LANDAU ASSOCIATES

February 4, 2014

The Decurion Corporation
120 North Robertson Boulevard
Los Angeles, California 90048

Attn: Mr. James D. Vandever, on behalf of Tavitac Bethel, LLC

RE: SUMMARY OF FOCUSED VAPOR INTRUSION ASSESSMENT
AMY'S DRY CLEANERS TENANT SPACE
BETHEL JUNCTION SHOPPING CENTER
3377 BETHEL ROAD SE
PORT ORCHARD, WASHINGTON

This letter report summarizes the results of sub-slab soil gas and indoor air sampling activities conducted by Landau Associates on behalf of Tavitec Bethel, LLC at the Amy's Dry Cleaners tenant space at 3377 Bethel Road SE, within the Bethel Junction Shopping Center in Port Orchard, Washington (Figure 1).

The focused vapor intrusion assessment was conducted as a follow-up to a Phase I Environmental Site Assessment (ESA) conducted for the Bethel Junction Shopping Center and the Bethel Place Shopping Center in September 2013 (Landau Associates 2013). Amy's Dry Cleaners has been in operation since 1989. Between 1989 and 2002, tetrachloroethene (PCE)-based solvent was used in the dry cleaning operation. In 2000, PCE was detected in soil under the Amy's Dry Cleaners tenant space at a concentration of 2,300 micrograms per kilogram (µg/kg), which is greater than the current Washington State Department of Ecology (Ecology) Model Toxics Control Act (MTCA) Method B soil cleanup level of 50 µg/kg. After investigating the nature and extent of the contamination beneath the Amy's Dry Cleaners tenant space, the remedial action developed in cooperation with Ecology in 2004 included containment of the PCE-contaminated soil beneath the building by the building slab and recording a restrictive covenant for the property. The owners of Amy's Dry Cleaners have used hydrocarbon (synthetic petroleum) solvent in their dry cleaning process since 2002, so there is no evidence of a current or ongoing source for PCE contamination at the property. Ecology issued a No Further Action determination in October 2005 for the remedial action at Amy's Dry Cleaners.

Based on the presence of contaminated soil beneath the Amy's Dry Cleaners tenant space, the Phase I ESA recommended evaluation of the potential for vapor intrusion into the existing building. Therefore, Tavitac Bethel, LLC contracted with Landau Associates to conduct an assessment of PCE and associated volatile organic compound (VOC) concentrations in sub-slab soil gas and indoor air to evaluate the potential for vapor intrusion at the Amy's Dry Cleaners tenant space. The sub-slab soil gas sampling

was conducted on October 25, 2013 and the indoor air sampling was conducted on January 9, 2014. The sampling activities and analytical results associated with the focused vapor intrusion assessment are described below.

INVESTIGATION APPROACH

The focused vapor intrusion assessment was conducted in two phases. The first phase focused on evaluation and documentation of the concentrations of VOCs in soil gas in the shallow subsurface beneath the building slab to assess whether concentrations were high enough to be a potential source for vapor intrusion into the indoor air. This evaluation consisted of advancing vapor pin sampling ports through the slab to collect samples of shallow soil gas for laboratory analysis. The second phase was initiated after review of the analytical data indicated that VOCs were present below the slab at concentrations warranting the assessment of indoor air. The second phase of investigation was conducted to evaluate if the VOCs detected in the soil gas were present within the indoor air of the tenant space at concentrations of potential concern for human health. This second phase consisted of collecting samples of indoor air from within the tenant space and an ambient air sample from outdoor air on the roof of the building for laboratory analysis for VOCs.

Sub-Slab Soil Gas Sampling

Preparation for the sub-slab soil gas sampling included coordinating underground utility location services, preparing a health and safety plan (HASP), and contracting for laboratory analytical services. The site-specific HASP was prepared to address the activities planned for the investigation and included the activities to be performed during the indoor air sampling.

The sub-slab soil gas sampling was conducted by installing three temporary vapor sampling ports (vapor pins) through the floor slab of the tenant space. One vapor pin was located in the area where the previous investigations had identified the elevated concentration of PCE in soil (location VP-1) and the other two vapor pins were set at locations to evaluate the potential lateral extent of contaminants in sub-slab soil gas, if present (locations VP-2 and VP-3). The sub-slab vapor pins locations are shown on Figure 2.

The vapor pins were installed by drilling a ⅝-inch-diameter core through the concrete floor slab (approximately 5 to 6 inches thick) and 3 to 4 inches into the subgrade material. The stainless steel vapor pins were installed into the slab and capped for approximately 30 minutes to allow for equilibration of the sub-slab soil gas. The vapor pins were then purged (at a rate of approximately 200 milliliters per minute) to evacuate at least 3 to 4 purge volumes from the vapor pins and the sampling tubing. The samples were then collected into 1-liter Tedlar® bags using ¼-inch outside diameter Teflon® tubing and a peristaltic

pump. Sample integrity was maintained through the use of a water dam around each sample port to minimize the potential influx of ambient air from the surface. After sample collection, the vapor pins were removed from the slab, the hole was filled using pre-mixed concrete patch material, and the floor was restored to the original grade. The samples were analyzed at Fremont Analytical, located in Seattle, Washington for a selected subset of VOCs [PCE, trichloroethene (TCE), trans-1,2-dichloroethene, and vinyl chloride (VC)] by U.S. Environmental Protection Agency (EPA) Method TO-15.

