



**Shane C. DeGross**  
Manager of Environmental  
Remediation

**BNSF Railway Company**  
605 Puyallup Avenue  
Tacoma, WA 98421

Phone: (253) 591-2567  
E-mail: [Shane.DeGross@bnsf.com](mailto:Shane.DeGross@bnsf.com)

June 30, 2017

Brian Sato  
Toxics Cleanup Program  
Dept. of Ecology  
3190 160th AVE SE  
Bellevue, WA 98008-5452

**RE: Final 2016 Site-Wide Groundwater Monitoring Report Transmittal  
Consent Decree No. 07-2-33672-9 SEA:  
Site Name: BNSF Former Maintenance and Fueling Facility  
Site Address: Skykomish, WA  
Facility/Site ID No.: 2104  
Cleanup Site ID No.: 34**

Dear Mr. Sato:

Enclosed is the Final 2016 Site-Wide Groundwater Monitoring Report. Changes to this report were based on your comments received May 1, 2017. A matrix with responses to the agency's comments for ease of tracking is included in Appendix A.

Sincerely,

A handwritten signature in blue ink that reads "Shane C. DeGross". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

Shane C. DeGross, LG  
Manager of Environmental Remediation, BNSF Railway

cc: Mr. Craig Trueblood, K&L Gates  
Ms. Amy Essig Desai, Farallon Consulting

**2016 SITE-WIDE  
GROUNDWATER MONITORING REPORT**

**BNSF FORMER MAINTENANCE AND FUELING FACILITY  
SKYKOMISH, WASHINGTON  
CONSENT DECREE NO. 07-2-33672-9 SEA**

**Submitted by:  
Farallon Consulting, L.L.C.  
975 5<sup>th</sup> Avenue Northwest  
Issaquah, Washington 98027**

**Farallon PN: 683-063**

**For:  
BNSF Railway Company  
605 Puyallup Avenue  
Tacoma, Washington 98421**

June 2017

Prepared by:



Thaddeus Cline, P.E., L.G., L.H.G.  
Principal Civil Engineer/Hydrogeologist

Reviewed by:



Amy Essig Desai  
Principal Scientist



Gerald J. Portele  
Principal



## TABLE OF CONTENTS

<b>EXECUTIVE SUMMARY .....</b>	<b>iii</b>
<b>1.0 INTRODUCTION.....</b>	<b>1-1</b>
1.1 GROUNDWATER MONITORING OBJECTIVES .....	1-1
1.2 CLEANUP GOALS AND REMEDIATION LEVELS .....	1-1
1.3 SITE DESCRIPTION .....	1-2
1.4 REPORT ORGANIZATION.....	1-2
<b>2.0 GROUNDWATER MONITORING WELL NETWORK.....</b>	<b>2-1</b>
2.1 MODIFICATIONS TO THE MONITORING WELL NETWORK .....	2-1
2.2 SUMMARY OF CURRENT GROUNDWATER MONITORING WELL NETWORK .....	2-1
<b>3.0 SAMPLING, ANALYSIS, AND REPORTING.....</b>	<b>3-1</b>
3.1 SAMPLING METHODS.....	3-1
3.2 LABORATORY ANALYSIS AND REPORTING PROCEDURES .....	3-1
3.3 DATA MANAGEMENT AND VALIDATION PROTOCOLS.....	3-1
<b>4.0 RESULTS AND DISCUSSION .....</b>	<b>4-1</b>
4.1 GROUNDWATER FLOW .....	4-1
4.2 FIELD PARAMETERS.....	4-2
4.3 GROUNDWATER SAMPLE ANALYTICAL RESULTS .....	4-2
4.3.1 Results from Semiannual Site-Wide Groundwater Monitoring Events.....	4-3
4.3.2 Former Air Sparge Area Monitoring .....	4-5
4.3.3 Hydraulic Control and Containment System Monitoring.....	4-5
4.3.4 Levee Zone Monitoring Results.....	4-6
4.3.5 Former Maloney Creek Zone – East Wetland and Surrounding Area Monitoring Results.....	4-7
<b>5.0 CONCLUSIONS .....</b>	<b>5-1</b>
<b>6.0 BIBLIOGRAPHY .....</b>	<b>6-1</b>



## FIGURES

- Figure 1 *Site Plan Showing 2016 Groundwater Monitoring Network*
- Figure 2 *March 2016 Groundwater Elevation Contour Map*
- Figure 3 *June 2016 Groundwater Elevation Contour Map*
- Figure 4 *September 2016 Groundwater Elevation Contour Map*
- Figure 5 *December 2016 Groundwater Elevation Contour Map*
- Figure 6 *March 2016 Total Petroleum Hydrocarbons in Groundwater*
- Figure 7 *June 2016 Total Petroleum Hydrocarbons in Groundwater*
- Figure 8 *September 2016 Total Petroleum Hydrocarbons in Groundwater*
- Figure 9 *December 2016 Total Petroleum Hydrocarbons in Groundwater*

## TABLES

- Table 1 *2016 Groundwater Monitoring Event Dates*
- Table 2 *2016 Groundwater Sampling Event Details*
- Table 3 *2016 Groundwater Elevation Gauging Events Summary*
- Table 4 *2016 Groundwater Elevations and Product Thicknesses*
- Table 5 *2016 Stabilized Groundwater Field Parameter Measurements*
- Table 6 *2016 Calculated Total Petroleum Hydrocarbon Concentrations in Groundwater*

## APPENDICES

- Appendix A *Response to Comments*
- Appendix B *Laboratory Analytical Reports (provided on compact disc in printed report)*
- Appendix C *Data Validation Reports*
- Appendix D *NWTPH-Dx Monitoring Well Trend Plots*





## EXECUTIVE SUMMARY

Groundwater monitoring is being conducted as part of the remediation activities being completed at the BNSF Railway Company (BNSF) Former Maintenance and Fueling Facility in Skykomish, Washington (Site) in accordance with Consent Decree No. 07-2-33672-9 SEA between BNSF and the Washington State Department of Ecology (Ecology).

Groundwater monitoring conducted during the 2016 reporting period included semiannual Site-wide monitoring events conducted in March and September 2016, and quarterly monitoring events conducted in June and December 2016. Groundwater samples were analyzed for total petroleum hydrocarbons as diesel-range organics and as oil-range organics (herein referred to cumulatively as NWTPH-Dx) by Northwest Method NWTPH-Dx without silica gel cleanup.

Groundwater flow was generally consistent with previous years. South of the hydraulic control and containment system (HCC) system barrier wall, the interpreted groundwater flow direction is predominantly toward the northwest or west at gradients that vary from 0.005 to 0.021 foot per foot. North of the HCC system barrier wall, groundwater typically flows to the west/northwest in the direction of the Skykomish River at gradients ranging from 0.003 to 0.009 foot per foot. As a result of hot water flushing remediation activities at the Skykomish School, groundwater flows in a more westerly direction south of the Skykomish School, and in a more north-northwesterly direction east of the school.

Analytical data from Site-wide groundwater samples indicate that the overall extent of light nonaqueous-phase liquid (LNAPL) and dissolved NWTPH-Dx have declined overall. Thicknesses of LNAPL ranged from light trace to 1.5 feet along sections of the southern side of the HCC system barrier wall between the West and Center Gates.

The Site-specific groundwater cleanup level for petroleum hydrocarbon concentrations measured using Northwest Method NWTPH-Dx is 208 micrograms per liter; the remediation level (RL) is 477 micrograms per liter. Excluding two monitoring wells within the sheet pile wall installed around the Skykomish School, concentrations of NWTPH-Dx exceeding the RL were reported in the following three Site monitoring wells during this reporting period:

- Monitoring well 2A-W-9 located in the former Maloney Creek Zone: Exceedances of the RL were reported at this well in March and December 2016;
- Monitoring well 2A-W-41 located north of the HCC barrier wall: An exceedance of the RL was reported at this well in September 2016; and
- Monitoring well MW-16 located at the western end of the railyard: An exceedance of the RL was reported at this well in September 2016.

Based on prior monitoring data, the latter two exceedances appear to be anomalous, and these monitoring wells will continue to be evaluated during 2017. The overall number of wells in which



RL exceedances were reported in 2016 is less than the number of wells in which RL exceedances were reported in 2015.

NWTPH-Dx concentrations in samples collected from Levee Zone monitoring wells were consistently less than the cleanup level, which represents a change from previous years, when exceedances were reported in two Levee Zone monitoring wells during the 2013, 2014, and 2015 reporting periods. The reduction in reported concentrations in the Levee Zone monitoring wells during this reporting period appears to be related to hot water flushing remediation activities being conducted at the Skykomish School.

Based on the weight of evidence, there is no indication of LNAPL migration, and an overall reduction in exceedances of the RL at the Site with no reported concentrations exceeding the cleanup level in the Levee Zone monitoring wells. The HCC system is effectively preventing LNAPL and groundwater with concentrations exceeding the RL from passing through the HCC system barrier gates. However, the original HCC system operational objective of creating a hydraulic gradient reversal across the gates has not been achieved due to the prior placement of imported coarse aggregate fill material within the HCC system barrier wall recovery trench and in the remedial excavation areas north of the barrier wall. This fill material was placed following completion of the HCC system design and exhibits a substantially greater hydraulic conductivity than the native material that was removed during prior cleanup actions. BNSF will continue to pursue HCC system optimization efforts during 2017.



## 1.0 INTRODUCTION

This 2016 Site-Wide Groundwater Monitoring Report was prepared on behalf of BNSF Railway Company (BNSF) and describes the 2016 groundwater monitoring activities conducted at the BNSF Former Maintenance and Fueling Facility in Skykomish, Washington (herein referred to as the Site). Groundwater monitoring is being conducted as part of the Site remediation activities in accordance with the *Cleanup Action Plan for BNSF Former Maintenance and Fueling Facility, Skykomish, Washington* dated October 2007, prepared by the Washington State Department of Ecology (Ecology) (2007a) (CAP). The groundwater monitoring activities completed at the Site in 2016 are pursuant to Consent Decree No. 07-2-33672-9 SEA between BNSF and Ecology (2007b) (Consent Decree) and are part of an integrated and comprehensive remedial action being performed at the Site. Groundwater monitoring activities were conducted in accordance with the 2010 Groundwater Monitoring Plan, Appendix E of the 2010 Compliance Monitoring Plan Update (AECOM Environment [AECOM] 2010b) (referred to herein as the 2010 GWMP).

This document summarizes the groundwater monitoring conducted at the Site during the 2016 reporting period, which consisted of semiannual Site-wide monitoring events conducted in March and September 2016, and quarterly monitoring events conducted in June and December 2016. This document has been revised based on comments received from Ecology on May 1, 2017 on the draft version submitted on March 30, 2017. The comments received and the responses to the comments are presented in Appendix A, Response to Comments.

### 1.1 GROUNDWATER MONITORING OBJECTIVES

The objectives for the groundwater monitoring program as described in the 2010 GWMP are to:

- Monitor changes in contaminant distribution during and after implementation of cleanup actions throughout the Site;
- Provide monitoring data for groundwater in the Levee Zone to assess the effect of the cleanup actions on groundwater quality;
- Provide monitoring data to evaluate 2008 through 2016 remediation impacts on groundwater quality; and
- Provide fluid-level gauging data to assess groundwater gradients and the extent of light nonaqueous-phase liquid (LNAPL) on the groundwater surface.

### 1.2 CLEANUP GOALS AND REMEDIATION LEVELS

The groundwater cleanup level (CUL) for petroleum hydrocarbon concentrations measured using Northwest Method NWTPH-Dx (defined as the sum of total petroleum hydrocarbons as diesel-range organics [DRO] and as oil-range organics [ORO]) without silica gel cleanup is 208 micrograms per liter ( $\mu\text{g/l}$ ) at the surface water boundary where groundwater enters the Skykomish River and Former Maloney Creek; the remediation level (RL) is 477  $\mu\text{g/l}$  (Ecology 2007a). The CAP anticipates that the CUL will be attained at the conditional points of compliance following



implementation of the cleanup actions specified in the CAP. The CUL currently is used to assess compliance for monitoring wells located in the Levee Zone to protect the Skykomish River; the RL is used to assess compliance for all other wells in the monitoring well network. As described in the CAP, the CUL for petroleum hydrocarbons in groundwater is intended to protect sediments from recontamination by groundwater (e.g., near the South Fork Skykomish River and Former Maloney Creek), and the RL for petroleum hydrocarbons in groundwater is intended to be protective of drinking water resources.

### 1.3 SITE DESCRIPTION

The Site includes BNSF property and public and private properties within the Town of Skykomish in King County, Washington (Figure 1), and encompasses an area of approximately 40 acres. The Site is bounded by the South Fork Skykomish River to the north, the Town of Skykomish city limits to the east, Old Cascade Highway to the south, and Maloney Creek to the west. Railroad Avenue separates BNSF property from the main commercial district of the Town of Skykomish (Figure 1).

Additional Site history and background information was presented in the Consent Decree, the CAP, and Supplemental Remedial Investigation Volume 1: Text, Tables, Figures, and Appendices A through D (The RETEC Group, Inc. 2002b).

### 1.4 REPORT ORGANIZATION

The remainder of this report is organized into the following sections:

- **Section 2, Groundwater Monitoring Well Network**, describes the modifications made to the groundwater monitoring well network during this reporting period, and summarizes the current monitoring well network.
- **Section 3, Sampling, Analysis, and Reporting**, describes the sampling methods, laboratory analysis and reporting procedures, and subsequent data management and validation protocols applied at the Site.
- **Section 4, Results and Discussion**, describes the results from the 2016 monitoring activities, including groundwater levels, field parameters, and groundwater analytical results.
- **Section 5, Conclusions**, provides a summary of the groundwater monitoring activities conducted at the Site during this reporting period.
- **Section 6, Bibliography**, provides a list of the documents used in preparing this report.



## **2.0 GROUNDWATER MONITORING WELL NETWORK**

The wells, piezometers, and vaults sampled and the frequency of the sampling were defined in the 2010 GWMP and are presented on Figure 1. This section describes minor modifications to and a summary of the monitoring well network used during 2016.

### **2.1 MODIFICATIONS TO THE MONITORING WELL NETWORK**

During this reporting period, the following changes occurred in the monitoring well network:

- Monitoring well 5-W-50 was damaged during installation of the sheet pile wall around the Skykomish School. This well is scheduled for replacement during the summer of 2017.
- Sentry wells S2-BU and S2-BD were removed and reinstalled during the replacement of the granular activated carbon/pea gravel media in the east vault of the West Gate of the hydraulic control and containment (HCC) system in September 2016. No interruption in routine sampling occurred as a result of the reinstallation.

Modifications to the monitoring well network for this reporting period were reviewed and approved by Ecology, and were presented in the Skykomish School Hot Water Flushing Remediation Bid Set (Farallon Consulting, L.L.C. [Farallon] 2015a) and the Revised Work Plan for Carbon Replacement at East Vault of West Gate of HCC System (Farallon 2016c).

### **2.2 SUMMARY OF CURRENT GROUNDWATER MONITORING WELL NETWORK**

The current network of wells and piezometers used in the groundwater monitoring well network at the Site is shown on Figure 1, with the exception of the sentry wells within the HCC system gates that support system monitoring activities. Each vault within the HCC system gates contains two sentry wells: one sentry well in the up-gradient granular activated carbon/pea gravel treatment chamber of the vault; and a second sentry well in the down-gradient treatment chamber. Table 1 summarizes the monitoring events conducted during the reporting period, with corresponding start and end dates. Tables 2 and 3 provide additional details regarding the sampling and gauging frequencies of the wells and vaults used in the groundwater monitoring well network.

Conditional point of compliance wells were presented in the CAP and revised by BNSF and Ecology in the 2010 GWMP. Point of compliance wells will be defined in a Long-Term Confirmational Monitoring Plan to be developed at the conclusion of active remediation pursuant to Exhibit C of the Consent Decree.



### **3.0 SAMPLING, ANALYSIS, AND REPORTING**

This section summarizes the sampling methods, laboratory analysis and reporting procedures, and data management and validation protocols. Groundwater samples collected during the reporting period were analyzed by TestAmerica Laboratories, Inc. of Tacoma, Washington. The groundwater laboratory analytical results were independently validated by Sayler Data Solutions, Inc. of Bothell, Washington.

#### **3.1 SAMPLING METHODS**

Fluid-level measurements and groundwater samples were collected in accordance with the 2010 GWMP. Groundwater samples were collected using low-flow sampling techniques and peristaltic pumps. Groundwater samples were collected into laboratory-supplied containers after field parameters stabilized during purging. The samples were placed on ice in a cooler under standard chain-of-custody procedures and delivered to the laboratory for analysis.

#### **3.2 LABORATORY ANALYSIS AND REPORTING PROCEDURES**

Groundwater samples were analyzed for DRO and ORO (herein referred to cumulatively as NWTPH-Dx) by Northwest Method NWTPH-Dx. The analytical laboratory reported detected sample concentrations relative to the method detection limit (MDL) rather than the method reporting limit (MRL), which usually is higher. Reported concentrations that exceed the MDL but are less than the MRL have a small degree of uncertainty in the actual concentration; therefore, these results were considered to be estimated values and were qualified with a “J-flag,” indicating that the reported value is an estimate. Using the MDL minimizes the occurrence of non-detect results with an MRL greater than the cleanup level.

#### **3.3 DATA MANAGEMENT AND VALIDATION PROTOCOLS**

The analytical laboratory data deliverables were directly imported into the project environmental data management system. A quality control check was performed on the imported data to ensure that they were accurately uploaded, and that transfer errors did not occur. Full laboratory analytical reports are included in Appendix B. Analytical data were independently validated by Sayler Data Solutions, Inc. and checked for completeness by Farallon.

Sayler Data Solutions, Inc. evaluated groundwater data to assess whether the analytical results met the quality control/validation standards described in the 2010 GWMP. These metrics included precision, accuracy, method compliance, and completeness of the data set. Validation results were used to evaluate whether the data were suitable for their intended use.

Data validation reports describing procedures, criteria, and findings are provided in Appendix C. Procedures used in the data validation are based on U.S. Environmental Protection Agency (2008) Guidelines for Organic Methods Data Review. Based on the findings from the data quality assurance and validation procedures implemented, the data are suitable for the intended use of assessing groundwater quality at the Site.





## 4.0 RESULTS AND DISCUSSION

This section presents a summary and an evaluation of the results from the groundwater monitoring conducted during the reporting period. Included are groundwater levels, field parameters, and NWTPH-DX results.

### 4.1 GROUNDWATER FLOW

Table 3 summarizes the frequency of groundwater level elevation gauging at Site locations. With the exception of monitoring wells associated with the HCC system, locations are gauged on a quarterly schedule, with additional locations gauged during the semiannual monitoring events in March and September. Table 4 presents the groundwater elevation and LNAPL thickness measurements. Groundwater flow direction, variations in groundwater elevations and LNAPL thickness, and changes in groundwater gradients in relation to seasonal variations and remediation activities are discussed below. Quarterly and semiannual interpreted groundwater elevation contour maps are presented on Figures 2 through 5.

Groundwater flow was generally consistent with previous years, given seasonal variation and periodic adjustments to pumping rates along the HCC system barrier wall. South of the HCC system barrier wall, the interpreted groundwater gradient direction is predominantly toward the northwest or west. Groundwater elevations fluctuated seasonally by approximately 3.0 feet (ranging from 2.24 to 3.73 feet) in piezometers adjacent to and south of the HCC system barrier wall, and by approximately 0.92 foot (ranging from 0.04 to 2.17 feet) adjacent to and north of the HCC system barrier wall, with some influence imparted by HCC system pumping. The difference in groundwater elevations from south to north across the central portion of the HCC system barrier wall varied between 5.6 feet in March 2016 and 3.2 feet in September 2016 as measured in dedicated piezometer pairs located on each side of the wall. Groundwater gradients on the eastern side of the railyard south of the HCC system barrier wall were generally shallower than gradients on the western side of the railyard during all four monitoring events. Groundwater gradients ranged from 0.005 to 0.012 foot per foot on the eastern side of the railyard and from 0.015 to 0.021 foot per foot on the western side of the railyard.

North of the HCC system barrier wall, groundwater typically flows to the west/northwest in the direction of the Skykomish River. The HCC system barrier wall acts as a barrier to groundwater flow, and accentuates a westerly component to groundwater flow in the area of the HCC system barrier wall. This is seen in Figures 2 through 5 where groundwater flows northwesterly near the eastern end of the HCC barrier wall; however, once past the barrier wall, the gradient becomes more westerly and loses the northern component of flow that was present prior to installation of the barrier wall. The groundwater gradients are relatively flat on the northern side of the barrier wall. Groundwater gradients varied from 0.003 to 0.009 foot per foot north of the barrier wall. Localized groundwater depressions are present near the West Gate of the HCC system barrier wall (Figures 2 through 4) due to the variance in groundwater elevations between the up- and down-gradient sides of the HCC barrier wall and the pumping of recovery wells on the up-gradient side of the HCC system barrier wall.



A change in groundwater gradient direction was interpreted in the area around the Skykomish School, which was a result of the sheet pile barrier wall installed in 2015 as part of the hot water flushing remediation system (Farallon 2016a). Groundwater flows in a more westerly direction around the barrier wall south of the Skykomish School, and in a more north-northwesterly direction around the barrier wall and toward the Skykomish River east of the Skykomish School.

## 4.2 FIELD PARAMETERS

Field parameters collected during well purging included temperature, dissolved oxygen (DO), specific conductivity, and oxidation-reduction potential (ORP). Table 5 presents the field parameter measurements recorded after stabilization during the quarterly and semiannual groundwater sampling events from each of the wells that did not contain LNAPL.

Groundwater temperatures varied seasonally, in a manner consistent with prior monitoring events at the Site ranging from 5.1 degrees Celsius (°C) in December 2016 to 26.6°C in September 2016. The September 2016 temperatures at monitoring well 5-W-54 and other wells around the Skykomish School were higher than normal due to residual effects from the hot water flushing remediation system in operation around the school through August 2016. The average, minimum, and maximum pH measurements were consistent with past measurements at the Site.

DO concentrations were generally consistent with historical values ranging from a minimum of 0.03 milligrams per liter (mg/l) at monitoring well 5-W-15 during the September 2016 event to a maximum of 12.14 mg/l at monitoring well 5-W-19 during the March 2016 semiannual event. In general, monitoring wells where no petroleum hydrocarbon compounds were reported exceeding the MDL exhibited higher DO (an average of 5.35 mg/l) than monitoring wells where petroleum hydrocarbon compounds were reported (an average of 3.78 mg/l), indicating that biodegradation is occurring.

ORP measurements were consistent with historical values, ranging from -416.3 millivolts (mV) at monitoring well 2A-W-9 to a maximum of 291 mV at monitoring well EW-2A during the March 2016 semiannual event. ORP in groundwater at the Site is most commonly positive. A positive ORP and a DO concentration in excess of 1 mg/l indicates that conditions are favorable for aerobic degradation of petroleum hydrocarbons.

## 4.3 GROUNDWATER SAMPLE ANALYTICAL RESULTS

Petroleum hydrocarbon concentrations in groundwater were analyzed using Northwest Method NWTPH-Dx without silica gel cleanup. Results are reported in both DRO and ORO hydrocarbon fractions which are added together to calculate a total NWTPH-Dx petroleum hydrocarbon concentration. If both DRO and ORO fractions were detected, the NWTPH-Dx concentration was calculated as the sum of both detected concentrations. If either the DRO or the ORO fractions were not detected at or exceeding the MDL, half of the MDL value was used to represent the non-detected component in the NWTPH-Dx summation, which was then denoted as detected. If neither component was detected at or exceeding the MDL, half of the MDL of both components was added to represent the NWTPH-Dx reporting value, which was then denoted as not detected. Table 6





shows DRO and ORO analytical results and the calculated NWTPH-Dx concentrations for groundwater. NWTPH-Dx results for the two quarterly and two semiannual groundwater monitoring events and the estimated extent of LNAPL on the Site are presented on Figures 6 through 9.

Site-wide groundwater sampling was conducted on a semiannual schedule (March and September) during 2016. Select wells down-gradient of the HCC system, adjacent to the Former Maloney Creek Zone-East Wetland, the Levee Zone, and the HCC system gate and end wells, were sampled during the quarterly monitoring events in June and December in addition to the semiannual monitoring conducted in March and September. Trend plots showing historical total NWTPH-Dx groundwater monitoring results for the monitoring wells included in the 2016 monitoring events are provided in Appendix D.

### **4.3.1 Results from Semiannual Site-Wide Groundwater Monitoring Events**

A total of 56 monitoring locations were used for groundwater sampling during each of the March and September 2016 semiannual groundwater monitoring events (Table 2). Groundwater samples were not collected from monitoring wells containing LNAPL or traces of LNAPL with the exception of monitoring wells 2A-W-9 and 5-W-51; sampling results from these wells are described in greater detail below.

A discussion of the Site-wide data collected during the March and September 2016 semiannual groundwater monitoring events at the sampled locations is provided below. NWTPH-Dx results from the March and September 2016 semiannual monitoring events are shown on Figures 6 and 8, respectively.

#### **4.3.1.1 March 2016**

The March 2016 semiannual groundwater monitoring event was conducted from March 21 through 24, 2016. Groundwater samples were collected from 27 monitoring wells at the Site (not including wells in the former air sparge area or HCC system wells). NWTPH-Dx was reported in 25 of the 27 groundwater samples collected, at concentrations ranging from 23.5 to 6,900  $\mu\text{g/l}$ , three of which exceeded the RL of 477  $\mu\text{g/l}$  in monitoring wells 5-W-51, 5-W-56, and 2A-W-9. Two of these exceedances occurred at locations within the sheet pile wall enclosure at the Skykomish School. Monitoring well 2A-W-9 is located in the Former Maloney Creek Zone on the southern portion of the railyard, south of the HCC barrier wall and near an area where LNAPL has previously been observed.

**Monitoring Well 5-W-51:** NWTPH-Dx was reported at a concentration of 5,700  $\mu\text{g/l}$  in the groundwater sample collected from monitoring well 5-W-51; a heavy trace of LNAPL was also noted in this well during the March semiannual monitoring event. LNAPL was noted at a thickness of 0.09 foot in monitoring well 5-W-51 during the September 2015 monitoring event, and a heavy trace was noted during the March 2015 monitoring event. Light and heavy traces of LNAPL also were noted in monitoring well 5-W-51 during the 2014 reporting period.



**Monitoring Well 5-W-56:** NWTPH-Dx was reported at a concentration of 6,900 µg/l in the groundwater sample collected from monitoring well 5-W-56. NWTPH-Dx was reported at concentrations ranging from 750 and 3,500 µg/l during the 2014 and 2015 March semiannual monitoring events. LNAPL accumulations have not been observed in monitoring well 5-W-56.

**Monitoring Well 2A-W-9:** NWTPH-Dx was reported at a concentration of 940 µg/l, which exceeds the RL; a light trace of LNAPL was also noted in this well during the March monitoring event. The reported concentration is within the range reported in recent past monitoring events as shown below.

Monitoring Well 2A-W-9	
Monitoring Date	NWTPH-Dx Concentration (µg/l)
December 2015	580
September 2015	930
June 2015	670
March 2015	1,150
March 2014	960
March 2013	1,370

#### 4.3.1.2 September 2016

The September 2016 semiannual groundwater monitoring event was conducted from September 20 through 22, 2016. Groundwater samples were collected from 27 monitoring wells at the Site (not including wells in the former air sparge area or HCC system wells). NWTPH-Dx was reported at concentrations ranging from 18 to 1,100 µg/l in 24 of the 27 groundwater samples collected, four of which exceeded the RL of 477 µg/l.

**Monitoring Wells 5-W-51 and 5-W-56:** NWTPH-Dx detections and RL exceedances again occurred in groundwater samples collected from monitoring wells 5-W-51 and 5-W-56 in the area within the sheet pile wall at the Skykomish School. NWTPH-Dx was reported at concentrations of 1,050 and 810 µg/l in the groundwater samples collected from monitoring wells 5-W-51 and 5-W-56, respectively. A light trace of LNAPL was noted in monitoring well 5-W-51 during the September 2016 monitoring event; LNAPL has historically been observed in monitoring well 5-W-51, as noted in Section 4.3.1.1, March 2016. The NWTPH-Dx concentration reported for monitoring well 5-W-56 is within the range reported for past September monitoring events as shown below.

Monitoring Well 5-W-56	
Monitoring Date	NWTPH-Dx Concentration (µg/l)
September 2015	4,400
September 2014	2,210
September 2013	2,620



**Monitoring Well 2A-W-41:** NWTPH-Dx was reported at a concentration of 1,100 µg/l in the groundwater sample collected from monitoring well 2A-W-41 on the northern side of the HCC system barrier wall, exceeding the RL of 477 µg/l. NWTPH-Dx concentrations reported at this monitoring well location have not exceeded the RL since April 2009. From 2013 through March 2016, NWTPH-Dx concentrations ranged from not reported at concentrations exceeding the MDL to 370 µg/l. The September 2016 NWTPH-Dx concentration reported at this location appears to be anomalous relative to the data collected since April 2009, including during the other three monitoring events conducted during 2016.

**Monitoring Well MW-16:** NWTPH-Dx was reported at a concentration of 577 µg/l in the groundwater sample collected from monitoring well MW-16 on the southwestern portion of the railyard. NWTPH-Dx has not been reported at a concentration exceeding the RL in groundwater samples collected from monitoring well MW-16 since November 2000. During the March 2016 groundwater monitoring event, NWTPH-Dx was reported at a concentration of 36 µg/l in the groundwater sample collected from monitoring well MW-16. The exceedance in monitoring well MW-16 appears to be anomalous and will continue to be monitored during 2017. Prior to September 2016, overall concentrations of NWTPH-Dx in monitoring well MW-16 have shown a decreasing trend since 2000 (Appendix D).

#### **4.3.2 Former Air Sparge Area Monitoring**

NWTPH-Dx results from the 2016 quarterly monitoring events in the air sparge area are shown on Figures 6 through 9 and in Table 6. A total of 12 groundwater samples were collected from the air sparge area monitoring wells during the reporting period. NWTPH-Dx was reported in each of the 12 groundwater samples. The reported concentrations of NWTPH-Dx in groundwater samples collected down-gradient of the air sparge area (monitoring wells 1C-W-8 and 1B-W-3) ranged from 32.5 to 174 µg/l. The NWTPH-Dx concentrations reported in groundwater samples collected from the air sparge area monitoring wells did not exceed the RL. Groundwater NWTPH-Dx concentrations have not exceeded the RL at monitoring well 1C-W-8 since November 2013. NWTPH-Dx concentrations have consistently been less than the CUL at down-gradient monitoring well 1B-W-3 since September 2008.

#### **4.3.3 Hydraulic Control and Containment System Monitoring**

The following sections summarize the groundwater analytical results for monitoring wells purposed for the HCC system and adjacent areas. Quarterly monitoring was completed for the monitoring wells in the HCC system and barrier wall backfill, down-gradient of the HCC system barrier wall, and for the HCC system end and gate monitoring wells. Concentrations of NWTPH-Dx exceeded the RL in only one of 31 monitoring wells at monitoring well 2A-W-41. Analytical results for these wells are presented on Figures 6 through 9 and in Table 6.

##### **4.3.3.1 Backfill and Down-Gradient of the HCC System**

Groundwater samples were collected quarterly from groundwater monitoring wells within the backfill placed during the HCC system barrier wall construction, and down-gradient of



the HCC system barrier wall (monitoring wells 1B-W-23, 1C-W-7, 2A-W-40, 2A-W-41, 2A-W-42, and 5-W-43). A total of 24 groundwater samples were collected from the six backfill and down-gradient monitoring wells. NWTPH-Dx was reported in 21 of the 24 groundwater samples. Of the 21 detections, NWTPH-Dx exceeding the RL was reported once, at a concentration of 1,100 µg/l in the groundwater sample collected from monitoring well 2A-W-41 in September 2016. NWTPH-Dx concentrations did not exceed the RL in groundwater samples collected from monitoring well 2A-W-41 during the other three quarterly monitoring events in 2016.

#### **4.3.3.2 HCC System Performance Monitoring Results**

Groundwater samples were collected quarterly from monitoring wells EW-1 and EW-2A on the western and eastern ends of the HCC system barrier wall, respectively. All samples from these locations were reported at concentrations less than the CUL. NWTPH-Dx was reported in all four of the quarterly groundwater samples collected from monitoring well EW-1 at concentrations ranging from 49.5 to 81 µg/l, and in all four of the quarterly groundwater samples collected from monitoring well EW-2A at concentrations ranging from 34 to 60 µg/l.

Groundwater samples were collected quarterly from gate wells GW-1 through GW-4. A total of 16 groundwater samples were collected from these four locations. NWTPH-Dx was reported in 15 of the 16 samples at concentrations ranging from 34.5 to 450 µg/l, which did not exceed the RL.

Groundwater samples were collected from the gate sentry wells during the semiannual monitoring events in March and September 2016. The sentry wells are intended to enable monitoring of petroleum hydrocarbon concentrations in the reactive material in each gate to evaluate treatment capacity and exhaustion rates. Petroleum hydrocarbon constituents in groundwater at these locations are removed by the reactive media. NWTPH-Dx concentrations were less than the CUL in all 40 of the samples collected from the sentry wells. The groundwater results for the gate sentry wells for the semiannual events are presented in Table 6 for reference.

HCC system operations were occasionally interrupted for short periods to perform maintenance, change out granular activated carbon in the HCC system water treatment plant, optimize system parameters, or make repairs; or due to power outages. The 2016 Annual Hydraulic Control and Containment System Operations Report (Farallon 2017) provides details regarding temporary HCC system shut-downs.

#### **4.3.4 Levee Zone Monitoring Results**

Groundwater samples were collected quarterly from Levee Zone monitoring wells 5-W-14 through 5-W-19. NWTPH-Dx results from these quarterly events are shown on Figures 6 through 9, and are summarized in Table 6. A total of 24 groundwater samples were collected from Levee Zone monitoring wells. NWTPH-Dx was reported in 16 of the 24 groundwater samples at



concentrations ranging from 18 to 139  $\mu\text{g/l}$ . None of the reported NWTPH-Dx concentrations exceeded the CUL.

Concentrations of NWTPH-Dx reported in monitoring well 5-W-15 periodically exceeded the RL from 2010 to the September 2015 semiannual groundwater monitoring event. Since September 2015, concentrations of NWTPH-Dx reported in monitoring well 5-W-15 have been less than either the RL or the CUL. Monitoring well 5-W-15 is located within the 2006 interim cleanup action area, near monitoring wells 5-W-50 and 5-W-56 proximate to the Skykomish School, where accumulations of LNAPL have been measured. The reduction in concentration at monitoring well 5-W-15 appears to be related to the installation of the sheet pile wall and additional excavation around the Skykomish School conducted as part of the hot water flushing system, based on the timing of the decrease in reported concentrations. NWTPH-Dx was not reported at concentrations exceeding either the CUL or the RL in Levee Zone monitoring wells 5-W-14 through 5-W-19 in 2016.

#### **4.3.5 Former Maloney Creek Zone – East Wetland and Surrounding Area Monitoring Results**

Groundwater samples were collected quarterly from monitoring wells 2A-W-9, 2A-W-10, 2B-W-4, MW-3, and MW-4 adjacent to the Former Maloney Creek Zone East Wetland area. NWTPH-Dx results from these events are presented in Table 6, and shown on Figures 6 through 9.

A total of 20 groundwater samples were collected from the five Former Maloney Creek Zone groundwater monitoring locations. NWTPH-Dx was reported in 18 of the 20 samples at concentrations ranging from 23.5 to 940  $\mu\text{g/l}$ . Of the four samples collected from monitoring well 2A-W-9, concentrations of NWTPH-Dx exceeded the RL in samples collected in March and December 2016. Monitoring well 2A-W-9 is situated in an area where elevated concentrations of NWTPH-Dx were reported in smear zone soil during the Supplemental Remedial Investigation (The RETEC Group, Inc. 2002b). In 2010, an excavation was completed within the Former Maloney Creek East Wetland in the area west of monitoring well 2A-W-9, and a second volume-based excavation was performed in 2011 in the area south of monitoring well 2A-W-9. The planned limits for these excavations did not include the area immediately adjacent to monitoring well 2A-W-9, and impacted soil was left in-place around the monitoring well (AECOM 2011b; 2012d).

NWTPH-Dx was not reported at concentrations exceeding the RL in samples collected from the remaining four monitoring wells in the Former Maloney Creek Zone East Wetland area. No RL exceedance has been reported in monitoring wells 2B-W-4, MW-3, or MW-4 since October 2010.



## 5.0 CONCLUSIONS

Site-wide groundwater monitoring analytical data collected during 2016 indicate that the overall extent of the LNAPL and dissolved NWTPH-Dx plumes has remained stable or declined, and concentrations have decreased in the Levee Zone. The reported concentrations of NWTPH-Dx in the Levee Zone monitoring wells were consistently less than the CUL. This represents a favorable change from previous years, when exceedances were reported in two Levee Zone monitoring wells in the 2013, 2014, and 2015 reporting periods. The data also indicate that the HCC system is effectively preventing LNAPL and groundwater with concentrations of NWTPH-Dx exceeding the RL from passing through the HCC system barrier gates. However, the original HCC system operational objective of creating a hydraulic gradient reversal across the gates has not been achieved due to the prior placement of imported coarse aggregate fill material within the HCC system barrier wall recovery trench and in the remedial excavation areas north of the barrier wall. This fill material was placed following completion of the HCC system design and exhibits a substantially greater hydraulic conductivity than the native material that was removed during prior cleanup actions. BNSF will continue to pursue HCC system optimization efforts during 2017.





## 6.0 BIBLIOGRAPHY

- AECOM Environmental (AECOM). 2009a. *Former Maloney Creek Zone – West Wetland Sediment and Soil Investigation Report, Former Maintenance and Fueling Facility – Skykomish, Washington*. Prepared for BNSF Railway Company. March.
- . 2009b. *2009 Compliance Monitoring Plan Update, BNSF Former Maintenance and Fueling Facility – Skykomish, Washington*. Prepared for The BNSF Railway Company. April.
- . 2009c. *2008 Addendum to the Remedial Design Investigation Report, Former Maintenance and Fueling Facility – Skykomish, Washington*. Prepared for BNSF Railway Company. July.
- . 2010a. *Final 2009 Remedial Design Investigation Report, Former Maintenance and Fueling Facility – Skykomish, Washington*. Prepared for BNSF Railway Company. January.
- . 2010b. *2010 Compliance Monitoring Plan Update (Draft), BNSF Former Maintenance and Fueling Facility – Skykomish, Washington, Appendix E*. Prepared for The BNSF Railway Company. April 30.
- . 2010c. *Specifications – 2010 Remediation, Skykomish, Washington*. Prepared for BNSF Railway Company. May.
- . 2011a. *Draft 2010 Annual Hydraulic Control and Containment System Operations Report, Skykomish, Washington*. Prepared for BNSF Railway Company. February.
- . 2011b. *2010 Remediation – As-Built Completion Report, BNSF Former Maintenance and Fueling Facility, Skykomish, Washington*. Prepared for BNSF Railway Company. October 26.
- . 2012a. *Draft 2011 Annual Air Sparging System Operations Report, Skykomish, Washington*. Prepared for BNSF Railway Company. February.
- . 2012b. *Draft 2011 Annual Hydraulic Control and Containment System Operations Report, Skykomish, Washington*. Prepared for BNSF Railway Company. February.
- . 2012c. Memorandum Regarding HCC System Updated Optimization Plan. From Greg Chase. To Brian Sato, Washington State Department of Ecology. May 9.
- . 2012d. *2011 Remediation – As-Built Completion Report, BNSF Former Maintenance and Fueling Facility, Skykomish, Washington*. Prepared for BNSF Railway Company. June 22.



- ENSR. 2007. *Levee Zone Interim Action for Cleanup – 2007 As-Built Completion Report, Former Maintenance and Fueling Facility – Skykomish, Washington*. Prepared for BNSF Railway Company. August.
- . 2008a. *2007 Remedial Design Investigation Report, Former Maintenance and Fueling Facility – Skykomish, Washington*. Prepared for BNSF Railway Company. May.
- . 2008b. *Final Groundwater Monitoring Plan, Former Maintenance and Fueling Facility – Skykomish, Washington*. Prepared for BNSF Railway Company. July.
- Farallon Consulting, L.L.C. (Farallon). 2012. Technical Memorandum Regarding HCC System Optimization Work Plan, Skykomish Cleanup Action, Skykomish, Washington. From Richard McManus and Gerald Portele. To Brian Sato, Washington State Department of Ecology. December 11.
- . 2013a. Technical Memorandum Regarding HCC System Optimization Status Report. From Richard McManus. To Brian Sato, Washington State Department of Ecology. February 27.
- . 2013b. *2012 As-Built Completion Report, BNSF Former Maintenance and Fueling Facility, Skykomish, Washington*. Prepared for BNSF Railway Company. April 26.
- . 2013c. *2012 Annual Air Sparging System Report, BNSF Former Maintenance and Fueling Facility, Skykomish, Washington*. Prepared for BNSF Railway Company. July 12.
- . 2013d. *2012 Annual Hydraulic Control and Containment System Operations Report, Skykomish Former Maintenance and Fueling Facility, Skykomish, Washington*. Prepared for BNSF Railway Company. July 26.
- . 2013e. *2011/2012 Site-Wide Groundwater Monitoring Report, BNSF Former Maintenance and Fueling Facility, Skykomish, Washington*. Prepared for BNSF Railway Company. July 29.
- . 2014a. *2013 Annual Air Sparging System Report, BNSF Former Maintenance and Fueling Facility, Skykomish, Washington*. Prepared for BNSF Railway Company. April 28.
- . 2014b. *2013 As-Built Completion Report, BNSF Former Maintenance and Fueling Facility, Skykomish, Washington*. Prepared for BNSF Railway Company. April 28.
- . 2014c. *2013 Annual Hydraulic Control and Containment System Operations Report, BNSF Former Maintenance and Fueling Facility, Skykomish, Washington*. Prepared for BNSF Railway Company. August 7.





- . 2014d. *2013 Site-Wide Groundwater Monitoring Report, BNSF Former Maintenance and Fueling Facility, Skykomish, Washington*. Prepared for BNSF Railway Company. August 7.
  - . 2015a. *Skykomish School Hot Water Flushing Remediation Bid Set*. Prepared for BNSF Railway Company. Issued January 16.
  - . 2015b. *2014 Site-Wide Groundwater Monitoring Report, BNSF Former Maintenance and Fueling Facility, Skykomish, Washington*. Prepared for BNSF Railway Company. April.
  - . 2015c. *2014 Annual Hydraulic Control and Containment System Operations Report, BNSF Former Maintenance and Fueling Facility, Skykomish, Washington*. Prepared for BNSF Railway Company. June 3.
  - . 2016a. *2015 As-Built Completion Report, Hot Water Flushing System and Supplemental Excavation, Skykomish School, BNSF Former Maintenance and Fueling Facility, Skykomish, Washington*. Prepared for BNSF Railway Company. April 21.
  - . 2016b. *2015 Site-Wide Groundwater Monitoring Report, BNSF Former Maintenance and Fueling Facility, Skykomish, Washington*. Prepared for BNSF Railway Company. May 13.
  - . 2016c. *Revised Draft Hydraulic Control and Containment System Optimization and Pilot Testing Report, BNSF Former Maintenance and Fueling Facility, Skykomish, Washington*. Prepared for BNSF Railway Company. Revised June.
  - . 2016d. *Technical Memo Regarding Revised Work Plan for Carbon Replacement at East Vault of West Gate of HCC System*. From Gerald Portele. To Brian Sato, Washington State Department of Ecology. August 12.
  - . 2016e. *2015 Annual Hydraulic Control and Containment System Operations Report, BNSF Former Maintenance and Fueling Facility, Skykomish, Washington*. Prepared for BNSF Railway Company. Revised November.
  - . 2017. *2016 Annual Hydraulic Control and Containment System Operations Report, BNSF Former Maintenance and Fueling Facility, Skykomish, Washington*. Prepared for BNSF Railway Company. June.
- The RETEC Group, Inc. 1996. *Remedial Investigation for the Former Maintenance and Fueling Facility in Skykomish, Washington*. Prepared for BNSF Railway Company. January.
- . 2001. *Interim Action Basis of Design for LNAPL Barrier System: Former BNSF Fueling and Maintenance Facility, Skykomish, Washington, Vol. 1 of 2*. Prepared for BNSF Railway Company. August 10.



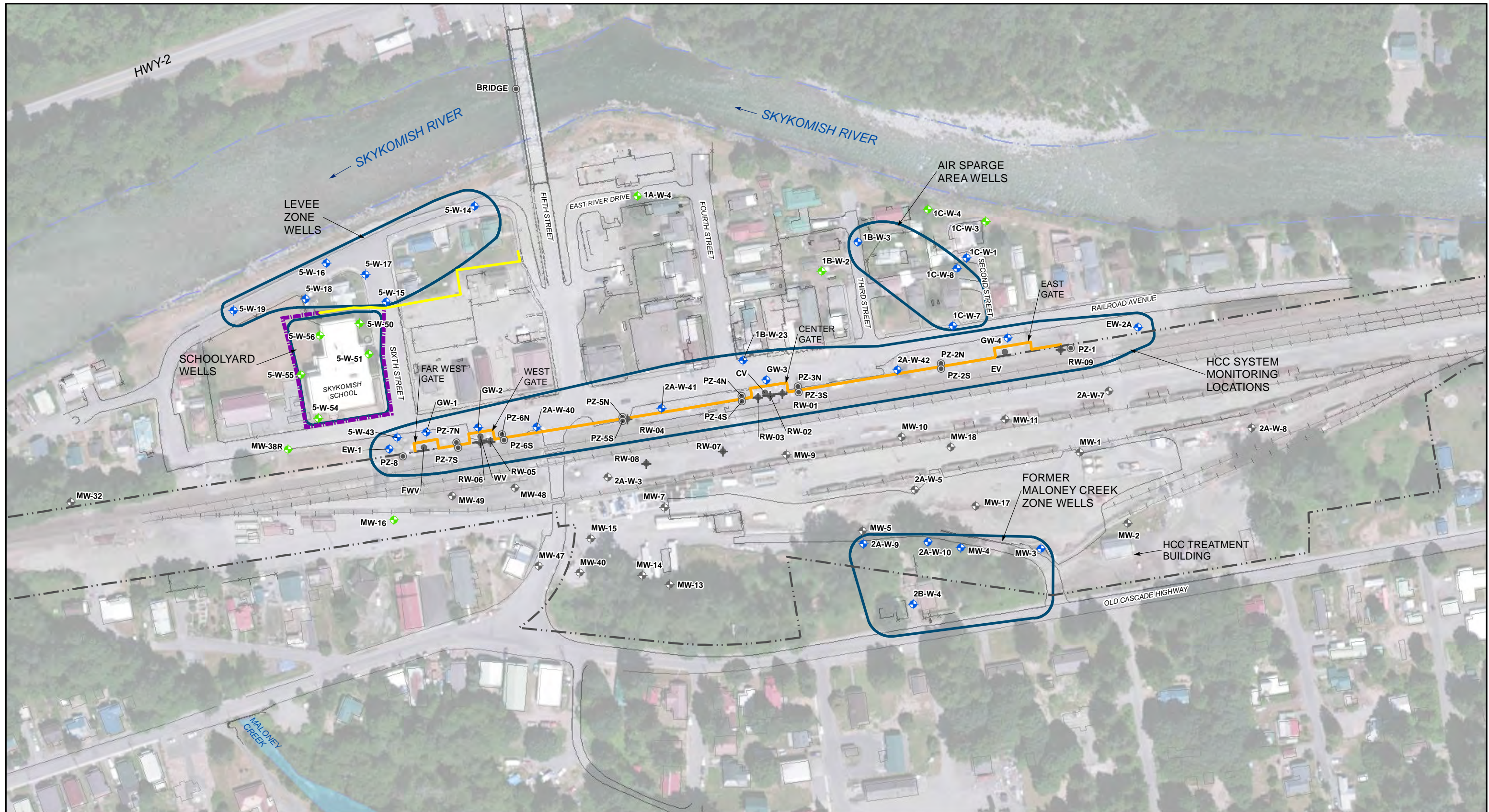
- . 2002a. *Supplemental Remedial Investigation: BNSF Former Maintenance and Fueling Facility, Skykomish, Washington*. Prepared for BNSF Railway Company. July 12.
- . 2002b. *Supplemental Remedial Investigation, Volume 1: Text, Tables, Figures, and Appendices A through D, BNSF Former Maintenance and Fueling Facility, Skykomish, Washington*. Prepared for The Burlington Northern and Santa Fe Railway Company. July 16.
- . 2005a. *Final Feasibility Study, Former Maintenance and Fueling Facility, Skykomish, Washington*. Prepared for BNSF Railway Company. March 15.
- . 2005b. *Groundwater Sampling Plan, Former Maintenance and Fueling Facility, Skykomish, Washington*. Prepared for BNSF Railway Company. May 12.
- . 2007. *Groundwater Monitoring Plan, Revision 1, Former Maintenance and Fueling Facility, Skykomish Washington*. Prepared for BNSF Railway Company. June 7.
- U.S. Environmental Protection Agency. 2008. *Contract Laboratory Program National Functional Guidelines For Superfund Organic Methods Data Review*. Office of Superfund Remediation and Technology Innovation. Publication No. USEPA-540-R-008-01. June.
- Washington State Department of Ecology (Ecology). 2007a. *Cleanup Action Plan for BNSF Former Maintenance and Fueling Facility, Skykomish, Washington*. Prepared for BNSF Railway Company. October.
- . 2007b. *Final Consent Decree for BNSF Railway, Former Maintenance and Fueling Facility, Skykomish, Washington*. October.
- . 2014. E-Mail Message Regarding HCC Optimization Pilot Testing. From Brian Sato. To Rich McManus, Farallon Consulting, L.L.C. September 12.

## **FIGURES**

**2016 SITE-WIDE GROUNDWATER MONITORING REPORT  
BNSF Former Maintenance and Fueling Facility  
Skykomish, Washington  
Consent Decree No. 07-2-33672-9 SEA**

**Farallon PN: 683-063**





- 2A-W-41 MONITORING WELL
- RW-04 RECOVERY WELL
- PZ-6S PIEZOMETER
- IW-02 INJECTION WELL
- FMW VAULT WELL

**LEGEND**

- WELLS SAMPLED QUARTERLY
- WELLS SAMPLED SEMIANNUALLY (ALSO INCLUDES WELLS SAMPLED QUARTERLY)
- GAUGE WELLS

- HYDRAULIC CONTROL AND CONTAINMENT SYSTEM BARRIER WALL
- BNSF RAILYARD
- MECHANICALLY STABILIZED EARTH WALL
- SHEET PILE BARRIER WALL
- MONITORING WELL ZONES

NOTE  
HYDRAULIC CONTROL AND CONTAINMENT SYSTEM BARRIER WALL SENTRY WELLS NOT SHOWN



**FARALLON CONSULTING**  
Quality Service for Environmental Solutions | farallonconsulting.com

Washington  
Issaquah | Bellingham | Seattle

Oregon  
Portland | Bend | Baker City

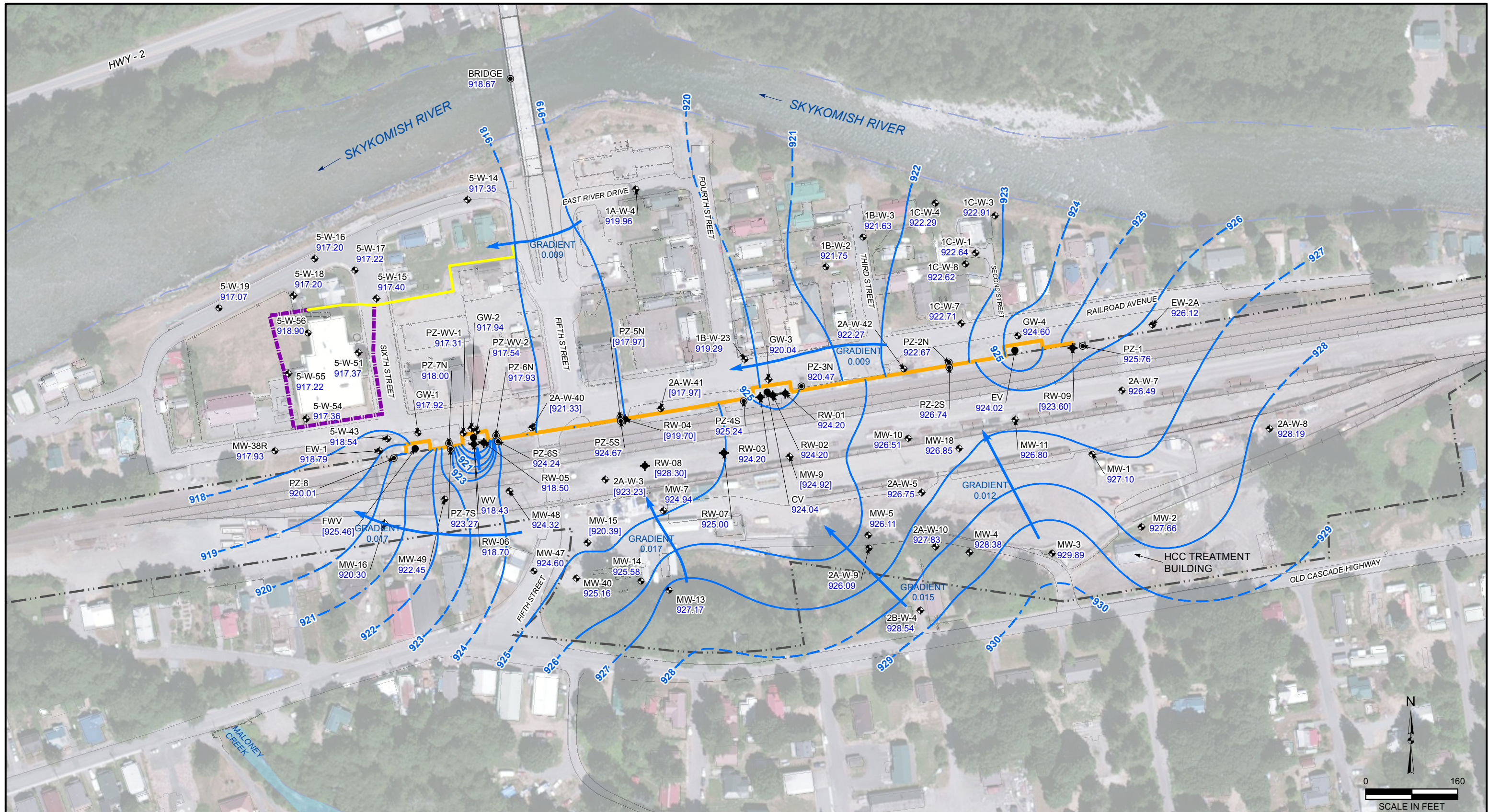
California  
Oakland | Sacramento | Irvine

**FIGURE 1**  
SITE PLAN SHOWING 2016  
GROUNDWATER MONITORING NETWORK  
BNSF FORMER MAINTENANCE  
AND FUELING FACILITY  
SKYKOMISH, WASHINGTON

FARALLON PN: 683-063

IMAGERY SOURCE: USDA FARM SERVICE AGENCY(FSA)  
NATIONAL AGRICULTURE IMAGERY PROGRAM (NAIP) 2015





LEGEND	
2A-W-41	MONITORING WELL
RW-04	RECOVERY WELL
PZ-5S	PIEZOMETER
IW-02	INJECTION WELL
FMW	VAULT WELL
917.10	GROUNDWATER ELEVATION (MARCH, 2016)
[920.50]	GROUNDWATER ELEVATION NOT CONSIDERED FOR CONTOURING PURPOSES
921-	INTERPRETED GROUNDWATER ELEVATION CONTOUR (INFERRED WHERE DASHED)
←	INTERPRETED DIRECTION OF GROUNDWATER FLOW
GRADIENT 0.019	GRADIENT UNITS IN FOOT PER FOOT

——— HYDRAULIC CONTROL AND CONTAINMENT SYSTEM BARRIER WALL  
 ——— MECHANICALLY STABILIZED EARTH WALL  
 - - - BNSF RAILYARD  
 - - - SHEET PILE BARRIER WALL

NOTE:  
 HYDRAULIC CONTROL AND CONTAINMENT SYSTEM BARRIER WALL SENTRY WELLS NOT SHOWN.  
 SOME OF THE MEASURED HEAD VALUES IN CLOSE PROXIMITY TO THE BARRIER WALL MAY EXHIBIT SOME VARIABILITY/SLIGHT INCONSISTENCY WITH THE INTERPRETED CONTOURS. THIS COULD BE ATTRIBUTED TO VARIABILITY OF MEASUREMENT PRACTICE WITH RESPECT TO VAULT LIDS.  
 IMAGERY SOURCE: ESRI GIS USER COMMUNITY NAIP 2015

  
**FARALLON CONSULTING**  
 Quality Service for Environmental Solutions | farallonconsulting.com

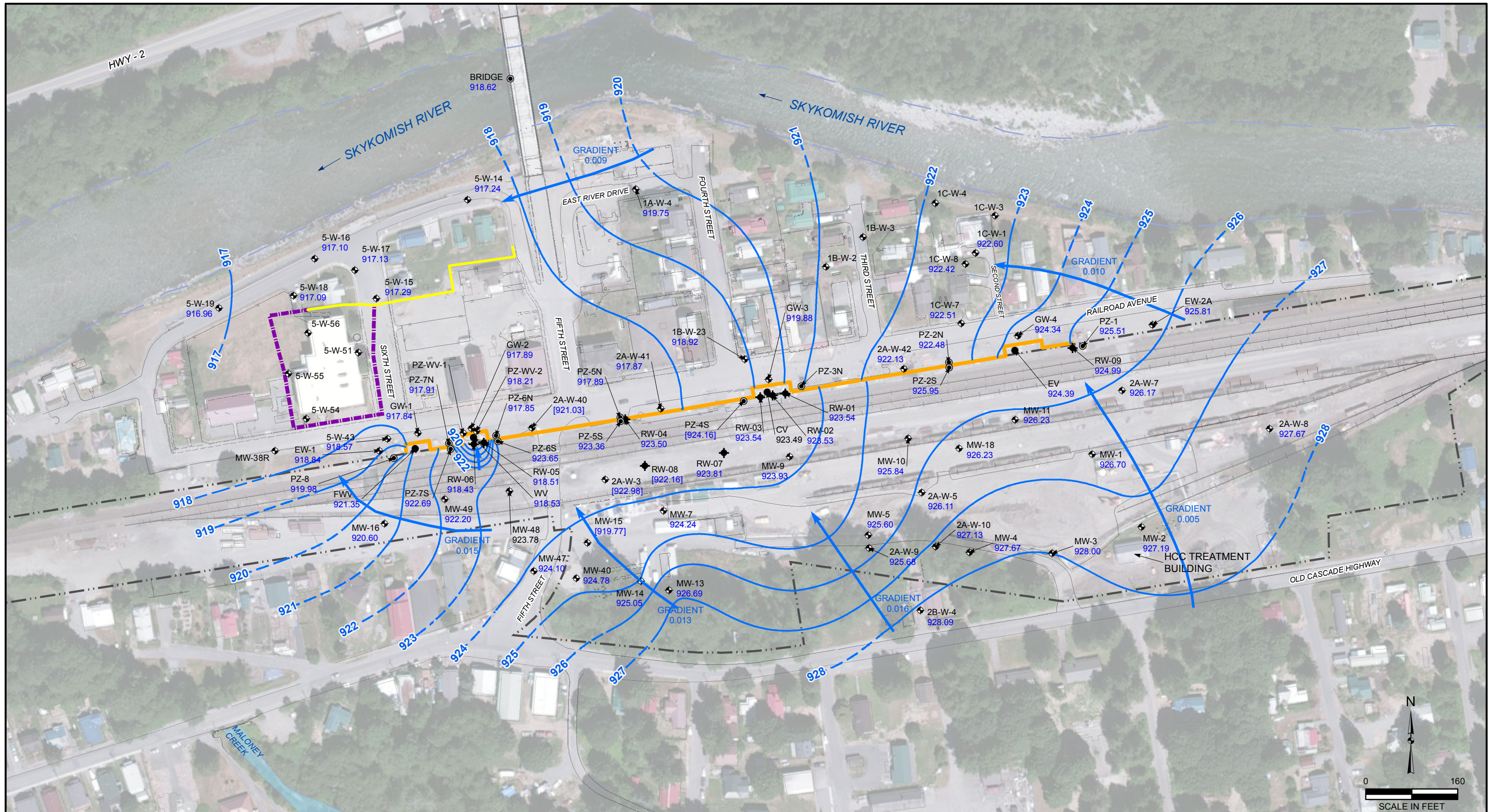
Washington  
 Issaquah | Bellingham | Seattle  
 Oregon  
 Portland | Bend | Baker City  
 California  
 Oakland | Sacramento | Irvine

Drawn By: tperrin  
 Checked By: JP  
 Date: 3/27/2017  
 Document Path: G:\Projects\683 BNSF\683043 Skykomish Ongoing Cleanup Activities\GIS\GW\_2016\FIGURE 2-5 GW\_MAPBK\_2016.mxd

**FIGURE 2**  
 MARCH 2016  
 GROUNDWATER ELEVATION CONTOUR MAP  
 AND FUELING FACILITY  
 SKYKOMISH, WASHINGTON  
 FARALLON PN: 683-063

Disc Reference:  
 G:\Projects\683 BNSF\683043 Skykomish Ongoing Cleanup Activities\GIS\GW\_2016\FIGURE 2-5 GW\_MAPBK\_2016.mxd





LEGEND	
2A-W-41	MONITORING WELL
RW-04	RECOVERY WELL
PZ-5S	PIEZOMETER
IW-02	INJECTION WELL
FMW	VAULT WELL
917.10	GROUNDWATER ELEVATION (JUNE, 2016)
[920.50]	GROUNDWATER ELEVATION NOT CONSIDERED FOR CONTOURING PURPOSES
921-	INTERPRETED GROUNDWATER ELEVATION CONTOUR (INFERRED WHERE DASHED)
←	INTERPRETED DIRECTION OF GROUNDWATER FLOW
GRADIENT 0.019	GRADIENT UNITS IN FOOT PER FOOT

— HYDRAULIC CONTROL AND CONTAINMENT SYSTEM BARRIER WALL  
 - - - BNSF RAILYARD  
 — MECHANICALLY STABILIZED EARTH WALL  
 - - - SHEET PILE BARRIER WALL

**NOTE:**  
 HYDRAULIC CONTROL AND CONTAINMENT SYSTEM BARRIER WALL SENTRY WELLS NOT SHOWN.  
 SOME OF THE MEASURED HEAD VALUES IN CLOSE PROXIMITY TO THE BARRIER WALL MAY EXHIBIT SOME VARIABILITY/SLIGHT INCONSISTENCY WITH THE INTERPRETED CONTOURS. THIS COULD BE ATTRIBUTED TO VARIABILITY OF MEASUREMENT PRACTICE WITH RESPECT TO VAULT LIDS.  
 IMAGERY SOURCE: ESRI GIS USER COMMUNITY NAIP 2015

  
**FARALLON CONSULTING**  
 Quality Service for Environmental Solutions | farallonconsulting.com

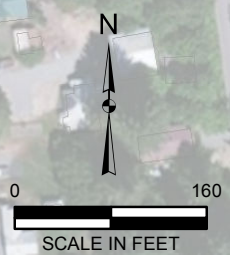
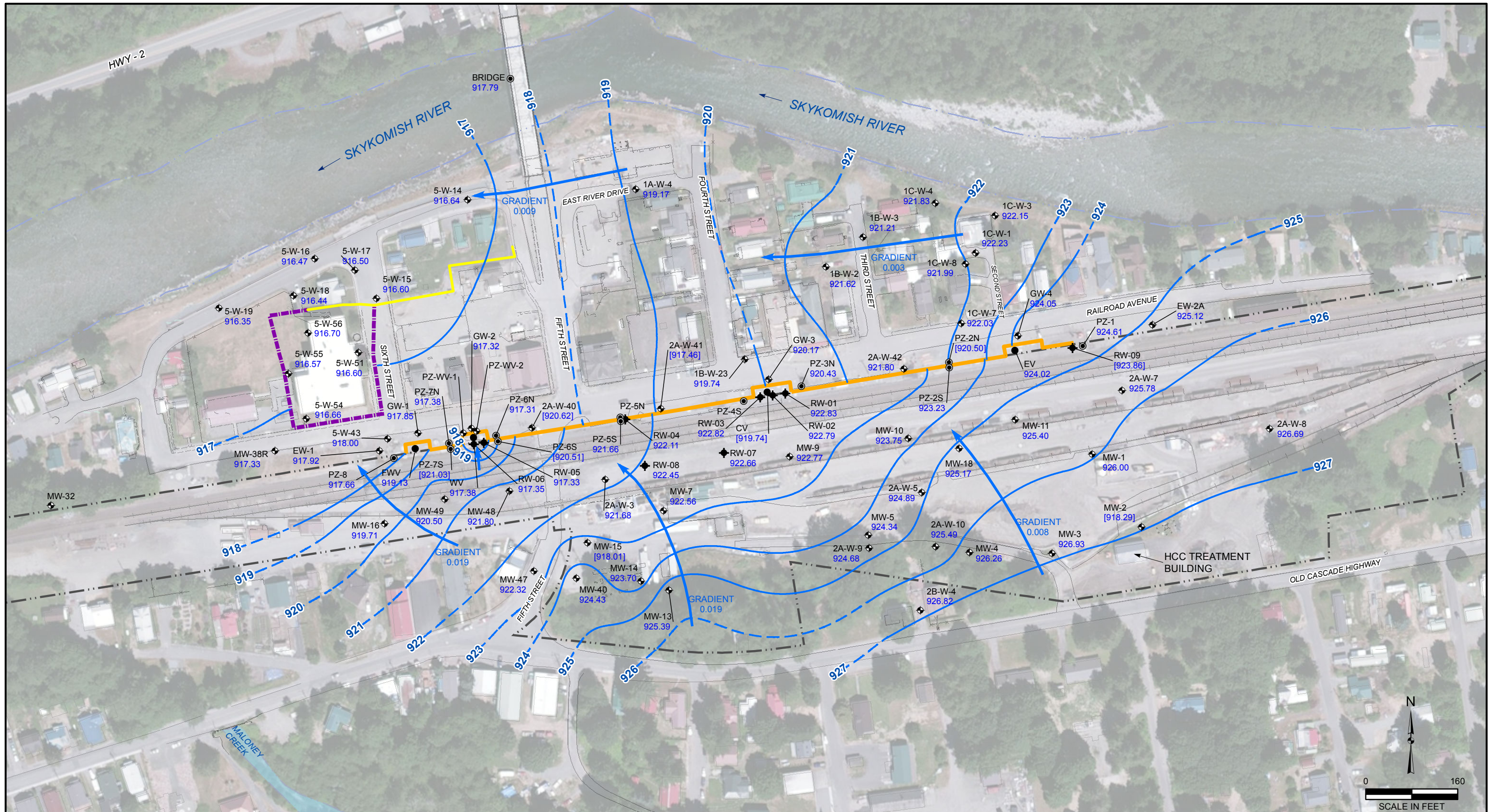
Washington  
 Issaquah | Bellingham | Seattle  
 Oregon  
 Portland | Bend | Baker City  
 California  
 Oakland | Sacramento | Irvine

Drawn By: tperrin  
 Checked By: JP  
 Date: 3/27/2017  
 Document Path: G:\Projects\683 BNSF\683043 Skykomish Ongoing Cleanup Activities\GIS\GW\_2016\FIGURE 2-5 GW\_MAPBK\_2016.mxd

**FIGURE 3**  
 JUNE 2016  
 GROUNDWATER ELEVATION CONTOUR MAP  
 AND FUELING FACILITY  
 SKYKOMISH, WASHINGTON  
 FARALLON PN: 683-063

Disc Reference:  
 G:\Projects\683 BNSF\683043 Skykomish Ongoing Cleanup Activities\GIS\GW\_2016\FIGURE 2-5 GW\_MAPBK\_2016.mxd





LEGEND	
2A-W-41	MONITORING WELL
RW-04	RECOVERY WELL
PZ-5S	PIEZOMETER
IW-02	INJECTION WELL
FMW	VAULT WELL
917.10	GROUNDWATER ELEVATION (SEPTEMBER, 2016)
[920.50]	GROUNDWATER ELEVATION NOT CONSIDERED FOR CONTOURING PURPOSES
921-	INTERPRETED GROUNDWATER ELEVATION CONTOUR (INFERRED WHERE DASHED)
←	INTERPRETED DIRECTION OF GROUNDWATER FLOW
GRADIENT 0.019	GRADIENT UNITS IN FOOT PER FOOT

—	HYDRAULIC CONTROL AND CONTAINMENT SYSTEM BARRIER WALL	—	MECHANICALLY STABILIZED EARTH WALL
- - -	BNSF RAILYARD	—	SHEET PILE BARRIER WALL

NOTE:  
 HYDRAULIC CONTROL AND CONTAINMENT SYSTEM BARRIER WALL SENTRY WELLS NOT SHOWN.  
 SOME OF THE MEASURED HEAD VALUES IN CLOSE PROXIMITY TO THE BARRIER WALL MAY EXHIBIT SOME VARIABILITY/SLIGHT INCONSISTENCY WITH THE INTERPRETED CONTOURS. THIS COULD BE ATTRIBUTED TO VARIABILITY OF MEASUREMENT PRACTICE WITH RESPECT TO VAULT LIDS.  
 IMAGERY SOURCE: ESRI GIS USER COMMUNITY NAIP 2015

