GE
Aviation

General Electric
WA0009278706
HZW.07.1

James W. Sumner, Manager
Group Environmental Programs

One Neumann Way, M/D T165
Cincinnati, OH 45215

T 513-672-3986, DC 8*892-3986
F 513 552-8918, DC 8*892-8918
jim.sumner@ge.com

Hand Signed
Original cover letter
arrived separate
from Report

January 9, 2007

Mr. Dean Yasuda
Washington Department of Ecology
Northwest Regional Office
3190 – 160th Avenue S.E.
Bellevue, Washington 98008-5452

Dear Mr. Yasuda:

Attached please find a report prepared by RETEC regarding the November, 2006 air sampling event at the former GE building. Our next air sampling event is scheduled for February. We will notify you once we finalize a date.

With this letter I would like to confirm that Jamie Stevens has taken over for Jill Lantz at RETEC. Please copy Jamie only on any and all communications regarding this project.

Should you have any questions please feel free to contact me at 513 672-3986 or Jamie Stevens at (206) 624-9349.

Sincerely,

James W. Sumner

Attachment – Air Sampling Report

cc: Tong Li – Groundwater Solutions
Bill Teplicky, McKinstry Co.
Bill Joyce – Salter Joyce Ziker
Linda Baker, Jamie Stevens – RETEC

ECY received 1/10/07
Actual Rec'd Copy
General Electric
WAD 009278706
HZW 6.7.1

GE
Aviation

James W. Sumner, Manager
Group Environmental Programs

One Neumann Way, M/D T165
Cincinnati, OH 45215

T 513-672-3986, DC 8*892-3986
F 513 552-8918, DC 8*892-8918
jim.sumner@ge.com

January 9, 2007

Mr. Dean Yasuda
Washington Department of Ecology
Northwest Regional Office
3190 – 160th Avenue S.E.
Bellevue, Washington 98008-5452

RECEIVED
JAN 10 2007
DEPT. OF ECOLOGY

Dear Mr. Yasuda:

Attached please find a report prepared by RETEC regarding the November, 2006 air sampling event at the former GE building. Our next air sampling event is scheduled for February. We will notify you once we finalize a date.

With this letter I would like to confirm that Jamie Stevens has taken over for Jill Lantz at RETEC. Please copy Jamie only on any and all communications regarding this project.

Should you have any questions please feel free to contact me at 513 672-3986 or Jamie Stevens at (206) 624-9349.

Sincerely,

RECEIVED
JAN 10 2007
DEPT. OF ECOLOGY

James W. Sumner

Attachment – Air Sampling Report

With corrected Table 1

cc: Tong Li – Groundwater Solutions
Bill Teplicky, McKinstry Co.
Bill Joyce – Salter Joyce Ziker
Linda Baker, Jamie Stevens – RETEC

From: Origin ID: (206)624-9349
Jamie Stevens
The RETEC Group
1011 Southwest Klickitat Way #207

Seattle, WA 98134

CLS100308/19/23

Ship Date: 09JAN07
ActWgt: 1 LB
System#: 1859212/INET2500
Account#: S *********

REF: GE001-19314-750

Delivery Address Bar Code

SHIP TO: (425)649-7264 **BILL SENDER**

Dean Yasuda
Dept.Of Ecology
3190 160th Ave.S.E.

Bellevue, WA 98008

DEPT. OF ECOLOGY

JAN 10 2007

RECEIVED

STANDARD OVERNIGHT

WED
Deliver By:
10JAN07

TRK# 7995 6682 7490 BOEM 0201

SEA A2

98008 -WA-US

85 BVUA

Shipping Label: Your shipment is complete

1. Use the 'Print' feature from your browser to send this page to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is $500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

Central Files copy
Eco received 1/10/07

The RETEC Group, Inc.
1011 SW Klickitat Way
Suite 207
Seattle, WA 98134-1162

RETEC

(206) 624-9349 Phone
(206) 624-2839 Fax
www.retec.com

January 9, 2007

General Electric
WAD009278706
HZW 67.1

Mr. Dean Yasuda
Department of Ecology
3190 160th Ave. SE
Bellevue, WA 98008

RE: November 2006 Indoor Air Sampling – Former GE Building, Seattle, WA

Dear Dean:

General Electric Company's Aviation division (GE) is currently evaluating environmental impacts to soil and groundwater at, and downgradient of its former facility, 220 South Dawson Street in Seattle, Washington. GE and the Washington Department of Ecology (Ecology) entered into an Agreed Order (#DE02HWTRNR-4686) in 2002, under which GE will complete the investigation phase of the project so that a final remedy can be implemented. The work to be completed under the Agreed Order is detailed in the Interim Action Work Plan (IAWP; RETEC, 2002).

The first round of air sampling at the former GE building was conducted in December 2005. During that event, only trichloroethene (TCE) was detected above the MTCA Method C cleanup level of 0.22 $\mu g/m^3$. A remediation level was also developed with a value of 1.15 $\mu g/m^3$. No samples contained TCE greater than this value. Based on elevated concentrations in the sub-slab samples, Ecology required either mitigation or additional sampling at the site. Shortly thereafter Ecology also agreed the investigation phase was complete and requested a Completion Report and Draft Cleanup Action Plan. As such GE has elected to combine the mitigation work for the indoor air pathway with the final remedy at the site, and has therefore agreed to additional indoor air sampling in August 2006 and February 2007. The results of the August 2006 sampling event included elevated detections, compared to the December 2005 event, these results seemed to be anomalies and a repeat sampling event was scheduled for November 2006.

This report presents the results of the November 2006 indoor and ambient air sampling performed in accordance with our August 10, 2006 letter, which references the *Work Plan for Evaluation of Subsurface Vapor Intrusion, Revision 2*, dated November 1, 2005. The scope of work included collection of air samples from indoor and outdoor sampling locations, to provide an update to results obtained in December 2005, to confirm the results obtained in August 2006, and give information on the potential for seasonal variations in indoor air quality in the building.

Sampling Methods

On Thursday November 2, 2006, Jamie Stevens (RETEC) conducted a site walk-through to observe and mitigate potential sources of volatile organic compounds (VOC) contamination in indoor air. Potential sources of VOC were identified at Puget Pipe Supply and Hudson Bay Insulation; all potential sources were placed in sealed plastic bags. The November 2006 event was delayed due to heavy rains over the weekend, rains continued through the work week with a

break on November 8. The event was schedule for Thursday November 9 to take advantage of the break in rain, the forecast for the rest of the week included heavy rain. Prior to deploying sample canisters on November 9, a site walk-through was conducted to confirm that all potential sources observed on November 2 were sealed and that no new potential sources of VOC were identified. Copies of field notes are included in Attachment A.

Field work for the air sampling was conducted on Thursday, November 9, 2006. A total of 9 air samples were collected for this evaluation. These consisted of 4 ambient air samples, 4 indoor air samples, and 1 field duplicate sample. The sample locations are shown in Figure 1.

All indoor and ambient sampling was also conducted in accordance with the standard operating procedures discussed in the Work Plan. All sampling canisters were individually certified clean by GC/MS analysis before being used in the field. Certification of cleaning and evacuation was noted prior to collection of samples. A vacuum gauge was used to check both the initial and final vacuum in the canisters; the initial vacuum was checked to ensure mechanical integrity of the canisters and was approximately 30 pounds per square inch (psi). The final vacuum after sample collection read from approximately 0.0 to 7 psi, and was verified upon receipt by the laboratory to ensure sample integrity during return shipment (Table 1). The sample canister at sample location IA-5 read 0.0 psi on the gauge on the canister and at the laboratory, the second vacuum gauged used in the field record a vacuum of -0.5 psi.

The sample ID, sample date, sample time and canister number were recorded on the sampling forms and in the field notes. Signs were also posted on each unit stating the purpose of the sampler and asking that no smoking occur. In addition, starting and ending vacuum readings were recorded for each canister, and recorded on the sample labels and the Chain of Custody for laboratory quality control purposes. Once samples were collected, they were stored according to the method protocol and shipped to the analytical laboratory on the next business day under Chain of Custody procedures. Copies of all field forms are included in Attachment A, a photographic record of the sampling events is provided in Attachment B.

All sampling was conducted concurrent on November 9, 2006. This event occurred after a seven consistent days of heavy rain, however, the day of sampling was dry. The samples were collected over an eight-hour time period to capture a normal worker's exposure. This event was conducted during the normal operating hours for all of the businesses in the former GE building.

The indoor samples were set up and collected in accordance with the Work Plan. Six-liter Summa canisters with 8-hour flow controllers were used to collect each indoor air sample during the field event. The canisters and controllers were SIM-certified at the laboratory. The canisters were placed approximately four to five feet above the ground (at approximate breathing zone height).

