

# MEMORANDUM

Project No. AS180357

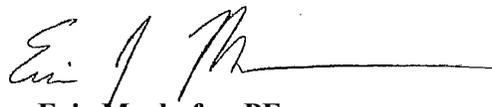
December 1, 2025

**To:** Cecilia Henderson  
Washington Department of Ecology  
Northwest Regional Office  
15700 Dayton Avenue North  
Shoreline, WA 98133

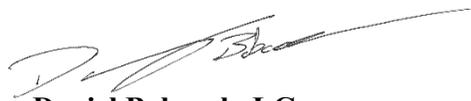
**cc:** Ryan Megenity  
Rainer Property Management Co., LLC  
12199 Village Center Pl, Suite 201  
Mukilteo, WA 98275

Eric Hetrick  
Chevron Environmental Management Company  
5001 Executive Parkway, Suite 200  
Sam Ramon, CA 94583

**From:**



**Eric Marhofer, PE**  
Principal Engineer  
Eric.Marhofer@geosyntec.com



**Daniel Babcock, LG**  
Project Geologist  
Daniel.Babcock@geosyntec.com

**Re: Vapor Intrusion Assessment Work Plan**

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Aspect Consulting, a Geosyntec company (Aspect) has prepared this work plan on behalf of Strickland Real Estate Holdings, LLC and Chevron Environmental Management Company for soil gas assessment activities related to the Texaco Strickland Cleanup Site (Site) located 6808 196<sup>th</sup> Street SW in Lynnwood, Washington (Property). These two potentially liable parties entered into Agreed Order No. 14315 (AO) with the Washington State Department of Ecology (Ecology) on August 28, 2018.

In 2022, an interim cleanup action was performed at the Site resulting in the excavation and off-site disposal of soil contamination exceeding Model Toxics Control Act (MTCA) Method A cleanup levels to the extent practicable (Interim Action; Aspect, 2023). A limited amount of soil contamination exceeding Method A cleanup levels was left in place in the public right-of-way along the northern Property boundary. The soil impacts are in the unsaturated zone above the groundwater table. In September 2025, Ecology requested that soil gas be evaluated along the

northern Property boundary in the vicinity of the residual soil impacts located in the 196th Street SW right-of-way to confirm that the vapor exposure pathway on the Property is incomplete.

### **Proposed Scope of Work**

The purpose of this Vapor Intrusion Assessment is to evaluate the potential of soil gas impacts associated with the residual gasoline-impacted soil located in the 196<sup>th</sup> Street SW right-of-way along the northern Property boundary. The scope of work includes the following:

- Installation and sampling of two permanent soil gas probes (see locations on Figure 1).
- Laboratory analysis of soil gas samples by U.S. Environmental Protection Agency (EPA) Method TO-15 for the following petroleum-related volatile organic compounds (VOCs) and petroleum-equivalent carbon (EC) fractions:
  - Benzene, toluene, ethylbenzene, and total xylenes, and naphthalene (BTEXN)
  - EC5-8 (aliphatics), EC9-12 (aliphatics), and EC9-10 (aromatics) using the Massachusetts Department of Environmental Protection (MDEP) method for air-phase petroleum hydrocarbons
- Comparison of soil gas sampling results to MTCA Method B screening levels for unrestricted and commercial use.

This work plan was developed in accordance with Ecology's Guidance for Evaluating Vapor Intrusion in Washington State (Ecology, 2022).

### ***Utility Clearance and Mapping***

Prior to drilling and installation of the soil gas probes, underground utilities will first be located by performing a one-call public locate request. A private locating service will be subcontracted to confirm the public locate markings and locate conductible underground utilities on the Site that were not marked by the public locate.

