

DEPARTMENT OF ECOLOGY

Northwest Regional Office * 3190 160th Avenue SE * Bellevue, Washington 98008-5452 * (425) 649-7000

October 18, 2006

CERTIFIED MAIL

7005 1820 0000 6708 1421

Mr. Jim Sumner Manager, Group Environmental Programs General Electric Aircraft Engine One Neumann Way MD T165 Cincinnati, OH 45215

Dear Mr. Sumner:

Re: Ecology Response Letter: August 2006 Indoor Air Sampling –Former GE

Building, Seattle, Washington, dated October 12, 2006.

Thank you for submitting the report, August 2006 Indoor Air Sampling –Former GE Building, Seattle, Washington, dated October 12, 2006. Ecology received this report by US Mail on October 12, 2006.

Ecology does not agree with the General Electric Company's (GE's) conclusions that the August 21, 2006 indoor air sampling data was "potentially inconsistent" with the previous December 2005 indoor air and sub-slab vapor sampling data collected. Furthermore, Ecology could not find any technical basis – and GE did not provide any – for assuming the August 2006 TCE indoor air data was not the result of vapor intrusion across the floor slab.¹

Based on the most recent indoor air data and previous indoor air and sub-slab vapor data, Ecology has *immediate concerns* regarding the current TCE vapor intrusion into the former GE building located at 220 South Dawson Street, Seattle, Washington. Unlike some exposure pathways that may only *potentially* affect receptors, and may only *potentially* affect receptors in the manner predicted by risk assessment calculations using reasonable worst case assumptions, the indoor air pathway is evaluated relatively directly and risks estimated for this pathway are more likely to actually be realized by the exposed receptors.

¹ None of the four (4) ambient air samples collected had trichloroethylene (TCE) concentrations above the reporting limit (0.18 ug/m³). RETEC conducted a site visit to the building the previous Friday before indoor air sampling took place the following Monday. All potential sources of volatile organic chemicals were placed in sealed plastic bags. Furthermore, tenants interviewed on the previous Friday prior to the following Monday sampling date all stated that VOC products were not going to be used that Friday, over the weekend or on the following Monday. The analytical data validation uncovered no significant problems and the indoor air data were deemed suitable for their intended use. No indoor air sources of TCE were identified in the report.

Mr. Jim Sumner October 18, 2006 Page 2 of 3

Workers and others breathing the air in the 220 South Dawson Street building will certainly be inhaling any contamination in that air resulting from vapor intrusion. Allowing this to occur can only be justified by demonstrating that the contaminant concentrations are so low as to be associated with insignificant health impacts.

Ecology generally defines significant - and unacceptable - health impacts as excess carcinogenic risks of 1E-5 or greater. For typical full-time workers this means that TCE levels in the workplace air, due exclusively to contamination contributed by soil gas, cannot exceed ~1 ug/m³ (as calculated using Equation 750-2 of Chapter 173-340 WAC and assuming workers exposed at 8 hours per day and 5-days per week). Two areas in the former GE building had TCE indoor air concentrations that exceeded this threshold last August 2006: Area #1 and Area #4. Area #4 exceeded the acceptable concentration by five times. A third area (Area #5) had TCE concentrations that were essentially equal to 1 ug/m³. All of these areas had elevated TCE levels in soil gas when measured last December 2005. Indoor air concentrations in Areas #1 and #4, however, were much lower (an order of magnitude) at that time.²

While it is possible that a third indoor air sampling event could return results similar to the December 2005 concentrations, it is just as possible that results could be greater than those found in the August sampling, or somewhere between the two samplings. GE could, obviously, continue to sample the indoor air periodically and then determine what a likely average³ TCE concentration is for the building. Of course, during this time the workers would continue to be exposed and GE would need to pay for multiple air sampling events that are not only costly, but are inconvenient for both the building tenants, and the Ecology staff responsible for assuring that this sampling is conducted properly.

Once indoor air VOC concentrations have been measured that exceed risk-based action levels at buildings where there have also been measurements showing significant soil gas contamination, lower indoor air results from additional sampling are unlikely to negate Ecology's perceived need for action. When similar scenarios (unacceptable indoor air measurements) have occurred at other Washington sites, Ecology has counseled PLPs to quickly obtain estimates for alternative vapor intrusion mitigation systems. These systems can commonly be installed quickly and are capable of becoming effective almost immediately. Often they are also quite inexpensive. When it appears that these systems can be installed relatively inexpensively, and are likely to be effective, Ecology expects PLPs to either offer them to the building's owners and tenants or take immediate actions to substantially reduce the VOC concentrations in media below the building.⁴ In the absence

² even still, Areas #4 and #5 had TCE concentrations that exceeded MTCA Method C cleanup levels ³ a large number of sampling events would generally be needed to justify calculating an average value that would replace the maximum value as the *exposure point concentration*. Ecology is unwilling, in general, to agree that an average of a few measurements conservatively represents the true average concentration (which could then be compared to the action or cleanup levels). Nor is Ecology willing to wait while GE collects samples during multiple future events, if the reason for waiting is simply in order to calculate a 95% upper confidence limit on the mean (of measured indoor air TCE concentrations) that differs significantly from the maximum measured value.

⁴ At the Philip Services Corporation site 2 blocks south, once "corrected" indoor air TCE concentrations exceed 0.5 ug/m3 the PLP routinely proposes mitigation for commercial/industrial buildings (as an interim measure).

Mr. Jim Sumner October 18, 2006 Page 3 of 3

of these actions there is no assurance that air concentrations measured in the future will consistently be well below the unacceptable levels detected in the past.

Rather than repeat the August 2006 sampling later this month, therefore, GE should prepare estimates for mitigating the portions of the building where past sub-slab soil gas results were elevated (i.e., all Areas but Area #2). The estimates should be submitted within 30-calendar days, and should be accompanied by GE's identification of your preferred mitigation system design. The VI mitigation work plan that GE was finalizing (but has not submitted) should have this information, or should provide enough information to calculate these cost estimates.

After Ecology has reviewed the estimates it will either direct GE to implement a mitigation system or collect additional indoor air samples before any system is installed. Our decision regarding sub-slab mitigation versus continued, routine air sampling will be based on the cost of the proposed systems, their likely performance, and an analysis of how likely we believe: a) sub-slab soil gas concentrations will be reduced to non-threatening levels in the near future, and b) future measurements of indoor air TCE concentrations will be consistently well below 1 ug/m³ throughout the building. The decision will be consistent with our policy that mitigation is generally indicated if an effective mitigation approach is no more costly than the cost of multiple repeated samplings.

Please feel free to call me at (425) 649-7264 if you have any questions regarding this letter. Ecology is willing to discuss its comments and required work in a teleconference call, before the submittals are due to Ecology.

Der Yasuda

Dean Yasuda, P.E.

Environmental Engineer

Hazardous Waste and Toxics Reduction Program

DY:cg

cc: Julie Sellick, HWTR/NWRO
Ed Jones, Ecology HWTR/NWRO
Jim Schwartz, Ecology AAG
Tong Li, Ground Water Solutions
Marcia Bailey, EPA Region 10
Stephen R. Black, Black & Yund
Alex Cordas, Keymac, LCC
Bill Joyce, Salter, Joyce, Ziker, PLLC
Greg Murphy, NOVA Consulting
WAD009278706 HZW 6.2

General Electric WAD 009278706 HZW 6.7.1



Original signed cover letter sent separately from report

RECEIVED

GE

Aviation

OCT 23 2006

DEPT. OF ECOLOGY

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

October 12, 2006

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 August, 2006 air sampling event at the former GE building. As noted in the report, due to the unexpected and potentially inconsistent results GE plans to repeat the analysis in the next few weeks. This repeat analysis will be conducted in an identical manner to the August event. We will of course notify DOE once the logistics are finalized. GE is also still committed to conducting the February 2007 sampling event.