A field duplicate sample was collected at the IA-4 location. Two canisters were set up on top of boxes inside the Hudson Bay Insulation warehouse. A photograph of the setup is shown in

Attachment B. The field duplicate was used in data validation for quality control/quality assurance purposes.

Ambient Air Results

No CVOCs were detected above the detection limit in the ambient air samples. Results are summarized in Table 2.

The wind during the day on November 9 was generally from a S/SSW direction, based on field observations. Wind speed and direction data were obtained from Boeing Field and from the Puget Sound Clean Air Agency (PSCAA) station located at 4752 East Marginal Way South, less than one-half mile from the former GE facility. Wind roses showing the wind speed and direction recorded at the two locations throughout the day are shown in Figure 2. These measurements confirm that wind was generally from a southerly direction, with the majority of the measurements from the SW direction. Based on the wind data for the test period, samples AA-1 and AA-3 are representative of upwind conditions at the former GE facility.

Indoor Air Results

PCE, TCE and 1,1,1-trichloroethane (TCA) were detected in indoor air samples. Table 2 shows the results of the November 2006 sampling event and the December 2005 and August 2006 sampling events. Table 2 shows "corrected" and raw data. During the December 2005 and August 2006 sampling events PCE was the only compound detected in ambient air, the average PCE concentration was subtracted from the indoor air concentrations, to develop "corrected" indoor air concentrations, reflecting only the indoor air contribution to PCE in the samples. During the November 2006 sampling event no CVOCs were detected in the ambient air results, thus the November 2006 data was not corrected. Table 2 shows the raw (December 2005, August 2006, and November 2006) and "corrected" indoor air results (December 2005 and August 2006).

The PCE concentrations during the November 2006 event ranged from below the laboratory detection limit of 0.23 to 0.67 $\mu g/m^3$, well below the MTCA Method C cleanup level of 4.2 $\mu g/m^3$. PCE was only detected in 2 sample locations (IA-3 and IA-5) in November 2006, PCE was detected in all sample locations during the previous sampling events.

TCE concentrations in indoor air samples ranging from below the laboratory detection limit of 0.18 (IA-3) to 1.7 (IA-4) $\mu g/m^3$. Detections at IA-5 and IA-4 were greater than the MTCA Method C cleanup level of 0.22 $\mu g/m^3$. The results from IA-4 was the only sample result above the remediation level of 1.15 $\mu g/m^3$, which takes into account actual exposure frequencies and durations for the workers in the building, rather than assuming 24-hour a day exposures. 1,1,1-TCA was reported in one sample, IA-5 detected at 0.32 $\mu g/m^3$, the detection was well below the MTCA Method C cleanup level of 2,205 $\mu g/m^3$. This reported result is consistent with previous sampling events.

Summary and Next Steps

GE has now completed three rounds of air sampling at the 220 South Dawson St facility. Of the eight compounds evaluated only TCE was found above DOE screening and remediation levels. Four of these samples were found above the Remediation level of 1.15$\mu g/m^3$ (1.2, 1.3. 1.7 & 5.2$\mu g/m^3$). Per agreement with DOE, GE will conduct another round of air sampling in February.

As stated above, the sample results in the November 2006 event were lower for all three of these sample results and more consistent with detections recorded in December 2005. As stated in the August 2006 data report, no evidence of new cracks or disturbances to the building slab were observed in August 2006. The elevated TCE concentrations may be indicative of some indoor source of TCE that has not been identified, or it may be an anomaly that is not indicative of ongoing site conditions.

If you have any questions or comments, please call me at (206) 624-9349 or Jim Sumner at (513) 672-3986.

Sincerely,
The RETEC Group, Inc.

Jamie C. Stevens

Jamie C. Stevens
Project Manager

cc: Jim Sumner – GE
Bill Teplicky/Alex Cordas – KeyMac
Bill Joyce – Salter Joyce Ziker
Tong Li – Groundwater Solutions
Linda Baker, John Finn – RETEC
RETEC File GE001-19314

Tables

Table 1 Summary of Sample Collection Information - November 2006

Location ID	Canister ID	Initial Vacuum Readings		Final Vacuum Readings		Final Vacuum Reading at Laboratory	Start Time	End Time	Duration (hours)	Analysis
		Vacuum Gauge	Flow Controller	Vacuum Gauge	Flow Controller					
AA-1	33871	-30	-30	-6.0	-8.0	4.5	7:29	15:28	7:59	TO-15 SIM
AA-2	12709	-30	-30	-3.5	-4.5	3.0	7:40	15:36	7:56	TO-15 SIM
AA-3	13664	-30	-30	-4.0	-5.0	3.5	7:50	15:48	7:58	TO-15 SIM
AA-4	34338	-30	-30	-6.0	-6.0	4.5	8:00	15:58	7:58	TO-15 SIM
IA-1	35136	-30	-30	-7.0	-8.0	6.0	7:05	15:05	8:00	TO-15 SIM
IA-3	940	-29	-30	-6.0	-6.0	6.0	7:12	15:09	7:57	TO-15 SIM
IA-4	34373	-30	-30	-6.0	-6.0	4.5	7:03	14:38	7:35	TO-15 SIM
IA-5	33536	-30	-30	-0.5	0.0	0.0	7:08	13:31	6:23	TO-15 SIM
IA-4 (Dup)	13859	-30	-30	-7.0	-7.0	5.0	7:03	14:38	7:35	TO-15 SIM

Notes:

TO-15 Analysis included: 1,1,1-Trichloroethane (1,1,1-TCA), 1,1-Dichloroethane (1,1-DCA), 1,1-Dichloroethylene (1,1-DCE), Chloroform, cis 1,2-Dichloroethylene (1,2-DCE), Tetrachloroethylene (PCE), Trichloroethylene (TCE), and Vinyl Chloride

All vacuum readings in units of pounds per square inch (psi)

Initial Vacuum Readings of -30psi were greater than -30psi, the gauge only recorded to -30psi.