The analytical results for the soil gas samples are provided in Table 1 along with a comparison of detected concentrations to the calculated soil gas screening levels. The screening levels were calculated in accordance with the Ecology *Draft Guidance for Evaluating Soil Vapor Intrusion in Washington State: Investigation and Remedial Action* (Ecology 2009), and using an updated vapor attenuation factor recommended by the EPA (2012). These screening levels are applicable for unrestricted land uses to evaluate whether detected concentrations of VOCs in soil gas are elevated enough to be a potential concern for indoor air quality in nearby buildings. Copies of the laboratory analytical results are provided in Attachment 1. The results are summarized as follows:

- PCE was detected at a concentration greater than the screening level [320 micrograms per cubic meter ($\mu g/m^3$)] at all three locations (2,590 $\mu g/m^3$ at VP-1, 5,400 $\mu g/m^3$ at VP-2, and 5,240 $\mu g/m^3$ at VP-3).
- TCE was detected at a concentration greater than the screening level (12 $\mu g/m^3$) at all three locations (976 $\mu g/m^3$ at VP-1, 932 $\mu g/m^3$ at VP-2, and 721 $\mu g/m^3$ at VP-3).
- Trans-1,2-dichloroethene was detected at a concentration well below the screening level (910 $\mu g/m^3$) at all three locations (7.14 $\mu g/m^3$ at VP-1, 14.2 $\mu g/m^3$ at VP-2, and 15.4 $\mu g/m^3$ at VP-3).
- VC was not detected at a concentration greater than the laboratory reporting limit in any of the samples.

Based on the presence of PCE and TCE in sub-slab soil gas at concentrations greater than the screening levels, the second phase of investigation was initiated to evaluate indoor air quality.

Indoor Air Sampling

The indoor air investigation included collecting two indoor air samples (ADC-Indoor-1 and ADC-Indoor 2), co-located with soil gas sample locations (VP-1 and VP-2), within the tenant space, and collecting one ambient air sample (ADC-Ambient-1) of outdoor air from the roof of the building. The ambient air sample was collected on the upwind side of the roof-mounted heating, ventilation, and air conditioning (HVAC) system, near the intake to allow for correction of the concentrations detected in the indoor air samples to account for the effects of local air quality. VOCs detected at concentrations in excess of the background are attributed to vapor intrusion. The air sampling locations are shown on Figure 2.

The indoor and ambient air samples were collected in 6-liter Summa canisters over an 8-hour period. During air sample collection, the HVAC system was on and the doors of the tenant space were kept closed (there are no windows that open). The indoor and ambient air samples were submitted to Fremont Analytical for analysis for a selected subset of VOCs (PCE, TCE, trans-1,2-dichloroethene, and VC, the same subset analyzed for in the sub-slab soil gas samples) by Method TO-15 using selective ion monitoring to achieve low detection limits. The analytical results for the indoor air and ambient air samples are provided in Table 2, along with a comparison of the detected concentrations to the MTCA Method B screening levels for indoor air (Ecology website 2014). VOCs were detected in both the ambient and indoor air samples. The analyte concentrations detected in the ambient, outdoor air sample represent background concentrations that are not attributed to potential vapor intrusion through the slab. The concentrations of VOCs detected in the indoor air samples have been compared to and adjusted for the concentrations of VOCs in the ambient air by subtracting the ambient air concentration from the indoor air concentration in accordance with Ecology guidance (Ecology 2009). Therefore, for each indoor air sample, the VOC concentration in ambient air is subtracted from the reported concentration to get the VOC concentration determinative of vapor intrusion. The analytical results for indoor air are summarized as follows:

- PCE was detected at both indoor locations; however, the sample results corrected for the detected background concentration of PCE are below the MTCA Method B screening level, and there is no indication of PCE in indoor air due to potential vapor intrusion.
- TCE was detected at both indoor locations; however, the sample results corrected for the detected background concentration of TCE are below the MTCA Method B screening level, and there is no indication of TCE in indoor air due to potential vapor intrusion.
- Trans-1,2-dichloroethene and vinyl chloride were not detected at concentrations above the laboratory reporting limits in either of the indoor air samples or in the ambient air sample.

CONCLUSIONS AND RECOMMENDATIONS

As noted above, the focused vapor intrusion assessment scope of work was developed to evaluate the potential for vapor intrusion into the Amy's Dry Cleaners tenant space and included sampling and analysis of sub-slab soil gas and indoor air at the tenant space. The VOCs PCE and TCE were detected in the three sub-slab soil gas samples collected during the first phase of the assessment. The PCE and TCE concentrations detected in the sub-slab soil gas samples were greater than the calculated screening levels. Therefore, indoor air sampling was conducted to further evaluate the potential for vapor intrusion into the tenant space. The analytical results for the indoor air samples, after correction for the detected background concentrations, are well below the MTCA Method B screening levels. There is no evidence of vapor intrusion.

The Phase I ESA for the subject property recommended evaluation of the potential for vapor intrusion into the Amy's Dry Cleaners tenant space. Based on the results of the soil gas and indoor air sampling and analysis discussed above, under existing site conditions, vapor intrusion is not a concern for the subject property.

USE OF THIS REPORT

This subsurface investigation summary has been prepared by Landau Associates for the exclusive use of Tavitac Bethel, LLC and The Decurion Corporation for specific application to the Amy's Dry Cleaners tenant space, as described herein. No other party is entitled to rely on the information, conclusions, and recommendations included in this document without the express written consent of Landau Associates. Further, the reuse of information, conclusions, and recommendations provided herein for extensions of the project or for any other project, without review and authorization by Landau Associates, shall be at the user's sole risk. Landau Associates warrants that within the limitations of scope, schedule, and budget, our services have been provided in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing in the same locality under similar conditions as this project. We make no other warranty, either express or implied

This document has been prepared under the supervision and direction of the following key staff.

