

Wickham, Jerry, Env. Health

From: pdking0000@aol.com
Sent: Saturday, September 20, 2008 8:24 AM
To: Wickham, Jerry, Env. Health
Subject: Snow Cleaners Soil Gas Results SG12 Through SG18
Attachments: 0809065_d.pdf; 0298.R6 fig 3 w_soil gas PCE.pdf

Hi Jerry,

You will find attached the following documents.

- o 0809065_d.pdf (lab results for soil gas samples SG12 through SG18).
- o 0298.R6 fig 3 w_soil gas PCE.pdf (a Site Vicinity Map Detail Showing Drilling Locations, Geologic Cross Section Locations, and PCE in Soil Gas at 5 Foot Depth).

I have also prepared soil gas contour figures for TCE, cis-1,2-DCE, vinyl chloride, and benzene. I have not attached these figures with this e-mail because with the exception of PCE none of the soil gas concentrations from boreholes located adjacent to residential and commercial structures exceed SFRWQCB residential soil gas ESLs, and the locations of contours that exceed soil gas residential ESLs for these other compounds do not coincide with the footprints of any residential or commercial structures.

Using the DTSC Johnson-Ettinger (JE) spreadsheet, the calculated cumulative incremental risk from vapor intrusion into air is follows.

- o 2682 Coolidge Avenue - 2.4 per million.
- o 3320 Davis Street - 11 per million.

These values were calculated by using the highest soil gas sample result for any of the soil gas samples collected adjacent to these structures and calculating the cumulative total for the detected compounds PCE, TCE, cis-1,2-DCE, methylene chloride, benzene, toluene, ethylbenzene and xylenes using spreadsheet default values and a soil type of SI. The cumulative hazard quotient for each property was similarly calculated with the DTSC JE spreadsheet to be less than 1.

The highest soil gas concentrations from SG8, SG12, and SG12-DUP, were used to calculate the hypothetical cumulative incremental risk from vapor intrusion into air at the downgradient residential structure at 2621 34th Avenue with results as follows.

- o 2621 34th Avenue - 5.5 per million.

The hypothetical cumulative hazard quotient was similarly calculated to be less than 1.

The calculated hypothetical cumulative incremental risk from vapor intrusion into air at the downgradient residential structure at 2621 34th Avenue assumes that conditions encountered at 2621 34th Avenue are similar to conditions encountered at SG8 and SG12. The calculated hypothetical results suggest that indoor air sampling would also be appropriate at 2621 34th Avenue if soil gas concentrations are encountered at that address that are similar to concentrations encountered at SG8 and SG12. The soil gas concentrations at 2621 34th Avenue are presently unknown, but the SG8 and SG12 soil gas concentrations provide a conservative estimate of the risk at 2621 34th Avenue.

The DTSC recommends that when the cumulative incremental risk from vapor intrusion to indoor air exceeds

one per million, or when the cumulative hazard quotient from vapor intrusion to indoor air exceeds one, that indoor air samples be collected on a semi-annual basis and that permanent subslab monitoring points and/or permanent vadose zone monitoring points be installed. The DTSC also recommends that when the cumulative incremental risk from vapor intrusion to indoor air exceeds 100 per million, or when the cumulative hazard quotient from vapor intrusion to indoor air exceeds 3 that mitigation be performed by instituting engineering controls to mitigate exposure in conjunction with collection of soil gas and indoor air samples semi-annually to verify mitigation of exposure. None of the calculated cumulative incremental risks from vapor intrusion to indoor air exceed 100, and none of the calculated hazard quotients from vapor intrusion to indoor air exceed 1, let alone 3.

Groundwater samples were collected from all of the groundwater monitoring wells on Thursday 9/18/08. The sample results should be received from the lab by the end of 9/26/08. The wells and associated nearby structures will be surveyed on Monday 9/22/08.

I recommend that the subsurface investigation report be completed with the available information following completion of the surveying and receipt of the well sample results, and that the following steps be taken following submittal of the report.

- o Meet with the responsible party to inform them of the next steps for work related to their site.
- o Meet with the community to discuss the results and next steps.
- o Develop plans to evaluate soil gas at proposed locations SG19 through SG23 shown on Figure 3 attached with this e-mail.
- o Develop plans for indoor air sampling and any other recommendations provided in the report.

Please let me know if you have any questions or need additional information. Thank you!