Sample IA-5 was stopped after 6:23 hours because the pressure fell below 0.0 psi

Summary of Vapor Intrusion Study Results – Former GE Building

Location ID	1,1,1-TCA			1,1-DCA			1,1-DCE			Chloroform			cis-1,2-DCE			PCE			TCE			Vinyl Chloride		
	12/5/2005	8/21/2006	11/9/2006	12/5/2005	8/21/2006	11/9/2006	12/5/2005	8/21/2006	11/9/2006	12/5/2005	8/21/2006	11/9/2006	12/5/2005	8/21/2006	11/9/2006	12/5/2005	8/21/2006	11/9/2006	12/5/2005	8/21/2006	11/9/2006	12/5/2005	8/21/2006	11/9/2006
Indoor Air Samples ($\mu g/m^3$)																								
IA-1	**0.18**	**0.21**	< 0.18	< 0.13	< 0.13	< 0.14	< 0.063	< 0.064	< 0.067	< 0.15	< 0.16	< 0.16	< 0.12	< 0.13	< 0.13	**0.38**	**0.22**	< 0.23	**0.28**	**1.3**	**0.2**	< 0.04	< 0.041	< 0.043
IA-2	< 0.19	NS	NS	< 0.14	NS	NS	< 0.068	NS	NS	< 0.17	NS	NS	< 0.14	NS	NS	**0.38**	NS	NS	**0.27**	NS	NS	< 0.044	NS	NS
IA-2 (duplicate)	< 0.18	NS	NS	< 0.13	NS	NS	< 0.064	NS	NS	< 0.16	NS	NS	< 0.13	NS	NS	**0.38**	NS	NS	**0.28**	NS	NS	< 0.041	NS	NS
IA-3	< 0.18	**0.17**	< 0.18	< 0.14	< 0.12	< 0.14	< 0.067	< 0.06	< 0.067	< 0.16	**0.16**	< 0.16	< 0.13	< 0.12	< 0.13	**0.43**	**0.29**	**0.67**	**0.34**	**0.29**	< 0.18	< 0.043	< 0.039	< 0.043
IA-4	< 0.18	**0.21**	< 0.17	< 0.13	< 0.13	< 0.13	< 0.064	< 0.064	< 0.063	< 0.16	**0.16**	< 0.15	< 0.13	< 0.13	< 0.12	**0.42**	**0.22**	< 0.21	**0.55**	**5.2**	**1.7**	< 0.041	< 0.041	< 0.04
IA-4 (duplicate)	NS	NS	< 0.18	NS	NS	< 0.13	NS	NS	< 0.064	NS	NS	< 0.16	NS	NS	< 0.13	NS	NS	< 0.22	NS	NS	**1.7**	NS	NS	< 0.041
IA-5	**0.38**	**0.21**	**0.32**	< 0.14	< 0.13	< 0.11	< 0.068	< 0.064	< 0.053	< 0.17	< 0.16	< 0.13	< 0.14	< 0.13	< 0.11	**0.45**	**0.22**	**0.28**	**0.71**	**1.2**	**1**	< 0.044	< 0.041	< 0.034
IA-5 (duplicate)	NS	**0.18**	NS	NS	< 0.13	NS	NS	< 0.064	NS	NS	< 0.16	NS	NS	< 0.13	NS	NS	**0.22**	NS	NS	**0.96**	NS	NS	< 0.041	NS
IA-6	< 0.18	NS	NS	< 0.13	NS	NS	< 0.064	NS	NS	< 0.16	NS	NS	< 0.13	NS	NS	**0.46**	NS	NS	**0.44**	NS	NS	< 0.041	NS	NS
Ambient Samples ($\mu g/m^3$)																								
AA-1	< 0.18	< 0.18	< 0.17	< 0.14	< 0.14	< 0.13	< 0.067	< 0.067	< 0.063	< 0.16	< 0.16	< 0.15	< 0.13	< 0.13	< 0.12	**0.46**	< 0.23	< 0.21	**0.2**	< 0.18	< 0.17	< 0.043	< 0.043	< 0.04
AA-3	< 0.17	< 0.18	< 0.16	< 0.13	< 0.13	< 0.12	< 0.063	< 0.065	< 0.06	< 0.15	< 0.16	< 0.15	< 0.12	< 0.13	< 0.12	**0.37**	**0.27**	< 0.21	**0.18**	< 0.18	< 0.16	< 0.04	< 0.042	< 0.039
AA-5	< 0.17	NS	NS	< 0.13	NS	NS	< 0.063	NS	NS	< 0.15	NS	NS	< 0.12	NS	NS	**0.4**	NS	NS	**0.19**	NS	NS	< 0.04	NS	NS
Average Upwind for I	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	***0.41***	***0.12*** [1]	*0*	***0.19***	*0*	*0*	*0*	*0*	*0*
AA-2	< 0.17	< 0.18	< 0.16	< 0.13	< 0.14	< 0.12	< 0.063	< 0.067	< 0.059	< 0.15	< 0.16	< 0.14	< 0.12	< 0.13	< 0.12	**0.38**	< 0.23	< 0.2	**0.18**	< 0.18	< 0.16	< 0.04	< 0.043	< 0.038
AA-4	< 0.17	< 0.18	< 0.17	< 0.13	< 0.14	< 0.12	< 0.063	< 0.067	< 0.063	< 0.15	< 0.16	< 0.15	< 0.12	< 0.13	< 0.12	**0.34**	< 0.23	< 0.21	< 0.17	< 0.18	< 0.17	< 0.04	< 0.043	< 0.04
Corrected Indoor Air Results (Indoor Air minus Ambient) ($\mu g/m^3$)																								
IA-1	**0.18**	**0.21**	< 0.18	< 0.13	< 0.13	< 0.14	< 0.063	< 0.064	< 0.067	< 0.15	< 0.16	< 0.16	< 0.12	< 0.13	< 0.13	**-0.03**	**0.03**	< 0.23	**0.09**	**1.3**	**0.2**	< 0.04	< 0.041	< 0.043
IA-2	< 0.19	NS	NS	< 0.14	NS	NS	< 0.068	NS	NS	< 0.17	NS	NS	< 0.14	NS	NS	**-0.03**	NS	NS	**0.08**	NS	NS	< 0.044		
IA-2 (duplicate)	< 0.18	NS	NS	< 0.13	NS	NS	< 0.064	NS	NS	< 0.16	NS	NS	< 0.13	NS	NS	**-0.03**	NS	NS	**0.09**	NS	NS	< 0.041		
IA-3	< 0.18	**0.17**	< 0.18	< 0.14	< 0.12	< 0.14	< 0.067	< 0.06	< 0.067	< 0.16	**0.16**	< 0.16	< 0.13	< 0.12	< 0.13	**0.02**	**0.10**	**0.67**	**0.15**	**0.29**	< 0.18	< 0.043	< 0.039	< 0.043
IA-4	< 0.18	**0.21**	< 0.17	< 0.13	< 0.13	< 0.13	< 0.064	< 0.064	< 0.063	< 0.16	**0.16**	< 0.15	< 0.13	< 0.13	< 0.12	**0.01**	**0.03**	< 0.21	**0.36**	**5.2**	**1.7**	< 0.041	< 0.041	< 0.04
IA-5	**0.38**	**0.21**	< 0.32	< 0.14	< 0.13	< 0.11	< 0.068	< 0.064	< 0.053	< 0.17	< 0.16	< 0.13	< 0.14	< 0.13	< 0.11	**0.04**	**0.03**	**0.28**	**0.52**	**1.2**	**1**	< 0.044	< 0.041	< 0.034
MTCA Method C Indoor Air Screening Level	*2,205*			*350*			*200*			*1.1*			*35*			*4.2*			*0.22/1.15* [2]			*2.82*		

Notes:

1. Average PCE concentration in ambient air calculated using 1/2 detection limit for non-detect result.
2. TCE has two screening levels, the MTCA Mehthd C screening level (0.22 ug/m3)and the site specific remediation level (1.15 ug/m^3)

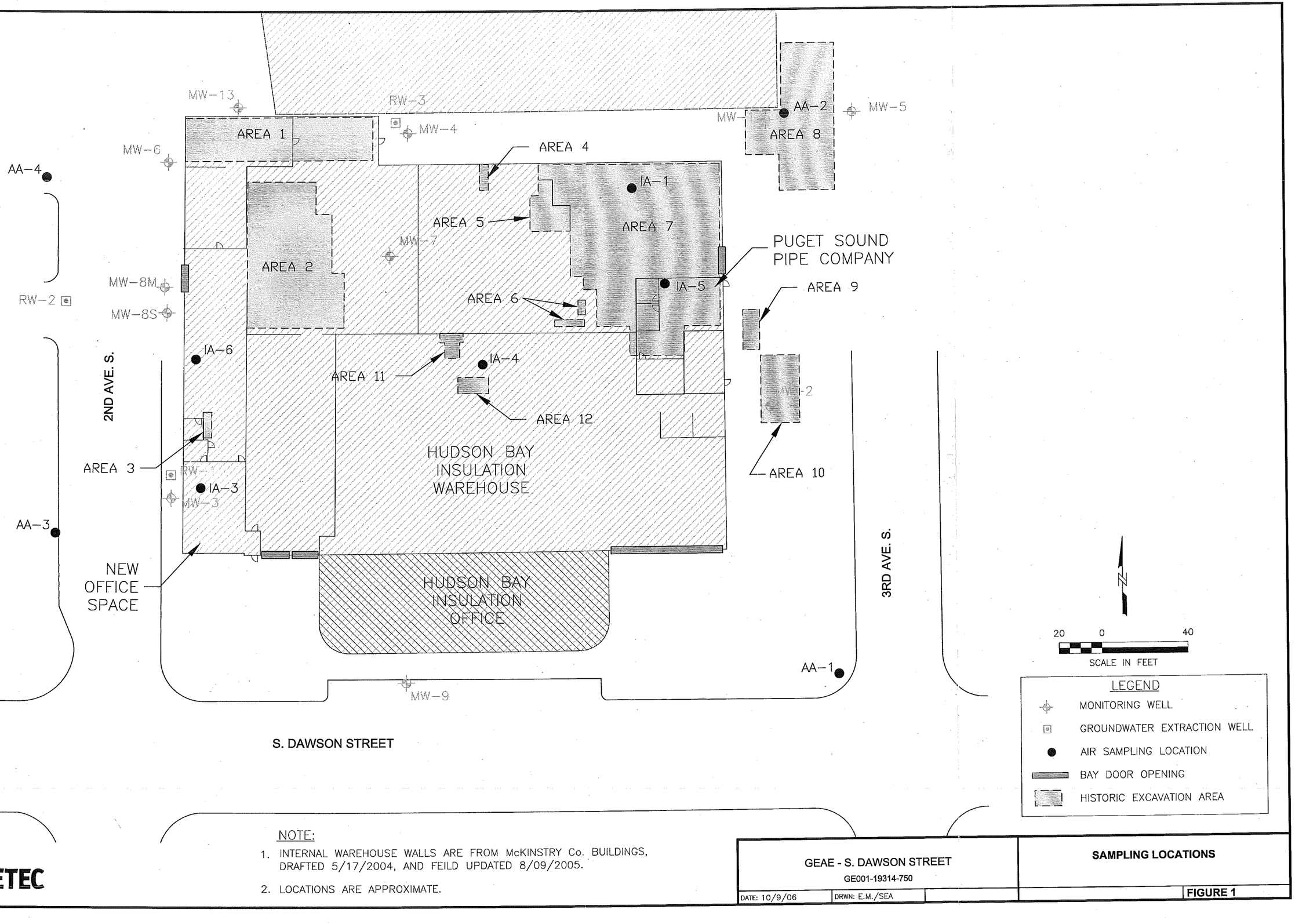
NS - Location was not sampled

Blue shading indicates values above the MTCA Method C Screening level

Yellow shading indicates values above the Site Specific Remediation Level

During the November 2006 Sampling event no COCs were detected in the Ambient air.

