0037
FAX 865.330.9949
www.geosyntec.com

Memorandum

Date: 25 July 2011

To: Todd Creamer

From: Mary Tyler

Copies to: Julia Caprio

Subject: Tier IV Data Validation Alpha Analytical Lab Number L1108139
Wells G&H Superfund Site, Woburn, Massachusetts

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1. INTRODUCTION AND SUMMARY

This report summarizes the findings of a Tier IV data validation for twenty two air samples, four field duplicate samples, and one trip blank collected from 06 June 2011 through 08 June 2011. These samples were collected as part of the Wells G&H Superfund Site Vapor Intrusion Assessment. Air samples were analyzed by Alpha Analytical (Mansfield, Massachusetts) using the following methods:

- EPA Modified Method TO-15 using Selected Ion Monitoring (SIM) - Volatile Organic Compounds (VOCs)
- EPA Modified Method TO-15 – Acetone and Ethyl Acetate Only
- Massachusetts DEP Method APH – Air-Phase Petroleum Hydrocarbons (APH)

All samples collected from 06 June 2011 through 08 June 2011, once received by the lab, were handled, prepared, and measured in the same manner under similar prescribed conditions.

Data for the organic compounds were reviewed based on guidance specified in the project-specific Quality Assurance Project Plan (QAPP) in Form F which lists the USEPA Region 2 Guidance document entitled USEPA Hazardous Water Support Branch: Validating Air Samples, Volatile Organic Analysis of Ambient Air in Canisters by Method TO-15 (SOP#HW-31, Revision #4, October 2006). Data for the organic compounds were also reviewed based on the pertinent methods referenced by the data package and professional judgment.

The following samples were analyzed and validated at a Tier IV level in the data set:

Lab ID	Client ID
L1108139-01	260902-IA1-20110607
L1108139-02	260902-IA2-20110607
L1108139-03	260902-OA-20110607
L1108139-04	260902-SS1-20110607
L1108139-05	260902-SS2-20110607
L1108139-06	260903-IA1-20110607
L1108139-07	260903-IA2-20110607
L1108139-08	260903-OA-20110607
L1108139-09	260903-SS1-20110607
L1108139-10	260903-SS2-20110607
L1108139-11	260407-17-IA1-20110607
L1108139-12	260407-17-SS1-20110607
L1108139-13	260407-19-SS1-20110608
L1108139-14	260407-20-IA1-20110607
L1108139-15	260407-20-SS1-20110608
L1108139-16	260407-22-IA1-20110607
L1108139-17	260407-22-IA2-20110607
L1108139-18	260407-22-SS1-20110608
L1108139-19	260407-22-SS2-20110608
L1108139-20	260407-OA1-20110607
L1108139-21	260407-OA2-20110607
L1108139-22	BD01-20110607
L1108139-23	BD02-20110607
L1108139-24	BD03-20110607
L1108139-25	BD04-20110608
L1108139-26	TB-20110608
L1108139-27	260407-19-IA1-20110607

The laboratory report was revised twice. The first revision, issued on 23 June 2011, corrected the sample type for several APH samples. The APH result forms in the hardcopy laboratory report for samples 260407-17-IA1-20110607, 260407-20-IA1-20110607, 260407-22-IA1-20110607, 260407-22-IA2-20110607, 260407-OA1-20110607, and 260407-OA2-20110607 listed the sample types incorrectly as 24 hour composite samples; the information for these samples was corrected on the APH result forms to indicate 8 hour composite samples.

The second revision, issued on 19 July 2011, was requested because the electronic data deliverable (EDD) for APH did not match the hardcopy laboratory report. The laboratory data flag M, which indicates that the reporting limit exceeds the MCP CAM reporting limit, was not listed on the hardcopy report for any of the APH results, yet some of the results in the EDD had the M flag. In addition, the MADEP MCP Response Action Analytical Report Certification form did not indicate that the CAM reporting limits were not met for C5-C8 aliphatics. The second revision corrected the MADEP MCP Response Action Analytical Report Certification form, revised the laboratory narrative for petroleum hydrocarbons in air (APH) and revised the EDD

for APH. The form was changed to indicate that the reporting limits were not at or below the CAM reporting limits specified in the selected CAM protocol for APH analysis. The narrative was amended to indicate that one or more of the APH target analytes did not achieve the requested CAM reporting limits. In addition, the laboratory data flag M was removed from the EDD for APH analyses, as the laboratory is not currently flagging any data with the M qualifier.

Review of the canister cleaning certification documentation, included in the data package, indicated the following:

- Acetone was detected at estimated concentrations greater than the method detection limit (MDL) and less than the reporting limit (RL) in the canisters used to collect samples 260407-17-IA1-20110607, 260407-17-SS1-20110607, 260407-22-IA1-20110607, 260407-22-IA2-20110607, 260407-22-SS1-20110608, 260407-OA1-20110607, BD03-20110607 and 260407-19-IA1-20110607. Since acetone was detected in these samples at concentrations above the RL, no qualifications were applied to the data based on professional judgment.
- Acetone was also detected at an estimated concentration greater than the MDL and less than the reporting limit in the canister used to collect the trip blank, TB-20110608. Therefore, the acetone concentration in the trip blank was qualified as not detected at the reporting limit; see section 2.9 below.
- The flow controller used to collect sample 260407-22-IA2-20110607 did not have certification documentation for acetone and ethyl acetate. No qualifications were applied to the data based on professional judgment since the concentration of acetone detected in the sample was greater than the RL and ethyl acetate was not detected in the sample.

The conclusion from the Tier IV data validation presented herein and covering the QC parameters listed below, is that the data, as qualified, are usable for meeting the project objectives documented in Form D of the QAPP.

