



June 9, 2015

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Gerrity Atlantic Retail Partners II, Inc.  
c/o: Gerrity Group, LLC  
977 Lomas Santa Fe Drive, Suite A  
Solana Beach, California 92075

Attention: Mr. John Waters

**SUMMARY OF AIR SAMPLING RESULTS  
FORMER MCBRIDE'S HALLMARK SUITE  
BETHEL JUNCTION SHOPPING CENTER  
PORT ORCHARD, WASHINGTON**

RECEIVED

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Dear Mr. Waters:

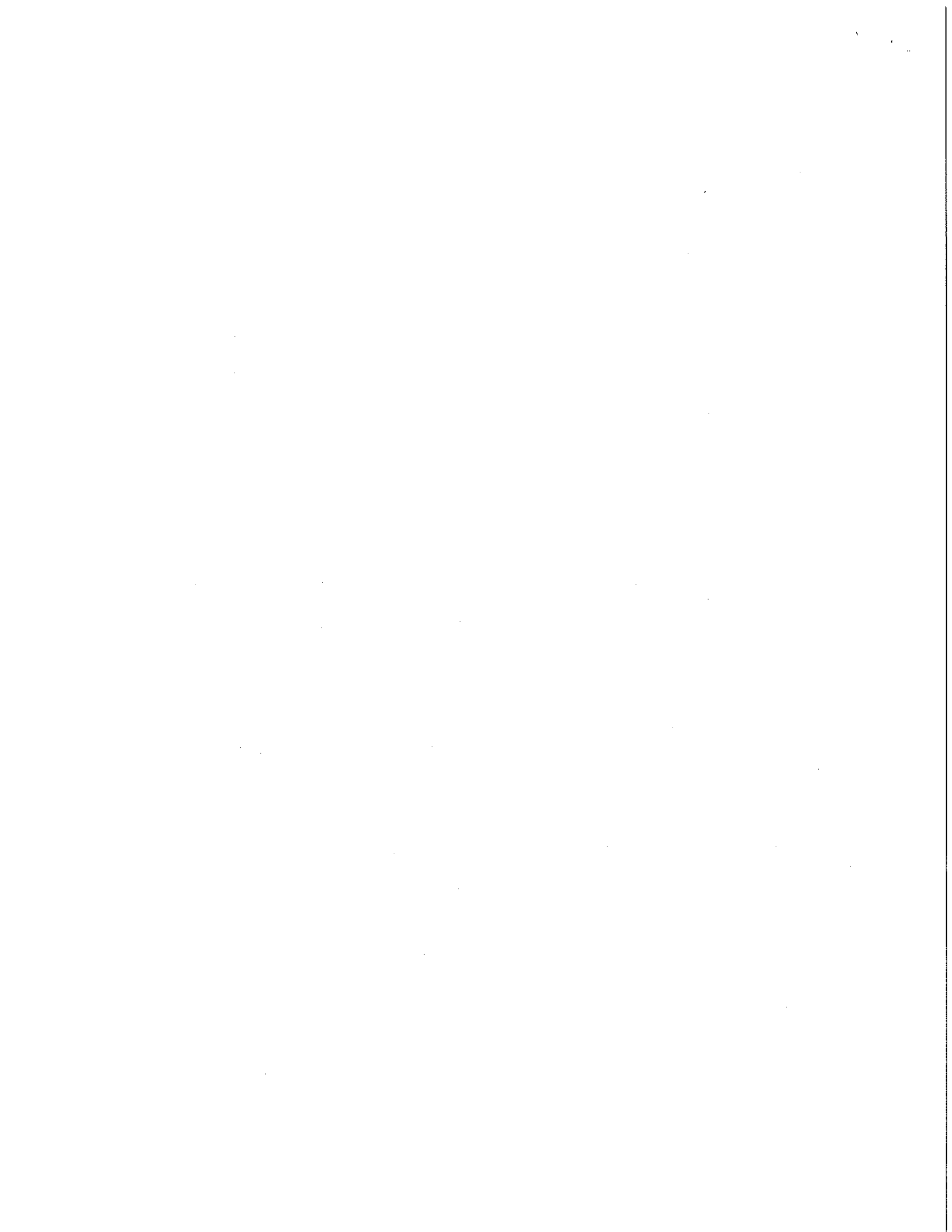
PES Environmental, Inc. (PES) is pleased to present this summary of recent environmental sampling activities associated with the former McBride's Hallmark suite located at 3377 Bethel Road SE, Suite 103, in the Bethel Junction Shopping Center in Port Orchard, Washington.