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

Sincerely,

James W. Sumner

Attachment - Air Sampling Report

cc: Tong Li - Groundwater Solutions

Alex Cordas - KeyMac

Bill Joyce - Salter Joyce Ziker

Greg Murphy, Nova Consulting Group, Inc. (Via e-mail)

Linda Baker, Jill Lantz, Jamie Stevens – RETEC

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

(206) 624-2839 Fax

www.retec.com



October 12, 2006

RECEIVED

OCT 12 2005 DEPT. OF ECOLOGY

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

RE: August 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.

This report presents the results of the 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, and give information on the potential for seasonal variations in indoor air quality in the building.

Sampling Methods

On Friday August 18, 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. Copies of field notes are included in Attachment A.





Here Electric
WAD 209278706

HER G.7.1

August 2006 in Loo Ar Sampling
Aviation Report - Pormer AE

Building

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

October 12, 2006

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

RECEIVED

OCT 12 2006

DEPT. OF ECOLOGY

Dear Mr. Yasuda:

Attached please find a report prepared by RETEC regarding the August, 2006 air sampling event at the former GE building. As noted in the report, due to the unexpected and potentially inconsistent results GE plans to repeat the analysis in the next few weeks. This repeat analysis will be conducted in an identical manner to the August event. We will of course notify DOE once the logistics are finalized. GE is also still committed to conducting the February 2007 sampling event.

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

Sincerely,

, James W. Sumner

Attachment – Air Sampling Report

cc: Tong Li - Groundwater Solutions
Alex Cordas - KeyMac
Bill Joyce - Salter Joyce Ziker

Greg Murphy, Nova Consulting Group, Inc. (Via e-mail)

Linda Baker, Jill Lantz, Jamie Stevens – RETEC

Dean Yasuda October 12, 2006 Page 2

Field work for the air sampling was conducted on Monday, August 21, 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 inches mercury (inches Hg). The final vacuum after sample collection read from approximately 1 to 10 inches Hg, and was verified upon receipt by the laboratory to ensure sample integrity during return shipment (Table 1). Two different pressure gauges were used to record vacuum readings on the canisters – a glycerin-filled gauge provided by the laboratory, and the built-in gauge on each flow controller.

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 August 21, 2006. This event occurred after a 2-day weekend and during dry weather. 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-5 location. Two canisters were set up on a file cabinet in Puget Pipe office space. 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

Tetrachloroethylene (PCE) was detected in one ambient air sample $-0.27 \mu g/m^3$ in AA-3. No other CVOC were detected above the detection limit. Results are summarized in Table 2.

Dean Yasuda October 12, 2006 Page 3

The wind during the day on August 21 was generally from a S/SSE 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 SSE 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. Because PCE was the only compound detected in ambient air, the average PCE concentration of AA-1 and AA-3 was subtracted from the indoor air concentrations, to develop "corrected" indoor air concentrations, reflecting only the indoor air contribution to PCE in the samples. The raw and "corrected" indoor air results are summarized in Table 2.

The "corrected" PCE concentrations ranged from 0.03 to 0.10 μ g/m³, well below the MTCA Method C cleanup level of 4.2 μ g/m³. Likewise, the TCA concentrations of 0.17 to 0.21 μ g/m³ were well below the MTCA Method C cleanup level of 2,205 μ g/m³.

TCE was detected in indoor air samples at concentrations ranging from 0.29 (IA-2) to 5.2 (IA-4) $\mu g/m^3$. All detections were greater than the MTCA Method C cleanup level of 0.22 $\mu g/m^3$. Two of the detections (IA-1 and IA-5, but not the field duplicate from IA-5) were only slightly 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. These concentrations (1.3 and 1.2 $\mu g/m^3$, respectively) were higher than the previous detections in December 2005 of 0.085 and 0.515 $\mu g/m^3$ for IA-1 and IA-5, respectively. The field duplicate at IA-5 contained TCE below the remediation level, at a concentration of 0.96 $\mu g/m^3$.

TCE was detected in IA-4 at a concentration of 5.2 $\mu g/m^3$, above both the cleanup and remediation levels of 0.22 and 1.15 $\mu g/m^3$, respectively. This sample was located in the warehouse area of the Hudson Bay Insulation company.

Summary and Next Steps

TCE was detected above the remediation level of $1.15 \,\mu\text{g/m}^3$ in 3 of the 5 indoor air samples. At IA-1, the detection of $1.3 \,\mu\text{g/m}^3$ is only $0.15 \,\mu\text{g/m}^3$ greater than the remediation level. At IA-5, the average value from the primary and duplicate samples is $1.08 \,\mu\text{g/m}^3$, slightly below the remediation level, despite the primary sample containing $1.2 \,\mu\text{g/m}^3$ TCE – slightly above the remediation level. Given the extremely low detections of TCE in these two locations during the December 2005 sampling event, it is unlikely that the August results represent a sustained exceedance of the remediation level.

Dean Yasuda October 12, 2006 Page 4

While a review of QA/QC data found no issues, GE believes the result at IA-4 may be suspect due to it being significantly higher than all previous results and due to the fact that there were only minor concentrations found in the sub-slab in this area. It is unclear what mechanism would cause such a result in this area, particularly in light of the fact that sub-slab vapor concentrations at this location were significantly lower than in locations under the Puget Piping portion of the building. No evidence of new cracks or disturbances to the building slab were observed during sampling. It 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. In order to assess whether this increase was a transient condition, GE is will be collecting an additional round of indoor and ambient air samples in October 2006, following the same scope and procedures as were used for the August 2006 sampling event.

Although not relevant as action levels, but relevant to personnel exposure levels, the Occupational Safety and Health Administration (OSHA) permissible exposure limit (PEL) is a time-weighted average (TWA) of 100 ppm. The National Institute for Occupational Safety and Health recommends an exposure limit of 25 ppm as a 10-hour TWA. According to the American Conference of Industrial Hygienists (ACGIH), an 8-hour TWA of 50 ppm is recommended. The most conservative of these values (25 ppm) is equivalent to 134 mg/m³, or 134,000 µg/m³. This value is over 25,000 times the highest detected TCE concentration of 5.2 µg/m³ (IA-4).

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.

Jill Nordstrom Lantz, P.E.

Project Manager

cc: Jim Sumner – GE

Alex Cordas – KeyMac

Bill Joyce – Salter Joyce Ziker

Tong Li – Groundwater Solutions

Linda Baker, Jamie Stevens – RETEC

RETEC File GE001-19314

Tables

Table 1 Summary of Sample Collection Information - August 2006

Location Canister		Initial Vacu	ıum Readings	Final Vacuum Readings		Final Vacuum Reading at	Start	End	Duration	Analysis
ID	ID	Glycerin	Flow	Glycerin	Flow	Laboratory	Time	Time	(hours)	Analysis
		Gauge	Controller	Gauge	Controller					
AA-1	33382	-30	-29	-5.5	-5.5	-6.0	7:08	14:58	7:50	TO-15 SIM
AA-2	25321	-30	-30	-5.0	-5.0	-6.0	7:17	15:07	7:50	TO-15 SIM
AA-3	4223	-30	-29.5	-6.0	-5.0	-5.5	7:26	15:19	7:53	TO-15 SIM
AA-4	02242	-30	-30	-6.0	-5.0	-6.0	7:33	14:27	6:54	TO-15 SIM
IA-1	33325	-28	-30	-5.5	-5.0	-5.0	6:59	14:46	7:47	TO-15 SIM
IA-3	32122	-28	-25.5	-5.0	-4.5	-3.5	6:54	14:32	7:38	TO-15 SIM
IA-4	34325	-28	-30	-6.5	-5.0	-5.0	6:42	14:40	7:58	TO-15 SIM
IA-5	11006	-26	-30	-6.0	-5.0	-5.0	7:01	14:47	7:46	TO-15 SIM
IA-5 (Dup)	03960	-30	-30	-6.0	-5.0	-5.0	7:02	14:47	7:45	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 punds per square inch (psi)