It was noted that the samples were analyzed for 1,3-butadiene, methyl tert-butyl ether (MTBE), benzene, toluene, ethylbenzene and naphthalene by both EPA Method TO-15 SIM and Massachusetts DEP Method APH. Comparable results were reported by both methods.

2. VOLATILE ORGANIC COMPOUND ANALYSIS (VOCs)

Twenty two air samples, four field duplicate samples and one trip blank sample were analyzed for VOCs per EPA modified Method TO-15, using SIM and for acetone and ethyl acetate, using EPA modified Method TO-15.

Components of the laboratory data package that were reviewed during this Tier IV data validation are listed below. A check mark (✓) indicates components of the data package that are acceptable. A crossed circle (⊗) signifies components of the data package where issues were raised during the course of the validation review and these issues should be considered to determine whether they have an impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Times
- ✓ Instrument Performance Check
- ✓ Initial Calibration
- ⊗ Continuing Calibration Verification
- ✓ Method Blanks
- ✓ Laboratory Control Sample
- ⊗ Laboratory Duplicate
- ⊗ Trip Blank
- ⊗ Field Duplicate
- ✓ Internal Standards
- ✓ Target Compound Identifications
- ⊗ Target Compound Quantitations
- ⊗ Electronic Data Deliverables Review

2.1 Overall Assessment

The VOC data reported in this package are considered to be usable for meeting the project objectives documented in Form D of the QAPP. The results are considered to be valid; the analytical completeness, defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for analysis, for the project is 100%.

Review of the RLs for TO-15 SIM and MDLs for TO-15 (acetone and ethyl acetate only) found that the proposed screening levels listed in the QAPP were met for all compounds except 1,2-dibromoethane, naphthalene and bromodichloromethane. Based on the QAPP requirements, the laboratory reported these three compounds to ½ the RL by TO-15 SIM. However, the value for ½ the RL is listed as the MDL in the hardcopy report. Additionally, these three compounds were reported as non-detect to the RL in the electronic data deliverable (EDD) rather than to ½ the RL. Based on information from Alpha Analytical, the misreported values are due to a limitation of the laboratory information system (LIMS). For the purposes of this report, the term "respective reporting limit" will be used to indicate the compound RLs for Method TO-15 SIM. Data users are advised to note that the concentrations listed for TO-15 SIM analyses in the hardcopy report as the MDLs are not in fact the MDLs.

2.2 Holding Times

The holding time for an air sample collected in a Summa™ canister for TO-15 analysis is 30 days from sample collection. The holding times were met for the sample analyses.

2.3 Instrument Performance Check

Instrument performance check samples (tune standards) were analyzed by Alpha Analytical. All calibration standards, the air samples and QC samples were analyzed within 24-hours after analyzing the tune standards. All ion abundance criteria were met for the tune standard, bromofluorobenzene (BFB).

2.4 Initial Calibration

Appropriate initial calibrations were performed and documented for each analyte. The laboratory calculated percent relative standard deviations (%RSDs) of the relative response factors (RRFs). The %RSDs met the method criteria of less than or equal to 30%, and the minimum average RRFs were above the method criteria of 0.050.

Initial calibration verification (ICV) standards were analyzed after the initial calibrations. The ICVs RRFs met the method minimum RRF criteria of 0.050. The percent differences (%Ds) between the RRFs in the initial calibration and the ICV were within the method acceptance criteria of less than or equal to 30%.

2.5 Continuing Calibration Verification (CCV)

CCVs were performed after the initial calibration on a daily basis after the BFB tune and prior to the analyses of samples. The CCVs RRFs met the method minimum RRF criteria of 0.050. The %Ds between the RRFs in the initial calibration and CCVs were within the method acceptance criteria of less than or equal to 30%, with the following exceptions. The %D for naphthalene on instrument Airlab8, analyzed on 21 June 2011, was 34.3%. Therefore, the detected concentrations of naphthalene were J qualified as estimated. In addition, the %Ds for MTBE and toluene on instrument Airpiano2, analyzed on 20 June 2011, were 35.2% and 30.5%, respectively. Therefore, the non-detected results of MTBE and toluene in the associated samples were UJ qualified as estimated less than the reporting limits and the detected concentrations were J qualified as estimated. These qualifications are summarized below:

Sample ID	Compound	Laboratory Concentration (µg/m^3)	Validation Concentration (µg/ m^3)*	EDD Reason Code**
260903-IA1-20110607	Naphthalene	0.367	0.367 J	9
260903-IA2-20110607	Naphthalene	0.288	0.288 J	9
260407-17-IA1-20110607	Naphthalene	0.273	0.273 J	9
260407-20-IA1-20110607	Naphthalene	0.351	0.351 J	9
260407-22-IA1-20110607	Naphthalene	0.257 J	0.257 J	9
260407-22-IA2-20110607	Naphthalene	0.168 J	0.168 J	9
BD01-20110607	Naphthalene	0.246 J	0.246 J	9
BD03-20110607	Naphthalene	0.744	0.744 J	9
260407-19-IA1-20110607	Naphthalene	0.493	0.493 J	9
260902-IA1-20110607	Methyl tert butyl ether	0.072 U	0.072 UJ	9
260902-IA1-20110607	Toluene	3.24	3.24 J	9
260902-IA2-20110607	Methyl tert butyl ether	0.072 U	0.072 UJ	9
260902-IA2-20110607	Toluene	3.29	3.29 J	9
260902-OA-20110607	Methyl tert butyl ether	0.072 U	0.072 UJ	9