Best Regards,
Paul King
Professional Geologist

P&D Environmental, Inc.
55 Santa Clara Avenue, Suite 240
Oakland, CA 94610
510-658-6916 (telephone)
510-834-0152 (facsimile)

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LEGEND

- SG18 ⊗ Soil Gas Sample Collected by P&D, 2008
- SG23 ⊠ Proposed Soil Gas Sample Location
- (8,300) PCE Soil Gas Concentration in ug/m³
- ND Not Detected
- NA Not Analyzed
- - - PCE Isoconcentration Contour
- MW4 ⊕ Existing Monitoring Well Location
- B28 ⊕ Borehole Drilled by P&D, 2008
- H6 ⊕ Existing Borehole Location
- B36 ⊕ Proposed Borehole Location
- ▨ Planters and Landscaped Areas Containing UST Pit Soil
- ⊗ Composite Soil Sample Collection Location
- G G' Geologic Cross Section Location

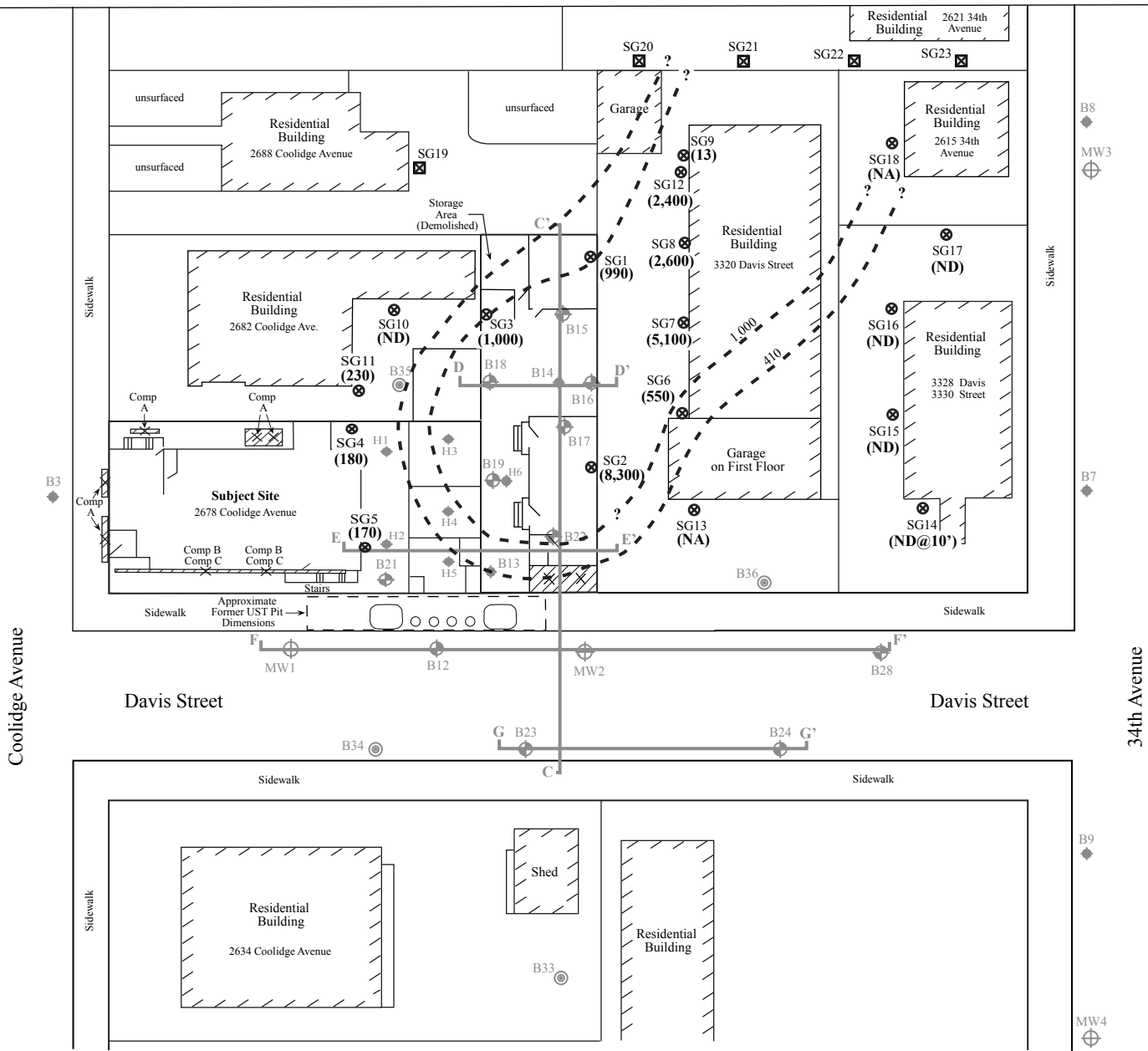
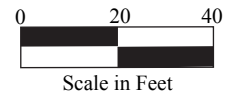