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

Table 2 August 2006 Vapor Intrusion Study Results - Former GE Facility

		Chemical Name	1,1,1-TCA	1	,1-DCA	1	,1-DCE	Ch	loroform	cis-	-1,2-DCE		PCE		TCE	Vin	/l Chloride
Location ID	Sample Date	Sample ID															
Indoor Air S	amples (ug/m³)														***************************************	1	
IA-1	8/21/2006	IA-1-0806	0.21	<	0.13	<	0.064	<	0.16	<	0.13		0.22		1.3	 	0.041
IA-2	8/21/2006	IA-3-0806	0.17	<	0.12	<	0.06		0.16	<	0.12		0.29		0.29	<	0.039
IA-4	8/21/2006	IA-4-0806	0.21	<	0.13	<	0.064		0.16	<	0.13		0.22		5.2	 	0.041
IA-5	8/21/2006	IA-5-0806	0.21	<	0.13	<	0.064	<	0.16	<	0.13		0.22		1.2	<	0.041
IA-5	8/21/2006	Duplicate-0806	0.18	<	0.13	<	0.064	<	0.16	<	0.13		0.22		0.96	<	0.041
Upwind Amb	ient Samples (ug/m³)		-				ļ								-	
AA-1	8/21/2006	AA-1-0806	< 0.18	<	0.14	<	0.067	<	0.16	<	0.13	<	0.23	<	0.18	 	0.043
AA-3	8/21/2006	AA-3-0806	< 0.18	<	0.13	<	0.065	<	0.16	<	0.13		0.27	<	0.18	<	0.042
Average U	owind for Indoor	Air Correction	0	1	0		0		0		0		0.19 *		0		0
Down/Cross	wind Ambient	Samples (ug/m³)				-										_	
AA-2	8/21/2006	AA-2-0806	< 0.18	<	0.14	<	0.067	<	0.16	<	0.13	<	0.23	<	0.18	 	0.043
AA-4	8/21/2006	AA-4-0806	< 0.18	<	0.14	<	0.067	<	0.16	<	0.13	<	0.23	<	0.18	<	0.043
Corrected In	door Air Resul	ts (Indoor Air minus /	Ambient) (ug/m	1 ³)										<u> </u>		+	
IA-1	8/21/2006	IA-1-0806	0.21	<	0.13	<	0.064	<	0.16	<	0.13		0.03		1.3	<	0.041
IA-2	8/21/2006	IA-3-0806	0.17	<	0.12	<	0.06		0.16	<	0.12		0.10		0.29	-	0.039
IA-4	8/21/2006	IA-4-0806	0.21	<	0.13	<	0.064		0.16	<	0.13		0.03		5.2	-	0.041
IA-5	8/21/2006	IA-5-0806	0.21	<	0.13	<	0.064	<	0.16	<	0.13		0.03		1.2	7	0.041
IA-5 (dup)	8/21/2006	Duplicate-0806	0.18	<	0.13	<	0.064	<	0.16	<	0.13		0.03		0.96	<	0.041
Indoor Air S	Screening Level	,	2,205		350		200		1.1		35		4.20	1	0.22	<u> </u>	2.82

Notes: All samples analyzed by Method TO-15 SIM

Shading indicates an exceedance of air/vapor screening levels.

^{*} Average PCE concentration in ambient air calculated using 1/2 detection limit for non-detect.

Figures

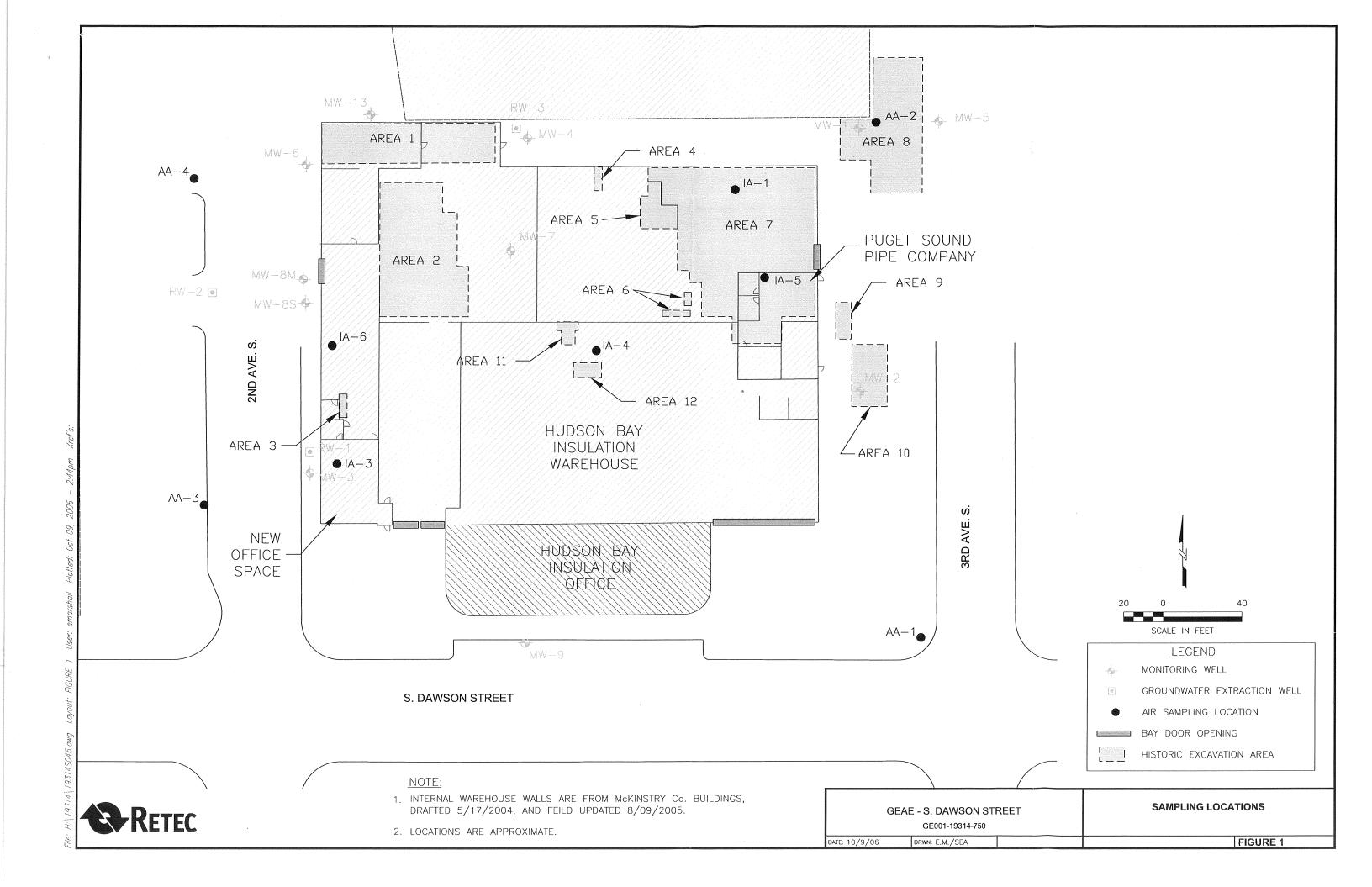
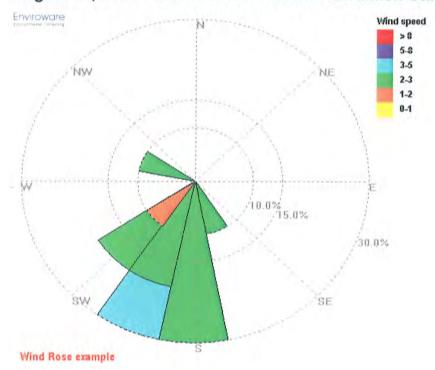
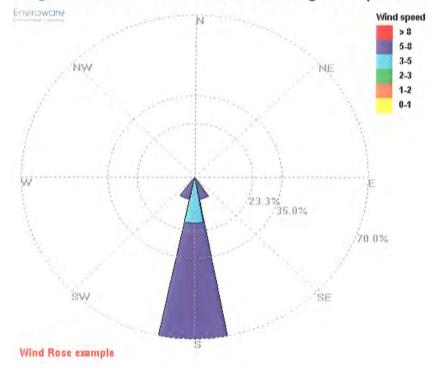