Sample ID	Compound	Laboratory Concentration (µg/m^3)	Validation Concentration (µg/ m^3)*	EDD Reason Code**
260902-OA-20110607	Toluene	1.37	1.37 J	9
260903-OA-20110607	Methyl tert butyl ether	0.072 U	0.072 UJ	9
260903-OA-20110607	Toluene	1.47	1.47 J	9
260407-OA1-20110607	Methyl tert butyl ether	0.072 U	0.072 UJ	9
260407-OA1-20110607	Toluene	1.22	1.22 J	9
260407-OA2-20110607	Methyl tert butyl ether	0.072 U	0.072 UJ	9
260407-OA2-20110607	Toluene	1.29	1.29 J	9
TB-20110608	Methyl tert butyl ether	0.072 U	0.072 UJ	9
TB-20110608	Toluene	0.188 U	0.188 UJ	9

U-not detected
J-estimated concentration
µg/m^3 – micrograms per cubic meter
*Validation qualifiers are defined in Attachment 1 at the end of this report
**EDD reason codes are defined in Attachment 2 at the end of this report

2.6 Method Blanks

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (i.e., one per batch of 20 samples). Six method blanks were analyzed and reported for the 27 samples. VOCs were not detected in the method blanks above their respective reporting limits (TO-15 SIM) or the MDLs (TO-15), with the following exceptions. Acetone was detected in the method blanks in batches WG474469, WG474612 and WG474612 at concentrations greater than the MDL and less than the reporting limit. Since the concentrations of acetone in the associated samples were either greater than the reporting limit or in the case of the trip blank, qualified due to the concentration in the empty canister, no qualifications were applied to the data due to the method blanks' acetone concentrations.

2.7 Laboratory Duplicate

Laboratory duplicates were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Five laboratory duplicates were analyzed, using samples 260407-19-SS1-20110608 (both TO-15 SIM and TO-15 analyses), 260902-IA2-20110607, 260903-IA1-20110607 and 260407-20-IA1-20110607. The results for the laboratory duplicates were within the method-specified acceptance criteria for VOCs of 25% D.

2.8 Laboratory Control Sample

Six laboratory control samples (LCSs) were analyzed for the 27 samples submitted, which satisfies the minimum frequency for the number and types of samples analyzed (one per batch of 20 samples). The results for the LCSs were within the method-specified acceptance criteria for recovery of 70-130%, with the following exceptions. The recovery of naphthalene in batch WG474558 was low (66%) and outside the method-specified acceptance criteria for recovery.

Therefore, the detected concentrations of naphthalene in the associated samples were J qualified as estimated. In addition, the recovery of MTBE in batch WG474617 was low (65%) and outside the method-specified acceptance criteria for recovery. MTBE was not detected in the associated samples and therefore, the MTBE results are UJ qualified as estimated less than the reporting limit. These qualifications are summarized below.

	Sample ID	Compound	Laboratory Concentration (µg/m^3)	Validation Concentration (µg/ m^3)	EDD Reason Code
6	260903-IA1-20110607	Naphthalene	0.367	0.367 J	5
7	260903-IA2-20110607	Naphthalene	0.288	0.288 J	5
11	260407-17-IA1-20110607	Naphthalene	0.273	0.273 J	5
14	260407-20-IA1-20110607	Naphthalene	0.351	0.351 J	5
16	260407-22-IA1-20110607	Naphthalene	0.257 J	0.257 J	5
17	260407-22-IA2-20110607	Naphthalene	0.168 J	0.168 J	5
22	BD01-20110607	Naphthalene	0.246 J	0.246 J	5
24	BD03-20110607	Naphthalene	0.744	0.744 J	5
27	260407-19-IA1-20110607	Naphthalene	0.493	0.493 J	5
1	260902-IA1-20110607	Methyl tert butyl ether	0.072 U	0.072 UJ	5
2	260902-IA2-20110607	Methyl tert butyl ether	0.072 U	0.072 UJ	5
3	260902-OA-20110607	Methyl tert butyl ether	0.072 U	0.072 UJ	5
8	260903-OA-20110607	Methyl tert butyl ether	0.072 U	0.072 UJ	5
20	260407-OA1-20110607	Methyl tert butyl ether	0.072 U	0.072 UJ	5
21	260407-OA2-20110607	Methyl tert butyl ether	0.072 U	0.072 UJ	5
26	TB-20110608	Methyl tert butyl ether	0.072 U	0.072 UJ	5

U-not detected
J-estimated concentration

2.9 Trip Blank

A trip blank, TB-20110608, accompanied the sample shipment. VOCs were not detected in the trip blank above their respective reporting limits (TO-15 SIM) or the MDLs (TO-15), with the following exception. Acetone was detected in the trip blank at an estimated concentration greater than the MDL and less than the reporting limit, at a concentration of 0.354 µg/m^3. According to the canister cleaning documentation, acetone was detected in the canister used as the trip blank at an estimated concentration greater than the MDL and less than the reporting limit, at a concentration of 0.290 µg/m^3. Therefore, the concentration of acetone in the trip blank was U qualified as not detected at the reporting limit. This qualification is summarized below:

Sample ID	Compound	Laboratory Concentration (µg/m^3)	Validation Concentration (µg/ m^3)	EDD Reason Code
TB-20110608	Acetone	0.354 J	2.38 U	13

J-estimated concentration

2.10 Field Duplicate

Four field duplicate samples, BD01-20110607, BD02-20110607, BD03-20110607 and BD04-20110608, were collected with the samples. Acceptable precision (RPD ≤25%) was demonstrated between each field duplicate and the associated original samples, 260902-IA2-20110607, 260903-SS1-20110607, 260407-19-IA1-20110607 and 260407-22-SS1-20110608, respectively, with the following exceptions.