**BACKGROUND**

The sampling described below was conducted as part of the limited Phase II Environmental Site Assessment and focused cleanup action evaluation associated with the Amy's Dry Cleaners business located in Suite 105, adjacent to the former McBride's Hallmark suite. Amy's Dry Cleaners has operated in its current commercial space since 1989. The dry cleaner used a tetrachloroethene (PCE)-based dry cleaning solvent between 1989 and 2002 and has used a petroleum hydrocarbon solvent since 2002.

Previous subsurface investigations were conducted in and adjacent to the dry cleaner in the early 2000's that found PCE and two of its breakdown products (trichloroethene [TCE] and cis-1,2-dichloroethene [cDCE]) were above risk-based cleanup levels in soil samples collected in the shallow subsurface near the dry cleaning unit (DCU). Based on these previous investigations, the prior owner of the Bethel Junction Shopping Center determined that the subsurface contamination does not present a risk to human health or the environment as long as it remains undisturbed beneath the concrete floor and in accordance with a restrictive covenant, which was placed on the property in 2004. This information was submitted to the state of Washington Department of Ecology (Ecology). Ecology issued a letter in 2005 determining that no further remedial action was required.

In 2014, Gerrity Atlantic Retail Partners II, LLC (Gerrity) acquired the Bethel Junction Shopping Center. The objective of the Phase II assessment at the Amy's Dry Cleaners suite is to further



investigate the soil contamination around the DCU and develop a cleanup action that will allow for the restrictive covenant to be removed.

## **SCOPE OF WORK**

As part of the investigation of the Amy's Dry Cleaners suite, PES evaluated conditions within the former McBride's Hallmark suite by collecting one indoor air sample, one ambient (background) air sample, and one sub-slab soil gas sample. The purpose of this sampling was to confirm that the soil contamination beneath the Amy's Dry Cleaners suite did not present an unacceptable health risk to future occupants of the former McBride's Hallmark suite.