Figure 3
 Site Vicinity Map Detail Showing Drilling Locations,
 Geologic Cross Sections, and PCE in Soil Gas at 5 Foot Depth
 Snow Cleaners
 2678 Coolidge Avenue
 Oakland, California



Base Map from:
 Underground Tank
 Closure/Modification Plan
 June 16, 1990

P&D Environmental, Inc.
 55 Santa Clara Ave., Suite 240
 Oakland, CA 94610





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Thank you for choosing Air Toxics Ltd. To better serve our customers, we are providing your report by e-mail. This document is provided in Portable Document Format which can be viewed with Acrobat Reader by Adobe.

This electronic report includes the following:

- Work order Summary;
- Laboratory Narrative;
- Results; and
- Chain of Custody (copy).

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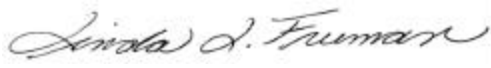
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WORK ORDER #: 0809065

Work Order Summary

| | | | |
|------------------------|--|------------------|--|
| CLIENT: | Mr. Paul King P & D Environmental 55 Santa Clara Suite 240 Oakland, CA 94610 | BILL TO: | Mr. Paul King P & D Environmental 55 Santa Clara Suite 240 Oakland, CA 94610 |
| PHONE: | 510-658-6916 | P.O. # | |
| FAX: | 510-834-0772 | PROJECT # | 0298 Snow Cleaners, Oakland, CA |
| DATE RECEIVED: | 09/04/2008 | CONTACT: | Kyle Vagadori |
| DATE COMPLETED: | 09/17/2008 | | |

| <u>FRACTION #</u> | <u>NAME</u> | <u>TEST</u> | <u>RECEIPT VAC./PRES.</u> | <u>FINAL PRESSURE</u> |
|-------------------|-------------|----------------|-------------------------------|---------------------------|
| 01A | SG12 | Modified TO-15 | 5.0 "Hg | 15 psi |
| 02A | SG12 Dup | Modified TO-15 | 4.0 "Hg | 15 psi |
| 03A | SG14 | Modified TO-15 | 4.0 "Hg | 15 psi |
| 04A | SG15 | Modified TO-15 | 6.0 "Hg | 15 psi |
| 05A | SG16 | Modified TO-15 | 6.5 "Hg | 15 psi |
| 06A | SG17 | Modified TO-15 | 4.0 "Hg | 15 psi |
| 07A | Lab Blank | Modified TO-15 | NA | NA |
| 08A | CCV | Modified TO-15 | NA | NA |
| 09A | LCS | Modified TO-15 | NA | NA |

CERTIFIED BY:  DATE: 09/17/08

Laboratory Director

Certification numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
 NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719
 Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
 Accreditation number: E87680, Effective date: 07/01/08, Expiration date: 06/30/09
 Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards
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**LABORATORY NARRATIVE
Modified TO-15
P & D Environmental
Workorder# 0809065**

Six 1 Liter Summa Canister samples were received on September 04, 2008. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode. The method involves concentrating up to 0.2 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

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

| <i>Requirement</i> | <i>TO-15</i> | <i>ATL Modifications</i> |
|-------------------------|----------------------------|---|
| Daily CCV | <= 30% Difference | <= 30% Difference; Compounds exceeding this criterion and associated data are flagged and narrated. |
| Sample collection media | Summa canister | ATL recommends use of summa canisters to insure data defensibility, but will report results from Tedlar bags at client request |
| Method Detection Limit | Follow 40CFR Pt.136 App. B | The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases |

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

There were no analytical discrepancies.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction no performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

- U - Compound analyzed for but not detected above the reporting limit.
- UJ- Non-detected compound associated with low bias in the CCV
- N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

- a-File was requantified
- b-File was quantified by a second column and detector
- r1-File was requantified for the purpose of reissue



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Summary of Detected Compounds MODIFIED EPA METHOD TO-15 GC/MS