- 1,2,4-Trimethylbenzene, 1,2-dichloroethane, benzene, chloroform, ethylbenzene and total xylenes were detected above the reporting limits in one sample and not detected above their respective reporting limits in the other sample for the duplicate pair 260407-22-SS1-20110608/BD04-20110608, resulting in non-calculable and unacceptable RPDs between the results. Therefore, the detected concentrations of these compounds were J qualified as estimated and the non-detected results were UJ qualified as estimated less than their respective reporting limits in the duplicate pair.
- Ethyl acetate was detected above the reporting limit in the field duplicate and not detected above MDL in the parent sample for the duplicate pair 260407-22-SS1-20110608/BD04-20110608, resulting in a non-calculable and unacceptable RPD between the results. Therefore, the detected concentrations of ethyl acetate was J qualified as estimated and the non-detected result was UJ qualified as estimated less than the MDL in the duplicate pair.
- The RPDs were greater than 25% for 1,1,1-trichloroethane, acetone, carbon tetrachloride, tetrachloroethene, toluene and trichloroethene in the duplicate pair 260407-22-SS1-20110608/BD04-20110608; therefore, the detected concentrations of these compounds were J qualified as estimated in the duplicate pair.

These qualifications are summarized below:

Sample ID	Compound	Laboratory Result (µg/m^3)	RPD (%)	Validation Result (µg/m^3)	Reason Code
260407-22-SS1-20110608	1,1,1-Trichloroethane	5.89	29	5.89 J	7
BD04-20110608	1,1,1-Trichloroethane	4.40		4.40 J	7
260407-22-SS1-20110608	1,2,4-Trimethylbenzene	0.098 U	NC	0.098 UJ	7
BD04-20110608	1,2,4-Trimethylbenzene	0.202		0.202 J	7
260407-22-SS1-20110608	1,2-Dichloroethane	0.081 U	NC	0.081 UJ	7
BD04-20110608	1,2-Dichloroethane	0.304		0.304 J	7
260407-22-SS1-20110608	Acetone	17.6	137	17.6 J	7
BD04-20110608	Acetone	94.5		94.5 J	7
260407-22-SS1-20110608	Benzene	0.224 U	NC	0.224 UJ	7
BD04-20110608	Benzene	0.268		0.268 J	7
260407-22-SS1-20110608	Carbon tetrachloride	0.176	36	0.176 J	7

Sample ID	Compound	Laboratory Result (µg/m^3)	RPD (%)	Validation Result (µg/m^3)	Reason Code
BD04-20110608	Carbon tetrachloride	0.252		0.252 J	7
260407-22-SS1-20110608	Chloroform	0.098 U	NC	0.098 UJ	7
BD04-20110608	Chloroform	0.317		0.317 J	7
260407-22-SS1-20110608	Ethyl Acetate	0.544 U	NC	0.544 UJ	7
BD04-20110608	Ethyl Acetate	4.25		4.25 J	7
260407-22-SS1-20110608	Ethylbenzene	0.087 U	NC	0.087 UJ	7
BD04-20110608	Ethylbenzene	0.282		0.282 J	7
260407-22-SS1-20110608	Tetrachloroethene	102	28	102 J	7
BD04-20110608	Tetrachloroethene	77.3		77.3 J	7
260407-22-SS1-20110608	Toluene	0.320	161	0.320 J	7
BD04-20110608	Toluene	3.01		3.01 J	7
260407-22-SS1-20110608	Trichloroethene	0.193	44	0.193 J	7
BD04-20110608	Trichloroethene	0.301		0.301 J	7
260407-22-SS1-20110608	Total Xylenes	0.261 U	NC	0.261 UJ	7
BD04-20110608	Total Xylenes	1.16		1.16 J	7
260407-22-SS1-20110608	All other VOCs	ND	0	NA	NA
BD04-20110608	All other VOCs	ND		NA	NA

U - not detected
ND - not detected
NC - not calculable
NA - not applicable

- Chloroform was detected above the reporting limit in the field duplicate sample and not detected above the reporting limit in the parent sample for the duplicate pair 260903-SS1-20110607/BD02-20110607, resulting in a non-calculable and unacceptable RPD between the results. Therefore, the detected concentration of chloroform was J qualified as estimated in the field duplicate sample and the non-detected result was UJ qualified as estimated less than the reporting limit in the parent sample. These qualifications are summarized below:

Sample ID	Compound	Laboratory Result (µg/m^3)	RPD (%)	Validation Result (µg/m^3)	Reason Code
260903-SS1-20110607	Chloroform	0.098 U	NC	0.098 UJ	7
BD02-20110607	Chloroform	0.190		0.190 J	7
260903-SS1-20110607	Methylene chloride	24.1	3	NA	NA
BD02-20110607	Methylene chloride	23.3		NA	NA
260903-SS1-20110607	Tetrachloroethene	0.271	24	NA	NA
BD02-20110607	Tetrachloroethene	0.346		NA	NA
260903-SS1-20110607	Toluene	0.241	19	NA	NA

Sample ID	Compound	Laboratory Result (µg/m^3)	RPD (%)	Validation Result (µg/m^3)	Reason Code
BD02-20110607	Toluene	0.200		NA	NA
260903-SS1-20110607	All other VOCs	ND	0	NA	NA
BD02-20110607	All other VOCs	ND		NA	NA

U - not detected
ND - not detected
NC - not calculable
NA - not applicable

- Tetrachloroethene was detected above the reporting limit in the field duplicate sample and not detected above the reporting limit in the parent sample for the duplicate pair 260902-IA2-20110607/BD01-20110607, resulting in non-calculable and unacceptable RPD between the results. Therefore, the detected concentration of tetrachloroethene was J qualified as estimated in the field duplicate and the non-detected result was UJ qualified as estimated less than the reporting limit in the parent sample.
- The RPDs were greater than 25% for 1,3-butadiene, chloroform, ethyl benzene, methylene chloride and total xylenes in the duplicate pair 260902-IA2-20110607/BD01-20110607; therefore, the detected concentrations of these compounds were J qualified as estimated in the duplicate pair.