LANDAU ASSOCIATES, INC.

Steven D. Shaw
Senior Staff Geologist

Timothy L. Syverson, L.G.
Senior Associate Geologist

SDS/TLS/ccy

REFERENCES

Ecology. 2009. Review Draft: *Guidance for Evaluating Soil Vapor Intrusion in Washington State: Investigation and Remedial Action.* Publication No. 09-09-047. Toxics Cleanup Program, Washington State Department of Ecology. October.

Ecology website. 2014. *Cleanup Levels and Risk Calculations.* https://fortress.wa.gov/ecy/clarc/CLARCHome.aspx. Washington State Department of Ecology. Accessed January 10.

EPA. 2012. *EPA's Vapor Intrusion Database: Evaluation and Characterization of Attenuation Factors for Chlorinated Volatile Organic Compounds and Residential Buildings.* EPA 530-R-10-002. Office of Solid Waste and Emergency Response, U.S. Environmental Protection Agency. Washington, D.C. March 16.

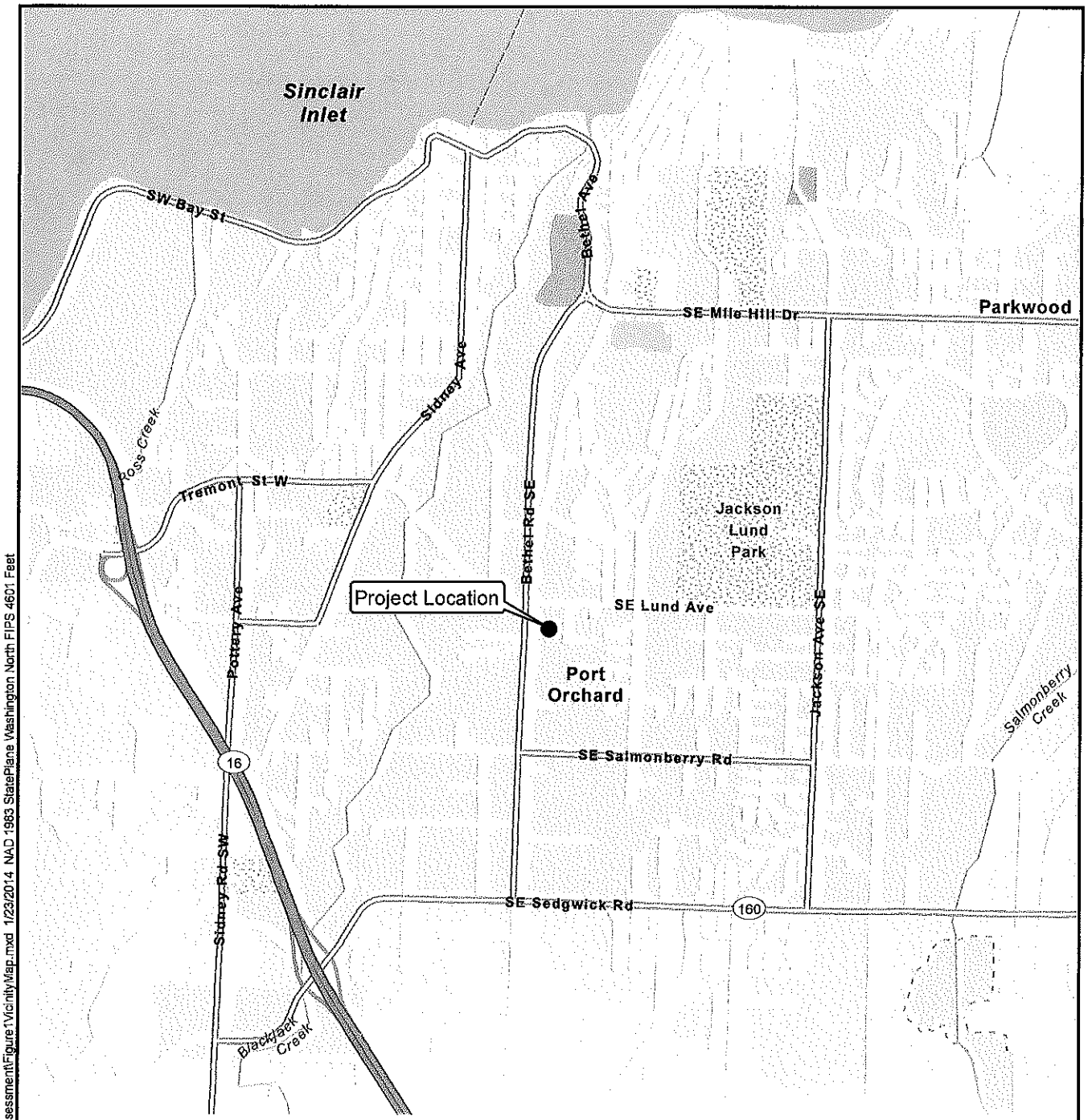
Landau Associates. 2013. Report: *Phase I Environmental Site Assessment, Bethel Junction Shopping Center and Bethel Place Shopping Center, Port Orchard, Washington.* September 27.