1,1,1-TCA- 1,1,1-Trichloroethane
1,1-DCA- 1,1-Dichloroethane
1,1-DCE- 1,1-Dichloroethylene
1,2-DCE- cis 1,2-Dichloroethylene
PCE- Tetrachloroethylene
TCE- Trichloroethylene



NOTE:

1. INTERNAL WAREHOUSE WALLS ARE FROM McKINSTRY Co. BUILDINGS, DRAFTED 5/17/2004, AND FEILD UPDATED 8/09/2005.
2. LOCATIONS ARE APPROXIMATE.

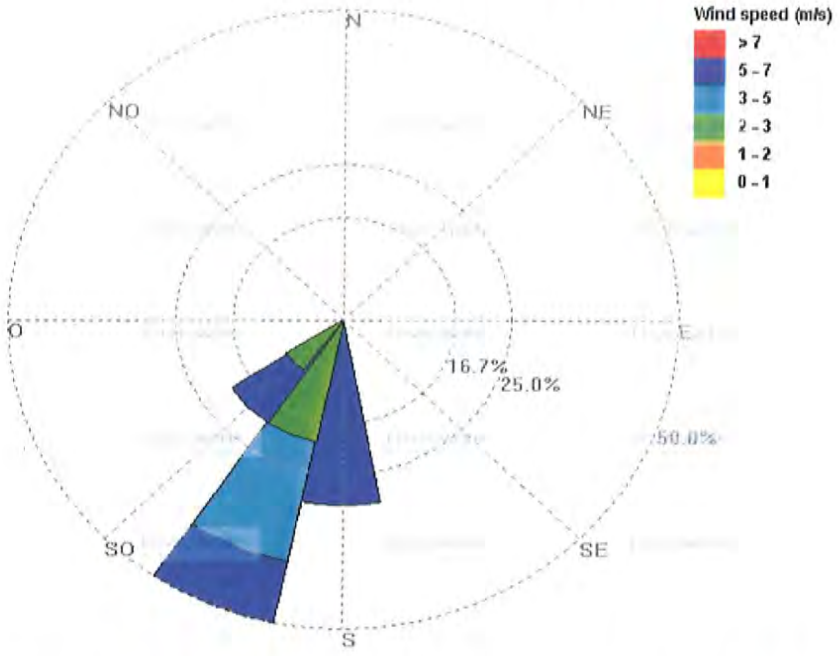
RETEC

GEAE - S. DAWSON STREET GE001-19314-750			SAMPLING LOCATIONS
DATE: 10/9/06	DRWN: E.M./SEA		FIGURE 1

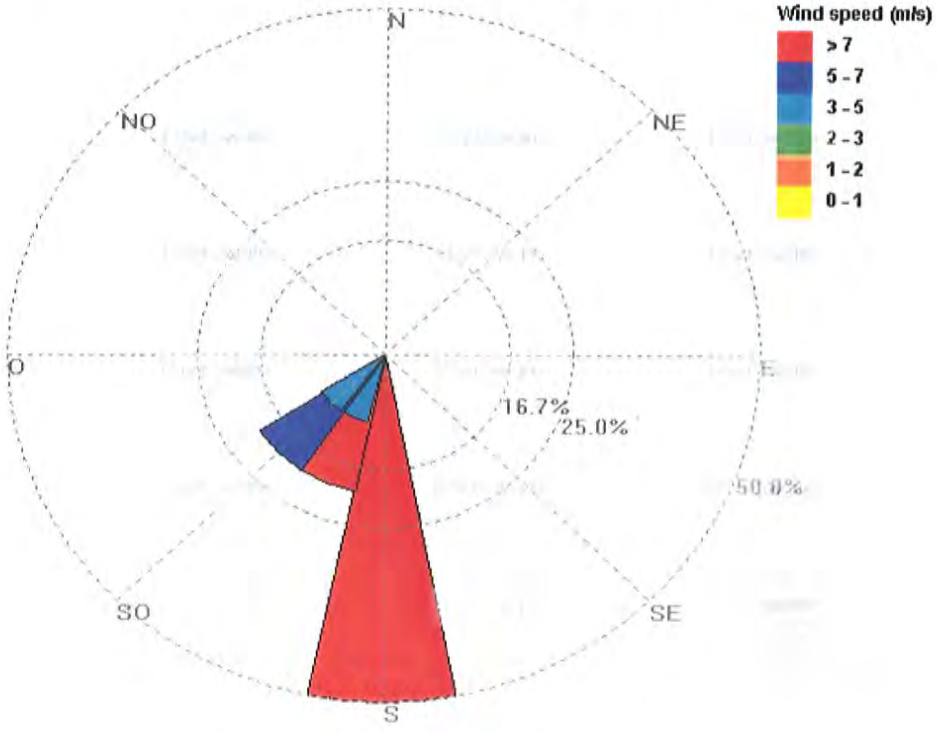
File: H:\19314\19314S046.dwg Layout: FIGURE 1 User: emarshall Plotted: Oct 09, 2006 - 2:44pm Xref's:

Figure 2 Wind Roses

November 9, 2006 - 7AM to 4PM - PSCAA Duwamish Station



November 9, 2006 - 7AM to 4PM - Boeing Field (data from wunderground.com)



December 14, 2006

Organic Data Verification Report

General Electric – South Dawson Street

Air Sampling - November 2006

Prepared for:

Jill Nordstrom Lantz
Project Manager
The RETEC Group, Inc.
1011 Klickitat Way, Suite 207
Seattle, WA 98134

Prepared by:

Ann Biegelsen
Environmental Quality Assurance Chemist
The RETEC Group, Inc.
2409 Research Blvd., Suite 106
Fort Collins, CO 80526

RETEC Project No.: GE001-19314-750

Overview

The samples analyzed for the General Electric South Dawson Street air sampling event from November 2006 are listed in the Table of Samples Analyzed (page 2). Data verification was performed on nine air samples.

Samples were analyzed by Air Toxics Ltd of Folsom, CA. The verified analyses were Volatile Organic Compounds (VOCs) by modified GC/MS method TO15 SIM.

The RETEC Analytical Data Verification Checklist is presented as pages 3-6. Data were evaluated based on validation criteria set forth in the *USEPA Contract Laboratory Program (CLP) National Functional Guidelines for Superfund Organic Methods Data Review*, document number EPA540/R-99/008, October 1999 with additional reference to document 540-R-04-009, January 2005 as they applied to the reported methodology. Field duplicate RPD control limits were taken from the USEPA Region I Laboratory Data Validation Functional Guidelines for Evaluating Organics Analyses, February 1988, upheld in DRAFT 1993.

The following data components were reviewed during the data verification procedure:

Submitted Deliverables
Case Narratives
Chain-of-Custody form(s) and sample integrity
Sample results, reporting detection limits, method detection limits, dilution factors
Holding times
Method blank results
LCS (blank spike) results
Laboratory duplicate results
Organic surrogate recoveries
Blind field duplicate results
Electronic data deliverables (EDDs)

Data Validation Qualifiers Assigned During this Review

There were no data validation qualifiers assigned during this review.

Overall Data Assessment

Precision, accuracy, method compliance, and completeness of the data set have been determined to be acceptable, based on the data submitted. The data are suitable for their intended use.