Figure 2 Wind Roses

August 21, 2006 - 7AM to 4PM - PSCAA Duwamish Station



August 21, 2006 - 7AM to 4PM - Boeing Field (data from weather.com)





September 18, 2006

Organic Data Verification Report

General Electric – South Dawson Street

Air Sampling - August 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 August 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 0608577 August 2006 Sampling

Matrix	Sample Name	Parent Sample ID	Sample Date and Time		Lab SDG	Lab Sample ID
Air	AA-1-0806		8/21/2006	7:08	0608577	0608577-01A
Air	AA-2-0806		8/21/2006	7:17	0608577	0608577-02A
Air	AA-3-0806		8/21/2006	7:26	0608577	0608577-03A
Air	AA-4-0806		8/21/2006	7:33	0608577	0608577-04A
Air	Duplicate-0806	IA-5-0806	8/21/2006	7:02	0608577	0608577-08A
Air	IA-1-0806		8/21/2006	6:59	0608577	0608577-05A
Air	IA-3-0806		8/21/2006	6:54	0608577	0608577-07A
Air	IA-4-0806		8/21/2006	6:42	0608577	0608577-09A
Air	IA-5-0806		8/21/2006	7:01	0608577	0608577-06A

Project Name: General Electric	La	boratory: Air T	oxics	Ltd. Folsom, CA	4					
Project Reference: South Dawson Street Air Sampling	Sa	ımple Matrix: A	ir							
RETEC Project: GE001-19314-750	SE001-19314-750 Sample Start Date: 08/21/2006									
Verified By/Date Verified: Ann Biegelsen / 09/14/2006										
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: 0608577										
PRECISION, ACCURACY, METHOD COMPLIANCE, AND COMPLETENESS ASSESSMENT										
Precision:	Х	Acceptable		Unacceptable	AB	Initials				
Comments: Precision is the measure of variability of determined by comparison of field duplicate sample in there were no laboratory duplicate samples reported was done using the Relative Percent Difference (RPI duplicate samples divided by the mean and expresse 0-30% for air samples. No data require qualification overall field precision is acceptable. Precision measurements	results in this D). Thed as a based	 Laboratory p data set. Eval ne RPD is definate percent. Fiell on field duplic 	recis uatio ed a: d dup ate p	ion could not be n of field duplica s the difference b licate RPD QC I recision measure	determin tes for pro petween t imits wer ements, a	ed as ecision wo e set at				
Accuracy:	Х	Acceptable		Unacceptable	AB	Initials				
Comments: Field accuracy, a measure of the sampling blank, field blank, or equipment rinse blank samples of the system bias, and was measured by evaluating duplicate (LCS), and organic system monitoring come which demonstrated the overall performance of the a System monitoring compound or surrogate recoveried during organic analysis, were compared to EPA publication passed on laboratory accuracy measurements are reviewed in	include labora pound nalysi s, which ished easure	ed in this data atory control sa is (surrogate) ps, were compa ch measured s QC limits or latements, and ov	set. Lample ercer red to ysten oorato erall	aboratory accurations accurately	acy is a not only is a not only is ample Rs). LCS QC limits and efficient of the limits.	neasure e 5 %Rs, s. ncy				
Method Compliance:	Х	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:	Х	Acceptable		Unacceptable	AB	Initials				
Comments: Completeness is the overall ratio of the r with verified analyses. Completeness goals are set a review of chain of custody records, laboratory analyti narratives, and project requirements. Completeness results, QC summary reports, and electronic data del laboratory are useable without qualification. Completeness	t 90-10 cal me also ii iverab	00%. Determir ethods and detenctuded 100% eles (EDDs). A	natior ectior revie Il of tl	n of completenes n limits, laborator w of the laborato he data received	s include by case bry sample from the	d a e data				

VERIFICATION	N CRITER	IA CHEC	Κ			
There were no data verification flags used in this rev	iew.					
Did the laboratory identify any non- conformances related to the analytical results?	Х	Yes		No	AB	Initials
Explanation by laboratory:						
Sample Receipt: The COC information for sample Diregard to sample identification. The discrepancy was the information on the COC was used to process and	s noted in t	ne Sampl				
Sample collection date was incomplete on the COC IA-5-0806, IA-3-0806, Duplicate-0806 and IA-4-0806 discrepancy was noted in the Sample Receipt Confir	i. The sam	ole date w				1-0806,
Method TO-15: Modifications to method TO-15 were	noted.					
Data qualification, if any, related to the laboratory ob	servations a	are discus	sed in the	following	sections.	
Were sample Chain-of-Custody forms complete?	Х	Yes		No	AB	Initials
Comments: COC records from field to laboratory well field and laboratory personnel signatures, dates, and			tody was m	aintained	l as evider	ced by
3. Were all the analyses requested for the samples on the COCs completed by the laboratory?	Х	Yes		No	АВ	Initials
Comments: All requested analyses were completed	•					
4. Were samples received in good condition and at the appropriate temperature?	Х	Yes		No	AB	Initials
Comments: No discrepancies or problems were iden	tified on the	chains o	f custody o	r in the ca	ase narrati	ve.
5. Were the requested analytical methods in compliance with WP/QAPP, permit, or COC?	х	Yes		No	AB ·	Initials
Comments: Reported methods and target analyte list notation. The COC requests method TO-14 analyse methods are equivalent except that TO-15 provides I this discrepancy.	s. The labo	ratory pe	rformed me	thod TO-	-15. As the	ese
6. Were detection limits in accordance with WP/QAPP, permit, or method?	Х	Yes		No	AB	Initials
Comments: Reported detection limits are achievable	by the quo	ed metho	ds.			
7. Do the laboratory reports include only those constituents requested to be reported for a specific analytical method?	Х	Yes		No	AB	Initials
Comments: Only the requested target analytes were	reported.					
8. Were sample holding times met?	Х	Yes		No	AB	Initials
Comments: Extraction and analytical holding times w	ere met for	all sampl	es and ana	lyses.		
9. Were correct concentration units reported?	Х	Yes		No	AB	Initials
Comments: All results are reported in units of μ g/m ³ .						

Were the reporting requirements for flagged data met?	х	Yes		No	AB	Initials
Comments: Data verification qualifiers override any a	assigned la	boratory f	ilags.			
11. Were laboratory blank samples free of target analyte contamination?	Х	Yes		No	AB	Initials
Comments: All laboratory blanks were free of target	analyte co	ntaminatio	on.			
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 e Field accuracy could not be evaluated for this data se		inse blank	k samples in	ncluded ir	n 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 verific analytical laboratory reports and were therefore not in				lata were	not suppli	ied in
14. Were surrogate recoveries within control limits?	х	Yes		No	AB	Initials
Comments: Surrogate percent recoveries (%Rs) for all samples.	organic ana	alyses wer	re within da	ata verifica	ation QC c	riteria for
15. Were laboratory control sample recoveries within control limits?	х	Yes		No	AB	Initials
Comments: LCS (blank spike) recoveries were within all target analytes.	n data verif	ication or	laboratory	control-ch	narted QC	limits for
16. Were matrix spike recoveries within control limits?	NA	Yes	NA	No	AB	Initials
Comments: Not applicable for the reported method - TO-15 analysis.	The analy:	sis of MS	and MSD s	samples is	s not requ	ired for
17. Were duplicate RPDs and/or serial dilution %Ds within control limits?	NA	Yes	NA	No	АВ	Initials
Comments: There were no laboratory duplicate sam not be determined.	ples reporte	ed in this	data set. L	.aboratory	/ precision	could
Serial Dilution %D data is not applicable for the report the samples in this data set	ted method	d – There	were no m	etals anal	lytes requ	ested for
18. Were organic system performance criteria met?	NA	Yes	NA	No	AB	Initials
Comments: Not applicable for this level of data verific in analytical laboratory reports and was therefore not				nance dat	a was not	supplied
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 verific analytical laboratory reports and was therefore not inc				rd data wa	as not sup	plied in