These qualifications are summarized below:

Sample ID	Compound	Laboratory Result (µg/m^3)	RPD (%)	Validation Result (µg/m^3)	Reason Code
260902-IA2-20110607	1,2,4-Trimethylbenzene	0.836	21	NA	NA
BD01-20110607	1,2,4-Trimethylbenzene	1.03		NA	NA
260902-IA2-20110607	1,2-Dichloroethane	2.74	25	NA	NA
BD01-20110607	1,2-Dichloroethane	2.13		NA	NA
260902-IA2-20110607	1,3-Butadiene	0.106	59	0.106 J	7
BD01-20110607	1,3-Butadiene	0.058		0.058 J	7
260902-IA2-20110607	Benzene	0.837	21	NA	NA
BD01-20110607	Benzene	0.680		NA	NA
260902-IA2-20110607	Bromodichloromethane	0.120 J	NC	NA	NA
BD01-20110607	Bromodichloromethane	0.094 J		NA	NA
260902-IA2-20110607	Carbon tetrachloride	0.484	19	NA	NA
BD01-20110607	Carbon tetrachloride	0.402		NA	NA
260902-IA2-20110607	Chloroform	0.293	26	0.293 J	7
BD01-20110607	Chloroform	0.381		0.381 J	7
260902-IA2-20110607	Ethylbenzene	0.586	26	0.586 J	7
BD01-20110607	Ethylbenzene	0.760		0.760 J	7

Sample ID	Compound	Laboratory Result (µg/m^3)	RPD (%)	Validation Result (µg/m^3)	Reason Code
260902-IA2-20110607	Methylene chloride	11.1	109	11.1 J	7
BD01-20110607	Methylene chloride	3.27		3.27 J	7
260902-IA2-20110607	Naphthalene	0.435	NC	0.435 J	7
BD01-20110607	Naphthalene	0.246 J		0.246 J	7
260902-IA2-20110607	Tetrachloroethene	0.136 U	NC	0.136 UJ	7
BD01-20110607	Tetrachloroethene	0.156		0.156 J	7
260902-IA2-20110607	Toluene	3.29	25	NA	NA
BD01-20110607	Toluene	4.22		NA	NA
260902-IA2-20110607	Total Xylenes	2.44	30	2.44 J	7
BD01-20110607	Total Xylenes	3.31		3.31 J	7
260902-IA2-20110607	All other VOCs	ND	0	NA	NA
BD01-20110607	All other VOCs	ND		NA	NA

U-not detected
J-estimated concentration
ND - not detected
NC - not calculable
NA - not applicable

- 1,3-Butadiene was detected above the reporting limit in the parent sample and not detected above the reporting limit in the field duplicate sample for the duplicate pair 260407-19-IA1-20110607/BD03-20110607, resulting in a non-calculable and unacceptable RPD between the results. Therefore, the detected concentration of 1,3-butadiene was J qualified as estimated in the parent sample and the non-detected result was UJ qualified as estimated less than the reporting limit in the field duplicate sample.
- The RPDs were greater than 25% for chloroform, methylene chloride and naphthalene in the duplicate pair 260407-19-IA1-20110607/BD03-20110607; therefore, the detected concentrations of these compounds were J qualified as estimated in the duplicate pair.

These qualifications are summarized below:

Sample ID	Compound	Laboratory Result (µg/m^3)	RPD (%)	Validation Result (µg/m^3)	Reason Code
BD03-20110607	1,1,1-Trichloroethane	1.30	11	NA	NA
260407-19-IA1-20110607	1,1,1-Trichloroethane	1.17		NA	NA
BD03-20110607	1,2,4-Trimethylbenzene	2.47	5	NA	NA
260407-19-IA1-20110607	1,2,4-Trimethylbenzene	2.34		NA	NA
BD03-20110607	1,2-Dichloroethane	0.470	10	NA	NA
260407-19-IA1-20110607	1,2-Dichloroethane	0.425		NA	NA
BD03-20110607	1,3-Butadiene	0.055	NC	0.055 J	7
260407-19-IA1-20110607	1,3-Butadiene	0.044 U		0.044 UJ	7

Sample ID	Compound	Laboratory Result (µg/m^3)	RPD (%)	Validation Result (µg/m^3)	Reason Code
BD03-20110607	1,4-Dichlorobenzene	3.35	8	NA	NA
260407-19-IA1-20110607	1,4-Dichlorobenzene	3.08		NA	NA
BD03-20110607	Acetone	261	22	NA	NA
260407-19-IA1-20110607	Acetone	209		NA	NA
BD03-20110607	Benzene	0.655	7	NA	NA
260407-19-IA1-20110607	Benzene	0.613		NA	NA
BD03-20110607	Carbon tetrachloride	0.390	2	NA	NA
260407-19-IA1-20110607	Carbon tetrachloride	0.384		NA	NA
BD03-20110607	Chloroform	0.327	96	0.327 J	7
260407-19-IA1-20110607	Chloroform	0.928		0.928 J	7
BD03-20110607	Ethyl Acetate	12.2	13	NA	NA
260407-19-IA1-20110607	Ethyl Acetate	10.7		NA	NA
BD03-20110607	Ethylbenzene	1.28	5	NA	NA
260407-19-IA1-20110607	Ethylbenzene	1.22		NA	NA
BD03-20110607	Methylene chloride	1.94	89	1.94 J	7
260407-19-IA1-20110607	Methylene chloride	5.07		5.07 J	7
BD03-20110607	Naphthalene	0.744	41	0.744 J	7
260407-19-IA1-20110607	Naphthalene	0.493		0.493 J	7
BD03-20110607	Tetrachloroethene	0.312	7	NA	NA
260407-19-IA1-20110607	Tetrachloroethene	0.292		NA	NA
BD03-20110607	Toluene	16.0	4	NA	NA
260407-19-IA1-20110607	Toluene	15.3		NA	NA
BD03-20110607	Total Xylenes	4.78	5	NA	NA
260407-19-IA1-20110607	Total Xylenes	4.56		NA	NA
BD03-20110607	All other VOCs	ND	0	NA	NA
260407-19-IA1-20110607	All other VOCs	ND		NA	NA