Washington  
Issaquah | Bellingham | Seattle

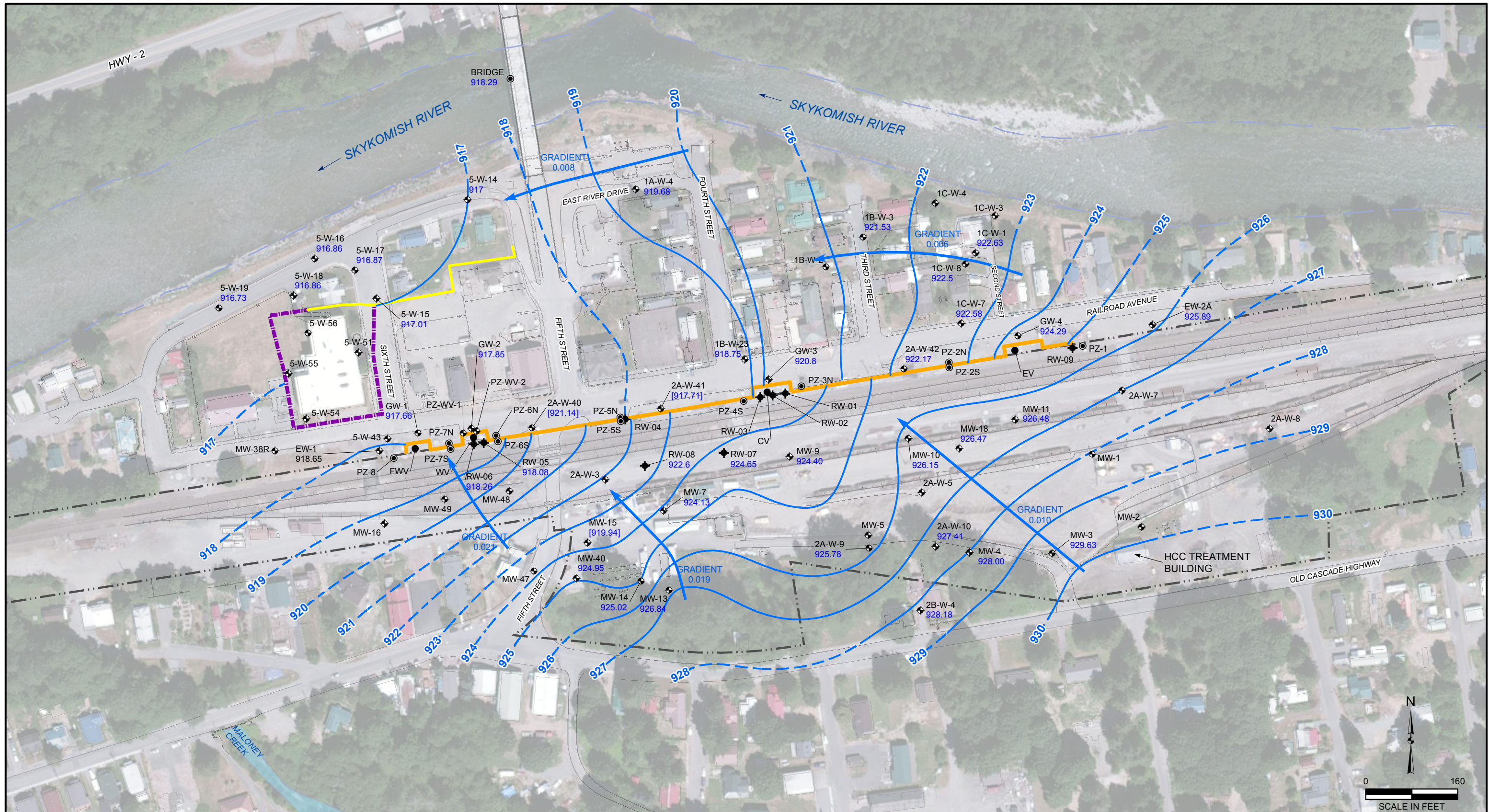
Oregon  
Portland | Bend | Baker City

California  
Oakland | Sacramento | Irvine

Quality Service for Environmental Solutions | farallonconsulting.com

**FIGURE 4**  
 SEPTEMBER 2016  
 GROUNDWATER ELEVATION CONTOUR MAP  
 BNSF FORMER MAINTENANCE  
 AND FUELING FACILITY  
 SKYKOMISH, WASHINGTON  
 FARALLON PN: 683-063





LEGEND	
2A-W-41	MONITORING WELL
RW-04	RECOVERY WELL
PZ-5S	PIEZOMETER
IW-02	INJECTION WELL
FMW	VAULT WELL
917.10	GROUNDWATER ELEVATION (DECEMBER, 2016)
[920.50]	GROUNDWATER ELEVATION NOT CONSIDERED FOR CONTOURING PURPOSES
921-	INTERPRETED GROUNDWATER ELEVATION CONTOUR (INFERRED WHERE DASHED)
←	INTERPRETED DIRECTION OF GROUNDWATER FLOW
GRADIENT 0.019	GRADIENT UNITS IN FOOT PER FOOT

—	HYDRAULIC CONTROL AND CONTAINMENT SYSTEM BARRIER WALL	—	MECHANICALLY STABILIZED EARTH WALL
- - -	BNSF RAILYARD	—	SHEET PILE BARRIER WALL

NOTE:  
 HYDRAULIC CONTROL AND CONTAINMENT SYSTEM BARRIER WALL SENTRY WELLS NOT SHOWN.  
 SOME OF THE MEASURED HEAD VALUES IN CLOSE PROXIMITY TO THE BARRIER WALL MAY EXHIBIT SOME VARIABILITY/SLIGHT INCONSISTENCY WITH THE INTERPRETED CONTOURS. THIS COULD BE ATTRIBUTED TO VARIABILITY OF MEASUREMENT PRACTICE WITH RESPECT TO VAULT LIDS.  
 IMAGERY SOURCE: ESRI GIS USER COMMUNITY NAIP 2015



**FARALLON CONSULTING**  
 Quality Service for Environmental Solutions | farallonconsulting.com

Washington  
 Issaquah | Bellingham | Seattle

Oregon  
 Portland | Bend | Baker City

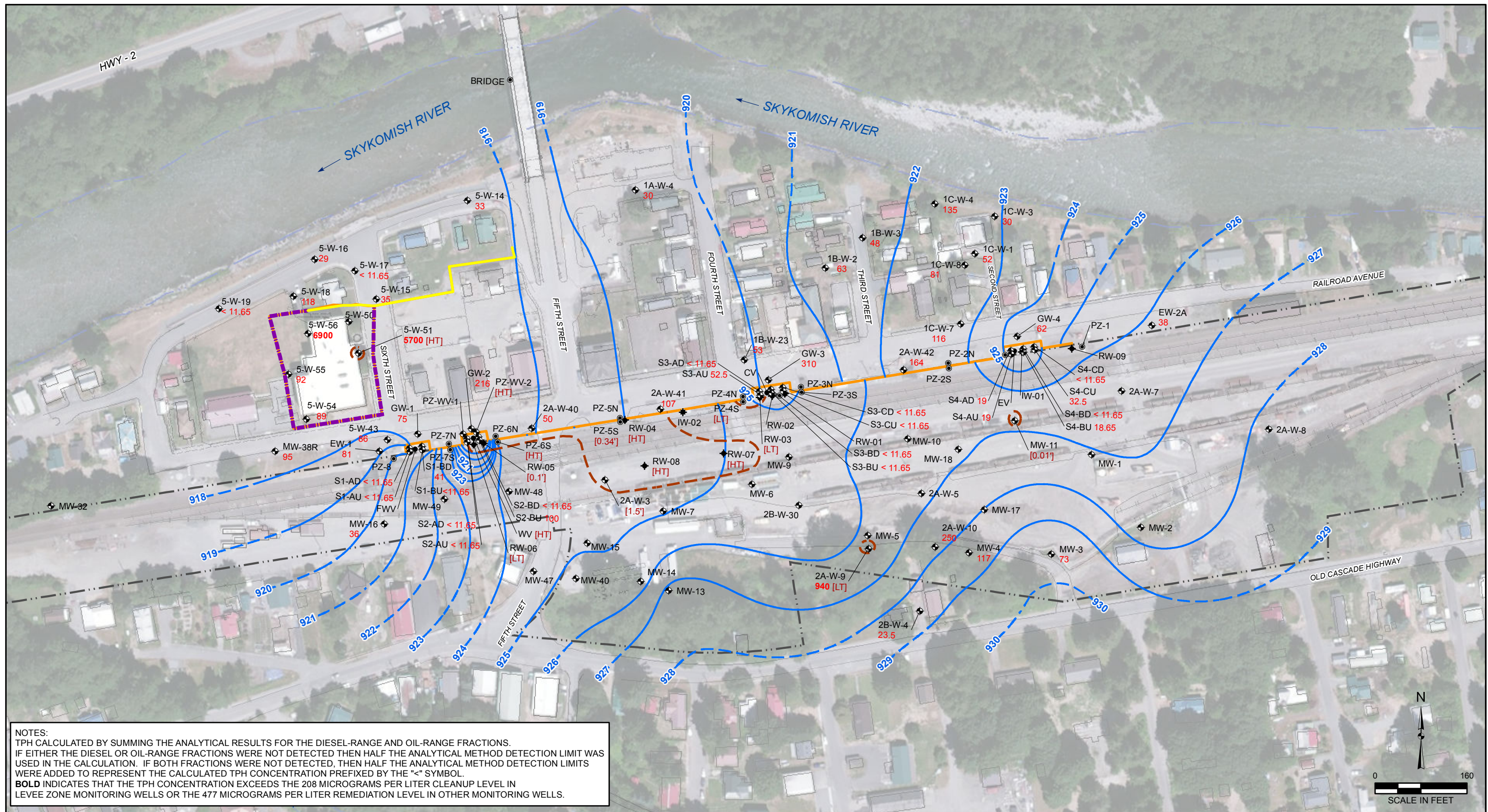
California  
 Oakland | Sacramento | Irvine

Drawn By: tperrin  
 Checked By: JP  
 Date: 3/27/2017  
 Document Path: G:\Projects\683 BNSF\683043 Skykomish Ongoing Cleanup Activities\GIS\GW\_2016\FIGURE 2-5 GW\_MAPBK\_2016.mxd

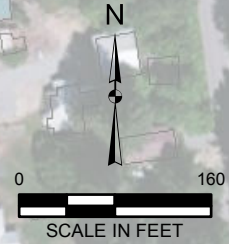
**FIGURE 5**  
 DECEMBER 2016  
 GROUNDWATER ELEVATION CONTOUR MAP  
 AND FUELING FACILITY  
 SKYKOMISH, WASHINGTON  
 FARALLON PN: 683-063

Disc Reference:  
 G:\Projects\683 BNSF\683043 Skykomish Ongoing Cleanup Activities\GIS\GW\_2016\FIGURE 2-5 GW\_MAPBK\_2016.mxd





NOTES:  
 TPH CALCULATED BY SUMMING THE ANALYTICAL RESULTS FOR THE DIESEL-RANGE AND OIL-RANGE FRACTIONS.  
 IF EITHER THE DIESEL OR OIL-RANGE FRACTIONS WERE NOT DETECTED THEN HALF THE ANALYTICAL METHOD DETECTION LIMIT WAS USED IN THE CALCULATION. IF BOTH FRACTIONS WERE NOT DETECTED, THEN HALF THE ANALYTICAL METHOD DETECTION LIMITS WERE ADDED TO REPRESENT THE CALCULATED TPH CONCENTRATION PREFIXED BY THE "<" SYMBOL.  
**BOLD** INDICATES THAT THE TPH CONCENTRATION EXCEEDS THE 208 MICROGRAMS PER LITER CLEANUP LEVEL IN LEVEE ZONE MONITORING WELLS OR THE 477 MICROGRAMS PER LITER REMEDIATION LEVEL IN OTHER MONITORING WELLS.



- LEGEND**
- 2A-W-41 ● MONITORING WELL
  - RW-04 ● RECOVERY WELL
  - PZ-5S ● PIEZOMETER
  - IW-02 ● INJECTION WELL
  - FMW ● VAULT WELL
  - 927- — INTERPRETED GROUNDWATER ELEVATION CONTOUR (INFERRED WHERE DASHED)
  - HYDRAULIC CONTROL AND CONTAINMENT SYSTEM BARRIER WALL
  - - - BNSF RAILYARD
  - MECHANICALLY STABILIZED EARTH WALL
  - SHEET PILE BARRIER WALL

- 50.5 TOTAL PETROLEUM HYDROCARBONS (TPH) IN MICROGRAMS PER LITER
- ESTIMATED EXTENT OF LNAPL AS INDICATED BY LIGHT TRACE (LT), HEAVY TRACE (HT), OR PRODUCT THICKNESS ON GROUNDWATER DURING THE MONITORING EVENT (2016).
- [HT] HEAVY TRACE - NO MEASURABLE PRODUCT THICKNESS GREATER THAN 0.01 FEET
- [LT] LIGHT TRACE - NO MEASURABLE PRODUCT THICKNESS GREATER THAN 0.01 FEET
- [1.15] MEASURABLE PRODUCT THICKNESS GREATER THAN 0.01 FEET
- LNAPL = LIGHT NON-AQUEOUS PHASE LIQUID
- NE = NOT ENCOUNTERED
- IMAGERY SOURCE: ESRI GIS USER COMMUNITY NAIP 2015

**FARALLON CONSULTING**  
 Quality Service for Environmental Solutions | farallonconsulting.com

Washington  
 Issaquah | Bellingham | Seattle

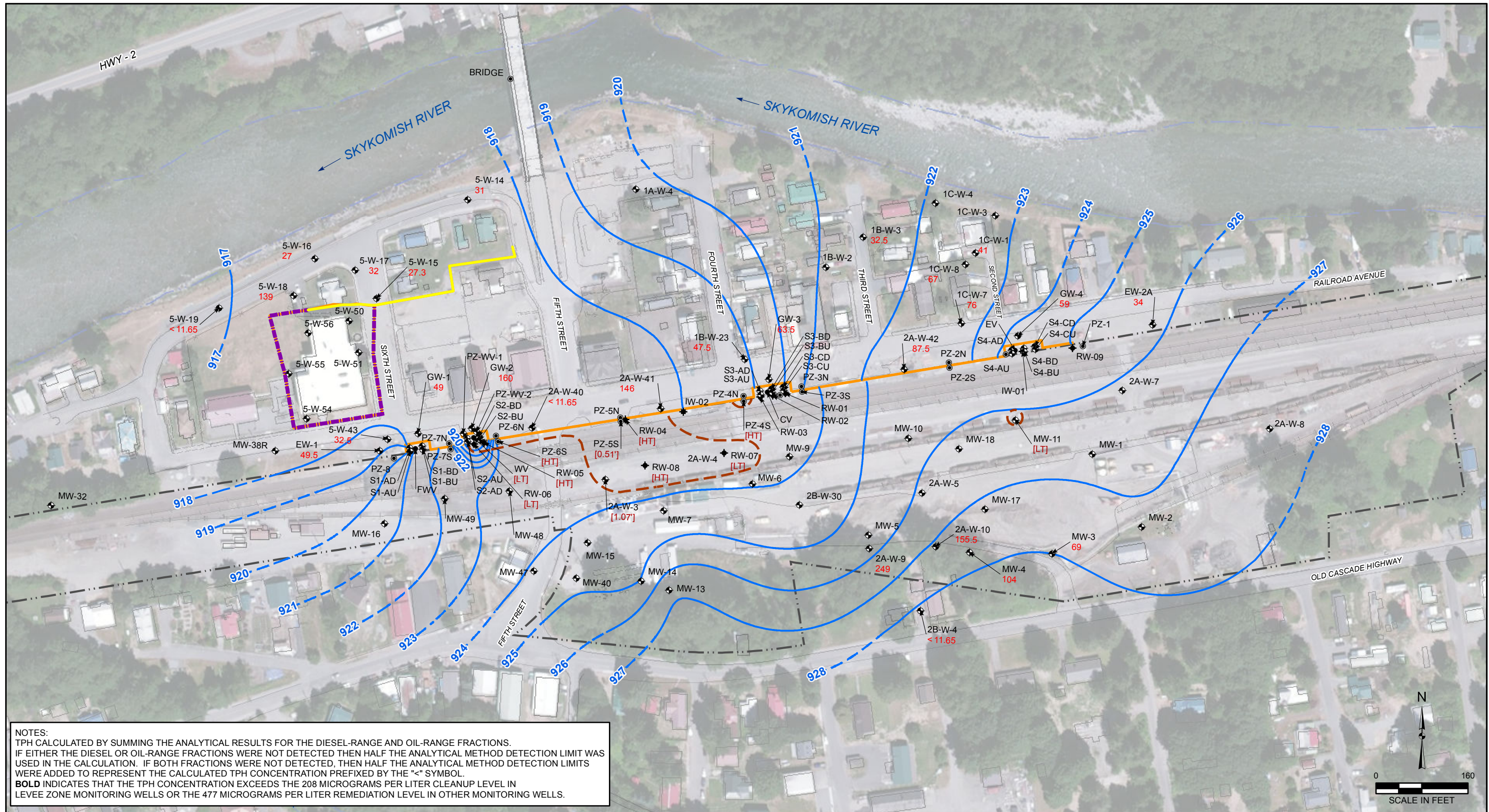
Oregon  
 Portland | Bend | Baker City

California  
 Oakland | Sacramento | Irvine

Drawn By: tperrin      Checked By: TC      Date: 3/6/2017      Disc Reference: G:\Projects\683\_BNSF\683043\_Skykomish Ongoing Cleanup Activities\GIS\GW\_2016\FIGURE 6-9 TPH-GW\_MAPBK\_2016.mxd

**FIGURE 6**  
 MARCH 2016 TOTAL PETROLEUM HYDROCARBONS IN GROUNDWATER BNSF FORMER MAINTENANCE AND FUELING FACILITY SKYKOMISH, WASHINGTON  
 FARALLON PN: 683-063





NOTES:  
 TPH CALCULATED BY SUMMING THE ANALYTICAL RESULTS FOR THE DIESEL-RANGE AND OIL-RANGE FRACTIONS.  
 IF EITHER THE DIESEL OR OIL-RANGE FRACTIONS WERE NOT DETECTED THEN HALF THE ANALYTICAL METHOD DETECTION LIMIT WAS USED IN THE CALCULATION. IF BOTH FRACTIONS WERE NOT DETECTED, THEN HALF THE ANALYTICAL METHOD DETECTION LIMITS WERE ADDED TO REPRESENT THE CALCULATED TPH CONCENTRATION PREFIXED BY THE "<" SYMBOL.  
**BOLD** INDICATES THAT THE TPH CONCENTRATION EXCEEDS THE 208 MICROGRAMS PER LITER CLEANUP LEVEL IN LEVEE ZONE MONITORING WELLS OR THE 477 MICROGRAMS PER LITER REMEDIATION LEVEL IN OTHER MONITORING WELLS.

- LEGEND**
- 2A-W-41 MONITORING WELL
  - RW-04 RECOVERY WELL
  - PZ-5S PIEZOMETER
  - IW-02 INJECTION WELL
  - FMW VAULT WELL
  - INTERPRETED GROUNDWATER ELEVATION CONTOUR (INFERRED WHERE DASHED)
  - HYDRAULIC CONTROL AND CONTAINMENT SYSTEM BARRIER WALL
  - BNSF RAILYARD
  - MECHANICALLY STABILIZED EARTH WALL
  - SHEET PILE BARRIER WALL

- 50.5** TOTAL PETROLEUM HYDROCARBONS (TPH) IN MICROGRAMS PER LITER
  - ESTIMATED EXTENT OF LNAPL AS INDICATED BY LIGHT TRACE (LT), HEAVY TRACE (HT), OR PRODUCT THICKNESS ON GROUNDWATER DURING THE MONITORING EVENT (2016).
  - [HT]** HEAVY TRACE - NO MEASURABLE PRODUCT THICKNESS GREATER THAN 0.01 FEET
  - [LT]** LIGHT TRACE - NO MEASURABLE PRODUCT THICKNESS GREATER THAN 0.01 FEET
  - [1.15]** MEASURABLE PRODUCT THICKNESS GREATER THAN 0.01 FEET
  - LNAPL = LIGHT NON-AQUEOUS PHASE LIQUID
  - NE = NOT ENCOUNTERED
- IMAGERY SOURCE: ESRI GIS USER COMMUNITY NAIP 2015

**FARALLON CONSULTING**  
 Quality Service for Environmental Solutions | farallonconsulting.com

Washington  
 Issaquah | Bellingham | Seattle

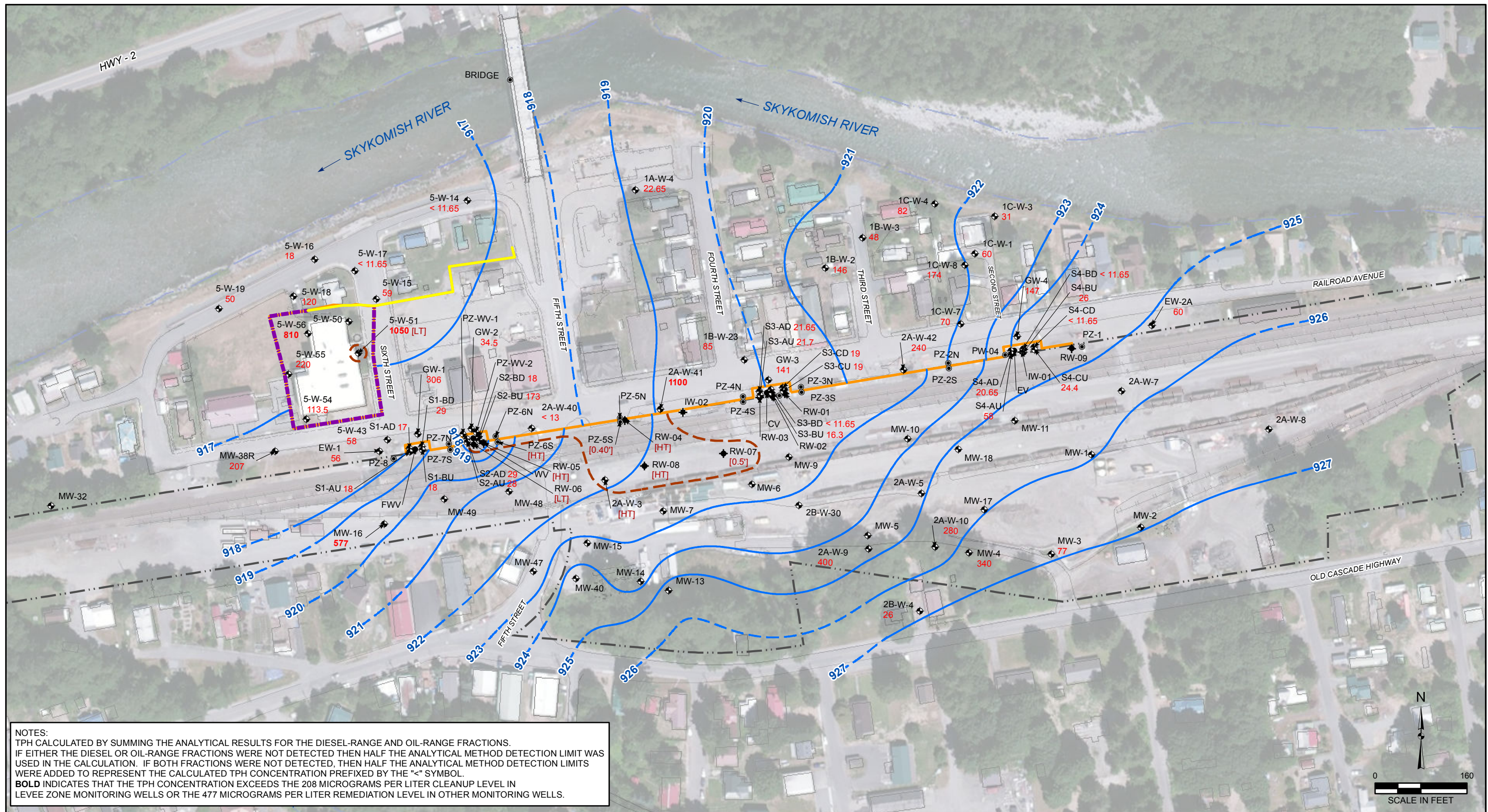
Oregon  
 Portland | Bend | Baker City

California  
 Oakland | Sacramento | Irvine

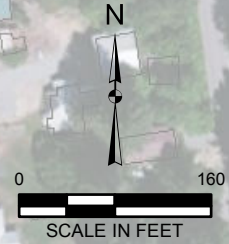
Drawn By: tperin      Checked By: TC      Date: 3/6/2017      Disc Reference: G:\Projects\683\_BNSF\683043\_Skykomish Ongoing Cleanup Activities\GIS\GW\_2016\FIGURE 6-9 TPH-GW\_MAPBK\_2016.mxd

**FIGURE 7**  
 JUNE 2016 TOTAL PETROLEUM HYDROCARBONS IN GROUNDWATER BNSF FORMER MAINTENANCE AND FUELING FACILITY SKYKOMISH, WASHINGTON  
 FARALLON PN: 683-063





NOTES:  
 TPH CALCULATED BY SUMMING THE ANALYTICAL RESULTS FOR THE DIESEL-RANGE AND OIL-RANGE FRACTIONS.  
 IF EITHER THE DIESEL OR OIL-RANGE FRACTIONS WERE NOT DETECTED THEN HALF THE ANALYTICAL METHOD DETECTION LIMIT WAS USED IN THE CALCULATION. IF BOTH FRACTIONS WERE NOT DETECTED, THEN HALF THE ANALYTICAL METHOD DETECTION LIMITS WERE ADDED TO REPRESENT THE CALCULATED TPH CONCENTRATION PREFIXED BY THE "<" SYMBOL.  
**BOLD** INDICATES THAT THE TPH CONCENTRATION EXCEEDS THE 208 MICROGRAMS PER LITER CLEANUP LEVEL IN LEVEE ZONE MONITORING WELLS OR THE 477 MICROGRAMS PER LITER REMEDIATION LEVEL IN OTHER MONITORING WELLS.



- LEGEND**
- 2A-W-41 ◈ MONITORING WELL
  - RW-04 ◈ RECOVERY WELL
  - PZ-5S ● PIEZOMETER
  - IW-02 ◈ INJECTION WELL
  - FMW ● VAULT WELL
  - 927- — INTERPRETED GROUNDWATER ELEVATION CONTOUR (INFERRED WHERE DASHED)
  - HYDRAULIC CONTROL AND CONTAINMENT SYSTEM BARRIER WALL
  - - - BNSF RAILYARD
  - MECHANICALLY STABILIZED EARTH WALL
  - SHEET PILE BARRIER WALL

- 50.5 TOTAL PETROLEUM HYDROCARBONS (TPH) IN MICROGRAMS PER LITER
- ESTIMATED EXTENT OF LNAPL AS INDICATED BY LIGHT TRACE (LT), HEAVY TRACE (HT), OR PRODUCT THICKNESS ON GROUNDWATER DURING THE MONITORING EVENT (2016).
- [HT] HEAVY TRACE - NO MEASURABLE PRODUCT THICKNESS GREATER THAN 0.01 FEET
- [LT] LIGHT TRACE - NO MEASURABLE PRODUCT THICKNESS GREATER THAN 0.01 FEET
- [1.15] MEASURABLE PRODUCT THICKNESS GREATER THAN 0.01 FEET
- LNAPL = LIGHT NON-AQUEOUS PHASE LIQUID
- NE = NOT ENCOUNTERED
- IMAGERY SOURCE: ESRI GIS USER COMMUNITY NAIP 2015

Washington  
Issaquah | Bellingham | Seattle

Oregon  
Portland | Bend | Baker City

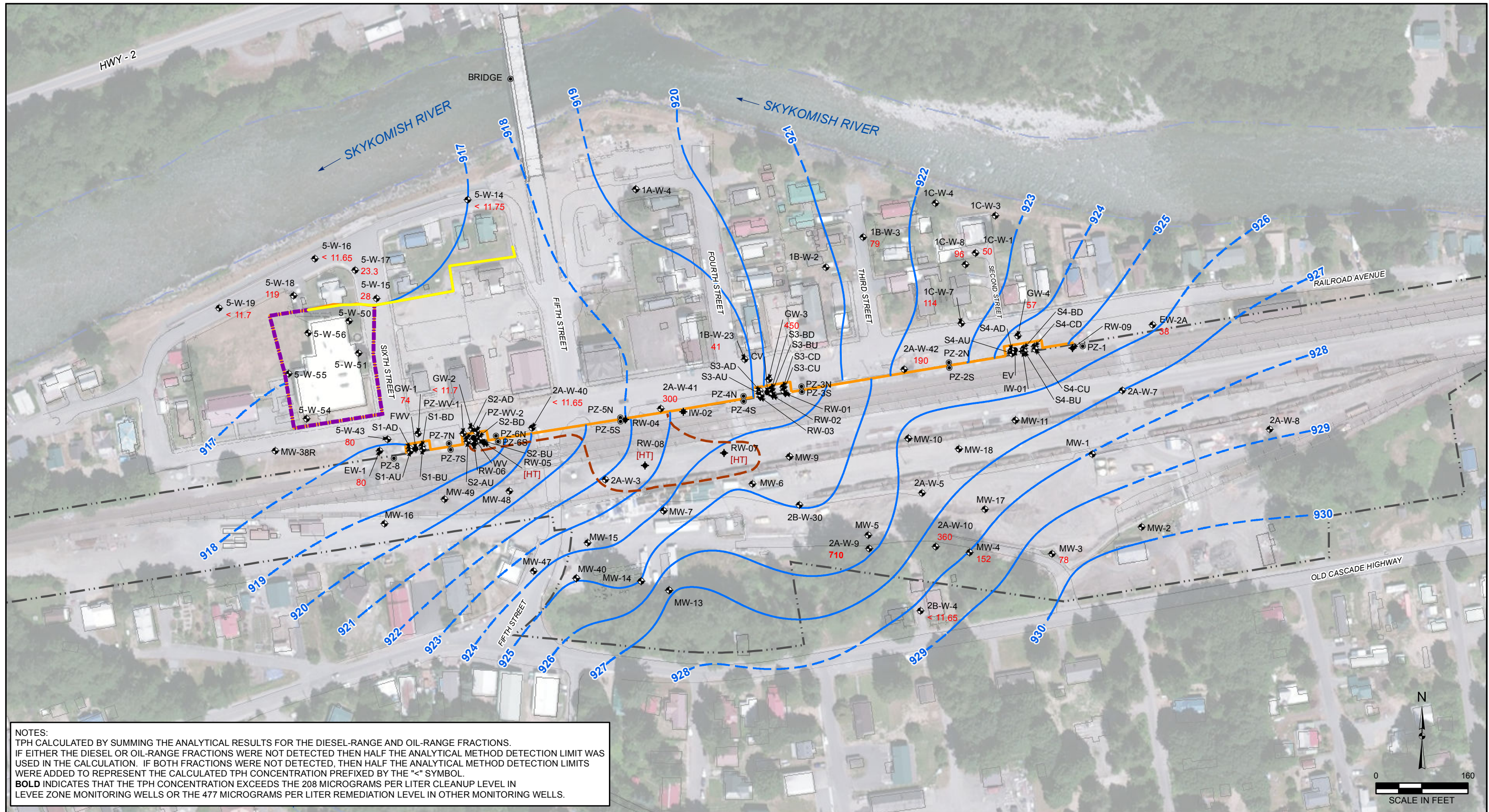
California  
Oakland | Sacramento | Irvine

Quality Service for Environmental Solutions | farallonconsulting.com

Drawn By: tperin      Checked By: TC      Date: 3/6/2017      Disc Reference: G:\Projects\683\_BNSF\683043\_Skykomish Ongoing Cleanup Activities\GIS\GW\_2016\FIGURE 6-9 TPH-GW\_MAPBK\_2016.mxd

**FIGURE 8**  
 SEPTEMBER 2016 TOTAL PETROLEUM HYDROCARBONS IN GROUNDWATER  
 BNSF FORMER MAINTENANCE AND FUELING FACILITY  
 SKYKOMISH, WASHINGTON  
 FARALLON PN: 683-063





NOTES:  
 TPH CALCULATED BY SUMMING THE ANALYTICAL RESULTS FOR THE DIESEL-RANGE AND OIL-RANGE FRACTIONS.  
 IF EITHER THE DIESEL OR OIL-RANGE FRACTIONS WERE NOT DETECTED THEN HALF THE ANALYTICAL METHOD DETECTION LIMIT WAS USED IN THE CALCULATION. IF BOTH FRACTIONS WERE NOT DETECTED, THEN HALF THE ANALYTICAL METHOD DETECTION LIMITS WERE ADDED TO REPRESENT THE CALCULATED TPH CONCENTRATION PREFIXED BY THE "<" SYMBOL.  
**BOLD** INDICATES THAT THE TPH CONCENTRATION EXCEEDS THE 208 MICROGRAMS PER LITER CLEANUP LEVEL IN LEVEE ZONE MONITORING WELLS OR THE 477 MICROGRAMS PER LITER REMEDIATION LEVEL IN OTHER MONITORING WELLS.

LEGEND	
2A-W-41	MONITORING WELL
RW-04	RECOVERY WELL
PZ-5S	PIEZOMETER
IW-02	INJECTION WELL
FMW	VAULT WELL
927-	INTERPRETED GROUNDWATER ELEVATION CONTOUR (INFERRED WHERE DASHED)
[Orange line]	HYDRAULIC CONTROL AND CONTAINMENT SYSTEM BARRIER WALL
[Dashed line]	BNSF RAILYARD
[Yellow line]	MECHANICALLY STABILIZED EARTH WALL
[Purple line]	SHEET PILE BARRIER WALL

50.5	TOTAL PETROLEUM HYDROCARBONS (TPH) IN MICROGRAMS PER LITER
[Orange outline]	ESTIMATED EXTENT OF LNAPL AS INDICATED BY LIGHT TRACE (LT), HEAVY TRACE (HT), OR PRODUCT THICKNESS ON GROUNDWATER DURING THE MONITORING EVENT (2016).
[HT]	HEAVY TRACE - NO MEASURABLE PRODUCT THICKNESS GREATER THAN 0.01 FEET
[LT]	LIGHT TRACE - NO MEASURABLE PRODUCT THICKNESS GREATER THAN 0.01 FEET
[1.15]	MEASURABLE PRODUCT THICKNESS GREATER THAN 0.01 FEET
LNAPL	= LIGHT NON-AQUEOUS PHASE LIQUID
NE	= NOT ENCOUNTERED
IMAGERY SOURCE: ESRI GIS USER COMMUNITY NAIP 2015	

  
**FARALLON CONSULTING**  
 Quality Service for Environmental Solutions | farallonconsulting.com  
 Washington: Issaquah | Bellingham | Seattle  
 Oregon: Portland | Bend | Baker City  
 California: Oakland | Sacramento | Irvine

**FIGURE 9**  
 DECEMBER 2016 TOTAL PETROLEUM HYDROCARBONS IN GROUNDWATER  
 BNSF FORMER MAINTENANCE AND FUELING FACILITY  
 SKYKOMISH, WASHINGTON  
 FARALLON PN: 683-063

Drawn By: tperrin      Checked By: TC      Date: 3/6/2017      Disc Reference: G:\Projects\683\_BNSF\683043\_Skykomish\_Ongoing\_Cleanup\_Activities\GIS\GW\_2016\FIGURE 6-9\_TPH\_GW\_MAPBK\_2016.mxd



## **TABLES**

**2016 SITE-WIDE GROUNDWATER MONITORING REPORT  
BNSF Former Maintenance and Fueling Facility  
Skykomish, Washington  
Consent Decree No. 07-2-33672-9 SEA**

**Farallon PN: 683-063**

**Table 1**  
**2016 Groundwater Monitoring Event Dates**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-063**

Event	Start Date	End Date
Semiannual Fluid Gauging Event	03/21/2016	03/21/2016
Semiannual Groundwater Sampling Event	03/21/2016	03/24/2016
Quarterly Fluid Gauging Event	06/13/2016	06/13/2016
Quarterly Groundwater Sampling Event	06/14/2016	06/15/2016
Semiannual Fluid Gauging Event	09/19/2016	09/19/2016
Semiannual Groundwater Sampling Event	09/20/2016	09/22/2016
Quarterly Fluid Gauging Event	12/13/2016	12/13/2016
Quarterly Groundwater Sampling Event	12/14/2016	12/15/2016

NOTE:

Sampling details for each monitoring event are included in Table 2.

**Table 2**  
**2016 Groundwater Sampling Event Details**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-063**

Zone	Location Identification	Groundwater Sampling Events		Analyte
		Quarterly	Semiannually	
Air Sparging System	1B-W-3	X	X	NWTPH-Dx
	1C-W-7	X	X	NWTPH-Dx
	1C-W-8	X	X	NWTPH-Dx
FMCZ-EW and Surrounding Areas	2A-W-10	X	X	NWTPH-Dx
	2A-W-9	X	X	NWTPH-Dx
	2B-W-4	X	X	NWTPH-Dx
	MW-3	X	X	NWTPH-Dx
	MW-4	X	X	NWTPH-Dx
HCC System	EW-1	X	X	NWTPH-Dx
	EW-2A	X	X	NWTPH-Dx
	GW-1	X	X	NWTPH-Dx
	GW-2	X	X	NWTPH-Dx
	GW-3	X	X	NWTPH-Dx
	GW-4	X	X	NWTPH-Dx
	S1-AD	—	X	NWTPH-Dx
	S1-AU	—	X	NWTPH-Dx
	S1-BD	—	X	NWTPH-Dx
	S1-BU	—	X	NWTPH-Dx
	S2-AD	—	X	NWTPH-Dx
	S2-AU	—	X	NWTPH-Dx
	S2-BD	—	X	NWTPH-Dx
	S2-BU	—	X	NWTPH-Dx
	S3-AD	—	X	NWTPH-Dx
	S3-AU	—	X	NWTPH-Dx
	S3-BD	—	X	NWTPH-Dx
	S3-BU	—	X	NWTPH-Dx
	S3-CD	—	X	NWTPH-Dx
	S3-CU	—	X	NWTPH-Dx
Levee	5-W-14	X	X	NWTPH-Dx
	5-W-15	X	X	NWTPH-Dx
	5-W-16	X	X	NWTPH-Dx
	5-W-17	X	X	NWTPH-Dx
	5-W-18	X	X	NWTPH-Dx
	5-W-19	X	X	NWTPH-Dx
Down-gradient of the HCC	1B-W-23	X	X	NWTPH-Dx
	2A-W-40	X	X	NWTPH-Dx
	2A-W-41	X	X	NWTPH-Dx
	2A-W-42	X	X	NWTPH-Dx
	5-W-43	X	X	NWTPH-Dx

**Table 2**  
**2016 Groundwater Sampling Event Details**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-063**

Zone	Location Identification	Groundwater Sampling Events		Analyte
		Quarterly	Semiannually	
Schoolyard	5-W-50	—	X <sup>1</sup>	NWTPH-Dx
	5-W-51	—	X	NWTPH-Dx
	5-W-54	—	X	NWTPH-Dx
	5-W-55	—	X	NWTPH-Dx
	5-W-56	—	X	NWTPH-Dx
Site-Wide	1A-W-4	—	X	NWTPH-Dx
	1B-W-2	—	X	NWTPH-Dx
	1C-W-1	X	X	NWTPH-Dx
	1C-W-3	—	X	NWTPH-Dx
	1C-W-4	—	X	NWTPH-Dx
	MW-16	—	X	NWTPH-Dx
	MW-38R	—	X	NWTPH-Dx

**NOTES:**

FMCZ-EW = Former Maloney Creek Zone - East Wetland

HCC = Hydraulic Control and Containment

NWTPH-Dx = total petroleum hydrocarbons as diesel- and as oil-range organics

<sup>1</sup>Well damaged during construction in August 2015 and scheduled to be replaced in 2017.



**Table 3**  
**2016 Groundwater Elevation Gauging Events Summary**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-063**

Zone	Location Identification	Gauging Frequency			
		Continuous <sup>1</sup>	Weekly	Quarterly	Semiannually
Air Sparging System	1B-W-3	—	—	X	X
	1C-W-7	—	—	X	X
	1C-W-8	—	—	X	X
FMCZ-EW and Surrounding Areas	2A-W-10	—	—	X	X
	2A-W-3	—	—	X	X
	2A-W-5	—	—	X	X
	2A-W-7	—	—	X	X
	2A-W-9	—	—	X	X
	2B-W-4	—	—	X	X
	MW-1	—	—	X	X
	MW-10	—	—	X	X
	MW-11	—	—	X	X
	MW-13	—	—	X	X
	MW-14	—	—	X	X
	MW-15	—	—	X	X
	MW-18	—	—	X	X
	MW-2	—	—	X	X
	MW-3	—	—	X	X
	MW-4	—	—	X	X
	MW-40	—	—	X	X
	MW-5	—	—	X	X
	MW-7	—	—	X	X
	MW-9	—	—	X	X
HCC System	EW-1	—	—	X	X
	EW-2A	—	—	X	X
	GW-1	X	X	X	X
	GW-2	X	X	X	X
	GW-3	X	X	X	X
	GW-4	X	X	X	X
	IW-01	—	—	—	X
	PZ-1	X	—	X	X
	PZ-2N	X	—	X	X
	PZ-2S	X	—	X	X
	PZ-3N	X	—	X	X
	PZ-3S	X	—	X	X
	PZ-4N	X	—	X	X
	PZ-4S	X	—	X	X
	PZ-5N	X	—	X	X
	PZ-5S	X	—	X	X
	PZ-6N	X	—	X	X
	PZ-6S	X	—	X	X
	PZ-7N	X	—	X	X
	PZ-7S	X	—	X	X
	PZ-8	X	—	X	X
	RW-01	X	—	X	X
	RW-02	X	—	X	X
	RW-03	X	—	X	X
	RW-04	X	—	X	X
	RW-05	X	—	X	X
	RW-06	X	—	X	X
	RW-07	X	—	X	X
	RW-08	X	—	X	X
	RW-09	X	—	X	X
	CV	X	X	X	X
	EV	X	X	X	X
	FWV	X	X	X	X
WV	X	X	X	X	

**Table 3**  
**2016 Groundwater Elevation Gauging Events Summary**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-063**

Zone	Location Identification	Gauging Frequency			
		Continuous <sup>1</sup>	Weekly	Quarterly	Semiannually
Levee	5-W-14	—	—	X	X
	5-W-15	—	—	X	X
	5-W-16	—	—	X	X
	5-W-17	—	—	X	X
	5-W-18	—	—	X	X
	5-W-19	—	—	X	X
Down-gradient of the HCC System	1B-W-23	—	—	X	X
	2A-W-40	—	—	X	X
	2A-W-41	—	—	X	X
	2A-W-42	—	—	X	X
	5-W-43	—	—	X	X
Schoolyard	5-W-50	—	—	—	X
	5-W-51	—	—	—	X
	5-W-54	—	—	—	X
	5-W-55	—	—	—	X
	5-W-56	—	—	—	X
Site-Wide	1A-W-4	—	—	X	X
	1B-W-2	—	—	—	X
	1C-W-1	—	—	X	X
	1C-W-3	—	—	—	X
	1C-W-4	—	—	—	X
	2A-W-8	—	—	X	X
	MW-16	—	—	X	X
	MW-32	—	—	—	X
	MW-38R	—	—	X	X
	MW-47 <sup>2</sup>	—	—	X	X
	MW-48 <sup>2</sup>	—	—	X	X
MW-49 <sup>2</sup>	—	—	X	X	
Surface Water Monitoring Station	Bridge	—	—	X	X

**NOTES:**

— denotes not gauged at the frequency indicated.

FMCZ-EW = Former Maloney Creek Zone - East Wetland

<sup>1</sup> Water level transducers have been used to collect continuous water level measurements at these locations. Water levels are recorded daily.

HCC = Hydraulic Control and Containment

<sup>2</sup> Wells installed during August 2012.

**Table 4**  
**2016 Groundwater Elevations and Product Thicknesses**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-043**

Location	Top of Casing Elevation (feet NAVD88) <sup>1</sup>	Monitoring Date	Depth to Water (feet) <sup>2</sup>	Water Level Elevation (feet, NAVD88) <sup>1</sup>	LNAPL Thickness (feet)
<b>Air Sparge Area Monitoring Wells</b>					
1B-W-3	936.66	3/21/2016	15.03	921.63	—
		9/19/2016	15.45	921.21	—
		12/13/2016	15.13	921.53	—
1C-W-7	935.04	3/21/2016	12.33	922.71	—
		6/13/2016	12.53	922.51	—
		9/19/2016	13.01	922.03	—
		12/13/2016	12.46	922.58	—
1C-W-8	935.7	3/21/2016	13.08	922.62	—
		6/13/2016	13.28	922.42	—
		9/19/2016	13.71	921.99	—
		12/13/2016	13.20	922.50	—
<b>Former Maloney Creek Zone - East Wetland and Surrounding Area Monitoring Wells</b>					
2A-W-10	937.93	3/21/2016	10.10	927.83	—
		6/13/2016	10.80	927.13	—
		9/19/2016	12.44	925.49	—
		12/13/2016	10.52	927.41	—
2A-W-3	934.43	3/21/2016	11.20	923.23	1.5
		6/13/2016	11.45	922.98	1.07
		9/19/2016	12.75	921.68	Heavy Trace
		12/13/2016	NM <sup>3</sup>	NM	—
2A-W-5	939.47	3/21/2016	12.72	926.75	—
		6/13/2016	13.36	926.11	—
		9/19/2016	14.58	924.89	—
		12/13/2016	NM <sup>3</sup>	NM	—
2A-W-7	937.76	3/21/2016	11.27	926.49	—
		6/13/2016	11.59	926.17	—
		9/19/2016	11.98	925.78	—
		12/13/2016	NM <sup>3</sup>	NM	—

**Table 4**  
**2016 Groundwater Elevations and Product Thicknesses**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-043**

<b>Location</b>	<b>Top of Casing Elevation (feet NAVD88)<sup>1</sup></b>	<b>Monitoring Date</b>	<b>Depth to Water (feet)<sup>2</sup></b>	<b>Water Level Elevation (feet, NAVD88)<sup>1</sup></b>	<b>LNAPL Thickness (feet)</b>
2A-W-9	936.58	3/21/2016	10.49	926.09	Light Trace
		6/13/2016	10.90	925.68	—
		9/19/2016	11.90	924.68	—
		12/13/2016	10.80	925.78	—
2B-W-4	931.03	3/21/2016	2.49	928.54	—
		6/13/2016	2.94	928.09	—
		9/19/2016	4.21	926.82	—
		12/13/2016	2.85	928.18	—
MW-1	939.2	3/21/2016	12.10	927.10	—
		6/13/2016	12.50	926.70	—
		9/19/2016	13.20	926.00	—
		12/13/2016	NM <sup>3</sup>	NM	—
MW-10	938.34	3/21/2016	11.83	926.51	—
		6/13/2016	12.50	925.84	—
		9/19/2016	14.59	923.75	—
		12/13/2016	12.19	926.15	—
MW-11	939.2	3/21/2016	12.40	926.80	0.01
		6/13/2016	12.97	926.23	Light Trace
		9/19/2016	13.80	925.40	—
		12/13/2016	12.72	926.48	—
MW-13	936.49	3/21/2016	9.32	927.17	—
		6/13/2016	9.80	926.69	—
		9/19/2016	11.10	925.39	—
		12/13/2016	9.65	926.84	—
MW-14	936.8	3/21/2016	11.22	925.58	—
		6/13/2016	11.75	925.05	—
		9/19/2016	13.10	923.70	—
		12/13/2016	11.78	925.02	—
MW-15	933.32	3/21/2016	12.93	920.39	—
		6/13/2016	13.55	919.77	—
		9/19/2016	15.31	918.01	—
		12/13/2016	13.38	919.94	—

**Table 4**  
**2016 Groundwater Elevations and Product Thicknesses**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-043**

<b>Location</b>	<b>Top of Casing Elevation (feet NAVD88)<sup>1</sup></b>	<b>Monitoring Date</b>	<b>Depth to Water (feet)<sup>2</sup></b>	<b>Water Level Elevation (feet, NAVD88)<sup>1</sup></b>	<b>LNAPL Thickness (feet)</b>
MW-18	940.68	3/21/2016	13.83	926.85	—
		6/13/2016	14.45	926.23	—
		9/19/2016	15.51	925.17	—
		12/13/2016	14.21	926.47	—
MW-2	939.2	3/21/2016	11.54	927.66	—
		6/13/2016	12.01	927.19	—
		9/19/2016	20.91	918.29	—
		12/13/2016	NM <sup>3</sup>	NM	—
MW-3	938.03	3/21/2016	8.14	929.89	—
		6/13/2016	10.03	928.00	—
		9/19/2016	11.10	926.93	—
		12/13/2016	8.40	929.63	—
MW-4	936.95	3/21/2016	8.57	928.38	—
		6/13/2016	9.28	927.67	—
		9/19/2016	10.69	926.26	—
		12/13/2016	8.95	928.00	—
MW-40	936.95	3/21/2016	11.79	925.16	—
		6/13/2016	12.17	924.78	—
		9/19/2016	12.52	924.43	—
		12/13/2016	12.00	924.95	—
MW-5	933.36	3/21/2016	7.25	926.11	—
		6/13/2016	7.76	925.60	—
		9/19/2016	9.02	924.34	—
		12/13/2016	NM <sup>3</sup>	NM	—
MW-7	936.89	3/21/2016	11.95	924.94	—
		6/13/2016	12.65	924.24	—
		9/19/2016	14.33	922.56	—
		12/13/2016	12.76	924.13	—

**Table 4**  
**2016 Groundwater Elevations and Product Thicknesses**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-043**

Location	Top of Casing Elevation (feet NAVD88) <sup>1</sup>	Monitoring Date	Depth to Water (feet) <sup>2</sup>	Water Level Elevation (feet, NAVD88) <sup>1</sup>	LNAPL Thickness (feet)
MW-9	937.53	3/21/2016	12.61	924.92	—
		6/13/2016	13.60	923.93	—
		9/19/2016	14.76	922.77	—
		12/13/2016	13.13	924.40	—
<b>Hydraulic Control and Containment System Monitoring Locations</b>					
EW-1	928.72	3/21/2016	9.93	918.79	—
		6/13/2016	9.88	918.84	—
		9/19/2016	10.80	917.92	—
		12/13/2016	10.07	918.65	—
EW-2A	936.2	3/21/2016	10.08	926.12	—
		6/13/2016	10.39	925.81	—
		9/19/2016	11.08	925.12	—
		12/13/2016	10.31	925.89	—
GW-1	928.24	3/21/2016	10.32	917.92	—
		6/13/2016	10.40	917.84	—
		9/19/2016	10.39	917.85	—
		12/13/2016	10.58	917.66	—
GW-2	930.29	3/21/2016	12.35	917.94	—
		6/13/2016	12.40	917.89	—
		9/19/2016	12.97	917.32	—
		12/13/2016	12.44	917.85	—
GW-3	935.82	3/21/2016	15.78	920.04	—
		6/13/2016	15.94	919.88	—
		9/19/2016	15.65	920.17	—
		12/13/2016	15.02	920.80	—
GW-4	934.68	3/21/2016	10.08	924.60	—
		6/13/2016	10.34	924.34	—
		9/19/2016	10.63	924.05	—
		12/13/2016	10.39	924.29	—
IW-01	933.49	9/19/2016	10.77	922.72	—

**Table 4**  
**2016 Groundwater Elevations and Product Thicknesses**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-043**

<b>Location</b>	<b>Top of Casing Elevation (feet NAVD88)<sup>1</sup></b>	<b>Monitoring Date</b>	<b>Depth to Water (feet)<sup>2</sup></b>	<b>Water Level Elevation (feet, NAVD88)<sup>1</sup></b>	<b>LNAPL Thickness (feet)</b>
PZ-1	935.38	3/21/2016	9.62	925.76	—
		6/13/2016	9.87	925.51	—
		9/19/2016	10.77	924.61	—
		12/13/2016	NM <sup>3</sup>	NM	—
PZ-2N	934.35	3/21/2016	11.68	922.67	—
		6/13/2016	11.87	922.48	—
		9/19/2016	13.85	920.50	—
		12/13/2016	NM <sup>3</sup>	NM	—
PZ-2S	934.94	3/21/2016	8.20	926.74	—
		6/13/2016	8.99	925.95	—
		9/19/2016	11.71	923.23	—
		12/13/2016	NM <sup>3</sup>	NM	—
PZ-3N	934.41	3/21/2016	13.94	920.47	—
		9/19/2016	13.98	920.43	—
		12/13/2016	NM <sup>3</sup>	NM	—
PZ-3S	934.45	3/21/2016	NM	NM	—
		9/19/2016	NM	NM	—
		12/13/2016	NM <sup>3</sup>	NM	—
PZ-4N	935.27	3/21/2016	NM <sup>4</sup>	NM	—
		6/13/2016	NM	NM	—
		9/19/2016	NM <sup>5</sup>	NM	—
		12/13/2016	NM <sup>3</sup>	NM	—
PZ-4S	935.31	3/21/2016	10.07	925.24	Light Trace
		6/13/2016	11.15	924.16	Heavy Trace
		9/19/2016	NM <sup>5</sup>	NM	—
		12/13/2016	NM <sup>3</sup>	NM	—



**Table 4**  
**2016 Groundwater Elevations and Product Thicknesses**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-043**

<b>Location</b>	<b>Top of Casing Elevation (feet NAVD88)<sup>1</sup></b>	<b>Monitoring Date</b>	<b>Depth to Water (feet)<sup>2</sup></b>	<b>Water Level Elevation (feet, NAVD88)<sup>1</sup></b>	<b>LNAPL Thickness (feet)</b>
PZ-5N	933.15	3/21/2016	15.18	917.97	—
		6/13/2016	15.26	917.89	—
		9/19/2016	NM <sup>5</sup>	NM	—
		12/13/2016	NM <sup>3</sup>	NM	—
PZ-5S	933.46	3/21/2016	8.79	924.67	0.34
		6/13/2016	10.10	923.36	0.51
		9/19/2016	11.80	921.66	0.40
		12/13/2016	NM <sup>3</sup>	NM	—
PZ-6N	931.17	3/21/2016	13.24	917.93	—
		6/13/2016	13.32	917.85	—
		9/19/2016	13.86	917.31	—
		12/13/2016	NM <sup>3</sup>	NM	—
PZ-6S	931.41	3/21/2016	7.17	924.24	Heavy Trace
		6/13/2016	7.76	923.65	Heavy Trace
		9/19/2016	10.90	920.51	Heavy Trace
		12/13/2016	NM <sup>3</sup>	NM	—
PZ-7N	930.37	3/21/2016	12.37	918.00	—
		6/13/2016	12.46	917.91	—
		9/19/2016	12.99	917.38	—
		12/13/2016	NM <sup>3</sup>	NM	—
PZ-7S	930.4	3/21/2016	7.13	923.27	—
		6/13/2016	7.71	922.69	—
		9/19/2016	9.37	921.03	—
		12/13/2016	NM <sup>3</sup>	NM	—
PZ-8	929.48	3/21/2016	9.47	920.01	—
		6/13/2016	9.50	919.98	—
		9/19/2016	11.82	917.66	—
		12/13/2016	NM <sup>3</sup>	NM	—

**Table 4**  
**2016 Groundwater Elevations and Product Thicknesses**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-043**

<b>Location</b>	<b>Top of Casing Elevation (feet NAVD88)<sup>1</sup></b>	<b>Monitoring Date</b>	<b>Depth to Water (feet)<sup>2</sup></b>	<b>Water Level Elevation (feet, NAVD88)<sup>1</sup></b>	<b>LNAPL Thickness (feet)</b>
RW-01	932.84	3/21/2016	8.64	924.20	—
		6/13/2016	9.30	923.54	—
		9/19/2016	10.01	922.83	—
		12/13/2016	NM <sup>3</sup>	NM	—
RW-02	933.84	3/21/2016	9.64	924.20	—
		6/13/2016	10.31	923.53	—
		9/19/2016	11.05	922.79	—
		12/13/2016	NM <sup>3</sup>	NM	—
RW-03	933.80	3/21/2016	9.60	924.20	Light Trace
		6/13/2016	10.26	923.54	—
		9/19/2016	10.98	922.82	—
		12/13/2016	NM <sup>3</sup>	NM	—
RW-04	931.86	3/21/2016	12.16	919.70	Heavy Trace
		6/13/2016	8.36	923.50	Heavy Trace
		9/19/2016	9.75	922.11	Heavy Trace
		12/13/2016	NM <sup>3</sup>	NM	—
RW-05	928.53	3/21/2016	10.03	918.50	0.1
		6/13/2016	10.02	918.51	Heavy Trace
		9/19/2016	11.20	917.33	Heavy Trace
		12/13/2016	10.45	918.08	Heavy Trace
RW-06	928.53	3/21/2016	9.83	918.70	Light Trace
		6/13/2016	10.10	918.43	Light Trace
		9/19/2016	11.18	917.35	Light Trace
		12/13/2016	10.27	918.26	—
RW-07	933.06	3/21/2016	8.06	925.00	Heavy Trace
		6/13/2016	9.25	923.81	Light Trace
		9/19/2016	10.40	922.66	0.5
		12/13/2016	8.41	924.65	Heavy Trace

**Table 4**  
**2016 Groundwater Elevations and Product Thicknesses**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-043**

<b>Location</b>	<b>Top of Casing Elevation (feet NAVD88)<sup>1</sup></b>	<b>Monitoring Date</b>	<b>Depth to Water (feet)<sup>2</sup></b>	<b>Water Level Elevation (feet, NAVD88)<sup>1</sup></b>	<b>LNAPL Thickness (feet)</b>
RW-08	931.85	3/21/2016	3.55	928.30	Heavy Trace
		6/13/2016	9.69	922.16	Heavy Trace
		9/19/2016	9.40	922.45	Heavy Trace
		12/13/2016	9.25	922.60	Heavy Trace
RW-09	933.96	3/21/2016	10.36	923.60	—
		6/13/2016	8.97	924.99	—
		9/19/2016	10.10	923.86	—
		12/13/2016	NM <sup>3</sup>	NM	—
CV	937.09	3/21/2016	13.05	924.04	—
		6/13/2016	13.60	923.49	—
		9/19/2016	17.35	919.74	—
		12/13/2016	NM <sup>3</sup>	NM	—
EV	934.31	3/21/2016	10.29	924.02	—
		6/13/2016	9.92	924.39	—
		9/19/2016	10.29	924.02	—
		12/13/2016	NM <sup>3</sup>	NM	—
FWV	930.76	3/21/2016	5.30	925.46	—
		6/13/2016	9.41	921.35	—
		9/19/2016	11.63	919.13	—
		12/13/2016	NM <sup>3</sup>	NM	—
WV	931.84	3/21/2016	13.41	918.43	Heavy Trace
		6/13/2016	13.31	918.53	Light Trace
		9/19/2016	14.46	917.38	—
		12/13/2016	NM <sup>3</sup>	NM	—
<b>Monitoring Wells Down-Gradient of the Hydraulic Control and Containment System</b>					
1B-W-23	936.25	3/21/2016	16.96	919.29	—
		6/13/2016	17.33	918.92	—
		9/19/2016	16.51	919.74	—
		12/13/2016	17.5	918.75	—

**Table 4**  
**2016 Groundwater Elevations and Product Thicknesses**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-043**

<b>Location</b>	<b>Top of Casing Elevation (feet NAVD88)<sup>1</sup></b>	<b>Monitoring Date</b>	<b>Depth to Water (feet)<sup>2</sup></b>	<b>Water Level Elevation (feet, NAVD88)<sup>1</sup></b>	<b>LNAPL Thickness (feet)</b>
2A-W-40	933.34	3/21/2016	12.01	921.33	—
		6/13/2016	12.31	921.03	—
		9/19/2016	12.72	920.62	—
		12/13/2016	12.20	921.14	—
2A-W-41	935.22	3/21/2016	17.25	917.97	—
		6/13/2016	17.35	917.87	—
		9/19/2016	17.76	917.46	—
		12/13/2016	17.51	917.71	—
2A-W-42	935.37	3/21/2016	13.10	922.27	—
		6/13/2016	13.24	922.13	—
		9/19/2016	13.57	921.80	—
		12/13/2016	13.20	922.17	—
5-W-43	926.18	3/21/2016	7.64	918.54	—
		6/13/2016	7.61	918.57	—
		9/19/2016	8.18	918.00	—
		12/13/2016	NM	NM	—
<b>Levee Zone Monitoring Wells</b>					
5-W-14	926.59	3/21/2016	9.24	917.35	—
		6/13/2016	9.35	917.24	—
		9/19/2016	9.95	916.64	—
		12/13/2016	9.59	917.00	—
5-W-15	925.15	3/21/2016	7.75	917.40	—
		6/13/2016	7.86	917.29	—
		9/19/2016	8.55	916.60	—
		12/13/2016	8.14	917.01	—
5-W-16	925.2	3/21/2016	8.00	917.20	—
		6/13/2016	8.10	917.10	—
		9/19/2016	8.73	916.47	—
		12/13/2016	8.34	916.86	—

**Table 4**  
**2016 Groundwater Elevations and Product Thicknesses**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-043**

Location	Top of Casing Elevation (feet NAVD88) <sup>1</sup>	Monitoring Date	Depth to Water (feet) <sup>2</sup>	Water Level Elevation (feet, NAVD88) <sup>1</sup>	LNAPL Thickness (feet)
5-W-17	924.6	3/21/2016	7.38	917.22	—
		6/13/2016	7.47	917.13	—
		9/19/2016	8.10	916.50	—
		12/13/2016	7.73	916.87	—
5-W-18	924.64	3/21/2016	7.44	917.20	—
		6/13/2016	7.55	917.09	—
		9/19/2016	8.20	916.44	—
		12/13/2016	7.78	916.86	—
5-W-19	924.35	3/21/2016	7.28	917.07	—
		6/13/2016	7.39	916.96	—
		9/19/2016	8.00	916.35	—
		12/13/2016	7.62	916.73	—
<b>Schoolyard Monitoring Wells</b>					
5-W-50	925.49	Well damaged during installation of sheet pile wall around school as part of the hot water flushing remediation system and is scheduled to be replaced in 2017.			
5-W-51	925.08	3/21/2016	7.71	917.37	Heavy Trace
		9/19/2016	8.48	916.60	Light Trace
5-W-54	924.58	3/21/2016	7.22	917.36	—
		9/19/2016	7.92	916.66	—
5-W-55	923.92	3/21/2016	6.70	917.22	—
		9/19/2016	7.35	916.57	—
5-W-56	924.76	3/21/2016	5.86	918.90	—
		9/19/2016	8.06	916.70	—
<b>Site-Wide Monitoring Wells</b>					
1A-W-4	929.07	3/21/2016	9.11	919.96	—
		6/13/2016	9.32	919.75	—
		9/19/2016	9.90	919.17	—
		12/13/2016	9.39	919.68	—
1B-W-2	935.81	3/21/2016	14.06	921.75	—
		9/19/2016	14.19	921.62	—

**Table 4**  
**2016 Groundwater Elevations and Product Thicknesses**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-043**

<b>Location</b>	<b>Top of Casing Elevation (feet NAVD88)<sup>1</sup></b>	<b>Monitoring Date</b>	<b>Depth to Water (feet)<sup>2</sup></b>	<b>Water Level Elevation (feet, NAVD88)<sup>1</sup></b>	<b>LNAPL Thickness (feet)</b>
1C-W-1	936.44	3/21/2016	13.80	922.64	—
		6/13/2016	13.84	922.60	—
		9/19/2016	14.21	922.23	—
		12/13/2016	13.81	922.63	—
1C-W-3	933.56	3/21/2016	10.65	922.91	—
		9/19/2016	11.41	922.15	—
1C-W-4	932.74	3/21/2016	10.45	922.29	—
		9/19/2016	10.91	921.83	—
2A-W-8	942.62	3/21/2016	14.43	928.19	—
		6/13/2016	14.95	927.67	—
		9/19/2016	15.93	926.69	—
		12/13/2016	NM <sup>3</sup>	NM	—
MW-16	933.32	3/21/2016	13.02	920.30	—
		6/13/2016	12.72	920.60	—
		9/19/2016	13.61	919.71	—
		12/13/2016	NM <sup>3</sup>	NM	—
MW-32	926.06	3/21/2016	9.07	916.99	—
		6/13/2016	9.09	916.97	—
		9/19/2016	11.65	914.41	—
		12/13/2016	NM <sup>3</sup>	NM	—
MW-38R	922.56	3/21/2016	4.63	917.93	—
		6/13/2016	NM	NM	—
		9/19/2016	5.23	917.33	—
		12/13/2016	NM <sup>3</sup>	NM	—
MW-47	932.61	3/21/2016	8.01	924.60	—
		6/13/2016	8.51	924.10	—
		9/19/2016	10.29	922.32	—
		12/13/2016	NM <sup>3</sup>	NM	—

**Table 4**  
**2016 Groundwater Elevations and Product Thicknesses**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-043**

<b>Location</b>	<b>Top of Casing Elevation (feet NAVD88)<sup>1</sup></b>	<b>Monitoring Date</b>	<b>Depth to Water (feet)<sup>2</sup></b>	<b>Water Level Elevation (feet, NAVD88)<sup>1</sup></b>	<b>LNAPL Thickness (feet)</b>
MW-48	933.9	3/21/2016	9.58	924.32	—
		6/13/2016	10.12	923.78	—
		9/19/2016	12.10	921.80	—
		12/13/2016	NM <sup>3</sup>	NM	—
MW-49	933.14	3/21/2016	10.69	922.45	—
		6/13/2016	10.94	922.20	—
		9/19/2016	12.64	920.50	—
		12/13/2016	NM <sup>3</sup>	NM	—
<b>Surface Water Monitoring Station</b>					
Skykomish River Bridge	943.09	3/21/2016	24.42	918.67	—
		6/13/2016	24.47	918.62	—
		9/19/2016	25.30	917.79	—
		12/13/2016	24.8	918.29	—

**NOTES:**

— denotes light nonaqueous-phase liquid (LNAPL) was not present.

NM = not measured

<sup>1</sup> In feet North American Vertical Datum of 1988 (NAVD88).

<sup>2</sup> In feet below top of well casing.

<sup>3</sup> Water level not measurable due to heavy snow cover over well.

<sup>4</sup> Water level not measurable due to damaged well cover.

<sup>5</sup> Water level not measurable due to filling of well by silt.