### **Indoor Air Sampling**

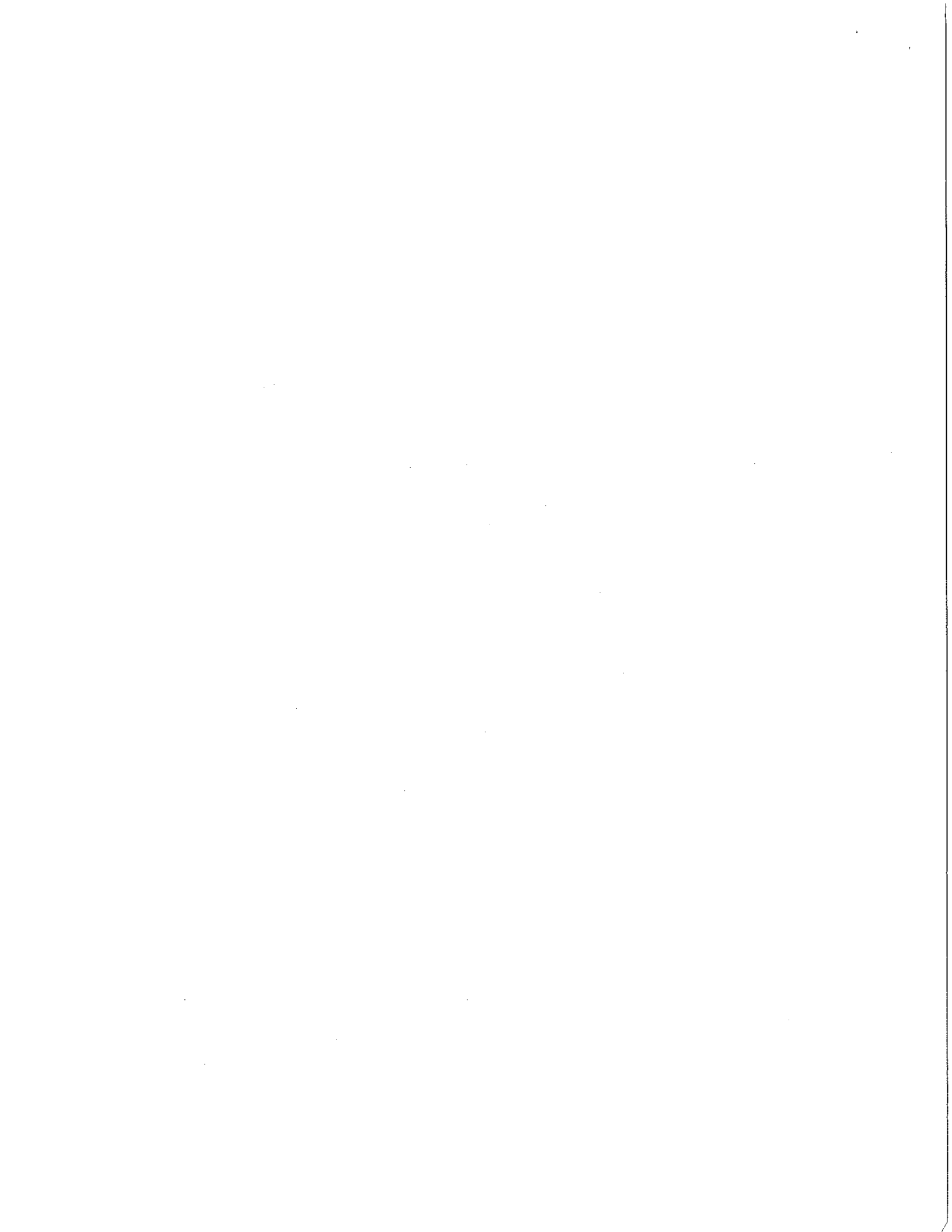
PES collected one indoor air sample from within the former McBride's Hallmark suite and one ambient air sample on the roof of the Big Lots store located upwind of the suite. Sampling procedures and methods were performed consistent with the Washington State Department of Ecology's (Ecology's) "*Guidance for Evaluating Soil Vapor Intrusion in Washington State: Investigation and Remedial Action*" ("Ecology's VI Guidance", October 2009). The samples were collected over an 8-hour time period on May 22, 2015. The air samples were submitted to Fremont Analytical, Inc. (Fremont), of Seattle, Washington, a Washington State accredited analytical laboratory, for analysis of volatile organic compounds (VOCs) using EPA Method TO-15 with selective ion monitoring (SIM).

### **Sub-Slab Soil Gas Sampling**

One soil gas sample was collected on May 21, 2015, at a location approximately 5 feet from the wall between the suite and Amy's Dry Cleaners across from where the DCU is located. A small hole was drilled through the concrete slab using a rotohammer drill bit and then installing Teflon tubing through the hole into the soil beneath the slab. The annular space between the sample tubing and concrete was sealed at the top with hydrated bentonite. Upon sealing of the surface entry points, the sampling train was connected. Leak testing of the sampling train was performed using helium as the tracer gas and a helium meter. The sub-slab sample was collected on May 22, 2015 in a 6-L summa with the flow regulator set to fill over 70 min. (<100 ml/min). The soil gas sample was submitted to Fremont for analysis of VOCs using EPA Method TO-15 with selective ion monitoring (SIM).

## **DISCUSSION OF RESULTS**

The results of the indoor and ambient air sampling are summarized in Table 1. A total of seven VOCs were detected in the indoor air sample, four of which (benzene, carbon tetrachloride, chloromethane, and toluene) were detected at similar concentrations in the ambient (background) sample. The other three VOCs (hexane, PCE, and TCE) were not detected in the ambient air sample. As indicated in Table 1, all of these VOC compounds are well below their associated risk-based indoor air cleanup levels for commercial site use.



Mr. John Waters  
June 9, 2015  
Page 3

PES Environmental, Inc.

The sub-slab soil gas sample results are summarized in Table 2. A total of 13 VOCs were detected in the sub-slab soil gas samples, generally at low levels. PCE and TCE were detected at elevated concentrations, likely associated with the adjacent dry cleaners suite. To evaluate the significance of these soil gas concentrations, consistent with Ecology's vapor intrusion evaluation guidance (Ecology, 2009), PES utilized the vapor intrusion model developed by Johnson and Ettinger (J&E Model) and modified by the EPA (Environmental Quality Management, Inc., 2004) to assess vapor intrusion beneath the former Mcbrides Hallmark suite. The advanced version of the J&E vapor intrusion model (SG-ADV, Version 3.1; 02/04) was used to estimate the potential concentrations of the detected VOCs in indoor air within the suite. The input parameters used for the J&E Model included both conservative default values recommended by EPA and Ecology, and available site-specific values (e.g., building dimensions and floor thickness). Table 3 presents the input parameters used for the model. As can be seen in Table 2, all of the predicted indoor air concentrations are below their respective cleanup levels.