U - not detected
ND - not detected
NC - not calculable
NA - not applicable

2.11 Internal Standards

The internal standard areas and retention times were within method limits of ±40% of the internal standard areas from the most recent calibration and within 0.33 minutes of the retention times for the internal standards from the most recent calibration.

2.12 Target Compound Identifications

The target compound identifications were within the validation criteria.

2.13 Target Compound Quantitations

The compound quantitations were within the validation criteria with the exceptions noted below.

Acetone was detected above the calibration range in the original analyses of samples 260407-17-IA1-20110607, 260407-22-IA2-20110607, BD03-20110607, 260407-19-IA1-20110607. The samples were analyzed at dilution, bringing the concentrations of acetone within the calibration range; both sets of data were reported. Only the acetone results within the calibration range should be used; the E flagged results should not be used.

Tetrachloroethene was detected above the calibration range in the original analysis of sample 260407-22-SS2-20110608. The sample was analyzed at dilution, bringing the concentrations of tetrachlorethene within the calibration range; both sets of data were reported. Only the tetrachlorethene result within the calibration range should be used; the E flagged result should not be used.

2.14 Electronic Data Deliverables Review

A minimum of 20% of the results and all sample IDs provided in the electronic data deliverable (EDD) were reviewed against information provided in the Level IV report. It was noted that sample results for 1,2-dibromoethane, naphthalene and bromodichloromethane were not reported to ½ the RL in the EDD.

3. AIR PHASE PETROLEUM HYDROCARBONS (APH)

Twenty two air samples, four field duplicate samples and one trip blank sample were analyzed for petroleum hydrocarbons per EPA Massachusetts DEP Method APH.

Components of the laboratory data package that were reviewed during this Tier IV data validation are listed below. A check mark (✓) indicates components of the data package that are acceptable. A crossed circle (⊗) signifies components of the data package where issues were raised during the course of the validation review, and these issues should be considered to determine whether they have an impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Times
- ✓ Instrument Performance Check
- ✓ Initial Calibration
- ⊗ Continuing Calibration Verification
- ✓ Method Blanks
- ✓ Laboratory Control Sample
- ⊗ Laboratory Duplicate
- ⊗ Trip Blank
- ⊗ Field Duplicate
- ✓ Internal Standards
- ✓ Target Compound Identifications
- ✓ Target Compound Quantitations

- ⊗ Electronic Data Deliverables Review

3.1 Overall Assessment

The APH data reported in this package are considered to be usable for meeting the project objectives documented in Form D of the QAPP. The results are considered to be valid; the analytical completeness, defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for analysis, for the project is 100%.

Review of the reporting limits found that the proposed screening levels listed in the QAPP were met for all compounds except C9-C12 aliphatic hydrocarbons. During this assessment, it was noted that the laboratory hardcopy report lists the same value for the reporting limit and the MDL for each analyte. Based on information from Alpha Analytical, this is due to a limitation of the LIMS and none of the data have been reported to the MDLs, but to the RLs.

3.2 Holding Times

The holding time for an air sample collected in a Summa™ canister for APH analysis is 30 days from sample collection. The holding times were met for the sample analyses.

3.3 Instrument Performance Check

Instrument performance check samples (tune standards) were analyzed by Alpha Analytical. All calibration standards, the air samples and QC samples were analyzed within 24-hours after analyzing the tune standards. All ion abundance criteria were met for BFB.

3.4 Initial Calibration

Appropriate initial calibrations were performed and documented for each analyte. The laboratory calculated %RSDs of the RRFs. The %RSDs met the method criteria of less than or equal to 30% for all compounds except naphthalene. The %RSD for naphthalene was 38% in the initial calibration performed on instrument AirLab8. Therefore, based on professional judgment, the non-detected results of naphthalene in the associated samples were UJ qualified as estimated less than the reporting limit; naphthalene was not detected in the associated samples. These qualifications are summarized below:

Sample ID	Compound	Laboratory Concentration ($\mu g/m^3$)	Validation Concentration ($\mu g/ m^3$)	EDD Reason Code
260902-IA1-20110607	Naphthalene	2.0 U	2.0 UJ	9
260902-IA2-20110607	Naphthalene	2.0 U	2.0 UJ	9
260902-OA-20110607	Naphthalene	2.0 U	2.0 UJ	9
260903-IA1-20110607	Naphthalene	2.0 U	2.0 UJ	9
260903-IA2-20110607	Naphthalene	2.0 U	2.0 UJ	9
260903-OA-20110607	Naphthalene	2.0 U	2.0 UJ	9
260407-17-IA1-20110607	Naphthalene	2.0 U	2.0 UJ	9

