

TECHNICAL MEMORANDUM: Prime Cleaners Status Report

Project Name:	Prime Cleaners	Date:	September 17, 2021
ZGA Project No.:	1001.25	Ecology VCP Project No.:	NW2571
Prepared For:	Allstate Insurance	Attn.:	Ms. Belinda Stevenson
	Farmers Insurance Group/Truck Insurance	Attn.:	Ms. Marcianne White
Farmers/Truck Insurance Claim No.:	1017773342-1-1	Allstate Insurance Claim No.:	4920039460
Subject:	Status Report	Prepared By:	Zipper Geo Associates, LLC (ZGA)
Enclosures:	December 2020 Groundwater Monitoring Report - Former Prime Cleaners September 2021 Groundwater Monitoring Report – Former Prime Cleaners		

Dear Ms. Stevenson and Ms. White,

Zipper Geo Associates, LLC (ZGA) has been providing environmental consulting services on the Prime Cleaners project site since 2012. At the request of Mr. William Olsen, former legacy claims adjuster for Farmers Insurance, ZGA has prepared this project status update.

Introduction

Broadly speaking, the project consists of the remediation of soil, soil vapor, and groundwater contaminated by dry cleaning solvents sourced from the former Prime Cleaners dry cleaning business. The primary contaminant of concern is tetrachloroethylene (PCE), which has been identified in the vicinity of the Former Prime Cleaners tenant space in soil and groundwater at concentrations that exceed applicable cleanup standards established under Chapter 70A.305 RCW and its implementing regulations, the Model Toxics Control Act, Chapter 173-340 WAC (collectively, MTCA). Groundwater monitoring data suggests that the plume extends from the former Prime Cleaners tenant space across the south adjoining property and into the Bothell Everett Highway right of way. The project is being undertaken to remediate soil, soil vapor, and groundwater into compliance with MTCA cleanup levels with the ultimate objective to achieve a written opinion of No Further Action (NFA) from the Washington State Department of Ecology (Ecology).

The site address is 18001 Bothell Everett Highway. Funding for the cleanup has been provided by Farmers Insurance Group/Truck (Farmers) and Allstate Insurance (Allstate).

The remedial action consists of the operation of a dual-phase extraction (DPE) system as well as groundwater and indoor air quality monitoring by ZGA. The DPE system began operation on February 1, 2017. The DPE system consists of four extraction wells (DPE-1 through DPE-4) plumbed into a Dekker-brand vacuum located in a Con-Ex box located on the south side of the building. The DPE system extracts contaminated groundwater and soil vapor from the subsurface for disposal. The DPE system discharges groundwater to the sanitary sewer and soil vapor to the atmosphere. As soil vapor and groundwater is extracted, contaminants previously sorbed to soil particles volatilize into soil vapor, and the cycle repeats. Operation of the DPE system can be expected to result in lowered concentrations of volatile organic contaminants of concern in all three media of concern, soil, soil vapor, and groundwater.

Current Status of Project

The most recent groundwater monitoring data set is presented in the following report attached to this letter:

- *September 2021 Groundwater Monitoring Report - Former Prime Cleaners - 18001 Bothell Everett Highway - Bothell, Snohomish County, Washington - ZGA Project No. 1001.25 - VCP #NW2571* prepared by ZGA and dated September 17, 2021.

Based on the data presented in the attached groundwater monitoring reports, PCE concentrations near the source (see results for monitoring well MW-4) have decreased by a factor of ten from 170 µg/L (June 2009) to 20 µg/L (September 2021). As of September 2021, Concentrations of PCE in groundwater in monitoring wells MW-4, and MW-8 remain above the MTCA Method A Cleanup Level (CUL) of 5 µg/L.

On September 15, 2021, ZGA participated in a conference call with Ecology. We discussed the project status and our proposed path forward. Following up on that conversation, we intend to transmit the attached groundwater monitoring reports to Ecology along with a request for an NFA opinion. Based on our discussion with Ecology's site manager, we anticipate that Ecology's opinion will be that further action is warranted to receive an NFA opinion for the Property.

During its operational period, the DPE system has been subject to sporadic mechanical issues that have resulted in occasional unplanned shutoffs, primarily due to system overheating. The DPE vacuum is currently off pending necessary maintenance. It is likely that engineering-design modifications to the vacuum controls and/or a re-design of the equipment enclosure itself (Con-Ex box) will be necessary in order to allow uninterrupted operation of the system moving forward. ZGA is in the process of evaluating necessary equipment maintenance and the need for engineering-design modifications to system controls, possible installation of remote telemetry, and/or modifications to the equipment enclosure. We expect proposals for the recommended engineering-design modifications from remediation equipment subcontractors by October 1, 2021.

As of September 3, 2021, ZGA's remaining budget for the project is \$4,429.73. At which time the groundwater monitoring report and the equipment system evaluation are complete, ZGA's current approved budget will be exhausted.

Proposed Next Steps

Continued DPE system operation and environmental consulting is necessary to achieve site cleanup objectives and petition Ecology for an NFA. In our opinion, the DPE system remains the most feasible remedial solution for the project site. ZGA is working with local remediation equipment subcontractors to provide proposals for necessary upgrades and on-call operations and maintenance support.

A Work Plan and Cost Estimate for additional environmental consulting services will be provided to our client and former property owner (Mr. Nicholas Echelbarger, Mill Creek Crossing, LLC) prior to October 1, 2021. With the objective of achieving site cleanup objectives and petitioning Ecology for an NFA, we recommend the following tasks be completed by ZGA:

1. Transmit the attached groundwater monitoring reports to Ecology and request a written opinion.
2. Provide a Work Plan and Cost Estimate for continued environmental consulting and equipment operations services.
3. Update the Access Agreement with the current Property owner.
4. Subcontract necessary maintenance and upgrades to the DPE system to allow uninterrupted operation.
5. Perform weekly site visits to confirm that the DPE system is operational and troubleshoot issues in a timely manner.
6. Establish an on-call contract with a local remediation equipment subcontractor to provide operations and maintenance support as necessary.
7. Continue quarterly groundwater monitoring for a period of at least two years (anticipated eight events total, two events to include all ten existing monitoring wells and six events to include just monitoring wells MW-3, MW-4, MW-7, and MW-8, which are located downgradient from the former dry cleaner tenant space).
8. Continue indoor air quality monitoring on a semi-annual basis for a period of at least two years (four events total).
9. Prepare semi-annual status updates to facilitate clear communication between all parties.
10. At which time MTCA CULs have been achieved for groundwater, petition Ecology for an NFA.

Assuming our Work Plan is approved by Mill Creek Crossing, LLC, ZGA will subcontract necessary maintenance and upgrades to the DPE system to allow uninterrupted operation, complete quarterly groundwater monitoring and sampling events, prepare and distribute quarterly *Groundwater Monitoring and Sampling* reports, and prepare and distribute semi-annual *Status Update Reports*. To the extent that trends in groundwater data do not appear likely to meet cleanup objectives within two years of continued DPE operations, ZGA will, in real time, recommend supplemental in-situ remedial technologies or other alternatives in our semi-annual Status Update Reports.

Closing

We appreciate the collaboration by all involved in this project and the opportunity to provide our environmental consulting services. If you have questions or comments, please call us at (425) 582-9928.



Respectfully,
Zipper Geo Associates, LLC



Signed 9/17/2021

JEFFREY S. TINKLEPAUGH

Jeffrey S. Tinklepaugh, L.G.
Project Geologist



Signed 9/17/2021

SEAN W. DONNAN

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