20. Were in met?	organic system	n performai	nce criteria		NA		Yes	NA	No	AB	Initials
	Not applicable this data set.	for the rep	oorted meth	od – Th	nere we	-re	no inorg	anic para	meters req	uested fo	r the
	lind field duplic precision (RPI				Х		Yes		No	AB	Initials
Duplicate \$	Sample No.	Dup	licate-0806		Pı	rim	ary Sam	ple No.		A-5-0806	
RPDs were indicated in reflected in	The RPDs for not applicable the table below the table below g RPDs were	due to resi w. Field du v since RPI	ults that wer plicate and	e <u>+</u> the	detect	tior	n limit or	were und	etected in	both samp	oles, as
Method	Analy	te	IA-5-0806	Duplic	ate-080	6	RPD	Qualifier	Samp RL	Dup RL	Units
TO-15 SIM	1,1,1-Trichlo	roethane	0.21	C).18		15.38		0.18	0.18	ug/m3
TO-15 SIM	Tetrachlord	ethene	0.22	O).22		0.00		0.22	0.22	ug/m3
TO-15 SIM	Trichloroe	ethene	1.2	0	.96		22.22		0.17	0.17	ug/m3
No data req	uire qualificatio	on based o	n the field d	uplicate	RPDs	3.					
	alitative criteri	a for organ	ic target		NA		Yes	NA	No	AB	Initials
	Not applicable oplied in analy										rams
	0% of the EDI its compared t				X		Yes		No	AB	Initials
Comments: There were no discrepancies between the EDD concentrations and reporting limits and the hardcopy data reports.											
Laboratory F document no January 200 the USEPA	24. General Comments: Data were evaluated based on validation criteria set forth in the <i>USEPA Contract Laboratory Program (CLP) National Functional Guidelines for Superfund Organic Methods Data Review</i> , 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										

Sample Transportation Notice

AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Sample Transportation Notice
Relinquishing signature on this document indicates that sample is being shipped in compliance
with all applicable local, State, Federal, national, and international laws, regulations and ordinances

FOLSOM, CA 95630-4719 of any kind. Air Toxics Limited assumes no liability with respect to the collection handling or shipping of these samples. Relinquishing signature also indicates agreement to hold hamtless, defend, and indemnity Air Toxics I inited against any claim depend or action of smy kind. Air Toxics Limited assumes no liability with respect to the collection handling or shipping of these samples. Relinquishing signature also indicates agreement to hold hamtless, defend, and indemnity Air Toxics I inited against any claim depend or action of smy kind. Air Toxics Limited assumes no liability with respect to the collection handling or (916) 985-1800 FAX (916) 985-1020

i vil tala		the co	ollection, handlin	ig, or shipping of	agampias. Du sampias. Du	aim, demant, or action, of al J.T. Hotline (800) 467-4922	hy kind, relate: !	1		Pag		
Contact Person <u>Jill Lantz</u> Company <u>The RETEC GROUD</u>		1,	nat - 0	- [Project	Info:			tround	Lebitise D	hy. rized by:√	MAR
Address 1011 SW Kliatat Work	,		antz (ro		P.O. #	·		X No		l :	8/22	100
Phone 286-624.9349	<i>с Э</i> ССА-ГЭ	<u> </u>	State_f_1]A_	Zip	Project #	GE001-19314-	7 5 0	Z⊒ Ru		Date:_	0/	Z
Collected by: (Signature) J. SIENONS				•	-	ane GE - Dawson				Pressu	rization Ga	is:
				Start	riojectiv				cdy • Camin		(2) He	
Lab LD. Field Sample LD. (Locat	ion) (an#	Date	Time		Analyses Reques	From Sol ted Car	115	Initial	Final	Sure/Vacu	
01A AA-1-6806	339	872	8/21/00	7:08	To-14	SiM		. ,	-30+		Cooling	
102A AA - 2 - 080G	253	اح	8/21	717	• (-30+		6.04	·
03/A AA-3-080G	427	23	8/21	7:26			-		-30+		50504	7-11
04A: AA-4-0806	0724	1	8/21	7:33	-			1	-30H		6,00	7
15H 1A-1-0800	3352	5	8/21	6:59			· · · · · · · · · · · · · · · · · · ·		-28	5.5	5 187	
WA 1A-5-0800	1160	0	8/21	7:01					-26	6.0	5-044	111
071 1A-3-080C	3917	42	8/21	6:54			***************************************		-28	5.0	3.50	7: 1
MA Duplicate -0x000	037	60	8/21	7:02					-30	 4	5.04	
09A 1A-4-080Co	343	5	8/2	6:42	<u> </u>	•	77200			6,5	50004	
Deline de la deservición de la deservición de la deline deline de la deline deli			25 822 000000000000000000000000000000000		•	DECEMBER DESCRIPTION DESCRIPTION OF THE PROPERTY OF THE PROPER						
Relinquished by: (signature) Date/Time State	0 10		Cru	(signature) /: (signature)	Date/Time		tes: 6 9(0	<i>P</i> 172			•	
			Leceured by	v. (signature)	Date/Time	g , r						
Relinquished by: (signature) Date/Time	•		Received by	/: (signature)	Date/Time							
Lab Shipper Name	Air	Bi⊪ i		Temp (°C	G) (13.77 ***	Condition C	ustomer Se	als int	act?	Work	Order #	
Only TOOLEX 7915	3004		000	NA	-	good	Yes No	Nori	è) 0 1	608	577	



Air Toxics Ltd. Introduces the Electronic Report

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).

(916) 985-1000 .FAX (916) 985-1020 Hours 8:00 A.M to 6:00 P.M. Pacific

AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #:

0608577

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. #

FAX:

DATE COMPLETED:

DATE RECEIVED:

08/22/2006

PROJECT#

GE001-19314-750 GE-Dawson St.

DECEDO

09/05/2006

CONTACT:

Nicole Danbacher

			RECEIPT
FRACTION #	<u>NAME</u>	TEST	VAC./PRES.
01A	AA-1-0806	Modified TO-15 SIM	6.0 "Hg
02A	AA-2-0806	Modified TO-15 SIM	6.0 "Hg
03A	AA-3-0806	Modified TO-15 SIM	5.5 "Hg
04A	AA-4-0806	Modified TO-15 SIM	6.0 "Hg
05A	IA-1-0806	Modified TO-15 SIM	5.0 "Hg
06A	IA-5-0806	Modified TO-15 SIM	5.0 "Hg
07A	IA-3-0806	Modified TO-15 SIM	3.5 "Hg
08A	Duplicate-0806	Modified TO-15 SIM	5.0 "Hg
09A	IA-4-0806	Modified TO-15 SIM	5.0 "Hg
10A	Lab Blank	Modified TO-15 SIM	NA
11A	CCV	Modified TO-15 SIM	NA
12A	LCS	Modified TO-15 SIM	NA

CERTIFIED BY:

Sinola d. Fruman

09/05/06

Laboratory Director

Certification 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

This report shall not be reproduced, except in full, without the written approval of Air Toxics Ltd.

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# 0608577

Nine 6 Liter Summa Canister (SIM Certified) samples were received on August 22, 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<br compounds allowed out to < 40% RSD	Project specific; default criteria is =30% RSD with 10% of compounds allowed out to < 40% RSD</td
Daily Calibration	+- 30% Difference	Project specific; default criteria is = 30% Difference with 10% of compounds allowed out up to </=40%.; flag and narrate outliers</td
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 sample Duplicate-0806 did not match the entry on the sample tag 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 sample.

Sample collection date was incomplete on the chain of custody for samples AA-2-0806, AA-3-0806, AA-4-0806, IA-1-0806, IA-5-0806, IA-3-0806, Duplicate-0806 and IA-4-0806. The sampling date was taken from the tag and the discrepancy was noted in the Sample Receipt Confirmation email/fax.

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:



AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

- 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: AA-1-0806

Lab ID#: 0608577-01A

No Detections Were Found.

Client Sample ID: AA-2-0806

Lab ID#: 0608577-02A

No Detections Were Found.