Sample ID	Compound	Laboratory Concentration (µg/m^3)	Validation Concentration (µg/ m^3)	EDD Reason Code
260407-20-IA1-20110607	Naphthalene	2.0 U	2.0 UJ	9
260407-22-IA1-20110607	Naphthalene	2.0 U	2.0 UJ	9
260407-22-IA2-20110607	Naphthalene	2.0 U	2.0 UJ	9
260407-OA1-20110607	Naphthalene	2.0 U	2.0 UJ	9
260407-OA2-20110607	Naphthalene	2.0 U	2.0 UJ	9
BD01-20110607	Naphthalene	2.0 U	2.0 UJ	9
BD03-20110607	Naphthalene	2.0 U	2.0 UJ	9
TB-20110608	Naphthalene	2.0 U	2.0 UJ	9
260407-19-IA1-20110607	Naphthalene	2.0 U	2.0 UJ	9

U - not detected at the reporting limit

ICV standards were analyzed after the initial calibrations. The %Ds between the RRFs in the initial calibrations and the ICVs were within the method acceptance criteria of less than or equal to 30%, with the following exception. The %D for naphthalene was 47% for the ICV analyzed on instrument AirLab8 on 6/10/11. Based on professional judgment, no qualifications were applied to the data due to the ICV %D result for naphthalene since the CCV standard %D and the LCS recovery for naphthalene, analyzed on the same day as the samples, were within the method acceptance limits.

3.5 Continuing Calibration Verification

CCVs were performed after the initial calibration on a daily basis after the BFB tune and prior to the analysis of samples. The CCVs RRFs met the method minimum RRF criteria of 0.050. The %Ds between the RRFs in the initial and CCVs were within the method acceptance criteria of less than or equal to 30%, with the following exception. The CCV analyzed on instrument Air2 on 18 June 2011 had 35%D for naphthalene; naphthalene was not detected in the associated samples and therefore, the non-detected results of naphthalene in the associated samples were UJ qualified as estimated less than the reporting limit. These qualifications are summarized below:

Sample ID	Compound	Laboratory Concentration (µg/m^3)	Validation Concentration (µg/ m^3)	EDD Reason Code
260902-IA1-20110607	Naphthalene	2.0 U	2.0 UJ	9
260902-IA2-20110607	Naphthalene	2.0 U	2.0 UJ	9
260902-OA-20110607	Naphthalene	2.0 U	2.0 UJ	9
260903-IA1-20110607	Naphthalene	2.0 U	2.0 UJ	9
260903-IA2-20110607	Naphthalene	2.0 U	2.0 UJ	9
260903-OA-20110607	Naphthalene	2.0 U	2.0 UJ	9
260407-17-IA1-20110607	Naphthalene	2.0 U	2.0 UJ	9
260407-20-IA1-20110607	Naphthalene	2.0 U	2.0 UJ	9
260407-22-IA1-20110607	Naphthalene	2.0 U	2.0 UJ	9

Sample ID	Compound	Laboratory Concentration (µg/m^3)	Validation Concentration (µg/ m^3)	EDD Reason Code
260407-22-IA2-20110607	Naphthalene	2.0 U	2.0 UJ	9
260407-OA1-20110607	Naphthalene	2.0 U	2.0 UJ	9
260407-OA2-20110607	Naphthalene	2.0 U	2.0 UJ	9
BD01-20110607	Naphthalene	2.0 U	2.0 UJ	9
BD03-20110607	Naphthalene	2.0 U	2.0 UJ	9
TB-20110608	Naphthalene	2.0 U	2.0 UJ	9
260407-19-IA1-20110607	Naphthalene	2.0 U	2.0 UJ	9

U - not detected at the reporting limit

3.6 Method Blanks

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (i.e., one per batch of 20 samples). Two method blanks were analyzed and reported for the 27 samples. APH were not detected in the method blanks above the reporting limits.

3.7 Laboratory Duplicate

Laboratory duplicates were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Two laboratory duplicates were analyzed, using samples 260407-19-SS1-20110608 and 260407-20-IA1-20110607. The results for the laboratory duplicate were within the method-specified acceptance criteria for APH analytes of 25%D, with the following exception. o-Xylene was detected in sample 260407-20-IA1-20110607 above the reporting limit and not detected in the laboratory duplicate, resulting in a non-calculable and unacceptable RPD between the results. Therefore, the detected concentration of o-xylene in sample 260407-20-IA1-20110607 was J qualified as estimated. This qualification is summarized below:

Sample ID	Compound	Laboratory Concentration (µg/m^3)	Validation Concentration (µg/ m^3)	EDD Reason Code
260407-20-IA1-20110607	o-Xylene	2.0	2.0 J	12

3.8 Laboratory Control Sample

Two LCSs were analyzed for the 27 samples submitted to the laboratory, which is the proper frequency for the number and types of samples analyzed (i.e., one per batch of 20 samples). The results for the LCSs were within the method-specified acceptance criteria for recovery of 70-130%.

3.9 Trip Blank

A trip blank, TB01-03182011, accompanied the sample shipment. No APH were detected in the trip blank above the reporting limits, with the exception of C5-C8 Aliphatics, which was detected

at a concentration of 13.0 µg/m^3. Since the samples were analyzed from Summa™ canisters, no qualifications were applied to the data, based on professional judgment.