**Table 5**  
**2016 Stabilized Groundwater Field Parameter Measurements**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-063**

Sample Location	Sample Date	Sample Identification	Dissolved Oxygen (milligrams per liter)	Oxidation Reduction Potential (millivolts)	pH (Standard pH Units)	Specific Conductivity (mS/cm)	Temperature (degrees Celsius)
<b>Air Sparging System Monitoring Wells</b>							
1B-W-3	3/24/2016	1B-W-3-032416	2.94	97.2	6.49	0.145	7.23
	6/15/2016	1B-W-3-061516	2.54	-30.5	6.93	0.097	8.93
	9/20/2016	1B-W-3-092016	1.71	114.2	6.14	0.115	11.4
	12/14/2016	1B-W-3-121416	0.92	76.7	6.45	0.1427	8.2
1C-W-7	3/23/2016	1C-W-7-032316	5.60	255.6	5.32	0.078	7.12
	6/14/2016	1C-W-7-061416	3.54	58.7	7.01	0.067	8.27
	9/20/2016	1C-W-7-092016	1.83	181.8	5.69	0.100	11.7
	12/14/2016	1C-W-7-121416	2.31	188.0	6.02	0.0901	8.0
1C-W-8	3/23/2016	1C-W-8-032316	8.24	274.5	5.08	0.074	7.01
	6/14/2016	1C-W-8-061416	4.95	203.0	6.07	0.061	8.54
	9/20/2016	1C-W-8-092016	4.08	136.9	5.80	0.116	11.3
	12/14/2016	1C-W-8-121416	3.85	187.0	6.03	0.0851	8.4
<b>Former Maloney Creek Zone - East Wetland and Surrounding Area Monitoring Wells</b>							
2A-W-10	3/22/2016	2A-W-10-032216	11.92	-234.0	5.66	0.063	6.28
	6/15/2016	2A-W-10-061516	0.85	221.8	6.02	0.048	8.73
	9/20/2016	2A-W-10-092016	0.23	144.8	5.66	0.1294	12.0
	12/15/2016	2A-W-10-121516	0.64	124.7	5.85	0.063	7.5
2A-W-9	3/22/2016	2A-W-9-032216	0.16	-416.3	5.73	0.078	6.29
	6/15/2016	2A-W-9-061516	0.65	130.5	6.17	0.055	9.31
	9/20/2016	2A-W-9-092016	0.63	105.7	5.93	0.1044	12.1
	12/15/2016	2A-W-9-121516	0.05	48.8	6.06	0.064	8.4
2B-W-4	3/22/2016	2B-W-4-032216	4.96	-128.6	5.70	0.05	5.46
	6/15/2016	2B-W-4-061516	3.44	239.7	6.24	0.041	8.82
	9/21/2016	2B-W-4-092116	2.59	147.2	5.96	0.0974	13.4
	12/14/2016	2B-W-4-121416	2.73	167.6	6.14	0.0537	8.8
MW-3	3/22/2016	MW-3-032216	3.97	-122.3	5.12	0.043	6.37
	6/14/2016	MW-3-061416	1.36	37.7	6.31	0.042	7.43
	9/20/2016	MW-3-092016	0.24	106.9	5.63	0.0897	10.7
	12/15/2016	MW-3-121516	1.69	165.3	5.73	0.063	9.2
MW-4	3/22/2016	MW-4-032216	0.24	-320.8	5.45	0.062	6.45
	6/14/2016	MW-4-061416	1.15	49.0	6.37	0.057	9.50
	9/20/2016	MW-4-092016	0.45	132.8	5.49	0.1169	12.3
	12/15/2016	MW-4-121516	0.14	157.7	5.76	0.073	7.4

**Table 5**  
**2016 Stabilized Groundwater Field Parameter Measurements**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-063**

Sample Location	Sample Date	Sample Identification	Dissolved Oxygen (milligrams per liter)	Oxidation Reduction Potential (millivolts)	pH (Standard pH Units)	Specific Conductivity (mS/cm)	Temperature (degrees Celsius)
<b>Hydraulic Control and Containment System Monitoring Wells</b>							
EW-1	3/23/2016	EW-1-032316	3.72	89.7	5.42	0.081	6.80
	6/15/2016	EW-1-061516	1.87	20.1	6.82	0.064	7.80
	9/21/2016	EW-1-092116	0.48	202.1	6.04	0.067	10.1
	12/14/2016	EW-1-121416	0.52	169.9	5.98	0.089	9.9
EW-2A	3/23/2016	EW-2A-032316	6.05	291.0	4.51	0.053	6.04
	6/14/2016	EW-2A-061416	5.87	77.7	7.03	0.047	7.73
	9/20/2016	EW-2A-092016	4.18	213.0	5.69	0.066	9.6
	12/14/2016	EW-2A-121416	3.96	184.6	5.94	0.0645	5.9
GW-1	3/22/2016	GW-1-032216	2.26	-40.0	6.22	0.124	8.10
	6/15/2016	GW-1-061516	1.33	220.0	6.03	0.104	11.48
	9/21/2016	GW-1-092116	0.40	150.0	5.89	0.103	12.1
	12/14/2016	GW-1-121416	0.65	157.0	6.15	0.119	9.1
GW-2	3/22/2016	GW-2-032216	1.37	-65.0	6.10	0.096	8.36
	6/15/2016	GW-2-061516	0.94	-12.9	7.01	0.081	8.98
	9/21/2016	GW-2-092116	0.41	63.5	5.99	0.124	11.8
	12/14/2016	GW-2-121416	0.31	112.9	6.11	0.108	9.3
GW-3	3/22/2016	GW-3-032216	7.30	106.1	5.54	0.092	7.64
	6/15/2016	GW-3-061516	2.58	283.0	5.27	0.092	13.69
	9/20/2016	GW-3-092016	0.65	160.4	5.84	0.068	11.2
	12/15/2016	GW-3-121516	5.10	144.7	5.92	0.101	9.2
GW-4	3/23/2016	GW-4-032316	6.50	2.9	6.50	0.112	6.81
	6/14/2016	GW-4-061416	3.74	59.1	7.07	0.063	7.83
	9/20/2016	GW-4-092016	3.52	254.2	5.97	0.139	10.0
	12/15/2016	GW-4-121516	1.99	30.5	6.30	0.1009	8.2
<b>Monitoring Wells Down-Gradient of the Hydraulic Control and Containment System</b>							
1B-W-23	3/24/2016	1B-W-23-032416	7.80	-24.8	6.27	0.079	6.50
	6/15/2016	1B-W-23-061516	9.73	33.7	6.81	0.074	15.27
	9/20/2016	1B-W-23-092016	6.71	252.8	5.71	0.076	16.7
	12/15/2016	1B-W-23-121516	9.04	206.4	6.24	0.0948	8.5
2A-W-40	3/24/2016	2A-W-40-032416	8.11	197.2	5.64	0.053	6.63
	6/15/2016	2A-W-40-061516	7.06	198.8	6.77	0.047	9.25
	9/21/2016	2A-W-40-092116	5.70	215.1	6.41	0.058	10.3
	12/15/2016	2A-W-40-121516	6.02	169.0	6.57	0.0618	9.0

**Table 5**  
**2016 Stabilized Groundwater Field Parameter Measurements**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-063**

Sample Location	Sample Date	Sample Identification	Dissolved Oxygen (milligrams per liter)	Oxidation Reduction Potential (millivolts)	pH (Standard pH Units)	Specific Conductivity (mS/cm)	Temperature (degrees Celsius)
2A-W-41	3/24/2016	2A-W-41-032416	9.46	89.9	5.84	0.093	7.27
	6/15/2016	2A-W-41-061516	7.64	19.8	7.02	0.096	10.06
	9/20/2016	2A-W-41-092016	3.76	44.2	6.10	0.177	11.2
	12/15/2016	2A-W-41-121516	4.57	62.4	6.24	0.127	8.6
2A-W-42	3/23/2016	2A-W-42-032316	2.17	-26.3	5.56	0.134	8.13
	6/15/2016	2A-W-42-061516	1.63	250.0	5.64	0.117	14.69
	9/20/2016	2A-W-42-092016	1.82	163.4	5.87	0.157	10.9
	12/15/2016	2A-W-42-121516	1.32	130.8	6.10	0.1465	7.7
5-W-43	3/23/2016	5-W-43-032316	1.72	-42.2	5.85	0.08	6.32
	6/15/2016	5-W-43-061516	2.67	24.0	6.84	0.065	7.90
	9/21/2016	5-W-43-092116	0.86	223.6	5.92	0.073	10.8
	12/14/2016	5-W-43-121416	0.39	207.8	6.00	0.088	9.9
<b>Levee Zone Monitoring Wells</b>							
5-W-14	3/24/2016	5-W-14-032416	10.64	-23.4	6.30	0.083	7.32
	6/14/2016	5-W-14-061416	6.85	62.8	7.25	0.048	8.66
	9/22/2016	5-W-14-092216	5.11	148.9	6.56	0.0814	9.1
	12/14/2016	5-W-14-121416	4.37	221.4	6.47	0.079	7.1
5-W-15	3/24/2016	5-W-15-032416	10.34	-79.3	6.73	0.101	7.41
	6/14/2016	5-W-15-061416	0.63	-11.2	7.04	0.092	10.18
	9/21/2016	5-W-15-092116	0.03	-55.3	6.82	0.099	10.8
	12/14/2016	5-W-15-121416	0.18	-38.3	6.82	0.094	8.7
5-W-16	3/23/2016	5-W-16-032316	6.16	-122.8	6.63	0.085	6.48
	6/14/2016	5-W-16-061416	8.09	37.6	7.07	0.048	10.80
	9/22/2016	5-W-16-092216	6.44	192.5	6.57	0.079	11.2
	12/14/2016	5-W-16-121416	7.46	191.2	6.85	0.101	5.1
5-W-17	3/23/2016	5-W-17-032316	11.39	-135.2	6.30	0.088	7.91
	6/14/2016	5-W-17-061416	5.22	245.8	6.52	0.074	12.28
	9/22/2016	5-W-17-092216	4.49	215.1	6.35	0.075	8.6
	12/14/2016	5-W-17-121416	4.44	158.9	6.37	0.076	6.9
5-W-18	3/23/2016	5-W-18-032316	11.36	-217.2	6.40	0.125	7.55
	6/14/2016	5-W-18-061416	1.57	250.2	6.67	0.114	9.79
	9/22/2016	5-W-18-092216	1.53	141.1	6.27	0.125	10.2
	12/14/2016	5-W-18-121416	1.61	151.4	6.47	0.133	8.2

**Table 5**  
**2016 Stabilized Groundwater Field Parameter Measurements**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-063**

Sample Location	Sample Date	Sample Identification	Dissolved Oxygen (milligrams per liter)	Oxidation Reduction Potential (millivolts)	pH (Standard pH Units)	Specific Conductivity (mS/cm)	Temperature (degrees Celsius)
5-W-19	3/23/2016	5-W-19-032316	12.14	-151.3	6.39	0.09	7.14
	6/14/2016	5-W-19-061416	6.95	71.2	7.06	0.074	8.49
	9/22/2016	5-W-19-092216	5.15	135.6	6.28	0.072	9.2
	12/14/2016	5-W-19-121416	4.52	224.2	6.51	0.068	6.9
<b>Schoolyard Monitoring Wells</b>							
5-W-51	3/23/2016	5-W-51-032316	9.45	-241.9	6.56	0.213	7.79
	9/21/2016	5-W-51-092116	0.16	-60.2	6.02	0.226	21.7
5-W-54	3/23/2016	5-W-54-032316	2.64	-139.9	6.42	0.203	7.31
	9/21/2016	5-W-54-092116	0.2	43.4	6.00	0.276	26.6
5-W-55	3/23/2016	5-W-55-032316	0.57	-75.5	6.27	0.327	8.54
	9/21/2016	5-W-55-092116	2.93	189.6	5.92	0.286	25.9
5-W-56	3/23/2016	5-W-56-032316	1.28	-190.3	6.56	0.993	11.06
	9/21/2016	5-W-56-092116	0.82	61.8	6.13	0.45	24.9
<b>Site-Wide Monitoring Wells</b>							
1A-W-4	3/24/2016	1A-W-4-032416	8.23	-38.7	6.16	0.089	7.40
	9/22/2016	1A-W-4-092216	7.67	139.3	6.63	0.0808	8.9
1B-W-2	3/24/2016	1B-W-2-032416	4.76	-8.7	5.49	0.114	7.45
	9/20/2016	1B-W-2-092016	5.45	228.3	5.44	0.244	14.3
1C-W-1	3/23/2016	1C-W-1-032316	6.78	-8.0	5.46	0.065	6.95
	6/14/2016	1C-W-1-061416	5.48	190.2	6.05	0.054	9.21
	9/20/2016	1C-W-1-092016	5.57	218.4	5.53	0.075	12.4
	12/14/2016	1C-W-1-121416	3.80	169.7	5.99	0.073	8.8
1C-W-3	3/23/2016	1C-W-3-032316	9.58	220.2	5.77	0.077	6.84
	9/20/2016	1C-W-3-092016	5.43	240.4	5.94	0.08	11.6
1C-W-4	3/23/2016	1C-W-4-032316	5.05	-30.9	5.74	0.076	7.19
	9/20/2016	1C-W-4-092016	5.47	254.4	5.61	0.073	10.6
MW-16	3/23/2016	MW-16-032316	11.94	-120.0	5.39	0.06	6.34
	9/21/2016	MW-16-092116	1.87	160.0	5.85	0.0788	12.2
MW-38R	3/24/2016	MW-38R-032416	0.26	-164.0	5.87	0.097	8.05
	9/20/2016	MW-38R-092016	2.99	96.4	6.85	0.1079	11.0

**NOTES:**

IE = instrument error, no value reported

mS/cm = milliSiemens per centimeter

NM = not measured

NTU = nephelometric turbidity units

**Table 6**  
**2016 Calculated Total Petroleum Hydrocarbon Concentrations in Groundwater**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-063**

Sample Location	Sample Date	DRO (micrograms per liter) <sup>1</sup>			ORO (micrograms per liter) <sup>1</sup>			Calculated NWTPH-Dx <sup>2</sup> (µg/l)
		Result	MDL	MRL	Result	MDL	MRL	
<b>Air Sparge Area Monitoring Wells</b>								
1B-W-3	3/24/2016	26	14	24	22 J	9.3	47	48
	6/15/2016	< 27 UJ	27	27	19 J	9.4	48	32.5
	9/20/2016	24	14	24	24 J	9.3	47	48
	12/14/2016	43	14	24	36 J	9.3	47	79
1C-W-7	3/23/2016	69	14	24	47	9.3	47	116
	6/14/2016	49 J	14	24	27 J	9.2	47	76
	9/20/2016	43	14	24	27 J	9.4	48	70
	12/14/2016	63	14	24	51	9.2	47	114
1C-W-8	3/23/2016	46	14	24	35 J	9.3	47	81
	6/14/2016	42 J	14	24	25 J	9.3	47	67
	9/20/2016	120	14	24	54	9.3	47	174
	12/14/2016	52	14	24	44 J	9.3	47	96
<b>Former Maloney Creek Zone - East Wetland and Surrounding Area Monitoring Wells</b>								
2A-W-10	3/22/2016	80	14	24	170	9.4	48	250
	6/15/2016	< 71 UJ	71	71	120 J	9.3	47	155.5
	9/20/2016	110	14	24	170	9.3	47	280
	12/15/2016	100	14	24	260	9.3	47	360
2A-W-9	3/22/2016	540	14	24	400 J	9.3	48	<b>940</b>
	6/15/2016	150 J	14	24	99 J	9.3	47	249
	9/20/2016	270	14	24	130	9.3	47	400
	12/15/2016	520	14	24	190	9.3	47	<b>710</b>
2B-W-4	3/22/2016	15 J	14	24	< 17 UJ	17	17	23.5
	6/15/2016	< 24 UJ	14	24	< 47 UJ	9.3	47	< 11.65
	9/21/2016	15 J	14	24	11 J	9.3	47	26
	12/14/2016	< 24	14	24	< 47	9.3	47	< 11.65

**Table 6**  
**2016 Calculated Total Petroleum Hydrocarbon Concentrations in Groundwater**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-063**

Sample Location	Sample Date	DRO (micrograms per liter) <sup>1</sup>			ORO (micrograms per liter) <sup>1</sup>			Calculated NWTPH-Dx <sup>2</sup> (µg/l)
		Result	MDL	MRL	Result	MDL	MRL	
MW-3	3/22/2016	30	14	24	43 J	9.4	48	73
	6/14/2016	28 J	14	24	41 J	9.3	47	69
	9/20/2016	33	14	24	44 J	9.3	47	77
	12/15/2016	28	14	24	50	9.3	47	78
MW-4	3/22/2016	47	14	24	70	9.3	47	117
	6/14/2016	63 J	14	24	41 J	9.3	47	104
	9/20/2016	170	14	24	170	9.3	47	340
	12/15/2016	62	14	24	90	9.3	47	152
<b>Hydraulic Control and Containment System Monitoring Wells</b>								
EW-1	3/23/2016	37	14	24	44 J	9.3	47	81
	6/15/2016	< 39 UJ	39	39	30 J	9.3	47	49.5
	9/21/2016	36	14	24	< 40 UJ	40	40	56
	12/14/2016	34	14	24	46 J	9.3	47	80
EW-2A	3/23/2016	18 J	14	24	20 J	9.3	47	38
	6/14/2016	22 J	14	24	12 J	9.3	47	34
	9/20/2016	35	14	24	25 J	9.3	47	60
	12/14/2016	16 J	14	24	22 J	9.3	48	38
GW-1	3/22/2016	35	14	24	40 J	9.3	47	75
	6/15/2016	< 36 UJ	36	36	31 J	9.3	47	49
	9/21/2016	76	14	24	230 J	9.4	48	306
	12/14/2016	27	14	24	47	9.3	47	74
GW-2	3/22/2016	150	14	24	66	9.3	47	216
	6/15/2016	120 J	14	24	40 J	9.3	47	160
	9/21/2016	26	14	24	< 17 UJ	17	17	34.5
	12/14/2016	< 24	14	24	< 48	9.4	48	< 11.7

**Table 6**  
**2016 Calculated Total Petroleum Hydrocarbon Concentrations in Groundwater**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-063**

Sample Location	Sample Date	DRO (micrograms per liter) <sup>1</sup>			ORO (micrograms per liter) <sup>1</sup>			Calculated NWTPH-Dx <sup>2</sup> (µg/l)
		Result	MDL	MRL	Result	MDL	MRL	
GW-3	3/22/2016	210	14	24	100 J	9.3	47	310
	6/15/2016	< 67 UJ	67	67	30 J	9.3	47	63.5
	9/20/2016	92	14	24	49	9.2	47	141
	12/15/2016	320	14	24	130	9.4	48	450
GW-4	3/23/2016	31	14	24	31 J	9.3	47	62
	6/14/2016	36 J	14	24	23 J	9.4	48	59
	9/20/2016	69	14	24	78	9.3	48	147
	12/15/2016	29	14	24	28 J	9.4	48	57
S1-AD	3/22/2016	< 24	14	24	< 47	9.3	47	< 11.65
	9/21/2016	< 24	14	24	10 J	9.3	47	17
S1-AU	3/22/2016	< 24	14	24	< 47	9.3	47	< 11.65
	9/21/2016	< 24	14	24	11 J	9.3	47	18
S1-BD	3/22/2016	22 J	14	24	19 J	9.3	47	41
	9/21/2016	17 J	14	24	12 J	9.4	48	29
S1-BU	3/22/2016	< 24	14	24	< 47	9.3	47	< 11.65
	9/21/2016	< 24	14	24	11 J	9.3	47	18
S2-AD	3/22/2016	< 24	14	24	< 47	9.3	47	< 11.65
	9/21/2016	16 J	14	24	13 J	9.3	47	29
S2-AU	3/22/2016	< 24	14	24	< 47	9.3	47	< 11.65
	9/21/2016	15 J	14	24	13 J	9.3	47	28
S2-BD	3/22/2016	< 24	14	24	< 47	9.3	47	< 11.65
	9/21/2016	< 24	14	24	11 J	9.3	47	18
S2-BU	3/22/2016	73	14	24	27 J	9.3	47	100
	9/21/2016	130	14	24	43 J	9.3	48	173
S3-AD	3/22/2016	< 24	14	24	< 48	9.3	48	< 11.65
	9/21/2016	17 J	14	24	< 48	9.3	48	21.65

**Table 6**  
**2016 Calculated Total Petroleum Hydrocarbon Concentrations in Groundwater**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-063**

Sample Location	Sample Date	DRO (micrograms per liter) <sup>1</sup>			ORO (micrograms per liter) <sup>1</sup>			Calculated NWTPH-Dx <sup>2</sup> (µg/l)
		Result	MDL	MRL	Result	MDL	MRL	
S3-AU	3/22/2016	42	14	24	< 21 UJ	21	21	52.5
	9/21/2016	17 J	14	24	< 48	9.4	48	21.7
S3-BD	3/22/2016	< 24	14	24	< 48	9.3	48	< 11.65
	9/21/2016	< 24	14	24	< 48	9.3	48	< 11.65
S3-BU	3/22/2016	< 24	14	24	< 47	9.3	47	< 11.65
	9/21/2016	< 24	14	24	9.3 J	9.3	47	16.3
S3-CD	3/22/2016	< 24	14	24	< 47	9.3	47	< 11.65
	9/21/2016	< 24	14	24	12 J	9.4	48	19
S3-CU	3/22/2016	< 24	14	24	< 47	9.3	47	< 11.65
	9/21/2016	< 24	14	24	12 J	9.3	47	19
S4-AD	3/21/2016	14 J	14	24	< 10 UJ	10	10	19
	9/21/2016	16 J	14	24	< 47	9.3	47	20.65
S4-AU	3/21/2016	14 J	14	24	< 10 UJ	10	10	19
	9/21/2016	35	14	24	23 J	9.3	47	58
S4-BD	3/21/2016	< 24	14	24	< 48	9.3	48	< 11.65
	9/21/2016	< 24	14	24	< 47	9.3	47	< 11.65
S4-BU	3/21/2016	14 J	14	24	< 47	9.3	47	18.65
	9/21/2016	15 J	14	24	11 J	9.3	47	26
S4-CD	3/21/2016	< 24	14	24	< 47	9.3	47	< 11.65
	9/21/2016	< 24	14	24	< 47	9.3	47	< 11.65
S4-CU	3/21/2016	27	14	24	< 11 UJ	11	11	32.5
	9/21/2016	15 J	14	24	9.4 J	9.3	48	24.4



**Table 6**  
**2016 Calculated Total Petroleum Hydrocarbon Concentrations in Groundwater**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-063**

Sample Location	Sample Date	DRO (micrograms per liter) <sup>1</sup>			ORO (micrograms per liter) <sup>1</sup>			Calculated NWTPH-Dx <sup>2</sup> (µg/l)
		Result	MDL	MRL	Result	MDL	MRL	
<b>Monitoring Wells Down-Gradient of the Hydraulic Control and Containment System</b>								
1B-W-23	3/24/2016	24	14	24	29 J	9.3	48	53
	6/15/2016	< 31 UJ	31	31	32 J	9.4	48	47.5
	9/20/2016	33	14	24	52	9.3	47	85
	12/15/2016	17 J	14	24	24 J	9.3	47	41
2A-W-40	3/24/2016	29	14	24	21 J	9.3	47	50
	6/15/2016	< 24 UJ	14	24	< 47 UJ	9.3	47	< 11.65
	9/21/2016	< 24	14	24	< 12 UJ	12	12	< 13
	12/15/2016	< 24	14	24	< 47	9.3	47	< 11.65
2A-W-41	3/24/2016	78	14	24	29 J	9.3	47	107
	6/15/2016	110 J	14	24	36 J	9.3	48	146
	9/20/2016	520	14	24	580	9.3	47	<b>1,100</b>
	12/15/2016	180	14	24	120	9.3	48	300
2A-W-42	3/23/2016	100	14	24	64	9.3	47	164
	6/15/2016	< 95 UJ	95	95	40 J	9.3	48	87.5
	9/20/2016	150	14	24	90	9.3	47	240
	12/15/2016	110	14	24	80	9.3	48	190
5-W-43	3/23/2016	39	14	24	47	9.3	47	86
	6/15/2016	< 25 UJ	25	25	20 J	9.3	48	32.5
	9/21/2016	27	14	24	< 62 UJ	62	62	58
	12/14/2016	28	14	24	52	9.5	48	80

**Table 6**  
**2016 Calculated Total Petroleum Hydrocarbon Concentrations in Groundwater**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-063**

Sample Location	Sample Date	DRO (micrograms per liter) <sup>1</sup>			ORO (micrograms per liter) <sup>1</sup>			Calculated NWTPH-Dx <sup>2</sup> (µg/l)
		Result	MDL	MRL	Result	MDL	MRL	
<b>Levee Zone Monitoring Wells</b>								
5-W-14	3/24/2016	14 J	14	24	19 J	9.4	48	33
	6/14/2016	20 J	14	24	11 J	9.3	47	31
	9/22/2016	< 24	14	24	< 47	9.3	47	< 11.65
	12/14/2016	< 24	14	24	< 48	9.5	48	< 11.75
5-W-15	3/24/2016	19 J	14	24	16 J	9.3	48	35
	6/14/2016	18 J	14	24	9.3 J	9.2	47	27.3
	9/21/2016	42	14	24	< 34 UJ	34	34	59
	12/14/2016	17 J	14	24	11 J	9.3	47	28
5-W-16	3/23/2016	15 J	14	24	14 J	9.4	48	29
	6/14/2016	15 J	14	24	12 J	9.3	48	27
	9/22/2016	< 24	14	24	11 J	9.2	47	18
	12/14/2016	< 24	14	24	< 48	9.3	48	< 11.65
5-W-17	3/23/2016	< 24	14	24	< 48	9.3	48	< 11.65
	6/14/2016	22 J	14	24	10 J	9.3	47	32
	9/22/2016	< 24	14	24	< 47	9.3	47	< 11.65
	12/14/2016	14 J	14	24	9.3 J	9.3	48	23.3
5-W-18	3/23/2016	61	14	24	57	9.4	48	118
	6/14/2016	76 J	14	24	63 J	9.3	47	139
	9/22/2016	66	14	24	54	9.3	47	120
	12/14/2016	58	14	24	61	9.3	47	119
5-W-19	3/23/2016	< 24	14	24	< 48	9.3	48	< 11.65
	6/14/2016	< 24 UJ	14	24	< 47 UJ	9.3	47	< 11.65
	9/22/2016	37	14	24	13 J	9.4	48	50
	12/14/2016	< 24	14	24	< 48	9.4	48	< 11.7

**Table 6**  
**2016 Calculated Total Petroleum Hydrocarbon Concentrations in Groundwater**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-063**

Sample Location	Sample Date	DRO (micrograms per liter) <sup>1</sup>			ORO (micrograms per liter) <sup>1</sup>			Calculated NWTPH-Dx <sup>2</sup> (µg/l)
		Result	MDL	MRL	Result	MDL	MRL	
<b>Schoolyard Monitoring Wells</b>								
5-W-51	3/23/2016	3,100	14	24	2,600	9.4	48	<b>5,700</b>
	9/21/2016	570	14	24	480 J	9.3	48	<b>1,050</b>
5-W-54	3/23/2016	35	14	24	54	9.4	48	89
	9/21/2016	76	14	24	< 75 UJ	75	75	113.5
5-W-55	3/23/2016	43	14	24	49	9.3	47	92
	9/21/2016	110	14	24	110 J	9.3	47	220
5-W-56	3/23/2016	4,300	14	24	2,600	9.3	47	<b>6,900</b>
	9/21/2016	350	14	24	460 J	9.3	47	<b>810</b>
<b>Site-Wide Monitoring Wells</b>								
1A-W-4	3/24/2016	16 J	14	24	14 J	9.3	47	30
	9/22/2016	18 J	14	24	< 47	9.3	47	22.65
1B-W-2	3/24/2016	29	14	24	34 J	9.3	47	63
	9/20/2016	75	14	24	71	9.3	48	146
1C-W-1	3/23/2016	26	14	24	26 J	9.3	47	52
	6/14/2016	26 J	14	24	15 J	9.3	47	41
	9/20/2016	33	14	24	27 J	9.3	48	60
	12/14/2016	22 J	14	24	28 J	9.3	47	50
1C-W-3	3/23/2016	16 J	14	24	14 J	9.3	47	30
	9/20/2016	15 J	14	24	16 J	9.3	48	31
1C-W-4	3/23/2016	84	14	24	51	9.3	47	135
	9/20/2016	50	14	24	32 J	9.3	48	82

**Table 6**  
**2016 Calculated Total Petroleum Hydrocarbon Concentrations in Groundwater**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-063**

Sample Location	Sample Date	DRO (micrograms per liter) <sup>1</sup>			ORO (micrograms per liter) <sup>1</sup>			Calculated NWTPH-Dx <sup>2</sup> (µg/l)
		Result	MDL	MRL	Result	MDL	MRL	
MW-16	3/23/2016	14 J	14	24	22 J	9.3	48	36
	9/21/2016	87	14	24	490 J	9.3	47	<b>577</b>
MW-38R	3/24/2016	51	14	24	44 J	9.4	48	95
	9/20/2016	87	14	24	120	9.3	47	207

**NOTES:**

**Bold** denotes concentration exceeds 208 µg/l NWTPH-Dx cleanup level (Levee Zone) or exceeds 477 µg/l TPH remediation level (all zones except Levee Zone).

< denotes analyte not detected at or exceeding the laboratory method detection limit listed.

<sup>1</sup>Analyzed by Northwest Method NWTPH-Dx

<sup>2</sup>The total NWTPH-Dx calculation uses one-half the MDL for non-detectable concentrations to derive the sum of the DRO and ORO results obtained using the NWTPH-Dx analytical method. If either the DRO or the ORO concentration was reported as a detect, then the calculated total NWTPH-Dx concentration is indicated as a detect. If both DRO and ORO concentrations were reported as non-detects, then the calculated total NWTPH-Dx concentration is indicated as a non-detect. Note that in some instances, data validation resulted in additional data qualification and/or updates to laboratory data. If, for example, data validation caused an update to a non-detect result value because of lab blank contamination and the data validator concluded that the result should be non-detect instead of detect, the laboratory-given method detection limit and reporting limit were updated to match the validated non-detect result value.

DRO = total petroleum hydrocarbons as diesel-range organics

J = The analyte was positively identified. The associated numerical value is the approximate concentration of the analyte in the sample.

< UJ = The material was analyzed for but not detected. The associated value is an estimate and may be inaccurate or imprecise.

MDL = laboratory-specified method detection limit

µg/l = micrograms per liter

MRL = laboratory-specified method reporting limit

ORO = total petroleum hydrocarbons as oil-range organics

**APPENDIX A  
RESPONSE TO COMMENTS**

2016 SITE-WIDE GROUNDWATER MONITORING REPORT  
BNSF Former Maintenance and Fueling Facility  
Skykomish, Washington  
Consent Decree No. 07-2-33672-9 SEA

Farallon PN: 683-063

**RESPONSE TO COMMENTS  
2016 SITE-WIDE GROUNDWATER MONITORING REPORT  
FARALLON PN: 683-063**

<p style="text-align: center;"><b>2016 Site-Wide Groundwater Monitoring Report, DRAFT—Issued for Ecology Review March 2017</b></p>	<p style="text-align: center;"><b>Ecology Comment</b></p>	<p style="text-align: center;"><b>BNSF Response</b></p>
<p><b>Table of Contents, page ii</b></p>	<p>Revise or add section to address the following:  Revise the list of Appendices to add the final Response to Comments matrix.</p>	<p>The Table of Contents, page ii, has been revised to include a new appendix, designated Appendix A, Response to Comments, and the remaining three appendices have been renamed Appendices B through D and the in-text references revised accordingly.</p>
<p><b>Executive Summary, page iv</b></p> <p><i>The HCC system is effectively preventing LNAPL and groundwater with concentrations exceeding the RL from passing through the HCC system barrier gates.</i></p>	<p>This is true, but please revise to also make clear that the system is not operating as designed and will undergo optimization in 2017.</p>	<p>The following text has been added at the end of the last paragraph of the Executive Summary of the document and to the end of Section 5, Conclusions:</p> <p><i>However, the original HCC system operational objective of creating a hydraulic gradient reversal across the gates has not been achieved due to the prior placement of imported coarse aggregate fill material within the HCC system barrier wall recovery trench and in the remedial excavation areas north of the barrier wall. This fill material was placed following completion of the HCC system design and exhibits a substantially greater hydraulic conductivity than the native material that was removed during prior cleanup actions. BNSF will continue to pursue HCC system optimization efforts during 2017.</i></p>
<p><b>Figure 1, Site Plan Showing 2016 Groundwater Monitoring Network</b></p>	<p>Revise delineation of “Former Maloney Creek Zone Wells”. This area should be limited to the following five wells.</p> <p>2A-W-9, 2A-W-10, 2B-W-4, MW-3, and MW-4</p>	<p>Figure 1 has been revised to limit the area delineated as “Former Maloney Creek Zone Wells” to the five wells identified in Ecology’s comment.</p>

**APPENDIX B**  
**LABORATORY ANALYTICAL REPORTS**  
**(PROVIDED ON COMPACT DISC IN PRINTED REPORT)**

2016 SITE-WIDE GROUNDWATER MONITORING REPORT  
BNSF Former Maintenance and Fueling Facility  
Skykomish, Washington  
Consent Decree No. 07-2-33672-9 SEA

Farallon PN: 683-063

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Seattle  
5755 8th Street East  
Tacoma, WA 98424  
Tel: (253)922-2310

TestAmerica Job ID: 580-58301-1

Client Project/Site: BNSF Skykomish Ground Water  
Sampling Event: Skykomish HCC System

For:

Farallon Consulting LLC  
975 5th Avenue NW  
Suite 100  
Issaquah, Washington 98027

Attn: Gerald Portele



Authorized for release by:  
4/5/2016 1:12:29 PM

Robert Greer, Project Manager II  
(253)922-2310  
[robert.greer@testamericainc.com](mailto:robert.greer@testamericainc.com)

Designee for

Kristine Allen, Manager of Project Management  
(253)248-4970  
[kristine.allen@testamericainc.com](mailto:kristine.allen@testamericainc.com)

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*



### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



Visit us at:  
[www.testamericainc.com](http://www.testamericainc.com)

1

2

3

4

5

6

7

8

9

10

11





# Table of Contents

Cover Page . . . . .	1
Table of Contents . . . . .	2
Case Narrative . . . . .	3
Definitions . . . . .	4
Client Sample Results . . . . .	5
QC Sample Results . . . . .	67
Chronicle . . . . .	70
Certification Summary . . . . .	81
Sample Summary . . . . .	82
Chain of Custody . . . . .	84
Receipt Checklists . . . . .	89

# Case Narrative

Client: Farallon Consulting LLC  
Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

**Job ID: 580-58301-1**

**Laboratory: TestAmerica Seattle**

## Narrative

### Job Narrative 580-58301-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 3/25/2016 2:40 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 13 coolers at receipt time were -4.0° C, -0.2° C, 0.3° C, 0.5° C, 0.6° C, 0.7° C, 0.7° C, 0.9° C, 0.9° C, 1.1° C, 1.8° C, 1.9° C and 1.9° C.

#### GC Semi VOA

Method(s) NWTPH-Dx: Motor oil was detected in the method blank MB 580-213852/1-A greater than the method detection limit but less than the reporting limit.

Method(s) NWTPH-Dx: The following samples contained a hydrocarbon pattern in the diesel range; however, the elution pattern was later than the typical diesel fuel pattern used by the laboratory for quantitative purposes: GW-3-032216 (580-58301-12), GW-30-032216 (580-58301-13), 2A-W-9-032216 (580-58301-16) and 2A-W-90-032216 (580-58301-17).

Method(s) NWTPH-Dx: The (CCVRT 580-213953/3) recovered outside acceptance criteria, low biased, for surrogate o-Terphenyl. Since the %Rec is within the acceptance criteria (50-150%) for the surrogate in the CCV and associated samples, the data have been reported.

Method(s) NWTPH-Dx: The following samples contained a hydrocarbon pattern in the diesel range; however, the elution pattern was later than the typical diesel fuel pattern used by the laboratory for quantitative purposes: S2-BU-032216 (580-58301-19), GW-2-032216 (580-58301-22), GW-20-032216 (580-58301-23), 2A-W-10-032216 (580-58301-24), MW-4-032216 (580-58301-25), GW-1-032216 (580-58301-30), GW-10-032216 (580-58301-31), MW-3-032216 (580-58301-32), MW-16-032316 (580-58301-33) and 1C-W-7-032316 (580-58301-37).

Method(s) NWTPH-Dx: The following samples contained a hydrocarbon pattern in the diesel range; however, the elution pattern was later than the typical diesel fuel pattern used by the laboratory for quantitative purposes: 2A-W-42-032316 (580-58301-38), 5-W-18-032316 (580-58301-39), 1C-W-1-032316 (580-58301-40), 1C-W-8-032316 (580-58301-41), 1C-W-80-032316 (580-58301-42), 1C-W-4-032316 (580-58301-45), 5-W-55-032316 (580-58301-48), 5-W-54-032316 (580-58301-50), 5-W-43-032316 (580-58301-51), EW-1-032316 (580-58301-52), MW-38R-032416 (580-58301-56), 1B-W-23-032416 (580-58301-57), 1B-W-2-032416 (580-58301-60) and 1B-W-3-032416 (580-58301-62).

Method(s) NWTPH-Dx: The peak profile present in this sample 5-W-56-032316 (580-58301-49) is atypical of a hydrocarbon pattern and consists of discrete peaks

Method(s) NWTPH-Dx: The %D for C10-C24 deviated by 0.1% from its limit of 15%.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

# Definitions/Glossary

Client: Farallon Consulting LLC  
Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

## Qualifiers

### GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

**Client Sample ID: S4-CD-032116**

**Lab Sample ID: 580-58301-1**

**Date Collected: 03/21/16 15:45**

**Matrix: Water**

**Date Received: 03/25/16 14:40**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.024	0.014	mg/L		03/29/16 09:44	03/30/16 22:47	1
Motor Oil (>C24-C36)	ND		0.047	0.0093	mg/L		03/29/16 09:44	03/30/16 22:47	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	88		50 - 150				03/29/16 09:44	03/30/16 22:47	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

**Client Sample ID: S4-CU-032116**

**Lab Sample ID: 580-58301-2**

**Date Collected: 03/21/16 15:50**

**Matrix: Water**

**Date Received: 03/25/16 14:40**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.027		0.024	0.014	mg/L		03/29/16 09:44	03/30/16 23:28	1
Motor Oil (>C24-C36)	0.011	J B	0.047	0.0093	mg/L		03/29/16 09:44	03/30/16 23:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	89		50 - 150				03/29/16 09:44	03/30/16 23:28	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

**Client Sample ID: S4-BD-032116**

**Lab Sample ID: 580-58301-3**

**Date Collected: 03/21/16 16:20**

**Matrix: Water**

**Date Received: 03/25/16 14:40**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.024	0.014	mg/L		03/29/16 09:44	03/30/16 23:49	1
Motor Oil (>C24-C36)	ND		0.048	0.0093	mg/L		03/29/16 09:44	03/30/16 23:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	92		50 - 150				03/29/16 09:44	03/30/16 23:49	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

**Client Sample ID: S4-AV-032116**

**Lab Sample ID: 580-58301-4**

**Date Collected: 03/21/16 16:25**

**Matrix: Water**

**Date Received: 03/25/16 14:40**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.014	J	0.024	0.014	mg/L		03/29/16 09:44	03/31/16 00:09	1
Motor Oil (>C24-C36)	0.010	J B	0.048	0.0094	mg/L		03/29/16 09:44	03/31/16 00:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	88		50 - 150				03/29/16 09:44	03/31/16 00:09	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

**Client Sample ID: S4-BU-032116**

**Lab Sample ID: 580-58301-5**

**Date Collected: 03/21/16 16:25**

**Matrix: Water**

**Date Received: 03/25/16 14:40**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>#2 Diesel (C10-C24)</b>	<b>0.014</b>	<b>J</b>	0.024	0.014	mg/L		03/29/16 09:44	03/31/16 00:30	1
Motor Oil (>C24-C36)	ND		0.047	0.0093	mg/L		03/29/16 09:44	03/31/16 00:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	91		50 - 150				03/29/16 09:44	03/31/16 00:30	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11



# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

**Client Sample ID: S4-AD-032116**

**Lab Sample ID: 580-58301-6**

**Date Collected: 03/21/16 16:30**

**Matrix: Water**

**Date Received: 03/25/16 14:40**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.014	J	0.024	0.014	mg/L		03/29/16 09:44	03/31/16 00:51	1
Motor Oil (>C24-C36)	0.010	J B	0.047	0.0093	mg/L		03/29/16 09:44	03/31/16 00:51	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	92		50 - 150				03/29/16 09:44	03/31/16 00:51	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

**Client Sample ID: S3-CD-032216**

**Lab Sample ID: 580-58301-7**

**Date Collected: 03/22/16 09:25**

**Matrix: Water**

**Date Received: 03/25/16 14:40**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.024	0.014	mg/L		03/29/16 09:44	03/31/16 01:11	1
Motor Oil (>C24-C36)	ND		0.047	0.0093	mg/L		03/29/16 09:44	03/31/16 01:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	90		50 - 150				03/29/16 09:44	03/31/16 01:11	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

**Client Sample ID: S3-CU-032216**

**Lab Sample ID: 580-58301-8**

**Date Collected: 03/22/16 09:30**

**Matrix: Water**

**Date Received: 03/25/16 14:40**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.024	0.014	mg/L		03/29/16 09:44	03/31/16 01:32	1
Motor Oil (>C24-C36)	ND		0.047	0.0093	mg/L		03/29/16 09:44	03/31/16 01:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	91		50 - 150				03/29/16 09:44	03/31/16 01:32	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

**Client Sample ID: S3-BD-032216**

**Lab Sample ID: 580-58301-9**

**Date Collected: 03/22/16 10:05**

**Matrix: Water**

**Date Received: 03/25/16 14:40**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.024	0.014	mg/L		03/29/16 09:44	03/31/16 01:52	1
Motor Oil (>C24-C36)	ND		0.048	0.0093	mg/L		03/29/16 09:44	03/31/16 01:52	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	76		50 - 150				03/29/16 09:44	03/31/16 01:52	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

**Client Sample ID: S3-BU-032216**

**Lab Sample ID: 580-58301-10**

**Date Collected: 03/22/16 10:06**

**Matrix: Water**

**Date Received: 03/25/16 14:40**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.024	0.014	mg/L		03/29/16 09:44	03/31/16 02:13	1
Motor Oil (>C24-C36)	ND		0.047	0.0093	mg/L		03/29/16 09:44	03/31/16 02:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	91		50 - 150				03/29/16 09:44	03/31/16 02:13	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

**Client Sample ID: 2B-W-4-032216**

**Lab Sample ID: 580-58301-11**

**Date Collected: 03/22/16 10:10**

**Matrix: Water**

**Date Received: 03/25/16 14:40**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.015	J	0.024	0.014	mg/L		03/29/16 09:44	03/31/16 02:33	1
Motor Oil (>C24-C36)	0.017	J B	0.048	0.0094	mg/L		03/29/16 09:44	03/31/16 02:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	91		50 - 150				03/29/16 09:44	03/31/16 02:33	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

**Client Sample ID: GW-3-032216**

**Lab Sample ID: 580-58301-12**

**Date Collected: 03/22/16 10:30**

**Matrix: Water**

**Date Received: 03/25/16 14:40**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.21		0.024	0.014	mg/L		03/29/16 09:44	03/31/16 03:14	1
Motor Oil (>C24-C36)	0.10	B	0.047	0.0093	mg/L		03/29/16 09:44	03/31/16 03:14	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	81		50 - 150				03/29/16 09:44	03/31/16 03:14	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

**Client Sample ID: GW-30-032216**

**Lab Sample ID: 580-58301-13**

**Date Collected: 03/22/16 10:35**

**Matrix: Water**

**Date Received: 03/25/16 14:40**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.18		0.024	0.014	mg/L		03/29/16 09:44	03/31/16 03:35	1
Motor Oil (>C24-C36)	0.080	B	0.047	0.0093	mg/L		03/29/16 09:44	03/31/16 03:35	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	83		50 - 150				03/29/16 09:44	03/31/16 03:35	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11



# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

**Client Sample ID: S3-AD-032216**

**Lab Sample ID: 580-58301-14**

**Date Collected: 03/22/16 11:00**

**Matrix: Water**

**Date Received: 03/25/16 14:40**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.024	0.014	mg/L		03/29/16 09:44	03/31/16 03:55	1
Motor Oil (>C24-C36)	ND		0.048	0.0093	mg/L		03/29/16 09:44	03/31/16 03:55	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	92		50 - 150				03/29/16 09:44	03/31/16 03:55	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

**Client Sample ID: S3-AV-032216**

**Lab Sample ID: 580-58301-15**

Date Collected: 03/22/16 11:01

Matrix: Water

Date Received: 03/25/16 14:40

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.042		0.024	0.014	mg/L		03/29/16 09:44	03/31/16 04:16	1
Motor Oil (>C24-C36)	0.021	J B	0.047	0.0093	mg/L		03/29/16 09:44	03/31/16 04:16	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	90		50 - 150				03/29/16 09:44	03/31/16 04:16	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

**Client Sample ID: 2A-W-9-032216**

**Lab Sample ID: 580-58301-16**

**Date Collected: 03/22/16 11:30**

**Matrix: Water**

**Date Received: 03/25/16 14:40**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.54		0.024	0.014	mg/L		03/29/16 09:44	03/31/16 04:36	1
Motor Oil (>C24-C36)	0.40	B	0.048	0.0093	mg/L		03/29/16 09:44	03/31/16 04:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	76		50 - 150				03/29/16 09:44	03/31/16 04:36	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

**Client Sample ID: 2A-W-90-032216**

**Lab Sample ID: 580-58301-17**

**Date Collected: 03/22/16 11:45**

**Matrix: Water**

**Date Received: 03/25/16 14:40**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.36		0.024	0.014	mg/L		03/29/16 09:44	03/31/16 04:56	1
Motor Oil (>C24-C36)	0.12	B	0.048	0.0094	mg/L		03/29/16 09:44	03/31/16 04:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	75		50 - 150				03/29/16 09:44	03/31/16 04:56	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

**Client Sample ID: S2-BD-032216**

**Lab Sample ID: 580-58301-18**

**Date Collected: 03/22/16 12:10**

**Matrix: Water**

**Date Received: 03/25/16 14:40**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.024	0.014	mg/L		03/30/16 08:58	03/30/16 23:13	1
Motor Oil (>C24-C36)	ND		0.047	0.0093	mg/L		03/30/16 08:58	03/30/16 23:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	86		50 - 150				03/30/16 08:58	03/30/16 23:13	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

**Client Sample ID: S2-BU-032216**

**Lab Sample ID: 580-58301-19**

**Date Collected: 03/22/16 12:11**

**Matrix: Water**

**Date Received: 03/25/16 14:40**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.073		0.024	0.014	mg/L		03/30/16 08:58	03/30/16 23:52	1
Motor Oil (>C24-C36)	0.027	J	0.047	0.0093	mg/L		03/30/16 08:58	03/30/16 23:52	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	82		50 - 150				03/30/16 08:58	03/30/16 23:52	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11



# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

**Client Sample ID: S2-AD-032216**

**Lab Sample ID: 580-58301-20**

**Date Collected: 03/22/16 12:50**

**Matrix: Water**

**Date Received: 03/25/16 14:40**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.024	0.014	mg/L		03/30/16 08:58	03/31/16 00:12	1
Motor Oil (>C24-C36)	ND		0.047	0.0093	mg/L		03/30/16 08:58	03/31/16 00:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	85		50 - 150				03/30/16 08:58	03/31/16 00:12	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

**Client Sample ID: S2-AV-032216**

**Lab Sample ID: 580-58301-21**

**Date Collected: 03/22/16 12:51**

**Matrix: Water**

**Date Received: 03/25/16 14:40**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.024	0.014	mg/L		03/30/16 08:58	03/31/16 00:32	1
Motor Oil (>C24-C36)	ND		0.047	0.0093	mg/L		03/30/16 08:58	03/31/16 00:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	85		50 - 150				03/30/16 08:58	03/31/16 00:32	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

**Client Sample ID: GW-2-032216**

**Lab Sample ID: 580-58301-22**

**Date Collected: 03/22/16 12:55**

**Matrix: Water**

**Date Received: 03/25/16 14:40**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.15		0.024	0.014	mg/L		03/30/16 08:58	03/31/16 00:52	1
Motor Oil (>C24-C36)	0.066		0.047	0.0093	mg/L		03/30/16 08:58	03/31/16 00:52	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	86		50 - 150				03/30/16 08:58	03/31/16 00:52	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

**Client Sample ID: GW-20-032216**

**Lab Sample ID: 580-58301-23**

**Date Collected: 03/22/16 13:00**

**Matrix: Water**

**Date Received: 03/25/16 14:40**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.15		0.024	0.014	mg/L		03/30/16 08:58	03/31/16 01:12	1
Motor Oil (>C24-C36)	0.061		0.047	0.0093	mg/L		03/30/16 08:58	03/31/16 01:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	82		50 - 150				03/30/16 08:58	03/31/16 01:12	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

**Client Sample ID: 2A-W-10-032216**

**Lab Sample ID: 580-58301-24**

**Date Collected: 03/22/16 13:05**

**Matrix: Water**

**Date Received: 03/25/16 14:40**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.080		0.024	0.014	mg/L		03/30/16 08:58	03/31/16 01:32	1
Motor Oil (>C24-C36)	0.17		0.048	0.0094	mg/L		03/30/16 08:58	03/31/16 01:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	80		50 - 150				03/30/16 08:58	03/31/16 01:32	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

**Client Sample ID: MW-4-032216**

**Lab Sample ID: 580-58301-25**

**Date Collected: 03/22/16 14:20**

**Matrix: Water**

**Date Received: 03/25/16 14:40**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.047		0.024	0.014	mg/L		03/30/16 08:58	03/31/16 01:52	1
Motor Oil (>C24-C36)	0.070		0.047	0.0093	mg/L		03/30/16 08:58	03/31/16 01:52	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	77		50 - 150				03/30/16 08:58	03/31/16 01:52	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11



# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

**Client Sample ID: S1-BD-032216**

**Lab Sample ID: 580-58301-26**

**Date Collected: 03/22/16 14:50**

**Matrix: Water**

**Date Received: 03/25/16 14:40**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.022	J	0.024	0.014	mg/L		03/30/16 08:58	03/31/16 02:12	1
Motor Oil (>C24-C36)	0.019	J	0.047	0.0093	mg/L		03/30/16 08:58	03/31/16 02:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	78		50 - 150				03/30/16 08:58	03/31/16 02:12	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

**Client Sample ID: S1-BU-032216**

**Lab Sample ID: 580-58301-27**

**Date Collected: 03/22/16 14:51**

**Matrix: Water**

**Date Received: 03/25/16 14:40**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.024	0.014	mg/L		03/30/16 08:58	03/31/16 02:32	1
Motor Oil (>C24-C36)	ND		0.047	0.0093	mg/L		03/30/16 08:58	03/31/16 02:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	81		50 - 150				03/30/16 08:58	03/31/16 02:32	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

**Client Sample ID: S1-AD-032216**

**Lab Sample ID: 580-58301-28**

**Date Collected: 03/22/16 15:25**

**Matrix: Water**

**Date Received: 03/25/16 14:40**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.024	0.014	mg/L		03/30/16 08:58	03/31/16 02:51	1
Motor Oil (>C24-C36)	ND		0.047	0.0093	mg/L		03/30/16 08:58	03/31/16 02:51	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	85		50 - 150				03/30/16 08:58	03/31/16 02:51	1



# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

**Client Sample ID: S1-AV-032216**

**Lab Sample ID: 580-58301-29**

**Date Collected: 03/22/16 15:26**

**Matrix: Water**

**Date Received: 03/25/16 14:40**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.024	0.014	mg/L		03/30/16 08:58	03/31/16 03:31	1
Motor Oil (>C24-C36)	ND		0.047	0.0093	mg/L		03/30/16 08:58	03/31/16 03:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	84		50 - 150				03/30/16 08:58	03/31/16 03:31	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

**Client Sample ID: GW-1-032216**

**Lab Sample ID: 580-58301-30**

**Date Collected: 03/22/16 15:35**

**Matrix: Water**

**Date Received: 03/25/16 14:40**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.035		0.024	0.014	mg/L		03/30/16 08:58	03/31/16 03:51	1
Motor Oil (>C24-C36)	0.040	J	0.047	0.0093	mg/L		03/30/16 08:58	03/31/16 03:51	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	85		50 - 150				03/30/16 08:58	03/31/16 03:51	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

**Client Sample ID: GW-10-032216**

**Lab Sample ID: 580-58301-31**

**Date Collected: 03/22/16 15:40**

**Matrix: Water**

**Date Received: 03/25/16 14:40**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.035		0.024	0.014	mg/L		03/30/16 08:58	03/31/16 04:10	1
Motor Oil (>C24-C36)	0.049		0.047	0.0093	mg/L		03/30/16 08:58	03/31/16 04:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	85		50 - 150				03/30/16 08:58	03/31/16 04:10	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

**Client Sample ID: MW-3-032216**

**Lab Sample ID: 580-58301-32**

**Date Collected: 03/22/16 15:45**

**Matrix: Water**

**Date Received: 03/25/16 14:40**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.030		0.024	0.014	mg/L		03/30/16 08:58	03/31/16 04:30	1
Motor Oil (>C24-C36)	0.043	J	0.048	0.0094	mg/L		03/30/16 08:58	03/31/16 04:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	81		50 - 150				03/30/16 08:58	03/31/16 04:30	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11



# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

**Client Sample ID: MW-16-032316**

**Lab Sample ID: 580-58301-33**

**Date Collected: 03/23/16 09:15**

**Matrix: Water**

**Date Received: 03/25/16 14:40**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.014	J	0.024	0.014	mg/L		03/30/16 08:58	03/31/16 04:50	1
Motor Oil (>C24-C36)	0.022	J	0.048	0.0093	mg/L		03/30/16 08:58	03/31/16 04:50	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	82		50 - 150				03/30/16 08:58	03/31/16 04:50	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

**Client Sample ID: EW-2A-032316**

**Lab Sample ID: 580-58301-34**

**Date Collected: 03/23/16 09:25**

**Matrix: Water**

**Date Received: 03/25/16 14:40**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.018	J	0.024	0.014	mg/L		03/30/16 08:58	03/31/16 05:09	1
Motor Oil (>C24-C36)	0.020	J	0.047	0.0093	mg/L		03/30/16 08:58	03/31/16 05:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	85		50 - 150				03/30/16 08:58	03/31/16 05:09	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

**Client Sample ID: 5-W-19-032316**

**Lab Sample ID: 580-58301-35**

**Date Collected: 03/23/16 10:25**

**Matrix: Water**

**Date Received: 03/25/16 14:40**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.024	0.014	mg/L		03/30/16 08:58	03/31/16 05:29	1
Motor Oil (>C24-C36)	ND		0.048	0.0093	mg/L		03/30/16 08:58	03/31/16 05:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	80		50 - 150				03/30/16 08:58	03/31/16 05:29	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

**Client Sample ID: GW-4-032316**

**Lab Sample ID: 580-58301-36**

**Date Collected: 03/23/16 10:40**

**Matrix: Water**

**Date Received: 03/25/16 14:40**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.031		0.024	0.014	mg/L		03/30/16 08:58	03/31/16 05:49	1
Motor Oil (>C24-C36)	0.031	J	0.047	0.0093	mg/L		03/30/16 08:58	03/31/16 05:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	83		50 - 150				03/30/16 08:58	03/31/16 05:49	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

**Client Sample ID: 1C-W-7-032316**

**Lab Sample ID: 580-58301-37**

**Date Collected: 03/23/16 10:40**

**Matrix: Water**

**Date Received: 03/25/16 14:40**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.069		0.024	0.014	mg/L		03/30/16 08:58	03/31/16 06:09	1
Motor Oil (>C24-C36)	0.047		0.047	0.0093	mg/L		03/30/16 08:58	03/31/16 06:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	85		50 - 150				03/30/16 08:58	03/31/16 06:09	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

**Client Sample ID: 2A-W-42-032316**

**Lab Sample ID: 580-58301-38**

**Date Collected: 03/23/16 11:05**

**Matrix: Water**

**Date Received: 03/25/16 14:40**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.10		0.024	0.014	mg/L		03/30/16 10:31	03/31/16 20:45	1
Motor Oil (>C24-C36)	0.064		0.047	0.0093	mg/L		03/30/16 10:31	03/31/16 20:45	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	73		50 - 150				03/30/16 10:31	03/31/16 20:45	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

**Client Sample ID: 5-W-18-032316**

**Lab Sample ID: 580-58301-39**

**Date Collected: 03/23/16 11:35**

**Matrix: Water**

**Date Received: 03/25/16 14:40**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.061		0.024	0.014	mg/L		03/30/16 10:31	03/31/16 21:05	1
Motor Oil (>C24-C36)	0.057		0.048	0.0094	mg/L		03/30/16 10:31	03/31/16 21:05	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
<i>o</i> -Terphenyl	72		50 - 150				03/30/16 10:31	03/31/16 21:05	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11



# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

**Client Sample ID: 1C-W-1-032316**

**Lab Sample ID: 580-58301-40**

**Date Collected: 03/23/16 12:15**

**Matrix: Water**

**Date Received: 03/25/16 14:40**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.026		0.024	0.014	mg/L		03/30/16 10:31	03/31/16 21:25	1
Motor Oil (>C24-C36)	0.026	J	0.047	0.0093	mg/L		03/30/16 10:31	03/31/16 21:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	73		50 - 150				03/30/16 10:31	03/31/16 21:25	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

**Client Sample ID: 1C-W-8-032316**

**Lab Sample ID: 580-58301-41**

**Date Collected: 03/23/16 12:15**

**Matrix: Water**

**Date Received: 03/25/16 14:40**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.046		0.024	0.014	mg/L		03/30/16 10:31	03/31/16 21:45	1
Motor Oil (>C24-C36)	0.035	J	0.047	0.0093	mg/L		03/30/16 10:31	03/31/16 21:45	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	77		50 - 150				03/30/16 10:31	03/31/16 21:45	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

**Client Sample ID: 1C-W-80-032316**

**Lab Sample ID: 580-58301-42**

**Date Collected: 03/23/16 12:30**

**Matrix: Water**

**Date Received: 03/25/16 14:40**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.048		0.024	0.014	mg/L		03/30/16 10:31	03/31/16 22:05	1
Motor Oil (>C24-C36)	0.037	J	0.048	0.0093	mg/L		03/30/16 10:31	03/31/16 22:05	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	77		50 - 150				03/30/16 10:31	03/31/16 22:05	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

**Client Sample ID: 5-W-17-032316**

**Lab Sample ID: 580-58301-43**

**Date Collected: 03/23/16 12:45**

**Matrix: Water**

**Date Received: 03/25/16 14:40**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.024	0.014	mg/L		03/30/16 10:31	03/31/16 22:25	1
Motor Oil (>C24-C36)	ND		0.048	0.0093	mg/L		03/30/16 10:31	03/31/16 22:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	71		50 - 150				03/30/16 10:31	03/31/16 22:25	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

**Client Sample ID: 1C-W-3-032316**

**Lab Sample ID: 580-58301-44**

**Date Collected: 03/23/16 14:15**

**Matrix: Water**

**Date Received: 03/25/16 14:40**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.016	J	0.024	0.014	mg/L		03/30/16 10:31	03/31/16 23:05	1
Motor Oil (>C24-C36)	0.014	J	0.047	0.0093	mg/L		03/30/16 10:31	03/31/16 23:05	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	75		50 - 150				03/30/16 10:31	03/31/16 23:05	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11



# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

**Client Sample ID: 1C-W-4-032316**

**Lab Sample ID: 580-58301-45**

**Date Collected: 03/23/16 14:20**

**Matrix: Water**

**Date Received: 03/25/16 14:40**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.084		0.024	0.014	mg/L		03/30/16 10:31	03/31/16 23:25	1
Motor Oil (>C24-C36)	0.051		0.047	0.0093	mg/L		03/30/16 10:31	03/31/16 23:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	71		50 - 150				03/30/16 10:31	03/31/16 23:25	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

**Client Sample ID: 5-W-16-032316**

**Lab Sample ID: 580-58301-46**

Date Collected: 03/23/16 14:50

Matrix: Water

Date Received: 03/25/16 14:40

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.015	J	0.024	0.014	mg/L		03/30/16 10:31	03/31/16 23:45	1
Motor Oil (>C24-C36)	0.014	J	0.048	0.0094	mg/L		03/30/16 10:31	03/31/16 23:45	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	71		50 - 150				03/30/16 10:31	03/31/16 23:45	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

**Client Sample ID: 5-W-160-032316**

**Lab Sample ID: 580-58301-47**

**Date Collected: 03/23/16 15:00**

**Matrix: Water**

**Date Received: 03/25/16 14:40**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.024	0.014	mg/L		03/30/16 10:31	04/01/16 00:04	1
<b>Motor Oil (&gt;C24-C36)</b>	<b>0.011</b>	<b>J</b>	0.048	0.0094	mg/L		03/30/16 10:31	04/01/16 00:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	68		50 - 150				03/30/16 10:31	04/01/16 00:04	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

**Client Sample ID: 5-W-55-032316**

**Lab Sample ID: 580-58301-48**

**Date Collected: 03/23/16 15:50**

**Matrix: Water**

**Date Received: 03/25/16 14:40**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.043		0.024	0.014	mg/L		03/30/16 10:31	04/01/16 00:24	1
Motor Oil (>C24-C36)	0.049		0.047	0.0093	mg/L		03/30/16 10:31	04/01/16 00:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	76		50 - 150				03/30/16 10:31	04/01/16 00:24	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

**Client Sample ID: 5-W-56-032316**

**Lab Sample ID: 580-58301-49**

**Date Collected: 03/23/16 15:55**

**Matrix: Water**

**Date Received: 03/25/16 14:40**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	4.3		0.024	0.014	mg/L		03/30/16 10:31	04/01/16 00:44	1
Motor Oil (>C24-C36)	2.6		0.047	0.0093	mg/L		03/30/16 10:31	04/01/16 00:44	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	63		50 - 150				03/30/16 10:31	04/01/16 00:44	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

**Client Sample ID: 5-W-54-032316**

**Lab Sample ID: 580-58301-50**

**Date Collected: 03/23/16 16:10**

**Matrix: Water**

**Date Received: 03/25/16 14:40**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.035		0.024	0.014	mg/L		03/30/16 10:31	04/01/16 01:04	1
Motor Oil (>C24-C36)	0.054		0.048	0.0094	mg/L		03/30/16 10:31	04/01/16 01:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	72		50 - 150				03/30/16 10:31	04/01/16 01:04	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11



# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

**Client Sample ID: 5-W-43-032316**

**Lab Sample ID: 580-58301-51**

**Date Collected: 03/23/16 16:50**

**Matrix: Water**

**Date Received: 03/25/16 14:40**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.039		0.024	0.014	mg/L		03/30/16 10:31	04/01/16 01:23	1
Motor Oil (>C24-C36)	0.047		0.047	0.0093	mg/L		03/30/16 10:31	04/01/16 01:23	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	73		50 - 150				03/30/16 10:31	04/01/16 01:23	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

**Client Sample ID: EW-1-032316**

**Lab Sample ID: 580-58301-52**

**Date Collected: 03/23/16 16:55**

**Matrix: Water**

**Date Received: 03/25/16 14:40**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.037		0.024	0.014	mg/L		03/30/16 10:31	04/01/16 01:43	1
Motor Oil (>C24-C36)	0.044	J	0.047	0.0093	mg/L		03/30/16 10:31	04/01/16 01:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	71		50 - 150				03/30/16 10:31	04/01/16 01:43	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

**Client Sample ID: 5-W-51-032316**

**Lab Sample ID: 580-58301-53**

**Date Collected: 03/23/16 17:05**

**Matrix: Water**

**Date Received: 03/25/16 14:40**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	3.1		0.024	0.014	mg/L		03/30/16 10:31	04/01/16 02:03	1
Motor Oil (>C24-C36)	2.6		0.048	0.0094	mg/L		03/30/16 10:31	04/01/16 02:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	84		50 - 150				03/30/16 10:31	04/01/16 02:03	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

**Client Sample ID: 2A-W-40-032416**

**Lab Sample ID: 580-58301-54**

**Date Collected: 03/24/16 09:25**

**Matrix: Water**

**Date Received: 03/25/16 14:40**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.029		0.024	0.014	mg/L		03/30/16 10:31	04/01/16 02:42	1
Motor Oil (>C24-C36)	0.021	J	0.047	0.0093	mg/L		03/30/16 10:31	04/01/16 02:42	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	83		50 - 150				03/30/16 10:31	04/01/16 02:42	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

**Client Sample ID: 1A-W-4-032416**

**Lab Sample ID: 580-58301-55**

**Date Collected: 03/24/16 09:35**

**Matrix: Water**

**Date Received: 03/25/16 14:40**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.016	J	0.024	0.014	mg/L		03/30/16 10:31	04/01/16 03:01	1
Motor Oil (>C24-C36)	0.014	J	0.047	0.0093	mg/L		03/30/16 10:31	04/01/16 03:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	78		50 - 150				03/30/16 10:31	04/01/16 03:01	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

**Client Sample ID: MW-38R-032416**

**Lab Sample ID: 580-58301-56**

**Date Collected: 03/24/16 09:55**

**Matrix: Water**

**Date Received: 03/25/16 14:40**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.051		0.024	0.014	mg/L		03/30/16 10:31	04/01/16 03:21	1
Motor Oil (>C24-C36)	0.044	J	0.048	0.0094	mg/L		03/30/16 10:31	04/01/16 03:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	75		50 - 150				03/30/16 10:31	04/01/16 03:21	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11



# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

**Client Sample ID: 1B-W-23-032416**

**Lab Sample ID: 580-58301-57**

**Date Collected: 03/24/16 10:45**

**Matrix: Water**

**Date Received: 03/25/16 14:40**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.024		0.024	0.014	mg/L		03/30/16 10:31	04/01/16 03:41	1
Motor Oil (>C24-C36)	0.029	J	0.048	0.0093	mg/L		03/30/16 10:31	04/01/16 03:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	81		50 - 150				03/30/16 10:31	04/01/16 03:41	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

**Client Sample ID: 2A-W-41-032416**

**Lab Sample ID: 580-58301-58**

Date Collected: 03/24/16 10:50

Matrix: Water

Date Received: 03/25/16 14:40

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.078		0.024	0.014	mg/L		03/30/16 12:15	03/31/16 17:03	1
Motor Oil (>C24-C36)	0.029	J	0.047	0.0093	mg/L		03/30/16 12:15	03/31/16 17:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	81		50 - 150				03/30/16 12:15	03/31/16 17:03	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

**Client Sample ID: 5-W-15-032416**

**Lab Sample ID: 580-58301-59**

**Date Collected: 03/24/16 10:55**

**Matrix: Water**

**Date Received: 03/25/16 14:40**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.019	J	0.024	0.014	mg/L		03/30/16 12:15	03/31/16 17:23	1
Motor Oil (>C24-C36)	0.016	J	0.048	0.0093	mg/L		03/30/16 12:15	03/31/16 17:23	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	82		50 - 150				03/30/16 12:15	03/31/16 17:23	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

**Client Sample ID: 1B-W-2-032416**

**Lab Sample ID: 580-58301-60**

**Date Collected: 03/24/16 12:00**

**Matrix: Water**

**Date Received: 03/25/16 14:40**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.029		0.024	0.014	mg/L		03/30/16 12:15	03/31/16 17:43	1
Motor Oil (>C24-C36)	0.034	J	0.047	0.0093	mg/L		03/30/16 12:15	03/31/16 17:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	81		50 - 150				03/30/16 12:15	03/31/16 17:43	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

**Client Sample ID: 5-W-14-032416**

**Lab Sample ID: 580-58301-61**

**Date Collected: 03/24/16 12:05**

**Matrix: Water**

**Date Received: 03/25/16 14:40**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.014	J	0.024	0.014	mg/L		03/30/16 12:15	03/31/16 18:04	1
Motor Oil (>C24-C36)	0.019	J	0.048	0.0094	mg/L		03/30/16 12:15	03/31/16 18:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	84		50 - 150				03/30/16 12:15	03/31/16 18:04	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

**Client Sample ID: 1B-W-3-032416**

**Lab Sample ID: 580-58301-62**

**Date Collected: 03/24/16 12:35**

**Matrix: Water**

**Date Received: 03/25/16 14:40**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.026		0.024	0.014	mg/L		03/30/16 12:15	03/31/16 18:24	1
Motor Oil (>C24-C36)	0.022	J	0.047	0.0093	mg/L		03/30/16 12:15	03/31/16 18:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	81		50 - 150				03/30/16 12:15	03/31/16 18:24	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11



# QC Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

## Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

**Lab Sample ID: MB 580-213852/1-A**  
**Matrix: Water**  
**Analysis Batch: 213953**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 213852**

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
#2 Diesel (C10-C24)	ND		0.025	0.015	mg/L		03/29/16 09:44	03/30/16 20:43	1
Motor Oil (>C24-C36)	0.0129	J	0.050	0.0098	mg/L		03/29/16 09:44	03/30/16 20:43	1
Surrogate		MB MB		Limits	Prepared		Analyzed		Dil Fac
		%Recovery	Qualifier						
o-Terphenyl		99		50 - 150	03/29/16 09:44		03/30/16 20:43		1

**Lab Sample ID: LCS 580-213852/2-A**  
**Matrix: Water**  
**Analysis Batch: 213953**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 213852**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	
							Limits	
#2 Diesel (C10-C24)	0.500	0.465		mg/L		93	59 - 120	
Motor Oil (>C24-C36)	0.502	0.436		mg/L		87	71 - 140	
Surrogate		LCS LCS		Limits	Prepared		Analyzed	
		%Recovery	Qualifier					
o-Terphenyl		81		50 - 150				

**Lab Sample ID: LCSD 580-213852/3-A**  
**Matrix: Water**  
**Analysis Batch: 213953**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 213852**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits		RPD Limit	
							Limits		RPD	Limit
#2 Diesel (C10-C24)	0.500	0.472		mg/L		94	59 - 120	1	27	
Motor Oil (>C24-C36)	0.502	0.445		mg/L		89	71 - 140	2	27	
Surrogate		LCSD LCSD		Limits	Prepared		Analyzed			
		%Recovery	Qualifier							
o-Terphenyl		84		50 - 150						

**Lab Sample ID: MB 580-213924/1-A**  
**Matrix: Water**  
**Analysis Batch: 213930**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 213924**

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
#2 Diesel (C10-C24)	ND		0.025	0.015	mg/L		03/30/16 08:58	03/30/16 22:13	1
Motor Oil (>C24-C36)	ND		0.050	0.0098	mg/L		03/30/16 08:58	03/30/16 22:13	1
Surrogate		MB MB		Limits	Prepared		Analyzed		Dil Fac
		%Recovery	Qualifier						
o-Terphenyl		85		50 - 150	03/30/16 08:58		03/30/16 22:13		1

**Lab Sample ID: LCS 580-213924/2-A**  
**Matrix: Water**  
**Analysis Batch: 213930**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 213924**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	
							Limits	
#2 Diesel (C10-C24)	0.500	0.492		mg/L		98	59 - 120	
Motor Oil (>C24-C36)	0.502	0.469		mg/L		93	71 - 140	

TestAmerica Seattle

# QC Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

## Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) (Continued)

**Lab Sample ID: LCS 580-213924/2-A**  
**Matrix: Water**  
**Analysis Batch: 213930**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 213924**

Surrogate	LCS %Recovery	LCS Qualifier	Limits
<i>o</i> -Terphenyl	88		50 - 150

**Lab Sample ID: LCSD 580-213924/3-A**  
**Matrix: Water**  
**Analysis Batch: 213930**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 213924**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
#2 Diesel (C10-C24)	0.500	0.471		mg/L		94	59 - 120	4	27
Motor Oil (>C24-C36)	0.502	0.454		mg/L		90	71 - 140	3	27