## CONCLUSIONS

Based on the sampling conducted at the former Hallmark suite on May 22, 2015, the measured concentrations of VOCs detected in indoor air are all below their respective risk-based cleanup levels. VOCs detected in the sub-slab soil gas sample beneath the suite correlate with the known contamination associated with the adjacent dry cleaner premises. However, predicted indoor air concentrations derived from the sub-slab VOC concentrations do not exceed indoor air cleanup levels. Future work within the former Hallmark suite should take care not to damage or penetrate the concrete floor slab.

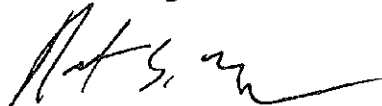
If you have any questions, please feel free to contact either of the undersigned.

Very truly yours,

**PES ENVIRONMENTAL, INC.**

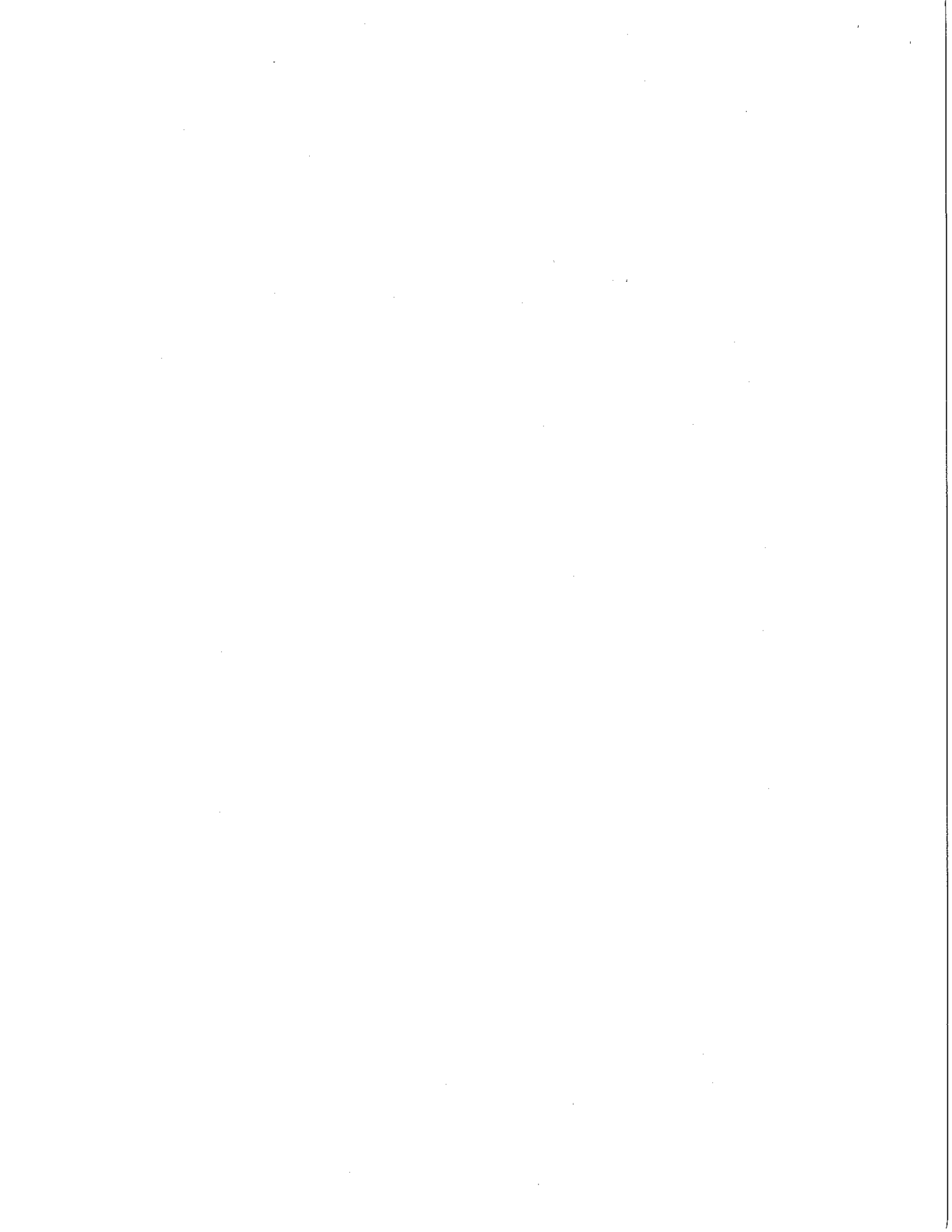


Brian O'Neal, P.E.  
Associate Engineer



Robert Creps  
Principal Engineer

Attachments: Table 1 – Summary of Detected VOCs in Indoor Air  
Table 2 – Summary of Detected VOCs in Sub-Slab Soil Gas  
Table 3 - Johnson and Ettinger Model Input Parameters

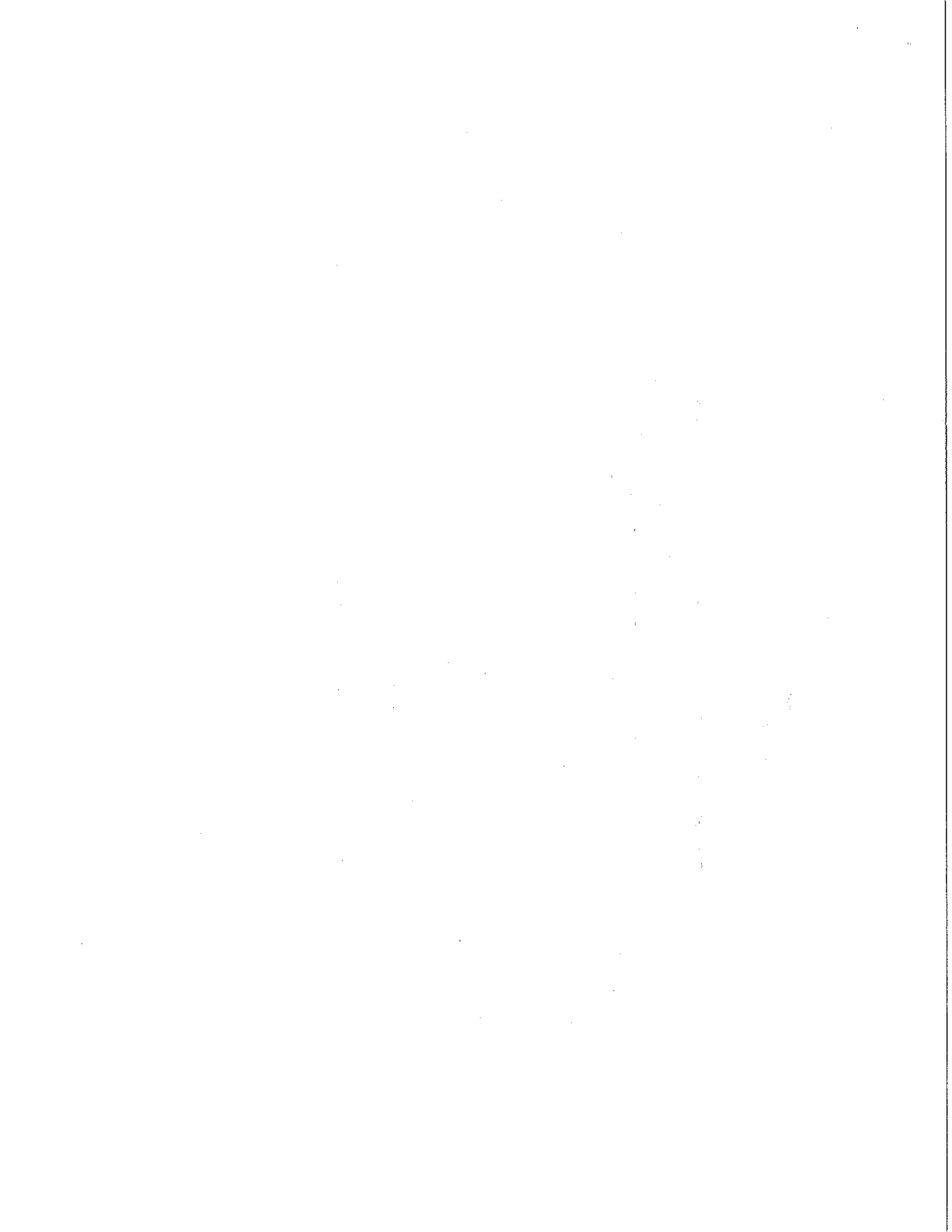


**Table 1**  
**Summary of Detected VOCs in Indoor Air**  
**Former Hallmark Suite**  
**Bethel Junction Shopping Center**  
**Port Orchard, WA**