3.10 Field Duplicate

Four field duplicate samples, BD01-20110607, BD02-20110607, BD03-20110607 and BD04-20110608, were collected with the samples. Acceptable precision (RPD ≤25%) was demonstrated between each field duplicate and the associated original samples, 260902-IA2-20110607, 260903-SS1-20110607, 260407-19-IA1-20110607 and 260407-22-SS1-20110608, respectively, with the following exceptions. C9-C12 aliphatics and toluene were detected in the field duplicate and not detected in the parent sample for the duplicate pair 260407-22-SS1-20110608/BD04-20110608. Therefore, the detected concentrations of C9-C12 aliphatics and toluene in field duplicate BD04-20110608 were J qualified as estimated and the non-detected results in sample 260407-22-SS1-20110608 were UJ qualified as estimated less than the MDLs.

The calculated RPDs for the duplicate pairs and applicable qualifications are summarized below:

Sample ID	Compound	Laboratory Concentration (µg/m^3)	RPD	Validation Concentration (µg/ m^3)	EDD Reason Code
260902-IA2-20110607	C5-C8 Aliphatics	85	2	NA	NA
BD01-20110607	C5-C8 Aliphatics	83		NA	NA
260902-IA2-20110607	C9-C12 Aliphatics	52	0	NA	NA
BD01-20110607	C9-C12 Aliphatics	52		NA	NA
260902-IA2-20110607	Toluene	4.3	10	NA	NA
BD01-20110607	Toluene	3.9		NA	NA
260902-IA2-20110607	All other APH	ND	0	NA	NA
BD01-20110607	All other APH	ND		NA	NA

ND - not detected at the reporting limit
NA - not applicable

Sample ID	Compound	Laboratory Concentration (µg/m^3)	RPD	Validation Concentration (µg/ m^3)	EDD Reason Code
260903-SS1-20110607	C5-C8 Aliphatics	20	11	NA	NA
BD02-20110607	C5-C8 Aliphatics	18		NA	NA
260903-SS1-20110607	All other APH	ND	0	NA	NA
BD02-20110607	All other APH	ND		NA	NA

ND - not detected at the reporting limit
NA - not applicable

Sample ID	Compound	Laboratory Concentration (µg/m^3)	RPD	Validation Concentration (µg/ m^3)	EDD Reason Code
BD03-20110607	C5-C8 Aliphatics	360	9	NA	NA

260407-19-IA1-20110607	C5-C8 Aliphatics	330		NA	NA
BD03-20110607	C9-C10 Aromatics Total	12	15	NA	NA
260407-19-IA1-20110607	C9-C10 Aromatics Total	14		NA	NA
BD03-20110607	C9-C12 Aliphatics	180	0	NA	NA
260407-19-IA1-20110607	C9-C12 Aliphatics	180		NA	NA
BD03-20110607	Toluene	16	0	NA	NA
260407-19-IA1-20110607	Toluene	16		NA	NA
BD03-20110607	All other APH	ND	0	NA	NA
260407-19-IA1-20110607	All other APH	ND		NA	NA

ND - not detected at the reporting limit
NA - not applicable

Sample ID	**Compound**	**Laboratory Concentration (µg/m^3)**	**RPD**	**Validation Concentration (µg/ m^3)**	**EDD Reason Code**
260407-22-SS1-20110608	C5-C8 Aliphatics	33	8	NA	NA
BD04-20110608	C5-C8 Aliphatics	39		NA	NA
260407-22-SS1-20110608	C9-C12 Aliphatics	14 U	NC	14 UJ	7
BD04-20110608	C9-C12 Aliphatics	14		14 J	7
260407-22-SS1-20110608	Toluene	2.0 U	NC	2.0 UJ	7
BD04-20110608	Toluene	3.3		3.3 J	7
260407-22-SS1-20110608	All other APH	ND	0	NA	NA
BD04-20110608	All other APH	ND		NA	NA

U - not detected at the indicated reporting limit
NC - not calculable
NA - not applicable
ND - not detected at the reporting limit

3.11 Internal Standards

The internal standard areas and retention times were within method limits of ±40% of the internal standard areas from the most recent calibration and within 0.33 minutes of the retention times for the internal standards from the most recent calibration.

3.12 Target Compound Identifications

The target compound identifications were within the validation criteria.

3.13 Target Compound Quantitations

The compound quantitations were within the validation.

3.14 Electronic Data Deliverables Review

A minimum of 20% of the results and all sample IDs provided in the EDD were reviewed against the information provided in the Level IV report. Discrepancies were identified between the EDD

and the Level IV report; there were M flagged results in EDD that were not M flagged in hardcopy. The laboratory was contacted and the EDD was revised to remove the M flags from the sample results.

* * * * *

ATTACHMENT 1
DATA VALIDATION QUALIFIER DEFINITIONS
AND INTERPRETATION KEY
Assigned by Geosyntec's Data Validation Team

DATA QUALIFIER DEFINITIONS

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

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

J+ The analyte was positively identified; however, the associated numerical value is likely to be higher that the concentration of the analyte in the sample due to positive bias of associated QC or calibration data or attributable to matrix interference.

J- The analyte was positively identified; however, the associated numerical value is likely to be lower that the concentration of the analyte in the sample due to negative bias of associated QC or calibration data or attributable to matrix interference.

UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

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

ATTACHMENT 2
DATA VALIDATION REASON CODES
Assigned by Geosyntec's Data Validation Team

Valid Value	Description
1	Preservation requirement not met
2	Analysis holding time exceeded
3	Blank contamination (i.e., method, trip, equipment, etc.)
4	Matrix spike/matrix spike duplicate recovery or RPD outside limits
5	LCS recovery outside limits
6	Surrogate recovery outside limits
7	Field Duplicate RPD exceeded
8	Serial dilution percent difference exceeded
9	Calibration criteria not met
10	Linear range exceeded
11	Internal standard criteria not met
12	Lab duplicates RPD exceeded
13	Other

RPD-relative percent difference