Table of Samples Analyzed
General Electric South Dawson Street
Air Samples
Air Toxics Ltd. Laboratory Project 0611269
November 2006 Sampling

Matrix	Sample Name	Parent Sample ID	Sample Date and Time		Lab SDG	Lab Sample ID
Air	AA-1-1106		11/9/2006	7:29	611269	0611269-06A
Air	AA-2-1106		11/9/2006	7:40	611269	0611269-07A
Air	AA-3-1106		11/9/2006	7:50	611269	0611269-08A
Air	AA-4-1106		11/9/2006	8:00	611269	0611269-09A
Air	Duplicate-1106	IA-4-1106	11/9/2006	7:03	611269	0611269-04A
Air	IA-1-1106		11/9/2006	7:05	611269	0611269-01A
Air	IA-3-1106		11/9/2006	7:12	611269	0611269-02A
Air	IA-4-1106		11/9/2006	7:03	611269	0611269-03A
Air	IA-5-1106		11/9/2006	7:08	611269	0611269-05A

RETEC ANALYTICAL DATA VERIFICATION CHECKLIST

Project Name: General Electric	Laboratory: Air Toxics Ltd. Folsom, CA
Project Reference: South Dawson Street Air Sampling	Sample Matrix: Air
RETEC Project: GE001-19314-750	Sample Start Date: 11/09/2006
Verified By/Date Verified: Ann Biegelsen / 12/14/2006	Sample End Date: 11/09/2006
Samples Analyzed: Refer to the Table of Samples Analyzed (page 2).	
Parameters Verified: Volatile Organic Compounds (VOCs) by modified GC/MS method TO15 SIM.	
Laboratory Project ID: 0611269	

PRECISION, ACCURACY, METHOD COMPLIANCE, AND COMPLETENESS ASSESSMENT

Precision:	X	Acceptable		Unacceptable	AB	Initials

Comments: Precision is the measure of variability of individual sample measurements. Field precision was determined by comparison of field duplicate sample results. Laboratory precision could not be determined as there were no laboratory duplicate samples reported in this data set. Evaluation of field duplicates for precision was done using the Relative Percent Difference (RPD). The RPD is defined as the difference between two duplicate samples divided by the mean and expressed as a percent. Field duplicate RPD QC limits were set at 0-30% for air samples. No data require qualification based on field duplicate precision measurements, and overall field precision is acceptable. Precision measurements are reviewed in items 17, 20, and 21.

Accuracy:	X	Acceptable		Unacceptable	AB	Initials

Comments: Field accuracy, a measure of the sampling bias, could not be determined as there were no trip blank, field blank, or equipment rinse blank samples included in this data set. Laboratory accuracy is a measure of the system bias, and was measured by evaluating laboratory control sample/laboratory control sample duplicate (LCS), and organic system monitoring compounds (surrogate) percent recoveries (%Rs). LCS %Rs, which demonstrated the overall performance of the analysis, were compared to EPA published QC limits. System monitoring compound or surrogate recoveries, which measured system performance and efficiency during organic analysis, were compared to EPA published QC limits or laboratory control charted limits. No data require qualification based on laboratory accuracy measurements, and overall laboratory accuracy is acceptable. Accuracy measurements are reviewed in items 12, 14, 15 and 16.

Method Compliance:	X	Acceptable		Unacceptable	AB	Initials

Comments: Method compliance was determined by evaluating sample integrity, holding time, and laboratory blanks against method specified requirements, while applying EPA data validation guidelines. No data require qualification based on method compliance measurements, and overall method compliance is acceptable based on the supplied data. Method compliance measurements are reviewed in items 4, 6, 8, 11, 13, 18, 19, 20 and 22.

Completeness:	X	Acceptable		Unacceptable	AB	Initials

Comments: Completeness is the overall ratio of the number of samples planned versus the number of samples with verified analyses. Completeness goals are set at 90-100%. Determination of completeness included a review of chain of custody records, laboratory analytical methods and detection limits, laboratory case narratives, and project requirements. Completeness also included 100% review of the laboratory sample data results, QC summary reports, and electronic data deliverables (EDDs). All of the data received from the laboratory are useable without qualification. Completeness of the data is 100% and is acceptable.

RETEC ANALYTICAL DATA VERIFICATION CHECKLIST

VERIFICATION CRITERIA CHECK						
There were no data verification flags used in this review.						
1. Did the laboratory identify any non-conformances related to the analytical results?	X	Yes		No	AB	Initials
Explanation by laboratory: Sample Receipt: The COC information for samples IA-3-1106, Duplicate-1106, AA-1-1106, AA-2-1106 and AA-3-1106 did not match the entries on the sample tags with regard to sample identification. The discrepancy was noted in the Sample Receipt Confirmation email/fax and the information on the COC was used to process and report the samples. Sample identification for sample AA-4-1106 was not provided on the sample tag. The discrepancy was noted in the Sample Receipt Confirmation email/fax and the information on the COC was used to process and report the sample. The COC information for sample IA-5-1106 did not match the information on the canister with regard to canister identification. The client was notified of the discrepancy and the information on the canister was used to process and report the sample. Method TO-15: Laboratory modifications to method TO-15 were noted. Data qualification, if any, related to the laboratory observations are discussed in the following sections.						
2. Were sample Chain-of-Custody forms complete?	X	Yes		No	AB	Initials
Comments: COC records from field to laboratory were complete, and custody was maintained as evidenced by field and laboratory personnel signatures, dates, and times of receipt.						
3. Were all the analyses requested for the samples on the COCs completed by the laboratory?	X	Yes		No	AB	Initials
Comments: All requested analyses were completed.						
4. Were samples received in good condition and at the appropriate temperature?	X	Yes		No	AB	Initials
Comments: No discrepancies or problems were identified on the chains of custody or in the case narrative. Pressure readings on Summa canisters were within acceptance criteria at the time of receipt.						
5. Were the requested analytical methods in compliance with WP/QAPP, permit, or COC?	X	Yes		No	AB	Initials
Comments: Reported methods and target analyte lists were in compliance with COC records with the following notation. The COC requests method TO-14 analyses. The laboratory performed method TO-15. As these methods are equivalent except that TO-15 provides lower reporting limits, no action is required other than noting this discrepancy.						
6. Were detection limits in accordance with WP/QAPP, permit, or method?	X	Yes		No	AB	Initials
Comments: Reported detection limits are achievable by the quoted method.						
7. Do the laboratory reports include only those constituents requested to be reported for a specific analytical method?	X	Yes		No	AB	Initials
Comments: Only the requested target analytes were reported.						
8. Were sample holding times met?	X	Yes		No	AB	Initials
Comments: Extraction and analytical holding times were met for all samples and analyses.						

RETEC ANALYTICAL DATA VERIFICATION CHECKLIST

9. Were correct concentration units reported?	X	Yes		No	AB	Initials
Comments: All results are reported in units of $\mu g/m^3$.						
10. Were the reporting requirements for flagged data met?	X	Yes		No	AB	Initials
Comments: Data verification qualifiers override any assigned laboratory flags.						
11. Were laboratory blank samples free of target analyte contamination?	X	Yes		No	AB	Initials
Comments: All laboratory blanks were free of target analyte contamination.						
12. Were trip blank, field blank, and/or equipment rinse blank samples free of target analyte contamination?	NA	Yes	NA	No	AB	Initials
Comments: There were no trip blank, field blank or equipment rinse blank samples included in this data set. Field accuracy could not be evaluated for this data set.						
13. Were instrument calibrations within method or data validation control limits?	NA	Yes	NA	No	AB	Initials
Comments: Not applicable for this level of data verification – Instrument calibration data were not supplied in analytical laboratory reports and were therefore not included in this data review.						
14. Were surrogate recoveries within control limits?	X	Yes		No	AB	Initials
Comments: Surrogate percent recoveries (%Rs) for organic analyses were within data verification QC criteria for all samples.						
15. Were laboratory control sample recoveries within control limits?	X	Yes		No	AB	Initials
Comments: LCS (blank spike) recoveries were within data verification or laboratory control-charted QC limits for all target analytes.						
16. Were matrix spike recoveries within control limits?	NA	Yes	NA	No	AB	Initials
Comments: Not applicable for the reported method - The analysis of MS and MSD samples is not required for TO-15 analysis.						
17. Were duplicate RPDs and/or serial dilution %Ds within control limits?	NA	Yes	NA	No	AB	Initials
Comments: There were no laboratory duplicate samples reported in this data set. Laboratory precision could not be determined. *Serial Dilution %D data is not applicable for the reported method – There were no metals analytes requested for the samples in this data set. .*						
18. Were organic system performance criteria met?	NA	Yes	NA	No	AB	Initials
Comments: Not applicable for this level of data verification – Organic system performance data was not supplied in analytical laboratory reports and was therefore not included in this data review.						
19. Were internal standards within method criteria for GC/MS sample analyses?	NA	Yes	NA	No	AB	Initials
Comments: Not applicable for this level of data verification – GC/MS internal standard data was not supplied in analytical laboratory reports and was therefore not included in this data review.						