Client Sample ID: SG12

Lab ID#: 0809065-01A

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|-------------------|-------------------|---------------|--------------------|----------------|
| Trichloroethene | 1.2 | 7.0 | 6.5 | 38 |
| Tetrachloroethene | 1.2 | 320 | 8.2 | 2200 |
| Benzene | 1.2 | 3.1 | 3.9 | 9.8 |
| Toluene | 1.2 | 2.0 | 4.6 | 7.4 |
| m,p-Xylene | 1.2 | 1.2 | 5.2 | 5.2 |

Client Sample ID: SG12 Dup

Lab ID#: 0809065-02A

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|-------------------|-------------------|---------------|--------------------|----------------|
| Trichloroethene | 1.2 | 7.7 | 6.3 | 41 |
| Tetrachloroethene | 1.2 | 360 | 7.9 | 2400 |
| Benzene | 1.2 | 2.2 | 3.7 | 7.1 |
| Toluene | 1.2 | 1.9 | 4.4 | 7.1 |
| 2-Propanol | 4.7 | 5.9 | 11 | 14 |

Client Sample ID: SG14

Lab ID#: 0809065-03A

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---------------|-------------------|---------------|--------------------|----------------|
| Benzene | 1.2 | 4.6 | 3.7 | 15 |
| Toluene | 1.2 | 28 | 4.4 | 100 |
| Ethyl Benzene | 1.2 | 2.6 | 5.0 | 12 |
| m,p-Xylene | 1.2 | 7.1 | 5.0 | 31 |
| o-Xylene | 1.2 | 3.0 | 5.0 | 13 |
| 2-Propanol | 4.7 | 25 | 11 | 62 |

Client Sample ID: SG15

Lab ID#: 0809065-04A

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---------------|-------------------|---------------|--------------------|----------------|
| Toluene | 2.5 | 430 | 9.5 | 1600 |
| Ethyl Benzene | 2.5 | 68 | 11 | 290 |
| m,p-Xylene | 2.5 | 240 | 11 | 1000 |
| o-Xylene | 2.5 | 92 | 11 | 400 |



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Summary of Detected Compounds MODIFIED EPA METHOD TO-15 GC/MS

Client Sample ID: SG15

Lab ID#: 0809065-04A

| | | | | |
|------------|----|----|----|----|
| 2-Propanol | 10 | 10 | 25 | 25 |
|------------|----|----|----|----|

Client Sample ID: SG16

Lab ID#: 0809065-05A

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---------------|-------------------|---------------|--------------------|----------------|
| Toluene | 1.3 | 16 | 4.9 | 59 |
| Ethyl Benzene | 1.3 | 8.3 | 5.6 | 36 |
| m,p-Xylene | 1.3 | 30 | 5.6 | 130 |
| o-Xylene | 1.3 | 9.1 | 5.6 | 40 |

Client Sample ID: SG17

Lab ID#: 0809065-06A

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---------------|-------------------|---------------|--------------------|----------------|
| Benzene | 1.2 | 1.4 | 3.7 | 4.6 |
| Toluene | 1.2 | 15 | 4.4 | 56 |
| Ethyl Benzene | 1.2 | 2.7 | 5.0 | 12 |
| m,p-Xylene | 1.2 | 12 | 5.0 | 52 |
| o-Xylene | 1.2 | 4.2 | 5.0 | 18 |



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Client Sample ID: SG12

Lab ID#: 0809065-01A

MODIFIED EPA METHOD TO-15 GC/MS

| | | |
|---------------------|----------------|--|
| File Name: | 7090912 | Date of Collection: 8/29/08 |
| Dil. Factor: | 2.42 | Date of Analysis: 9/9/08 03:44 PM |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|--------------------------|-------------------|---------------|--------------------|----------------|
| Vinyl Chloride | 1.2 | Not Detected | 3.1 | Not Detected |
| Methylene Chloride | 1.2 | Not Detected | 4.2 | Not Detected |
| cis-1,2-Dichloroethene | 1.2 | Not Detected | 4.8 | Not Detected |
| Trichloroethene | 1.2 | 7.0 | 6.5 | 38 |
| Tetrachloroethene | 1.2 | 320 | 8.2 | 2200 |
| trans-1,2-Dichloroethene | 1.2 | Not Detected | 4.8 | Not Detected |
| Benzene | 1.2 | 3.1 | 3.9 | 9.8 |
| Toluene | 1.2 | 2.0 | 4.6 | 7.4 |
| Ethyl Benzene | 1.2 | Not Detected | 5.2 | Not Detected |
| m,p-Xylene | 1.2 | 1.2 | 5.2 | 5.2 |
| o-Xylene | 1.2 | Not Detected | 5.2 | Not Detected |
| 2-Propanol | 4.8 | Not Detected | 12 | Not Detected |