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
<i>o</i> -Terphenyl	86		50 - 150

**Lab Sample ID: MB 580-213952/1-A**  
**Matrix: Water**  
**Analysis Batch: 214094**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 213952**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.025	0.015	mg/L		03/30/16 10:31	03/31/16 19:45	1
Motor Oil (>C24-C36)	ND		0.050	0.0098	mg/L		03/30/16 10:31	03/31/16 19:45	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	80		50 - 150	03/30/16 10:31	03/31/16 19:45	1

**Lab Sample ID: LCS 580-213952/2-A**  
**Matrix: Water**  
**Analysis Batch: 214094**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 213952**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
#2 Diesel (C10-C24)	0.500	0.458		mg/L		92	59 - 120
Motor Oil (>C24-C36)	0.502	0.439		mg/L		88	71 - 140

Surrogate	LCS %Recovery	LCS Qualifier	Limits
<i>o</i> -Terphenyl	85		50 - 150

**Lab Sample ID: LCSD 580-213952/3-A**  
**Matrix: Water**  
**Analysis Batch: 214094**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 213952**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
#2 Diesel (C10-C24)	0.500	0.441		mg/L		88	59 - 120	4	27
Motor Oil (>C24-C36)	0.502	0.421		mg/L		84	71 - 140	4	27

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
<i>o</i> -Terphenyl	83		50 - 150

TestAmerica Seattle

# QC Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

## Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) (Continued)

**Lab Sample ID: MB 580-213963/1-A**  
**Matrix: Water**  
**Analysis Batch: 214094**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 213963**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.025	0.015	mg/L		03/30/16 12:15	03/31/16 16:04	1
Motor Oil (>C24-C36)	ND		0.050	0.0098	mg/L		03/30/16 12:15	03/31/16 16:04	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	81		50 - 150				03/30/16 12:15	03/31/16 16:04	1

**Lab Sample ID: LCS 580-213963/2-A**  
**Matrix: Water**  
**Analysis Batch: 214094**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 213963**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits		
#2 Diesel (C10-C24)	0.500	0.492		mg/L		98	59 - 120		
Motor Oil (>C24-C36)	0.502	0.468		mg/L		93	71 - 140		
Surrogate	LCS %Recovery	LCS Qualifier	Limits						
<i>o</i> -Terphenyl	88		50 - 150						

**Lab Sample ID: LCSD 580-213963/3-A**  
**Matrix: Water**  
**Analysis Batch: 214094**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 213963**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
#2 Diesel (C10-C24)	0.500	0.466		mg/L		93	59 - 120	5	27
Motor Oil (>C24-C36)	0.502	0.453		mg/L		90	71 - 140	3	27
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
<i>o</i> -Terphenyl	89		50 - 150						

# Lab Chronicle

Client: Farallon Consulting LLC  
Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

**Client Sample ID: S4-CD-032116**

**Date Collected: 03/21/16 15:45**

**Date Received: 03/25/16 14:40**

**Lab Sample ID: 580-58301-1**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			213852	03/29/16 09:44	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	213953	03/30/16 22:47	D1R	TAL SEA

**Client Sample ID: S4-CU-032116**

**Date Collected: 03/21/16 15:50**

**Date Received: 03/25/16 14:40**

**Lab Sample ID: 580-58301-2**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			213852	03/29/16 09:44	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	213953	03/30/16 23:28	D1R	TAL SEA

**Client Sample ID: S4-BD-032116**

**Date Collected: 03/21/16 16:20**

**Date Received: 03/25/16 14:40**

**Lab Sample ID: 580-58301-3**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			213852	03/29/16 09:44	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	213953	03/30/16 23:49	D1R	TAL SEA

**Client Sample ID: S4-AV-032116**

**Date Collected: 03/21/16 16:25**

**Date Received: 03/25/16 14:40**

**Lab Sample ID: 580-58301-4**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			213852	03/29/16 09:44	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	213953	03/31/16 00:09	D1R	TAL SEA

**Client Sample ID: S4-BU-032116**

**Date Collected: 03/21/16 16:25**

**Date Received: 03/25/16 14:40**

**Lab Sample ID: 580-58301-5**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			213852	03/29/16 09:44	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	213953	03/31/16 00:30	D1R	TAL SEA

**Client Sample ID: S4-AD-032116**

**Date Collected: 03/21/16 16:30**

**Date Received: 03/25/16 14:40**

**Lab Sample ID: 580-58301-6**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			213852	03/29/16 09:44	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	213953	03/31/16 00:51	D1R	TAL SEA

TestAmerica Seattle

# Lab Chronicle

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

**Client Sample ID: S3-CD-032216**

**Lab Sample ID: 580-58301-7**

Date Collected: 03/22/16 09:25

Matrix: Water

Date Received: 03/25/16 14:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			213852	03/29/16 09:44	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	213953	03/31/16 01:11	D1R	TAL SEA

**Client Sample ID: S3-CU-032216**

**Lab Sample ID: 580-58301-8**

Date Collected: 03/22/16 09:30

Matrix: Water

Date Received: 03/25/16 14:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			213852	03/29/16 09:44	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	213953	03/31/16 01:32	D1R	TAL SEA

**Client Sample ID: S3-BD-032216**

**Lab Sample ID: 580-58301-9**

Date Collected: 03/22/16 10:05

Matrix: Water

Date Received: 03/25/16 14:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			213852	03/29/16 09:44	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	213953	03/31/16 01:52	D1R	TAL SEA

**Client Sample ID: S3-BU-032216**

**Lab Sample ID: 580-58301-10**

Date Collected: 03/22/16 10:06

Matrix: Water

Date Received: 03/25/16 14:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			213852	03/29/16 09:44	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	213953	03/31/16 02:13	D1R	TAL SEA

**Client Sample ID: 2B-W-4-032216**

**Lab Sample ID: 580-58301-11**

Date Collected: 03/22/16 10:10

Matrix: Water

Date Received: 03/25/16 14:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			213852	03/29/16 09:44	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	213953	03/31/16 02:33	D1R	TAL SEA

**Client Sample ID: GW-3-032216**

**Lab Sample ID: 580-58301-12**

Date Collected: 03/22/16 10:30

Matrix: Water

Date Received: 03/25/16 14:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			213852	03/29/16 09:44	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	213953	03/31/16 03:14	D1R	TAL SEA

TestAmerica Seattle

# Lab Chronicle

Client: Farallon Consulting LLC  
Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

**Client Sample ID: GW-30-032216**

**Lab Sample ID: 580-58301-13**

Date Collected: 03/22/16 10:35

Matrix: Water

Date Received: 03/25/16 14:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			213852	03/29/16 09:44	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	213953	03/31/16 03:35	D1R	TAL SEA

**Client Sample ID: S3-AD-032216**

**Lab Sample ID: 580-58301-14**

Date Collected: 03/22/16 11:00

Matrix: Water

Date Received: 03/25/16 14:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			213852	03/29/16 09:44	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	213953	03/31/16 03:55	D1R	TAL SEA

**Client Sample ID: S3-AV-032216**

**Lab Sample ID: 580-58301-15**

Date Collected: 03/22/16 11:01

Matrix: Water

Date Received: 03/25/16 14:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			213852	03/29/16 09:44	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	213953	03/31/16 04:16	D1R	TAL SEA

**Client Sample ID: 2A-W-9-032216**

**Lab Sample ID: 580-58301-16**

Date Collected: 03/22/16 11:30

Matrix: Water

Date Received: 03/25/16 14:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			213852	03/29/16 09:44	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	213953	03/31/16 04:36	D1R	TAL SEA

**Client Sample ID: 2A-W-90-032216**

**Lab Sample ID: 580-58301-17**

Date Collected: 03/22/16 11:45

Matrix: Water

Date Received: 03/25/16 14:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			213852	03/29/16 09:44	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	213953	03/31/16 04:56	D1R	TAL SEA

**Client Sample ID: S2-BD-032216**

**Lab Sample ID: 580-58301-18**

Date Collected: 03/22/16 12:10

Matrix: Water

Date Received: 03/25/16 14:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			213924	03/30/16 08:58	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	213930	03/30/16 23:13	D1R	TAL SEA

TestAmerica Seattle



# Lab Chronicle

Client: Farallon Consulting LLC  
Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

**Client Sample ID: S2-BU-032216**

**Lab Sample ID: 580-58301-19**

Date Collected: 03/22/16 12:11

Matrix: Water

Date Received: 03/25/16 14:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			213924	03/30/16 08:58	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	213930	03/30/16 23:52	D1R	TAL SEA

**Client Sample ID: S2-AD-032216**

**Lab Sample ID: 580-58301-20**

Date Collected: 03/22/16 12:50

Matrix: Water

Date Received: 03/25/16 14:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			213924	03/30/16 08:58	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	213930	03/31/16 00:12	D1R	TAL SEA

**Client Sample ID: S2-AV-032216**

**Lab Sample ID: 580-58301-21**

Date Collected: 03/22/16 12:51

Matrix: Water

Date Received: 03/25/16 14:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			213924	03/30/16 08:58	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	213930	03/31/16 00:32	D1R	TAL SEA

**Client Sample ID: GW-2-032216**

**Lab Sample ID: 580-58301-22**

Date Collected: 03/22/16 12:55

Matrix: Water

Date Received: 03/25/16 14:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			213924	03/30/16 08:58	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	213930	03/31/16 00:52	D1R	TAL SEA

**Client Sample ID: GW-20-032216**

**Lab Sample ID: 580-58301-23**

Date Collected: 03/22/16 13:00

Matrix: Water

Date Received: 03/25/16 14:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			213924	03/30/16 08:58	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	213930	03/31/16 01:12	D1R	TAL SEA

**Client Sample ID: 2A-W-10-032216**

**Lab Sample ID: 580-58301-24**

Date Collected: 03/22/16 13:05

Matrix: Water

Date Received: 03/25/16 14:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			213924	03/30/16 08:58	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	213930	03/31/16 01:32	D1R	TAL SEA

TestAmerica Seattle

# Lab Chronicle

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

**Client Sample ID: MW-4-032216**

**Lab Sample ID: 580-58301-25**

Date Collected: 03/22/16 14:20

Matrix: Water

Date Received: 03/25/16 14:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			213924	03/30/16 08:58	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	213930	03/31/16 01:52	D1R	TAL SEA

**Client Sample ID: S1-BD-032216**

**Lab Sample ID: 580-58301-26**

Date Collected: 03/22/16 14:50

Matrix: Water

Date Received: 03/25/16 14:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			213924	03/30/16 08:58	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	213930	03/31/16 02:12	D1R	TAL SEA

**Client Sample ID: S1-BU-032216**

**Lab Sample ID: 580-58301-27**

Date Collected: 03/22/16 14:51

Matrix: Water

Date Received: 03/25/16 14:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			213924	03/30/16 08:58	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	213930	03/31/16 02:32	D1R	TAL SEA

**Client Sample ID: S1-AD-032216**

**Lab Sample ID: 580-58301-28**

Date Collected: 03/22/16 15:25

Matrix: Water

Date Received: 03/25/16 14:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			213924	03/30/16 08:58	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	213930	03/31/16 02:51	D1R	TAL SEA

**Client Sample ID: S1-AV-032216**

**Lab Sample ID: 580-58301-29**

Date Collected: 03/22/16 15:26

Matrix: Water

Date Received: 03/25/16 14:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			213924	03/30/16 08:58	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	213930	03/31/16 03:31	D1R	TAL SEA

**Client Sample ID: GW-1-032216**

**Lab Sample ID: 580-58301-30**

Date Collected: 03/22/16 15:35

Matrix: Water

Date Received: 03/25/16 14:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			213924	03/30/16 08:58	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	213930	03/31/16 03:51	D1R	TAL SEA

TestAmerica Seattle

# Lab Chronicle

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

**Client Sample ID: GW-10-032216**

**Lab Sample ID: 580-58301-31**

Date Collected: 03/22/16 15:40

Matrix: Water

Date Received: 03/25/16 14:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			213924	03/30/16 08:58	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	213930	03/31/16 04:10	D1R	TAL SEA

**Client Sample ID: MW-3-032216**

**Lab Sample ID: 580-58301-32**

Date Collected: 03/22/16 15:45

Matrix: Water

Date Received: 03/25/16 14:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			213924	03/30/16 08:58	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	213930	03/31/16 04:30	D1R	TAL SEA

**Client Sample ID: MW-16-032316**

**Lab Sample ID: 580-58301-33**

Date Collected: 03/23/16 09:15

Matrix: Water

Date Received: 03/25/16 14:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			213924	03/30/16 08:58	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	213930	03/31/16 04:50	D1R	TAL SEA

**Client Sample ID: EW-2A-032316**

**Lab Sample ID: 580-58301-34**

Date Collected: 03/23/16 09:25

Matrix: Water

Date Received: 03/25/16 14:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			213924	03/30/16 08:58	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	213930	03/31/16 05:09	D1R	TAL SEA

**Client Sample ID: 5-W-19-032316**

**Lab Sample ID: 580-58301-35**

Date Collected: 03/23/16 10:25

Matrix: Water

Date Received: 03/25/16 14:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			213924	03/30/16 08:58	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	213930	03/31/16 05:29	D1R	TAL SEA

**Client Sample ID: GW-4-032316**

**Lab Sample ID: 580-58301-36**

Date Collected: 03/23/16 10:40

Matrix: Water

Date Received: 03/25/16 14:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			213924	03/30/16 08:58	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	213930	03/31/16 05:49	D1R	TAL SEA

TestAmerica Seattle

# Lab Chronicle

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

**Client Sample ID: 1C-W-7-032316**

**Lab Sample ID: 580-58301-37**

Date Collected: 03/23/16 10:40

Matrix: Water

Date Received: 03/25/16 14:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			213924	03/30/16 08:58	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	213930	03/31/16 06:09	D1R	TAL SEA

**Client Sample ID: 2A-W-42-032316**

**Lab Sample ID: 580-58301-38**

Date Collected: 03/23/16 11:05

Matrix: Water

Date Received: 03/25/16 14:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			213952	03/30/16 10:31	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	214094	03/31/16 20:45	KZ1	TAL SEA

**Client Sample ID: 5-W-18-032316**

**Lab Sample ID: 580-58301-39**

Date Collected: 03/23/16 11:35

Matrix: Water

Date Received: 03/25/16 14:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			213952	03/30/16 10:31	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	214094	03/31/16 21:05	KZ1	TAL SEA

**Client Sample ID: 1C-W-1-032316**

**Lab Sample ID: 580-58301-40**

Date Collected: 03/23/16 12:15

Matrix: Water

Date Received: 03/25/16 14:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			213952	03/30/16 10:31	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	214094	03/31/16 21:25	KZ1	TAL SEA

**Client Sample ID: 1C-W-8-032316**

**Lab Sample ID: 580-58301-41**

Date Collected: 03/23/16 12:15

Matrix: Water

Date Received: 03/25/16 14:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			213952	03/30/16 10:31	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	214094	03/31/16 21:45	KZ1	TAL SEA

**Client Sample ID: 1C-W-80-032316**

**Lab Sample ID: 580-58301-42**

Date Collected: 03/23/16 12:30

Matrix: Water

Date Received: 03/25/16 14:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			213952	03/30/16 10:31	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	214094	03/31/16 22:05	KZ1	TAL SEA

TestAmerica Seattle

# Lab Chronicle

Client: Farallon Consulting LLC  
Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

**Client Sample ID: 5-W-17-032316**

**Lab Sample ID: 580-58301-43**

Date Collected: 03/23/16 12:45

Matrix: Water

Date Received: 03/25/16 14:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			213952	03/30/16 10:31	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	214094	03/31/16 22:25	KZ1	TAL SEA

**Client Sample ID: 1C-W-3-032316**

**Lab Sample ID: 580-58301-44**

Date Collected: 03/23/16 14:15

Matrix: Water

Date Received: 03/25/16 14:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			213952	03/30/16 10:31	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	214094	03/31/16 23:05	KZ1	TAL SEA

**Client Sample ID: 1C-W-4-032316**

**Lab Sample ID: 580-58301-45**

Date Collected: 03/23/16 14:20

Matrix: Water

Date Received: 03/25/16 14:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			213952	03/30/16 10:31	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	214094	03/31/16 23:25	KZ1	TAL SEA

**Client Sample ID: 5-W-16-032316**

**Lab Sample ID: 580-58301-46**

Date Collected: 03/23/16 14:50

Matrix: Water

Date Received: 03/25/16 14:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			213952	03/30/16 10:31	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	214094	03/31/16 23:45	KZ1	TAL SEA

**Client Sample ID: 5-W-160-032316**

**Lab Sample ID: 580-58301-47**

Date Collected: 03/23/16 15:00

Matrix: Water

Date Received: 03/25/16 14:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			213952	03/30/16 10:31	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	214094	04/01/16 00:04	KZ1	TAL SEA

**Client Sample ID: 5-W-55-032316**

**Lab Sample ID: 580-58301-48**

Date Collected: 03/23/16 15:50

Matrix: Water

Date Received: 03/25/16 14:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			213952	03/30/16 10:31	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	214094	04/01/16 00:24	KZ1	TAL SEA

TestAmerica Seattle

# Lab Chronicle

Client: Farallon Consulting LLC  
Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

**Client Sample ID: 5-W-56-032316**

**Lab Sample ID: 580-58301-49**

**Date Collected: 03/23/16 15:55**

**Matrix: Water**

**Date Received: 03/25/16 14:40**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			213952	03/30/16 10:31	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	214094	04/01/16 00:44	KZ1	TAL SEA

**Client Sample ID: 5-W-54-032316**

**Lab Sample ID: 580-58301-50**

**Date Collected: 03/23/16 16:10**

**Matrix: Water**

**Date Received: 03/25/16 14:40**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			213952	03/30/16 10:31	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	214094	04/01/16 01:04	KZ1	TAL SEA

**Client Sample ID: 5-W-43-032316**

**Lab Sample ID: 580-58301-51**

**Date Collected: 03/23/16 16:50**

**Matrix: Water**

**Date Received: 03/25/16 14:40**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			213952	03/30/16 10:31	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	214094	04/01/16 01:23	KZ1	TAL SEA

**Client Sample ID: EW-1-032316**

**Lab Sample ID: 580-58301-52**

**Date Collected: 03/23/16 16:55**

**Matrix: Water**

**Date Received: 03/25/16 14:40**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			213952	03/30/16 10:31	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	214094	04/01/16 01:43	KZ1	TAL SEA

**Client Sample ID: 5-W-51-032316**

**Lab Sample ID: 580-58301-53**

**Date Collected: 03/23/16 17:05**

**Matrix: Water**

**Date Received: 03/25/16 14:40**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			213952	03/30/16 10:31	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	214094	04/01/16 02:03	KZ1	TAL SEA

**Client Sample ID: 2A-W-40-032416**

**Lab Sample ID: 580-58301-54**

**Date Collected: 03/24/16 09:25**

**Matrix: Water**

**Date Received: 03/25/16 14:40**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			213952	03/30/16 10:31	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	214094	04/01/16 02:42	KZ1	TAL SEA

TestAmerica Seattle



# Lab Chronicle

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

**Client Sample ID: 1A-W-4-032416**

**Lab Sample ID: 580-58301-55**

Date Collected: 03/24/16 09:35

Matrix: Water

Date Received: 03/25/16 14:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			213952	03/30/16 10:31	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	214094	04/01/16 03:01	KZ1	TAL SEA

**Client Sample ID: MW-38R-032416**

**Lab Sample ID: 580-58301-56**

Date Collected: 03/24/16 09:55

Matrix: Water

Date Received: 03/25/16 14:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			213952	03/30/16 10:31	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	214094	04/01/16 03:21	KZ1	TAL SEA

**Client Sample ID: 1B-W-23-032416**

**Lab Sample ID: 580-58301-57**

Date Collected: 03/24/16 10:45

Matrix: Water

Date Received: 03/25/16 14:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			213952	03/30/16 10:31	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	214094	04/01/16 03:41	KZ1	TAL SEA

**Client Sample ID: 2A-W-41-032416**

**Lab Sample ID: 580-58301-58**

Date Collected: 03/24/16 10:50

Matrix: Water

Date Received: 03/25/16 14:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			213963	03/30/16 12:15	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	214094	03/31/16 17:03	KZ1	TAL SEA

**Client Sample ID: 5-W-15-032416**

**Lab Sample ID: 580-58301-59**

Date Collected: 03/24/16 10:55

Matrix: Water

Date Received: 03/25/16 14:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			213963	03/30/16 12:15	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	214094	03/31/16 17:23	KZ1	TAL SEA

**Client Sample ID: 1B-W-2-032416**

**Lab Sample ID: 580-58301-60**

Date Collected: 03/24/16 12:00

Matrix: Water

Date Received: 03/25/16 14:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			213963	03/30/16 12:15	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	214094	03/31/16 17:43	KZ1	TAL SEA

TestAmerica Seattle

# Lab Chronicle

Client: Farallon Consulting LLC  
Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

**Client Sample ID: 5-W-14-032416**

**Lab Sample ID: 580-58301-61**

**Date Collected: 03/24/16 12:05**

**Matrix: Water**

**Date Received: 03/25/16 14:40**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			213963	03/30/16 12:15	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	214094	03/31/16 18:04	KZ1	TAL SEA

**Client Sample ID: 1B-W-3-032416**

**Lab Sample ID: 580-58301-62**

**Date Collected: 03/24/16 12:35**

**Matrix: Water**

**Date Received: 03/25/16 14:40**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			213963	03/30/16 12:15	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	214094	03/31/16 18:24	KZ1	TAL SEA

**Laboratory References:**

TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

# Certification Summary

Client: Farallon Consulting LLC  
Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

## Laboratory: TestAmerica Seattle

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska (UST)	State Program	10	UST-022	03-02-17
California	State Program	9	2901	01-31-18
L-A-B	DoD ELAP		L2236	01-19-19
L-A-B	ISO/IEC 17025		L2236	01-19-19
Montana (UST)	State Program	8	N/A	04-30-20
Oregon	NELAP	10	WA100007	11-06-16
US Fish & Wildlife	Federal		LE058448-0	10-31-16
USDA	Federal		P330-14-00126	04-08-17
Washington	State Program	10	C553	02-17-17

# Sample Summary

Client: Farallon Consulting LLC  
Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-58301-1	S4-CD-032116	Water	03/21/16 15:45	03/25/16 14:40
580-58301-2	S4-CU-032116	Water	03/21/16 15:50	03/25/16 14:40
580-58301-3	S4-BD-032116	Water	03/21/16 16:20	03/25/16 14:40
580-58301-4	S4-AV-032116	Water	03/21/16 16:25	03/25/16 14:40
580-58301-5	S4-BU-032116	Water	03/21/16 16:25	03/25/16 14:40
580-58301-6	S4-AD-032116	Water	03/21/16 16:30	03/25/16 14:40
580-58301-7	S3-CD-032216	Water	03/22/16 09:25	03/25/16 14:40
580-58301-8	S3-CU-032216	Water	03/22/16 09:30	03/25/16 14:40
580-58301-9	S3-BD-032216	Water	03/22/16 10:05	03/25/16 14:40
580-58301-10	S3-BU-032216	Water	03/22/16 10:06	03/25/16 14:40
580-58301-11	2B-W-4-032216	Water	03/22/16 10:10	03/25/16 14:40
580-58301-12	GW-3-032216	Water	03/22/16 10:30	03/25/16 14:40
580-58301-13	GW-30-032216	Water	03/22/16 10:35	03/25/16 14:40
580-58301-14	S3-AD-032216	Water	03/22/16 11:00	03/25/16 14:40
580-58301-15	S3-AV-032216	Water	03/22/16 11:01	03/25/16 14:40
580-58301-16	2A-W-9-032216	Water	03/22/16 11:30	03/25/16 14:40
580-58301-17	2A-W-90-032216	Water	03/22/16 11:45	03/25/16 14:40
580-58301-18	S2-BD-032216	Water	03/22/16 12:10	03/25/16 14:40
580-58301-19	S2-BU-032216	Water	03/22/16 12:11	03/25/16 14:40
580-58301-20	S2-AD-032216	Water	03/22/16 12:50	03/25/16 14:40
580-58301-21	S2-AV-032216	Water	03/22/16 12:51	03/25/16 14:40
580-58301-22	GW-2-032216	Water	03/22/16 12:55	03/25/16 14:40
580-58301-23	GW-20-032216	Water	03/22/16 13:00	03/25/16 14:40
580-58301-24	2A-W-10-032216	Water	03/22/16 13:05	03/25/16 14:40
580-58301-25	MW-4-032216	Water	03/22/16 14:20	03/25/16 14:40
580-58301-26	S1-BD-032216	Water	03/22/16 14:50	03/25/16 14:40
580-58301-27	S1-BU-032216	Water	03/22/16 14:51	03/25/16 14:40
580-58301-28	S1-AD-032216	Water	03/22/16 15:25	03/25/16 14:40
580-58301-29	S1-AV-032216	Water	03/22/16 15:26	03/25/16 14:40
580-58301-30	GW-1-032216	Water	03/22/16 15:35	03/25/16 14:40
580-58301-31	GW-10-032216	Water	03/22/16 15:40	03/25/16 14:40
580-58301-32	MW-3-032216	Water	03/22/16 15:45	03/25/16 14:40
580-58301-33	MW-16-032316	Water	03/23/16 09:15	03/25/16 14:40
580-58301-34	EW-2A-032316	Water	03/23/16 09:25	03/25/16 14:40
580-58301-35	5-W-19-032316	Water	03/23/16 10:25	03/25/16 14:40
580-58301-36	GW-4-032316	Water	03/23/16 10:40	03/25/16 14:40
580-58301-37	1C-W-7-032316	Water	03/23/16 10:40	03/25/16 14:40
580-58301-38	2A-W-42-032316	Water	03/23/16 11:05	03/25/16 14:40
580-58301-39	5-W-18-032316	Water	03/23/16 11:35	03/25/16 14:40
580-58301-40	1C-W-1-032316	Water	03/23/16 12:15	03/25/16 14:40
580-58301-41	1C-W-8-032316	Water	03/23/16 12:15	03/25/16 14:40
580-58301-42	1C-W-80-032316	Water	03/23/16 12:30	03/25/16 14:40
580-58301-43	5-W-17-032316	Water	03/23/16 12:45	03/25/16 14:40
580-58301-44	1C-W-3-032316	Water	03/23/16 14:15	03/25/16 14:40
580-58301-45	1C-W-4-032316	Water	03/23/16 14:20	03/25/16 14:40
580-58301-46	5-W-16-032316	Water	03/23/16 14:50	03/25/16 14:40
580-58301-47	5-W-160-032316	Water	03/23/16 15:00	03/25/16 14:40
580-58301-48	5-W-55-032316	Water	03/23/16 15:50	03/25/16 14:40
580-58301-49	5-W-56-032316	Water	03/23/16 15:55	03/25/16 14:40
580-58301-50	5-W-54-032316	Water	03/23/16 16:10	03/25/16 14:40
580-58301-51	5-W-43-032316	Water	03/23/16 16:50	03/25/16 14:40
580-58301-52	EW-1-032316	Water	03/23/16 16:55	03/25/16 14:40
580-58301-53	5-W-51-032316	Water	03/23/16 17:05	03/25/16 14:40

TestAmerica Seattle

# Sample Summary

Client: Farallon Consulting LLC  
Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-58301-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-58301-54	2A-W-40-032416	Water	03/24/16 09:25	03/25/16 14:40
580-58301-55	1A-W-4-032416	Water	03/24/16 09:35	03/25/16 14:40
580-58301-56	MW-38R-032416	Water	03/24/16 09:55	03/25/16 14:40
580-58301-57	1B-W-23-032416	Water	03/24/16 10:45	03/25/16 14:40
580-58301-58	2A-W-41-032416	Water	03/24/16 10:50	03/25/16 14:40
580-58301-59	5-W-15-032416	Water	03/24/16 10:55	03/25/16 14:40
580-58301-60	1B-W-2-032416	Water	03/24/16 12:00	03/25/16 14:40
580-58301-61	5-W-14-032416	Water	03/24/16 12:05	03/25/16 14:40
580-58301-62	1B-W-3-032416	Water	03/24/16 12:35	03/25/16 14:40



 <b>CHAIN OF CUSTODY</b>		<b>LABORATORY INFORMATION</b>				LAB WORK OF														
		Laboratory: <b>TEST AMERICA</b>		Project Manager:		<b>SHIPMENT INFORMATION</b>														
		Address: <b>5755 8<sup>th</sup> ST SE</b>		Phone: <b>(253) 922-2310</b>		Shipment Method: <b>COURIER</b>														
City/State/ZIP: <b>FIFE, WA 98424</b>		Fax:		Tracking Number:																
<b>BNSF PROJECT INFORMATION</b>			<b>CONSULTANT INFORMATION</b>			Project Number: <b>683-015</b>														
BNSF Project Number:			Project City: <b>WASHINGTON</b>			Project Manager: <b>JERRY PORTELE</b>														
BNSF Project Name: <b>SKYKOMISH</b>			Company: <b>FARALLON CONSULTING</b>			Email: <b>JPORTELE@FARALLONCONSULTING.COM</b>														
BNSF Contact: <b>BRUCE SHEPARD</b>			BNSF Work Order No.:			City/State/ZIP: <b>ISSAQUAH WA 98027</b>														
BNSF Project Name: <b>SKYKOMISH</b>			Address: <b>975 5TH AVE NW</b>			Phone: <b>425-295-0800</b>														
BNSF Contact: <b>BRUCE SHEPARD</b>			City/State/ZIP: <b>ISSAQUAH WA 98027</b>			Fax: <b>COM</b>														
<b>TURNAROUND TIME</b>		<b>DELIVERABLES</b>		<b>METHODS FOR ANALYSIS</b>																
<input type="checkbox"/> 1-day Rush <input type="checkbox"/> 5- to 8-day Rush <input type="checkbox"/> 2-day Rush <input checked="" type="checkbox"/> Standard 10-Day <input type="checkbox"/> 3-day Rush <input type="checkbox"/> Other _____		<input type="checkbox"/> BNSF Standard (Level II) <input type="checkbox"/> Level III <input checked="" type="checkbox"/> EDD Req, Format? <input type="checkbox"/> Level IV		<input type="checkbox"/> Other Deliverables? _____																
<b>SAMPLE INFORMATION</b>																				
Sample Identification	Containers	Sample Collection			Filtered Y/N	Type (Comp/Grab)	Matrix	METHODS FOR ANALYSIS						COMMENTS	LAB USE					
		Date	Time	Sampler																
1 54-CD-032116	2	3/21/16	15:45	AT	N	G	W	<div style="writing-mode: vertical-rl; transform: rotate(180deg); font-weight: bold; font-size: 2em;">NWTPH-DX</div>												
2 54-CV-032116			15:50	AT										X						
3 54-BD-032116			16:20	AT										X						
4 54-AV-032116			16:25	ARS										X						
5 54-BU-032116			16:25	AT										X						
6 54-AD-032116			16:30	MB										X						
7 53-CD-032216		3/22/16	9:25	AT										X						
8 53-CV-032216			9:30	AT										X						
9 53-BD-032216			10:05	AT										X						
10 53-BU-032216			10:06	AT										X						
11 2B-W-4-032216			10:10	ARS										X						
12 GW-3-032216			10:30	MB										X						
13 GW-30-032216			10:35	MB										X						
14 53-AD-032216			11:00	AT										X						
15 53-AV-032216			11:01	AT										X						
Retinquished By: _____		Date/Time: <b>3/24/16 @ 17:50</b>		Received By: _____		Date/Time: <b>3/23/16 1440</b>		 580-58301 Chain of Custody						<b>Comments and Special Analytical Requirements:</b>						
Retinquished By: _____		Date/Time: _____		Received By: _____		Date/Time: _____														
Retinquished By: _____		Date/Time: _____		Received By: _____		Date/Time: _____														
Received by Laboratory: _____		Date/Time: _____		Lab Remarks: _____		Lab: Custody Intact? <input type="checkbox"/> Yes <input type="checkbox"/> No										Custody Seal No. _____		BNSF COC No _____		



		LABORATORY INFORMATION				LAB WORK ORDER:				
		Laboratory: <b>TEST AMERIKA</b> Address: <b>5755 8<sup>th</sup> ST. SE</b> City/State/ZIP: <b>SEASIDE, WA 98424</b>		Project Manager: Phone: <b>(#253) 922-2310</b> Fax:		SHIPMENT INFORMATION				
BNSF PROJECT INFORMATION		Project State of Origin: <b>WASHINGTON</b> Project City: <b>SKYKOMISH</b>		CONSULTANT INFORMATION		Project Number: <b>683-043</b> Project Manager: <b>JERRY PORTELE</b> Email: <b>JPORTELE@FARALLONCONSULTING.COM</b> Phone: <b>(425) 255-0800</b> Fax:				
BNSF Project Number: <b>52</b> BNSF Project Name: <b>SKYKOMISH</b> BNSF Contact: <b>BRUCE SHEPARD</b>		BNSF Work Order No.:		Company: <b>FARALLON CONSULTING</b> Address: <b>975 5<sup>th</sup> AVE NW</b> City/State/ZIP: <b>ISSAQUAH, WA 98027</b>		Shipment Method: <b>COURIER</b> Tracking Number:				
TURNAROUND TIME <input type="checkbox"/> 1-day Rush <input type="checkbox"/> 5- to 8-day Rush <input type="checkbox"/> 2-day Rush <input checked="" type="checkbox"/> Standard 10-Day <input type="checkbox"/> 3-day Rush <input type="checkbox"/> Other		DELIVERABLES <input type="checkbox"/> Other Deliverables? <input type="checkbox"/> BNSF Standard (Level II) <input type="checkbox"/> Level III <input checked="" type="checkbox"/> EDD Req, Format? <input type="checkbox"/> Level IV		METHODS FOR ANALYSIS						
SAMPLE INFORMATION						COMMENTS    LAB USE				
Sample Identification	Containers	Sample Collection			Filtered Y/N			Type (Comp/Grab)	Matrix	
		Date	Time	Sampler						
1 <del>53-AV-032216</del>	2	3/22/16	11:01	AT	N	G	W	X	IN PAGE 1	
2 2A-W-9-032216			11:30	ARS				X		
3 2A-W-90-032216			11:45	ARS				X		
4 52-BD-032216			12:10	AT				X		
5 52-BU-032216			12:11	AT				X		
6 52-AD-032216			12:50	AT				X		
7 52-AV-032216			12:51	AT				X		
8 6W-2-032216			12:55	MB				X		
9 6W-20-032216			13:00	MB				X		
10 2A-W-10-032216			13:05	ARS				X		
11 MW-4-032216			14:20	ARS				X		
12 5I-BD-032216			14:50	AT				X		
13 5I-BU-032216			14:51	AT				X		
14 5I-AD-032216			15:25	AT				X		
15 5I-AV-032216			15:26	AT				X		
Relinquished By:	Date/Time: <b>3/24/16 @ 17:50</b>	Received By: <b>W. R. Kiddle</b>	Date/Time: <b>3/25/16 1440</b>	Comments and Special Analytical Requirements:						
Relinquished By:	Date/Time:	Received By:	Date/Time:							
Relinquished By:	Date/Time:	Received By:	Date/Time:							
Received by Laboratory:	Date/Time:	Lab Remarks:	Lab: Custody Intact? <input type="checkbox"/> Yes <input type="checkbox"/> No					Custody Seal No.	BNSF COC No.	

4/5/2016 Page 85 of 89



CHAIN OF CUSTODY

LABORATORY INFORMATION  
 Laboratory: TEST AMERICA  
 Project Manager:  
 Address: 5755 8<sup>th</sup> ST SE.  
 Phone: (253) 922-2310  
 City/State/ZIP: FIFE, WA 98424  
 Fax:

LAB WORK ORDER:  
 SHIPMENT INFORMATION  
 Shipment Method: COURIER  
 Tracking Number:

BNSF PROJECT INFORMATION  
 BNSF Project Number:  
 BNSF Project Name: SKYKOMISH  
 BNSF Contact: BRUCE SHEPARD  
 Project State of Origin: WASHINGTON  
 Project City: SKYKOMISH  
 BNSF Work Order No.:

CONSULTANT INFORMATION  
 Company: FARALLON CONSULTING  
 Address: 975 5<sup>th</sup> AVE NW  
 City/State/ZIP: ISSAQUAH, WA 98027  
 Project Number: JERRY PORTELE  
 Project Manager: 683-043  
 Email: JPORTELE@FARALLONCONSULTING.COM  
 Phone: (425) 295-0800  
 Fax:

TURNAROUND TIME  
 1-day Rush  
 2-day Rush  
 3-day Rush  
 5- to 8-day Rush  
 Standard 10-Day  
 Other \_\_\_\_\_

DELIVERABLES  
 BNSF Standard (Level II)  
 Level III  
 Level IV  
 Other Deliverables? \_\_\_\_\_  
 EDD Req, Format?

METHODS FOR ANALYSIS

SAMPLE INFORMATION								METHODS FOR ANALYSIS	COMMENTS	LAB USE
Sample Identification	Containers	Sample Collection			Filtered Y/N	Type (Comp/Grab)	Matrix			
		Date	Time	Sampler						
1 GW-1-032216	Z	3/22/16	15:35	MB	N	G	W	X		
2 GN-10-032216			15:40	MB				X		
3 MW-3-032216			15:45	ARS				X		
4 MW-16-032316		3/23/16	9:15	ARS				X		
5 EW-2A-032316			9:25	AT				X		
6 5-W-19-032316			10:25	ARS				X	10:25	
7 GW-4-032316			10:40	MB				X		
8 IC-W-7-032316			10:40	AT				X		
9 ZA-W-42-032316			11:05	MB				X		
10 5-W-18-032316			11:35	ARS				X		
11 IC-W-1-032316			12:15	MB				X		
12 IC-W-8-032316			12:15	AT				X		
13 IC-W-80-032316			12:30	AT				X		
14 5-W-17-032316			12:45	ARS				X		
15 IC-W-3-032316			14:15	AT				X		

Relinquished By: [Signature] Date/Time: 3/24/16 17:10 Received By: [Signature] Date/Time: 3/23/16 14:40  
 Comments and Special Analytical Requirements:  
 Relinquished By: Date/Time: Received By: Date/Time:  
 Relinquished By: Date/Time: Received By: Date/Time:  
 Received by Laboratory: Date/Time: Lab Remarks: Lab: Custody Intact?  Yes  No  
 Custody Seal No. BNSF COC No.

4/5/2016  
Page 86 of 89

 <b>CHAIN OF CUSTODY</b>	<b>LABORATORY INFORMATION</b>		LAB WORK ORDER:
	Laboratory: <b>TEST AMERICA</b>	Project Manager:	<b>SHIPMENT INFORMATION</b>
	Address: <b>5755 8th St SE</b>	Phone: <b>(253) 922-2310</b>	Shipment Method: <b>COURIER</b>
City/State/ZIP: <b>FIFF, WA 98424</b>	Fax:	Tracking Number:	


<b>BNSF PROJECT INFORMATION</b>	<b>CONSULTANT INFORMATION</b>
BNSF Project Number: <b>SKYKOMISH</b>	Project Number: <b>683-043</b>
BNSF Project Name: <b>SKYKOMISH</b>	Project Manager: <b>JERRY PORTELE</b>
BNSF Contact: <b>BRUCE SHEPARD</b>	Email: <b>JPORTELE@FARALLONCONSULTING.COM</b>
Project State of Origin: <b>WASHINGTON</b>	Company: <b>FARALLON CONSULTING</b>
Project City: <b>WASHINGTON</b>	Address: <b>475 5th AVE NW</b>
BNSF Work Order No.:	City/State/ZIP: <b>ISSAQUAH, WA 98026</b>
	Phone: <b>(425) 295-0800</b>
	Fax: <b>COM</b>

<b>TURNAROUND TIME</b>	<b>DELIVERABLES</b>	<b>METHODS FOR ANALYSIS</b>												
<input type="checkbox"/> 1-day Rush <input type="checkbox"/> 2-day Rush <input type="checkbox"/> 3-day Rush <input type="checkbox"/> 5- to 8-day Rush <input checked="" type="checkbox"/> Standard 10-Day <input type="checkbox"/> Other _____	<input type="checkbox"/> BNSF Standard (Level II) <input type="checkbox"/> Level III <input type="checkbox"/> Level IV <input type="checkbox"/> Other Deliverables? <input checked="" type="checkbox"/> EDD Req, Format?	<table border="1" style="width:100%; height: 100px;"> <tr><td style="width: 5%;"> </td><td style="width: 5%;"> </td><td style="width: 5%;"> </td><td style="width: 5%;"> </td><td style="width: 5%;"> </td><td style="width: 5%;"> </td><td style="width: 5%;"> </td><td style="width: 5%;"> </td><td style="width: 5%;"> </td><td style="width: 5%;"> </td><td style="width: 5%;"> </td><td style="width: 5%;"> </td></tr> </table>												

SAMPLE INFORMATION										COMMENTS	LAB USE										
Sample Identification	Containers	Sample Collection			Filtered Y/N	Type (Comp/Grab)	Matrix	METHODS FOR ANALYSIS													
		Date	Time	Sampler																	
1 1C-W-4-032316	2	3/23/16	14:20	MB	N	G	W	X													
2 5-W-16-032316			14:50	ARS				X													
3 5-W-160-032316			15:00	ARS				X													
4 5-W-55-032316			15:50	MB				X													
5 5-W-56-032316			15:55	AT				X													
6 5-W-54-032316			16:10	ARS				X													
7 5-W-43-032316			16:50	MB				X													
8 EW-1-032316			16:55	AT				X													
9 5-W-51-032316			17:05	ARS				X													
10 2A-W-40-032416		3/24/16	9:25	AT				X													
11 1A-W-4-032416			9:35	MB				X													
12 MW-38R-032416			9:55	ARS				X													
13 1B-W-23-032416			10:45	MB				X													
14 2A-W-41-032416			10:50	AT				X													
15 5-W-15-032416			10:55	ARS				X													

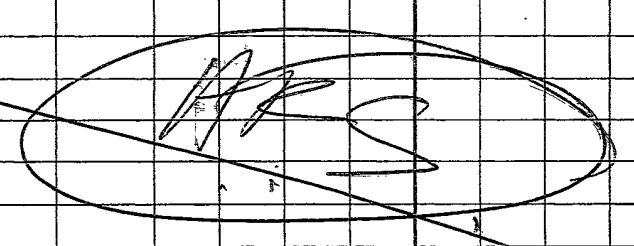
Relinquished By:	Date/Time: <b>3/24/16 17:50</b>	Received By:	Date/Time: <b>3/25/16 14:40</b>	Comments and Special Analytical Requirements:
Relinquished By:	Date/Time:	Received By:	Date/Time:	
Relinquished By:	Date/Time:	Received By:	Date/Time:	
Received by Laboratory:	Date/Time:	Lab Remarks:	Lab: Custody Intact? <input type="checkbox"/> Yes <input type="checkbox"/> No	
			Custody Seal No.	BNSF COC No

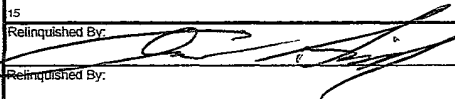
4/5/2016      Page 87 of 89

 <b>CHAIN OF CUSTODY</b>	<b>LABORATORY INFORMATION</b> Laboratory: <u>TEST AMERICA</u> Address: <u>5755 8th ST SE</u> City/State/ZIP: <u>FIFE, WA</u>		Project Manager: Phone: <u>(253) 922-2310</u> Fax:		<b>LAB WORK ORDER:</b>
	Project State of Origin: <u>WASHINGTON</u>		<b>CONSULTANT INFORMATION</b> Company: <u>FARALLON CONSULTING</u> Address: <u>975 5th AVE NW</u> City/State/ZIP: <u>ISSAQUAH, WA 98027</u>		<b>SHIPMENT INFORMATION</b> Shipment Method: <u>COURIER</u> Tracking Number:
	BNSF Project Number:		Project City: <u>SKYKOMISH</u>		Project Number: <u>683-043</u>

<b>BNSF PROJECT INFORMATION</b> BNSF Project Name: <u>SKYKOMISH</u> BNSF Contact: <u>BRUCE SHEPARD</u>		BNSF Work Order No.:		Project Manager: <u>JERRY PORTELE</u> Email: <u>JPORTELE@FARALLONCONSULTING.COM</u> Phone: <u>(425) 295-0800</u> Fax: <u>COM</u>	
--	--	----------------------	--	---	--

<b>TURNAROUND TIME</b> <input type="checkbox"/> 1-day Rush <input type="checkbox"/> 2-day Rush <input type="checkbox"/> 3-day Rush <input type="checkbox"/> 5- to 8-day Rush <input checked="" type="checkbox"/> Standard 10-Day <input type="checkbox"/> Other _____		<b>DELIVERABLES</b> <input type="checkbox"/> BNSF Standard (Level II) <input type="checkbox"/> Level III <input type="checkbox"/> Level IV <input type="checkbox"/> Other Deliverables? <input checked="" type="checkbox"/> EDD Req, Format?		<b>METHODS FOR ANALYSIS</b>	
---	--	---	--	-----------------------------	--

SAMPLE INFORMATION							Filtered Y/N	Type (Comp/Grab)	Matrix	METHODS FOR ANALYSIS	COMMENTS	LAB USE
Sample Identification	Containers	Sample Collection			Date	Time						
1B-W-2-032416	2	3/24/16	12:00	MB	N	G	W	X	NWTPTH-DX			
5-W-14-032416	↓	↓	12:05	ARS	↓	↓	↓	X				
1B-W-3-032416	↓	↓	12:35	AT	↓	↓	↓	X				
												

Relinquished By: 	Date/Time: <u>3/24/16 @ 17:50</u>	Received By: <u>Steve Rickler</u>	Date/Time: <u>3/24/16 14:00</u>	Comments and Special Analytical Requirements:	
Relinquished By:	Date/Time:	Received By:	Date/Time:		
Relinquished By:	Date/Time:	Received By:	Date/Time:		
Received by Laboratory:	Date/Time:	Lab Remarks:	Lab: Custody Intact? <input type="checkbox"/> Yes <input type="checkbox"/> No	Custody Seal No.:	BNSF COC No.:

# Login Sample Receipt Checklist

Client: Farallon Consulting LLC

Job Number: 580-58301-1

**Login Number: 58301**

**List Number: 1**

**Creator: Gall, Brandon A**

**List Source: TestAmerica Seattle**

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Seattle  
5755 8th Street East  
Tacoma, WA 98424  
Tel: (253)922-2310

TestAmerica Job ID: 580-60417-1

Client Project/Site: BNSF Skykomish Ground Water  
Sampling Event: Skykomish HCC System

For:

Farallon Consulting LLC  
975 5th Avenue NW  
Suite 100  
Issaquah, Washington 98027

Attn: Gerald Portele



Authorized for release by:  
7/5/2016 2:24:59 PM

Kristine Allen, Manager of Project Management  
(253)248-4970  
[kristine.allen@testamericainc.com](mailto:kristine.allen@testamericainc.com)

### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



Visit us at:  
[www.testamericainc.com](http://www.testamericainc.com)

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

1

2

3

4

5

6

7

8

9

10

11





# Table of Contents

Cover Page . . . . .	1
Table of Contents . . . . .	2
Case Narrative . . . . .	3
Definitions . . . . .	4
Client Sample Results . . . . .	5
QC Sample Results . . . . .	34
Chronicle . . . . .	36
Certification Summary . . . . .	41
Sample Summary . . . . .	42
Chain of Custody . . . . .	43
Receipt Checklists . . . . .	46



# Case Narrative

Client: Farallon Consulting LLC  
Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-60417-1

**Job ID: 580-60417-1**

**Laboratory: TestAmerica Seattle**

## Narrative

### Job Narrative 580-60417-1

#### Receipt

The samples were received on 6/16/2016 12:15 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 6 coolers at receipt time were 3.9° C, 5.4° C, 6.1° C, 7.3° C, 8.9° C and 9.7° C.

#### Receipt Exceptions

Coolers 1, 2 and 3 were received at the laboratory outside the required temperature criteria. The client was contacted and requested analysis, as received.

#### GC Semi VOA

Method(s) NWTPH-Dx: The CCVRT 580-221069/3 recovered outside acceptance criteria for %D, low biased, for surrogate o-Terphenyl. Since the %Rec is within the acceptance criteria (50-150%) for the surrogate in the CCV and associated samples, the data have been reported.

Method(s) NWTPH-Dx: The method blank for preparation batch 580-221062 and analytical batch 580-221251 contained DRO (C10-C24) above the method detection limit. This target analyte concentration was less than half the reporting limit (1/2RL); therefore, re-extraction or re-analysis of samples was not performed.

Method(s) NWTPH-Dx: The following samples contained a hydrocarbon pattern in the diesel range; however, the elution pattern was later than the typical diesel fuel pattern used by the laboratory for quantitative purposes: MW-3-061416 (580-60417-2), 5-W-18-061416 (580-60417-3), MW-4-061416 (580-60417-5), GW-4-061416 (580-60417-10), 1C-W-1-061416 (580-60417-11), 1C-W-8-061416 (580-60417-12) and 1C-W-7-061416 (580-60417-13).

Method(s) NWTPH-Dx: The Diesel Range Organics (DRO) concentration reported for the following samples is due to the presence of discrete peaks: 5-W-16-061416 (580-60417-4), 5-W-17-061416 (580-60417-6), 5-W-14-061416 (580-60417-7), 5-W-15-061416 (580-60417-8), EW-2A-061416 (580-60417-9), GW-4-061416 (580-60417-10), 1C-W-1-061416 (580-60417-11), 1C-W-8-061416 (580-60417-12) and 1C-W-7-061416 (580-60417-13).

Method(s) NWTPH-Dx: The following samples contained a hydrocarbon pattern in the diesel range; however, the elution pattern was later than the typical diesel fuel pattern used by the laboratory for quantitative purposes: EW-1-061516 (580-60417-14), 2A-W-10-061516 (580-60417-15), 5-W-43-061516 (580-60417-16) and GW-1-061516 (580-60417-17).

Method(s) NWTPH-Dx: The following samples contained a hydrocarbon pattern in the diesel range; however, the elution pattern was later than the typical diesel fuel pattern used by the laboratory for quantitative purposes: GW-10-061516 (580-60417-18), GW-2-061516 (580-60417-20), GW-20-061516 (580-60417-21), 2A-W-9-061516 (580-60417-22) and GW-3-061516 (580-60417-23).

Method(s) NWTPH-Dx: The following samples contained a hydrocarbon pattern in the diesel range; however, the elution pattern was later than the typical diesel fuel pattern used by the laboratory for quantitative purposes: GW-30-061516 (580-60417-24), 1B-W-23-061516 (580-60417-25), 2A-W-42-061516 (580-60417-26), 2A-W-41-061516 (580-60417-27) and 1B-W-3-061516 (580-60417-29).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

# Definitions/Glossary

Client: Farallon Consulting LLC  
Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-60417-1

## Qualifiers

### GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-60417-1

**Client Sample ID: 5-W-19-061416**

**Lab Sample ID: 580-60417-1**

**Date Collected: 06/14/16 09:20**

**Matrix: Water**

**Date Received: 06/16/16 12:15**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.024	0.014	mg/L		06/28/16 09:49	06/29/16 00:44	1
Motor Oil (>C24-C36)	ND		0.047	0.0093	mg/L		06/28/16 09:49	06/29/16 00:44	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	84		50 - 150				06/28/16 09:49	06/29/16 00:44	1

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-60417-1

**Client Sample ID: MW-3-061416**

**Lab Sample ID: 580-60417-2**

**Date Collected: 06/14/16 09:37**

**Matrix: Water**

**Date Received: 06/16/16 12:15**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.028		0.024	0.014	mg/L		06/28/16 09:49	06/29/16 01:06	1
Motor Oil (>C24-C36)	0.041	J	0.047	0.0093	mg/L		06/28/16 09:49	06/29/16 01:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	82		50 - 150				06/28/16 09:49	06/29/16 01:06	1

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-60417-1

**Client Sample ID: 5-W-18-061416**

**Lab Sample ID: 580-60417-3**

**Date Collected: 06/14/16 09:40**

**Matrix: Water**

**Date Received: 06/16/16 12:15**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.076		0.024	0.014	mg/L		06/28/16 09:49	06/29/16 01:29	1
Motor Oil (>C24-C36)	0.063		0.047	0.0093	mg/L		06/28/16 09:49	06/29/16 01:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	77		50 - 150				06/28/16 09:49	06/29/16 01:29	1



# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-60417-1

**Client Sample ID: 5-W-16-061416**

**Lab Sample ID: 580-60417-4**

Date Collected: 06/14/16 10:51

Matrix: Water

Date Received: 06/16/16 12:15

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.015	J	0.024	0.014	mg/L		06/28/16 09:49	06/29/16 01:51	1
Motor Oil (>C24-C36)	0.012	J	0.048	0.0093	mg/L		06/28/16 09:49	06/29/16 01:51	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	83		50 - 150				06/28/16 09:49	06/29/16 01:51	1



# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-60417-1

**Client Sample ID: MW-4-061416**

**Lab Sample ID: 580-60417-5**

Date Collected: 06/14/16 11:15

Matrix: Water

Date Received: 06/16/16 12:15

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.063		0.024	0.014	mg/L		06/28/16 09:49	06/29/16 02:14	1
Motor Oil (>C24-C36)	0.041	J	0.047	0.0093	mg/L		06/28/16 09:49	06/29/16 02:14	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	82		50 - 150				06/28/16 09:49	06/29/16 02:14	1





# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-60417-1

**Client Sample ID: 5-W-17-061416**

**Lab Sample ID: 580-60417-6**

Date Collected: 06/14/16 11:20

Matrix: Water

Date Received: 06/16/16 12:15

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.022	J	0.024	0.014	mg/L		06/28/16 09:49	06/29/16 02:36	1
Motor Oil (>C24-C36)	0.010	J	0.047	0.0093	mg/L		06/28/16 09:49	06/29/16 02:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	85		50 - 150				06/28/16 09:49	06/29/16 02:36	1



# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-60417-1

**Client Sample ID: 5-W-14-061416**

**Lab Sample ID: 580-60417-7**

Date Collected: 06/14/16 12:46

Matrix: Water

Date Received: 06/16/16 12:15

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.020	J	0.024	0.014	mg/L		06/28/16 09:49	06/29/16 02:58	1
Motor Oil (>C24-C36)	0.011	J	0.047	0.0093	mg/L		06/28/16 09:49	06/29/16 02:58	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
<i>o-Terphenyl</i>	83		50 - 150				06/28/16 09:49	06/29/16 02:58	1

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-60417-1

**Client Sample ID: 5-W-15-061416**

**Lab Sample ID: 580-60417-8**

**Date Collected: 06/14/16 13:10**

**Matrix: Water**

**Date Received: 06/16/16 12:15**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.018	J	0.024	0.014	mg/L		06/28/16 09:49	06/29/16 03:21	1
Motor Oil (>C24-C36)	0.0093	J	0.047	0.0092	mg/L		06/28/16 09:49	06/29/16 03:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	79		50 - 150				06/28/16 09:49	06/29/16 03:21	1

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-60417-1

**Client Sample ID: EW-2A-061416**

**Lab Sample ID: 580-60417-9**

Date Collected: 06/14/16 15:17

Matrix: Water

Date Received: 06/16/16 12:15

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.022	J	0.024	0.014	mg/L		06/28/16 09:49	06/29/16 03:43	1
Motor Oil (>C24-C36)	0.012	J	0.047	0.0093	mg/L		06/28/16 09:49	06/29/16 03:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	87		50 - 150				06/28/16 09:49	06/29/16 03:43	1

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-60417-1

**Client Sample ID: GW-4-061416**

**Lab Sample ID: 580-60417-10**

**Date Collected: 06/14/16 16:38**

**Matrix: Water**

**Date Received: 06/16/16 12:15**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.036		0.024	0.014	mg/L		06/28/16 09:49	06/29/16 04:05	1
Motor Oil (>C24-C36)	0.023	J	0.048	0.0094	mg/L		06/28/16 09:49	06/29/16 04:05	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
<i>o-Terphenyl</i>	83		50 - 150				06/28/16 09:49	06/29/16 04:05	1

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-60417-1

**Client Sample ID: 1C-W-1-061416**

**Lab Sample ID: 580-60417-11**

Date Collected: 06/14/16 17:15

Matrix: Water

Date Received: 06/16/16 12:15

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.026		0.024	0.014	mg/L		06/28/16 09:49	06/29/16 04:50	1
Motor Oil (>C24-C36)	0.015	J	0.047	0.0093	mg/L		06/28/16 09:49	06/29/16 04:50	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	85		50 - 150				06/28/16 09:49	06/29/16 04:50	1

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-60417-1

**Client Sample ID: 1C-W-8-061416**

**Lab Sample ID: 580-60417-12**

Date Collected: 06/14/16 17:35

Matrix: Water

Date Received: 06/16/16 12:15

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.042		0.024	0.014	mg/L		06/28/16 09:49	06/29/16 05:12	1
Motor Oil (>C24-C36)	0.025	J	0.047	0.0093	mg/L		06/28/16 09:49	06/29/16 05:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	82		50 - 150				06/28/16 09:49	06/29/16 05:12	1



# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-60417-1

**Client Sample ID: 1C-W-7-061416**

**Lab Sample ID: 580-60417-13**

Date Collected: 06/14/16 17:50

Matrix: Water

Date Received: 06/16/16 12:15

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.049		0.024	0.014	mg/L		06/28/16 09:49	06/29/16 05:34	1
Motor Oil (>C24-C36)	0.027	J	0.047	0.0092	mg/L		06/28/16 09:49	06/29/16 05:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	83		50 - 150				06/28/16 09:49	06/29/16 05:34	1

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-60417-1

**Client Sample ID: EW-1-061516**

**Lab Sample ID: 580-60417-14**

**Date Collected: 06/15/16 08:40**

**Matrix: Water**

**Date Received: 06/16/16 12:15**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.039	B	0.024	0.014	mg/L		06/28/16 17:11	06/30/16 14:53	1
Motor Oil (>C24-C36)	0.030	J	0.047	0.0093	mg/L		06/28/16 17:11	06/30/16 14:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	74		50 - 150				06/28/16 17:11	06/30/16 14:53	1

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-60417-1

**Client Sample ID: 2A-W-10-061516**

**Lab Sample ID: 580-60417-15**

Date Collected: 06/15/16 08:48

Matrix: Water

Date Received: 06/16/16 12:15

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.071	B	0.024	0.014	mg/L		06/28/16 17:11	06/30/16 15:16	1
Motor Oil (>C24-C36)	0.12		0.047	0.0093	mg/L		06/28/16 17:11	06/30/16 15:16	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	75		50 - 150				06/28/16 17:11	06/30/16 15:16	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-60417-1

**Client Sample ID: 5-W-43-061516**

**Lab Sample ID: 580-60417-16**

Date Collected: 06/15/16 09:06

Matrix: Water

Date Received: 06/16/16 12:15

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.025	B	0.024	0.014	mg/L		06/28/16 17:11	06/30/16 15:37	1
Motor Oil (>C24-C36)	0.020	J	0.048	0.0093	mg/L		06/28/16 17:11	06/30/16 15:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	76		50 - 150				06/28/16 17:11	06/30/16 15:37	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-60417-1

**Client Sample ID: GW-1-061516**

**Lab Sample ID: 580-60417-17**

Date Collected: 06/15/16 09:55

Matrix: Water

Date Received: 06/16/16 12:15

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.036	B	0.024	0.014	mg/L		06/28/16 17:11	06/30/16 15:59	1
Motor Oil (>C24-C36)	0.031	J	0.047	0.0093	mg/L		06/28/16 17:11	06/30/16 15:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	77		50 - 150				06/28/16 17:11	06/30/16 15:59	1

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-60417-1

**Client Sample ID: GW-10-061516**

**Lab Sample ID: 580-60417-18**

**Date Collected: 06/15/16 09:58**

**Matrix: Water**

**Date Received: 06/16/16 12:15**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.017	J B	0.024	0.014	mg/L		06/28/16 17:11	07/01/16 18:47	1
Motor Oil (>C24-C36)	0.019	J	0.047	0.0092	mg/L		06/28/16 17:11	07/01/16 18:47	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	80		50 - 150				06/28/16 17:11	07/01/16 18:47	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-60417-1

**Client Sample ID: 2B-W-4-061516**

**Lab Sample ID: 580-60417-19**

**Date Collected: 06/15/16 10:05**

**Matrix: Water**

**Date Received: 06/16/16 12:15**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.024	0.014	mg/L		06/28/16 17:11	07/01/16 19:09	1
Motor Oil (>C24-C36)	ND		0.047	0.0093	mg/L		06/28/16 17:11	07/01/16 19:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o-Terphenyl</i>	74		50 - 150				06/28/16 17:11	07/01/16 19:09	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11



# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-60417-1

**Client Sample ID: GW-2-061516**

**Lab Sample ID: 580-60417-20**

Date Collected: 06/15/16 10:17

Matrix: Water

Date Received: 06/16/16 12:15

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.12	B	0.024	0.014	mg/L		06/28/16 17:11	07/01/16 19:30	1
Motor Oil (>C24-C36)	0.040	J	0.047	0.0093	mg/L		06/28/16 17:11	07/01/16 19:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	76		50 - 150				06/28/16 17:11	07/01/16 19:30	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-60417-1

**Client Sample ID: GW-20-061516**

**Lab Sample ID: 580-60417-21**

Date Collected: 06/15/16 10:27

Matrix: Water

Date Received: 06/16/16 12:15

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.12	B	0.024	0.014	mg/L		06/28/16 17:11	07/01/16 19:52	1
Motor Oil (>C24-C36)	0.042	J	0.047	0.0093	mg/L		06/28/16 17:11	07/01/16 19:52	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	75		50 - 150				06/28/16 17:11	07/01/16 19:52	1



# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-60417-1

**Client Sample ID: 2A-W-9-061516**

**Lab Sample ID: 580-60417-22**

Date Collected: 06/15/16 11:40

Matrix: Water

Date Received: 06/16/16 12:15

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.15	B	0.024	0.014	mg/L		06/28/16 17:11	07/01/16 20:14	1
Motor Oil (>C24-C36)	0.099		0.047	0.0093	mg/L		06/28/16 17:11	07/01/16 20:14	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	76		50 - 150				06/28/16 17:11	07/01/16 20:14	1

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-60417-1

**Client Sample ID: GW-3-061516**

**Lab Sample ID: 580-60417-23**

Date Collected: 06/15/16 11:55

Matrix: Water

Date Received: 06/16/16 12:15

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.067	B	0.024	0.014	mg/L		06/28/16 17:11	07/01/16 20:37	1
Motor Oil (>C24-C36)	0.030	J	0.047	0.0093	mg/L		06/28/16 17:11	07/01/16 20:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	71		50 - 150				06/28/16 17:11	07/01/16 20:37	1

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-60417-1

**Client Sample ID: GW-30-061516**

**Lab Sample ID: 580-60417-24**

Date Collected: 06/15/16 12:00

Matrix: Water

Date Received: 06/16/16 12:15

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.060	B	0.024	0.014	mg/L		06/28/16 17:11	07/02/16 11:55	1
Motor Oil (>C24-C36)	0.022	J	0.047	0.0093	mg/L		06/28/16 17:11	07/02/16 11:55	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	76		50 - 150				06/28/16 17:11	07/02/16 11:55	1

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-60417-1

**Client Sample ID: 1B-W-23-061516**

**Lab Sample ID: 580-60417-25**

Date Collected: 06/15/16 12:06

Matrix: Water

Date Received: 06/16/16 12:15

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.031	B	0.024	0.014	mg/L		06/28/16 17:11	07/02/16 12:18	1
Motor Oil (>C24-C36)	0.032	J	0.048	0.0094	mg/L		06/28/16 17:11	07/02/16 12:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	75		50 - 150				06/28/16 17:11	07/02/16 12:18	1



# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-60417-1

**Client Sample ID: 2A-W-42-061516**

**Lab Sample ID: 580-60417-26**

Date Collected: 06/15/16 14:10

Matrix: Water

Date Received: 06/16/16 12:15

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.095	B	0.024	0.014	mg/L		06/28/16 17:11	07/02/16 12:40	1
Motor Oil (>C24-C36)	0.040	J	0.048	0.0093	mg/L		06/28/16 17:11	07/02/16 12:40	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	76		50 - 150				06/28/16 17:11	07/02/16 12:40	1





# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-60417-1

**Client Sample ID: 2A-W-41-061516**

**Lab Sample ID: 580-60417-27**

Date Collected: 06/15/16 14:12

Matrix: Water

Date Received: 06/16/16 12:15

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.11	B	0.024	0.014	mg/L		06/28/16 17:11	07/02/16 13:02	1
Motor Oil (>C24-C36)	0.036	J	0.048	0.0093	mg/L		06/28/16 17:11	07/02/16 13:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o-Terphenyl</i>	80		50 - 150				06/28/16 17:11	07/02/16 13:02	1



# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-60417-1

**Client Sample ID: 2A-W-40-061516**

**Lab Sample ID: 580-60417-28**

**Date Collected: 06/15/16 14:35**

**Matrix: Water**

**Date Received: 06/16/16 12:15**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.024	0.014	mg/L		06/28/16 17:11	07/02/16 13:25	1
Motor Oil (>C24-C36)	ND		0.047	0.0093	mg/L		06/28/16 17:11	07/02/16 13:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o-Terphenyl</i>	71		50 - 150				06/28/16 17:11	07/02/16 13:25	1



# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-60417-1

**Client Sample ID: 1B-W-3-061516**

**Lab Sample ID: 580-60417-29**

Date Collected: 06/15/16 15:36

Matrix: Water

Date Received: 06/16/16 12:15

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.027	B	0.024	0.014	mg/L		06/28/16 17:11	07/02/16 13:46	1
Motor Oil (>C24-C36)	0.019	J	0.048	0.0094	mg/L		06/28/16 17:11	07/02/16 13:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	97		50 - 150				06/28/16 17:11	07/02/16 13:46	1

# QC Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-60417-1

## Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

**Lab Sample ID: MB 580-220980/1-A**  
**Matrix: Water**  
**Analysis Batch: 221069**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 220980**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.025	0.015	mg/L		06/28/16 09:49	06/28/16 20:32	1
Motor Oil (>C24-C36)	ND		0.050	0.0098	mg/L		06/28/16 09:49	06/28/16 20:32	1
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	84		50 - 150				06/28/16 09:49	06/28/16 20:32	1

**Lab Sample ID: LCS 580-220980/2-A**  
**Matrix: Water**  
**Analysis Batch: 221069**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 220980**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
#2 Diesel (C10-C24)	0.500	0.415		mg/L		83	59 - 120
Motor Oil (>C24-C36)	0.502	0.470		mg/L		94	53 - 129
Surrogate	%Recovery	LCS Qualifier	Limits				
<i>o</i> -Terphenyl	72		50 - 150				

**Lab Sample ID: LCSD 580-220980/3-A**  
**Matrix: Water**  
**Analysis Batch: 221069**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 220980**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
#2 Diesel (C10-C24)	0.500	0.445		mg/L		89	59 - 120	7	27
Motor Oil (>C24-C36)	0.502	0.484		mg/L		96	53 - 129	3	19
Surrogate	%Recovery	LCSD Qualifier	Limits						
<i>o</i> -Terphenyl	78		50 - 150						

**Lab Sample ID: MB 580-221062/1-A**  
**Matrix: Water**  
**Analysis Batch: 221251**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 221062**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.0212	J	0.025	0.015	mg/L		06/28/16 17:11	06/30/16 12:44	1
Motor Oil (>C24-C36)	ND		0.050	0.0098	mg/L		06/28/16 17:11	06/30/16 12:44	1
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	74		50 - 150				06/28/16 17:11	06/30/16 12:44	1

**Lab Sample ID: LCS 580-221062/2-A**  
**Matrix: Water**  
**Analysis Batch: 221251**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 221062**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
#2 Diesel (C10-C24)	0.500	0.442		mg/L		88	59 - 120
Motor Oil (>C24-C36)	0.502	0.550		mg/L		110	53 - 129

TestAmerica Seattle

# QC Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-60417-1

## Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) (Continued)

**Lab Sample ID: LCS 580-221062/2-A**

**Matrix: Water**

**Analysis Batch: 221251**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 221062**

<i>Surrogate</i>	<i>%Recovery</i>	<i>LCS Qualifier</i>	<i>Limits</i>
<i>o-Terphenyl</i>	82		50 - 150

**Lab Sample ID: LCSD 580-221062/3-A**

**Matrix: Water**

**Analysis Batch: 221251**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

**Prep Batch: 221062**

<i>Analyte</i>	<i>Spike Added</i>	<i>LCSD Result</i>	<i>LCSD Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec. Limits</i>	<i>RPD</i>	<i>RPD Limit</i>
#2 Diesel (C10-C24)	0.500	0.469		mg/L		94	59 - 120	6	27
Motor Oil (>C24-C36)	0.502	0.555		mg/L		111	53 - 129	1	19

<i>Surrogate</i>	<i>%Recovery</i>	<i>LCSD Qualifier</i>	<i>Limits</i>
<i>o-Terphenyl</i>	82		50 - 150

# Lab Chronicle

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-60417-1

## Client Sample ID: 5-W-19-061416

Lab Sample ID: 580-60417-1

Date Collected: 06/14/16 09:20

Matrix: Water

Date Received: 06/16/16 12:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			220980	06/28/16 09:49	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	221069	06/29/16 00:44	KZ1	TAL SEA