Client Sample ID: AA-3-0806

Lab ID#: 0608577-03A

	Røt. Limit	Amount	Rpt. Limit	Amount
Compound	(ppbv)	(ppbv)	(uG/m3)	(uG/m3)
Tetrachloroethene	0.033	0.039	0.22	0.27

Client Sample ID: AA-4-0806

Lab ID#: 0608577-04A

No Detections Were Found.

Client Sample ID: IA-1-0806

Lab ID#: 0608577-05A

	Rpt. Limit	Amount	Rpt. Limit	Amount
Compound	(ppbv)	(ppbv)	(uG/m3)	(uG/m3)
Trichloroethene	0.032	0.25	0.17	1.3
1,1,1-Trichloroethane	0.032	0.038	0.18	0.21
Tetrachloroethene	0.032	0.032	0.22	0.22

Client Sample ID: IA-5-0806

Lab ID#: 0608577-06A

	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount
Compound				(uG/m3)
Trichloroethene	0.032	0.22	0.17	1.2
1,1,1-Trichloroethane	0.032	0.038	0.18	0.21
Tetrachloroethene	0.032	0.032	0.22	0.22

Client Sample ID: IA-3-0806

Lab ID#: 0608577-07A



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

Client Sample ID: IA-3-0806

Lab ID#: 0608577-07A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount
				(uG/m3)
Trichloroethene	0.030	0.054	0.16	0.29
Chloroform	0.030	0.034	0.15	0.16
1,1,1-Trichloroethane	0.030	0.031	0.16	0.17
Tetrachloroethene	0.030	0.043	0.21	0.29

Client Sample ID: Duplicate-0806

Lab ID#: 0608577-08A

	Rpt. Limit	Amount	Rpt. Limit	Amount
Compound	(ppbv)	(ppbv)	(uG/m3)	(uG/m3)
Trichloroethene	0.032	0.18	0.17	0.96
1,1,1-Trichloroethane	0.032	0.034	0.18	0.18
Tetrachloroethene	0.032	0.032	0.22	0.22

Client Sample ID: IA-4-0806

Lab ID#: 0608577-09A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	(uG/m3)	(uG/m3)
Trichloroethene	0.032	0.98	0.17	5.2
Chloroform	0.032	0.033	0.16	0.16
1,1,1-Trichloroethane	0.032	0.038	0.18	0.21
Tetrachloroethene	0.032	0.032	0.22	0.22

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: AA-1-0806 Lab ID#: 0608577-01A

File Name; Dil. Factor	6082911 1.68		Date of Collection: 8/21/06 Date of Analysis: 8/29/06 07:04 PM	
Compound	Rot. 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	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		114		70-130
Toluene-d8		97		70-130
4-Bromofluorobenzene		101		70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: AA-2-0806 Lab ID#: 0608577-02A

File Name:	6082912 1.68		Date of Collection: 8/21/06 Date of Analysis: 8/29/06 08:18 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	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)			
				Method
Surrogates		%Recovery		Limits
1,2-Dichloroethane-d4		116		70-130
Toluene-d8		100		70-130
4-Bromofluorobenzene		108		70-130

Client Sample ID: AA-3-0806 Lab ID#: 0608577-03A

File Name:	6082916 1.64			
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	0.016	Not Detected	0.042	Not Detected
cis-1,2-Dichloroethene	0.033	Not Detected	0.13	Not Detected
Trichloroethene	0.033	Not Detected	0.18	Not Detected
1,1-Dichloroethene	0.016	Not Detected	0.065	Not Detected
Chloroform	0.033	Not Detected	0.16	Not Detected
1,1,1-Trichloroethane	0.033	Not Detected	0.18	Not Detected
Tetrachloroethene	0.033	0.039	0.22	0.27
1,1-Dichloroethane	0.033	Not Detected	0.13	Not Detected
Container Type: 6 Liter Summa	a Canister (SIM Certified)			
	,			Method
Surrogates	·	%Recovery		Limits
1,2-Dichloroethane-d4		116		70-130
Toluene-d8		98		70-130
4-Bromofluorobenzene		106		70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: AA-4-0806 Lab ID#: 0608577-04A

File Name: Dil. Factor:	6082917 1.68		Date of Collection: 8/21/06 Date of Analysis: 8/30/06 02:58 AM		
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	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)				
••	·			Method	
Surrogates		%Recovery		Limits	
1,2-Dichloroethane-d4		112		70-130	
Toluene-d8		99		70-130	
4-Bromofluorobenzene		109		70-130	

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: IA-1-0806 Lab ID#: 0608577-05A

File Name:	6082918	6082918 Date of Collection: 8/21/		2024/06
Dil. Factor:	1.61		Date of Analysis: 8	
Compound	Rɒt. 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	0.25	0.17	1.3
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	0.038	0.18	0.21
Tetrachloroethene	0.032	0.032	0.22	0.22
1,1-Dichloroethane	0.032	Not Detected	0.13	Not Detected
Container Type: 6 Liter Summa	Canister (SIM Certified)			
				Method
Surrogates		%Recovery		Limits
1,2-Dichloroethane-d4		114		70-130
Foluene-d8		99		70-130
1-Bromofluorobenzene		109		70-130

Client Sample ID: IA-5-0806

Lab ID#: 0608577-06A

File Name: Dil. Factor	6082919 1.61			
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	0.22	0.17	1.2
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	0.038	0.18	0.21
Tetrachloroethene	0.032	0.032	0.22	0.22
1,1-Dichloroethane	0.032	Not Detected	0.13	Not Detected
Container Type: 6 Liter Sumr	na Canister (SIM Certified)			
•				Method
Surrogates		%Recovery		Limits
1,2-Dichloroethane-d4		115		70-130
Toluene-d8		98		70-130
4-Bromofluorobenzene		101		70-130

Client Sample ID: IA-3-0806

Lab ID#: 0608577-07A MODIFIED EPA METHOD TO-15 GC/MS SIM

CONTROL OF THE PROPERTY OF THE	MODIFIED EPA ME I	HOD 10-15 GC/MS	O STIAI	
File Name: 1.0	6082920 1.52		Date of Collection Date of Analysis: 8	
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	0.054	0.16	0.29
1,1-Dichloroethene	0.015	Not Detected	0.060	Not Detected
Chloroform	0.030	0.034	0.15	0.16
1,1,1-Trichloroethane	0.030	0.031	0.16	0.17
Tetrachloroethene	0.030	0.043	0.21	0.29
1,1-Dichloroethane	0.030	Not Detected	0.12	Not Detected
Container Type: 6 Liter Summa	Canister (SIM Certified)			
				Method
Surrogates		%Recovery		Limits
1,2-Dichloroethane-d4		112		70-130
Toluene-d8		97		70-130
4-Bromofluorobenzene		106		70-130

Client Sample ID: Duplicate-0806

Lab ID#: 0608577-08A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name: Dil. Factor:	6082921 1.61		Date of Collection: Date of Analysis: 8	
Compound	Rɒt. 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	0.18	0.17	0.96
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	0.034	0.18	0.18
Tetrachloroethene	0.032	0.032	0.22	0.22
1,1-Dichloroethane	0.032	Not Detected	0.13	Not Detected
Container Type: 6 Liter Summa	Canister (SIM Certified)			
	,			Method
Surrogates		%Recovery		Limits
1,2-Dichloroethane-d4		116		70-130
Toluene-d8		105		70-130
4-Bromofluorobenzene		114		70-130

Client Sample ID: IA-4-0806 Lab ID#: 0608577-09A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	6082922 1,61		Date of Collection: Date of Analysis: 8	
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	0.98	0.17	5.2
1,1-Dichloroethene	0.016	Not Detected	0.064	Not Detected
Chloroform	0.032	0.033	0.16	0.16
1,1,1-Trichloroethane	0.032	0.038	0.18	0.21
Tetrachloroethene	0.032	0.032	0.22	0.22
1,1-Dichloroethane	0.032	Not Detected	0.13	Not Detected
Container Type: 6 Liter Summa	Canister (SIM Certified)			
••				Method
Surrogates		%Recovery		Limits
1,2-Dichloroethane-d4		115		70-130
Toluene-d8		98		70-130
4-Bromofluorobenzene	•	104		70-130