Container Type: 1 Liter Summa Canister

| Surrogates | %Recovery | Method Limits |
|-----------------------|-----------|---------------|
| 1,2-Dichloroethane-d4 | 97 | 70-130 |
| Toluene-d8 | 98 | 70-130 |
| 4-Bromofluorobenzene | 104 | 70-130 |



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Client Sample ID: SG12 Dup

Lab ID#: 0809065-02A

MODIFIED EPA METHOD TO-15 GC/MS

| | | |
|---------------------|----------------|--|
| File Name: | 7090917 | Date of Collection: 8/29/08 |
| Dil. Factor: | 2.33 | Date of Analysis: 9/9/08 07:39 PM |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|--------------------------|-------------------|---------------|--------------------|----------------|
| Vinyl Chloride | 1.2 | Not Detected | 3.0 | Not Detected |
| Methylene Chloride | 1.2 | Not Detected | 4.0 | Not Detected |
| cis-1,2-Dichloroethene | 1.2 | Not Detected | 4.6 | Not Detected |
| Trichloroethene | 1.2 | 7.7 | 6.3 | 41 |
| Tetrachloroethene | 1.2 | 360 | 7.9 | 2400 |
| trans-1,2-Dichloroethene | 1.2 | Not Detected | 4.6 | Not Detected |
| Benzene | 1.2 | 2.2 | 3.7 | 7.1 |
| Toluene | 1.2 | 1.9 | 4.4 | 7.1 |
| Ethyl Benzene | 1.2 | Not Detected | 5.0 | Not Detected |
| m,p-Xylene | 1.2 | Not Detected | 5.0 | Not Detected |
| o-Xylene | 1.2 | Not Detected | 5.0 | Not Detected |
| 2-Propanol | 4.7 | 5.9 | 11 | 14 |

Container Type: 1 Liter Summa Canister

| Surrogates | %Recovery | Method Limits |
|-----------------------|-----------|---------------|
| 1,2-Dichloroethane-d4 | 96 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 103 | 70-130 |



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SG14

Lab ID#: 0809065-03A

MODIFIED EPA METHOD TO-15 GC/MS

| | | |
|---------------------|----------------|--|
| File Name: | 7090921 | Date of Collection: 8/29/08 |
| Dil. Factor: | 2.33 | Date of Analysis: 9/9/08 11:36 PM |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|--------------------------|-------------------|---------------|--------------------|----------------|
| Vinyl Chloride | 1.2 | Not Detected | 3.0 | Not Detected |
| Methylene Chloride | 1.2 | Not Detected | 4.0 | Not Detected |
| cis-1,2-Dichloroethene | 1.2 | Not Detected | 4.6 | Not Detected |
| Trichloroethene | 1.2 | Not Detected | 6.3 | Not Detected |
| Tetrachloroethene | 1.2 | Not Detected | 7.9 | Not Detected |
| trans-1,2-Dichloroethene | 1.2 | Not Detected | 4.6 | Not Detected |
| Benzene | 1.2 | 4.6 | 3.7 | 15 |
| Toluene | 1.2 | 28 | 4.4 | 100 |
| Ethyl Benzene | 1.2 | 2.6 | 5.0 | 12 |
| m,p-Xylene | 1.2 | 7.1 | 5.0 | 31 |
| o-Xylene | 1.2 | 3.0 | 5.0 | 13 |
| 2-Propanol | 4.7 | 25 | 11 | 62 |

Container Type: 1 Liter Summa Canister

| Surrogates | %Recovery | Method Limits |
|-----------------------|-----------|---------------|
| 1,2-Dichloroethane-d4 | 96 | 70-130 |
| Toluene-d8 | 104 | 70-130 |
| 4-Bromofluorobenzene | 99 | 70-130 |