## Client Sample ID: MW-3-061416

Lab Sample ID: 580-60417-2

Date Collected: 06/14/16 09:37

Matrix: Water

Date Received: 06/16/16 12:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			220980	06/28/16 09:49	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	221069	06/29/16 01:06	KZ1	TAL SEA

## Client Sample ID: 5-W-18-061416

Lab Sample ID: 580-60417-3

Date Collected: 06/14/16 09:40

Matrix: Water

Date Received: 06/16/16 12:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			220980	06/28/16 09:49	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	221069	06/29/16 01:29	KZ1	TAL SEA

## Client Sample ID: 5-W-16-061416

Lab Sample ID: 580-60417-4

Date Collected: 06/14/16 10:51

Matrix: Water

Date Received: 06/16/16 12:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			220980	06/28/16 09:49	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	221069	06/29/16 01:51	KZ1	TAL SEA

## Client Sample ID: MW-4-061416

Lab Sample ID: 580-60417-5

Date Collected: 06/14/16 11:15

Matrix: Water

Date Received: 06/16/16 12:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			220980	06/28/16 09:49	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	221069	06/29/16 02:14	KZ1	TAL SEA

## Client Sample ID: 5-W-17-061416

Lab Sample ID: 580-60417-6

Date Collected: 06/14/16 11:20

Matrix: Water

Date Received: 06/16/16 12:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			220980	06/28/16 09:49	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	221069	06/29/16 02:36	KZ1	TAL SEA

TestAmerica Seattle

# Lab Chronicle

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-60417-1

## Client Sample ID: 5-W-14-061416

## Lab Sample ID: 580-60417-7

Date Collected: 06/14/16 12:46

Matrix: Water

Date Received: 06/16/16 12:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			220980	06/28/16 09:49	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	221069	06/29/16 02:58	KZ1	TAL SEA

## Client Sample ID: 5-W-15-061416

## Lab Sample ID: 580-60417-8

Date Collected: 06/14/16 13:10

Matrix: Water

Date Received: 06/16/16 12:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			220980	06/28/16 09:49	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	221069	06/29/16 03:21	KZ1	TAL SEA

## Client Sample ID: EW-2A-061416

## Lab Sample ID: 580-60417-9

Date Collected: 06/14/16 15:17

Matrix: Water

Date Received: 06/16/16 12:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			220980	06/28/16 09:49	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	221069	06/29/16 03:43	KZ1	TAL SEA

## Client Sample ID: GW-4-061416

## Lab Sample ID: 580-60417-10

Date Collected: 06/14/16 16:38

Matrix: Water

Date Received: 06/16/16 12:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			220980	06/28/16 09:49	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	221069	06/29/16 04:05	KZ1	TAL SEA

## Client Sample ID: 1C-W-1-061416

## Lab Sample ID: 580-60417-11

Date Collected: 06/14/16 17:15

Matrix: Water

Date Received: 06/16/16 12:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			220980	06/28/16 09:49	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	221069	06/29/16 04:50	KZ1	TAL SEA

## Client Sample ID: 1C-W-8-061416

## Lab Sample ID: 580-60417-12

Date Collected: 06/14/16 17:35

Matrix: Water

Date Received: 06/16/16 12:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			220980	06/28/16 09:49	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	221069	06/29/16 05:12	KZ1	TAL SEA

TestAmerica Seattle



# Lab Chronicle

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-60417-1

## Client Sample ID: 1C-W-7-061416

Lab Sample ID: 580-60417-13

Date Collected: 06/14/16 17:50

Matrix: Water

Date Received: 06/16/16 12:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			220980	06/28/16 09:49	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	221069	06/29/16 05:34	KZ1	TAL SEA

## Client Sample ID: EW-1-061516

Lab Sample ID: 580-60417-14

Date Collected: 06/15/16 08:40

Matrix: Water

Date Received: 06/16/16 12:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			221062	06/28/16 17:11	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	221251	06/30/16 14:53	KZ1	TAL SEA

## Client Sample ID: 2A-W-10-061516

Lab Sample ID: 580-60417-15

Date Collected: 06/15/16 08:48

Matrix: Water

Date Received: 06/16/16 12:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			221062	06/28/16 17:11	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	221251	06/30/16 15:16	KZ1	TAL SEA

## Client Sample ID: 5-W-43-061516

Lab Sample ID: 580-60417-16

Date Collected: 06/15/16 09:06

Matrix: Water

Date Received: 06/16/16 12:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			221062	06/28/16 17:11	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	221251	06/30/16 15:37	KZ1	TAL SEA

## Client Sample ID: GW-1-061516

Lab Sample ID: 580-60417-17

Date Collected: 06/15/16 09:55

Matrix: Water

Date Received: 06/16/16 12:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			221062	06/28/16 17:11	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	221251	06/30/16 15:59	KZ1	TAL SEA

## Client Sample ID: GW-10-061516

Lab Sample ID: 580-60417-18

Date Collected: 06/15/16 09:58

Matrix: Water

Date Received: 06/16/16 12:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			221062	06/28/16 17:11	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	221376	07/01/16 18:47	KZ1	TAL SEA

TestAmerica Seattle

# Lab Chronicle

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-60417-1

## Client Sample ID: 2B-W-4-061516

Lab Sample ID: 580-60417-19

Date Collected: 06/15/16 10:05

Matrix: Water

Date Received: 06/16/16 12:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			221062	06/28/16 17:11	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	221376	07/01/16 19:09	KZ1	TAL SEA

## Client Sample ID: GW-2-061516

Lab Sample ID: 580-60417-20

Date Collected: 06/15/16 10:17

Matrix: Water

Date Received: 06/16/16 12:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			221062	06/28/16 17:11	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	221376	07/01/16 19:30	KZ1	TAL SEA

## Client Sample ID: GW-20-061516

Lab Sample ID: 580-60417-21

Date Collected: 06/15/16 10:27

Matrix: Water

Date Received: 06/16/16 12:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			221062	06/28/16 17:11	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	221376	07/01/16 19:52	KZ1	TAL SEA

## Client Sample ID: 2A-W-9-061516

Lab Sample ID: 580-60417-22

Date Collected: 06/15/16 11:40

Matrix: Water

Date Received: 06/16/16 12:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			221062	06/28/16 17:11	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	221376	07/01/16 20:14	KZ1	TAL SEA

## Client Sample ID: GW-3-061516

Lab Sample ID: 580-60417-23

Date Collected: 06/15/16 11:55

Matrix: Water

Date Received: 06/16/16 12:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			221062	06/28/16 17:11	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	221376	07/01/16 20:37	KZ1	TAL SEA

## Client Sample ID: GW-30-061516

Lab Sample ID: 580-60417-24

Date Collected: 06/15/16 12:00

Matrix: Water

Date Received: 06/16/16 12:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			221062	06/28/16 17:11	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	221450	07/02/16 11:55	KZ1	TAL SEA

TestAmerica Seattle

# Lab Chronicle

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-60417-1

## Client Sample ID: 1B-W-23-061516

Lab Sample ID: 580-60417-25

Date Collected: 06/15/16 12:06

Matrix: Water

Date Received: 06/16/16 12:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			221062	06/28/16 17:11	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	221450	07/02/16 12:18	KZ1	TAL SEA

## Client Sample ID: 2A-W-42-061516

Lab Sample ID: 580-60417-26

Date Collected: 06/15/16 14:10

Matrix: Water

Date Received: 06/16/16 12:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			221062	06/28/16 17:11	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	221450	07/02/16 12:40	KZ1	TAL SEA

## Client Sample ID: 2A-W-41-061516

Lab Sample ID: 580-60417-27

Date Collected: 06/15/16 14:12

Matrix: Water

Date Received: 06/16/16 12:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			221062	06/28/16 17:11	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	221450	07/02/16 13:02	KZ1	TAL SEA

## Client Sample ID: 2A-W-40-061516

Lab Sample ID: 580-60417-28

Date Collected: 06/15/16 14:35

Matrix: Water

Date Received: 06/16/16 12:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			221062	06/28/16 17:11	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	221450	07/02/16 13:25	KZ1	TAL SEA

## Client Sample ID: 1B-W-3-061516

Lab Sample ID: 580-60417-29

Date Collected: 06/15/16 15:36

Matrix: Water

Date Received: 06/16/16 12:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			221062	06/28/16 17:11	MDD	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	221450	07/02/16 13:46	KZ1	TAL SEA

**Laboratory References:**

TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

# Certification Summary

Client: Farallon Consulting LLC  
Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-60417-1

## Laboratory: TestAmerica Seattle

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska (UST)	State Program	10	UST-022	03-02-17
California	State Program	9	2901	01-31-18
L-A-B	DoD ELAP		L2236	01-19-19
L-A-B	ISO/IEC 17025		L2236	01-19-19
Montana (UST)	State Program	8	N/A	04-30-20
Oregon	NELAP	10	WA100007	11-06-16
US Fish & Wildlife	Federal		LE058448-0	10-31-16
USDA	Federal		P330-14-00126	04-08-17
Washington	State Program	10	C553	02-17-17

# Sample Summary

Client: Farallon Consulting LLC  
Project/Site: BNSF Skykomish Ground Water

TestAmerica Job ID: 580-60417-1

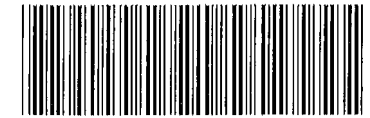
Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-60417-1	5-W-19-061416	Water	06/14/16 09:20	06/16/16 12:15
580-60417-2	MW-3-061416	Water	06/14/16 09:37	06/16/16 12:15
580-60417-3	5-W-18-061416	Water	06/14/16 09:40	06/16/16 12:15
580-60417-4	5-W-16-061416	Water	06/14/16 10:51	06/16/16 12:15
580-60417-5	MW-4-061416	Water	06/14/16 11:15	06/16/16 12:15
580-60417-6	5-W-17-061416	Water	06/14/16 11:20	06/16/16 12:15
580-60417-7	5-W-14-061416	Water	06/14/16 12:46	06/16/16 12:15
580-60417-8	5-W-15-061416	Water	06/14/16 13:10	06/16/16 12:15
580-60417-9	EW-2A-061416	Water	06/14/16 15:17	06/16/16 12:15
580-60417-10	GW-4-061416	Water	06/14/16 16:38	06/16/16 12:15
580-60417-11	1C-W-1-061416	Water	06/14/16 17:15	06/16/16 12:15
580-60417-12	1C-W-8-061416	Water	06/14/16 17:35	06/16/16 12:15
580-60417-13	1C-W-7-061416	Water	06/14/16 17:50	06/16/16 12:15
580-60417-14	EW-1-061516	Water	06/15/16 08:40	06/16/16 12:15
580-60417-15	2A-W-10-061516	Water	06/15/16 08:48	06/16/16 12:15
580-60417-16	5-W-43-061516	Water	06/15/16 09:06	06/16/16 12:15
580-60417-17	GW-1-061516	Water	06/15/16 09:55	06/16/16 12:15
580-60417-18	GW-10-061516	Water	06/15/16 09:58	06/16/16 12:15
580-60417-19	2B-W-4-061516	Water	06/15/16 10:05	06/16/16 12:15
580-60417-20	GW-2-061516	Water	06/15/16 10:17	06/16/16 12:15
580-60417-21	GW-20-061516	Water	06/15/16 10:27	06/16/16 12:15
580-60417-22	2A-W-9-061516	Water	06/15/16 11:40	06/16/16 12:15
580-60417-23	GW-3-061516	Water	06/15/16 11:55	06/16/16 12:15
580-60417-24	GW-30-061516	Water	06/15/16 12:00	06/16/16 12:15
580-60417-25	1B-W-23-061516	Water	06/15/16 12:06	06/16/16 12:15
580-60417-26	2A-W-42-061516	Water	06/15/16 14:10	06/16/16 12:15
580-60417-27	2A-W-41-061516	Water	06/15/16 14:12	06/16/16 12:15
580-60417-28	2A-W-40-061516	Water	06/15/16 14:35	06/16/16 12:15
580-60417-29	1B-W-3-061516	Water	06/15/16 15:36	06/16/16 12:15

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Seattle  
5755 8th Street E.  
Tacoma, WA 98424  
Tel. 253-922-2310  
Fax 253-922-5047  
www.testamericainc.com

Rush  
 Short Hold



580-60417 Chain of Custody

Client <b>Farallon</b>		Client Contact <b>Jerry Portde</b>		Date <b>6-16-16</b>	Chain of Custody Number <b>22513</b>
Address <b>975 5th Ave NW</b>		Telephone Number (Area Code)/Fax Number <b>425-295-0800</b>		Lab Number	Page <b>1</b> of <b>3</b>
City <b>Issaquah</b>	State <b>WA</b>	Zip Code <b>98027</b>	Sampler <b>A. Burns,</b>	Lab Contact	Analysis (Attach list if more space is needed)
Project Name and Location (State) <b>Skykomish, WA / 683-043</b>			Billing Contact <b>M. Bowser, J. Kerr</b>		
Contract/Purchase Order/Quote No.					

Sample I.D. and Location/Description (Containers for each sample may be combined on one line)	Date	Time	Matrix					Containers & Preservatives						NWTPH-DX	TB #2 Cooler	Cor	Unc	Cooler Dsc	Wet/Packs	Packing			
			Air	Aqueous	Sed.	Soil	Water	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH										
1 5-W-19-0614/16	6-14-16	9:20					X				X									IR2 9.2" 8.9"			
2 MW-3-0614/16		9:37																					
3 5-W-18-0614/16		9:40																					
4 5-W-16-0614/16		10:51																					
5 MW-4-0614/16		11:15																					
6 5-W-17-0614/16		11:20																					
7 5-W-14-0614/16		12:46																					
8 5-W-15-0614/16		13:10																					
9 EW-2A-0614/16		15:17																					
10 GW-4-0614/16		16:38																					
11 IC-W-1-0614/16		17:15																					
12 IC-W-8-0614/16		17:35																					

Cooler <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Cooler Temp: _____	Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown	Sample Disposal <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	(A fee may be assessed if samples are retained longer than 1 month)
--	---	--	---

Turn Around Time Required (business days)  
 24 Hours  48 Hours  5 Days  10 Days  15 Days  Other \_\_\_\_\_

QC Requirements (Specify)

1. Relinquished By Sign/Print <b>Anastasi</b>	Date <b>6-16-16</b>	Time <b>12:15</b>	1. Received By Sign/Print <b>Francisco Lunny, Jr</b>	Date <b>6/16/16</b>	Time <b>12:15</b>
2. Relinquished By Sign/Print	Date	Time	2. Received By Sign/Print	Date	Time
3. Relinquished By Sign/Print	Date	Time	3. Recv		

Comments

DISTRIBUTION: WHITE - Stays with the Samples; CANARY - Returned to Client with Report; PINK - Field Copy

Client: Faellon Client Contact: Jerry Portele Date: 6-16-16 Chain of Custody Number: 22515  
Address: 975 5th Ave NW Telephone Number (Area Code)/Fax Number: 425-295-0800 Lab Number: \_\_\_\_\_  
City: Issaquah State: WA Zip Code: 98027 Sampler: A. Burns, M. Bowser, J. Kerr Lab Contact: \_\_\_\_\_  
Project Name and Location (State): SKyKomish, WA / 1083-043 Billing Contact: \_\_\_\_\_  
Contract/Purchase Order/Quote No.:

Sample I.D. and Location/Description (Containers for each sample may be combined on one line)	Date	Time	Matrix					Containers & Preservatives						Analysis (Attach list if more space is needed)	Special Instructions/ Conditions of Receipt		
			Air	Aqueous	Sed.	Soil	Water	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH				
13 IC-W-7-061416	6-14-16	17:50					X										
14 EW-1-061516	6-15-16	8:40															
15 2A-W-10-061516		8:48															
16 5W-43-061516		9:06															
17 GW-1-061516		9:55															
18 GW-10-061516		9:58															
19 2B-W-4-061516		10:05															
20 GW-2-061516		10:17															
21 GW-20-061516		10:27															
22 2A-W-9-061516		11:40															
23 GW-3-061516		11:55															
24 GW-30-061516		12:00															

Cooler:  Yes  No Cooler Temp: \_\_\_\_\_ Possible Hazard Identification:  Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  
Sample Disposal:  Return To Client  Disposal By Lab  Archive For \_\_\_\_\_ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required (business days):  24 Hours  48 Hours  5 Days  10 Days  15 Days  Other \_\_\_\_\_ QC Requirements (Specify): \_\_\_\_\_

1. Relinquished By Sign/Print: <u>Anastasia</u> <u>Bowser</u>	Date: <u>6-16-16</u> Time: <u>12:15</u>	1. Received By Sign/Print: <u>Francisco Luna Jr</u>	Date: <u>6/16/16</u> Time: <u>12:15</u>
2. Relinquished By Sign/Print: _____	Date: _____ Time: _____	2. Received By Sign/Print: _____	Date: _____ Time: _____
3. Relinquished By Sign/Print: _____	Date: _____ Time: _____	3. Received By Sign/Print: _____	Date: _____ Time: _____

Comments: \_\_\_\_\_



Client <b>Farallon</b>			Client Contact <b>Jerry Portele</b>			Date <b>6-16-16</b>	Chain of Custody Number <b>22516</b>
Address <b>975 5th Ave. NW</b>			Telephone Number (Area Code)/Fax Number <b>425-295-0800</b>			Lab Number	Page <b>3 of 3</b>
City <b>Issaquah</b>	State <b>WA</b>	Zip Code <b>98027</b>	Sampler <b>A. Burns, M. Bowser, J. Kerr</b>		Lab Contact	Analysis (Attach list if more space is needed)	
Project Name and Location (State) <b>Skykomish, WA / 683-043</b>			Billing Contact		Special Instructions/ Conditions of Receipt		
Contract/Purchase Order/Quote No.							

Sample I.D. and Location/Description (Containers for each sample may be combined on one line)	Date	Time	Matrix					Containers & Preservatives						NWRPH-DX				
			Air	Aqueous	Sed.	Soil	Water	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH					
25 1B-W-23-061516	6-15-16	12:06					X					X						
26 2A-W-42-061516	↓	14:10																
27 2A-W-41-061516		14:12																
28 2A-W-40-061516		14:35																
29 1B-W-3-061516		15:36																

Cooler <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Cooler Temp: _____	Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown	Sample Disposal <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	(A fee may be assessed if samples are retained longer than 1 month)
--	---	--	---

Turn Around Time Required (business days)  
 24 Hours  48 Hours  5 Days  10 Days  15 Days  Other \_\_\_\_\_

1. Relinquished By Sign/Print <b>Anastasia Bee</b>	Date <b>6-16-16</b>	Time <b>1215</b>	1. Received By Sign/Print <b>Francisco Luna, Jr</b>	Date <b>6/16/16</b>	Time <b>1215</b>
2. Relinquished By Sign/Print	Date	Time	2. Received By Sign/Print	Date	Time
3. Relinquished By Sign/Print	Date	Time	3. Received By Sign/Print	Date	Time

Comments

## Login Sample Receipt Checklist

Client: Farallon Consulting LLC

Job Number: 580-60417-1

**Login Number: 60417**

**List Source: TestAmerica Seattle**

**List Number: 1**

**Creator: Devries, Kelsey M**

Question	Answer	Comment
Radioactivity wasn't checked or is <= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	False	Refer to Job Narrative for details.
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Seattle  
5755 8th Street East  
Tacoma, WA 98424  
Tel: (253)922-2310

TestAmerica Job ID: 580-62731-1

Client Project/Site: BNSF Skykomish Semiannual GWS  
Sampling Event: Skykomish HCC System

For:

Farallon Consulting LLC  
975 5th Avenue NW  
Suite 100  
Issaquah, Washington 98027

Attn: Gerald Portele



Authorized for release by:  
10/7/2016 1:47:22 PM

Kristine Allen, Manager of Project Management  
(253)248-4970  
[kristine.allen@testamericainc.com](mailto:kristine.allen@testamericainc.com)

### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



Visit us at:  
[www.testamericainc.com](http://www.testamericainc.com)

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

1

2

3

4

5

6

7

8

9

10

11



# Table of Contents

Cover Page . . . . .	1
Table of Contents . . . . .	2
Case Narrative . . . . .	3
Definitions . . . . .	4
Client Sample Results . . . . .	5
QC Sample Results . . . . .	67
Chronicle . . . . .	72
Certification Summary . . . . .	83
Sample Summary . . . . .	84
Chain of Custody . . . . .	86
Receipt Checklists . . . . .	92

# Case Narrative

Client: Farallon Consulting LLC  
Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

**Job ID: 580-62731-1**

**Laboratory: TestAmerica Seattle**

## Narrative

### Job Narrative 580-62731-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 9/23/2016 2:55 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 11 coolers at receipt time were 0.8° C, 1.0° C, 1.3° C, 1.5° C, 2.1° C, 2.2° C, 2.2° C, 2.4° C, 3.1° C, 5.4° C and 5.8° C.

#### GC Semi VOA

Method(s) NWTPH-Dx: The method blank for preparation batch 580-228960 and analytical batch 580-229013 contained Motor Oil (>C24-C36) above the method detection limit. This target analyte concentration was less than half the reporting limit (1/2RL); therefore, re-extraction or re-analysis of samples was not performed.

Method(s) NWTPH-Dx: The %RPD of the laboratory control sample (LCS) and laboratory control standard duplicate (LCSD) for preparation batch 580-228960 recovered outside control limits for the following analytes: Motor Oil (>C24-C36). The individual recoveries of both the LCS and LCSD met the acceptance criteria.

Method(s) NWTPH-Dx: The following samples contained a hydrocarbon pattern in the diesel range; however, the elution pattern was later than the typical diesel fuel pattern used by the laboratory for quantitative purposes: MW-3-092016 (580-62731-1), GW-4-092016 (580-62731-2), GW-40-092016 (580-62731-3), EW-2A-092016 (580-62731-4), 1C-W-7-092016 (580-62731-5), MW-4-092016 (580-62731-6), 2A-W-42-092016 (580-62731-7), 2A-W-10-092016 (580-62731-8), 1C-W-4-092016 (580-62731-10), 2A-W-9-092016 (580-62731-11), 1C-W-8-092016 (580-62731-12), 1C-W-1-092016 (580-62731-13), 1B-W-3-092016 (580-62731-14), 1B-W-2-092016 (580-62731-15), GW-3-092016 (580-62731-16) and GW-30-092016 (580-62731-17).

Method(s) NWTPH-Dx: The following samples contained a hydrocarbon pattern in the diesel range; however, the elution pattern was later than the typical diesel fuel pattern used by the laboratory for quantitative purposes: 1B-W-23-092016 (580-62731-18), MW-38R-092016 (580-62731-19), 5-W-43-092116 (580-62731-42), GW-1-092116 (580-62731-43), EW-1-092116 (580-62731-45), MW-16-092116 (580-62731-46), 5-W-54-092116 (580-62731-51), 5-W-55-092116 (580-62731-52), 5-W-51-092116 (580-62731-53), 5-W-56-092116 (580-62731-54), 5-W-15-092116 (580-62731-55) and (280-88505-B-1-A).

Method(s) NWTPH-Dx: The Diesel Range Organics (DRO) concentration reported for the following samples is due to the presence of discrete peaks: S4-AU-092116 (580-62731-24), GW-2-092116 (580-62731-49) and GW-20-092116 (580-62731-50).

Method(s) NWTPH-Dx: The following samples contained a hydrocarbon pattern in the diesel range; however, the elution pattern was later than the typical diesel fuel pattern used by the laboratory for quantitative purposes: S2-BU-092116 (580-62731-34).

Method(s) NWTPH-Dx: The Diesel Range Organics (DRO) concentration reported for the following samples is due to the presence of discrete peaks: 5-W-19-092216 (580-62731-56), 5-W-160-092216 (580-62731-58) and 1A-W-4-092216 (580-62731-59).

Method(s) NWTPH-Dx: The following sample contained a hydrocarbon pattern in the diesel range; however, the elution pattern was later than the typical diesel fuel pattern used by the laboratory for quantitative purposes: 5-W-18-092216 (580-62731-61).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

# Definitions/Glossary

Client: Farallon Consulting LLC  
Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

## Qualifiers

### GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
*	RPD of the LCS and LCSD exceeds the control limits
B	Compound was found in the blank and sample.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

**Client Sample ID: MW-3-092016**

**Lab Sample ID: 580-62731-1**

Date Collected: 09/20/16 08:45

Matrix: Water

Date Received: 09/23/16 14:55

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.033		0.024	0.014	mg/L		09/26/16 16:53	09/28/16 10:33	1
Motor Oil (>C24-C36)	0.044	J	0.047	0.0093	mg/L		09/26/16 16:53	09/28/16 10:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	74		50 - 150				09/26/16 16:53	09/28/16 10:33	1





# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

**Client Sample ID: GW-4-092016**

**Lab Sample ID: 580-62731-2**

Date Collected: 09/20/16 08:46

Matrix: Water

Date Received: 09/23/16 14:55

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.069		0.024	0.014	mg/L		09/26/16 16:53	09/28/16 10:55	1
Motor Oil (>C24-C36)	0.078		0.048	0.0093	mg/L		09/26/16 16:53	09/28/16 10:55	1
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>o-Terphenyl</i>	78		50 - 150				09/26/16 16:53	09/28/16 10:55	1

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

**Client Sample ID: GW-40-092016**

**Lab Sample ID: 580-62731-3**

Date Collected: 09/20/16 08:51

Matrix: Water

Date Received: 09/23/16 14:55

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.071		0.024	0.014	mg/L		09/26/16 16:53	09/28/16 11:18	1
Motor Oil (>C24-C36)	0.085		0.048	0.0094	mg/L		09/26/16 16:53	09/28/16 11:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	82		50 - 150				09/26/16 16:53	09/28/16 11:18	1



# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

**Client Sample ID: EW-2A-092016**

**Lab Sample ID: 580-62731-4**

Date Collected: 09/20/16 08:52

Matrix: Water

Date Received: 09/23/16 14:55

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.035		0.024	0.014	mg/L		09/26/16 16:53	09/28/16 11:40	1
Motor Oil (>C24-C36)	0.025	J	0.047	0.0093	mg/L		09/26/16 16:53	09/28/16 11:40	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	90		50 - 150				09/26/16 16:53	09/28/16 11:40	1



# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

**Client Sample ID: 1C-W-7-092016**

**Lab Sample ID: 580-62731-5**

Date Collected: 09/20/16 09:58

Matrix: Water

Date Received: 09/23/16 14:55

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.043		0.024	0.014	mg/L		09/26/16 16:53	09/28/16 12:03	1
Motor Oil (>C24-C36)	0.027	J	0.048	0.0094	mg/L		09/26/16 16:53	09/28/16 12:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	75		50 - 150				09/26/16 16:53	09/28/16 12:03	1



# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

**Client Sample ID: MW-4-092016**

**Lab Sample ID: 580-62731-6**

Date Collected: 09/20/16 10:00

Matrix: Water

Date Received: 09/23/16 14:55

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.17		0.024	0.014	mg/L		09/26/16 16:53	09/28/16 12:26	1
Motor Oil (>C24-C36)	0.17		0.047	0.0093	mg/L		09/26/16 16:53	09/28/16 12:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	78		50 - 150				09/26/16 16:53	09/28/16 12:26	1



# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

**Client Sample ID: 2A-W-42-092016**

**Lab Sample ID: 580-62731-7**

Date Collected: 09/20/16 10:02

Matrix: Water

Date Received: 09/23/16 14:55

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.15		0.024	0.014	mg/L		09/27/16 10:05	09/28/16 12:48	1
Motor Oil (>C24-C36)	0.090		0.047	0.0093	mg/L		09/27/16 10:05	09/28/16 12:48	1
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>o-Terphenyl</i>	76		50 - 150				09/27/16 10:05	09/28/16 12:48	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

**Client Sample ID: 2A-W-10-092016**

**Lab Sample ID: 580-62731-8**

Date Collected: 09/20/16 11:05

Matrix: Water

Date Received: 09/23/16 14:55

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.11		0.024	0.014	mg/L		09/27/16 10:05	09/28/16 13:11	1
Motor Oil (>C24-C36)	0.17		0.047	0.0093	mg/L		09/27/16 10:05	09/28/16 13:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	80		50 - 150				09/27/16 10:05	09/28/16 13:11	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11



# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

**Client Sample ID: 1C-W-3-092016**

**Lab Sample ID: 580-62731-9**

Date Collected: 09/20/16 11:26

Matrix: Water

Date Received: 09/23/16 14:55

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.015	J	0.024	0.014	mg/L		09/27/16 10:05	09/28/16 13:34	1
Motor Oil (>C24-C36)	0.016	J	0.048	0.0093	mg/L		09/27/16 10:05	09/28/16 13:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	86		50 - 150				09/27/16 10:05	09/28/16 13:34	1



# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

**Client Sample ID: 1C-W-4-092016**

**Lab Sample ID: 580-62731-10**

Date Collected: 09/20/16 11:27

Matrix: Water

Date Received: 09/23/16 14:55

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.050		0.024	0.014	mg/L		09/27/16 10:05	09/28/16 14:19	1
Motor Oil (>C24-C36)	0.032	J	0.048	0.0093	mg/L		09/27/16 10:05	09/28/16 14:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	95		50 - 150				09/27/16 10:05	09/28/16 14:19	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

**Client Sample ID: 2A-W-9-092016**

**Lab Sample ID: 580-62731-11**

Date Collected: 09/20/16 12:10

Matrix: Water

Date Received: 09/23/16 14:55

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.27		0.024	0.014	mg/L		09/27/16 10:05	09/28/16 14:42	1
Motor Oil (>C24-C36)	0.13		0.047	0.0093	mg/L		09/27/16 10:05	09/28/16 14:42	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	84		50 - 150				09/27/16 10:05	09/28/16 14:42	1



# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

**Client Sample ID: 1C-W-8-092016**

**Lab Sample ID: 580-62731-12**

Date Collected: 09/20/16 13:36

Matrix: Water

Date Received: 09/23/16 14:55

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.12		0.024	0.014	mg/L		09/27/16 10:05	09/28/16 15:05	1
Motor Oil (>C24-C36)	0.054		0.047	0.0093	mg/L		09/27/16 10:05	09/28/16 15:05	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	91		50 - 150				09/27/16 10:05	09/28/16 15:05	1

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

**Client Sample ID: 1C-W-1-092016**

**Lab Sample ID: 580-62731-13**

Date Collected: 09/20/16 13:54

Matrix: Water

Date Received: 09/23/16 14:55

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.033		0.024	0.014	mg/L		09/27/16 10:05	09/28/16 15:28	1
Motor Oil (>C24-C36)	0.027	J	0.048	0.0093	mg/L		09/27/16 10:05	09/28/16 15:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	84		50 - 150				09/27/16 10:05	09/28/16 15:28	1



# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

**Client Sample ID: 1B-W-3-092016**

**Lab Sample ID: 580-62731-14**

Date Collected: 09/20/16 14:59

Matrix: Water

Date Received: 09/23/16 14:55

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.024		0.024	0.014	mg/L		09/27/16 10:05	09/28/16 15:50	1
Motor Oil (>C24-C36)	0.024	J	0.047	0.0093	mg/L		09/27/16 10:05	09/28/16 15:50	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	84		50 - 150				09/27/16 10:05	09/28/16 15:50	1

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

**Client Sample ID: 1B-W-2-092016**

**Lab Sample ID: 580-62731-15**

Date Collected: 09/20/16 15:40

Matrix: Water

Date Received: 09/23/16 14:55

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.075		0.024	0.014	mg/L		09/27/16 10:05	09/28/16 16:13	1
Motor Oil (>C24-C36)	0.071		0.048	0.0093	mg/L		09/27/16 10:05	09/28/16 16:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	83		50 - 150				09/27/16 10:05	09/28/16 16:13	1



# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

**Client Sample ID: GW-3-092016**

**Lab Sample ID: 580-62731-16**

Date Collected: 09/20/16 16:13

Matrix: Water

Date Received: 09/23/16 14:55

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.092		0.024	0.014	mg/L		09/27/16 10:05	09/28/16 16:36	1
Motor Oil (>C24-C36)	0.049		0.047	0.0092	mg/L		09/27/16 10:05	09/28/16 16:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	87		50 - 150				09/27/16 10:05	09/28/16 16:36	1





# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

**Client Sample ID: GW-30-092016**

**Lab Sample ID: 580-62731-17**

Date Collected: 09/20/16 16:18

Matrix: Water

Date Received: 09/23/16 14:55

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.091		0.024	0.014	mg/L		09/27/16 10:05	09/28/16 16:59	1
Motor Oil (>C24-C36)	0.045	J	0.047	0.0093	mg/L		09/27/16 10:05	09/28/16 16:59	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
<i>o-Terphenyl</i>	87		50 - 150				09/27/16 10:05	09/28/16 16:59	1

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

**Client Sample ID: 1B-W-23-092016**

**Lab Sample ID: 580-62731-18**

Date Collected: 09/20/16 17:10

Matrix: Water

Date Received: 09/23/16 14:55

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.033		0.024	0.014	mg/L		09/28/16 17:10	10/05/16 11:15	1
Motor Oil (>C24-C36)	0.052		0.047	0.0093	mg/L		09/28/16 17:10	10/05/16 11:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	85		50 - 150				09/28/16 17:10	10/05/16 11:15	1



# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

**Client Sample ID: MW-38R-092016**

**Lab Sample ID: 580-62731-19**

Date Collected: 09/20/16 17:35

Matrix: Water

Date Received: 09/23/16 14:55

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.087		0.024	0.014	mg/L		09/28/16 17:10	10/05/16 11:36	1
Motor Oil (>C24-C36)	0.12		0.047	0.0093	mg/L		09/28/16 17:10	10/05/16 11:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	81		50 - 150				09/28/16 17:10	10/05/16 11:36	1



# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

**Client Sample ID: 2A-W-41-092016**

**Lab Sample ID: 580-62731-20**

Date Collected: 09/20/16 17:56

Matrix: Water

Date Received: 09/23/16 14:55

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.52		0.024	0.014	mg/L		09/28/16 17:10	10/05/16 11:56	1
Motor Oil (>C24-C36)	0.58		0.047	0.0093	mg/L		09/28/16 17:10	10/05/16 11:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	82		50 - 150				09/28/16 17:10	10/05/16 11:56	1

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

**Client Sample ID: S4-AD-092116**

**Lab Sample ID: 580-62731-21**

**Date Collected: 09/21/16 07:57**

**Matrix: Water**

**Date Received: 09/23/16 14:55**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>#2 Diesel (C10-C24)</b>	<b>0.016</b>	<b>J</b>	0.024	0.014	mg/L		09/29/16 10:15	10/05/16 12:58	1
Motor Oil (>C24-C36)	ND		0.047	0.0093	mg/L		09/29/16 10:15	10/05/16 12:58	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
<i>o-Terphenyl</i>	85		50 - 150				09/29/16 10:15	10/05/16 12:58	1

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

**Client Sample ID: S4-BD-092116**

**Lab Sample ID: 580-62731-22**

**Date Collected: 09/21/16 08:03**

**Matrix: Water**

**Date Received: 09/23/16 14:55**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.024	0.014	mg/L		09/29/16 10:15	10/05/16 13:19	1
Motor Oil (>C24-C36)	ND		0.047	0.0093	mg/L		09/29/16 10:15	10/05/16 13:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o-Terphenyl</i>	79		50 - 150				09/29/16 10:15	10/05/16 13:19	1



# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

**Client Sample ID: S4-CU-092116**

**Lab Sample ID: 580-62731-23**

Date Collected: 09/21/16 08:04

Matrix: Water

Date Received: 09/23/16 14:55

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.015	J	0.024	0.014	mg/L		09/29/16 10:15	10/05/16 13:40	1
Motor Oil (>C24-C36)	0.0094	J	0.048	0.0093	mg/L		09/29/16 10:15	10/05/16 13:40	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
<i>o-Terphenyl</i>	84		50 - 150				09/29/16 10:15	10/05/16 13:40	1



# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

**Client Sample ID: S4-AU-092116**

**Lab Sample ID: 580-62731-24**

Date Collected: 09/21/16 08:21

Matrix: Water

Date Received: 09/23/16 14:55

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.035		0.024	0.014	mg/L		09/29/16 10:15	10/05/16 14:01	1
Motor Oil (>C24-C36)	0.023	J	0.047	0.0093	mg/L		09/29/16 10:15	10/05/16 14:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	89		50 - 150				09/29/16 10:15	10/05/16 14:01	1





# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

**Client Sample ID: S4-CD-092116**

**Lab Sample ID: 580-62731-25**

**Date Collected: 09/21/16 08:30**

**Matrix: Water**

**Date Received: 09/23/16 14:55**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.024	0.014	mg/L		09/29/16 10:15	10/05/16 14:21	1
Motor Oil (>C24-C36)	ND		0.047	0.0093	mg/L		09/29/16 10:15	10/05/16 14:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o-Terphenyl</i>	85		50 - 150				09/29/16 10:15	10/05/16 14:21	1



# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

**Client Sample ID: S4-BU-092116**

**Lab Sample ID: 580-62731-26**

Date Collected: 09/21/16 08:37

Matrix: Water

Date Received: 09/23/16 14:55

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.015	J	0.024	0.014	mg/L		09/29/16 10:15	10/05/16 14:42	1
Motor Oil (>C24-C36)	0.011	J	0.047	0.0093	mg/L		09/29/16 10:15	10/05/16 14:42	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
<i>o</i> -Terphenyl	83		50 - 150				09/29/16 10:15	10/05/16 14:42	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

**Client Sample ID: S3-AD-092116**

**Lab Sample ID: 580-62731-27**

Date Collected: 09/21/16 09:16

Matrix: Water

Date Received: 09/23/16 14:55

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>#2 Diesel (C10-C24)</b>	<b>0.017</b>	<b>J</b>	0.024	0.014	mg/L		09/29/16 10:15	10/05/16 15:03	1
Motor Oil (>C24-C36)	ND		0.048	0.0093	mg/L		09/29/16 10:15	10/05/16 15:03	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
<i>o-Terphenyl</i>	82		50 - 150				09/29/16 10:15	10/05/16 15:03	1



# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

**Client Sample ID: S3-AU-092116**

**Lab Sample ID: 580-62731-28**

**Date Collected: 09/21/16 09:20**

**Matrix: Water**

**Date Received: 09/23/16 14:55**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>#2 Diesel (C10-C24)</b>	<b>0.017</b>	<b>J</b>	0.024	0.014	mg/L		09/29/16 10:15	10/05/16 15:24	1
Motor Oil (>C24-C36)	ND		0.048	0.0094	mg/L		09/29/16 10:15	10/05/16 15:24	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
<i>o-Terphenyl</i>	88		50 - 150				09/29/16 10:15	10/05/16 15:24	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

**Client Sample ID: S3-BD-092116**

**Lab Sample ID: 580-62731-29**

**Date Collected: 09/21/16 09:58**

**Matrix: Water**

**Date Received: 09/23/16 14:55**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.024	0.014	mg/L		09/29/16 10:15	10/05/16 15:45	1
Motor Oil (>C24-C36)	ND		0.048	0.0093	mg/L		09/29/16 10:15	10/05/16 15:45	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o-Terphenyl</i>	88		50 - 150				09/29/16 10:15	10/05/16 15:45	1



# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

**Client Sample ID: S3-BU-092116**

**Lab Sample ID: 580-62731-30**

**Date Collected: 09/21/16 09:58**

**Matrix: Water**

**Date Received: 09/23/16 14:55**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.024	0.014	mg/L		09/29/16 10:15	10/05/16 16:27	1
<b>Motor Oil (&gt;C24-C36)</b>	<b>0.0093</b>	<b>J</b>	0.047	0.0093	mg/L		09/29/16 10:15	10/05/16 16:27	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o-Terphenyl</i>	83		50 - 150				09/29/16 10:15	10/05/16 16:27	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

**Client Sample ID: S2-BD-092116**

**Lab Sample ID: 580-62731-31**

**Date Collected: 09/21/16 10:20**

**Matrix: Water**

**Date Received: 09/23/16 14:55**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.024	0.014	mg/L		10/03/16 10:21	10/05/16 20:14	1
<b>Motor Oil (&gt;C24-C36)</b>	<b>0.011</b>	<b>J</b>	0.047	0.0093	mg/L		10/03/16 10:21	10/05/16 20:14	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o-Terphenyl</i>	70		50 - 150				10/03/16 10:21	10/05/16 20:14	1



# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

**Client Sample ID: S3-CU-092116**

**Lab Sample ID: 580-62731-32**

**Date Collected: 09/21/16 10:29**

**Matrix: Water**

**Date Received: 09/23/16 14:55**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.024	0.014	mg/L		10/03/16 10:21	10/05/16 20:36	1
<b>Motor Oil (&gt;C24-C36)</b>	<b>0.012</b>	<b>J</b>	0.047	0.0093	mg/L		10/03/16 10:21	10/05/16 20:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o-Terphenyl</i>	95		50 - 150				10/03/16 10:21	10/05/16 20:36	1





# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

**Client Sample ID: S3-CD-092116**

**Lab Sample ID: 580-62731-33**

**Date Collected: 09/21/16 10:33**

**Matrix: Water**

**Date Received: 09/23/16 14:55**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.024	0.014	mg/L		10/03/16 10:21	10/05/16 20:59	1
<b>Motor Oil (&gt;C24-C36)</b>	<b>0.012</b>	<b>J</b>	0.048	0.0094	mg/L		10/03/16 10:21	10/05/16 20:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o-Terphenyl</i>	98		50 - 150				10/03/16 10:21	10/05/16 20:59	1



# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

**Client Sample ID: S2-BU-092116**

**Lab Sample ID: 580-62731-34**

Date Collected: 09/21/16 10:55

Matrix: Water

Date Received: 09/23/16 14:55

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.13		0.024	0.014	mg/L		10/03/16 10:21	10/05/16 21:21	1
Motor Oil (>C24-C36)	0.043	J	0.048	0.0093	mg/L		10/03/16 10:21	10/05/16 21:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	96		50 - 150				10/03/16 10:21	10/05/16 21:21	1



# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

**Client Sample ID: S1-BD-092116**

**Lab Sample ID: 580-62731-35**

Date Collected: 09/21/16 11:27

Matrix: Water

Date Received: 09/23/16 14:55

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.017	J	0.024	0.014	mg/L		10/03/16 10:21	10/05/16 21:44	1
Motor Oil (>C24-C36)	0.012	J	0.048	0.0094	mg/L		10/03/16 10:21	10/05/16 21:44	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	102		50 - 150				10/03/16 10:21	10/05/16 21:44	1



# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

**Client Sample ID: S1-AD-092116**

**Lab Sample ID: 580-62731-36**

**Date Collected: 09/21/16 11:27**

**Matrix: Water**

**Date Received: 09/23/16 14:55**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.024	0.014	mg/L		10/03/16 10:21	10/05/16 22:06	1
<b>Motor Oil (&gt;C24-C36)</b>	<b>0.010</b>	<b>J</b>	0.047	0.0093	mg/L		10/03/16 10:21	10/05/16 22:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o-Terphenyl</i>	92		50 - 150				10/03/16 10:21	10/05/16 22:06	1



# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

**Client Sample ID: S2-AD-092116**

**Lab Sample ID: 580-62731-37**

Date Collected: 09/21/16 11:31

Matrix: Water

Date Received: 09/23/16 14:55

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.016	J	0.024	0.014	mg/L		10/03/16 10:21	10/05/16 22:28	1
Motor Oil (>C24-C36)	0.013	J	0.047	0.0093	mg/L		10/03/16 10:21	10/05/16 22:28	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
<i>o-Terphenyl</i>	101		50 - 150				10/03/16 10:21	10/05/16 22:28	1



# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

**Client Sample ID: S1-AU-092116**

**Lab Sample ID: 580-62731-38**

**Date Collected: 09/21/16 11:51**

**Matrix: Water**

**Date Received: 09/23/16 14:55**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.024	0.014	mg/L		10/03/16 10:21	10/05/16 22:51	1
<b>Motor Oil (&gt;C24-C36)</b>	<b>0.011</b>	<b>J</b>	0.047	0.0093	mg/L		10/03/16 10:21	10/05/16 22:51	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o-Terphenyl</i>	66		50 - 150				10/03/16 10:21	10/05/16 22:51	1



# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

**Client Sample ID: S1-BU-092116**

**Lab Sample ID: 580-62731-39**

**Date Collected: 09/21/16 12:00**

**Matrix: Water**

**Date Received: 09/23/16 14:55**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.024	0.014	mg/L		10/03/16 10:21	10/05/16 23:13	1
<b>Motor Oil (&gt;C24-C36)</b>	<b>0.011</b>	<b>J</b>	0.047	0.0093	mg/L		10/03/16 10:21	10/05/16 23:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	95		50 - 150				10/03/16 10:21	10/05/16 23:13	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

**Client Sample ID: S2-AU-092116**

**Lab Sample ID: 580-62731-40**

Date Collected: 09/21/16 12:05

Matrix: Water

Date Received: 09/23/16 14:55

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.015	J	0.024	0.014	mg/L		10/03/16 10:21	10/05/16 23:35	1
Motor Oil (>C24-C36)	0.013	J	0.047	0.0093	mg/L		10/03/16 10:21	10/05/16 23:35	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	95		50 - 150				10/03/16 10:21	10/05/16 23:35	1





# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

**Client Sample ID: 2B-W-4-092116**

**Lab Sample ID: 580-62731-41**

Date Collected: 09/21/16 14:09

Matrix: Water

Date Received: 09/23/16 14:55

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.015	J	0.024	0.014	mg/L		10/03/16 10:21	10/06/16 00:20	1
Motor Oil (>C24-C36)	0.011	J	0.047	0.0093	mg/L		10/03/16 10:21	10/06/16 00:20	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
<i>o-Terphenyl</i>	95		50 - 150				10/03/16 10:21	10/06/16 00:20	1

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

**Client Sample ID: 5-W-43-092116**

**Lab Sample ID: 580-62731-42**

Date Collected: 09/21/16 14:12

Matrix: Water

Date Received: 09/23/16 14:55

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.027		0.024	0.014	mg/L		10/04/16 10:59	10/05/16 00:18	1
Motor Oil (>C24-C36)	0.062	B *	0.047	0.0093	mg/L		10/04/16 10:59	10/05/16 00:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	77		50 - 150				10/04/16 10:59	10/05/16 00:18	1



# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

**Client Sample ID: GW-1-092116**

**Lab Sample ID: 580-62731-43**

Date Collected: 09/21/16 14:30

Matrix: Water

Date Received: 09/23/16 14:55

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.076		0.024	0.014	mg/L		10/04/16 10:59	10/05/16 00:39	1
Motor Oil (>C24-C36)	0.23	B *	0.048	0.0094	mg/L		10/04/16 10:59	10/05/16 00:39	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	78		50 - 150				10/04/16 10:59	10/05/16 00:39	1

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

**Client Sample ID: GW-10-092116**

**Lab Sample ID: 580-62731-44**

Date Collected: 09/21/16 14:35

Matrix: Water

Date Received: 09/23/16 14:55

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.023	J	0.024	0.014	mg/L		10/04/16 10:59	10/05/16 01:20	1
Motor Oil (>C24-C36)	0.031	J B *	0.047	0.0093	mg/L		10/04/16 10:59	10/05/16 01:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	81		50 - 150				10/04/16 10:59	10/05/16 01:20	1



# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

**Client Sample ID: EW-1-092116**

**Lab Sample ID: 580-62731-45**

**Date Collected: 09/21/16 15:00**

**Matrix: Water**

**Date Received: 09/23/16 14:55**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.036		0.024	0.014	mg/L		10/04/16 10:59	10/05/16 01:40	1
Motor Oil (>C24-C36)	0.040	J B *	0.048	0.0093	mg/L		10/04/16 10:59	10/05/16 01:40	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	82		50 - 150				10/04/16 10:59	10/05/16 01:40	1



# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

**Client Sample ID: MW-16-092116**

**Lab Sample ID: 580-62731-46**

Date Collected: 09/21/16 15:00

Matrix: Water

Date Received: 09/23/16 14:55

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.087		0.024	0.014	mg/L		10/04/16 10:59	10/05/16 02:01	1
Motor Oil (>C24-C36)	0.49	B *	0.047	0.0093	mg/L		10/04/16 10:59	10/05/16 02:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	77		50 - 150				10/04/16 10:59	10/05/16 02:01	1



# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

**Client Sample ID: 2A-W-40-092116**

**Lab Sample ID: 580-62731-47**

**Date Collected: 09/21/16 15:54**

**Matrix: Water**

**Date Received: 09/23/16 14:55**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.024	0.014	mg/L		10/04/16 10:59	10/05/16 02:21	1
<b>Motor Oil (&gt;C24-C36)</b>	<b>0.012</b>	<b>J B *</b>	0.047	0.0093	mg/L		10/04/16 10:59	10/05/16 02:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o-Terphenyl</i>	72		50 - 150				10/04/16 10:59	10/05/16 02:21	1



# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

**Client Sample ID: 2A-W-400-092116**

**Lab Sample ID: 580-62731-48**

Date Collected: 09/21/16 15:59

Matrix: Water

Date Received: 09/23/16 14:55

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.017	J	0.024	0.014	mg/L		10/04/16 10:59	10/05/16 02:42	1
Motor Oil (>C24-C36)	0.037	J B *	0.047	0.0092	mg/L		10/04/16 10:59	10/05/16 02:42	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	78		50 - 150				10/04/16 10:59	10/05/16 02:42	1





# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

**Client Sample ID: GW-2-092116**

**Lab Sample ID: 580-62731-49**

Date Collected: 09/21/16 16:02

Matrix: Water

Date Received: 09/23/16 14:55

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.026		0.024	0.014	mg/L		10/04/16 10:59	10/05/16 03:02	1
Motor Oil (>C24-C36)	0.017	J B *	0.048	0.0094	mg/L		10/04/16 10:59	10/05/16 03:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o-Terphenyl</i>	82		50 - 150				10/04/16 10:59	10/05/16 03:02	1



# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

**Client Sample ID: GW-20-092116**

**Lab Sample ID: 580-62731-50**

Date Collected: 09/21/16 16:07

Matrix: Water

Date Received: 09/23/16 14:55

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.024		0.024	0.014	mg/L		10/04/16 10:59	10/05/16 03:23	1
Motor Oil (>C24-C36)	0.018	J B *	0.047	0.0092	mg/L		10/04/16 10:59	10/05/16 03:23	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	77		50 - 150				10/04/16 10:59	10/05/16 03:23	1



# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

**Client Sample ID: 5-W-54-092116**

**Lab Sample ID: 580-62731-51**

Date Collected: 09/21/16 16:35

Matrix: Water

Date Received: 09/23/16 14:55

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.076		0.024	0.014	mg/L		10/04/16 12:48	10/05/16 03:43	1
Motor Oil (>C24-C36)	0.075	B *	0.048	0.0093	mg/L		10/04/16 12:48	10/05/16 03:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	82		50 - 150				10/04/16 12:48	10/05/16 03:43	1



# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

**Client Sample ID: 5-W-55-092116**

**Lab Sample ID: 580-62731-52**

Date Collected: 09/21/16 17:04

Matrix: Water

Date Received: 09/23/16 14:55

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.11		0.024	0.014	mg/L		10/04/16 12:48	10/05/16 04:04	1
Motor Oil (>C24-C36)	0.11	B *	0.047	0.0093	mg/L		10/04/16 12:48	10/05/16 04:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	79		50 - 150				10/04/16 12:48	10/05/16 04:04	1



# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

**Client Sample ID: 5-W-51-092116**

**Lab Sample ID: 580-62731-53**

Date Collected: 09/21/16 17:40

Matrix: Water

Date Received: 09/23/16 14:55

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.57		0.024	0.014	mg/L		10/04/16 12:48	10/05/16 04:25	1
Motor Oil (>C24-C36)	0.48	B *	0.048	0.0093	mg/L		10/04/16 12:48	10/05/16 04:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	74		50 - 150				10/04/16 12:48	10/05/16 04:25	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

**Client Sample ID: 5-W-56-092116**

**Lab Sample ID: 580-62731-54**

Date Collected: 09/21/16 17:43

Matrix: Water

Date Received: 09/23/16 14:55

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.35		0.024	0.014	mg/L		10/04/16 12:48	10/05/16 05:06	1
Motor Oil (>C24-C36)	0.46	B *	0.047	0.0093	mg/L		10/04/16 12:48	10/05/16 05:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	74		50 - 150				10/04/16 12:48	10/05/16 05:06	1

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

**Client Sample ID: 5-W-15-092116**

**Lab Sample ID: 580-62731-55**

Date Collected: 09/21/16 17:53

Matrix: Water

Date Received: 09/23/16 14:55

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.042		0.024	0.014	mg/L		10/04/16 12:48	10/05/16 05:26	1
Motor Oil (>C24-C36)	0.034	J B *	0.047	0.0093	mg/L		10/04/16 12:48	10/05/16 05:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	79		50 - 150				10/04/16 12:48	10/05/16 05:26	1

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

**Client Sample ID: 5-W-19-092216**

**Lab Sample ID: 580-62731-56**

Date Collected: 09/22/16 09:13

Matrix: Water

Date Received: 09/23/16 14:55

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.037		0.024	0.014	mg/L		10/04/16 12:54	10/06/16 01:07	1
Motor Oil (>C24-C36)	0.013	J	0.048	0.0094	mg/L		10/04/16 12:54	10/06/16 01:07	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	79		50 - 150				10/04/16 12:54	10/06/16 01:07	1





# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

**Client Sample ID: 5-W-16-092216**

**Lab Sample ID: 580-62731-57**

**Date Collected: 09/22/16 09:19**

**Matrix: Water**

**Date Received: 09/23/16 14:55**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.024	0.014	mg/L		10/04/16 16:52	10/06/16 01:49	1
<b>Motor Oil (&gt;C24-C36)</b>	<b>0.011</b>	<b>J</b>	0.047	0.0092	mg/L		10/04/16 16:52	10/06/16 01:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o-Terphenyl</i>	83		50 - 150				10/04/16 16:52	10/06/16 01:49	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

**Client Sample ID: 5-W-160-092216**

**Lab Sample ID: 580-62731-58**

Date Collected: 09/22/16 09:24

Matrix: Water

Date Received: 09/23/16 14:55

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.022	J	0.024	0.014	mg/L		10/04/16 16:52	10/06/16 02:09	1
Motor Oil (>C24-C36)	0.010	J	0.047	0.0093	mg/L		10/04/16 16:52	10/06/16 02:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	79		50 - 150				10/04/16 16:52	10/06/16 02:09	1



# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

**Client Sample ID: 1A-W-4-092216**

**Lab Sample ID: 580-62731-59**

Date Collected: 09/22/16 09:33

Matrix: Water

Date Received: 09/23/16 14:55

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>#2 Diesel (C10-C24)</b>	<b>0.018</b>	<b>J</b>	0.024	0.014	mg/L		10/04/16 16:52	10/06/16 02:29	1
Motor Oil (>C24-C36)	ND		0.047	0.0093	mg/L		10/04/16 16:52	10/06/16 02:29	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
<i>o-Terphenyl</i>	84		50 - 150				10/04/16 16:52	10/06/16 02:29	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

**Client Sample ID: 5-W-17-092216**

**Lab Sample ID: 580-62731-60**

**Date Collected: 09/22/16 10:12**

**Matrix: Water**

**Date Received: 09/23/16 14:55**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.024	0.014	mg/L		10/04/16 16:52	10/06/16 02:50	1
Motor Oil (>C24-C36)	ND		0.047	0.0093	mg/L		10/04/16 16:52	10/06/16 02:50	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
<i>o-Terphenyl</i>	78		50 - 150				10/04/16 16:52	10/06/16 02:50	1

# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

**Client Sample ID: 5-W-18-092216**

**Lab Sample ID: 580-62731-61**

Date Collected: 09/22/16 10:17

Matrix: Water

Date Received: 09/23/16 14:55

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.066		0.024	0.014	mg/L		10/04/16 16:52	10/06/16 03:10	1
Motor Oil (>C24-C36)	0.054		0.047	0.0093	mg/L		10/04/16 16:52	10/06/16 03:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	76		50 - 150				10/04/16 16:52	10/06/16 03:10	1



# Client Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

**Client Sample ID: 5-W-14-092216**

**Lab Sample ID: 580-62731-62**

**Date Collected: 09/22/16 10:45**

**Matrix: Water**

**Date Received: 09/23/16 14:55**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.024	0.014	mg/L		10/04/16 16:52	10/06/16 03:31	1
Motor Oil (>C24-C36)	ND		0.047	0.0093	mg/L		10/04/16 16:52	10/06/16 03:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	57		50 - 150				10/04/16 16:52	10/06/16 03:31	1



# QC Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

## Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

**Lab Sample ID: MB 580-228371/1-A**

**Matrix: Water**

**Analysis Batch: 228472**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 228371**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.10	0.058	mg/L		09/26/16 16:53	09/28/16 07:57	1
Motor Oil (>C24-C36)	ND		0.20	0.039	mg/L		09/26/16 16:53	09/28/16 07:57	1
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	111		50 - 150				09/26/16 16:53	09/28/16 07:57	1

**Lab Sample ID: LCS 580-228371/2-A**

**Matrix: Water**

**Analysis Batch: 228472**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 228371**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
#2 Diesel (C10-C24)	2.01	1.79		mg/L		89	59 - 120
Motor Oil (>C24-C36)	2.01	1.89		mg/L		94	53 - 129
Surrogate	%Recovery	LCS Qualifier	Limits				
<i>o</i> -Terphenyl	100		50 - 150				

**Lab Sample ID: LCSD 580-228371/3-A**

**Matrix: Water**

**Analysis Batch: 228472**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

**Prep Batch: 228371**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
#2 Diesel (C10-C24)	2.01	1.76		mg/L		87	59 - 120	2	27
Motor Oil (>C24-C36)	2.01	1.87		mg/L		93	53 - 129	1	19
Surrogate	%Recovery	LCSD Qualifier	Limits						
<i>o</i> -Terphenyl	99		50 - 150						

**Lab Sample ID: MB 580-228584/1-A**

**Matrix: Water**

**Analysis Batch: 229013**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 228584**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.025	0.015	mg/L		09/28/16 17:10	10/05/16 07:50	1
Motor Oil (>C24-C36)	ND		0.050	0.0098	mg/L		09/28/16 17:10	10/05/16 07:50	1
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	81		50 - 150				09/28/16 17:10	10/05/16 07:50	1

**Lab Sample ID: LCS 580-228584/2-A**

**Matrix: Water**

**Analysis Batch: 229013**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 228584**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
#2 Diesel (C10-C24)	0.503	0.426		mg/L		85	59 - 120
Motor Oil (>C24-C36)	0.503	0.451		mg/L		90	53 - 129

TestAmerica Seattle

# QC Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

## Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) (Continued)

**Lab Sample ID: LCS 580-228584/2-A**

**Matrix: Water**

**Analysis Batch: 229013**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 228584**

Surrogate	LCS %Recovery	LCS Qualifier	Limits
<i>o</i> -Terphenyl	88		50 - 150

**Lab Sample ID: LCSD 580-228584/3-A**

**Matrix: Water**

**Analysis Batch: 229013**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

**Prep Batch: 228584**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
#2 Diesel (C10-C24)	0.503	0.432		mg/L		86	59 - 120	1	27
Motor Oil (>C24-C36)	0.503	0.459		mg/L		91	53 - 129	2	19

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
<i>o</i> -Terphenyl	88		50 - 150

**Lab Sample ID: 280-88505-A-1-A MS**

**Matrix: Water**

**Analysis Batch: 229013**

**Client Sample ID: Matrix Spike**

**Prep Type: Total/NA**

**Prep Batch: 228584**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
#2 Diesel (C10-C24)	0.090		0.486	0.471		mg/L		78	59 - 120
Motor Oil (>C24-C36)	0.18		0.487	0.620		mg/L		90	63 - 129

Surrogate	MS %Recovery	MS Qualifier	Limits
<i>o</i> -Terphenyl	79		50 - 150

**Lab Sample ID: 280-88505-A-1-B MSD**

**Matrix: Water**

**Analysis Batch: 229013**

**Client Sample ID: Matrix Spike Duplicate**

**Prep Type: Total/NA**

**Prep Batch: 228584**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
#2 Diesel (C10-C24)	0.090		0.516	0.486		mg/L		77	59 - 120	3	27
Motor Oil (>C24-C36)	0.18		0.517	0.639		mg/L		88	63 - 129	3	19

Surrogate	MSD %Recovery	MSD Qualifier	Limits
<i>o</i> -Terphenyl	83		50 - 150

**Lab Sample ID: MB 580-228809/1-A**

**Matrix: Water**

**Analysis Batch: 229136**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 228809**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.025	0.015	mg/L		10/01/16 13:16	10/05/16 14:15	1
Motor Oil (>C24-C36)	ND		0.050	0.0098	mg/L		10/01/16 13:16	10/05/16 14:15	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	101		50 - 150	10/01/16 13:16	10/05/16 14:15	1

TestAmerica Seattle



# QC Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

## Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) (Continued)

**Lab Sample ID: LCS 580-228809/2-A**

**Matrix: Water**

**Analysis Batch: 229136**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 228809**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	
#2 Diesel (C10-C24)	0.503	0.415		mg/L		82	59 - 120	
Motor Oil (>C24-C36)	0.503	0.450		mg/L		89	53 - 129	
<b>Surrogate</b>		<b>LCS %Recovery</b>	<b>LCS Qualifier</b>				<b>Limits</b>	
<i>o</i> -Terphenyl		82					50 - 150	

**Lab Sample ID: LCSD 580-228809/3-A**

**Matrix: Water**

**Analysis Batch: 229136**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

**Prep Batch: 228809**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits		RPD	Limit
#2 Diesel (C10-C24)	0.503	0.418		mg/L		83	59 - 120		1	27
Motor Oil (>C24-C36)	0.503	0.461		mg/L		92	53 - 129		2	19
<b>Surrogate</b>		<b>LCSD %Recovery</b>	<b>LCSD Qualifier</b>				<b>Limits</b>			
<i>o</i> -Terphenyl		79					50 - 150			

**Lab Sample ID: 280-88592-A-4-B MS**

**Matrix: Water**

**Analysis Batch: 229136**

**Client Sample ID: Matrix Spike**

**Prep Type: Total/NA**

**Prep Batch: 228809**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	
#2 Diesel (C10-C24)	0.64		0.482	1.02		mg/L		80	59 - 120	
Motor Oil (>C24-C36)	0.20		0.482	0.608		mg/L		84	63 - 129	
<b>Surrogate</b>		<b>MS %Recovery</b>	<b>MS Qualifier</b>						<b>Limits</b>	
<i>o</i> -Terphenyl		80							50 - 150	

**Lab Sample ID: 280-88592-A-4-C MSD**

**Matrix: Water**

**Analysis Batch: 229136**

**Client Sample ID: Matrix Spike Duplicate**

**Prep Type: Total/NA**

**Prep Batch: 228809**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits		RPD	Limit
#2 Diesel (C10-C24)	0.64		0.478	1.06		mg/L		89	59 - 120		4	27
Motor Oil (>C24-C36)	0.20		0.478	0.618		mg/L		87	63 - 129		2	19
<b>Surrogate</b>		<b>MSD %Recovery</b>	<b>MSD Qualifier</b>						<b>Limits</b>			
<i>o</i> -Terphenyl		89							50 - 150			

**Lab Sample ID: MB 580-228960/1-A**

**Matrix: Water**

**Analysis Batch: 229013**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 228960**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.025	0.015	mg/L		10/04/16 10:59	10/04/16 23:17	1
Motor Oil (>C24-C36)	0.0191	J	0.050	0.0098	mg/L		10/04/16 10:59	10/04/16 23:17	1

TestAmerica Seattle

# QC Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

## Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) (Continued)

**Lab Sample ID: MB 580-228960/1-A**

**Matrix: Water**

**Analysis Batch: 229013**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 228960**

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
<i>o</i> -Terphenyl	81		50 - 150	10/04/16 10:59	10/04/16 23:17	1

**Lab Sample ID: LCS 580-228960/2-A**

**Matrix: Water**

**Analysis Batch: 229013**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 228960**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	
							Limits	Limits
#2 Diesel (C10-C24)	0.503	0.341		mg/L		68	59 - 120	
Motor Oil (>C24-C36)	0.503	0.367		mg/L		73	53 - 129	

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
<i>o</i> -Terphenyl	66		50 - 150

**Lab Sample ID: LCSD 580-228960/3-A**

**Matrix: Water**

**Analysis Batch: 229013**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

**Prep Batch: 228960**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.		RPD	
							Limits	Limits	RPD	Limit
#2 Diesel (C10-C24)	0.503	0.423		mg/L		84	59 - 120	21	27	
Motor Oil (>C24-C36)	0.503	0.468	*	mg/L		93	53 - 129	24	19	

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
<i>o</i> -Terphenyl	78		50 - 150

**Lab Sample ID: MB 580-228986/1-A**

**Matrix: Water**

**Analysis Batch: 229134**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 228986**

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
#2 Diesel (C10-C24)	ND		0.025	0.015	mg/L		10/04/16 12:54	10/06/16 00:06	1
Motor Oil (>C24-C36)	ND		0.050	0.0098	mg/L		10/04/16 12:54	10/06/16 00:06	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
<i>o</i> -Terphenyl	81		50 - 150	10/04/16 12:54	10/06/16 00:06	1

**Lab Sample ID: LCS 580-228986/2-A**

**Matrix: Water**

**Analysis Batch: 229134**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 228986**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	
							Limits	Limits
#2 Diesel (C10-C24)	0.503	0.398		mg/L		79	59 - 120	
Motor Oil (>C24-C36)	0.503	0.438		mg/L		87	53 - 129	

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
<i>o</i> -Terphenyl	76		50 - 150

TestAmerica Seattle

# QC Sample Results

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

## Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) (Continued)

**Lab Sample ID: LCSD 580-228986/3-A**

**Matrix: Water**

**Analysis Batch: 229134**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

**Prep Batch: 228986**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
#2 Diesel (C10-C24)	0.503	0.414		mg/L		82	59 - 120	4	27
Motor Oil (>C24-C36)	0.503	0.461		mg/L		92	53 - 129	5	19

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
<i>o</i> -Terphenyl	77		50 - 150



# Lab Chronicle

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

## Client Sample ID: MW-3-092016

Lab Sample ID: 580-62731-1

Date Collected: 09/20/16 08:45

Matrix: Water

Date Received: 09/23/16 14:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			228371	09/26/16 16:53	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	228472	09/28/16 10:33	KZ1	TAL SEA

## Client Sample ID: GW-4-092016

Lab Sample ID: 580-62731-2

Date Collected: 09/20/16 08:46

Matrix: Water

Date Received: 09/23/16 14:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			228371	09/26/16 16:53	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	228472	09/28/16 10:55	KZ1	TAL SEA

## Client Sample ID: GW-40-092016

Lab Sample ID: 580-62731-3

Date Collected: 09/20/16 08:51

Matrix: Water

Date Received: 09/23/16 14:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			228371	09/26/16 16:53	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	228472	09/28/16 11:18	KZ1	TAL SEA

## Client Sample ID: EW-2A-092016

Lab Sample ID: 580-62731-4

Date Collected: 09/20/16 08:52

Matrix: Water

Date Received: 09/23/16 14:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			228371	09/26/16 16:53	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	228472	09/28/16 11:40	KZ1	TAL SEA

## Client Sample ID: 1C-W-7-092016

Lab Sample ID: 580-62731-5

Date Collected: 09/20/16 09:58

Matrix: Water

Date Received: 09/23/16 14:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			228371	09/26/16 16:53	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	228472	09/28/16 12:03	KZ1	TAL SEA

## Client Sample ID: MW-4-092016

Lab Sample ID: 580-62731-6

Date Collected: 09/20/16 10:00

Matrix: Water

Date Received: 09/23/16 14:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			228371	09/26/16 16:53	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	228472	09/28/16 12:26	KZ1	TAL SEA

TestAmerica Seattle

# Lab Chronicle

Client: Farallon Consulting LLC  
Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

## Client Sample ID: 2A-W-42-092016

Lab Sample ID: 580-62731-7

Date Collected: 09/20/16 10:02

Matrix: Water

Date Received: 09/23/16 14:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			228371	09/27/16 10:05	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	228472	09/28/16 12:48	KZ1	TAL SEA

## Client Sample ID: 2A-W-10-092016

Lab Sample ID: 580-62731-8

Date Collected: 09/20/16 11:05

Matrix: Water

Date Received: 09/23/16 14:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			228371	09/27/16 10:05	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	228472	09/28/16 13:11	KZ1	TAL SEA

## Client Sample ID: 1C-W-3-092016

Lab Sample ID: 580-62731-9

Date Collected: 09/20/16 11:26

Matrix: Water

Date Received: 09/23/16 14:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			228371	09/27/16 10:05	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	228472	09/28/16 13:34	KZ1	TAL SEA

## Client Sample ID: 1C-W-4-092016

Lab Sample ID: 580-62731-10

Date Collected: 09/20/16 11:27

Matrix: Water

Date Received: 09/23/16 14:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			228371	09/27/16 10:05	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	228472	09/28/16 14:19	KZ1	TAL SEA

## Client Sample ID: 2A-W-9-092016

Lab Sample ID: 580-62731-11

Date Collected: 09/20/16 12:10

Matrix: Water

Date Received: 09/23/16 14:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			228371	09/27/16 10:05	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	228472	09/28/16 14:42	KZ1	TAL SEA