Client Sample ID: Lab Blank Lab ID#: 0608577-10A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	6082905		Date of Collection:	NA .
Dir Factor:	1.00		Date of Analysis: 8	3/29/06 12:23 PM
Compound	Røt. 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 Applica	able			
				Method
Surrogates		%Recovery		Limits
1,2-Dichloroethane-d4		107		70-130
Toluene-d8		99		70-130
4-Bromofluorobenzene		100		70-130

Client Sample ID: CCV Lab ID#: 0608577-11A

MODIFIED EPA METHOD TO-15 GC/MS SIM

	í
	4
	ā.
File Name: Date of Collection: NA	ā.
The name of Collection INA	4
	4
Dil. Factor: 1.00 Date of Analysis: 8/29/06 10:14 AM	4
Cate of the Cate o	A

Compound	%Recovery
Vinyl Chloride	114
cis-1,2-Dichloroethene	99
Trichloroethene	91
1,1-Dichloroethene	105
Chloroform	99
1,1,1-Trichloroethane	101
Tetrachloroethene	92
1,1-Dichloroethane	98

Container Type: NA - Not Applicable

		Method Limits	
Surrogates	%Recovery		
1,2-Dichloroethane-d4	108	70-130	
Toluene-d8	96°	70-130	
4-Bromofluorobenzene	111	70-130	

Client Sample ID: LCS Lab ID#: 0608577-12A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name: 608:	2903 Date of Collection: NA
	1.00 Date of Analysis: 8/29/06 10:56 AM

%Recovery
75
94
89
90
93
98
92
93

Container Type: NA - Not Applicable

oomanio Typo W. Horrippiloabio		Method
Surrogates	%Recovery	Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	101	70-130

FIELD ACTIVITY LOG

PROJECT GEAE PROJECT NO. GEOOI-19314-750 DAY & DATE Friday 8/18/06

TIME	SUMMARY OF DAILY ACTIVITIES AND EVENTS	
11:00	Is haves office	
11:10	Account ha site	
	1 1 1 1 1 Party at HUGSON SUPPY.	
11.12	Out at lunch well be back at 11:30	
11190	Out at lunch will be back at 11:30 checked with mansons supply	
11.00		
	- ok to Samper 7- 4pm hours no work over weekend and not find any TCE/VOC products Chiek in with priget pipe supply	
	no work over weekend	
	did not find any TCE/VOC products	
11:45	Chiek in with priget pipe supply	
11.43	140~	
	no work over weekend	
	- Grand the same cans of paint as last time sive	
	I gallon can of paint - put all these in a ciplous sale)
	no work over weekend -found the same cans of paint as last time plus 1 gallon can of paint - put all these in a ziplock base No other tems found in the wavehouse.	
	- Daly Hern in the office	
1203	- Daly Herr in the office Hudson-Randy not in, inspect warehouse. - Will call Randy when back in office	
1605	- Will call Rangy when back in office	
	Findings:	0Ca1)88
	- Fire residive coating and not bag to	
	Findings: - Fire restrive coating - Fire res	C
٨	Met Scales are sanokas	•
bagged	paint thinner ment took anot	25
l	- cans of paint	
	1 10000 313 11) Standy Fiel tack splay	
Laggo	- Camil 363 thigh Strength Fast tack spray	
barred	- high mat admisive	
1230	JS leaves site	
1340	Return to office	
1315	called Randy W/ Hudson Bay	
	-6:30-3	
	found some ND-40 and adjustive (unside	1
	found some vor to account ted solvents)	4
	1 1/10 year army characteristics	4
	back these up	1
		-

8/18/00 rayed of 4 by J. Slevere

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.

Ouestions for Tenets:

Mansons Supply

1A-3

Talked with:

11:20 8/18/06

Confirm operating hours for Monday

7:00 AM - 4:00pm

Will Monday - August 21 - 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?

NO.

Will you be closed on the weekend?

Jes.

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?

Yes- none found. Took photo of sample location

8/18/08 page 5 of 4 by J. Stevens

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:

Paget pipe 11:45 IA-1 & IA-5

Confirm operating hours for Monday

6-4pm

* vacant desk now in use propose using filey cabinet in the center of the office space.

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

YRS.

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

No products

Will you be closed on the weekend?

you.

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?

warehouse: yes - 4 spray paint cars - only 1 capped

1 gallon con paint.

placed in a bag to be conservative

office space-I can of splass cleaner with out cap-put away in kitchen cuploars

8/18/0c page 7014 by. J. Stevers

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 Insulation

13:15 (called Randy)

IA-4

Confirm operating hours for Monday

6:30-3pm

Will Monday – August 21 – 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?

No closed over weekend light use todays. Some cars will be driving unside the wave house on Monday-this is normal during business

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?

yes - found paint cans-sealed yes - wo.40-no cap placed in bag 5 gal. plastic jug of adhisive - place in a Wack plastic bag