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SG15

Lab ID#: 0809065-04A

MODIFIED EPA METHOD TO-15 GC/MS

| | | |
|---------------------|----------------|---|
| File Name: | 7090923 | Date of Collection: 8/29/08 |
| Dil. Factor: | 5.06 | Date of Analysis: 9/10/08 12:55 AM |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|--------------------------|--------------------------|----------------------|---------------------------|-----------------------|
| Vinyl Chloride | 2.5 | Not Detected | 6.5 | Not Detected |
| Methylene Chloride | 2.5 | Not Detected | 8.8 | Not Detected |
| cis-1,2-Dichloroethene | 2.5 | Not Detected | 10 | Not Detected |
| Trichloroethene | 2.5 | Not Detected | 14 | Not Detected |
| Tetrachloroethene | 2.5 | Not Detected | 17 | Not Detected |
| trans-1,2-Dichloroethene | 2.5 | Not Detected | 10 | Not Detected |
| Benzene | 2.5 | Not Detected | 8.1 | Not Detected |
| Toluene | 2.5 | 430 | 9.5 | 1600 |
| Ethyl Benzene | 2.5 | 68 | 11 | 290 |
| m,p-Xylene | 2.5 | 240 | 11 | 1000 |
| o-Xylene | 2.5 | 92 | 11 | 400 |
| 2-Propanol | 10 | 10 | 25 | 25 |

Container Type: 1 Liter Summa Canister

| Surrogates | %Recovery | Method Limits |
|-----------------------|------------------|----------------------|
| 1,2-Dichloroethane-d4 | 95 | 70-130 |
| Toluene-d8 | 107 | 70-130 |
| 4-Bromofluorobenzene | 97 | 70-130 |



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SG16

Lab ID#: 0809065-05A

MODIFIED EPA METHOD TO-15 GC/MS

| | | |
|---------------------|----------------|---|
| File Name: | 7090922 | Date of Collection: 8/29/08 |
| Dil. Factor: | 2.58 | Date of Analysis: 9/10/08 12:15 AM |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|--------------------------|-------------------|---------------|--------------------|----------------|
| Vinyl Chloride | 1.3 | Not Detected | 3.3 | Not Detected |
| Methylene Chloride | 1.3 | Not Detected | 4.5 | Not Detected |
| cis-1,2-Dichloroethene | 1.3 | Not Detected | 5.1 | Not Detected |
| Trichloroethene | 1.3 | Not Detected | 6.9 | Not Detected |
| Tetrachloroethene | 1.3 | Not Detected | 8.8 | Not Detected |
| trans-1,2-Dichloroethene | 1.3 | Not Detected | 5.1 | Not Detected |
| Benzene | 1.3 | Not Detected | 4.1 | Not Detected |
| Toluene | 1.3 | 16 | 4.9 | 59 |
| Ethyl Benzene | 1.3 | 8.3 | 5.6 | 36 |
| m,p-Xylene | 1.3 | 30 | 5.6 | 130 |
| o-Xylene | 1.3 | 9.1 | 5.6 | 40 |
| 2-Propanol | 5.2 | Not Detected | 13 | Not Detected |

Container Type: 1 Liter Summa Canister

| Surrogates | %Recovery | Method Limits |
|-----------------------|-----------|---------------|
| 1,2-Dichloroethane-d4 | 90 | 70-130 |
| Toluene-d8 | 97 | 70-130 |
| 4-Bromofluorobenzene | 101 | 70-130 |



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SG17

Lab ID#: 0809065-06A

MODIFIED EPA METHOD TO-15 GC/MS

| | | |
|---------------------|----------------|---|
| File Name: | 7090924 | Date of Collection: 8/29/08 |
| Dil. Factor: | 2.33 | Date of Analysis: 9/10/08 01:34 AM |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|--------------------------|--------------------------|----------------------|---------------------------|-----------------------|
| Vinyl Chloride | 1.2 | Not Detected | 3.0 | Not Detected |
| Methylene Chloride | 1.2 | Not Detected | 4.0 | Not Detected |
| cis-1,2-Dichloroethene | 1.2 | Not Detected | 4.6 | Not Detected |
| Trichloroethene | 1.2 | Not Detected | 6.3 | Not Detected |
| Tetrachloroethene | 1.2 | Not Detected | 7.9 | Not Detected |
| trans-1,2-Dichloroethene | 1.2 | Not Detected | 4.6 | Not Detected |
| Benzene | 1.2 | 1.4 | 3.7 | 4.6 |
| Toluene | 1.2 | 15 | 4.4 | 56 |
| Ethyl Benzene | 1.2 | 2.7 | 5.0 | 12 |
| m,p-Xylene | 1.2 | 12 | 5.0 | 52 |
| o-Xylene | 1.2 | 4.2 | 5.0 | 18 |
| 2-Propanol | 4.7 | Not Detected | 11 | Not Detected |