### ***Soil Gas Probe Installation and Sampling***

Soil gas samples will be collected from two permanent soil gas sampling probes, installed using direct push methods to 5 feet deep, or 1-foot above groundwater if encountered shallower than 5 feet below ground surface. The soil gas points will be constructed of 0.25-inch-diameter fluoropolymer tubing connected to a 6-inch-long stainless-steel mesh vapor screen. The vapor probes will be completed using a 10/12 silica sand filter pack from the bottom of the boring to 6 inches above the top of the vapor screen, with an annular seal of bentonite placed above the filter pack to within 1.5 feet below ground surface. Probes will be finished with a concrete surface seal and flush-mounted monument above the bentonite seal. An as-built completion diagram will be completed for each installation. Following installation, the soil gas probes will be allowed to equilibrate for 2 hours prior to sampling, at which time the barometric pressure will be recorded, and the differential pressure will be recorded using a micromanometer.

Soil gas samples will be collected using laboratory-supplied and individually certified evacuated 1-Liter Summa canisters fitted with 150 mL/min flow regulators connected to the soil gas probe

with dedicated tubing and fittings. Prior to sampling, a shut-in test will be performed by inducing a vacuum to the sampling train (including dedicated disposal fluoropolymer tubing, fittings, and connections to the Summa canister). A minimum vacuum of 10 inches of mercury will be applied for 5 minutes. If no change in vacuum is observed during the shut-in test, this indicates the sampling train is free of leaks that could introduce ambient air to the soil gas sample.

After confirming there is no significant leakage in the sampling train, the soil gas probe and sampling train will be purged to evacuate five tubing volumes (including both the subsurface probe tubing and aboveground tubing) at a rate of up to 150 mL/min. During purging, the air stream will be monitored using a 5-gas meter for oxygen and carbon dioxide levels, and a photoionization detector for VOCs. Oxygen, carbon dioxide, and VOCs will be recorded at the conclusion of purging.

Following purging, the Summa canister will be opened and allowed to fill at 150 mL/min until the canister vacuum reaches -5 inches of mercury. At the conclusion of sampling the Summa canister will be closed and transferred under appropriate chain-of-custody documentation to the laboratory, Friedman and Bruya, Inc., in Seattle, Washington. Samples will be analyzed using EPA Method TO-15 for BTEXN and MDEP Method for APHs.

### **Data Analysis and Reporting**

The analytical results will be tabulated and compared to applicable MTCA Method B screening levels for shallow soil gas in accordance with the Ecology Guidance (Ecology, 2022). Data received from the laboratory will be undergo third party data validation in accordance with the AO and will be submitted to Ecology in a data transmittal. The data transmittal will consist of laboratory reports, summary data tables, and a site map showing sample locations.

### **References**

Aspect Consulting, LLC (Aspect), 2023b, Interim Action Report, Texaco Strickland Site. April 26, 2023.

Washington State Department of Ecology (Ecology), 2022, Guidance for Evaluating Soil Vapor Intrusion in Washington State: Investigation and Remedial Action, Publication No. 09-09-047. March 2022.

## **Limitations**

Work for this project was performed for the Strickland Real Estate Holdings, LLC (Client), and this memorandum was prepared in accordance with generally accepted professional practices for the nature and conditions of work completed in the same or similar localities, at the time the work was performed. This memorandum does not represent a legal opinion. No other warranty, expressed or implied, is made.

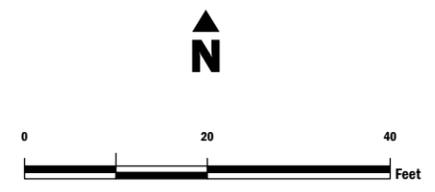
All reports prepared by Aspect Consulting for the Client apply only to the services described in the Agreement(s) with the Client. Any use or reuse by any party other than the Client is at the sole risk of that party, and without liability to Aspect Consulting. Aspect Consulting's original files/reports shall govern in the event of any dispute regarding the content of electronic documents furnished to others.

Attachments: Figure 1 – Proposed Soil Gas Sampling Locations

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-  Proposed Soil Gas Sampling Locations
-  Extents of Soil Exceeding Cleanup Levels
-  Property Boundary
-  Snohomish County Tax Parcel



**Proposed Soil Gas Sampling Locations**

Vapor Intrusion Work Plan  
 Texaco Strickland Site  
 6808 196th Street SW  
 Lynnwood, Washington

	APR-2025	BY: DRB / HMD	FIGURE NO. <b>1</b>
	PROJECT NO. 180357	REVISED BY: ---/---	