## Client Sample ID: 1C-W-8-092016

Lab Sample ID: 580-62731-12

Date Collected: 09/20/16 13:36

Matrix: Water

Date Received: 09/23/16 14:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			228371	09/27/16 10:05	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	228472	09/28/16 15:05	KZ1	TAL SEA

TestAmerica Seattle

# Lab Chronicle

Client: Farallon Consulting LLC  
Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

## Client Sample ID: 1C-W-1-092016

Lab Sample ID: 580-62731-13

Date Collected: 09/20/16 13:54

Matrix: Water

Date Received: 09/23/16 14:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			228371	09/27/16 10:05	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	228472	09/28/16 15:28	KZ1	TAL SEA

## Client Sample ID: 1B-W-3-092016

Lab Sample ID: 580-62731-14

Date Collected: 09/20/16 14:59

Matrix: Water

Date Received: 09/23/16 14:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			228371	09/27/16 10:05	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	228472	09/28/16 15:50	KZ1	TAL SEA

## Client Sample ID: 1B-W-2-092016

Lab Sample ID: 580-62731-15

Date Collected: 09/20/16 15:40

Matrix: Water

Date Received: 09/23/16 14:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			228371	09/27/16 10:05	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	228472	09/28/16 16:13	KZ1	TAL SEA

## Client Sample ID: GW-3-092016

Lab Sample ID: 580-62731-16

Date Collected: 09/20/16 16:13

Matrix: Water

Date Received: 09/23/16 14:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			228371	09/27/16 10:05	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	228472	09/28/16 16:36	KZ1	TAL SEA

## Client Sample ID: GW-30-092016

Lab Sample ID: 580-62731-17

Date Collected: 09/20/16 16:18

Matrix: Water

Date Received: 09/23/16 14:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			228371	09/27/16 10:05	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	228472	09/28/16 16:59	KZ1	TAL SEA

## Client Sample ID: 1B-W-23-092016

Lab Sample ID: 580-62731-18

Date Collected: 09/20/16 17:10

Matrix: Water

Date Received: 09/23/16 14:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			228584	09/28/16 17:10	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	229013	10/05/16 11:15	KZ1	TAL SEA

TestAmerica Seattle

# Lab Chronicle

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

## Client Sample ID: MW-38R-092016

Lab Sample ID: 580-62731-19

Date Collected: 09/20/16 17:35

Matrix: Water

Date Received: 09/23/16 14:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			228584	09/28/16 17:10	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	229013	10/05/16 11:36	KZ1	TAL SEA

## Client Sample ID: 2A-W-41-092016

Lab Sample ID: 580-62731-20

Date Collected: 09/20/16 17:56

Matrix: Water

Date Received: 09/23/16 14:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			228584	09/28/16 17:10	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	229013	10/05/16 11:56	KZ1	TAL SEA

## Client Sample ID: S4-AD-092116

Lab Sample ID: 580-62731-21

Date Collected: 09/21/16 07:57

Matrix: Water

Date Received: 09/23/16 14:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			228584	09/29/16 10:15	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	229013	10/05/16 12:58	KZ1	TAL SEA

## Client Sample ID: S4-BD-092116

Lab Sample ID: 580-62731-22

Date Collected: 09/21/16 08:03

Matrix: Water

Date Received: 09/23/16 14:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			228584	09/29/16 10:15	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	229013	10/05/16 13:19	KZ1	TAL SEA

## Client Sample ID: S4-CU-092116

Lab Sample ID: 580-62731-23

Date Collected: 09/21/16 08:04

Matrix: Water

Date Received: 09/23/16 14:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			228584	09/29/16 10:15	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	229013	10/05/16 13:40	KZ1	TAL SEA

## Client Sample ID: S4-AU-092116

Lab Sample ID: 580-62731-24

Date Collected: 09/21/16 08:21

Matrix: Water

Date Received: 09/23/16 14:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			228584	09/29/16 10:15	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	229013	10/05/16 14:01	KZ1	TAL SEA

TestAmerica Seattle

# Lab Chronicle

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

## Client Sample ID: S4-CD-092116

Lab Sample ID: 580-62731-25

Date Collected: 09/21/16 08:30

Matrix: Water

Date Received: 09/23/16 14:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			228584	09/29/16 10:15	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	229013	10/05/16 14:21	KZ1	TAL SEA

## Client Sample ID: S4-BU-092116

Lab Sample ID: 580-62731-26

Date Collected: 09/21/16 08:37

Matrix: Water

Date Received: 09/23/16 14:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			228584	09/29/16 10:15	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	229013	10/05/16 14:42	KZ1	TAL SEA

## Client Sample ID: S3-AD-092116

Lab Sample ID: 580-62731-27

Date Collected: 09/21/16 09:16

Matrix: Water

Date Received: 09/23/16 14:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			228584	09/29/16 10:15	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	229013	10/05/16 15:03	KZ1	TAL SEA

## Client Sample ID: S3-AU-092116

Lab Sample ID: 580-62731-28

Date Collected: 09/21/16 09:20

Matrix: Water

Date Received: 09/23/16 14:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			228584	09/29/16 10:15	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	229013	10/05/16 15:24	KZ1	TAL SEA

## Client Sample ID: S3-BD-092116

Lab Sample ID: 580-62731-29

Date Collected: 09/21/16 09:58

Matrix: Water

Date Received: 09/23/16 14:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			228584	09/29/16 10:15	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	229013	10/05/16 15:45	KZ1	TAL SEA

## Client Sample ID: S3-BU-092116

Lab Sample ID: 580-62731-30

Date Collected: 09/21/16 09:58

Matrix: Water

Date Received: 09/23/16 14:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			228584	09/29/16 10:15	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	229013	10/05/16 16:27	KZ1	TAL SEA

TestAmerica Seattle



# Lab Chronicle

Client: Farallon Consulting LLC  
Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

## Client Sample ID: S2-BD-092116

Lab Sample ID: 580-62731-31

Date Collected: 09/21/16 10:20

Matrix: Water

Date Received: 09/23/16 14:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			228809	10/03/16 10:21	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	229136	10/05/16 20:14	JCP	TAL SEA

## Client Sample ID: S3-CU-092116

Lab Sample ID: 580-62731-32

Date Collected: 09/21/16 10:29

Matrix: Water

Date Received: 09/23/16 14:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			228809	10/03/16 10:21	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	229136	10/05/16 20:36	JCP	TAL SEA

## Client Sample ID: S3-CD-092116

Lab Sample ID: 580-62731-33

Date Collected: 09/21/16 10:33

Matrix: Water

Date Received: 09/23/16 14:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			228809	10/03/16 10:21	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	229136	10/05/16 20:59	JCP	TAL SEA

## Client Sample ID: S2-BU-092116

Lab Sample ID: 580-62731-34

Date Collected: 09/21/16 10:55

Matrix: Water

Date Received: 09/23/16 14:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			228809	10/03/16 10:21	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	229136	10/05/16 21:21	JCP	TAL SEA

## Client Sample ID: S1-BD-092116

Lab Sample ID: 580-62731-35

Date Collected: 09/21/16 11:27

Matrix: Water

Date Received: 09/23/16 14:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			228809	10/03/16 10:21	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	229136	10/05/16 21:44	JCP	TAL SEA

## Client Sample ID: S1-AD-092116

Lab Sample ID: 580-62731-36

Date Collected: 09/21/16 11:27

Matrix: Water

Date Received: 09/23/16 14:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			228809	10/03/16 10:21	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	229136	10/05/16 22:06	JCP	TAL SEA

TestAmerica Seattle

# Lab Chronicle

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

## Client Sample ID: S2-AD-092116

Lab Sample ID: 580-62731-37

Date Collected: 09/21/16 11:31

Matrix: Water

Date Received: 09/23/16 14:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			228809	10/03/16 10:21	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	229136	10/05/16 22:28	JCP	TAL SEA

## Client Sample ID: S1-AU-092116

Lab Sample ID: 580-62731-38

Date Collected: 09/21/16 11:51

Matrix: Water

Date Received: 09/23/16 14:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			228809	10/03/16 10:21	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	229136	10/05/16 22:51	JCP	TAL SEA

## Client Sample ID: S1-BU-092116

Lab Sample ID: 580-62731-39

Date Collected: 09/21/16 12:00

Matrix: Water

Date Received: 09/23/16 14:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			228809	10/03/16 10:21	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	229136	10/05/16 23:13	JCP	TAL SEA

## Client Sample ID: S2-AU-092116

Lab Sample ID: 580-62731-40

Date Collected: 09/21/16 12:05

Matrix: Water

Date Received: 09/23/16 14:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			228809	10/03/16 10:21	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	229136	10/05/16 23:35	JCP	TAL SEA

## Client Sample ID: 2B-W-4-092116

Lab Sample ID: 580-62731-41

Date Collected: 09/21/16 14:09

Matrix: Water

Date Received: 09/23/16 14:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			228809	10/03/16 10:21	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	229136	10/06/16 00:20	JCP	TAL SEA

## Client Sample ID: 5-W-43-092116

Lab Sample ID: 580-62731-42

Date Collected: 09/21/16 14:12

Matrix: Water

Date Received: 09/23/16 14:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			228960	10/04/16 10:59	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	229013	10/05/16 00:18	KZ1	TAL SEA

TestAmerica Seattle

# Lab Chronicle

Client: Farallon Consulting LLC  
Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

## Client Sample ID: GW-1-092116

Lab Sample ID: 580-62731-43

Date Collected: 09/21/16 14:30

Matrix: Water

Date Received: 09/23/16 14:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			228960	10/04/16 10:59	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	229013	10/05/16 00:39	KZ1	TAL SEA

## Client Sample ID: GW-10-092116

Lab Sample ID: 580-62731-44

Date Collected: 09/21/16 14:35

Matrix: Water

Date Received: 09/23/16 14:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			228960	10/04/16 10:59	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	229013	10/05/16 01:20	KZ1	TAL SEA

## Client Sample ID: EW-1-092116

Lab Sample ID: 580-62731-45

Date Collected: 09/21/16 15:00

Matrix: Water

Date Received: 09/23/16 14:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			228960	10/04/16 10:59	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	229013	10/05/16 01:40	KZ1	TAL SEA

## Client Sample ID: MW-16-092116

Lab Sample ID: 580-62731-46

Date Collected: 09/21/16 15:00

Matrix: Water

Date Received: 09/23/16 14:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			228960	10/04/16 10:59	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	229013	10/05/16 02:01	KZ1	TAL SEA

## Client Sample ID: 2A-W-40-092116

Lab Sample ID: 580-62731-47

Date Collected: 09/21/16 15:54

Matrix: Water

Date Received: 09/23/16 14:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			228960	10/04/16 10:59	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	229013	10/05/16 02:21	KZ1	TAL SEA

## Client Sample ID: 2A-W-400-092116

Lab Sample ID: 580-62731-48

Date Collected: 09/21/16 15:59

Matrix: Water

Date Received: 09/23/16 14:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			228960	10/04/16 10:59	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	229013	10/05/16 02:42	KZ1	TAL SEA

TestAmerica Seattle

# Lab Chronicle

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

## Client Sample ID: GW-2-092116

Lab Sample ID: 580-62731-49

Date Collected: 09/21/16 16:02

Matrix: Water

Date Received: 09/23/16 14:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			228960	10/04/16 10:59	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	229013	10/05/16 03:02	KZ1	TAL SEA

## Client Sample ID: GW-20-092116

Lab Sample ID: 580-62731-50

Date Collected: 09/21/16 16:07

Matrix: Water

Date Received: 09/23/16 14:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			228960	10/04/16 10:59	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	229013	10/05/16 03:23	KZ1	TAL SEA

## Client Sample ID: 5-W-54-092116

Lab Sample ID: 580-62731-51

Date Collected: 09/21/16 16:35

Matrix: Water

Date Received: 09/23/16 14:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			228960	10/04/16 12:48	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	229013	10/05/16 03:43	KZ1	TAL SEA

## Client Sample ID: 5-W-55-092116

Lab Sample ID: 580-62731-52

Date Collected: 09/21/16 17:04

Matrix: Water

Date Received: 09/23/16 14:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			228960	10/04/16 12:48	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	229013	10/05/16 04:04	KZ1	TAL SEA

## Client Sample ID: 5-W-51-092116

Lab Sample ID: 580-62731-53

Date Collected: 09/21/16 17:40

Matrix: Water

Date Received: 09/23/16 14:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			228960	10/04/16 12:48	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	229013	10/05/16 04:25	KZ1	TAL SEA

## Client Sample ID: 5-W-56-092116

Lab Sample ID: 580-62731-54

Date Collected: 09/21/16 17:43

Matrix: Water

Date Received: 09/23/16 14:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			228960	10/04/16 12:48	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	229013	10/05/16 05:06	KZ1	TAL SEA

TestAmerica Seattle

# Lab Chronicle

Client: Farallon Consulting LLC  
 Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

## Client Sample ID: 5-W-15-092116

Lab Sample ID: 580-62731-55

Date Collected: 09/21/16 17:53

Matrix: Water

Date Received: 09/23/16 14:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			228960	10/04/16 12:48	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	229013	10/05/16 05:26	KZ1	TAL SEA

## Client Sample ID: 5-W-19-092216

Lab Sample ID: 580-62731-56

Date Collected: 09/22/16 09:13

Matrix: Water

Date Received: 09/23/16 14:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			228986	10/04/16 12:54	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	229134	10/06/16 01:07	KZ1	TAL SEA

## Client Sample ID: 5-W-16-092216

Lab Sample ID: 580-62731-57

Date Collected: 09/22/16 09:19

Matrix: Water

Date Received: 09/23/16 14:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			228986	10/04/16 16:52	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	229134	10/06/16 01:49	KZ1	TAL SEA

## Client Sample ID: 5-W-160-092216

Lab Sample ID: 580-62731-58

Date Collected: 09/22/16 09:24

Matrix: Water

Date Received: 09/23/16 14:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			228986	10/04/16 16:52	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	229134	10/06/16 02:09	KZ1	TAL SEA

## Client Sample ID: 1A-W-4-092216

Lab Sample ID: 580-62731-59

Date Collected: 09/22/16 09:33

Matrix: Water

Date Received: 09/23/16 14:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			228986	10/04/16 16:52	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	229134	10/06/16 02:29	KZ1	TAL SEA

## Client Sample ID: 5-W-17-092216

Lab Sample ID: 580-62731-60

Date Collected: 09/22/16 10:12

Matrix: Water

Date Received: 09/23/16 14:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			228986	10/04/16 16:52	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	229134	10/06/16 02:50	KZ1	TAL SEA

TestAmerica Seattle

# Lab Chronicle

Client: Farallon Consulting LLC  
Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

## Client Sample ID: 5-W-18-092216

Lab Sample ID: 580-62731-61

Date Collected: 09/22/16 10:17

Matrix: Water

Date Received: 09/23/16 14:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			228986	10/04/16 16:52	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	229134	10/06/16 03:10	KZ1	TAL SEA

## Client Sample ID: 5-W-14-092216

Lab Sample ID: 580-62731-62

Date Collected: 09/22/16 10:45

Matrix: Water

Date Received: 09/23/16 14:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			228986	10/04/16 16:52	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	229134	10/06/16 03:31	KZ1	TAL SEA

### Laboratory References:

TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

# Certification Summary

Client: Farallon Consulting LLC  
Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

## Laboratory: TestAmerica Seattle

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska (UST)	State Program	10	UST-022	03-02-17
California	State Program	9	2901	01-31-18
L-A-B	DoD ELAP		L2236	01-19-19
L-A-B	ISO/IEC 17025		L2236	01-19-19
Montana (UST)	State Program	8	N/A	04-30-20
Oregon	NELAP	10	WA100007	11-06-16
US Fish & Wildlife	Federal		LE058448-0	10-31-16
USDA	Federal		P330-14-00126	04-08-17
Washington	State Program	10	C553	02-17-17

# Sample Summary

Client: Farallon Consulting LLC  
Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-62731-1	MW-3-092016	Water	09/20/16 08:45	09/23/16 14:55
580-62731-2	GW-4-092016	Water	09/20/16 08:46	09/23/16 14:55
580-62731-3	GW-40-092016	Water	09/20/16 08:51	09/23/16 14:55
580-62731-4	EW-2A-092016	Water	09/20/16 08:52	09/23/16 14:55
580-62731-5	1C-W-7-092016	Water	09/20/16 09:58	09/23/16 14:55
580-62731-6	MW-4-092016	Water	09/20/16 10:00	09/23/16 14:55
580-62731-7	2A-W-42-092016	Water	09/20/16 10:02	09/23/16 14:55
580-62731-8	2A-W-10-092016	Water	09/20/16 11:05	09/23/16 14:55
580-62731-9	1C-W-3-092016	Water	09/20/16 11:26	09/23/16 14:55
580-62731-10	1C-W-4-092016	Water	09/20/16 11:27	09/23/16 14:55
580-62731-11	2A-W-9-092016	Water	09/20/16 12:10	09/23/16 14:55
580-62731-12	1C-W-8-092016	Water	09/20/16 13:36	09/23/16 14:55
580-62731-13	1C-W-1-092016	Water	09/20/16 13:54	09/23/16 14:55
580-62731-14	1B-W-3-092016	Water	09/20/16 14:59	09/23/16 14:55
580-62731-15	1B-W-2-092016	Water	09/20/16 15:40	09/23/16 14:55
580-62731-16	GW-3-092016	Water	09/20/16 16:13	09/23/16 14:55
580-62731-17	GW-30-092016	Water	09/20/16 16:18	09/23/16 14:55
580-62731-18	1B-W-23-092016	Water	09/20/16 17:10	09/23/16 14:55
580-62731-19	MW-38R-092016	Water	09/20/16 17:35	09/23/16 14:55
580-62731-20	2A-W-41-092016	Water	09/20/16 17:56	09/23/16 14:55
580-62731-21	S4-AD-092116	Water	09/21/16 07:57	09/23/16 14:55
580-62731-22	S4-BD-092116	Water	09/21/16 08:03	09/23/16 14:55
580-62731-23	S4-CU-092116	Water	09/21/16 08:04	09/23/16 14:55
580-62731-24	S4-AU-092116	Water	09/21/16 08:21	09/23/16 14:55
580-62731-25	S4-CD-092116	Water	09/21/16 08:30	09/23/16 14:55
580-62731-26	S4-BU-092116	Water	09/21/16 08:37	09/23/16 14:55
580-62731-27	S3-AD-092116	Water	09/21/16 09:16	09/23/16 14:55
580-62731-28	S3-AU-092116	Water	09/21/16 09:20	09/23/16 14:55
580-62731-29	S3-BD-092116	Water	09/21/16 09:58	09/23/16 14:55
580-62731-30	S3-BU-092116	Water	09/21/16 09:58	09/23/16 14:55
580-62731-31	S2-BD-092116	Water	09/21/16 10:20	09/23/16 14:55
580-62731-32	S3-CU-092116	Water	09/21/16 10:29	09/23/16 14:55
580-62731-33	S3-CD-092116	Water	09/21/16 10:33	09/23/16 14:55
580-62731-34	S2-BU-092116	Water	09/21/16 10:55	09/23/16 14:55
580-62731-35	S1-BD-092116	Water	09/21/16 11:27	09/23/16 14:55
580-62731-36	S1-AD-092116	Water	09/21/16 11:27	09/23/16 14:55
580-62731-37	S2-AD-092116	Water	09/21/16 11:31	09/23/16 14:55
580-62731-38	S1-AU-092116	Water	09/21/16 11:51	09/23/16 14:55
580-62731-39	S1-BU-092116	Water	09/21/16 12:00	09/23/16 14:55
580-62731-40	S2-AU-092116	Water	09/21/16 12:05	09/23/16 14:55
580-62731-41	2B-W-4-092116	Water	09/21/16 14:09	09/23/16 14:55
580-62731-42	5-W-43-092116	Water	09/21/16 14:12	09/23/16 14:55
580-62731-43	GW-1-092116	Water	09/21/16 14:30	09/23/16 14:55
580-62731-44	GW-10-092116	Water	09/21/16 14:35	09/23/16 14:55
580-62731-45	EW-1-092116	Water	09/21/16 15:00	09/23/16 14:55
580-62731-46	MW-16-092116	Water	09/21/16 15:00	09/23/16 14:55
580-62731-47	2A-W-40-092116	Water	09/21/16 15:54	09/23/16 14:55
580-62731-48	2A-W-400-092116	Water	09/21/16 15:59	09/23/16 14:55
580-62731-49	GW-2-092116	Water	09/21/16 16:02	09/23/16 14:55
580-62731-50	GW-20-092116	Water	09/21/16 16:07	09/23/16 14:55
580-62731-51	5-W-54-092116	Water	09/21/16 16:35	09/23/16 14:55
580-62731-52	5-W-55-092116	Water	09/21/16 17:04	09/23/16 14:55
580-62731-53	5-W-51-092116	Water	09/21/16 17:40	09/23/16 14:55

TestAmerica Seattle





# Sample Summary

Client: Farallon Consulting LLC  
Project/Site: BNSF Skykomish Semiannual GWS

TestAmerica Job ID: 580-62731-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-62731-54	5-W-56-092116	Water	09/21/16 17:43	09/23/16 14:55
580-62731-55	5-W-15-092116	Water	09/21/16 17:53	09/23/16 14:55
580-62731-56	5-W-19-092216	Water	09/22/16 09:13	09/23/16 14:55
580-62731-57	5-W-16-092216	Water	09/22/16 09:19	09/23/16 14:55
580-62731-58	5-W-160-092216	Water	09/22/16 09:24	09/23/16 14:55
580-62731-59	1A-W-4-092216	Water	09/22/16 09:33	09/23/16 14:55
580-62731-60	5-W-17-092216	Water	09/22/16 10:12	09/23/16 14:55
580-62731-61	5-W-18-092216	Water	09/22/16 10:17	09/23/16 14:55
580-62731-62	5-W-14-092216	Water	09/22/16 10:45	09/23/16 14:55



 <b>CHAIN OF CUSTODY</b>		<b>LABORATORY INFORMATION</b>					LAB WORK ORDER:		
		Laboratory: <u>TEST America</u>		Project Manager: <u>Kristine Alen</u>			<b>SHIPMENT INFORMATION</b>		
		Address: <u>5755 8th St East</u>		Phone: <u>(253)-922-2310</u>			Shipment Method: <u>Carrier</u>		
<b>BNSF PROJECT INFORMATION</b>		City/State/ZIP: <u>Tacoma, WA 98424</u>		Fax: <u>253-922-5047</u>		Tracking Number:			
Project State of Origin: <u>WA</u>		<b>CONSULTANT INFORMATION</b>			Project Number: <u>683-043</u>				
BNSF Project Number:		Project City: <u>Skykomish</u>		Company: <u>Farallon Consulting</u>		Project Manager: <u>Jerry Portele</u>			
BNSF Project Name: <u>Skykomish <del>III</del> Semiannual GWS</u>		Address: <u>975 5th Ave NW</u>		Email: <u>J.portele@farallonconsulting.com</u>		BNSF Contact:			
BNSF Work Order No.:		City/State/ZIP: <u>Issaquah, WA 98027</u>		Phone: <u>425-295-0800</u>		Fax:			
<b>TURNAROUND TIME</b>		<b>DELIVERABLES</b>			<b>METHODS FOR ANALYSIS</b>				
<input type="checkbox"/> 1-day Rush <input type="checkbox"/> 2-day Rush <input type="checkbox"/> 3-day Rush		<input type="checkbox"/> BNSF Standard (Level II) <input type="checkbox"/> Level III <input type="checkbox"/> Level IV			<input type="checkbox"/> Other Deliverables? <input checked="" type="checkbox"/> EDD Req. Format?				
<input type="checkbox"/> 5- to 8-day Rush <input checked="" type="checkbox"/> Standard 10-Day <input type="checkbox"/> Other									
<b>SAMPLE INFORMATION</b>									
Sample Identification	Containers	Sample Collection			Filtered Y/N	Type (Comp/Grab)	Matrix	COMMENTS	LAB USE
		Date	Time	Sampler					
1 MW-3-092016	2	9-20-16	8:45		N	G	Water		
2 GW-4-092016			8:46						
3 GW-40-092016			8:51						
4 EW-2A-092016			8:52						
5 IC-W-7-092016			9:58						
6 MW-4-092016			10:00						
7 ZA-W-42-092016			10:02						
8 ZA-W-10-092016			11:05						
9 IC-W-3-092016			11:26						
10 IC-W-4-092016			11:27						
11 ZA-W-9-092016			12:10						
12 IC-W-8-092016			13:36						
13 IC-W-1-092016			13:54						
14 IB-W-3-092016			14:59						
15 IB-W-2-092016			15:40						
 580-62731 Chain of Custody									
Relinquished By: <u>[Signature]</u>		Date/Time: <u>9/23/16 900</u>		Received By: <u>[Signature]</u>		Date/Time: <u>9/23/16 1455</u>		Comments and Special Analytical Requirements:	
Relinquished By:		Date/Time:		Received By:		Date/Time:		Page 1 of 5	
Relinquished By:		Date/Time:		Received By:		Date/Time:		BNSF COC No	
Received by Laboratory:		Date/Time:		Lab Remarks:		Lab Custody Intact?		Custody Seal No.	
						<input type="checkbox"/> Yes <input type="checkbox"/> No			

ORIGINAL - RETURN TO LABORATORY WITH SAMPLES

DUPLICATE - CONSULTANT

TAL-1001 (0912)



LABORATORY INFORMATION	
Laboratory: <u>Test America</u>	Project Manager: <u>Kristine Allen</u>
Address: <u>5755 8th St East</u>	Phone: <u>253-922-2310</u>
City/State/ZIP: <u>Tacoma, WA 98424</u>	Fax: <u>253-922-5047</u>

LAB WORK ORDER:	SHIPMENT INFORMATION
	Shipment Method: <u>Courier</u>
	Tracking Number:

BNSF PROJECT INFORMATION	
BNSF Project Number:	Project State of Origin: <u>WA</u>
BNSF Project Name: <u>Skykomish Semiannual GLWS</u>	Project City: <u>Skykomish</u>
BNSF Contact:	BNSF Work Order No.:

CONSULTANT INFORMATION	
Company: <u>Freallon Consulting</u>	Project Number: <u>683-043</u>
Address: <u>975 5th Ave NW</u>	Project Manager: <u>Jerry Portele</u>
City/State/ZIP: <u>Issaquah, WA 98027</u>	Email: <u>jportele@freallonconsulting.com</u>
	Phone: <u>425-295-0800</u> Fax: <u>---</u>

TURNAROUND TIME	
<input type="checkbox"/> 1-day Rush	<input type="checkbox"/> 5- to 8-day Rush
<input type="checkbox"/> 2-day Rush	<input checked="" type="checkbox"/> Standard 10-Day
<input type="checkbox"/> 3-day Rush	<input type="checkbox"/> Other _____

DELIVERABLES	
<input type="checkbox"/> BNSF Standard (Level II)	<input type="checkbox"/> Other Deliverables? _____
<input type="checkbox"/> Level III	<input checked="" type="checkbox"/> EDD Req. Format? _____
<input type="checkbox"/> Level IV	_____

METHODS FOR ANALYSIS									

SAMPLE INFORMATION										COMMENTS	LAB USE	
Sample Identification	Containers	Sample Collection			Filtered Y/N	Type (Comp/Grab)	Matrix	Methods for Analysis				
		Date	Time	Sampler								
1 <u>GW-3-092016</u>	2	<u>9-20-16</u>	<u>16:33</u>	X	G	Water	X					
2 <u>GW-30-092016</u>												<u>16:28</u>
3 <u>IB-W-23-092016</u>												<u>17:10</u>
4 <u>MW-38R-092016</u>												<u>17:35</u>
5 <u>2A-W-41-092016</u>												<u>17:56</u>
6 <u>S4-AD-092116</u>		<u>9-21-16</u>	<u>7:57</u>									
7 <u>S4-BD-092116</u>			<u>8:03</u>									
8 <u>S4-CU-092116</u>			<u>8:04</u>									
9 <u>S4-AD-092116</u>			<u>8:29</u>									
10 <u>S4-CTD-092116</u>			<u>8:30</u>									
11 <u>S4-BU-092116</u>			<u>8:37</u>									
12 <u>S3-AD-092116</u>			<u>9:16</u>									
13 <u>S3-AU-092116</u>			<u>9:20</u>									
14 <u>S3-BD-092116</u>			<u>9:58</u>									
15 <u>S3-BU-092116</u>			<u>9:58</u>									

Relinquished By: <u>[Signature]</u>	Date/Time: <u>9/23/16 900</u>	Received By: <u>[Signature]</u>	Date/Time: <u>9/23/16 1455</u>	Comments and Special Analytical Requirements:  <u>Page 2 of 5</u>
Relinquished By:	Date/Time:	Received By:	Date/Time:	
Relinquished By:	Date/Time:	Received By:	Date/Time:	
Received by Laboratory:	Date/Time:	Lab Remarks:	Lab: Custody Intact? <input type="checkbox"/> Yes <input type="checkbox"/> No	

ORIGINAL - RETURN TO LABORATORY WITH SAMPLES

DUPLICATE - CONSULTANT

TAL-1001 (0912)





LABORATORY INFORMATION	
Laboratory: <u>Test America 2</u>	Project Manager: <u>Kristine Allen</u>
Address: <u>5755 8th St. East</u>	Phone: <u>253-922-2310</u>
City/State/ZIP: <u>Tacoma, WA 98424</u>	Fax: <u>253-922-5047</u>

LAB WORK ORDER:
SHIPMENT INFORMATION
Shipment Method: <u>Courier</u>
Tracking Number:

BNSF PROJECT INFORMATION
BNSF Project Number:
BNSF Project Name: <u>Skykomish Semiannual GWS</u>
BNSF Contact:

CONSULTANT INFORMATION
Company: <u>Fazellen Consulting</u>
Address: <u>975 5th Ave NW</u>
City/State/ZIP: <u>Issaquah, WA 98027</u>

Project Number: <u>683-043</u>
Project Manager: <u>Jerry Portele</u>
Email: <u>Jportele@fazellenconsulting.com</u>
Phone: <u>425-295-0800</u>
Fax:

TURNAROUND TIME
<input type="checkbox"/> 1-day Rush
<input type="checkbox"/> 2-day Rush
<input type="checkbox"/> 3-day Rush
<input type="checkbox"/> 5- to 8-day Rush
<input checked="" type="checkbox"/> Standard 10-Day
<input type="checkbox"/> Other _____

DELIVERABLES
<input type="checkbox"/> BNSF Standard (Level II)
<input type="checkbox"/> Level III
<input type="checkbox"/> Level IV
<input type="checkbox"/> Other Deliverables? _____
<input checked="" type="checkbox"/> EDD Req. Format? _____

METHODS FOR ANALYSIS
<u>NWTPH-DX</u>

SAMPLE INFORMATION								COMMENTS	LAB USE
Sample Identification	Containers	Sample Collection			Filtered Y/N	Type (Comp/Grab)	Matrix		
		Date	Time	Sampler					
1 S2-BD-092116	2	9-21-16	10:20		Y	G	Water	X	
2 S3-CU-092116			10:29						
3 S3-CD-092116			10:33						
4 S2-BU			10:55						
5 S1-BD			11:27						
6 S1-AD			11:27						
7 S2-AD			11:31						
8 S1-A0			11:51						
9 S1-BU			12:00						
10 S2-A0			12:05						
11 2B-W-4-			14:09						
12 5-W-43			14:12						
13 GW-1092116			14:30						
14 GW-10-092116			14:35						
15 FW-1-092116			15:00						

Relinquished By: <u>[Signature]</u>	Date/Time: <u>9/23/16 900</u>	Received By: <u>[Signature]</u>	Date/Time: <u>9/23/16 1455</u>	Comments and Special Analytical Requirements:  <u>Page 3 of 5</u>
Relinquished By:	Date/Time:	Received By:	Date/Time:	
Relinquished By:	Date/Time:	Received By:	Date/Time:	
Received by Laboratory:	Date/Time:	Lab Remarks:	Lab: Custody Intact? <input type="checkbox"/> Yes <input type="checkbox"/> No	

ORIGINAL - RETURN TO LABORATORY WITH SAMPLES

DUPLICATE - CONSULTANT

TAL-1001 (0912)



LABORATORY INFORMATION	
Laboratory: <u>Test America</u>	Project Manager: <u>Kristine Allen</u>
Address: <u>5755 8th St. East</u>	Phone: <u>253-922-2310</u>
City/State/ZIP: <u>Tacoma, WA 98421</u>	Fax: <u>253-922-5047</u>

LAB WORK ORDER:
SHIPMENT INFORMATION
Shipment Method: <u>Courier</u>
Tracking Number:

BNSF PROJECT INFORMATION
BNSF Project Number:
BNSF Project Name: <u>Skykomish Semiannual GWES</u>
BNSF Contact:

CONSULTANT INFORMATION
Project State of Origin: <u>WA</u>
Project City: <u>Skykomish</u>
Company: <u>Farallon Consulting</u>
Address: <u>975 5th Ave NW</u>
City/State/ZIP: <u>Issaquah, WA 98027</u>

Project Number: <u>683-043</u>
Project Manager: <u>Jerry Portele</u>
Email: <u>jportele@farallonconsulting.com</u>
Phone: <u>425-295-0800</u>
Fax:

TURNAROUND TIME	
<input type="checkbox"/> 1-day Rush	<input type="checkbox"/> 5- to 8-day Rush
<input type="checkbox"/> 2-day Rush	<input checked="" type="checkbox"/> Standard 10-Day
<input type="checkbox"/> 3-day Rush	<input type="checkbox"/> Other _____

DELIVERABLES	
<input type="checkbox"/> BNSF Standard (Level II)	<input type="checkbox"/> Other Deliverables? _____
<input type="checkbox"/> Level III	<input checked="" type="checkbox"/> EDD Req. Format?
<input type="checkbox"/> Level IV	

METHODS FOR ANALYSIS
<u>NWTPH-DX</u>

SAMPLE INFORMATION								COMMENTS	LAB USE
Sample Identification	Containers	Sample Collection			Filtered Y/N	Type (Comp/Grab)	Matrix		
		Date	Time	Sampler					
1 MW-16-092116	2	9-21-16	15:00		N	G	Water	X	
2 2A-W-40-092116				15:54					
3 2A-W-400-092116				15:59					
4 GW-2-092116				16:02					
5 GW-20-092116				16:07					
6 5-W-54-092116				16:35					
7 5-W-55-092116				17:04					
8 5-W-51-092116				17:40					
9 5-W-56-092116				17:43					
10 5-W-15-092116			↓	17:53					
11 5-W-19-092116			9-22-16	9:13					
12 5-W-16-092216			↓	9:19					
13 5-W-160-092216			↓	9:24					
14 1A-W-4-092216			↓	9:33					
15 5-W-17-092216			↓	10:12					

Relinquished By: <u>[Signature]</u>	Date/Time: <u>9/23/16 900</u>	Received By: <u>[Signature]</u>	Date/Time: <u>9/23/16 1455</u>	Comments and Special Analytical Requirements:  <u>Page 4 of 5</u>
Relinquished By:	Date/Time:	Received By:	Date/Time:	
Relinquished By:	Date/Time:	Received By:	Date/Time:	
Received by Laboratory:	Date/Time:	Lab Remarks:	Lab: Custody Intact? <input type="checkbox"/> Yes <input type="checkbox"/> No	

ORIGINAL - RETURN TO LABORATORY WITH SAMPLES

DUPLICATE - CONSULTANT

TAL-1001 (0912)





LABORATORY INFORMATION

Laboratory: Test America 2 Project Manager: Kristine Allen  
 Address: 5755 Bth St. East Phone: 253-922-2310  
 City/State/ZIP: Tacoma, WA 98424 Fax: 253-922-5047

LAB WORK ORDER:  
 SHIPMENT INFORMATION  
 Shipment Method: Courier  
 Tracking Number:

BNSF PROJECT INFORMATION

BNSF Project Number:  
 BNSF Project Name: Skykomish  
 BNSF Contact:

Project State of Origin: WA  
 Project City: Skykomish

BNSF Work Order No.: Semi-annual GWS

CONSULTANT INFORMATION

Company: Fazellon Consulting  
 Address: 975 5th Ave NW  
 City/State/ZIP: Issaquah, WA 98027

Project Number: 683-043  
 Project Manager: Jerry Portele

Email: Jportele@fazellonconsulting.com  
 Phone: 425-295-0800 Fax:

TURNAROUND TIME  
 1-day Rush  
 2-day Rush  
 3-day Rush  
 5- to 8-day Rush  
 Standard 10-Day  
 Other \_\_\_\_\_

DELIVERABLES  Other Deliverables?  
 BNSF Standard (Level II)  
 Level III  
 Level IV  
 EDD Req, Format?

METHODS FOR ANALYSIS

NW TPH-DX

SAMPLE INFORMATION

Sample Identification	Containers	Sample Collection			Filtered Y/N	Type (Comp/Grab)	Matrix											COMMENTS	LAB USE
		Date	Time	Sampler															
1 <u>5-W-18-092216</u>	<u>2</u>	<u>9-22-16</u>	<u>10:17</u>	<u>1</u>	<u>Y</u>	<u>G</u>	<u>Water</u>	<u>X</u>											
2 <u>5-W-14-092216</u>	<u>2</u>	<u>↓</u>	<u>10:45</u>	<u>1</u>	<u>Y</u>	<u>G</u>	<u>↓</u>	<u>X</u>											
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			
13																			
14																			
15																			

AS

Relinquished By: <u>[Signature]</u>	Date/Time: <u>9/23/16 900</u>	Received By: <u>[Signature]</u>	Date/Time: <u>9/23/16 1455</u>	Comments and Special Analytical Requirements:  <p style="text-align: center; font-size: 1.5em;">Page 5 of 5</p>
Relinquished By:	Date/Time:	Received By:	Date/Time:	
Relinquished By:	Date/Time:	Received By:	Date/Time:	
Received by Laboratory:	Date/Time:	Lab Remarks:	Lab: Custody Intact? <input type="checkbox"/> Yes <input type="checkbox"/> No	

TB AZ Cooler Cor 5.8<sup>°</sup> Unc 6.0<sup>°</sup>  
Cooler Dsc Lg Blue/wh<sup>+</sup>@Lab ✓  
Wet/Packs Packing Bubble  
w/c/s

TB AZ Cooler Cor 2.7<sup>°</sup> Unc 2.7<sup>°</sup>  
Cooler Dsc Lg Blue/wh<sup>+</sup>@Lab ✓  
Wet/Packs Packing Bubble  
w/c/s

TB AZ Cooler Cor 1.5<sup>°</sup> Unc 1.7<sup>°</sup>  
Cooler Dsc Lg Blue/wh<sup>+</sup>@Lab ✓  
Wet/Packs Packing Bubble  
w/c/s

TB AZ Cooler Cor 2.7<sup>°</sup> Unc 2.4<sup>°</sup>  
Cooler Dsc Lg Green/Blu@Lab ✓  
Wet/Packs Packing Bubble  
w/c/s

TB AZ Cooler Cor 2.4<sup>°</sup> Unc 2.6<sup>°</sup>  
Cooler Dsc Lg Blue/wh<sup>+</sup>@Lab ✓  
Wet/Packs Packing Bubble  
w/c/s

TB AZ Cooler Cor 3.1<sup>°</sup> Unc 3.3<sup>°</sup>  
Cooler Dsc Lg Blue/wh<sup>+</sup>@Lab ✓  
Wet/Packs Packing Bubble  
w/c/s

TB AZ Cooler Cor 1.0<sup>°</sup> Unc 1.2<sup>°</sup>  
Cooler Dsc Lg Green/Blu@Lab ✓  
Wet/Packs Packing Bubble  
w/c/s

TB AZ Cooler Cor 2.2<sup>°</sup> Unc 2.4<sup>°</sup>  
Cooler Dsc Lg Blue/wh<sup>+</sup>@Lab ✓  
Wet/Packs Packing Bubble  
w/c/s

TB AZ Cooler Cor 0.5<sup>°</sup> Unc 1.0<sup>°</sup>  
Cooler Dsc Lg Blue/wh<sup>+</sup>@Lab ✓  
Wet/Packs Packing Bubble  
w/c/s

TB AZ Cooler Cor 1.3<sup>°</sup> Unc 1.5<sup>°</sup>  
Cooler Dsc Lg Blue/wh<sup>+</sup>@Lab ✓  
Wet/Packs Packing Bubble  
w/c/s

TB AZ Cooler Cor 5.4<sup>°</sup> Unc 5.6<sup>°</sup>  
Cooler Dsc Lg Blue/wh<sup>+</sup>@Lab ✓  
Wet/Packs Packing Bubble  
w/c/s

## Login Sample Receipt Checklist

Client: Farallon Consulting LLC

Job Number: 580-62731-1

**Login Number: 62731**

**List Source: TestAmerica Seattle**

**List Number: 1**

**Creator: Gall, Brandon A**

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Seattle  
5755 8th Street East  
Tacoma, WA 98424  
Tel: (253)922-2310

TestAmerica Job ID: 580-64894-1

Client Project/Site: BNSF Skykomish Quaterly GWS  
Sampling Event: Skykomish HCC System

For:

BNSF Railway Company  
605 Puyallup Avenue  
Tacoma, Washington 98421

Attn: e procurement



Authorized for release by:  
12/30/2016 10:33:41 AM  
Robert Greer, Project Manager II  
(253)922-2310  
[robert.greer@testamericainc.com](mailto:robert.greer@testamericainc.com)

Designee for

Kristine Allen, Manager of Project Management  
(253)248-4970  
[kristine.allen@testamericainc.com](mailto:kristine.allen@testamericainc.com)

### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



Visit us at:  
[www.testamericainc.com](http://www.testamericainc.com)

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

1

2

3

4

5

6

7

8

9

10

11



# Table of Contents

Cover Page . . . . .	1
Table of Contents . . . . .	2
Case Narrative . . . . .	3
Definitions . . . . .	4
Client Sample Results . . . . .	5
QC Sample Results . . . . .	34
Chronicle . . . . .	36
Certification Summary . . . . .	41
Sample Summary . . . . .	42
Chain of Custody . . . . .	43
Receipt Checklists . . . . .	45

# Case Narrative

Client: BNSF Railway Company  
Project/Site: BNSF Skykomish Quaterly GWS

TestAmerica Job ID: 580-64894-1

**Job ID: 580-64894-1**

**Laboratory: TestAmerica Seattle**

## Narrative

### Job Narrative 580-64894-1

#### Receipt

The samples were received on 12/16/2016 3:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 5 coolers at receipt time were -0.6° C, -0.6° C, -0.2° C, -0.2° C and 2.6° C.

#### GC Semi VOA

Method(s) NWTPH-Dx: The following samples contained a hydrocarbon pattern in the diesel range; however, the elution pattern was later than the typical diesel fuel pattern used by the laboratory for quantitative purposes: EW-2A-121416 (580-64894-2), 5-W-18-121416 (580-64894-3), 1B-W-3-121416 (580-64894-4), 5-W-43-121416 (580-64894-10), 1C-W-1-121416 (580-64894-11), EW-1-121416 (580-64894-12), 1C-W-8-121416 (580-64894-13), GW-1-121416 (580-64894-16), GW-10-121416 (580-64894-17), 1C-W-7-121416 (580-64894-18), GW-4-121516 (580-64894-19), MW-4-121516 (580-64894-20), MW-3-121516 (580-64894-21), 2A-W-42-121516 (580-64894-22), 2A-W-9-121516 (580-64894-23), 2A-W-10-121516 (580-64894-24), GW-3-121516 (580-64894-26) and 2A-W-41-121516 (580-64894-27).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

# Definitions/Glossary

Client: BNSF Railway Company  
Project/Site: BNSF Skykomish Quaterly GWS

TestAmerica Job ID: 580-64894-1

## Qualifiers

### GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

# Client Sample Results

Client: BNSF Railway Company  
 Project/Site: BNSF Skykomish Quaterly GWS

TestAmerica Job ID: 580-64894-1

**Client Sample ID: 5-W-19-121416**

**Lab Sample ID: 580-64894-1**

**Date Collected: 12/14/16 09:31**

**Matrix: Water**

**Date Received: 12/16/16 15:00**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.024	0.014	mg/L		12/22/16 16:29	12/24/16 03:17	1
Motor Oil (>C24-C36)	ND		0.048	0.0094	mg/L		12/22/16 16:29	12/24/16 03:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	90		50 - 150				12/22/16 16:29	12/24/16 03:17	1



# Client Sample Results

Client: BNSF Railway Company  
Project/Site: BNSF Skykomish Quaterly GWS

TestAmerica Job ID: 580-64894-1

**Client Sample ID: EW-2A-121416**

**Lab Sample ID: 580-64894-2**

**Date Collected: 12/14/16 09:32**

**Matrix: Water**

**Date Received: 12/16/16 15:00**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.016	J	0.024	0.014	mg/L		12/22/16 16:29	12/24/16 03:38	1
Motor Oil (>C24-C36)	0.022	J	0.048	0.0093	mg/L		12/22/16 16:29	12/24/16 03:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	83		50 - 150				12/22/16 16:29	12/24/16 03:38	1

# Client Sample Results

Client: BNSF Railway Company  
 Project/Site: BNSF Skykomish Quaterly GWS

TestAmerica Job ID: 580-64894-1

**Client Sample ID: 5-W-18-121416**

**Lab Sample ID: 580-64894-3**

**Date Collected: 12/14/16 09:40**

**Matrix: Water**

**Date Received: 12/16/16 15:00**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.058		0.024	0.014	mg/L		12/22/16 16:29	12/24/16 04:00	1
Motor Oil (>C24-C36)	0.061		0.047	0.0093	mg/L		12/22/16 16:29	12/24/16 04:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	79		50 - 150				12/22/16 16:29	12/24/16 04:00	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: BNSF Railway Company  
 Project/Site: BNSF Skykomish Quaterly GWS

TestAmerica Job ID: 580-64894-1

**Client Sample ID: 1B-W-3-121416**

**Lab Sample ID: 580-64894-4**

**Date Collected: 12/14/16 10:35**

**Matrix: Water**

**Date Received: 12/16/16 15:00**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.043		0.024	0.014	mg/L		12/22/16 16:29	12/24/16 04:21	1
Motor Oil (>C24-C36)	0.036	J	0.047	0.0093	mg/L		12/22/16 16:29	12/24/16 04:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	76		50 - 150				12/22/16 16:29	12/24/16 04:21	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11



# Client Sample Results

Client: BNSF Railway Company  
 Project/Site: BNSF Skykomish Quaterly GWS

TestAmerica Job ID: 580-64894-1

**Client Sample ID: 5-W-16-121416**

**Lab Sample ID: 580-64894-5**

**Date Collected: 12/14/16 10:54**

**Matrix: Water**

**Date Received: 12/16/16 15:00**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.024	0.014	mg/L		12/23/16 10:10	12/24/16 04:43	1
Motor Oil (>C24-C36)	ND		0.048	0.0093	mg/L		12/23/16 10:10	12/24/16 04:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	95		50 - 150				12/23/16 10:10	12/24/16 04:43	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: BNSF Railway Company  
 Project/Site: BNSF Skykomish Quaterly GWS

TestAmerica Job ID: 580-64894-1

**Client Sample ID: 5-W-17-121416**

**Lab Sample ID: 580-64894-6**

**Date Collected: 12/14/16 11:03**

**Matrix: Water**

**Date Received: 12/16/16 15:00**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.014	J	0.024	0.014	mg/L		12/23/16 10:10	12/24/16 05:04	1
Motor Oil (>C24-C36)	0.0093	J	0.048	0.0093	mg/L		12/23/16 10:10	12/24/16 05:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	87		50 - 150				12/23/16 10:10	12/24/16 05:04	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: BNSF Railway Company  
 Project/Site: BNSF Skykomish Quaterly GWS

TestAmerica Job ID: 580-64894-1

**Client Sample ID: 2B-W-4-121416**

**Lab Sample ID: 580-64894-7**

**Date Collected: 12/14/16 11:55**

**Matrix: Water**

**Date Received: 12/16/16 15:00**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.024	0.014	mg/L		12/23/16 10:10	12/24/16 05:26	1
Motor Oil (>C24-C36)	ND		0.047	0.0093	mg/L		12/23/16 10:10	12/24/16 05:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	95		50 - 150				12/23/16 10:10	12/24/16 05:26	1



# Client Sample Results

Client: BNSF Railway Company  
 Project/Site: BNSF Skykomish Quaterly GWS

TestAmerica Job ID: 580-64894-1

**Client Sample ID: 5-W-15-121416**

**Lab Sample ID: 580-64894-8**

**Date Collected: 12/14/16 12:18**

**Matrix: Water**

**Date Received: 12/16/16 15:00**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.017	J	0.024	0.014	mg/L		12/23/16 10:10	12/24/16 05:47	1
Motor Oil (>C24-C36)	0.011	J	0.047	0.0093	mg/L		12/23/16 10:10	12/24/16 05:47	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	92		50 - 150				12/23/16 10:10	12/24/16 05:47	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: BNSF Railway Company  
 Project/Site: BNSF Skykomish Quaterly GWS

TestAmerica Job ID: 580-64894-1

**Client Sample ID: 5-W-14-121416**

**Lab Sample ID: 580-64894-9**

**Date Collected: 12/14/16 12:19**

**Matrix: Water**

**Date Received: 12/16/16 15:00**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.024	0.014	mg/L		12/23/16 10:10	12/24/16 06:30	1
Motor Oil (>C24-C36)	ND		0.048	0.0095	mg/L		12/23/16 10:10	12/24/16 06:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	90		50 - 150				12/23/16 10:10	12/24/16 06:30	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: BNSF Railway Company  
 Project/Site: BNSF Skykomish Quaterly GWS

TestAmerica Job ID: 580-64894-1

**Client Sample ID: 5-W-43-121416**

**Lab Sample ID: 580-64894-10**

**Date Collected: 12/14/16 14:05**

**Matrix: Water**

**Date Received: 12/16/16 15:00**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.028		0.024	0.014	mg/L		12/23/16 10:10	12/24/16 06:51	1
Motor Oil (>C24-C36)	0.052		0.048	0.0095	mg/L		12/23/16 10:10	12/24/16 06:51	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	88		50 - 150				12/23/16 10:10	12/24/16 06:51	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: BNSF Railway Company  
 Project/Site: BNSF Skykomish Quaterly GWS

TestAmerica Job ID: 580-64894-1

**Client Sample ID: 1C-W-1-121416**

**Lab Sample ID: 580-64894-11**

**Date Collected: 12/14/16 14:08**

**Matrix: Water**

**Date Received: 12/16/16 15:00**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.022	J	0.024	0.014	mg/L		12/23/16 10:10	12/24/16 07:13	1
Motor Oil (>C24-C36)	0.028	J	0.047	0.0093	mg/L		12/23/16 10:10	12/24/16 07:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	85		50 - 150				12/23/16 10:10	12/24/16 07:13	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: BNSF Railway Company  
 Project/Site: BNSF Skykomish Quaterly GWS

TestAmerica Job ID: 580-64894-1

**Client Sample ID: EW-1-121416**

**Lab Sample ID: 580-64894-12**

**Date Collected: 12/14/16 14:09**

**Matrix: Water**

**Date Received: 12/16/16 15:00**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.034		0.024	0.014	mg/L		12/23/16 10:10	12/24/16 07:34	1
Motor Oil (>C24-C36)	0.046	J	0.047	0.0093	mg/L		12/23/16 10:10	12/24/16 07:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	85		50 - 150				12/23/16 10:10	12/24/16 07:34	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11



# Client Sample Results

Client: BNSF Railway Company  
 Project/Site: BNSF Skykomish Quaterly GWS

TestAmerica Job ID: 580-64894-1

**Client Sample ID: 1C-W-8-121416**

**Lab Sample ID: 580-64894-13**

**Date Collected: 12/14/16 14:58**

**Matrix: Water**

**Date Received: 12/16/16 15:00**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.052		0.024	0.014	mg/L		12/23/16 10:10	12/24/16 07:55	1
Motor Oil (>C24-C36)	0.044	J	0.047	0.0093	mg/L		12/23/16 10:10	12/24/16 07:55	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	91		50 - 150				12/23/16 10:10	12/24/16 07:55	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: BNSF Railway Company  
 Project/Site: BNSF Skykomish Quaterly GWS

TestAmerica Job ID: 580-64894-1

**Client Sample ID: GW-2-121416**

**Lab Sample ID: 580-64894-14**

**Date Collected: 12/14/16 15:26**

**Matrix: Water**

**Date Received: 12/16/16 15:00**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.024	0.014	mg/L		12/23/16 10:10	12/24/16 08:17	1
Motor Oil (>C24-C36)	ND		0.048	0.0094	mg/L		12/23/16 10:10	12/24/16 08:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	95		50 - 150				12/23/16 10:10	12/24/16 08:17	1

# Client Sample Results

Client: BNSF Railway Company  
 Project/Site: BNSF Skykomish Quaterly GWS

TestAmerica Job ID: 580-64894-1

**Client Sample ID: GW-20-121416**

**Lab Sample ID: 580-64894-15**

**Date Collected: 12/14/16 15:31**

**Matrix: Water**

**Date Received: 12/16/16 15:00**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.024	0.014	mg/L		12/23/16 10:10	12/27/16 14:23	1
Motor Oil (>C24-C36)	ND		0.047	0.0093	mg/L		12/23/16 10:10	12/27/16 14:23	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	91		50 - 150				12/23/16 10:10	12/27/16 14:23	1



# Client Sample Results

Client: BNSF Railway Company  
 Project/Site: BNSF Skykomish Quaterly GWS

TestAmerica Job ID: 580-64894-1

**Client Sample ID: GW-1-121416**

**Lab Sample ID: 580-64894-16**

**Date Collected: 12/14/16 15:33**

**Matrix: Water**

**Date Received: 12/16/16 15:00**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.027		0.024	0.014	mg/L		12/23/16 14:36	12/27/16 16:14	1
Motor Oil (>C24-C36)	0.047		0.047	0.0093	mg/L		12/23/16 14:36	12/27/16 16:14	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	74		50 - 150				12/23/16 14:36	12/27/16 16:14	1



# Client Sample Results

Client: BNSF Railway Company  
 Project/Site: BNSF Skykomish Quaterly GWS

TestAmerica Job ID: 580-64894-1

**Client Sample ID: GW-10-121416**

**Lab Sample ID: 580-64894-17**

**Date Collected: 12/14/16 15:45**

**Matrix: Water**

**Date Received: 12/16/16 15:00**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.030		0.024	0.014	mg/L		12/23/16 14:36	12/27/16 16:36	1
Motor Oil (>C24-C36)	0.043	J	0.047	0.0093	mg/L		12/23/16 14:36	12/27/16 16:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	83		50 - 150				12/23/16 14:36	12/27/16 16:36	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: BNSF Railway Company  
 Project/Site: BNSF Skykomish Quaterly GWS

TestAmerica Job ID: 580-64894-1

**Client Sample ID: 1C-W-7-121416**

**Lab Sample ID: 580-64894-18**

**Date Collected: 12/14/16 16:20**

**Matrix: Water**

**Date Received: 12/16/16 15:00**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.063		0.024	0.014	mg/L		12/23/16 14:36	12/27/16 16:58	1
Motor Oil (>C24-C36)	0.051		0.047	0.0092	mg/L		12/23/16 14:36	12/27/16 16:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	79		50 - 150				12/23/16 14:36	12/27/16 16:58	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: BNSF Railway Company  
 Project/Site: BNSF Skykomish Quaterly GWS

TestAmerica Job ID: 580-64894-1

**Client Sample ID: GW-4-121516**

**Lab Sample ID: 580-64894-19**

**Date Collected: 12/15/16 09:00**

**Matrix: Water**

**Date Received: 12/16/16 15:00**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.029		0.024	0.014	mg/L		12/23/16 14:36	12/27/16 17:20	1
Motor Oil (>C24-C36)	0.028	J	0.048	0.0094	mg/L		12/23/16 14:36	12/27/16 17:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	79		50 - 150				12/23/16 14:36	12/27/16 17:20	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: BNSF Railway Company  
 Project/Site: BNSF Skykomish Quaterly GWS

TestAmerica Job ID: 580-64894-1

**Client Sample ID: MW-4-121516**

**Lab Sample ID: 580-64894-20**

**Date Collected: 12/15/16 09:23**

**Matrix: Water**

**Date Received: 12/16/16 15:00**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.062		0.024	0.014	mg/L		12/23/16 14:36	12/27/16 17:43	1
Motor Oil (>C24-C36)	0.090		0.047	0.0093	mg/L		12/23/16 14:36	12/27/16 17:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	79		50 - 150				12/23/16 14:36	12/27/16 17:43	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11



# Client Sample Results

Client: BNSF Railway Company  
 Project/Site: BNSF Skykomish Quaterly GWS

TestAmerica Job ID: 580-64894-1

**Client Sample ID: MW-3-121516**

**Lab Sample ID: 580-64894-21**

**Date Collected: 12/15/16 09:42**

**Matrix: Water**

**Date Received: 12/16/16 15:00**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.028		0.024	0.014	mg/L		12/23/16 14:36	12/27/16 18:05	1
Motor Oil (>C24-C36)	0.050		0.047	0.0093	mg/L		12/23/16 14:36	12/27/16 18:05	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	81		50 - 150				12/23/16 14:36	12/27/16 18:05	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: BNSF Railway Company  
 Project/Site: BNSF Skykomish Quaterly GWS

TestAmerica Job ID: 580-64894-1

**Client Sample ID: 2A-W-42-121516**

**Lab Sample ID: 580-64894-22**

**Date Collected: 12/15/16 10:10**

**Matrix: Water**

**Date Received: 12/16/16 15:00**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.11		0.024	0.014	mg/L		12/23/16 14:36	12/27/16 18:27	1
Motor Oil (>C24-C36)	0.080		0.048	0.0093	mg/L		12/23/16 14:36	12/27/16 18:27	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	81		50 - 150				12/23/16 14:36	12/27/16 18:27	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: BNSF Railway Company  
 Project/Site: BNSF Skykomish Quaterly GWS

TestAmerica Job ID: 580-64894-1

**Client Sample ID: 2A-W-9-121516**

**Lab Sample ID: 580-64894-23**

**Date Collected: 12/15/16 10:55**

**Matrix: Water**

**Date Received: 12/16/16 15:00**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.52		0.024	0.014	mg/L		12/23/16 14:36	12/27/16 18:49	1
Motor Oil (>C24-C36)	0.19		0.047	0.0093	mg/L		12/23/16 14:36	12/27/16 18:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	75		50 - 150				12/23/16 14:36	12/27/16 18:49	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: BNSF Railway Company  
 Project/Site: BNSF Skykomish Quaterly GWS

TestAmerica Job ID: 580-64894-1

**Client Sample ID: 2A-W-10-121516**

**Lab Sample ID: 580-64894-24**

**Date Collected: 12/15/16 11:02**

**Matrix: Water**

**Date Received: 12/16/16 15:00**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.10		0.024	0.014	mg/L		12/23/16 14:36	12/27/16 19:11	1
Motor Oil (>C24-C36)	0.26		0.047	0.0093	mg/L		12/23/16 14:36	12/27/16 19:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	70		50 - 150				12/23/16 14:36	12/27/16 19:11	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: BNSF Railway Company  
 Project/Site: BNSF Skykomish Quaterly GWS

TestAmerica Job ID: 580-64894-1

**Client Sample ID: 1B-W-23-121516**

**Lab Sample ID: 580-64894-25**

**Date Collected: 12/15/16 12:30**

**Matrix: Water**

**Date Received: 12/16/16 15:00**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.017	J	0.024	0.014	mg/L		12/23/16 15:57	12/27/16 19:34	1
Motor Oil (>C24-C36)	0.024	J	0.047	0.0093	mg/L		12/23/16 15:57	12/27/16 19:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	82		50 - 150				12/23/16 15:57	12/27/16 19:34	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: BNSF Railway Company  
 Project/Site: BNSF Skykomish Quaterly GWS

TestAmerica Job ID: 580-64894-1

**Client Sample ID: GW-3-121516**

**Lab Sample ID: 580-64894-26**

**Date Collected: 12/15/16 12:34**

**Matrix: Water**

**Date Received: 12/16/16 15:00**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.32		0.024	0.014	mg/L		12/23/16 15:57	12/27/16 20:17	1
Motor Oil (>C24-C36)	0.13		0.048	0.0094	mg/L		12/23/16 15:57	12/27/16 20:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	70		50 - 150				12/23/16 15:57	12/27/16 20:17	1



# Client Sample Results

Client: BNSF Railway Company  
 Project/Site: BNSF Skykomish Quaterly GWS

TestAmerica Job ID: 580-64894-1

**Client Sample ID: 2A-W-41-121516**

**Lab Sample ID: 580-64894-27**

**Date Collected: 12/15/16 12:42**

**Matrix: Water**

**Date Received: 12/16/16 15:00**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.18		0.024	0.014	mg/L		12/23/16 15:57	12/27/16 20:39	1
Motor Oil (>C24-C36)	0.12		0.048	0.0093	mg/L		12/23/16 15:57	12/27/16 20:39	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	73		50 - 150				12/23/16 15:57	12/27/16 20:39	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: BNSF Railway Company  
 Project/Site: BNSF Skykomish Quaterly GWS

TestAmerica Job ID: 580-64894-1

**Client Sample ID: 2A-W-40-121516**

**Lab Sample ID: 580-64894-28**

**Date Collected: 12/15/16 15:25**

**Matrix: Water**

**Date Received: 12/16/16 15:00**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.024	0.014	mg/L		12/23/16 15:57	12/27/16 21:00	1
Motor Oil (>C24-C36)	ND		0.047	0.0093	mg/L		12/23/16 15:57	12/27/16 21:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	85		50 - 150				12/23/16 15:57	12/27/16 21:00	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11



# Client Sample Results

Client: BNSF Railway Company  
 Project/Site: BNSF Skykomish Quaterly GWS

TestAmerica Job ID: 580-64894-1

**Client Sample ID: 2A-W-400-121516**

**Lab Sample ID: 580-64894-29**

**Date Collected: 12/15/16 15:30**

**Matrix: Water**

**Date Received: 12/16/16 15:00**

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.024	0.014	mg/L		12/23/16 15:57	12/27/16 21:21	1
Motor Oil (>C24-C36)	ND		0.047	0.0093	mg/L		12/23/16 15:57	12/27/16 21:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	87		50 - 150				12/23/16 15:57	12/27/16 21:21	1



# QC Sample Results

Client: BNSF Railway Company  
 Project/Site: BNSF Skykomish Quaterly GWS

TestAmerica Job ID: 580-64894-1

## Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

**Lab Sample ID: MB 580-235222/1-A**

**Matrix: Water**

**Analysis Batch: 235258**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 235222**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.10	0.058	mg/L		12/22/16 16:29	12/24/16 00:04	1
Motor Oil (>C24-C36)	ND		0.20	0.039	mg/L		12/22/16 16:29	12/24/16 00:04	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	84		50 - 150	12/22/16 16:29	12/24/16 00:04	1

**Lab Sample ID: LCS 580-235222/2-A**

**Matrix: Water**

**Analysis Batch: 235258**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 235222**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
#2 Diesel (C10-C24)	2.01	1.51		mg/L		75	59 - 120
Motor Oil (>C24-C36)	2.01	1.71		mg/L		85	53 - 129

Surrogate	LCS %Recovery	LCS Qualifier	Limits
<i>o</i> -Terphenyl	70		50 - 150

**Lab Sample ID: LCSD 580-235222/3-A**

**Matrix: Water**

**Analysis Batch: 235258**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

**Prep Batch: 235222**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
#2 Diesel (C10-C24)	2.01	1.56		mg/L		77	59 - 120	3	27
Motor Oil (>C24-C36)	2.01	1.76		mg/L		88	53 - 129	3	19

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
<i>o</i> -Terphenyl	80		50 - 150

**Lab Sample ID: MB 580-235289/1-A**

**Matrix: Water**

**Analysis Batch: 235339**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 235289**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.025	0.015	mg/L		12/23/16 14:36	12/27/16 14:45	1
Motor Oil (>C24-C36)	ND		0.050	0.0098	mg/L		12/23/16 14:36	12/27/16 14:45	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	88		50 - 150	12/23/16 14:36	12/27/16 14:45	1

**Lab Sample ID: LCS 580-235289/2-A**

**Matrix: Water**

**Analysis Batch: 235339**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 235289**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
#2 Diesel (C10-C24)	0.503	0.409		mg/L		81	59 - 120
Motor Oil (>C24-C36)	0.503	0.439		mg/L		87	53 - 129

TestAmerica Seattle

# QC Sample Results

Client: BNSF Railway Company  
 Project/Site: BNSF Skykomish Quaterly GWS

TestAmerica Job ID: 580-64894-1

## Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) (Continued)

Lab Sample ID: LCS 580-235289/2-A  
 Matrix: Water  
 Analysis Batch: 235339

Client Sample ID: Lab Control Sample  
 Prep Type: Total/NA  
 Prep Batch: 235289

Surrogate	LCS %Recovery	LCS Qualifier	Limits
<i>o</i> -Terphenyl	79		50 - 150

Lab Sample ID: LCSD 580-235289/3-A  
 Matrix: Water  
 Analysis Batch: 235339

Client Sample ID: Lab Control Sample Dup  
 Prep Type: Total/NA  
 Prep Batch: 235289

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
#2 Diesel (C10-C24)	0.503	0.382		mg/L		76	59 - 120	7	27
Motor Oil (>C24-C36)	0.503	0.409		mg/L		81	53 - 129	7	19

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
<i>o</i> -Terphenyl	70		50 - 150

# Lab Chronicle

Client: BNSF Railway Company  
Project/Site: BNSF Skykomish Quaterly GWS

TestAmerica Job ID: 580-64894-1

## Client Sample ID: 5-W-19-121416

Date Collected: 12/14/16 09:31

Date Received: 12/16/16 15:00

## Lab Sample ID: 580-64894-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			235222	12/22/16 16:29	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	235258	12/24/16 03:17	KZ1	TAL SEA

## Client Sample ID: EW-2A-121416

Date Collected: 12/14/16 09:32

Date Received: 12/16/16 15:00

## Lab Sample ID: 580-64894-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			235222	12/22/16 16:29	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	235258	12/24/16 03:38	KZ1	TAL SEA

## Client Sample ID: 5-W-18-121416

Date Collected: 12/14/16 09:40

Date Received: 12/16/16 15:00

## Lab Sample ID: 580-64894-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			235222	12/22/16 16:29	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	235258	12/24/16 04:00	KZ1	TAL SEA

## Client Sample ID: 1B-W-3-121416

Date Collected: 12/14/16 10:35

Date Received: 12/16/16 15:00

## Lab Sample ID: 580-64894-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			235222	12/22/16 16:29	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	235258	12/24/16 04:21	KZ1	TAL SEA

## Client Sample ID: 5-W-16-121416

Date Collected: 12/14/16 10:54

Date Received: 12/16/16 15:00

## Lab Sample ID: 580-64894-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			235222	12/23/16 10:10	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	235258	12/24/16 04:43	KZ1	TAL SEA

## Client Sample ID: 5-W-17-121416

Date Collected: 12/14/16 11:03

Date Received: 12/16/16 15:00

## Lab Sample ID: 580-64894-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			235222	12/23/16 10:10	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	235258	12/24/16 05:04	KZ1	TAL SEA

TestAmerica Seattle

# Lab Chronicle

Client: BNSF Railway Company  
Project/Site: BNSF Skykomish Quaterly GWS

TestAmerica Job ID: 580-64894-1

**Client Sample ID: 2B-W-4-121416**

**Lab Sample ID: 580-64894-7**

Date Collected: 12/14/16 11:55

Matrix: Water

Date Received: 12/16/16 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			235222	12/23/16 10:10	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	235258	12/24/16 05:26	KZ1	TAL SEA

**Client Sample ID: 5-W-15-121416**

**Lab Sample ID: 580-64894-8**

Date Collected: 12/14/16 12:18

Matrix: Water

Date Received: 12/16/16 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			235222	12/23/16 10:10	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	235258	12/24/16 05:47	KZ1	TAL SEA

**Client Sample ID: 5-W-14-121416**

**Lab Sample ID: 580-64894-9**

Date Collected: 12/14/16 12:19

Matrix: Water

Date Received: 12/16/16 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			235222	12/23/16 10:10	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	235258	12/24/16 06:30	KZ1	TAL SEA

**Client Sample ID: 5-W-43-121416**

**Lab Sample ID: 580-64894-10**

Date Collected: 12/14/16 14:05

Matrix: Water

Date Received: 12/16/16 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			235222	12/23/16 10:10	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	235258	12/24/16 06:51	KZ1	TAL SEA

**Client Sample ID: 1C-W-1-121416**

**Lab Sample ID: 580-64894-11**

Date Collected: 12/14/16 14:08

Matrix: Water

Date Received: 12/16/16 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			235222	12/23/16 10:10	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	235258	12/24/16 07:13	KZ1	TAL SEA

**Client Sample ID: EW-1-121416**

**Lab Sample ID: 580-64894-12**

Date Collected: 12/14/16 14:09

Matrix: Water

Date Received: 12/16/16 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			235222	12/23/16 10:10	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	235258	12/24/16 07:34	KZ1	TAL SEA