Container Type: 1 Liter Summa Canister

| Surrogates | %Recovery | Method Limits |
|-----------------------|------------------|----------------------|
| 1,2-Dichloroethane-d4 | 90 | 70-130 |
| Toluene-d8 | 96 | 70-130 |
| 4-Bromofluorobenzene | 96 | 70-130 |



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0809065-07A

MODIFIED EPA METHOD TO-15 GC/MS

| | | |
|---------------------|----------------|--|
| File Name: | 7090905 | Date of Collection: NA |
| Dil. Factor: | 1.00 | Date of Analysis: 9/9/08 11:02 AM |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|--------------------------|--------------------------|----------------------|---------------------------|-----------------------|
| Vinyl Chloride | 0.50 | Not Detected | 1.3 | Not Detected |
| Methylene Chloride | 0.50 | Not Detected | 1.7 | Not Detected |
| cis-1,2-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| Trichloroethene | 0.50 | Not Detected | 2.7 | Not Detected |
| Tetrachloroethene | 0.50 | Not Detected | 3.4 | Not Detected |
| trans-1,2-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| Benzene | 0.50 | Not Detected | 1.6 | Not Detected |
| Toluene | 0.50 | Not Detected | 1.9 | Not Detected |
| Ethyl Benzene | 0.50 | Not Detected | 2.2 | Not Detected |
| m,p-Xylene | 0.50 | Not Detected | 2.2 | Not Detected |
| o-Xylene | 0.50 | Not Detected | 2.2 | Not Detected |
| 2-Propanol | 2.0 | Not Detected | 4.9 | Not Detected |

Container Type: NA - Not Applicable

| Surrogates | %Recovery | Method Limits |
|-----------------------|------------------|----------------------|
| 1,2-Dichloroethane-d4 | 92 | 70-130 |
| Toluene-d8 | 98 | 70-130 |
| 4-Bromofluorobenzene | 97 | 70-130 |



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: CCV

Lab ID#: 0809065-08A

MODIFIED EPA METHOD TO-15 GC/MS

| | | |
|---------------------|----------------|--|
| File Name: | 7090904 | Date of Collection: NA |
| Dil. Factor: | 1.00 | Date of Analysis: 9/9/08 10:09 AM |

| Compound | %Recovery |
|--------------------------|------------------|
| Vinyl Chloride | 87 |
| Methylene Chloride | 85 |
| cis-1,2-Dichloroethene | 94 |
| Trichloroethene | 105 |
| Tetrachloroethene | 101 |
| trans-1,2-Dichloroethene | 92 |
| Benzene | 95 |
| Toluene | 99 |
| Ethyl Benzene | 101 |
| m,p-Xylene | 99 |
| o-Xylene | 101 |
| 2-Propanol | 93 |

Container Type: NA - Not Applicable

| Surrogates | %Recovery | Method Limits |
|-----------------------|------------------|----------------------|
| 1,2-Dichloroethane-d4 | 99 | 70-130 |
| Toluene-d8 | 102 | 70-130 |
| 4-Bromofluorobenzene | 100 | 70-130 |



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0809065-09A

MODIFIED EPA METHOD TO-15 GC/MS

| | | |
|---------------------|----------------|--|
| File Name: | 7090903 | Date of Collection: NA |
| Dil. Factor: | 1.00 | Date of Analysis: 9/9/08 09:30 AM |

| Compound | %Recovery |
|--------------------------|------------------|
| Vinyl Chloride | 82 |
| Methylene Chloride | 90 |
| cis-1,2-Dichloroethene | 90 |
| Trichloroethene | 100 |
| Tetrachloroethene | 102 |
| trans-1,2-Dichloroethene | 87 |
| Benzene | 93 |
| Toluene | 101 |
| Ethyl Benzene | 97 |
| m,p-Xylene | 96 |
| o-Xylene | 98 |
| 2-Propanol | 86 |

Container Type: NA - Not Applicable

| Surrogates | %Recovery | Method Limits |
|-----------------------|------------------|----------------------|
| 1,2-Dichloroethane-d4 | 101 | 70-130 |
| Toluene-d8 | 102 | 70-130 |
| 4-Bromofluorobenzene | 103 | 70-130 |