ATTACHMENTS

Figure 1: Vicinity Map
Figure 2: Sampling Locations

Table 1: Soil Gas Analytical Results
Table 2: Air Analytical Results

Attachment 1: Laboratory Analytical Reports



Data Source: Esri 2012

G:\Projects\1400\001030\Focused Vapor Intrusion Assessment\Figure1VicinityMap.mxd 1/23/2014 NAD 1983 StatePlane Washington North FIPS 4601 Feet

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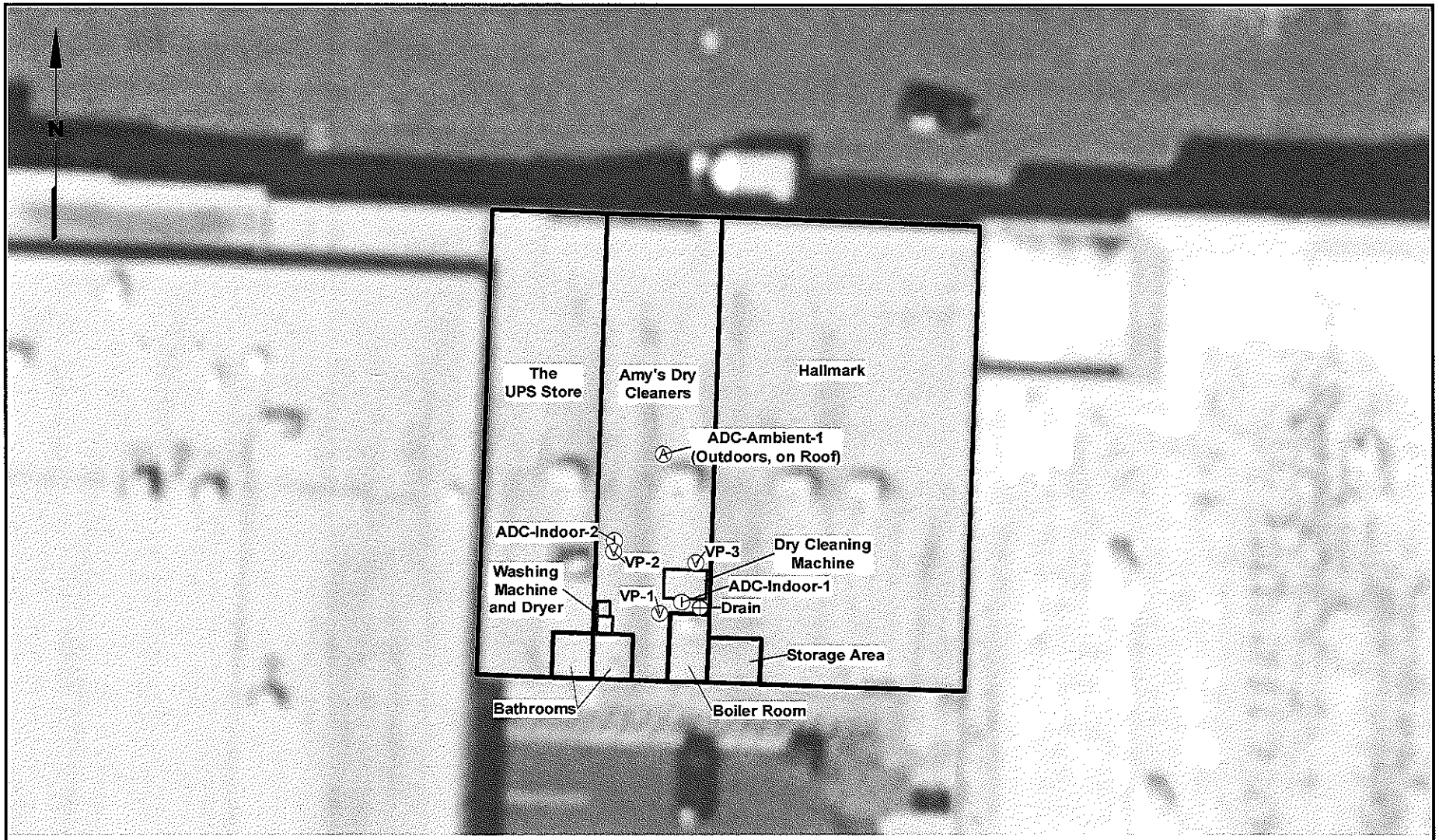
Bethel Junction Shopping Center Port Orchard, Washington	**Vicinity Map**	Figure 1

G:\Projects\1400\001\030\Focused Vapor Intrusion Assessment\Figure2SamplingLocations.mxd 2/3/2014 NAD 1983 StatePlane Washington North FIPS 4601 Feet



Legend

Ⓐ Ambient Air Sample
Ⓘ Indoor Air Sample
Ⓥ Sub-Slab Vapor Sample
⊕ Drain

0 25 50
Scale in Feet

Data Source: Esri World Imagery.

Note
1. Black and white reproduction of this color original may reduce its effectiveness and lead to incorrect interpretation.

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Bethel Junction Shopping Center Port Orchard, Washington	**Sampling Locations**	Figure 2

TABLE 1
SOIL GAS ANALYTICAL RESULTS
AMY'S DRY CLEANERS TENANT SPACE
BETHEL JUNCTION SHOPPING CENTER
PORT ORCHARD, WASHINGTON

	Method B Soil Gas Screening Levels (a)	VP-1 1310245-001A 10/25/2013	VP-2 1310245-002A 10/25/2013	VP-3 1310245-003A 10/25/2013
VOLATILES ($\mu g/m^3$)				
Method TO-15				
Tetrachloroethene	320	**2,590** E	**5,400**	**5,240**
trans-1,2-Dichloroethene	910	7.14	14.2	15.4
Trichloroethene	12	**976** E	**932**	**721**
Vinyl Chloride	9.3	0.217 U	0.217 U	0.217 U

(a) Calculated using a vapor attenuation factor of 0.03.
E = Value is above quantitation range; no dilutions could be conducted on the sample due to sample volume.
U = Indicates the compound was not detected at the reported concentration.
Bold = Detected compound concentration exceeds screening level.