20. Were inorganic system performance criteria met?	NA	Yes	NA	No	AB	Initials
Comments: Not applicable for the reported method – There were no inorganic parameters requested for the samples in this data set.						
21. Were blind field duplicates collected? If so, discuss the precision (RPD) of the results.	X	Yes		No	AB	Initials

Duplicate Sample No.	Duplicate-1106		Primary Sample No.	IA-4-1106

Comments: The RPDs for the duplicates were within the 0-30% data verification QC limits for air samples, or RPDs were not applicable due to results that were ± the detection limit or were undetected in both samples, as indicated in the table below. Field duplicate and native sample concentrations that were both undetected are not reflected in the table below since RPDs are not applicable.

The following RPDs were calculated:

Method	Analyte	IA-4-1106	Duplicate-1106	RPD	Qualifier	Samp RL	Dup RL	Units
TO-15 SIM	Trichloroethene	1.7	1.7	0.00		0.17	0.17	ug/m3

No data require qualification based on the field duplicate RPDs.

22. Were qualitative criteria for organic target analyte identification met?	NA	Yes	NA	No	AB	Initials
Comments: Not applicable for this level of data verification –GC/MS quantitation reports and chromatograms were not supplied in analytical laboratory reports and were therefore not included in this data review.						
23. Were 100% of the EDD concentrations and reporting limits compared to the hardcopy data reports?	X	Yes		No	AB	Initials
Comments: There were no discrepancies between the EDD concentrations and reporting limits and the hardcopy data reports. Significant figures in reported results or reporting limits were corrected as necessary. According to validation protocol, the hardcopy data report was accepted as the correct reference.						
24. General Comments: Data were evaluated based on validation criteria set forth in the *USEPA Contract Laboratory Program (CLP) National Functional Guidelines for Superfund Organic Methods Data Review*, document number EPA540/R-99/008, October 1999 with additional reference to document 540-R-04-009, January 2005, as they applied to the reported methodology. Field duplicate RPD control limits were taken from the USEPA Region I Laboratory Data Validation Functional Guidelines for Evaluating Organics Analyses, February 1988, upheld in DRAFT 1993						

Air Toxics LTD.
AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 0611269

Work Order Summary

CLIENT:	Ms. Jill Lantz The RETEC Group, Inc. 1011 SW Klickitat Way Suite 207 Seattle, WA 98134	**BILL TO:**	Ms. Jill Lantz The RETEC Group, Inc. 1011 SW Klickitat Way Suite 207 Seattle, WA 98134
PHONE:		**P.O. #**	GE001-19314.750
FAX:		**PROJECT #**	GE S. Dawson
DATE RECEIVED:	11/10/2006	**CONTACT:**	
DATE COMPLETED:	11/15/2006		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.
01A	IA-1-1106	Modified TO-15 SIM	6.0 "Hg
02A	IA-3-1106	Modified TO-15 SIM	6.0 "Hg
02AA	IA-3-1106 Duplicate	Modified TO-15 SIM	6.0 "Hg
03A	IA-4-1106	Modified TO-15 SIM	4.5 "Hg
04A	Duplicate-1106	Modified TO-15 SIM	5.0 "Hg
05A	IA-5-1106	Modified TO-15 SIM	0.0 "Hg
06A	AA-1-1106	Modified TO-15 SIM	4.5 "Hg
07A	AA-2-1106	Modified TO-15 SIM	3.0 "Hg
08A	AA-3-1106	Modified TO-15 SIM	3.5 "Hg
09A	AA-4-1106	Modified TO-15 SIM	4.5 "Hg
10A	Lab Blank	Modified TO-15 SIM	NA
11A	CCV	Modified TO-15 SIM	NA
12A	LCS	Modified TO-15 SIM	NA
12AA	LCSD	Modified TO-15 SIM	NA

CERTIFIED BY: Linda J. Truman DATE: 11/15/06

Laboratory Director

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

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

LABORATORY NARRATIVE
Modified TO-15 SIM
The RETEC Group, Inc.
Workorder# 0611269

Nine 6 Liter Summa Canister (SIM Certified) samples were received on November 10, 2006. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the SIM acquisition mode. The method involves concentrating up to 0.5 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.

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

Requirement	*TO-15*	*ATL Modifications*
ICAL %RSD acceptance criteria	</=30% RSD with 2 compounds allowed out to < 40% RSD	Project specific; default criteria is </=30% RSD with 10% of compounds allowed out to < 40% RSD
Daily Calibration	+- 30% Difference	Project specific; default criteria is </= 30% Difference with 10% of compounds allowed out up to </=40%.; flag and narrate outliers
Blank and standards	Zero air	Nitrogen
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

Receiving Notes

The Chain of Custody (COC) information for samples IA-3-1106, Duplicate-1106, AA-1-1106, AA-2-1106 and AA-3-1106 did not match the entries on the sample tags with regard to sample identification. The discrepancy was noted in the Sample Receipt Confirmation email/fax and the information on the COC was used to process and report the samples.

Sample identification for sample AA-4-1106 was not provided on the sample tag. The discrepancy was noted in the Sample Receipt Confirmation email/fax and the information on the Chain of Custody was used to process and report the sample.

The Chain of Custody (COC) information for sample IA-5-1106 did not match the information on the canister with regard to canister identification. The client was notified of the discrepancy and the information on the canister was used to process and report the sample.

Analytical Notes

There were no analytical discrepancies.

Definition of Data Qualifying Flags

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

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

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

N - The identification is based on presumptive evidence.

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

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

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

Client Sample ID: IA-1-1106

Lab ID#: 0611269-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Trichloroethene	0.034	0.037	0.18	0.20

Client Sample ID: IA-3-1106

Lab ID#: 0611269-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Tetrachloroethene	0.034	0.099	0.23	0.67

Client Sample ID: IA-3-1106 Duplicate

Lab ID#: 0611269-02AA

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Trichloroethene	0.034	0.034	0.18	0.18
Tetrachloroethene	0.034	0.094	0.23	0.64

Client Sample ID: IA-4-1106

Lab ID#: 0611269-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Trichloroethene	0.032	0.32	0.17	1.7

Client Sample ID: Duplicate-1106

Lab ID#: 0611269-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Trichloroethene	0.032	0.32	0.17	1.7

Client Sample ID: IA-5-1106

Lab ID#: 0611269-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Trichloroethene	0.027	0.19	0.14	1.0
1,1,1-Trichloroethane	0.027	0.058	0.15	0.32

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

Client Sample ID: IA-5-1106

Lab ID#: 0611269-05A

Tetrachloroethene	0.027	0.041	0.18	0.28

Client Sample ID: AA-1-1106

Lab ID#: 0611269-06A

No Detections Were Found.

Client Sample ID: AA-2-1106

Lab ID#: 0611269-07A

No Detections Were Found.

Client Sample ID: AA-3-1106

Lab ID#: 0611269-08A

No Detections Were Found.

Client Sample ID: AA-4-1106

Lab ID#: 0611269-09A

No Detections Were Found.

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: IA-1-1106

Lab ID#: 0611269-01A

MODIFIED EPA METHOD TO-15 GC/MS SIM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.017	Not Detected	0.043	Not Detected
cis-1,2-Dichloroethene	0.034	Not Detected	0.13	Not Detected
Trichloroethene	0.034	0.037	0.18	0.20
1,1-Dichloroethene	0.017	Not Detected	0.067	Not Detected
Chloroform	0.034	Not Detected	0.16	Not Detected
1,1,1-Trichloroethane	0.034	Not Detected	0.18	Not Detected
Tetrachloroethene	0.034	Not Detected	0.23	Not Detected
1,1-Dichloroethane	0.034	Not Detected	0.14	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	91	70-130
Toluene-d8	107	70-130
4-Bromofluorobenzene	96	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: IA-3-1106

Lab ID#: 0611269-02A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	6111a08	Date of Collection: 11/9/06
Dil. Factor:	1.68	Date of Analysis: 11/14/06 02:51 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.017	Not Detected	0.043	Not Detected
cis-1,2-Dichloroethene	0.034	Not Detected	0.13	Not Detected
Trichloroethene	0.034	Not Detected	0.18	Not Detected
1,1-Dichloroethene	0.017	Not Detected	0.067	Not Detected
Chloroform	0.034	Not Detected	0.16	Not Detected
1,1,1-Trichloroethane	0.034	Not Detected	0.18	Not Detected
Tetrachloroethene	0.034	0.099	0.23	0.67
1,1-Dichloroethane	0.034	Not Detected	0.14	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	90	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	93	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: IA-3-1106 Duplicate

Lab ID#: 0611269-02AA

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	[illegible]	Date of Collection: [illegible]
Dil. Factor:	[illegible]	Date of Analysis: [illegible]

