

February 3, 2017

Attention: Sandra Treccani  
Washington State Department of Ecology  
Eastern Regional Office  
4601 North Monroe, Suite 202  
Spokane, Washington 99205

RE: 2016 Annual Report - South Wilbur Site

## INTRODUCTION

This annual progress report has been prepared by Lincoln County Public Works to document progress of maintenance, operations, and inspections at the South Wilbur Petroleum Contamination Site (site) located at Wilbur, Washington. The objective of this progress report is to communicate to Ecology a summary of the conditions, progress, and integrity of the various site components and implementation of the monitoring requirements contained in the Remedial Action Plan (RAP) for the site. This report provides a summary of all key activities implemented in the overall monitoring requirements and annual reporting requirements to summarize the condition of specific components of the Phytoremediation Barrier, Semi Impervious Gravel Surfacing, and Stormwater Controls implemented as part of the RAP for this site. This is the 9<sup>th</sup> annual progress report submitted to Ecology as outlined under the RAP. Future progress reports will be submitted annually pursuant to the RAP requirements.

## SUMMARY OF ALL KEY ACTIVITIES

The following activities occurred during 2016.

1. Lincoln County continued the contract with Budinger and Associates to complete the final injection treatment and close out the Chemical and Biological Remediation Project at the Site.
2. Budinger and Associates completed the monitoring work in 2016. Monitoring was completed in the spring according to the reduced monitoring schedule approved by Department of Ecology.
3. Lateral and vertical infiltration and injection galleries were maintained and in use as per project plans.
4. *In Situ* chemical and biological remediation work conducted consisted of the combination of one-time and final injection of chemical and biological oxidants as per project plans.
5. Adjustments to injections and monitoring were made as necessary to use up the final remaining chemical and biological materials and reduce due to low well water levels prohibiting collection of viable samples.

## SUMMARY OF SITE CONDITIONS

The following provides a summary of inspections and monitoring performed on the various site components as outlined in the site operations and maintenance plan included in the RAP.

### 1. Institutional Controls:

- North and West Boundary fence remains in place and functional.
- Site signage remains in place and functional.
- Restrictive Covenants are recorded and in place.
- No problem areas identified.
- Monitoring will continue in 2017 at the reduced schedule approved by DOE.
- Recommend continuation of current practices and planned monitoring.

### 2. Monitoring Wells:

- Monitoring Wells were inspected during the Monitoring Event.
- Routine maintenance was performed on certain wells to insure well head components were accessible and functioning properly.
- Monitoring Wells remain accessible and functional.
- Inspections will continue in 2017.
- Recommend continuation of current practices.

### 3. Phytoremediation Barrier:

- Plant growth within the Phytoremediation Barrier was monitored.
- Grasses planted continue to survive.
- Grass and weed control is completed by mechanical methods.
- Vegetation will continue to be monitored in 2017.
- Recommend continuation of current practices.

### 4. Semi-Imperious Gravel Surfacing:

- Grade and drainage remains in-place, functional, and effective against infiltration.
- There are normal signs of slight raveling and rutting in traffic areas. Repairs to address is ongoing due to normal traffic to and from the site.
- Traffic Areas will be bladed or rock raked to remove rutting when weather permits.
- No problem areas identified.
- Monitoring will continue in 2017.
- Recommend continuation of current practices.

### 5. Stormwater Control:

- Grade and elevations established under cleanup activities remains effective.
- Sheet flow dispersion remains functional and effective toward street drains, phytoremediation barrier, and natural dispersion to ground outside areas excavated during clean up activities.
- Lincoln County will be completing some grading to improve slight ponding problems identified.
- Monitoring will continue in 2017.
- Recommend continuation of current practices.

**6. Good Housekeeping Practices:**

- Equipment fueling operations are completed off site.
- Equipment maintenance and repairs are completed inside shop area.
- Oils and grease are stored inside buildings.
- Vehicle washing is completed over installed vehicle wash facility.
- The on-site oil water separate is serviced routinely.
- Spill cleanup materials remain available on site.
- No problem areas identified.
- Monitoring will continue in 2017.
- Recommend continuation of current practices.

**DELIVERABLES SUBMITTED**

Deliverables to Ecology:

- 1) The 2015 Chemical and Biological Remediation Annual Progress Report submitted by Budinger and Apex Laboratories was submitted in December 2015 to Ecology for review spring 2016.
- 2) The 2016 Groundwater Monitoring Results were submitted June 2016 by Budinger and Associates.
- 3) This 2016 Operations and Maintenance Report.

**SCHEDULE DEVIATIONS**

Injection and monitoring schedules were completed when groundwater was at acceptable levels. The last injection treatment was performed February 23, 2016. Budinger obtained water samples on February 16, 2016 prior to the treatment injection to help determine if treatment facilitated remediation. Budinger returned to the site and obtained follow-up sampling at selected wells on April 13th and May 9th, 2016 to compare with pre-injection sample data. Groundwater monitoring will occur spring of 2017. No deviation to the annual monitoring event are anticipated.

**DATA GENERATED**

A groundwater monitoring report that documents results of the 2016 Annual Monitoring Event and Summary completed by Budinger & Associates.

## PLANNED ACTIVITIES AND DELIVERABLES

All current practices, as completed, appear adequate and consistent with requirements outlined in the revised RAP for the Wilbur Site. All current activities as summarized in this report will be implemented in 2017, with major planned activities summarized as follows:

1. Conduct an annual groundwater monitoring event March 2017.
2. Conduct routine operations and maintenance activities as may be necessary.
3. Continue monitoring vegetation comprising the Phytoremediation Barrier.
4. Prepare data and submit an Annual Monitoring Event and Summary Report to Ecology for review.
5. Prepare an Annual Site Report and submit to Ecology for review.
6. Schedule meeting with DOE to determine status of possible continued grant funding for this site in light of project results.

## APPROVED CHANGES TO COMPLIANCE MONITORING PLAN

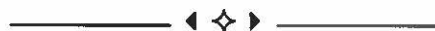
Department of Ecology has approved the following changes to the compliance monitoring plan at the Wilbur Site:

Reduce sampling to once a year

Cease Sampling at wells MW7, MW8, MW11, and MW12

Continue sampling at MW9

Cease monitoring for conventional parameters (sulfate, ferrous iron, and nitrate). Diesel will be retained in the analysis.



Please don't hesitate to contact me at (509) 725-7041 if you have any questions.

Respectfully submitted,

A handwritten signature in blue ink that reads "Rick Becker".

Rick Becker  
Public Works Director

Enclosures: 2016 Results of Groundwater Monitoring prepared by Budinger and Associates