TABLE 2
AIR ANALYTICAL RESULTS
AMY'S DRY CLEANERS TENANT SPACE
BETHEL JUNCTION SHOPPING CENTER
PORT ORCHARD, WASHINGTON

	Screening Level (a)	ADC-Ambient-1 1401072-003A 1/9/2014	ADC-Indoor-1 1401072-001A 1/9/2014	**ADC-Indoor-1 (corrected for ambient air) (b)**	ADC-Indoor-2 1401072-002A 1/9/2014	**ADC-Indoor-2 (corrected for ambient air) (b)**
VOLATILES ($\mu g/m^3$)						
Method TO-15						
Tetrachloroethene	9.6	4.53	3.99	**0**	4.35	**0**
trans-1,2-Dichloroethene	27	0.793 U	0.791 U	**0**	0.791 U	**0**
Trichloroethene	0.37	8.20	7.34	**0**	7.66	**0**
Vinyl Chloride	0.28	0.217 U	0.217 U	**0**	0.217 U	**0**

(a) MTCA Method B cleanup level for air.

(b) Corrected concentrations calculated by subtracting the reported ambient air concentration (sample ADC-Ambient-1) from the reported indoor air concentration. Negative values were adjusted to zero.

$\mu g/m^3$ = Micrograms per cubic meter.

U = The compound was not detected at the reported concentration.

ATTACHMENT 1

Laboratory Analytical Reports

3600 Fremont Ave. N.
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

Landau Associates
Tim Syverson
130 2nd Ave South
Edmonds, WA 98020

RE: Port Orchard
Lab ID: 1310245

October 28, 2013

Attention Tim Syverson:

Fremont Analytical, Inc. received 3 sample(s) on 10/25/2013 for the analyses presented in the following report.

Volatile Organic Compounds by EPA Method TO-15

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Michael Dee
Sr. Chemist / Principal

Fremont Analytical

Date: *10/28/2013*

CLIENT: Landau Associates
Project: Port Orchard
Lab Order: 1310245

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
1310245-001	VP-1	10/25/2013 10:55 AM	10/25/2013 4:24 PM
1310245-002	VP-2	10/25/2013 11:10 AM	10/25/2013 4:24 PM
1310245-003	VP-3	10/25/2013 11:40 AM	10/25/2013 4:24 PM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

Fremont Analytical

Case Narrative

WO#: **1310245**
Date: **10/28/2013**

CLIENT: Landau Associates
Project: Port Orchard

I. SAMPLE RECEIPT:
Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:
Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:
Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Client: Landau Associates
WorkOrder: 1310245
Project: Port Orchard

Client Sample ID: VP-1
Lab ID: 1310245-001A
Sample Type: Tedlar Bag

Date Sampled: 10/25/2013
Date Received: 10/25/2013

Analyte	Concentration (ppbv)	Concentration (ug/m³)	Reporting Limit (ppbv)	Qual	Test Method	Date Analyzed /Analyst	
Volatile Organic Compounds by EPA Method TO-15							
Tetrachloroethene (PCE)	382	2,590	0.0500	E	TO-15	10/25/2013	SG
trans-1,2-Dichloroethene	1.80	7.14	0.200		TO-15	10/25/2013	SG
Trichloroethene (TCE)	182	976	0.0170	E	TO-15	10/25/2013	SG
Vinyl chloride	<0.0850	<0.217	0.0850		TO-15	10/25/2013	SG
Surr: 4-Bromofluorobenzene	101 %Rec	--	70-130		TO-15	10/25/2013	SG

NOTES:
E - No dilutions could be conducted on this sample (sample volume).

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit

Client: Landau Associates
WorkOrder: 1310245
Project: Port Orchard

Client Sample ID: VP-2
Lab ID: 1310245-002A
Sample Type: Tedlar Bag

Date Sampled: 10/25/2013
Date Received: 10/25/2013

Analyte	Concentration (ppbv)	Concentration (ug/m³)	Reporting Limit (ppbv)	Qual	Test Method	Date Analyzed /Analyst	
Volatile Organic Compounds by EPA Method TO-15							
Tetrachloroethene (PCE)	796	5,400	0.800		TO-15	10/27/2013	SG
trans-1,2-Dichloroethene	3.58	14.2	0.200		TO-15	10/25/2013	SG
Trichloroethene (TCE)	173	932	0.272		TO-15	10/27/2013	SG
Vinyl chloride	<0.0850	<0.217	0.0850		TO-15	10/25/2013	SG
Surr: 4-Bromofluorobenzene	105 %Rec	--	70-130		TO-15	10/25/2013	SG

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit

Client: Landau Associates
WorkOrder: 1310245
Project: Port Orchard

Client Sample ID: VP-3
Lab ID: 1310245-003A
Sample Type: Tedlar Bag

Date Sampled: 10/25/2013
Date Received: 10/25/2013

Analyte	Concentration (ppbv)	Concentration (ug/m³)	Reporting Limit (ppbv)	Qual	Test Method	Date Analyzed /Analyst
Volatile Organic Compounds by EPA Method TO-15						
Tetrachloroethene (PCE)	772	5,240	0.800		TO-15	10/27/2013 SG
trans-1,2-Dichloroethene	3.88	15.4	0.200		TO-15	10/25/2013 SG
Trichloroethene (TCE)	134	721	0.272		TO-15	10/27/2013 SG
Vinyl chloride	<0.0850	<0.217	0.0850		TO-15	10/25/2013 SG
Surr: 4-Bromofluorobenzene	103 %Rec	--	70-130		TO-15	10/25/2013 SG