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.017	Not Detected	0.043	Not Detected
cis-1,2-Dichloroethene	0.034	Not Detected	0.13	Not Detected
Trichloroethene	0.034	0.034	0.18	0.18
1,1-Dichloroethene	0.017	Not Detected	0.067	Not Detected
Chloroform	0.034	Not Detected	0.16	Not Detected
1,1,1-Trichloroethane	0.034	Not Detected	0.18	Not Detected
Tetrachloroethene	0.034	0.094	0.23	0.64
1,1-Dichloroethane	0.034	Not Detected	0.14	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	91	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	96	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: IA-4-1106

Lab ID#: 0611269-03A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name: [illegible]	Dilution Factor: 1.58	Date of Collection: 11/9/06
Dil. Factor:		Date of Analysis: 11/14/06 04:31 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.016	Not Detected	0.040	Not Detected
cis-1,2-Dichloroethene	0.032	Not Detected	0.12	Not Detected
Trichloroethene	0.032	0.32	0.17	1.7
1,1-Dichloroethene	0.016	Not Detected	0.063	Not Detected
Chloroform	0.032	Not Detected	0.15	Not Detected
1,1,1-Trichloroethane	0.032	Not Detected	0.17	Not Detected
Tetrachloroethene	0.032	Not Detected	0.21	Not Detected
1,1-Dichloroethane	0.032	Not Detected	0.13	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	92	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	95	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Duplicate-1106

Lab ID#: 0611269-04A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	[illegible]	Date of Collection: 11/9/06
Dil. Factor:	[illegible]	Date of Analysis: 11/14/06 04:48 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.016	Not Detected	0.041	Not Detected
cis-1,2-Dichloroethene	0.032	Not Detected	0.13	Not Detected
Trichloroethene	0.032	0.32	0.17	1.7
1,1-Dichloroethene	0.016	Not Detected	0.064	Not Detected
Chloroform	0.032	Not Detected	0.16	Not Detected
1,1,1-Trichloroethane	0.032	Not Detected	0.18	Not Detected
Tetrachloroethene	0.032	Not Detected	0.22	Not Detected
1,1-Dichloroethane	0.032	Not Detected	0.13	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	93	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	94	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: IA-5-1106

Lab ID#: 0611269-05A

MODIFIED EPA METHOD TO-15 GC/MS SIM

[redacted]		Date of Collection: 11/9/06	
[redacted]		Date of Analysis: 11/16/06 5:27 PM	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.013	Not Detected	0.034	Not Detected
cis-1,2-Dichloroethene	0.027	Not Detected	0.11	Not Detected
Trichloroethene	0.027	0.19	0.14	1.0
1,1-Dichloroethene	0.013	Not Detected	0.053	Not Detected
Chloroform	0.027	Not Detected	0.13	Not Detected
1,1,1-Trichloroethane	0.027	0.058	0.15	0.32
Tetrachloroethene	0.027	0.041	0.18	0.28
1,1-Dichloroethane	0.027	Not Detected	0.11	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	91	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	93	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: AA-1-1106

Lab ID#: 0611269-06A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name: [illegible] Date of Collection: 6/7/06
Dil. Factor: 1.60 Date of Analysis: 6/14/06 06:06 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.016	Not Detected	0.040	Not Detected
cis-1,2-Dichloroethene	0.032	Not Detected	0.12	Not Detected
Trichloroethene	0.032	Not Detected	0.17	Not Detected
1,1-Dichloroethene	0.016	Not Detected	0.063	Not Detected
Chloroform	0.032	Not Detected	0.15	Not Detected
1,1,1-Trichloroethane	0.032	Not Detected	0.17	Not Detected
Tetrachloroethene	0.032	Not Detected	0.21	Not Detected
1,1-Dichloroethane	0.032	Not Detected	0.13	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	92	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	97	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: AA-2-1106

Lab ID#: 0611269-07A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	[illegible]	Date of Collection:	[illegible]
Dil. Fac.:	[illegible]	Date of Analysis:	[illegible]

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.015	Not Detected	0.038	Not Detected
cis-1,2-Dichloroethene	0.030	Not Detected	0.12	Not Detected
Trichloroethene	0.030	Not Detected	0.16	Not Detected
1,1-Dichloroethene	0.015	Not Detected	0.059	Not Detected
Chloroform	0.030	Not Detected	0.14	Not Detected
1,1,1-Trichloroethane	0.030	Not Detected	0.16	Not Detected
Tetrachloroethene	0.030	Not Detected	0.20	Not Detected
1,1-Dichloroethane	0.030	Not Detected	0.12	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	94	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	92	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: AA-3-1106

Lab ID#: 0611269-08A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	[illegible]	Date of Collection: 6/9/06	
Dil. Factor:	1.52	Date of Analysis: 6/16/06 07:54 PM	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.015	Not Detected	0.039	Not Detected
cis-1,2-Dichloroethene	0.030	Not Detected	0.12	Not Detected
Trichloroethene	0.030	Not Detected	0.16	Not Detected
1,1-Dichloroethene	0.015	Not Detected	0.060	Not Detected
Chloroform	0.030	Not Detected	0.15	Not Detected
1,1,1-Trichloroethane	0.030	Not Detected	0.16	Not Detected
Tetrachloroethene	0.030	Not Detected	0.21	Not Detected
1,1-Dichloroethane	0.030	Not Detected	0.12	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	95	70-130
Toluene-d8	106	70-130
4-Bromofluorobenzene	94	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: AA-4-1106

Lab ID#: 0611269-09A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name: [illegible]	Canister ID: [illegible]	Date of Collection: [illegible]	
Dil. Factor: [illegible]	Sub:	Date of Analysis: [illegible]	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.016	Not Detected	0.040	Not Detected
cis-1,2-Dichloroethene	0.032	Not Detected	0.12	Not Detected
Trichloroethene	0.032	Not Detected	0.17	Not Detected
1,1-Dichloroethene	0.016	Not Detected	0.063	Not Detected
Chloroform	0.032	Not Detected	0.15	Not Detected
1,1,1-Trichloroethane	0.032	Not Detected	0.17	Not Detected
Tetrachloroethene	0.032	Not Detected	0.21	Not Detected
1,1-Dichloroethane	0.032	Not Detected	0.13	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	94	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0611269-10A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	Dilution:	Date of Collection: NA	
061121_10	1.00	Date of Analysis: 11/21/06 12:52 PM	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.010	Not Detected	0.026	Not Detected
cis-1,2-Dichloroethene	0.020	Not Detected	0.079	Not Detected
Trichloroethene	0.020	Not Detected	0.11	Not Detected
1,1-Dichloroethene	0.010	Not Detected	0.040	Not Detected
Chloroform	0.020	Not Detected	0.098	Not Detected
1,1,1-Trichloroethane	0.020	Not Detected	0.11	Not Detected
Tetrachloroethene	0.020	Not Detected	0.14	Not Detected
1,1-Dichloroethane	0.020	Not Detected	0.081	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	88	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	89	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: CCV

Lab ID#: 0611269-11A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	061102	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 11/4/06 10:58 AM	

Compound	%Recovery
Vinyl Chloride	78
cis-1,2-Dichloroethene	116
Trichloroethene	98
1,1-Dichloroethene	113
Chloroform	101
1,1,1-Trichloroethane	91
Tetrachloroethene	109
1,1-Dichloroethane	110

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	85	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	88	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0611269-12A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	61120b	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	11/14/06 04:52 AM

Compound	%Recovery
Vinyl Chloride	84
cis-1,2-Dichloroethene	104
Trichloroethene	94
1,1-Dichloroethene	109
Chloroform	96
1,1,1-Trichloroethane	85
Tetrachloroethene	104
1,1-Dichloroethane	105

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	85	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	87	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCSD

Lab ID#: 0611269-12AA

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name: 61114c16 Date of Collection: NA
Dil. Factor: 1.00 Date of Analysis: 11/14/06 [illegible]

Compound	%Recovery
Vinyl Chloride	83
cis-1,2-Dichloroethene	108
Trichloroethene	98
1,1-Dichloroethene	113
Chloroform	98
1,1,1-Trichloroethane	88
Tetrachloroethene	109
1,1-Dichloroethane	110

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	85	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	87	70-130

FIELD ACTIVITY LOG

RETEC

PROJECT GE
COMPLETED BY J. Stevens
JOB NO. GE001.19314.750
APPROVED BY Jill Lautz
DAY & DATE Thursday 11/2/06
SHEET 1 OF 1

FIELD ACTIVITY SUBJECT:
DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

TIME	
10:00	Review HASP
	site haz - low only performing site walk
	and inspection.
10:20	Arive on sit - check in with Alex Cordas
10:25	Site walk
	- seal cracks along building edge and inside
	- footers around bluilding - Will limit
11 45	leave site
12:45	JS call Randy with Hudson Supply
	confirmed hours and operation
	end 11/2/06

VISITORS ON SITE:
—

CHANGES FROM PLANS OR IMPORTANT DECISIONS
—

WEATHER CONDITIONS:
light rain

IMPORTANT TELEPHONE CALLS:
Randy / Hudson Bay

PERSONNEL ON SITE:
Jamie Stevens and Mark Hofferbert (Retec Ithaca)

11/2/06

GEAE – Site Visit
Pre August 21 2006 Indoor and Ambient Air Sampling Event
Purpose: Check the sample locations for VOC products, confirm that the spaces will be closed for the weekend, inform the tenants of the wish to reduce fan use, opening windows, or using VOC products on Monday, and to remind them of the event.