TestAmerica Seattle

# Lab Chronicle

Client: BNSF Railway Company  
Project/Site: BNSF Skykomish Quaterly GWS

TestAmerica Job ID: 580-64894-1

**Client Sample ID: 1C-W-8-121416**

**Lab Sample ID: 580-64894-13**

**Date Collected: 12/14/16 14:58**

**Matrix: Water**

**Date Received: 12/16/16 15:00**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			235222	12/23/16 10:10	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	235258	12/24/16 07:55	KZ1	TAL SEA

**Client Sample ID: GW-2-121416**

**Lab Sample ID: 580-64894-14**

**Date Collected: 12/14/16 15:26**

**Matrix: Water**

**Date Received: 12/16/16 15:00**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			235222	12/23/16 10:10	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	235258	12/24/16 08:17	KZ1	TAL SEA

**Client Sample ID: GW-20-121416**

**Lab Sample ID: 580-64894-15**

**Date Collected: 12/14/16 15:31**

**Matrix: Water**

**Date Received: 12/16/16 15:00**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			235222	12/23/16 10:10	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	235339	12/27/16 14:23	CJ	TAL SEA

**Client Sample ID: GW-1-121416**

**Lab Sample ID: 580-64894-16**

**Date Collected: 12/14/16 15:33**

**Matrix: Water**

**Date Received: 12/16/16 15:00**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			235289	12/23/16 14:36	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	235339	12/27/16 16:14	CJ	TAL SEA

**Client Sample ID: GW-10-121416**

**Lab Sample ID: 580-64894-17**

**Date Collected: 12/14/16 15:45**

**Matrix: Water**

**Date Received: 12/16/16 15:00**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			235289	12/23/16 14:36	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	235339	12/27/16 16:36	CJ	TAL SEA

**Client Sample ID: 1C-W-7-121416**

**Lab Sample ID: 580-64894-18**

**Date Collected: 12/14/16 16:20**

**Matrix: Water**

**Date Received: 12/16/16 15:00**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			235289	12/23/16 14:36	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	235339	12/27/16 16:58	CJ	TAL SEA

TestAmerica Seattle

# Lab Chronicle

Client: BNSF Railway Company  
Project/Site: BNSF Skykomish Quaterly GWS

TestAmerica Job ID: 580-64894-1

**Client Sample ID: GW-4-121516**

**Lab Sample ID: 580-64894-19**

**Date Collected: 12/15/16 09:00**

**Matrix: Water**

**Date Received: 12/16/16 15:00**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			235289	12/23/16 14:36	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	235339	12/27/16 17:20	CJ	TAL SEA

**Client Sample ID: MW-4-121516**

**Lab Sample ID: 580-64894-20**

**Date Collected: 12/15/16 09:23**

**Matrix: Water**

**Date Received: 12/16/16 15:00**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			235289	12/23/16 14:36	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	235339	12/27/16 17:43	CJ	TAL SEA

**Client Sample ID: MW-3-121516**

**Lab Sample ID: 580-64894-21**

**Date Collected: 12/15/16 09:42**

**Matrix: Water**

**Date Received: 12/16/16 15:00**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			235289	12/23/16 14:36	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	235339	12/27/16 18:05	CJ	TAL SEA

**Client Sample ID: 2A-W-42-121516**

**Lab Sample ID: 580-64894-22**

**Date Collected: 12/15/16 10:10**

**Matrix: Water**

**Date Received: 12/16/16 15:00**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			235289	12/23/16 14:36	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	235339	12/27/16 18:27	CJ	TAL SEA

**Client Sample ID: 2A-W-9-121516**

**Lab Sample ID: 580-64894-23**

**Date Collected: 12/15/16 10:55**

**Matrix: Water**

**Date Received: 12/16/16 15:00**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			235289	12/23/16 14:36	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	235339	12/27/16 18:49	CJ	TAL SEA

**Client Sample ID: 2A-W-10-121516**

**Lab Sample ID: 580-64894-24**

**Date Collected: 12/15/16 11:02**

**Matrix: Water**

**Date Received: 12/16/16 15:00**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			235289	12/23/16 14:36	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	235339	12/27/16 19:11	CJ	TAL SEA

TestAmerica Seattle

# Lab Chronicle

Client: BNSF Railway Company  
Project/Site: BNSF Skykomish Quaterly GWS

TestAmerica Job ID: 580-64894-1

**Client Sample ID: 1B-W-23-121516**

**Lab Sample ID: 580-64894-25**

Date Collected: 12/15/16 12:30

Matrix: Water

Date Received: 12/16/16 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			235289	12/23/16 15:57	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	235339	12/27/16 19:34	CJ	TAL SEA

**Client Sample ID: GW-3-121516**

**Lab Sample ID: 580-64894-26**

Date Collected: 12/15/16 12:34

Matrix: Water

Date Received: 12/16/16 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			235289	12/23/16 15:57	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	235339	12/27/16 20:17	CJ	TAL SEA

**Client Sample ID: 2A-W-41-121516**

**Lab Sample ID: 580-64894-27**

Date Collected: 12/15/16 12:42

Matrix: Water

Date Received: 12/16/16 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			235289	12/23/16 15:57	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	235339	12/27/16 20:39	CJ	TAL SEA

**Client Sample ID: 2A-W-40-121516**

**Lab Sample ID: 580-64894-28**

Date Collected: 12/15/16 15:25

Matrix: Water

Date Received: 12/16/16 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			235289	12/23/16 15:57	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	235339	12/27/16 21:00	CJ	TAL SEA

**Client Sample ID: 2A-W-400-121516**

**Lab Sample ID: 580-64894-29**

Date Collected: 12/15/16 15:30

Matrix: Water

Date Received: 12/16/16 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			235289	12/23/16 15:57	JCV	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	235339	12/27/16 21:21	CJ	TAL SEA

**Laboratory References:**

TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310



# Certification Summary

Client: BNSF Railway Company  
Project/Site: BNSF Skykomish Quaterly GWS

TestAmerica Job ID: 580-64894-1

## Laboratory: TestAmerica Seattle

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska (UST)	State Program	10	UST-022	03-02-17
California	State Program	9	2901	01-31-18
L-A-B	DoD ELAP		L2236	01-19-19
L-A-B	ISO/IEC 17025		L2236	01-19-19
Montana (UST)	State Program	8	N/A	04-30-20
Oregon	NELAP	10	WA100007	11-05-17
US Fish & Wildlife	Federal		LE058448-0	10-31-17
USDA	Federal		P330-14-00126	04-08-17
Washington	State Program	10	C553	02-17-17

# Sample Summary

Client: BNSF Railway Company  
Project/Site: BNSF Skykomish Quaterly GWS

TestAmerica Job ID: 580-64894-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-64894-1	5-W-19-121416	Water	12/14/16 09:31	12/16/16 15:00
580-64894-2	EW-2A-121416	Water	12/14/16 09:32	12/16/16 15:00
580-64894-3	5-W-18-121416	Water	12/14/16 09:40	12/16/16 15:00
580-64894-4	1B-W-3-121416	Water	12/14/16 10:35	12/16/16 15:00
580-64894-5	5-W-16-121416	Water	12/14/16 10:54	12/16/16 15:00
580-64894-6	5-W-17-121416	Water	12/14/16 11:03	12/16/16 15:00
580-64894-7	2B-W-4-121416	Water	12/14/16 11:55	12/16/16 15:00
580-64894-8	5-W-15-121416	Water	12/14/16 12:18	12/16/16 15:00
580-64894-9	5-W-14-121416	Water	12/14/16 12:19	12/16/16 15:00
580-64894-10	5-W-43-121416	Water	12/14/16 14:05	12/16/16 15:00
580-64894-11	1C-W-1-121416	Water	12/14/16 14:08	12/16/16 15:00
580-64894-12	EW-1-121416	Water	12/14/16 14:09	12/16/16 15:00
580-64894-13	1C-W-8-121416	Water	12/14/16 14:58	12/16/16 15:00
580-64894-14	GW-2-121416	Water	12/14/16 15:26	12/16/16 15:00
580-64894-15	GW-20-121416	Water	12/14/16 15:31	12/16/16 15:00
580-64894-16	GW-1-121416	Water	12/14/16 15:33	12/16/16 15:00
580-64894-17	GW-10-121416	Water	12/14/16 15:45	12/16/16 15:00
580-64894-18	1C-W-7-121416	Water	12/14/16 16:20	12/16/16 15:00
580-64894-19	GW-4-121516	Water	12/15/16 09:00	12/16/16 15:00
580-64894-20	MW-4-121516	Water	12/15/16 09:23	12/16/16 15:00
580-64894-21	MW-3-121516	Water	12/15/16 09:42	12/16/16 15:00
580-64894-22	2A-W-42-121516	Water	12/15/16 10:10	12/16/16 15:00
580-64894-23	2A-W-9-121516	Water	12/15/16 10:55	12/16/16 15:00
580-64894-24	2A-W-10-121516	Water	12/15/16 11:02	12/16/16 15:00
580-64894-25	1B-W-23-121516	Water	12/15/16 12:30	12/16/16 15:00
580-64894-26	GW-3-121516	Water	12/15/16 12:34	12/16/16 15:00
580-64894-27	2A-W-41-121516	Water	12/15/16 12:42	12/16/16 15:00
580-64894-28	2A-W-40-121516	Water	12/15/16 15:25	12/16/16 15:00
580-64894-29	2A-W-400-121516	Water	12/15/16 15:30	12/16/16 15:00



**LABORATORY INFORMATION**

Laboratory: Test America 2 Project Manager: Kristine Allen  
 Address: 5755 8th St East Phone: 253-922-2310  
 City/State/ZIP: Tacoma, WA 98424 Fax: 253-922-5047

**LAB WORK ORDER:**

**SHIPMENT INFORMATION**

Shipment Method: Courier  
 Tracking Number:

**BNSF PROJECT INFORMATION**

Project State of Origin: WA  
 Project City: Skykomish  
 BNSF Project Name: Skykomish Quarterly GWS  
 BNSF Contact:

**CONSULTANT INFORMATION**

Company: Farallon Consulting  
 Address: 975 5th Ave NW  
 City/State/ZIP: Issaquah, WA 98027  
 Project Number: 683-043  
 Project Manager: Jerry Portele  
 Email: Jportele@farallonconsulting.com  
 Phone: 425-295-0900 Fax:

**TURNAROUND TIME**

1-day Rush  5- to 8-day Rush  
 2-day Rush  Standard 10-Day  
 3-day Rush  Other \_\_\_\_\_

**DELIVERABLES**

Other Deliverables?  
 BNSF Standard (Level II)  
 Level III  EDD Req. Format?  
 Level IV

**METHODS FOR ANALYSIS**

**SAMPLE INFORMATION**

Sample Identification	Containers	Sample Collection			Filtered Y/N	Type (Comp/Grab)	Matrix	Methods for Analysis
		Date	Time	Sampler				
1 5-W-19-121416	2	12-14-16	9:31		N	G Water	TB H2 Cooler Cor 0.6 Unc 0.3 Cooler Dsc <u>L. Bradburne @Lab</u> Wet/Packs Packing Bubble W/L/S LL  TB H2 Cooler Cor 0.2 Unc 0.7 Cooler Dsc <u>L. Bradburne @Lab</u> Wet/Packs Packing Bubble W/L/S LL  TB H2 Cooler Cor 0.2 Unc 0.7 Cooler Dsc <u>L. Bradburne @Lab</u> Wet/Packs Packing Bubble W/L/S LL  TB H2 Cooler Cor 0.6 Unc 0.3 Cooler Dsc <u>L. Bradburne @Lab</u> Wet/Packs Packing Bubble W/L/S LL	
2 EW-2A-121416			9:32					
3 5-W-18-121416			9:40					
4 1B-W-3-121416			10:35					
5 5-W-16-121416			10:54					
6 5-W-17-121416			11:03					
7 2B-W-4-121416			11:55					
8 5-W-15-121416			12:18					
9 5-W-14-121416			12:19					
10 5-W-43-121416			14:05					
11 1C-W-1-121416			14:08					
12 EW-1-121416			14:09					
13 1C-W-8-121416			14:58					
14 GW-2-121416			15:26					
15 GW-20-121416			15:31					

Relinquished By: A.B. Date/Time: 12-16-16/10:25 Received By: [Signature] Date/Time: 12/16/16 1500

Relinquished By: Date/Time: Received By: Date/Time:

Relinquished By: Date/Time: Received By: Date/Time:

Received by Laboratory: Date/Time: Lab Remarks:

**Comments and Special Analytical Requirements:**

Page 1 of 7


ORIGINAL - RETURN TO LABORATORY WITH SAMPLES



tact?  No Custody Seal No

**TB Cooler IR3 Cor 2.0 Unc 2.3**  
 Cooler Dsc L. Bradburne @Lab  
 Wet/Packs Packing Bubble  
 W/L/S LL 12/30/2016



 <b>CHAIN OF CUSTODY</b>	<b>LABORATORY INFORMATION</b>				<b>LAB WORK ORDER:</b>				
	Laboratory: <i>Test America</i>		Project Manager: <i>Kristine Allen</i>		<b>SHIPMENT INFORMATION</b>				
	Address: <i>5755 8th St. East</i>		Phone: <i>253-922-2310</i>		Shipment Method: <i>Courier</i>				
City/State/ZIP: <i>Tpeoma, WA 98424</i>		Fax: <i>253-922-5047</i>		Tracking Number:					
<b>BNSF PROJECT INFORMATION</b>			<b>CONSULTANT INFORMATION</b>						
Project State of Origin: <i>WA</i>			Project Number: <i>683-043</i>						
BNSF Project Name: <i>Skykomish Quarterly GWS</i>			Company: <i>Farallon Consulting</i>						
BNSF Project Number:			Project City: <i>Skykomish</i>						
BNSF Contact:			Address: <i>975 5th Ave NW</i>						
BNSF Work Order No.:			City/State/ZIP: <i>Issaquah, WA 98027</i>						
Project Manager: <i>Jerry Portele</i>			Project Manager: <i>Jerry Portele</i>						
Email: <i>Jportele@farallonconsulting.com</i>			Email: <i>Jportele@farallonconsulting.com</i>						
Phone: <i>425-295-0800</i>			Phone: <i>425-295-0800</i>						
<b>TURNAROUND TIME</b>		<b>DELIVERABLES</b>		<b>METHODS FOR ANALYSIS</b>					
<input type="checkbox"/> 1-day Rush		<input type="checkbox"/> BNSF Standard (Level II)		<i>MMWTPH-DX</i>					
<input type="checkbox"/> 2-day Rush		<input type="checkbox"/> Level III							
<input type="checkbox"/> 3-day Rush		<input type="checkbox"/> Level IV							
<input type="checkbox"/> 5- to 8-day Rush		<input type="checkbox"/> EDD Req. Format?							
<input type="checkbox"/> Standard 10-Day		<input type="checkbox"/> Other Deliverables?		<input type="checkbox"/> Other _____					
<input type="checkbox"/> Other _____		<input type="checkbox"/> Other _____		<input type="checkbox"/> Other _____					
<b>SAMPLE INFORMATION</b>									
Sample Identification	Containers	Sample Collection			Filtered Y/N	Type (Comp/Grab)	Matrix	COMMENTS	LAB USE
		Date	Time	Sampler					
<i>1 GW-1-121416</i>	<i>2</i>	<i>12-14-16</i>	<i>15:33</i>	<i>(</i>	<i>N</i>	<i>GW</i>			
<i>2 GW-10-121416</i>			<i>15:45</i>	<i>)</i>					
<i>3 1G-W-7-121416</i>			<i>16:20</i>	<i>(</i>					
<i>4 GW-4-121516</i>		<i>12-15-16</i>	<i>9:00</i>	<i>)</i>					
<i>5 MW-4-121516</i>			<i>9:23</i>	<i>(</i>					
<i>6 MW-3-121516</i>			<i>9:42</i>	<i>)</i>					
<i>7 2A-W-42-121516</i>			<i>10:10</i>	<i>(</i>					
<i>8 2A-W-9-121516</i>			<i>10:55</i>	<i>)</i>					
<i>9 2A-W-10-121516</i>			<i>11:02</i>	<i>(</i>					
<i>10 1B-W-23-121516</i>			<i>12:30</i>	<i>)</i>					
<i>11 GW-3-121516</i>			<i>12:34</i>	<i>(</i>					
<i>12 2A-W-41-121516</i>			<i>12:42</i>	<i>)</i>					
<i>13 2A-W-40-121516</i>			<i>15:25</i>	<i>(</i>					
<i>14 2A-W-400-121516</i>			<i>15:30</i>	<i>)</i>					
<i>15</i>									
Relinquished By: <i>A. Bas</i>		Date/Time: <i>12-16-16/10:25</i>		Received By: <i>[Signature]</i>		Date/Time: <i>12/16/16 1500</i>		Comments and Special Analytical Requirements:	
Relinquished By:		Date/Time:		Received By:		Date/Time:		<i>Page 2 of 2</i>	
Relinquished By:		Date/Time:		Received By:		Date/Time:		Custody Seal No.	
Received by Laboratory:		Date/Time:		Lab Remarks:		Lab Custody Intact?		BNSF COC No.	
						<input type="checkbox"/> Yes <input type="checkbox"/> No			

ORIGINAL - RETURN TO LABORATORY WITH SAMPLES

DUPLICATE - CONSULTANT

TAL-1001 (0912)

## Login Sample Receipt Checklist

Client: BNSF Railway Company

Job Number: 580-64894-1

**Login Number: 64894**

**List Source: TestAmerica Seattle**

**List Number: 1**

**Creator: Gall, Brandon A**

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	No name
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

**APPENDIX C**  
**DATA VALIDATION REPORTS**

2016 SITE-WIDE GROUNDWATER MONITORING REPORT  
BNSF Former Maintenance and Fueling Facility  
Skykomish, Washington  
Consent Decree No. 07-2-33672-9 SEA

Farallon PN: 683-063



## DATA VALIDATION REPORT

### *Skykomish Groundwater Monitoring March 2016 Data*

Prepared for:  
Farallon Consulting, LLC  
975 5<sup>th</sup> Avenue NW  
Issaquah, Washington 98027

May 20, 2016

#### 1.0 Introduction

Data Validation was performed on the following water samples:

Sample ID	Sample Date/Time	Lab ID	Analyses
S4-CD-032116	03/21/2016 15:45	580-58301-1	NWTPH-DX
S4-CU-032116	03/21/2016 15:50	580-58301-2	NWTPH-DX
S4-BD-032116	03/21/2016 16:20	580-58301-3	NWTPH-DX
S4-AV-032116	03/21/2016 16:25	580-58301-4	NWTPH-DX
S4-BU-032116	03/21/2016 16:25	580-58301-5	NWTPH-DX
S4-AD-032116	03/21/2016 16:30	580-58301-6	NWTPH-DX
S3-CD-032216	03/22/2016 09:25	580-58301-7	NWTPH-DX
S3-CU-032216	03/22/2016 09:30	580-58301-8	NWTPH-DX
S3-BD-032216	03/22/2016 10:05	580-58301-9	NWTPH-DX
S3-BU-032216	03/22/2016 10:06	580-58301-10	NWTPH-DX
2B-W-4-032216	03/22/2016 10:10	580-58301-11	NWTPH-DX
GW-3-032216	03/22/2016 10:30	580-58301-12	NWTPH-DX
GW-30-032216	03/22/2016 10:35	580-58301-13	NWTPH-DX
S3-AD-032216	03/22/2016 11:00	580-58301-14	NWTPH-DX
S3-AV-032216	03/22/2016 11:01	580-58301-15	NWTPH-DX
2A-W-9-032216	03/22/2016 11:30	580-58301-16	NWTPH-DX
2A-W-90-032216	03/22/2016 11:45	580-58301-17	NWTPH-DX
S2-BD-032216	03/22/2016 12:10	580-58301-18	NWTPH-DX
S2-BU-032216	03/22/2016 12:11	580-58301-19	NWTPH-DX
S2-AD-032216	03/22/2016 12:50	580-58301-20	NWTPH-DX
S2-AV-032216	03/22/2016 12:51	580-58301-21	NWTPH-DX
GW-2-032216	03/22/2016 12:55	580-58301-22	NWTPH-DX
GW-20-032216	03/22/2016 13:00	580-58301-23	NWTPH-DX
2A-W-10-032216	03/22/2016 13:05	580-58301-24	NWTPH-DX
MW-4-032216	03/22/2016 14:20	580-58301-25	NWTPH-DX
S1-BD-032216	03/22/2016 14:50	580-58301-26	NWTPH-DX
S1-BU-032216	03/22/2016 14:51	580-58301-27	NWTPH-DX
S1-AD-032216	03/22/2016 15:25	580-58301-28	NWTPH-DX
S1-AV-032216	03/22/2016 15:26	580-58301-29	NWTPH-DX
GW-1-032216	03/22/2016 15:35	580-58301-30	NWTPH-DX



Sample ID	Sample Date/Time	Lab ID	Analyses
GW-10-032216	03/22/2016 15:40	580-58301-31	NWTPH-DX
MW-3-032216	03/22/2016 15:45	580-58301-32	NWTPH-DX
MW-16-032316	03/23/2016 09:15	580-58301-33	NWTPH-DX
EW-2A-032316	03/23/2016 09:25	580-58301-34	NWTPH-DX
5-W-19-032316	03/23/2016 10:25	580-58301-35	NWTPH-DX
GW-4-032316	03/23/2016 10:40	580-58301-36	NWTPH-DX
1C-W-7-032316	03/23/2016 10:40	580-58301-37	NWTPH-DX
2A-W-42-032316	03/23/2016 11:05	580-58301-38	NWTPH-DX
5-W-18-032316	03/23/2016 11:35	580-58301-39	NWTPH-DX
1C-W-1-032316	03/23/2016 12:15	580-58301-40	NWTPH-DX
1C-W-8-032316	03/23/2016 12:15	580-58301-41	NWTPH-DX
1C-W-80-032316	03/23/2016 12:30	580-58301-42	NWTPH-DX
5-W-17-032316	03/23/2016 12:45	580-58301-43	NWTPH-DX
1C-W-3-032316	03/23/2016 14:15	580-58301-44	NWTPH-DX
1C-W-4-032316	03/23/2016 14:20	580-58301-45	NWTPH-DX
5-W-16-032316	03/23/2016 14:50	580-58301-46	NWTPH-DX
5-W-160-032316	03/23/2016 15:00	580-58301-47	NWTPH-DX
5-W-55-032316	03/23/2016 15:50	580-58301-48	NWTPH-DX
5-W-56-032316	03/23/2016 15:55	580-58301-49	NWTPH-DX
5-W-54-032316	03/23/2016 16:10	580-58301-50	NWTPH-DX
5-W-43-032316	03/23/2016 16:50	580-58301-51	NWTPH-DX
EW-1-032316	03/23/2016 16:55	580-58301-52	NWTPH-DX
5-W-51-032316	03/23/2016 17:05	580-58301-53	NWTPH-DX
2A-W-40-032416	03/24/2016 09:25	580-58301-54	NWTPH-DX
1A-W-4-032416	03/24/2016 09:35	580-58301-55	NWTPH-DX
MW-38R-032416	03/24/2016 09:55	580-58301-56	NWTPH-DX
1B-W-23-032416	03/24/2016 10:45	580-58301-57	NWTPH-DX
2A-W-41-032416	03/24/2016 10:50	580-58301-58	NWTPH-DX
5-W-15-032416	03/24/2016 10:55	580-58301-59	NWTPH-DX
1B-W-2-032416	03/24/2016 12:00	580-58301-60	NWTPH-DX
5-W-14-032416	03/24/2016 12:05	580-58301-61	NWTPH-DX
1B-W-3-032416	03/24/2016 12:35	580-58301-62	NWTPH-DX

Samples were analyzed by Test America, Tacoma, Washington.

A stage 2A summary validation was performed on the analytical results including both the hardcopy (portable document format) and electronic data deliverable, earning EPA OSWER validation label code S2AVEM. Validation was performed by Cari Saylor.

Data qualifiers are assigned based only on the criteria reviewed and do not include calibration or instrument performance issues unless noted in the laboratory narrative.

Data qualifiers are summarized in section 4.0 below.

## 2.0 Precision, Accuracy, Representativeness, Comparability, and Completeness

Sample analysis frequencies: Quarterly sampling includes 25 water sample locations, and semi-annual sampling includes an additional 32 water sample locations. For this round of sampling only quarterly locations were required. All required samples except 5-W-50 were collected and the required analysis was completed by the laboratory for each collected sample.



Analysis methods: Samples were analyzed by method NWTPH-Dx and prepared by method SW3510C. These methods are approved EPA methods and therefore meet comparability requirements.

Precision, accuracy and completeness: Most precision and accuracy measurements were within laboratory control limits. Some results were estimated or reporting limits elevated due to blank contamination or field duplicate variability. However, no data were rejected.

A data completeness of 98% was calculated based on 56 of 57 intended sample analyses completed. This meets the project goal of 90%.

### 3.0 Diesel Range Petroleum Hydrocarbon Analysis

Quality control analysis frequencies: The method specifies that a method blank must be analyzed one per analytical batch or one per twenty samples, whichever is more frequent, and a laboratory duplicate must be analyzed one per ten samples. In addition, surrogate compounds must be measured in each field and quality control sample.

Each batch included a method blank, laboratory control sample (LCS), and LCS duplicate (LCSD), as well as appropriate surrogates. Data qualifiers are not required due to a lack of laboratory duplicate results.

Holding times: Unpreserved water samples must be extracted within 7 days of collection. Preserved water samples must be extracted within 14 days of collection. Extracts must be analyzed within 40 days of extraction. Samples were extracted and analyzed within holding time.

Laboratory blank results: Criteria for blanks are that analyte concentrations must be below the PQL, or below 5% of the lowest associated sample concentration. The following target compounds were detected in the method blanks:

Blank ID	Analyte	Concentration (mg/L)	RL (mg/L)
MB 580-213852/1-A	Motor Oil (>C24-C36)	0.0129J	0.05

Results in the associated samples with concentrations less than 5 times this levels should be considered not detected at the reported concentration, and are qualified "U". Results that are both below both 5 times the blank level and below the reporting limit are qualified "UJ". Results with concentrations between 5 and 10 times these levels are qualified as estimated. Results in above 10 times these levels are considered unaffected.

Surrogate recoveries: Laboratory control limits were 50-150%. Surrogate recoveries were within limits.

LCS recoveries: Laboratory control limits ranged from 59-120% to 71-140%. LCS recoveries were within limits.

LCS/LCSD RPDs: The laboratory control limit was <27%. LCS/LCSD RPD values were within limits.

Field duplicate RPDs: For concentrations below five times the reporting limits, concentrations were within +/- two times the reporting limit. For concentrations above five times the reporting limit, RPDs were below 50% with one exception:

Field Duplicate/Parent Sample	Analyte	FD Result (mg/L)	Sample Result (mg/L)	RPD
2A-W-90-032216 / 2A-W-9-032216	Motor Oil (>C24-C36)	0.12 B	0.4 B	108

Please note that although both of these results were flagged “B” by the laboratory, only the field duplicate result was low enough to be qualified due to blank contamination. The Motor Oil result is qualified as estimated in both the field duplicate and parent sample.

Multiple reported results: No dilution or reanalysis result were included in this report, and no evaluation of multiple reported results was needed.

Reporting limits: The reporting limit goals are 0.1 mg/L for both diesel range hydrocarbons and oil range hydrocarbons. These goals were met.

Laboratory narrative and flags: No other qualifiers were added based on a review of the laboratory narratives.

Diesel and oil range petroleum hydrocarbon data are acceptable for use as qualified.

#### 4.0 Validation Qualifiers

Client ID	Analyte(s)	Qualifier	Reason
2A-W-90-032216	Motor Oil (>C24-C36)	J	Lab blank contamination, High FD RPD
2A-W-9-032216	Motor Oil (>C24-C36)	J	High FD RPD
2B-W-4-032216	Motor Oil (>C24-C36)	UJ	Lab blank contamination
GW-30-032216	Motor Oil (>C24-C36)	J	Lab blank contamination
GW-3-032216	Motor Oil (>C24-C36)	J	Lab blank contamination
S3-AV-032216	Motor Oil (>C24-C36)	UJ	Lab blank contamination
S4-AD-032116	Motor Oil (>C24-C36)	UJ	Lab blank contamination
S4-AV-032116	Motor Oil (>C24-C36)	UJ	Lab blank contamination
S4-CU-032116	Motor Oil (>C24-C36)	UJ	Lab blank contamination

#### 5.0 Abbreviations and Definitions

<u>DV Qualifier</u>	<u>Definition</u>
U	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample reporting limit or the amount of contaminant detected in the sample.
J	The analyte was positively identified. The associated numerical value is the approximate concentration of the analyte in the sample.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a tentative identification.
UJ	The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.
R	The sample result is rejected. The presence or absence of the analyte cannot be verified and data are not usable.

<u>DV Qualifier</u>	<u>Definition</u>
R1	The sample result has been replaced by a more reliable or more conservative result.
R2	The sample result has been replaced by a result from a different analysis method.

<u>Abbreviation</u>	<u>Definition</u>
DV	Data Validation
LCS	Laboratory control sample
LCSD	Laboratory control sample duplicate
MS	Matrix spike
MSD	Matrix spike duplicate
RL	Reporting limit
RPD	Relative percent difference
RSD	Relative standard deviation

## 6.0 References

*USEPA Contract Laboratory Program National Functional Guidelines For Superfund Organic Methods Data Review*, Office of Superfund Remediation and Technology Innovation, U.S. Environmental Protection Agency, June 2008, USEPA-540-R-008-01.

*USEPA Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use*, Office of Solid Waste and Emergency Response, U.S. Environmental Protection Agency, January 2009, EPA 540-R-08-005.



## DATA VALIDATION REPORT

### *Skykomish Groundwater Monitoring June 2016 Data*

Prepared for:  
Farallon Consulting, LLC  
975 5<sup>th</sup> Avenue NW  
Issaquah, Washington 98027

August 23, 2016

#### 1.0 Introduction

Data Validation was performed on the following water samples:

Sample ID	Sample Date/Time	Lab ID	Analyses
5-W-19-061416	06/14/2016 09:20	580-60417-1	TPHD
MW-3-061416	06/14/2016 09:37	580-60417-2	TPHD
5-W-18-061416	06/14/2016 09:40	580-60417-3	TPHD
5-W-16-061416	06/14/2016 10:51	580-60417-4	TPHD
MW-4-061416	06/14/2016 11:15	580-60417-5	TPHD
5-W-17-061416	06/14/2016 11:20	580-60417-6	TPHD
5-W-14-061416	06/14/2016 12:46	580-60417-7	TPHD
5-W-15-061416	06/14/2016 13:10	580-60417-8	TPHD
EW-2A-061416	06/14/2016 15:17	580-60417-9	TPHD
GW-4-061416	06/14/2016 16:38	580-60417-10	TPHD
1C-W-1-061416	06/14/2016 17:15	580-60417-11	TPHD
1C-W-8-061416	06/14/2016 17:35	580-60417-12	TPHD
1C-W-7-061416	06/14/2016 17:50	580-60417-13	TPHD
EW-1-061516	06/15/2016 08:40	580-60417-14	TPHD
2A-W-10-061516	06/15/2016 08:48	580-60417-15	TPHD
5-W-43-061516	06/15/2016 09:06	580-60417-16	TPHD
GW-1-061516	06/15/2016 09:55	580-60417-17	TPHD
GW-10-061516	06/15/2016 09:58	580-60417-18	TPHD
2B-W-4-061516	06/15/2016 10:05	580-60417-19	TPHD
GW-2-061516	06/15/2016 10:17	580-60417-20	TPHD
GW-20-061516	06/15/2016 10:27	580-60417-21	TPHD
2A-W-9-061516	06/15/2016 11:40	580-60417-22	TPHD
GW-3-061516	06/15/2016 11:55	580-60417-23	TPHD
GW-30-061516	06/15/2016 12:00	580-60417-24	TPHD
1B-W-23-061516	06/15/2016 12:06	580-60417-25	TPHD
2A-W-42-061516	06/15/2016 14:10	580-60417-26	TPHD
2A-W-41-061516	06/15/2016 14:12	580-60417-27	TPHD
2A-W-40-061516	06/15/2016 14:35	580-60417-28	TPHD
1B-W-3-061516	06/15/2016 15:36	580-60417-29	TPHD

Samples were analyzed by Test America, Tacoma, Washington.

A stage 2A summary validation was performed on the analytical results including both the hardcopy (portable document format) and electronic data deliverable, earning EPA OSWER validation label code S2AVEM. Validation was performed by Cari Saylor.

Data qualifiers are assigned based only on the criteria reviewed and do not include calibration or instrument performance issues unless noted in the laboratory narrative.

Data qualifiers are summarized in section 4.0 below.

## **2.0 Precision, Accuracy, Representativeness, Comparability, and Completeness**

Sample analysis frequencies: Quarterly sampling includes 25 water sample locations, and semi-annual sampling includes an additional 32 water sample locations. For this round of sampling only quarterly locations were required. All required samples were collected and the required analysis was completed by the laboratory for each collected sample.

Analysis methods: Samples were analyzed by method NWTPH-Dx and prepared by method SW3510C. These methods are approved EPA methods and therefore meet comparability requirements.

Precision, accuracy and completeness: Precision and accuracy measurements were within laboratory control limits. Some results were estimated or reporting limits elevated due to blank contamination. However, no data were rejected.

A data completeness of 100% was calculated based on 25 of 25 intended sample analyses completed. This meets the project goal of 90%.

## **3.0 Diesel Range Petroleum Hydrocarbon Analysis**

Quality control analysis frequencies: The method specifies that a method blank must be analyzed one per analytical batch or one per twenty samples, whichever is more frequent, and a laboratory duplicate must be analyzed one per ten samples. In addition, surrogate compounds must be measured in each field and quality control sample.

Each batch included a method blank, laboratory control sample (LCS), and LCS duplicate (LCSD), as well as appropriate surrogates. Data qualifiers are not required due to a lack of laboratory duplicate results.

Holding times: Unpreserved water samples must be extracted within 7 days of collection. Preserved water samples must be extracted within 14 days of collection. Extracts must be analyzed within 40 days of extraction. Samples were extracted and analyzed within holding time. Cooler receipt temperatures ranged from 3.9 to 9.7 °C, with 4 of the 6 coolers exceeded the target range of 0-6 °C. Information indicating which samples were present in these coolers was not provided, and all sample results are qualified as estimated.

Laboratory blank results: Criteria for blanks are that analyte concentrations must be below the PQL, or below 5% of the lowest associated sample concentration. The following target compounds were detected in the method blanks:

Blank ID	Analyte	Concentration (mg/L)	RL (mg/L)
MB 580-213852/1-A	Motor Oil (>C24-C36)	0.0212J	0.05

Results in the associated samples with concentrations less than 5 times this levels should be considered not detected at the reported concentration, and are qualified "U". Results that are both below both 5 times the blank level and below the reporting limit are qualified "UJ". Results with concentrations between 5 and 10 times these levels are qualified as estimated. Results in above 10 times these levels are considered unaffected.

Surrogate recoveries: Laboratory control limits were 50-150%. Surrogate recoveries were within limits.

LCS recoveries: Laboratory control limits ranged from 59-120% to 53-129%. LCS recoveries were within limits.

LCS/LCSD RPDs: The laboratory control limit ranged from <19 to <27%. LCS/LCSD RPD values were within limits.

Field duplicate RPDs: For concentrations below five times the reporting limits, concentrations were within +/- two times the reporting limit. For concentrations above five times the reporting limit, RPDs were below 50%.

Multiple reported results: No dilution or reanalysis result were included in this report, and no evaluation of multiple reported results was needed.

Reporting limits: The reporting limit goals are 0.1 mg/L for both diesel range hydrocarbons and oil range hydrocarbons. These goals were met.

Laboratory narrative and flags: No other qualifiers were added based on a review of the laboratory narratives.

Diesel and oil range petroleum hydrocarbon data are acceptable for use as qualified.

#### 4.0 Validation Qualifiers

Client ID	Analyte(s)	Qualifier	Reason
1B-W-23-061516	#2 Diesel (C10-C24)	UJ	Blank contamination, high cooler temperature
1B-W-23-061516	Motor Oil (>C24-C36)	J	High cooler receipt temperature
1B-W-3-061516	#2 Diesel (C10-C24)	UJ	Blank contamination, high cooler temperature
1B-W-3-061516	Motor Oil (>C24-C36)	J	High cooler receipt temperature
1C-W-1-061416	#2 Diesel (C10-C24)	J	High cooler receipt temperature
1C-W-1-061416	Motor Oil (>C24-C36)	J	High cooler receipt temperature
1C-W-7-061416	#2 Diesel (C10-C24)	J	High cooler receipt temperature
1C-W-7-061416	Motor Oil (>C24-C36)	J	High cooler receipt temperature
1C-W-8-061416	#2 Diesel (C10-C24)	J	High cooler receipt temperature
1C-W-8-061416	Motor Oil (>C24-C36)	J	High cooler receipt temperature
2A-W-10-061516	#2 Diesel (C10-C24)	UJ	Blank contamination, high cooler temperature
2A-W-10-061516	Motor Oil (>C24-C36)	J	High cooler receipt temperature
2A-W-40-061516	#2 Diesel (C10-C24)	UJ	High cooler receipt temperature
2A-W-40-061516	Motor Oil (>C24-C36)	UJ	High cooler receipt temperature
2A-W-41-061516	#2 Diesel (C10-C24)	J	Blank contamination, high cooler temperature
2A-W-41-061516	Motor Oil (>C24-C36)	J	High cooler receipt temperature

Client ID	Analyte(s)	Qualifier	Reason
2A-W-42-061516	#2 Diesel (C10-C24)	UJ	Blank contamination, high cooler temperature
2A-W-42-061516	Motor Oil (>C24-C36)	J	High cooler receipt temperature
2A-W-9-061516	#2 Diesel (C10-C24)	J	Blank contamination, high cooler temperature
2A-W-9-061516	Motor Oil (>C24-C36)	J	High cooler receipt temperature
2B-W-4-061516	#2 Diesel (C10-C24)	UJ	High cooler receipt temperature
2B-W-4-061516	Motor Oil (>C24-C36)	UJ	High cooler receipt temperature
5-W-14-061416	#2 Diesel (C10-C24)	J	High cooler receipt temperature
5-W-14-061416	Motor Oil (>C24-C36)	J	High cooler receipt temperature
5-W-15-061416	#2 Diesel (C10-C24)	J	High cooler receipt temperature
5-W-15-061416	Motor Oil (>C24-C36)	J	High cooler receipt temperature
5-W-16-061416	#2 Diesel (C10-C24)	J	High cooler receipt temperature
5-W-16-061416	Motor Oil (>C24-C36)	J	High cooler receipt temperature
5-W-17-061416	#2 Diesel (C10-C24)	J	High cooler receipt temperature
5-W-17-061416	Motor Oil (>C24-C36)	J	High cooler receipt temperature
5-W-18-061416	#2 Diesel (C10-C24)	J	High cooler receipt temperature
5-W-18-061416	Motor Oil (>C24-C36)	J	High cooler receipt temperature
5-W-19-061416	#2 Diesel (C10-C24)	UJ	High cooler receipt temperature
5-W-19-061416	Motor Oil (>C24-C36)	UJ	High cooler receipt temperature
5-W-43-061516	#2 Diesel (C10-C24)	UJ	Blank contamination, high cooler temperature
5-W-43-061516	Motor Oil (>C24-C36)	J	High cooler receipt temperature
EW-1-061516	#2 Diesel (C10-C24)	UJ	Blank contamination, high cooler temperature
EW-1-061516	Motor Oil (>C24-C36)	J	High cooler receipt temperature
EW-2A-061416	#2 Diesel (C10-C24)	J	High cooler receipt temperature
EW-2A-061416	Motor Oil (>C24-C36)	J	High cooler receipt temperature
GW-10-061516	#2 Diesel (C10-C24)	UJ	Blank contamination, high cooler temperature
GW-10-061516	Motor Oil (>C24-C36)	J	High cooler receipt temperature
GW-1-061516	#2 Diesel (C10-C24)	UJ	Blank contamination, high cooler temperature
GW-1-061516	Motor Oil (>C24-C36)	J	High cooler receipt temperature
GW-20-061516	#2 Diesel (C10-C24)	J	Blank contamination, high cooler temperature
GW-20-061516	Motor Oil (>C24-C36)	J	High cooler receipt temperature
GW-2-061516	#2 Diesel (C10-C24)	J	Blank contamination, high cooler temperature
GW-2-061516	Motor Oil (>C24-C36)	J	High cooler receipt temperature
GW-30-061516	#2 Diesel (C10-C24)	UJ	Blank contamination, high cooler temperature
GW-30-061516	Motor Oil (>C24-C36)	J	High cooler receipt temperature
GW-3-061516	#2 Diesel (C10-C24)	UJ	Blank contamination, high cooler temperature
GW-3-061516	Motor Oil (>C24-C36)	J	High cooler receipt temperature
GW-4-061416	#2 Diesel (C10-C24)	J	High cooler receipt temperature
GW-4-061416	Motor Oil (>C24-C36)	J	High cooler receipt temperature
MW-3-061416	#2 Diesel (C10-C24)	J	High cooler receipt temperature
MW-3-061416	Motor Oil (>C24-C36)	J	High cooler receipt temperature
MW-4-061416	#2 Diesel (C10-C24)	J	High cooler receipt temperature
MW-4-061416	Motor Oil (>C24-C36)	J	High cooler receipt temperature

## 5.0 Abbreviations and Definitions

### DV Qualifier

U

### Definition

The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample reporting limit or the amount of contaminant detected in the sample.

J

The analyte was positively identified. The associated numerical value is the approximate concentration of the analyte in the sample.



<u>DV Qualifier</u>	<u>Definition</u>
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a tentative identification.
UJ	The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.
R	The sample result is rejected. The presence or absence of the analyte cannot be verified and data are not usable.
R1	The sample result has been replaced by a more reliable or more conservative result.
R2	The sample result has been replaced by a result from a different analysis method.

<u>Abbreviation</u>	<u>Definition</u>
DV	Data Validation
LCS	Laboratory control sample
LCSD	Laboratory control sample duplicate
MS	Matrix spike
MSD	Matrix spike duplicate
RL	Reporting limit
RPD	Relative percent difference
RSD	Relative standard deviation

## 6.0 References

*USEPA Contract Laboratory Program National Functional Guidelines For Superfund Organic Methods Data Review*, Office of Superfund Remediation and Technology Innovation, U.S. Environmental Protection Agency, June 2008, USEPA-540-R-008-01.

*USEPA Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use*, Office of Solid Waste and Emergency Response, U.S. Environmental Protection Agency, January 2009, EPA 540-R-08-005.





## DATA VALIDATION REPORT

### *Skykomish Groundwater Monitoring September 2016 Data*

Prepared for:

Farallon Consulting, LLC

975 5<sup>th</sup> Avenue NW

Issaquah, Washington 98027

November 28, 2016

### 1.0 Introduction

Data Validation was performed on the following water samples:

Sample ID	Sample Date/Time	Lab ID	Matrix	Analyses
MW-3-092016	09/20/2016 08:45	580-62731-1	WG	TPHD
1C-W-4-092016	09/20/2016 11:27	580-62731-10	WG	TPHD
2A-W-9-092016	09/20/2016 12:10	580-62731-11	WG	TPHD
1C-W-8-092016	09/20/2016 13:36	580-62731-12	WG	TPHD
1C-W-1-092016	09/20/2016 13:54	580-62731-13	WG	TPHD
1B-W-3-092016	09/20/2016 14:59	580-62731-14	WG	TPHD
1B-W-2-092016	09/20/2016 15:40	580-62731-15	WG	TPHD
GW-3-092016	09/20/2016 16:13	580-62731-16	WG	TPHD
GW-30-092016	09/20/2016 16:18	580-62731-17	WG	TPHD
1B-W-23-092016	09/20/2016 17:10	580-62731-18	WG	TPHD
MW-38R-092016	09/20/2016 17:35	580-62731-19	WG	TPHD
GW-4-092016	09/20/2016 08:46	580-62731-2	WG	TPHD
2A-W-41-092016	09/20/2016 17:56	580-62731-20	WG	TPHD
S4-AD-092116	09/21/2016 07:57	580-62731-21	WG	TPHD
S4-BD-092116	09/21/2016 08:03	580-62731-22	WG	TPHD
S4-CU-092116	09/21/2016 08:04	580-62731-23	WG	TPHD
S4-AU-092116	09/21/2016 08:21	580-62731-24	WG	TPHD
S4-CD-092116	09/21/2016 08:30	580-62731-25	WG	TPHD
S4-BU-092116	09/21/2016 08:37	580-62731-26	WG	TPHD
S3-AD-092116	09/21/2016 09:16	580-62731-27	WG	TPHD
S3-AU-092116	09/21/2016 09:20	580-62731-28	WG	TPHD
S3-BD-092116	09/21/2016 09:58	580-62731-29	WG	TPHD
GW-40-092016	09/20/2016 08:51	580-62731-3	WG	TPHD
S3-BU-092116	09/21/2016 09:58	580-62731-30	WG	TPHD
S2-BD-092116	09/21/2016 10:20	580-62731-31	WG	TPHD
S3-CU-092116	09/21/2016 10:29	580-62731-32	WG	TPHD
S3-CD-092116	09/21/2016 10:33	580-62731-33	WG	TPHD
S2-BU-092116	09/21/2016 10:55	580-62731-34	WG	TPHD
S1-BD-092116	09/21/2016 11:27	580-62731-35	WG	TPHD
S1-AD-092116	09/21/2016 11:27	580-62731-36	WG	TPHD

Sample ID	Sample Date/Time	Lab ID	Matrix	Analyses
S2-AD-092116	09/21/2016 11:31	580-62731-37	WG	TPHD
S1-AU-092116	09/21/2016 11:51	580-62731-38	WG	TPHD
S1-BU-092116	09/21/2016 12:00	580-62731-39	WG	TPHD
EW-2A-092016	09/20/2016 08:52	580-62731-4	WG	TPHD
S2-AU-092116	09/21/2016 12:05	580-62731-40	WG	TPHD
2B-W-4-092116	09/21/2016 14:09	580-62731-41	WG	TPHD
5-W-43-092116	09/21/2016 14:12	580-62731-42	WG	TPHD
GW-1-092116	09/21/2016 14:30	580-62731-43	WG	TPHD
GW-10-092116	09/21/2016 14:35	580-62731-44	WG	TPHD
EW-1-092116	09/21/2016 15:00	580-62731-45	WG	TPHD
MW-16-092116	09/21/2016 15:00	580-62731-46	WG	TPHD
2A-W-40-092116	09/21/2016 15:54	580-62731-47	WG	TPHD
2A-W-400-092116	09/21/2016 15:59	580-62731-48	WG	TPHD
GW-2-092116	09/21/2016 16:02	580-62731-49	WG	TPHD
1C-W-7-092016	09/20/2016 09:58	580-62731-5	WG	TPHD
GW-20-092116	09/21/2016 16:07	580-62731-50	WG	TPHD
5-W-54-092116	09/21/2016 16:35	580-62731-51	WG	TPHD
5-W-55-092116	09/21/2016 17:04	580-62731-52	WG	TPHD
5-W-51-092116	09/21/2016 17:40	580-62731-53	WG	TPHD
5-W-56-092116	09/21/2016 17:43	580-62731-54	WG	TPHD
5-W-15-092116	09/21/2016 17:53	580-62731-55	WG	TPHD
5-W-19-092216	09/22/2016 09:13	580-62731-56	WG	TPHD
5-W-16-092216	09/22/2016 09:19	580-62731-57	WG	TPHD
5-W-160-092216	09/22/2016 09:24	580-62731-58	WG	TPHD
1A-W-4-092216	09/22/2016 09:33	580-62731-59	WG	TPHD
MW-4-092016	09/20/2016 10:00	580-62731-6	WG	TPHD
5-W-17-092216	09/22/2016 10:12	580-62731-60	WG	TPHD
5-W-18-092216	09/22/2016 10:17	580-62731-61	WG	TPHD
5-W-14-092216	09/22/2016 10:45	580-62731-62	WG	TPHD
2A-W-42-092016	09/20/2016 10:02	580-62731-7	WG	TPHD
2A-W-10-092016	09/20/2016 11:05	580-62731-8	WG	TPHD
1C-W-3-092016	09/20/2016 11:26	580-62731-9	WG	TPHD

Samples were analyzed by Test America, Tacoma, Washington.

A stage 2A summary validation was performed on the analytical results including both the hardcopy (portable document format) and electronic data deliverable, earning EPA OSWER validation label code S2AVEM. Validation was performed by Cari Saylor.

Data qualifiers are assigned based only on the criteria reviewed and do not include calibration or instrument performance issues unless noted in the laboratory narrative.

Data qualifiers are summarized in section 4.0 below.

## 2.0 Precision, Accuracy, Representativeness, Comparability, and Completeness

Sample analysis frequencies: Quarterly sampling includes 25 water sample locations, and semi-annual sampling includes an additional 32 water sample locations. For this round of sampling only quarterly locations were required. All required samples except 5-W-50 were collected and the required analysis was completed by the laboratory for each collected sample.

Analysis methods: Samples were analyzed by method NWTPH-Dx and prepared by method SW3510C. These methods are approved EPA methods and therefore meet comparability requirements.

Precision, accuracy and completeness: Accuracy measurements were within laboratory control limits. Some results were estimated or reporting limits elevated due to blank contamination and LCS/LCSD variability. However, no data were rejected.

A data completeness of 98.2% was calculated based on 56 of 57 intended sample analyses completed. This meets the project goal of 90%.

### 3.0 Diesel Range Petroleum Hydrocarbon Analysis

Quality control analysis frequencies: The method specifies that a method blank must be analyzed one per analytical batch or one per twenty samples, whichever is more frequent, and a laboratory duplicate must be analyzed one per ten samples. In addition, surrogate compounds must be measured in each field and quality control sample.

Each batch included a method blank, laboratory control sample (LCS), and LCS duplicate (LCSD), as well as appropriate surrogates. Data qualifiers are not required due to a lack of laboratory duplicate results.

Holding times: Unpreserved water samples must be extracted within 7 days of collection. Preserved water samples must be extracted within 14 days of collection. Extracts must be analyzed within 40 days of extraction. Samples were extracted and analyzed within holding time.

Laboratory blank results: Criteria for blanks are that analyte concentrations must be below the PQL, or below 5% of the lowest associated sample concentration. The following target compounds were detected in the method blanks:

Blank ID	Analyte	Concentration (mg/L)	RL (mg/L)
MB 580-228960/1-A	Motor Oil (>C24-C36)	0.0191J	0.05

Results in the associated samples with concentrations less than 5 times this levels should be considered not detected at the reported concentration, and are qualified "U". Results that are both below both 5 times the blank level and below the reporting limit are qualified "UJ". Results with concentrations between 5 and 10 times these levels are qualified as estimated. Results in above 10 times these levels are considered unaffected.

Surrogate recoveries: Laboratory control limits were 50-150%. Surrogate recoveries were within limits.

LCS recoveries: Laboratory control limits ranged from 59-120% to 53-129%. LCS recoveries were within limits.

LCS/LCSD RPDs: The laboratory control limit ranged from <19 to <27%. LCS/LCSD RPD values were within limits with one exception:

QC ID	Analyte	RPD	Lab Control Limit
LCSD 580-228960/3-A	Motor Oil (>C24-C36)	24	19

Detected motor oil results in the associated samples are qualified as estimated.

Field duplicate RPDs: For concentrations below five times the reporting limits, concentrations were within +/- two times the reporting limit. For concentrations above five times the reporting limit, RPDs were below 50%.

Multiple reported results: No dilution or reanalysis result were included in this report, and no evaluation of multiple reported results was needed.

Reporting limits: The reporting limit goals are 0.1 mg/L for both diesel range hydrocarbons and oil range hydrocarbons. These goals were met.

Laboratory narrative and flags: No other qualifiers were added based on a review of the laboratory narratives.

Diesel and oil range petroleum hydrocarbon data are acceptable for use as qualified.

#### 4.0 Validation Qualifiers

Client ID	Analyte(s)	Qualifier	Reason
2A-W-400-092116	Motor Oil (>C24-C36)	UJ	Lab blank contamination, High LCS/LCSD RPD
2A-W-40-092116	Motor Oil (>C24-C36)	UJ	Lab blank contamination, High LCS/LCSD RPD
5-W-15-092116	Motor Oil (>C24-C36)	UJ	Lab blank contamination, High LCS/LCSD RPD
5-W-43-092116	Motor Oil (>C24-C36)	UJ	Lab blank contamination, High LCS/LCSD RPD
5-W-51-092116	Motor Oil (>C24-C36)	J	High LCS/LCSD RPD
5-W-54-092116	Motor Oil (>C24-C36)	UJ	Lab blank contamination, High LCS/LCSD RPD
5-W-55-092116	Motor Oil (>C24-C36)	J	Lab blank contamination, High LCS/LCSD RPD
5-W-56-092116	Motor Oil (>C24-C36)	J	High LCS/LCSD RPD
EW-1-092116	Motor Oil (>C24-C36)	UJ	Lab blank contamination, High LCS/LCSD RPD
GW-10-092116	Motor Oil (>C24-C36)	UJ	Lab blank contamination, High LCS/LCSD RPD
GW-1-092116	Motor Oil (>C24-C36)	J	High LCS/LCSD RPD
GW-20-092116	Motor Oil (>C24-C36)	UJ	Lab blank contamination, High LCS/LCSD RPD
GW-2-092116	Motor Oil (>C24-C36)	UJ	Lab blank contamination, High LCS/LCSD RPD
MW-16-092116	Motor Oil (>C24-C36)	J	High LCS/LCSD RPD

#### 5.0 Abbreviations and Definitions

DV Qualifier	Definition
U	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample reporting limit or the amount of contaminant detected in the sample.
J	The analyte was positively identified. The associated numerical value is the approximate concentration of the analyte in the sample.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a tentative identification.
UJ	The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.
R	The sample result is rejected. The presence or absence of the analyte cannot be verified and data are not usable.
R1	The sample result has been replaced by a more reliable or more conservative result.

<u>DV Qualifier</u>	<u>Definition</u>
R2	The sample result has been replaced by a result from a different analysis method.

<u>Abbreviation</u>	<u>Definition</u>
DV	Data Validation
LCS	Laboratory control sample
LCSD	Laboratory control sample duplicate
MS	Matrix spike
MSD	Matrix spike duplicate
RL	Reporting limit
RPD	Relative percent difference
RSD	Relative standard deviation

## 6.0 References

*USEPA Contract Laboratory Program National Functional Guidelines For Superfund Organic Methods Data Review*, Office of Superfund Remediation and Technology Innovation, U.S. Environmental Protection Agency, June 2008, USEPA-540-R-008-01.

*USEPA Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use*, Office of Solid Waste and Emergency Response, U.S. Environmental Protection Agency, January 2009, EPA 540-R-08-005.



## DATA VALIDATION REPORT

### *Skykomish Groundwater Monitoring December 2016 Data*

Prepared for:

Farallon Consulting, LLC

975 5<sup>th</sup> Avenue NW

Issaquah, Washington 98027

January 13, 2017

### 1.0 Introduction

Data Validation was performed on the following water samples:

Sample ID	Sample Date/Time	Lab ID	Analyses
5-W-19-121416	12/14/2016 09:31	580-64894-1	NWTPH-DX
EW-2A-121416	12/14/2016 09:32	580-64894-2	NWTPH-DX
5-W-18-121416	12/14/2016 09:40	580-64894-3	NWTPH-DX
1B-W-3-121416	12/14/2016 10:35	580-64894-4	NWTPH-DX
5-W-16-121416	12/14/2016 10:54	580-64894-5	NWTPH-DX
5-W-17-121416	12/14/2016 11:03	580-64894-6	NWTPH-DX
2B-W-4-121416	12/14/2016 11:55	580-64894-7	NWTPH-DX
5-W-15-121416	12/14/2016 12:18	580-64894-8	NWTPH-DX
5-W-14-121416	12/14/2016 12:19	580-64894-9	NWTPH-DX
5-W-43-121416	12/14/2016 14:05	580-64894-10	NWTPH-DX
1C-W-1-121416	12/14/2016 14:08	580-64894-11	NWTPH-DX
EW-1-121416	12/14/2016 14:09	580-64894-12	NWTPH-DX
1C-W-8-121416	12/14/2016 14:58	580-64894-13	NWTPH-DX
GW-2-121416	12/14/2016 15:26	580-64894-14	NWTPH-DX
GW-20-121416	12/14/2016 15:31	580-64894-15	NWTPH-DX
GW-1-121416	12/14/2016 15:33	580-64894-16	NWTPH-DX
GW-10-121416	12/14/2016 15:45	580-64894-17	NWTPH-DX
1C-W-7-121416	12/14/2016 16:20	580-64894-18	NWTPH-DX
GW-4-121516	12/15/2016 09:00	580-64894-19	NWTPH-DX
MW-4-121516	12/15/2016 09:23	580-64894-20	NWTPH-DX
MW-3-121516	12/15/2016 09:42	580-64894-21	NWTPH-DX
2A-W-42-121516	12/15/2016 10:10	580-64894-22	NWTPH-DX
2A-W-9-121516	12/15/2016 10:55	580-64894-23	NWTPH-DX
2A-W-10-121516	12/15/2016 11:02	580-64894-24	NWTPH-DX
1B-W-23-121516	12/15/2016 12:30	580-64894-25	NWTPH-DX
GW-3-121516	12/15/2016 12:34	580-64894-26	NWTPH-DX
2A-W-41-121516	12/15/2016 12:42	580-64894-27	NWTPH-DX
2A-W-40-121516	12/15/2016 15:25	580-64894-28	NWTPH-DX
2A-W-400-121516	12/15/2016 15:30	580-64894-29	NWTPH-DX

Samples were analyzed by Test America, Tacoma, Washington.

A stage 2A summary validation was performed on the analytical results including both the hardcopy (portable document format) and electronic data deliverable, earning EPA OSWER validation label code S2AVEM. Validation was performed by Cari Sayler.

Data qualifiers are assigned based only on the criteria reviewed and do not include calibration or instrument performance issues unless noted in the laboratory narrative.

No data qualifiers were assigned as a result of this review.

## **2.0 Precision, Accuracy, Representativeness, Comparability, and Completeness**

Sample analysis frequencies: Quarterly sampling includes 26 water sample locations, and semi-annual sampling includes an additional 31 water sample locations. For this round of sampling only quarterly locations were required. All required samples were collected and the required analysis was completed by the laboratory for each collected sample.

Analysis methods: Samples were analyzed by method NWTPH-Dx and prepared by method SW3510C. These methods are approved EPA methods and therefore meet comparability requirements.

Precision, accuracy and completeness: Accuracy and precision measurements were within laboratory control limits. A data completeness of 100% was calculated based on 26 of 26 intended sample analyses completed. This meets the project goal of 90%.

## **3.0 Diesel Range Petroleum Hydrocarbon Analysis**

Quality control analysis frequencies: The method specifies that a method blank must be analyzed one per analytical batch or one per twenty samples, whichever is more frequent, and a laboratory duplicate must be analyzed one per ten samples. In addition, surrogate compounds must be measured in each field and quality control sample.

Each batch included a method blank, laboratory control sample (LCS), and LCS duplicate (LCSD), as well as appropriate surrogates. Data qualifiers are not required due to a lack of laboratory duplicate results.

Holding times: Unpreserved water samples must be extracted within 7 days of collection. Preserved water samples must be extracted within 14 days of collection. Extracts must be analyzed within 40 days of extraction. Samples were extracted and analyzed within holding time.

Laboratory blank results: Criteria for blanks are that analyte concentrations must be below the PQL, or below 5% of the lowest associated sample concentration. No target compounds were detected in the method blanks.

Surrogate recoveries: Laboratory control limits were 50-150%. Surrogate recoveries were within limits.

LCS recoveries: Laboratory control limits ranged from 59-120% to 53-129%. LCS recoveries were within limits.



LCS/LCSD RPDs: The laboratory control limit ranged from <19 to <27%. LCS/LCSD RPD values were within limits.

Field duplicate RPDs: For concentrations below five times the reporting limits, concentrations were within +/- two times the reporting limit. For concentrations above five times the reporting limit, RPDs were below 50%.

Multiple reported results: No dilution or reanalysis result were included in this report, and no evaluation of multiple reported results was needed.

Reporting limits: The reporting limit goals are 0.1 mg/L for both diesel range hydrocarbons and oil range hydrocarbons. These goals were met.

Laboratory narrative and flags: No other qualifiers were added based on a review of the laboratory narratives.

Diesel and oil range petroleum hydrocarbon data are acceptable for use as reported.

## 4.0 Abbreviations and Definitions

<u>DV Qualifier</u>	<u>Definition</u>
U	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample reporting limit or the amount of contaminant detected in the sample.
J	The analyte was positively identified. The associated numerical value is the approximate concentration of the analyte in the sample.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a tentative identification.
UJ	The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.
R	The sample result is rejected. The presence or absence of the analyte cannot be verified and data are not usable.
R1	The sample result has been replaced by a more reliable or more conservative result.
R2	The sample result has been replaced by a result from a different analysis method.

<u>Abbreviation</u>	<u>Definition</u>
DV	Data Validation
LCS	Laboratory control sample
LCSD	Laboratory control sample duplicate
MS	Matrix spike
MSD	Matrix spike duplicate
RL	Reporting limit
RPD	Relative percent difference
RSD	Relative standard deviation



## 5.0 References

*USEPA Contract Laboratory Program National Functional Guidelines For Superfund Organic Methods Data Review*, Office of Superfund Remediation and Technology Innovation, U.S. Environmental Protection Agency, June 2008, USEPA-540-R-008-01.

*USEPA Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use*, Office of Solid Waste and Emergency Response, U.S. Environmental Protection Agency, January 2009, EPA 540-R-08-005.