Constituent	Indoor Air		Ambient Air		Indoor Air Corrected for Ambient	Modified Method B (Commercial) Indoor Air Cleanup Level (µg/m3)
	Indoor Air 05/22/2015	Outdoor Air 05/22/2015	Outdoor Air 5/22/2015	8-hour		
	8-hour	8-hour	8-hour	8-hour		
Benzene	0.338	0.202	0.707	0.136	0.136	0.9
Carbon Tetrachloride	0.671	0.707	1.24	NC	NC	1.17
Chloromethane	1.09	1.24	0.247	U	NC	630
Hexane	6.27	0.339	0.339	U	6.27	4,900
Tetrachloroethene	1.75	2.40	2.40	U	1.75	26.9
Toluene	2.47	0.0914	0.0914	U	0.07	35,000
Trichloroethene	0.376	0.0914	0.0914	U	0.376	1.03

**Notes:**

- All results in µg/m<sup>3</sup> (micrograms per cubic meter).
- Volatile Organic Compound (VOC) analysis by EPA Method TO-15-SIM.
- Detected results shown in **bold**.
- U = not detected at or above the concentration shown.
- Modified Method B cleanup levels were calculated using Method B residential cleanup levels obtained from Ecology's Draft Vapor Intrusion Guidance, 2009; Table B-1 (updated April 6, 2015), modified to reflect commercial exposure scenario (adult, 6 days/week, 10 hours/day).
- Measured indoor air concentrations corrected for ambient air concentrations consistent Ecology's Draft Vapor Intrusion Guidance, 2009.
- NC = Not calculable. Indicates measured indoor air concentration less than ambient air concentrations.





**Table 2**  
**Summary of Detected VOCs in Sub-Slab Soil Gas**  
**Former Hallmark Suite**  
**Bethel Junction Shopping Center**  
**Port Orchard, Washington**

PES Environmental, Inc.

Compound	Subslab_Air_052215 ( $\mu\text{g}/\text{m}^3$ )	J&E Predicted Indoor Air Concentration ( $\mu\text{g}/\text{m}^3$ )	Modified Method B - Commercial Indoor Air Cleanup Level ( $\mu\text{g}/\text{m}^3$ )
Benzene	0.436	0.00036	0.90
Carbon Tetrachloride	0.415	0.00035	1.17
Chloroform	2.69	0.0022	0.30
cis-1,2-Dichloroethene	15.8	0.013	NL
Ethylbenzene	2.96	0.0024	7,000
m&p-Xylene	5.37	0.0045	701
Naphthalene	7.13	0.006	0.21
Hexane	0.932	0.00077	4,900
o-Xylene	2.44	0.002	701
Tetrachloroethene	13,000	10.8	26.9
Toluene	2.69	0.0022	35,000
trans-1,2-Dichloroethene	1.3	0.0011	NL
Trichloroethene	476	0.396	1.03

**Notes:**

1. All results reported in micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ )
2. Detected VOCs are summarized in this table; see laboratory analytical report for entire VOC analytical results.
3. Analyses for volatile organic compounds (VOCs) using USEPA Method TO-15-SIM.
4. Predicted indoor air concentrations exceeding Modified Method B commercial cleanup level are shaded.
5. Modified Method B cleanup levels were calculated using Method B residential cleanup levels obtained from Ecology's Draft Vapor Intrusion Guidance, 2009; Table B-1 (updated April 6, 2015), modified to reflect commercial exposure scenario (adult, 6 days/week, 10 hours/day).
6. J&E predicted indoor air concentration - calculated using advanced version of the John and Ettinger (J&E) vapor intrusion model (SG ADV, Version 3.1; 02/04); see Table 3 for input parameters.
7. NL = Not listed.