Questions for Tenets:
Talked with: puget sound pipe
10:25

Confirm operating hours for Monday

6-3:30

Will Monday – ~~August 21~~ 11/06 – be a normal operating day – i.e. will work activity be typical

yes

Are you using any VOC products over the today, the weekend, or on Monday?

→ painted office inside

Will you be closed on the weekend?

Yes.

Can I walk around and look for any VOC products – such as spray paint, solvents, glues – and if I find any can I place in a zip lock bag to be removed on Monday after the sampling event?

paint cans inside office - bagged

spray paint cans in warehouse - bagged

propane tank - full

11/2/06

GEAE – Site Visit
Pre August 21 2006 Indoor and Ambient Air Sampling Event
Purpose: Check the sample locations for VOC products, confirm that the spaces will be closed for the weekend, inform the tenants of the wish to reduce fan use, opening windows, or using VOC products on Monday, and to remind them of the event.

Questions for Tenets: Maisan Supply .. 11:15
Talked with:

Confirm operating hours for Monday

7-4:30

Will Monday – ~~August 21~~ – be a normal operating day – i.e. will work activity be typical
11/6

Yes

Are you using any VOC products over the today, the weekend, or on Monday?

~~Yes~~ No

No.

Will you be closed on the weekend?

Yes.

Can I walk around and look for any VOC products – such as spray paint, solvents, glues – and if I find any can I place in a zip lock bag to be removed on Monday after the sampling event?

11/2/06

GEAE – Site Visit
Pre August 21 2006 Indoor and Ambient Air Sampling Event
Purpose: Check the sample locations for VOC products, confirm that the spaces will be closed for the weekend, inform the tenants of the wish to reduce fan use, opening windows, or using VOC products on Monday, and to remind them of the event.

Questions for Tenets:
Talked with: Hudson Supply 10:49 Randy not in- back at 12:00. conducted site inspection and will call about operations

Confirm operating hours for Monday

6-3:30

Will ~~Monday – August 21 –~~ be a normal operating day – i.e. will work activity be typical Monday 11/6

Yes.

Are you using any VOC products over the today, the weekend, or on Monday?

NO.

Will you be closed on the weekend?

Yes.

Can I walk around and look for any VOC products – such as spray paint, solvents, glues – and if I find any can I place in a zip lock bag to be removed on Monday after the sampling event?

Hi Performance Spray adhisive propane

WD-40

* called Randy at 12:45, ok to go ahead

GEAE – Site Visit
Pre August 21 2006 Indoor and Ambient Air Sampling Event
Purpose: Check the sample locations for VOC products, confirm that the spaces will be closed for the weekend, inform the tenants of the wish to reduce fan use, opening windows, or using VOC products on Monday, and to remind them of the event.

11/09/06

Questions for Tenets:
Talked with: Manson Supply

Confirm operating hours for Monday

6:30 – 3:30

Will ~~Monday – August~~ 21 – be a normal operating day – i.e. will work activity be typical

Thursday 11/09

yes.

Are you using any VOC products over the today, the weekend, or on Monday?

No products used on Thursday

Will you be closed on the weekend?

NA

Can I walk around and look for any VOC products – such as spray paint, solvents, glues – and if I find any can I place in a zip lock bag to be removed on Monday after the sampling event?

NO VOC products

GEAE – Site Visit
Pre August 21 2006 Indoor and Ambient Air Sampling Event
Purpose: Check the sample locations for VOC products, confirm that the spaces will be closed for the weekend, inform the tenants of the wish to reduce fan use, opening windows, or using VOC products on Monday, and to remind them of the event.

11/09/06

Questions for Tenets:
Talked with: Puget Pipe

Confirm operating hours for Monday

6:30 - 3:30

Will ~~Monday,~~ – Au~~gust 21~~ – be a normal operating day – i.e. will work activity be typical

Thursday 11/9

Yes.

Are you using any VOC products over the today, the weekend, or on Monday?

no products used.

Will you be closed on the weekend?

NA

Can I walk around and look for any VOC products – such as spray paint, solvents, glues – and if I find any can I place in a zip lock bag to be removed on Monday after the sampling event?

all VOC products in bags

FIELD ACTIVITY LOG

PROJECT GEAE
PROJECT NO. GEOOI-19314
DAY & DATE Thursday 11/9

COMPLETED BY Jamie Stevens
REVIEWED BY J. Lantz
SHEET 1 OF 2

TIME	SUMMARY OF DAILY ACTIVITIES AND EVENTS
0610	on site
	- set up sample canisters indoor outdoor
	- light rain
	- see sample log for start times
	- confirm normal day / loc. sources
1130	check canisters - no rain overcast
	1A-1 -23
	~~JS 2c -20~~
	1A-3 -20.5
	1A-4 -21
	Dup -20
	1A-5 -19.5
	AA-1 -22
	AA-2 -23
	AA-3 -23
	AA-4 -22
1159	JS leave site
1300	JS on site
1310	check samples - no rain clear sunny
	1A-1 -15
	1A-2 -10
	1A-4 -9
	Duplicate -10
1331	1A-5 0.0 - stopped sampling
	AA-1 -8
	AA-2 -12
	AA-3 -11
	AA-4 -12
1318	Sean at Hudson Bay said he drove forklift around 1A-4 and sweeped with push broom
1350	leave site
1433	on site - no rain clear sunny/partly cloudy
1438	start removing sampling cans
1558	last can stopped
1620	JS leave site, return ladders and drop samples for Fedex
	end 11/9/06

Attachment B

November 2006- Air Sampling Photo Log

Ambient Air Location AA-1, facing north/north-east

Ambient Air Location AA-2, facing north

November 2006- Air Sampling Photo Log

Ambient Air Location AA-3, facing south-east

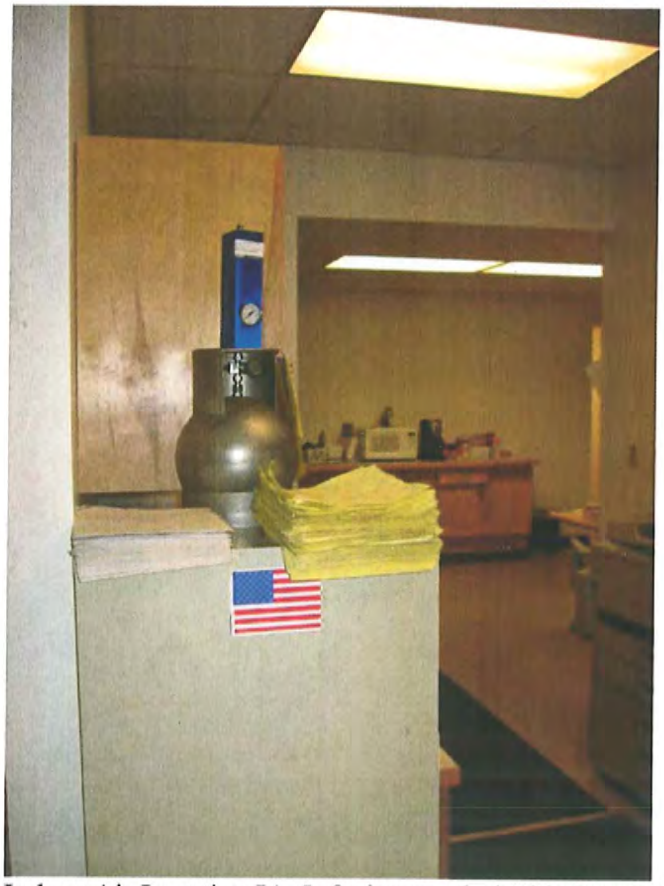
Ambient Air Location AA-4, facing north-west

November 2006- Air Sampling Photo Log

Indoor Air Location IA-1, facing north/north-east, inside Puget Pipe Warehouse.

Indoor Air Location IA-3, facing north-east, inside Masons Supply Showroom/office.

Indoor Air Location IA-4 and duplicate sample, facing north, inside Hudson Bay Insulation Warehouse.



Indoor Air Location IA-5, facing south, inside Puget Pipe Supply Office.