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit

Work Order: 1310245
CLIENT: Landau Associates
Project: Port Orchard

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method TO-15

Sample ID: **1310245-001AREP**	SampType: **REP**			Units: **ppbv**		Prep Date: **10/25/2013**		RunNo: **10757**			
Client ID: **VP-1**	Batch ID: **R10757**					Analysis Date: **10/25/2013**		SeqNo: **215077**			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	ND	0.0850						0		30	
trans-1,2-Dichloroethene	1.84	0.200						1.800	2.20	30	
Trichloroethene (TCE)	181	0.0170						181.6	0.0716	30	E
Tetrachloroethene (PCE)	368	0.0500						382.2	3.83	30	E
Surr: 4-Bromofluorobenzene	10.1		10.00		101	70	130		0		

Sample ID: **LCS-R10757A**	SampType: **LCS**			Units: **ppbv**		Prep Date: **10/25/2013**		RunNo: **10757**			
Client ID: **LCSW**	Batch ID: **R10757**					Analysis Date: **10/25/2013**		SeqNo: **215082**			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	4.55	0.0850	5.000	0	91.0	70	130				
trans-1,2-Dichloroethene	4.92	0.200	5.000	0	98.4	70	130				
Trichloroethene (TCE)	4.37	0.0170	5.000	0	87.4	70	130				
Tetrachloroethene (PCE)	4.08	0.0500	5.000	0	81.6	70	130				
Surr: 4-Bromofluorobenzene	10.3		10.00		103	70	130				

Sample ID: **LCS-R10757B**	SampType: **LCS**			Units: **ppbv**		Prep Date: **10/27/2013**		RunNo: **10757**			
Client ID: **LCSW**	Batch ID: **R10757**					Analysis Date: **10/27/2013**		SeqNo: **215083**			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
trans-1,2-Dichloroethene	4.38	0.200	5.000	0	87.6	70	130				
Trichloroethene (TCE)	4.63	0.0170	5.000	0	92.6	70	130				
Surr: 4-Bromofluorobenzene	9.42		10.00		94.2	70	130				

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Fremont Analytical

Date: *10/28/2013*

Work Order: 1310245
CLIENT: Landau Associates
Project: Port Orchard

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method TO-15

Sample ID: **MB-R10757**	SampType: **MBLK**			Units: **ppbv**		Prep Date: **10/25/2013**			RunNo: **10757**		
Client ID: **MBLKW**	Batch ID: **R10757**					Analysis Date: **10/25/2013**			SeqNo: **215084**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	ND	0.0850									
trans-1,2-Dichloroethene	ND	0.200									
Trichloroethene (TCE)	ND	0.0170									
Tetrachloroethene (PCE)	ND	0.0500									
Surr: 4-Bromofluorobenzene	10.0		10.00		100	70	130				

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Fremont Analytical

Sample Log-In Check List

Client Name:	**LA**	Work Order Number:	**1310245**
Logged by:	**Clare Griggs**	Date Received:	**10/25/2013 4:24:00 PM**

Chain of Custody

1.	Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2.	How was the sample delivered?	Client		

Log In

3.	Coolers are present?	Yes ☐	No ☑	NA ☐
		Air Samples		
4.	Shipping container/cooler in good condition?	Yes ☑	No ☐	
5.	Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Required ☑
6.	Was an attempt made to cool the samples?	Yes ☐	No ☐	NA ☑
7.	Were all coolers received at a temperature of >0°C to 10.0°C	Yes ☐	No ☐	NA ☑
8.	Sample(s) in proper container(s)?	Yes ☑	No ☐	
9.	Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
10.	Are samples properly preserved?	Yes ☑	No ☐	
11.	Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
12.	Is the headspace in the VOA vials?	Yes ☐	No ☐	NA ☑
13.	Did all samples containers arrive in good condition(unbroken)?	Yes ☑	No ☐	
14.	Does paperwork match bottle labels?	Yes ☑	No ☐	
15.	Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
16.	Is it clear what analyses were requested?	Yes ☑	No ☐	
17.	Were all holding times able to be met?	Yes ☑	No ☐	

Special Handling (if applicable)

18.	Was client notified of all discrepancies with this order?	Yes ☐	No ☐	NA ☑

Person Notified:		Date:	
By Whom:		Via:	☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:			
Client Instructions:			

19. Additional remarks:

Item Information

LANDAU ASSOCIATES

~~Seattle/Edmonds~~ (425) 778-0907
☐ Tacoma (253) 926-2493
☐ Spokane (509) 327-9737
☐ Portland (503) 542-1080
☐ _____

Chain-of-Custody Record

13/0245

Date 10/25/13
Page 1 of 1

Project Name Port Orchard Project No. 1400001.02
Project Location/Event Port Orchard, WA
Sampler's Name Steve Shaw & Evelyn Ives
Project Contact Tim Syverson
Send Results To Tim Syverson, Anne Helverson

Testing Parameters

Turnaround Time
☐ Standard
☐ Accelerated
X 24-hr

Sample I.D.	Date	Time	Matrix	No. of Containers	VOCs * (8260C)	Observations/Comments
VP-1	10/25/13	1055	VAPOR	1	X	
VP-2	1	1110	1	1	X	
VP-3	1	1140	1	1	X	

Observations/Comments

X Allow water samples to settle, collect aliquot from clear portion

X NWTPH-Dx - run acid wash/silica gel cleanup

___ run samples standardized to _____ product

___ Analyze for EPH if no specific product identified

VOC/ BTEX / VPH (soil):
non-preserved
___ preserved w/methanol
___ preserved w/sodium bisulfate
___ Freeze upon receipt

___ Dissolved metal water samples field filtered

Other *VOCs: PCE, TCE, VC, 1,2-trans DCE,

Special Shipment/Handling or Storage Requirements

Method of Shipment: delivery

Relinquished by	Received by	Relinquished by	Received by
Signature	Signature	Signature	Signature
Printed Name STEVEN D. SHAW	Printed Name Chelsea Ward	Printed Name	Printed Name
Company Landau Associates	Company FPM	Company	Company
Date 5/25/13 Time 16:24	Date 10/25/13 Time 1624	Date Time	Date Time

WHITE COPY - Project File YELLOW COPY - Laboratory PINK COPY - Client Representative

3600 Fremont Ave. N.
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

Landau Associates
Tim Syverson
130 2nd Ave South
Edmonds, WA 98020

RE: Taritec Bethel
Lab ID: 1401072

January 15, 2014

Attention Tim Syverson:

Fremont Analytical, Inc. received 3 sample(s) on 1/10/2014 for the analyses presented in the following report.