FIELD ACTIVITY LOG

PROJECT GEAE PROJECT NO. GEOOL 19314 DAY & DATE MONDAY 8/21/00

COMPLETED BY	J. Stevens
REVIEWED BY	
SHEET OF _	

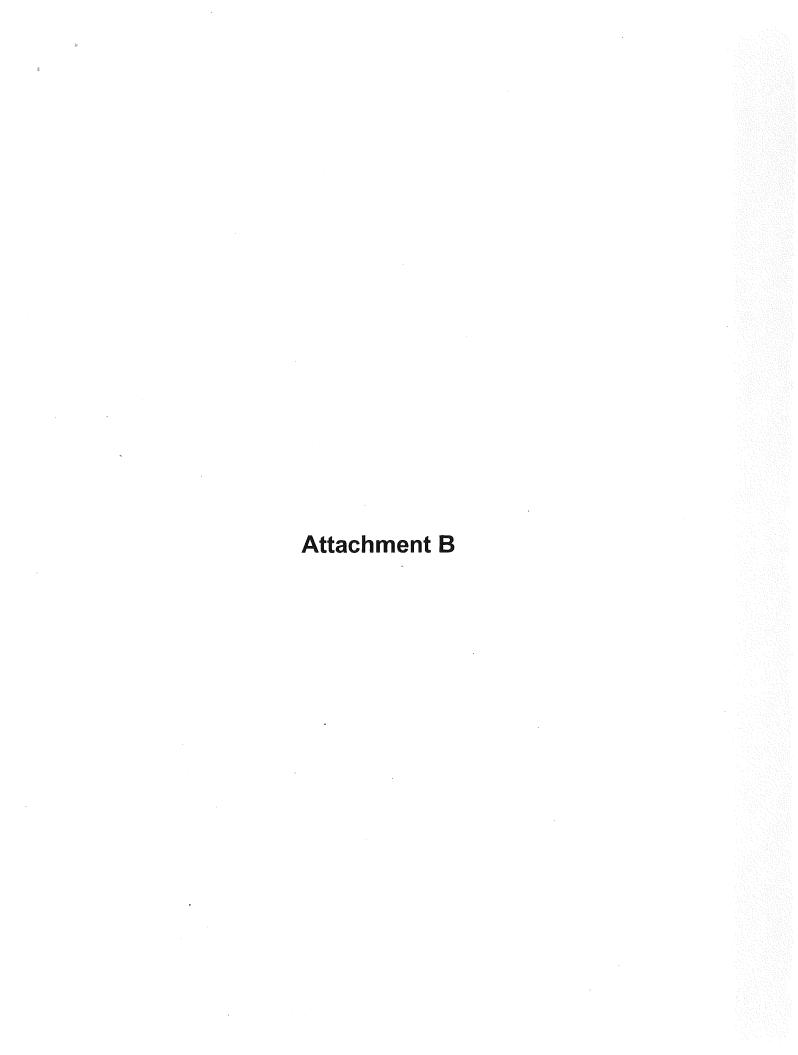
Sandi ID CAN # gauce AA-1-0806 33382 -30: AA-2:0806 25321 -30: AA-3:0806 4223 -30: AA-4:0806 02242 -30: Indoor air IA-1-0806 33325 -28: IA-5-0806 11006 -26: IA-4:0806 34325 -28:	+ - 30 - 29.5 30 - 30 - 30 - 30+ - 24.5	time 7:08 7:17	2:32	5.5 5.0 6.0 5.5 6.0 6.0	5.0 5.0 5.0 5.0
Sample ID CAN # gave AA-1-0806 33382 -30: AA-2:0806 25321 -30: AA-3:0806 4223 -30: AA-4:0806 02242 -30: Indoor air IA-1-0806 33325 -28:6 IA-4:0806 34325 -28:6 IA-4:0806 34325 -28:6 IA-4:0806 34325 -28:6 IA-4:0806 32122 -28:6 IA-3:0806 32122 -28:6	2. Can + -29 + -30 -29.5 -30 -30 -30+ -24.5	+ime 7:08 7:17 7:26 7:33 6:59 7:01 6:42 6:54	2:46 2:40 2:32	5.5 5.0 6.0 5.5 6.0 6.0	5.0 5.0 5.0 5.0 5.0 5.0
Sample ID CAN # gauce AA-1-0806 33382 -30: AA-2.0806 25321 -30: AA-3.0806 4223 -30: AA-4.0806 02242 -30: Indoor air IA-1-0806 33325 -28: IA-5-0806 11006 -26 IA-4.0806 34325 -28 IA-3.0806 32122 -28 Juplicate 03960 -30:	2. Can + -29 + -30 -29.5 -30 -30 -30+ -24.5	+ime 7:08 7:17 7:26 7:33 6:59 7:01 6:42 6:54	7:58 3:07 3:19 2:27 2:46 2:47 2:40 1:32	5.5 5.0 6.0 5.5 6.0 65 -5.6	5.0 5.0 5.0 5.0 5.0 -5.0
AA-1-0806 33382 -30: AA-2.0806 25321 -30: AA-3.0806 4223 -30: AA-4.0806 02242 -30: Indoor air IA-1-0806 33325 -28: IA-5-0806 11006 -26 IA-4.0806 34325 -28 IA-3.0806 32122 -28 Juplicate 03960 -30:	- 29 - 29.5 - 29.5 - 30 - 30 - 30 - 30+ - 26.5	7:08 7:17 7:26 7:33 6:59 7:01 6:42 6:54	3:07 3:19 2:27 2:46 2:47 2:40 1:32	5.0 6.0 5.5 6.0 65 -5.6	5.0 5.0 5.0 5.0 5.0 -5.0
AA-2.0806 25321 - 30.0 AA-3.0806 4223 - 30+ AA-4.0806 02242 - 30+ Index air IA-1.0806 33325 - 28.0 IA.5-0806 11006 - 26 IA.4.0806 34325 - 28 IA.3.0806 32122 - 28 duplicate 03960 - 30+	+ - 30 - 29.5 30 - 30 - 30 - 30+ - 24.5	7:17 7:26 7:33 6:59 7:01 6:42 6:54	3:07 3:19 2:27 2:46 2:47 2:40 1:32	5.0 6.0 5.5 6.0 65 -5.6	5.0 5.0 5.0 5.0 5.0 5.0
AA-30806 4223 -30+ AA-4.0806 02242 -30+ Indoor air IA-1-0806 33325 - 28.0 IA-5-0806 11006 -26 IA-4.0806 34325 - 28 IA-3.0806 32122 -28 Juplicate 03960 -30+	- 29.S 30 - 30 - 30 - 30+ - 24.S	7.26 7:33 6:59 7:01 6:42 6:54	3:19 2:42 2:43 2:40 1:32	6.0 5.5 6.0 65 -5.6	5.0 5.0 5.0 5.0 - 5.0
AA-4.0806 07242 -30+ Index air IA-1-0806 33325 - 28.0 IA-5-0806 11006 -26 IA-4.0806 34325 - 28 IA-3.0806 32122 -28 duplicate 03960 -30+	30 - 30 - 30 - 30+ - 24.5	7:33 6:59 7:01 6:42 6:54	2:46 2:47 2:40 1:32	5.5 6.0 65 -5.6	5.0 5.0 5.0
Indoor air 1A-1-0806 33325 - 28.0 1A-5-0806 11006 - 26 1A-4-0806 34325 - 28 1A-3-0806 32122 - 28 duplicate 03960 - 30+	- 30 -30 -30+ -24.5	6:59 7:01 6:42 6:54	2:46 2:47 2:40 1:32	5.5 6.0 65 -5.6	50 5,0 - S.O
1A-1-0806 33325 - 28.6 1A-5-0806 11006 - 26 1A-4-0806 34325 - 28 1A-3-0806 32122 - 28 duplicate 03960 - 30+	-30 -30+ -24.5	7:01 6:42 6:54	2:47 2:40 1:32	6.0 65 -5.6	50 5,0 - S.O
1A-1-0806 33325 - 28.6 1A-5-0806 11006 - 26 1A-4-0806 34325 - 28 1A-3-0806 32122 - 28 duplicate 03960 - 30+	-30 -30+ -24.5	7:01 6:42 6:54	2:47 2:40 1:32	6.0 65 -5.6	50 5,0 - S.O
19.5-080C 1100C -26 19.4-080C 3432S -28 19.3-080C 32122 -28 duplicate 03960 -30+	-30+ -24.5	6:42 6:54	2:40 1:32	65 -5.6	5,0 -5.0
14.4.0806 34325 68 14.3.0806 32122 -28 duplicate 03960 -30+	-26.5	6:54	2:32	-5.6	- S.O
14.3.0806 32122 -28 duplicate 03960 -30+					
duplicate 03960 -30+		7:02	<i>C.41</i>	60	
The state of the s					
			······		
			•		
			1		

FIELD ACTIVITY LOG

PROJECT GEAE PROJECT NO GEOOD-19314 DAY & DATE Monday 8/21/06

COMPLETED BY J. Stevens	
REVIEWED BY	
SHEETOF	

TIME	SUMMARY OF DAILY ACTIVITIES AND EVENTS
1600	is at office - load equipment
1620	IS and J. Lantz leave for Site
630	
650 635	sei un at thisson bay pareing lot.
611	start on index samples
	See page 2 for times and pressures
0405	Start on Indone samples See page 2 for times and pressures start on ambient samples Us and Jill bute have 51k
0740	is and vill late have sik
1145	Is leave office for site
	cls xn site
1720	13.0 DE
1210	113.0 PH
1225	AA-2 -110 OF
1217	-11.0
	1A-3 -90 ok photo
1212	TA-4 -115 ob photo
1215	145-A-E IA-1 "-1(.0 OF P/1610
1219	-115 OF PHOTO
1221	IA-5 duplicate -12.5 (11.5) ok photo
1221	The same of the and ook
12251	No fans or open windows at any of the andoor
1228	100 SAVIDO 1000 TOTAL TOTAL ALL LIGHT TOURS
	quet Pipe office doors are closed all the North
	prost Pipe office doors are closed all materiors by doors are open. The bay door to the North
	of puget pipe supply (N of ramp) remained close
	allo ficile
1358	US and It leave Office for site
1411-	Curt IA-3 -515
11110	TA-4 -7
	IA-4 -7 IA-5 and duplicate -7
	TA-1 - 4
	AA-2 -7
	AA-1 -6
	AA-3 -7.5
	AA-4 -8
160/	Return ladders to Hertz
1525	Pepuro to solice
1549	Return ladders to Hertz Return to office Pack samples and ship fed ex overnight
1615	Yack Shiripus





Ambient Air Location AA-1, facing north/northeast



Ambient Air Location AA-2, facing north



Ambient Air Location AA-3, facing south-west



Ambient Air Location AA-4, facing south

GE001-19314 2 of 4



Indoor Air Location IA-1, facing north/northeast, inside Puget Pipe warehouse



Indoor Location Air IA-3, facing north, inside Masons Supply showroom/office



Indoor Air Location IA-4 Sampling, facing north, inside Hudson Bay Insulation warehouse



Indoor Air Location IA-5 and duplicate sample, facing south, inside Puget Pipe office

GE001-19314 4 of 4