Volatile Organic Compounds by EPA Method TO-15

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Michael Dee
Sr. Chemist / Principal

CC:
Ann Halvorsen

Fremont Analytical

Date: *01/15/2014*

CLIENT: Landau Associates
Project: Taritec Bethel
Lab Order: 1401072

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
1401072-001	ADC-Indoor-1	01/09/2014 4:15 PM	01/10/2014 7:58 AM
1401072-002	ADC-Indoor-2	01/09/2014 4:18 PM	01/10/2014 7:58 AM
1401072-003	ADC-Ambient-1	01/09/2014 4:20 PM	01/10/2014 7:58 AM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

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Case Narrative

WO#: **1401072**
Date: **1/15/2014**

CLIENT: Landau Associates
Project: Taritec Bethel

I. SAMPLE RECEIPT:
Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:
Air samples are reported in ppbv and ug/m3.

The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:
Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Client: Landau Associates
WorkOrder: 1401072
Project: Taritec Bethel

Client Sample ID: ADC-Indoor-1
Lab ID: 1401072-001A
Sample Type: Summa Canister

Date Sampled: 1/9/2014
Date Received: 1/10/2014

Analyte	Concentration (ppbv)	Concentration (ug/m³)	Reporting Limit (ppbv)	Reporting Limit (ug/m³)	Qual	Method	Date/Analyst	
Volatile Organic Compounds by EPA Method TO-15								
Tetrachloroethene (PCE)	0.589	3.99	0.0499	0.338		TO-15	01/14/2014	SG
trans-1,2-Dichloroethene	<0.200	<0.791	0.200	0.791		TO-15	01/14/2014	SG
Trichloroethene (TCE)	1.37	7.34	0.0170	0.0911		TO-15	01/14/2014	SG
Vinyl chloride	<0.0848	<0.217	0.0848	0.217		TO-15	01/14/2014	SG
Surr: 4-Bromofluorobenzene	93.3 %Rec	--	70-130	--		TO-15	01/14/2014	SG

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit

Client: Landau Associates
WorkOrder: 1401072
Project: Taritec Bethel

Client Sample ID: ADC-Indoor-2
Lab ID: 1401072-002A
Sample Type: Summa Canister

Date Sampled: 1/9/2014
Date Received: 1/10/2014

Analyte	Concentration (ppbv)	Concentration (ug/m³)	Reporting Limit (ppbv)	Reporting Limit (ug/m³)	Qual	Method	Date/Analyst	
Volatile Organic Compounds by EPA Method TO-15								
Tetrachloroethene (PCE)	0.641	4.35	0.0499	0.338		TO-15	01/14/2014	SG
trans-1,2-Dichloroethene	<0.200	<0.791	0.200	0.791		TO-15	01/14/2014	SG
Trichloroethene (TCE)	1.43	7.66	0.0170	0.0911		TO-15	01/14/2014	SG
Vinyl chloride	<0.0848	<0.217	0.0848	0.217		TO-15	01/14/2014	SG
Surr: 4-Bromofluorobenzene	90.4 %Rec	--	70-130	--		TO-15	01/14/2014	SG

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit

Client: Landau Associates
WorkOrder: 1401072
Project: Taritec Bethel

Client Sample ID: ADC-Ambient-1
Lab ID: 1401072-003A
Sample Type: Summa Canister

Date Sampled: 1/9/2014
Date Received: 1/10/2014

Analyte	Concentration (ppbv)	Concentration (ug/m³)	Reporting Limit (ppbv)	Reporting Limit (ug/m³)	Qual	Method	Date/Analyst	
Volatile Organic Compounds by EPA Method TO-15								
Tetrachloroethene (PCE)	0.668	4.53	0.0500	0.339		TO-15	01/14/2014	SG
trans-1,2-Dichloroethene	<0.200	<0.793	0.200	0.793		TO-15	01/14/2014	SG
Trichloroethene (TCE)	1.53	8.20	0.0170	0.0914		TO-15	01/14/2014	SG
Vinyl chloride	<0.0850	<0.217	0.0850	0.217		TO-15	01/14/2014	SG
Surr: 4-Bromofluorobenzene	90.0 %Rec	--	70-130	--		TO-15	01/14/2014	SG

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit

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Date: *1/15/2014*

Work Order: 1401072
CLIENT: Landau Associates
Project: Taritec Bethel

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method TO-15

Sample ID: **1401072-001AREP**	SampType: **REP**	Units: **ppbv**	Prep Date: **1/14/2014**	RunNo: **12030**
Client ID: **ADC-Indoor-1**	Batch ID: **R12030**		Analysis Date: **1/14/2014**	SeqNo: **240713**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	ND	0.0850						0		30	
trans-1,2-Dichloroethene	ND	0.200						0		30	
Trichloroethene (TCE)	1.52	0.0170						1.367	10.7	30	
Tetrachloroethene (PCE)	0.675	0.0500						0.5886	13.7	30	
Surr: 4-Bromofluorobenzene	9.08		10.00		90.8	70	130		0		

Sample ID: **LCS-R12030**	SampType: **LCS**	Units: **ppbv**	Prep Date: **1/14/2014**	RunNo: **12030**
Client ID: **LCSW**	Batch ID: **R12030**		Analysis Date: **1/14/2014**	SeqNo: **240716**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	3.85	0.0850	5.000	0	77.0	70	130				
trans-1,2-Dichloroethene	6.04	0.200	5.000	0	121	70	130				
Trichloroethene (TCE)	4.84	0.0170	5.000	0	96.9	70	130				
Tetrachloroethene (PCE)	5.20	0.0500	5.000	0	104	70	130				
Surr: 4-Bromofluorobenzene	9.73		10.00		97.3	70	130				

Sample ID: **LCSD-R12030**	SampType: **LCSD**	Units: **ppbv**	Prep Date: **1/14/2014**	RunNo: **12030**
Client ID: **LCSW02**	Batch ID: **R12030**		Analysis Date: **1/14/2014**	SeqNo: **240717**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	3.55	0.0850	5.000	0	71.0	70	130	3.849	8.09	30	
trans-1,2-Dichloroethene	5.75	0.200	5.000	0	115	70	130	6.043	4.94	30	
Trichloroethene (TCE)	4.96	0.0170	5.000	0	99.1	70	130	4.843	2.30	30	
Tetrachloroethene (PCE)	5.32	0.0500	5.000	0	106	70	130	5.197	2.34	30	
Surr: 4-Bromofluorobenzene	9.74		10.00		97.4	70	130		0		

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

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Date: *1/15/2014*

Work Order: 1401072
CLIENT: Landau Associates
Project: Taritec Bethel

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method TO-15

Sample ID: **MB-R12030**	SampType: **MBLK**	Units: **ppbv**	Prep Date: **1/14/2014**	RunNo: **12030**
Client ID: **MBLKW**	Batch ID: **R12030**		Analysis Date: **1/14/2014**	SeqNo: **240718**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	ND	0.0850									
trans-1,2-Dichloroethene	ND	0.200									
Trichloroethene (TCE)	ND	0.0170									
Tetrachloroethene (PCE)	ND	0.0500									
Surr: 4-Bromofluorobenzene	9.42		10.00		94.2	70	130				

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

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Sample Log-In Check List

Client Name:	**LA**	Work Order Number:	**1401072**
Logged by:	**Clare Griggs**	Date Received:	**1/10/2014 7:58:00 AM**

Chain of Custody

1.	Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2.	How was the sample delivered?	Client		

Log In

3.	Coolers are present?	Yes ☐	No ☑	NA ☐
		Air Samples		
4.	Shipping container/cooler in good condition?	Yes ☑	No ☐	
5.	Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Required ☑
6.	Was an attempt made to cool the samples?	Yes ☐	No ☐	NA ☑
7.	Were all coolers received at a temperature of >0°C to 10.0°C	Yes ☐	No ☐	NA ☑
8.	Sample(s) in proper container(s)?	Yes ☑	No ☐	
9.	Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
10.	Are samples properly preserved?	Yes ☑	No ☐	
11.	Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
12.	Is the headspace in the VOA vials?	Yes ☐	No ☐	NA ☑
13.	Did all samples containers arrive in good condition(unbroken)?	Yes ☑	No ☐	
14.	Does paperwork match bottle labels?	Yes ☑	No ☐	
15.	Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
16.	Is it clear what analyses were requested?	Yes ☑	No ☐	
17.	Were all holding times able to be met?	Yes ☑	No ☐	

Special Handling (if applicable)

18.	Was client notified of all discrepancies with this order?	Yes ☐	No ☐	NA ☑

Person Notified:		Date:	
By Whom:		Via:	☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:			
Client Instructions:			

19. Additional remarks:

Item Information

Fremont Analytical

Air Chain of Custody Record

3600 Fremont Ave N
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Laboratory Project No. (Internal): 1401072

Date: 1/9/14

Page: 1 of: 1

Client: Landau

Project Name: Tenitech Bethel

Address: 130 2nd Ave S

Location: Port Orchard WA

City, State, Zip: Edmonds, WA 98020

Tel: 425-778-0907

Collected by: Steve Shaw

Reports To (PM): Tim Symon, Anne Halvorsen

Email: tsymon@landauinc.com

Project No: 140000.1.030

	Sample Name	Canister Serial#	Sample Date	Sample Time	Indoor/ Outdoor	Sample Volume	Container Type	Lab Cert. Vacuum Pressure	Field Initial Sample Pressure	Field Final Sample Pressure	Analysis Requested	Internal Receipt Date	Internal Final (psi)
1	ADC-Indoor-1	12665	1/9/14	1615	I	6L	Summa	10mtorr	-30	-1	PCE, TCE, VC, trans-1-2-DCE by TO-15 (SIM) low level	1/10/13	-1
2	ADC-Indoor-2	13969	1/9/14	1618	I	6L	Summa	10mtorr	-30	-1		1/10/13	-1
3	ADC-Ambient-1	12669	1/9/14	1620	O	6L	Summa	10mtorr	-30	-1	"	1/10/13	-1
4													
5													
6													
7													
8													
9													
10													

Condition:

Seals Intact: Y N N/A

Special Remarks:

Relinquished	Date/Time	Received	Date/Time
x	1/10/14 0758		
Relinquished	Date/Time	Received	Date/Time
x			1/10/14 753

TAT -> STD Rush (specify) 3-DAY