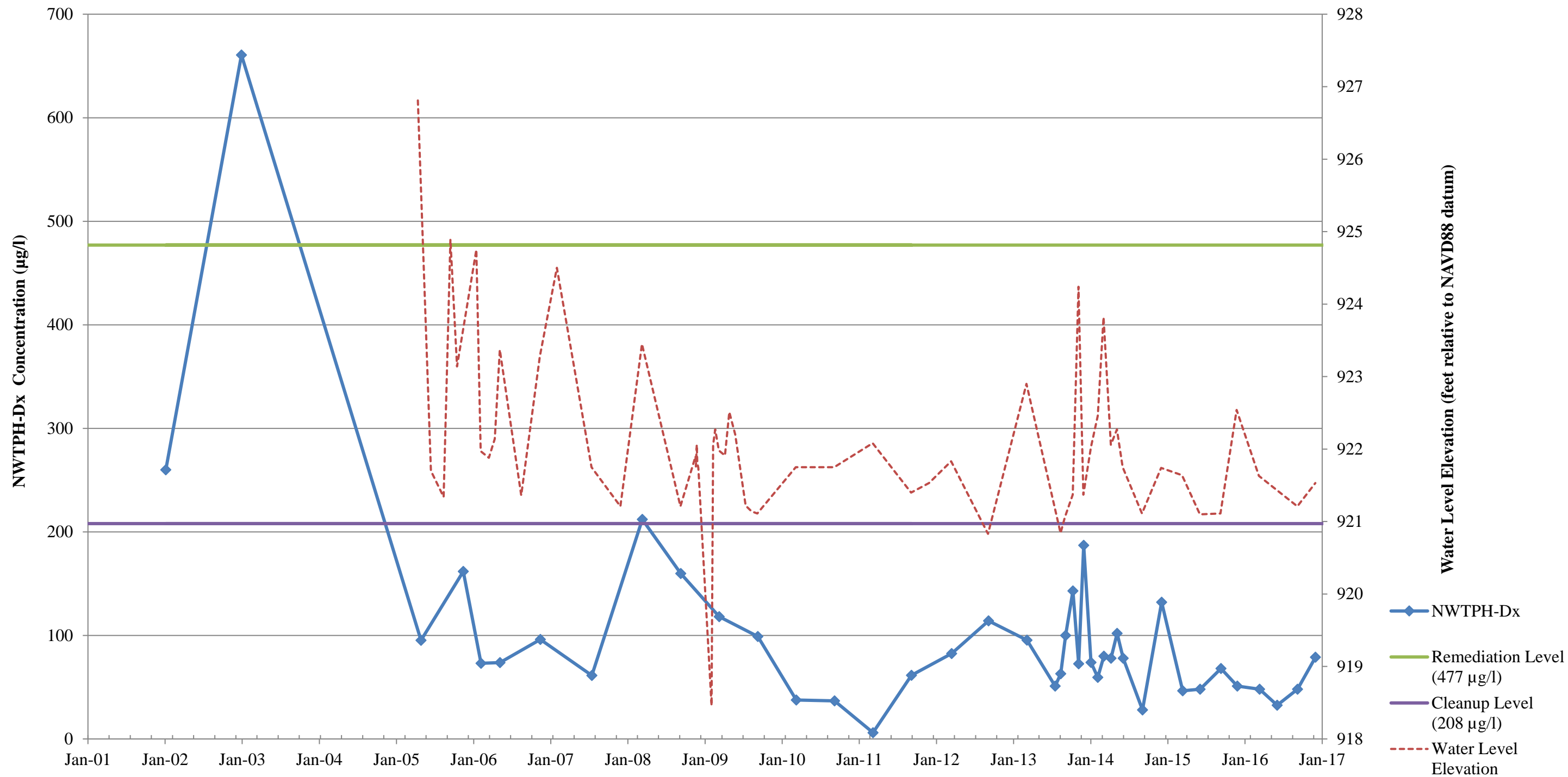
**APPENDIX D**  
**NWTPH-DX MONITORING WELL TREND PLOTS**

2016 SITE-WIDE GROUNDWATER MONITORING REPORT  
BNSF Former Maintenance and Fueling Facility  
Skykomish, Washington  
Consent Decree No. 07-2-33672-9 SEA

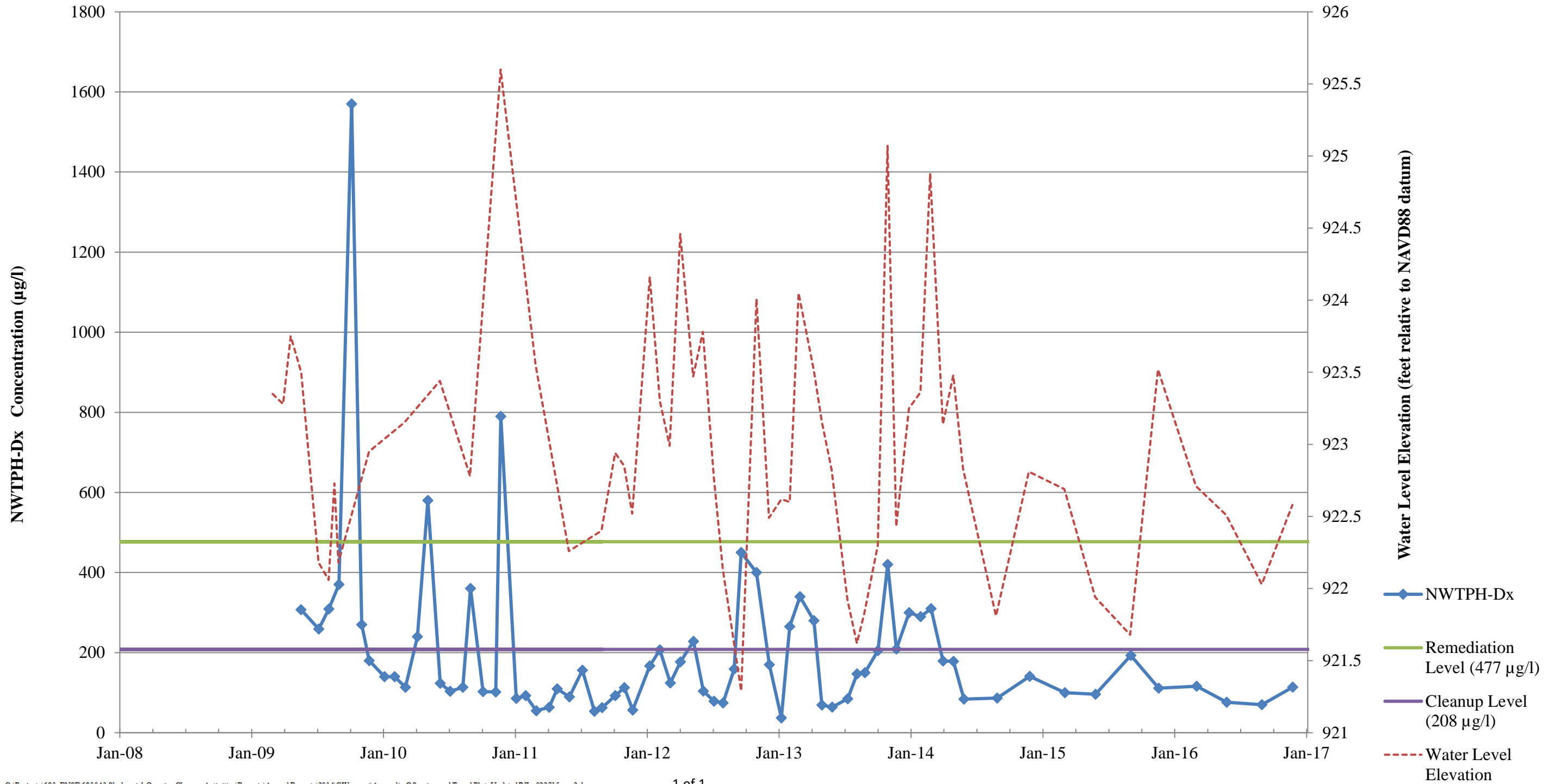
Farallon PN: 683-063

# Air Sparging System

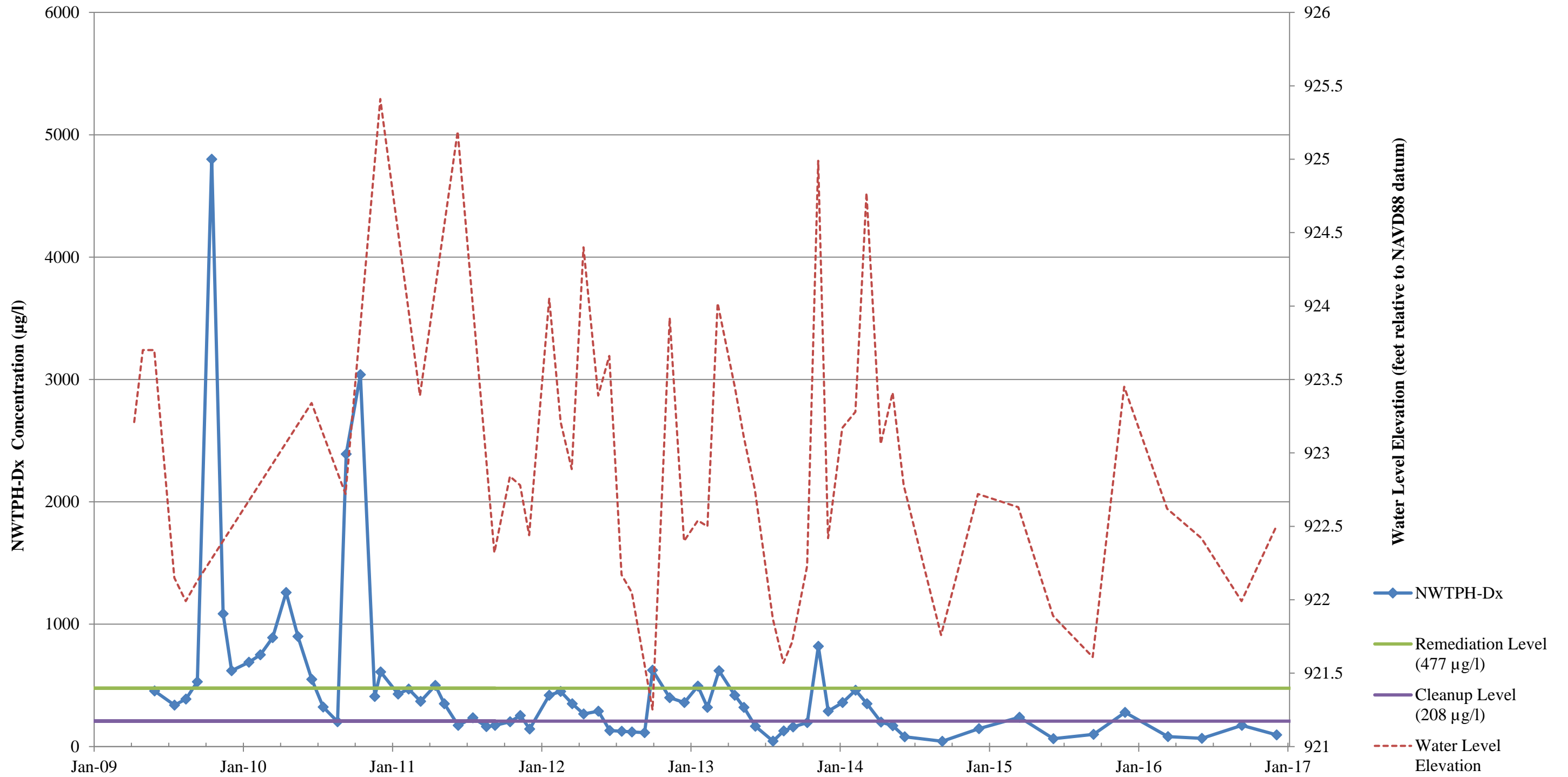
**NWTPH-Dx Trend Plot**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-043**  
**1B-W-3**



**NWTPH-Dx Trend Plot**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-043**  
**1C-W-7**

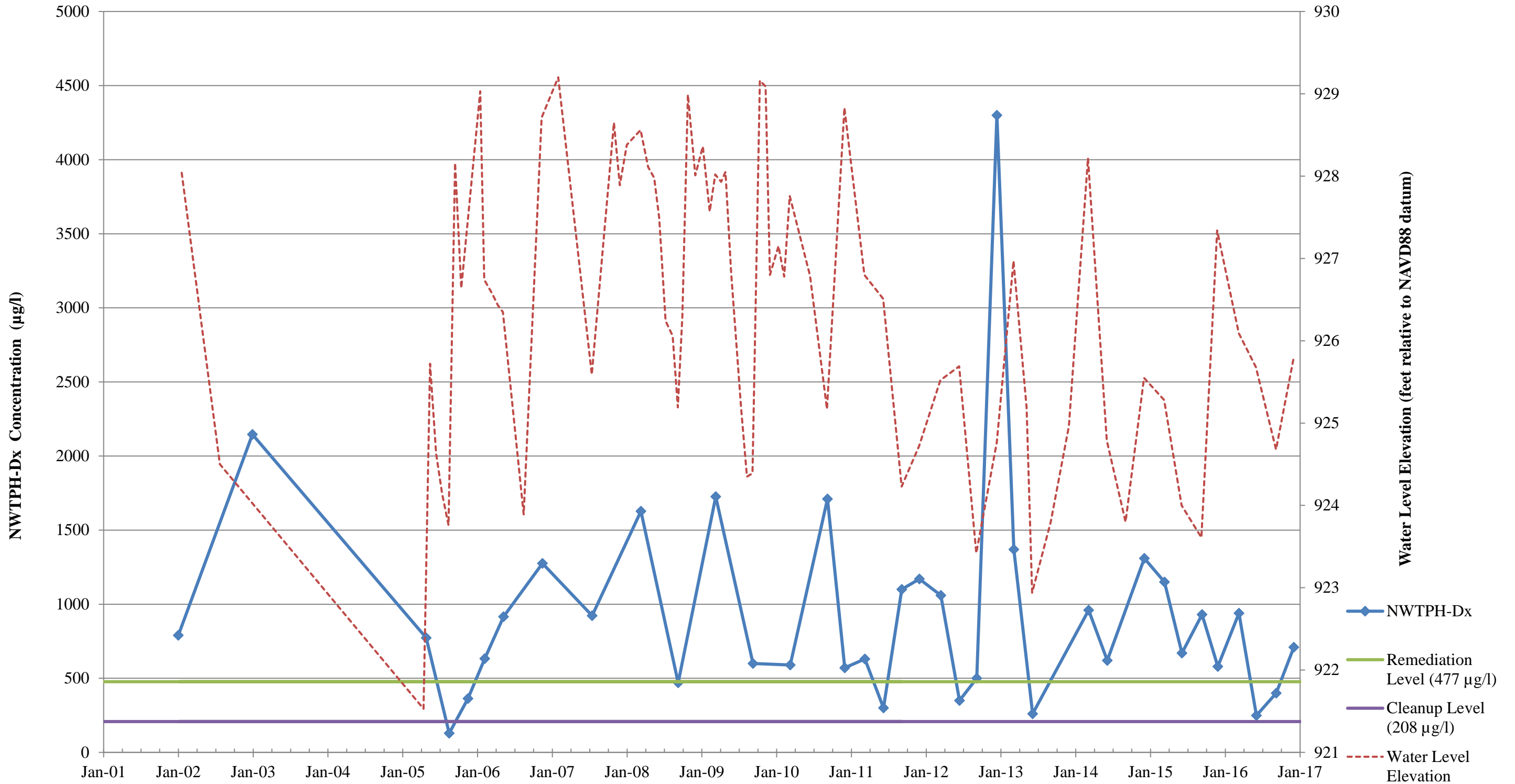


**NWTPH-Dx Trend Plot**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-043**  
**1C-W-8**



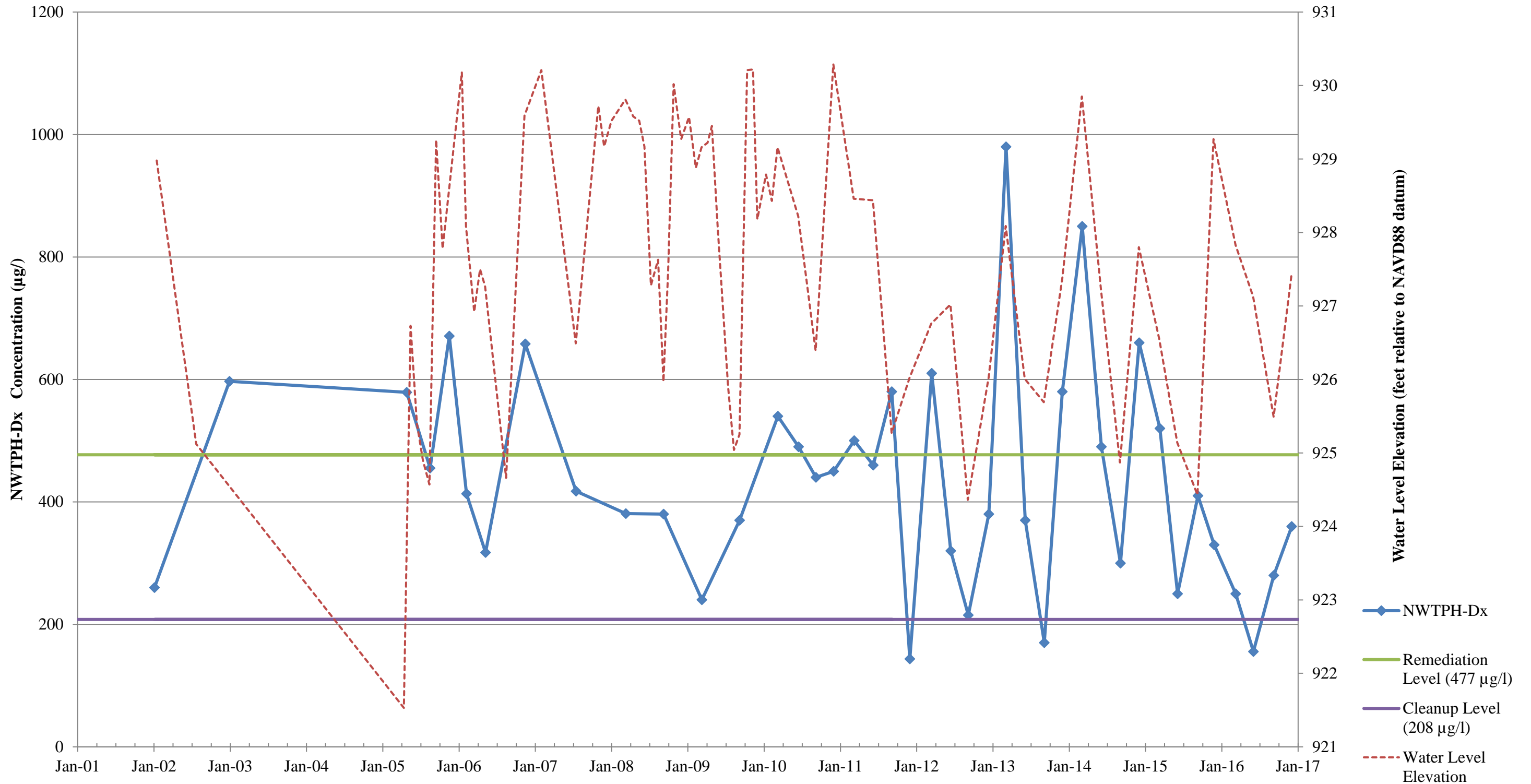
# FMCZ-EW and Surrounding Areas

**NWTPH-Dx Trend Plot**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-043**  
**2A-W-9**

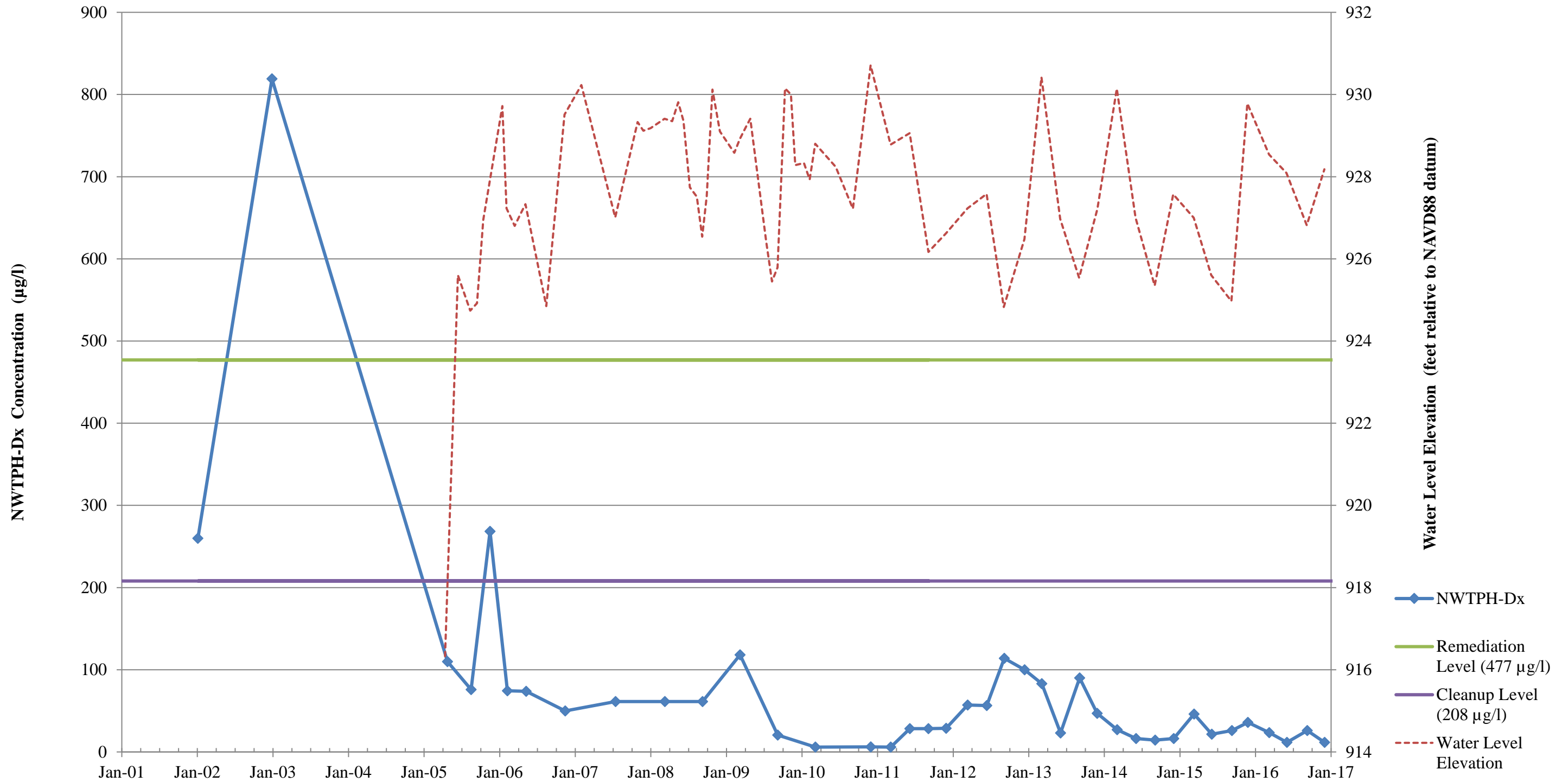




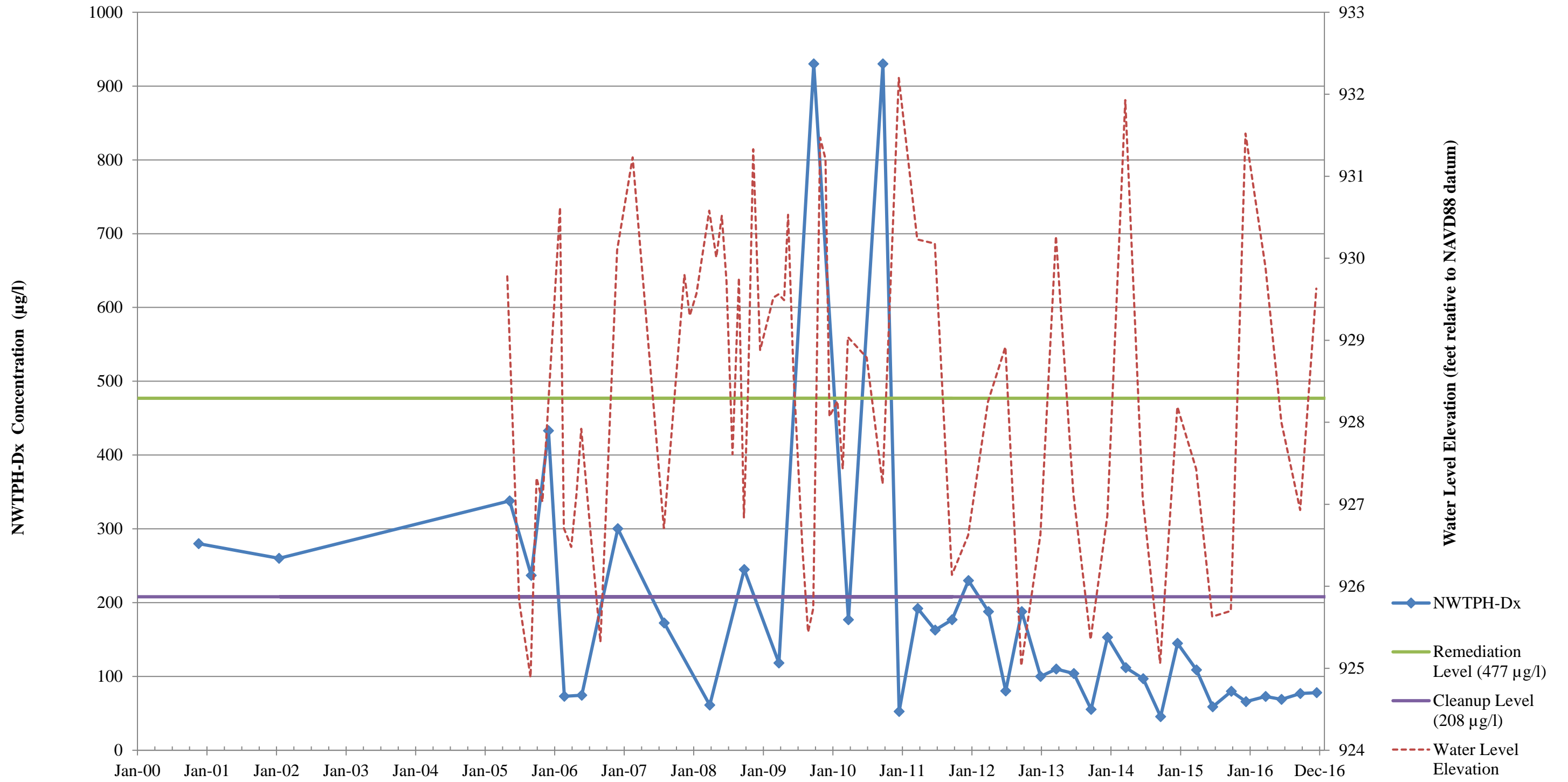
**NWTPH-Dx Trend Plot**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-043**  
**2A-W-10**



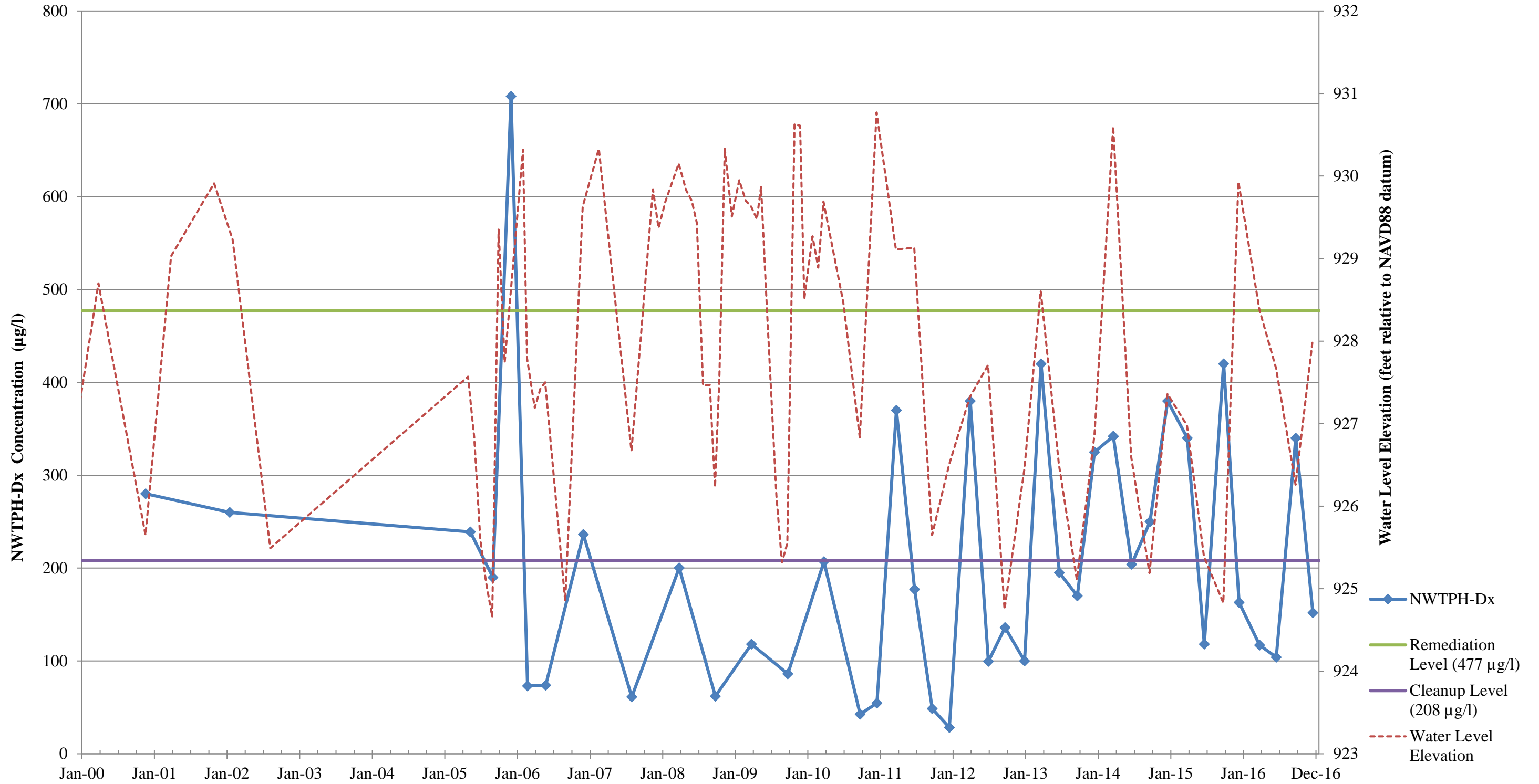
**NWTPH-Dx Trend Plot**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-043**  
**2B-W-4**



**NWTPH-Dx Trend Plot**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-043**  
**MW-3**

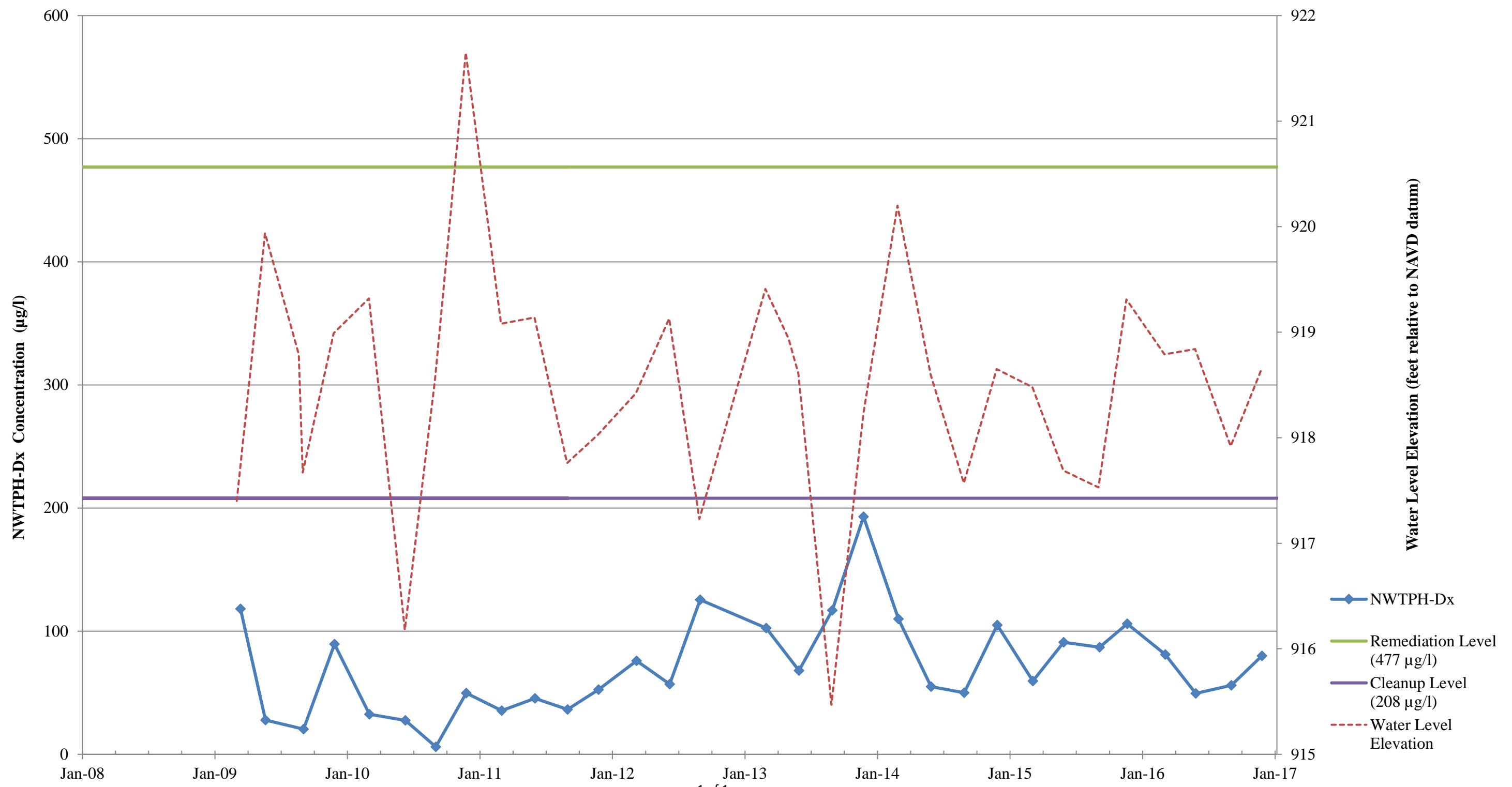


**NWTPH-Dx Trend Plot**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-043**  
**MW-4**

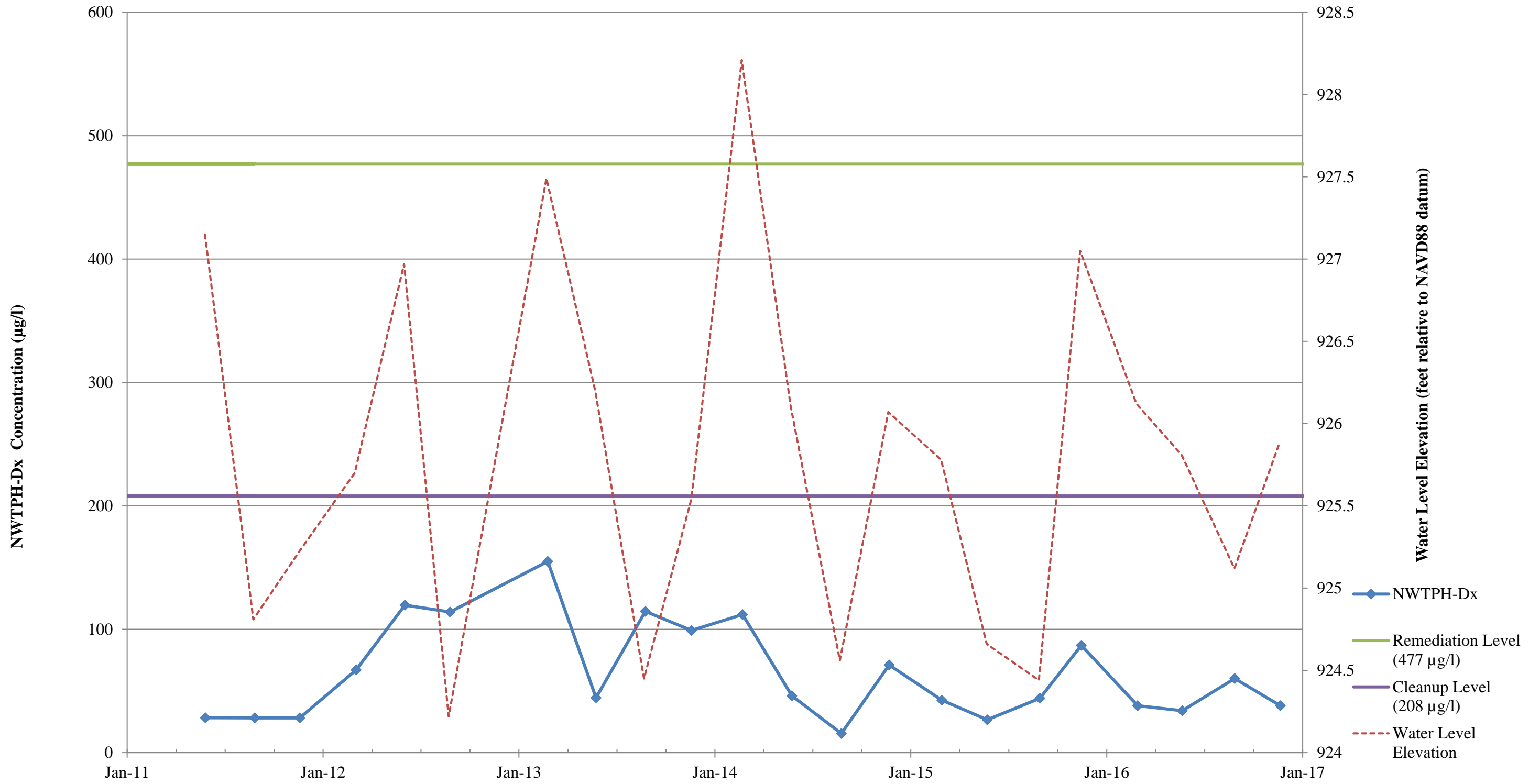


# HCC System

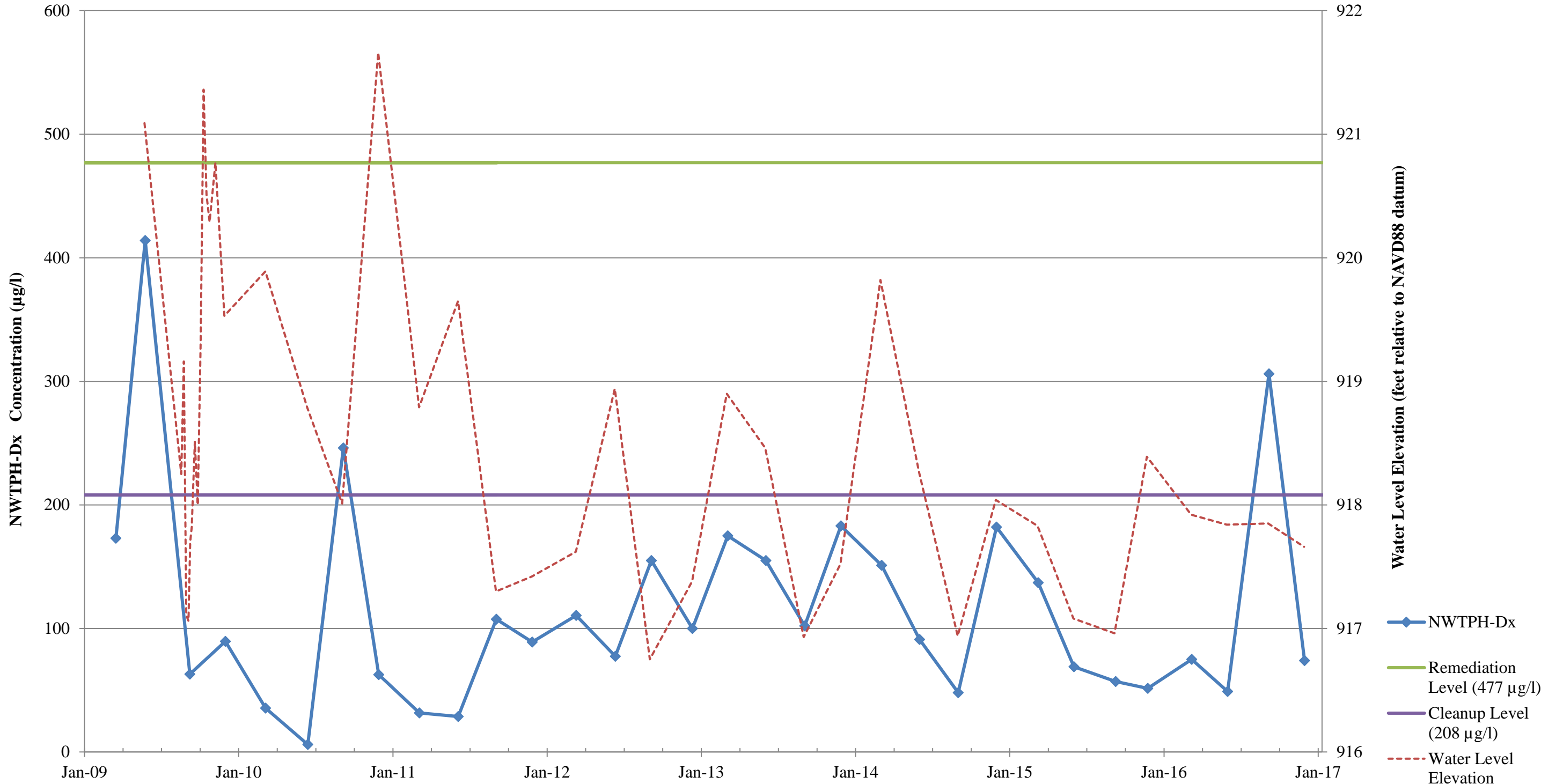
**NWTPH-Dx Trend Plot**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-043**  
**EW-1**



**NWTPH-Dx Trend Plot**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-043**  
**EW-2A**

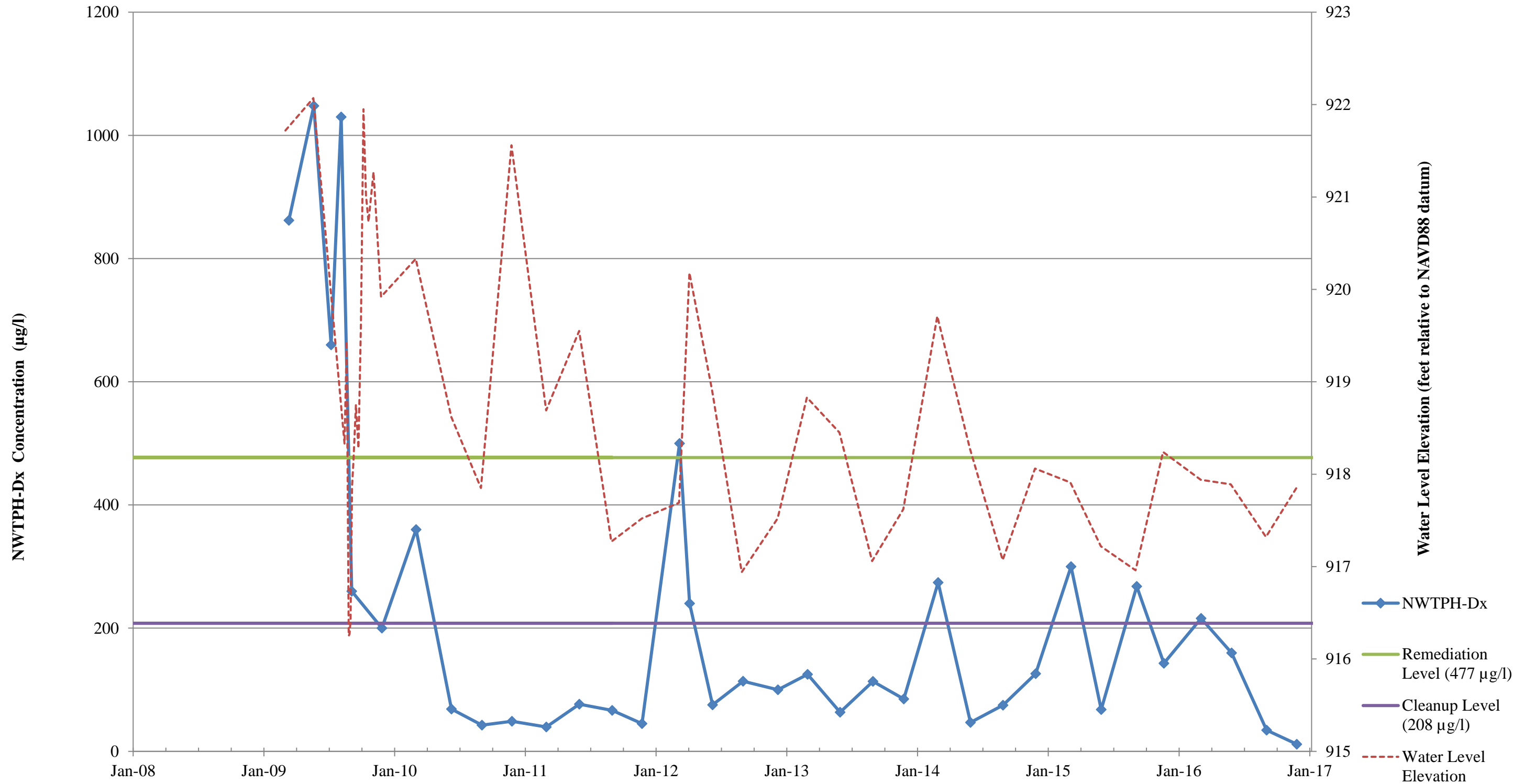


**NWTPH-Dx Trend Plot**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-043**  
**GW-1**

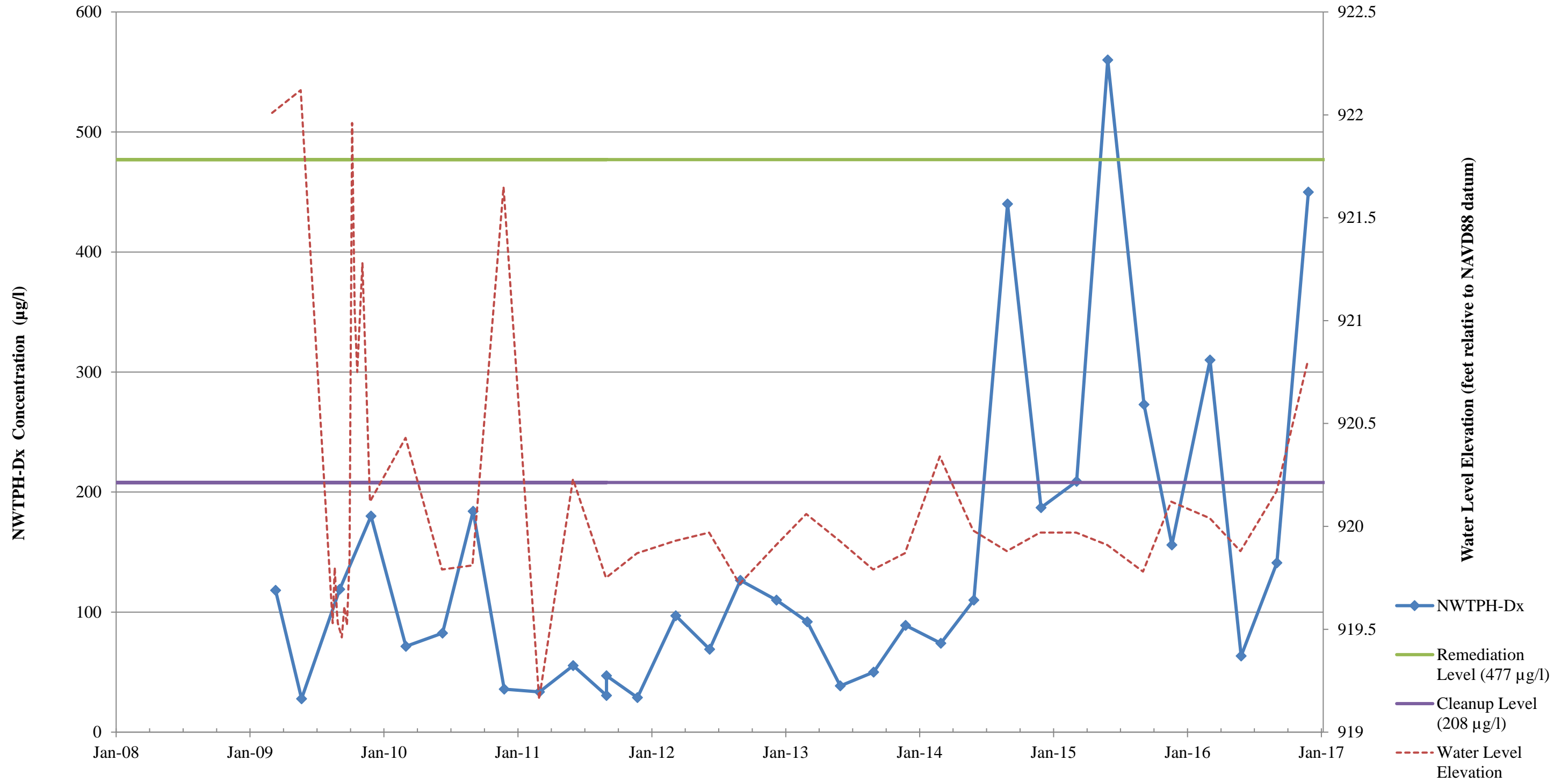




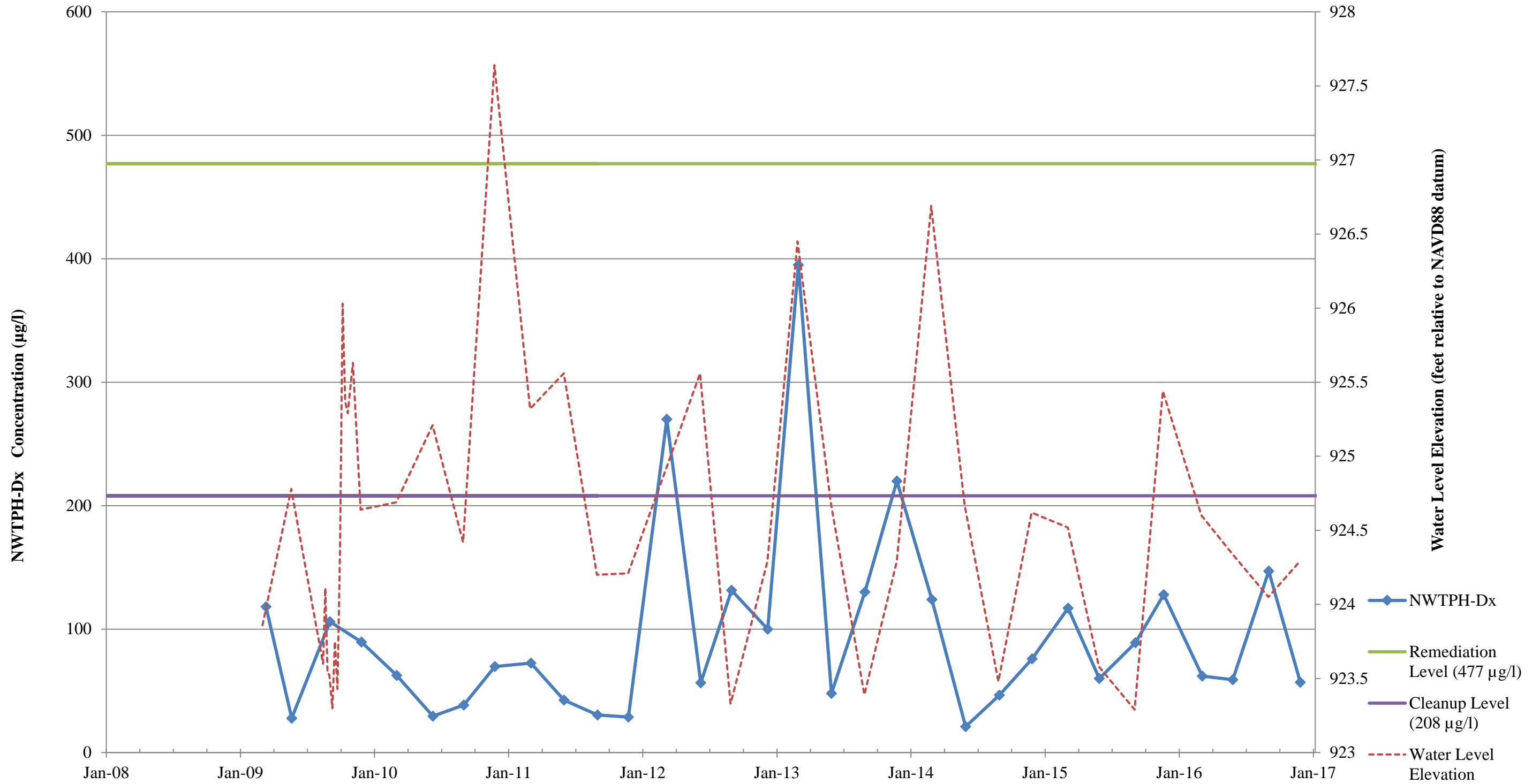
**NWTPH-Dx Trend Plot**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-043**  
**GW-2**



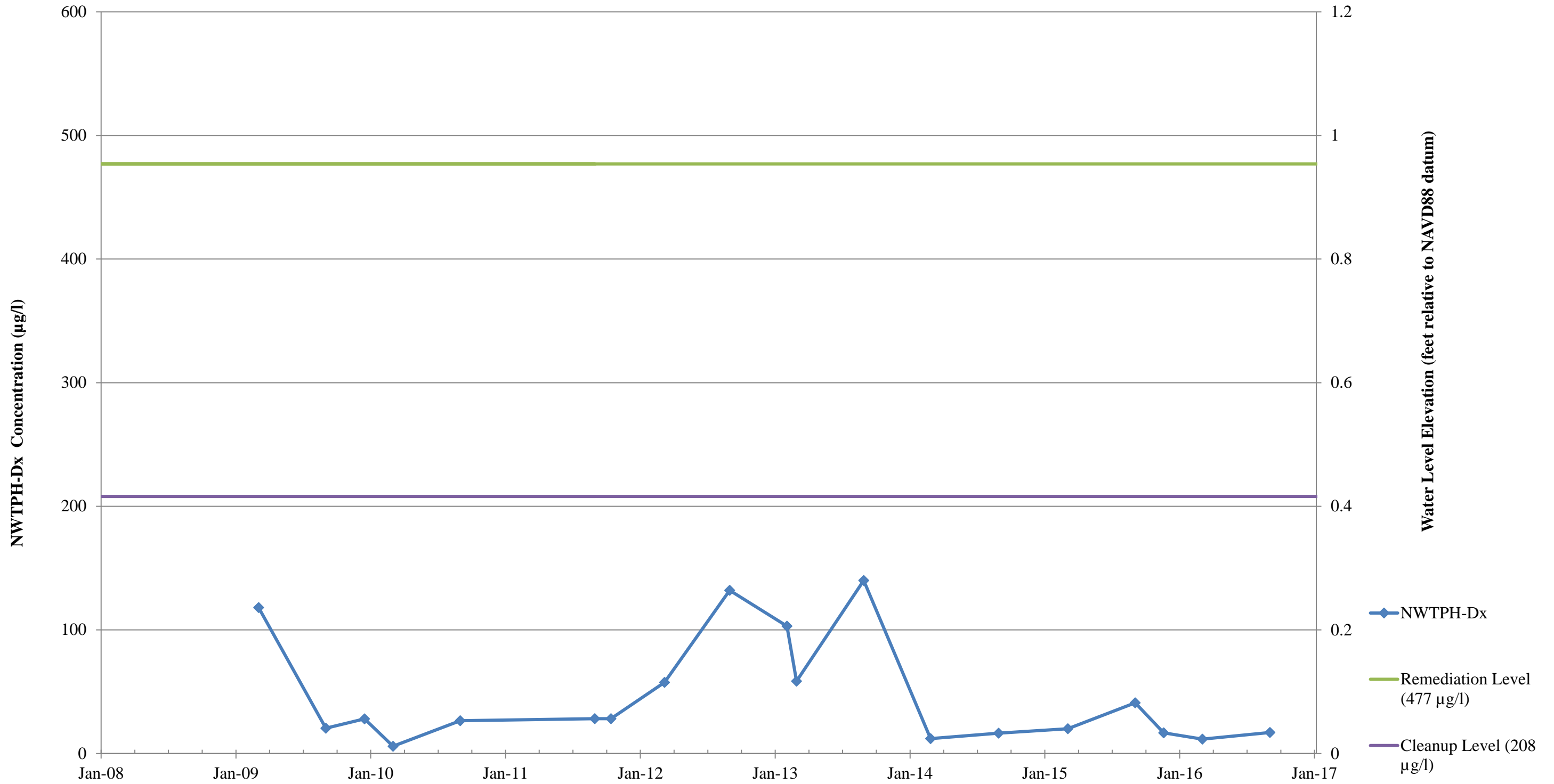
**NWTPH-Dx Trend Plot**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-043**  
**GW-3**



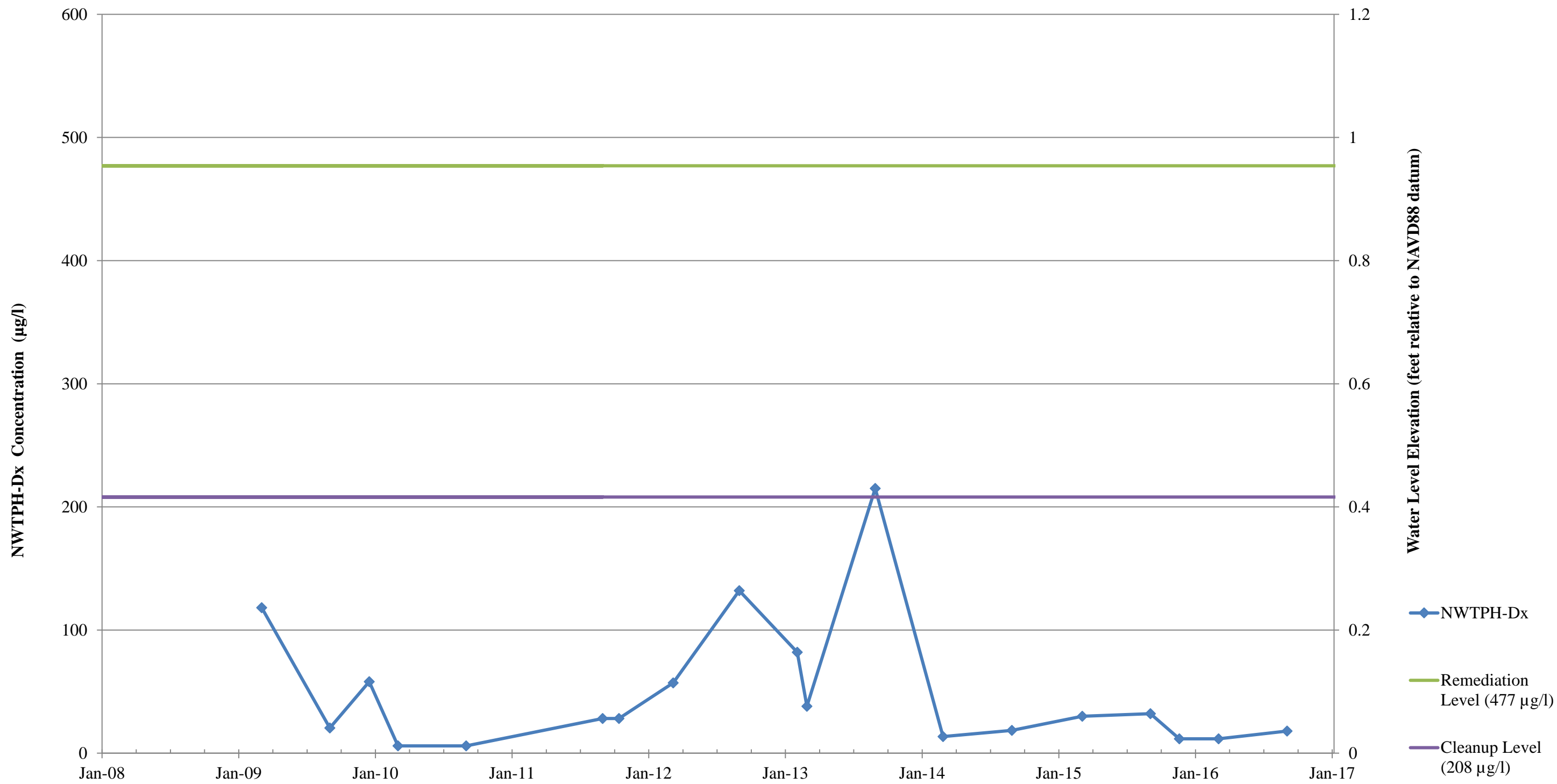
**NWTPH-Dx Trend Plot**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-043**  
**GW-4**



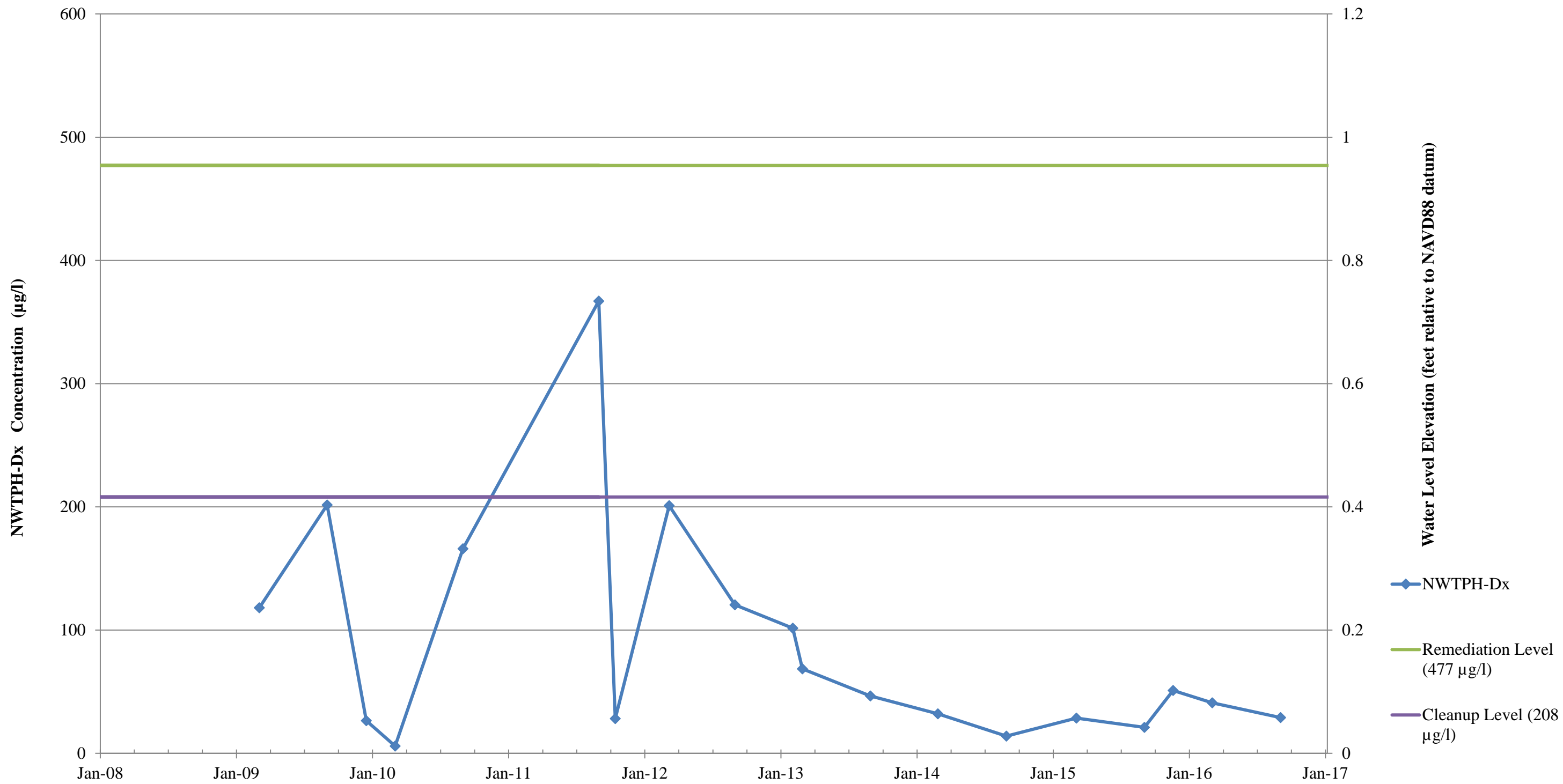
NWTPH-Dx Trend Plot  
BNSF Former Maintenance and Fueling Facility  
Skykomish, Washington  
Farallon PN: 683-043  
S1-AD



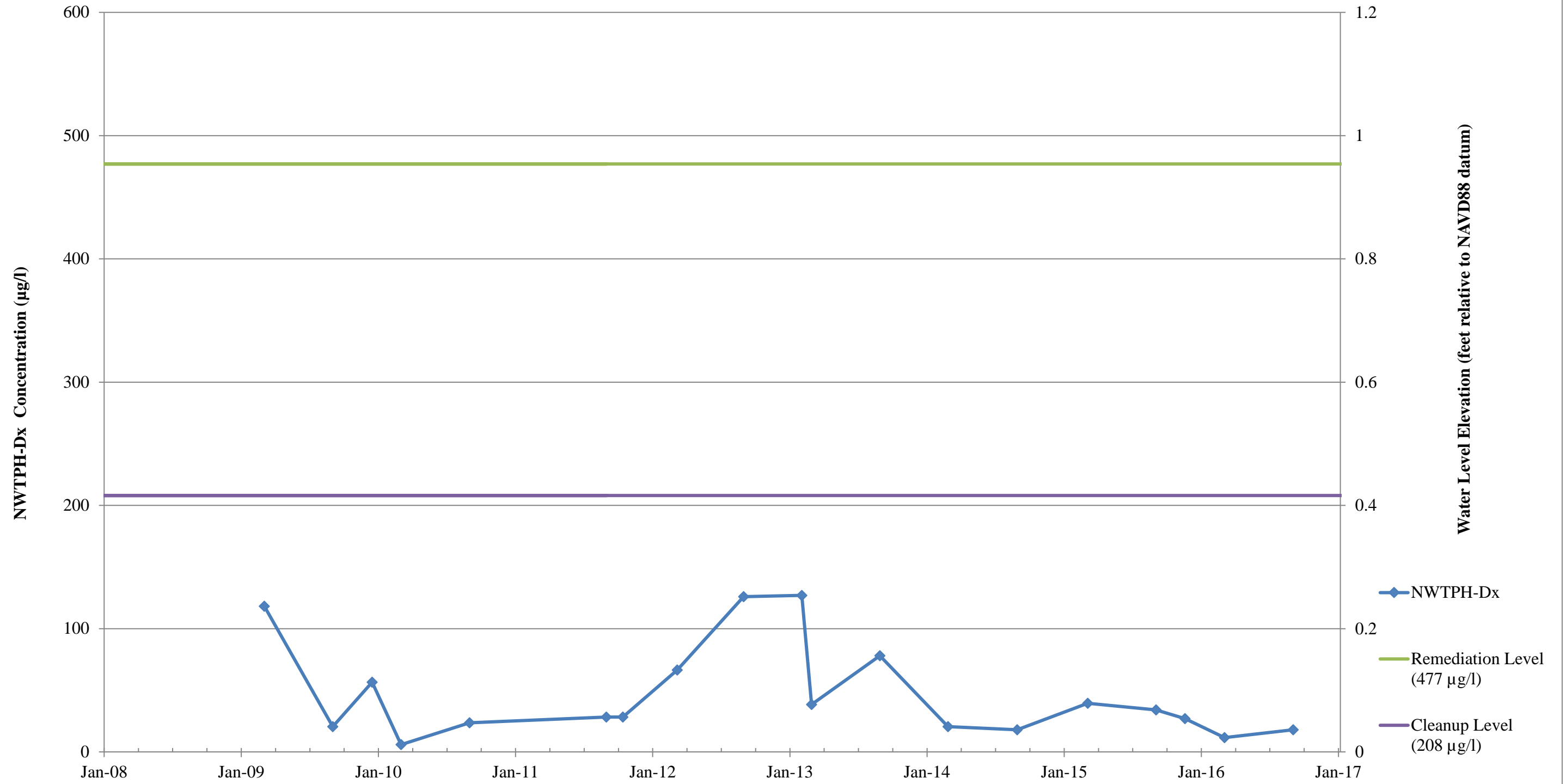
**NWTPH-Dx Trend Plot**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-043**  
**S1-AU**



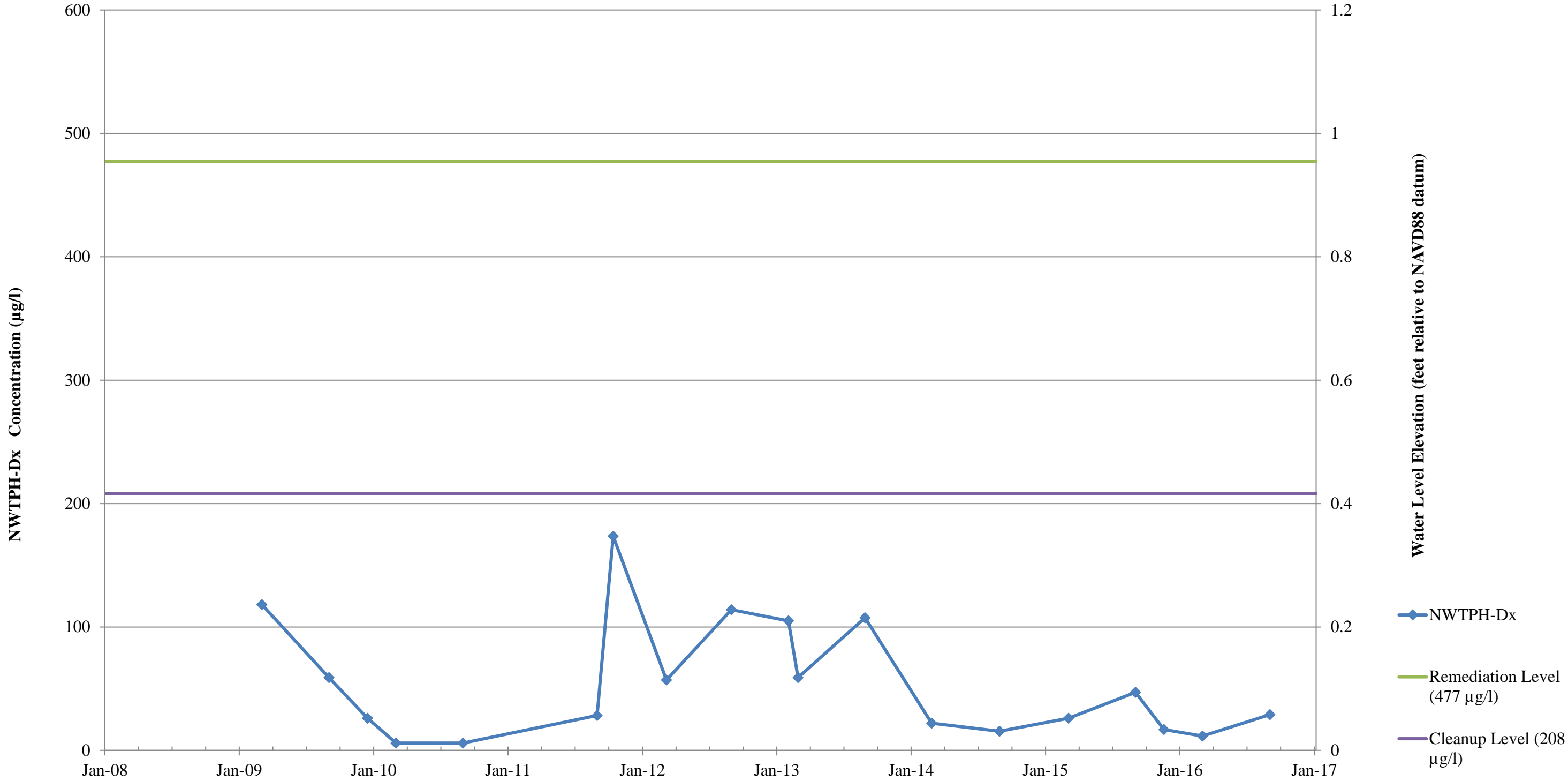
**NWTPH-Dx Trend Plot**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-043**  
**S1-BD**



**NWTPH-Dx Trend Plot**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-043**  
**S1-BU**

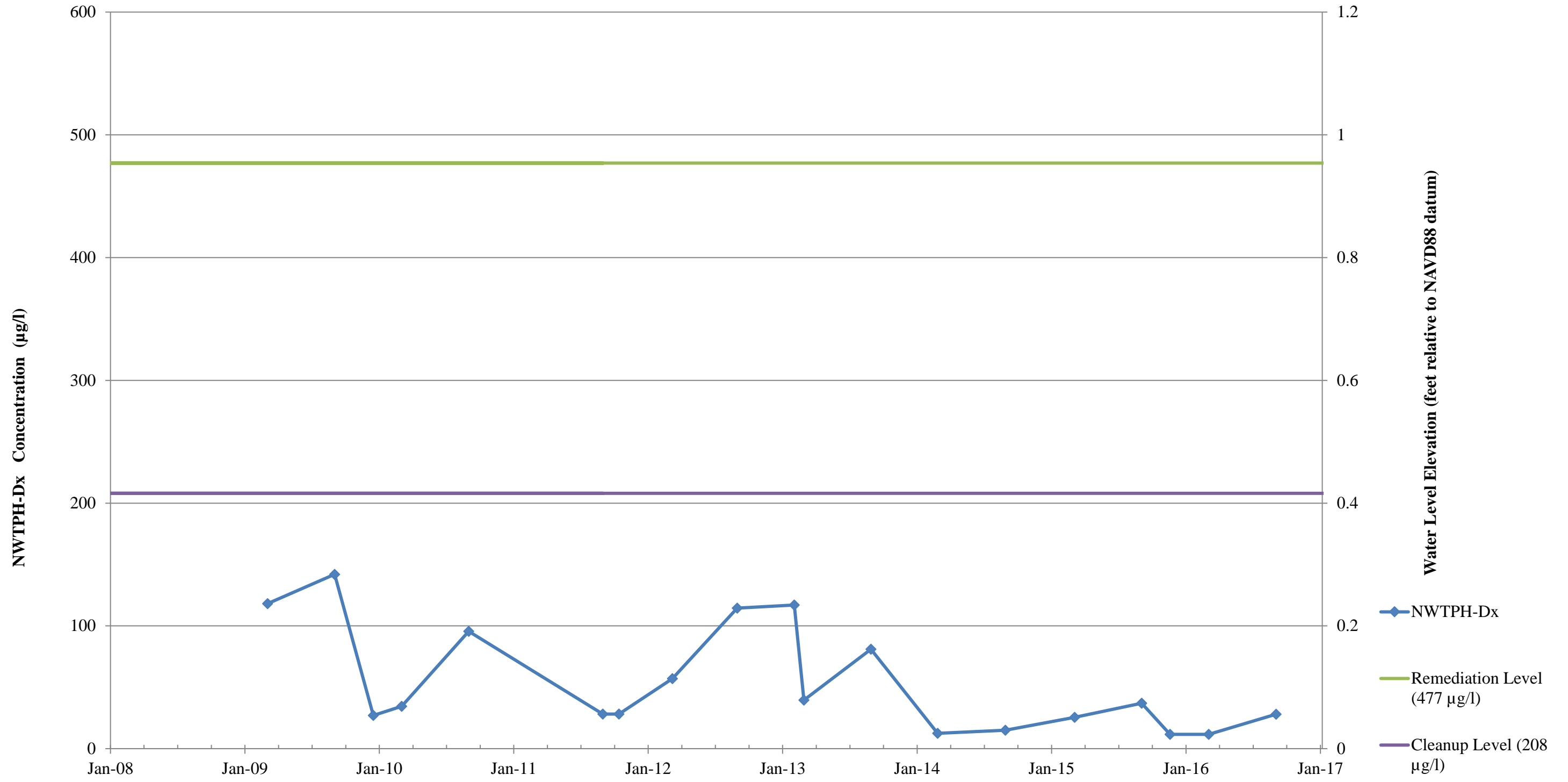


**NWTPH-Dx Trend Plot**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-043**  
**S2-AD**

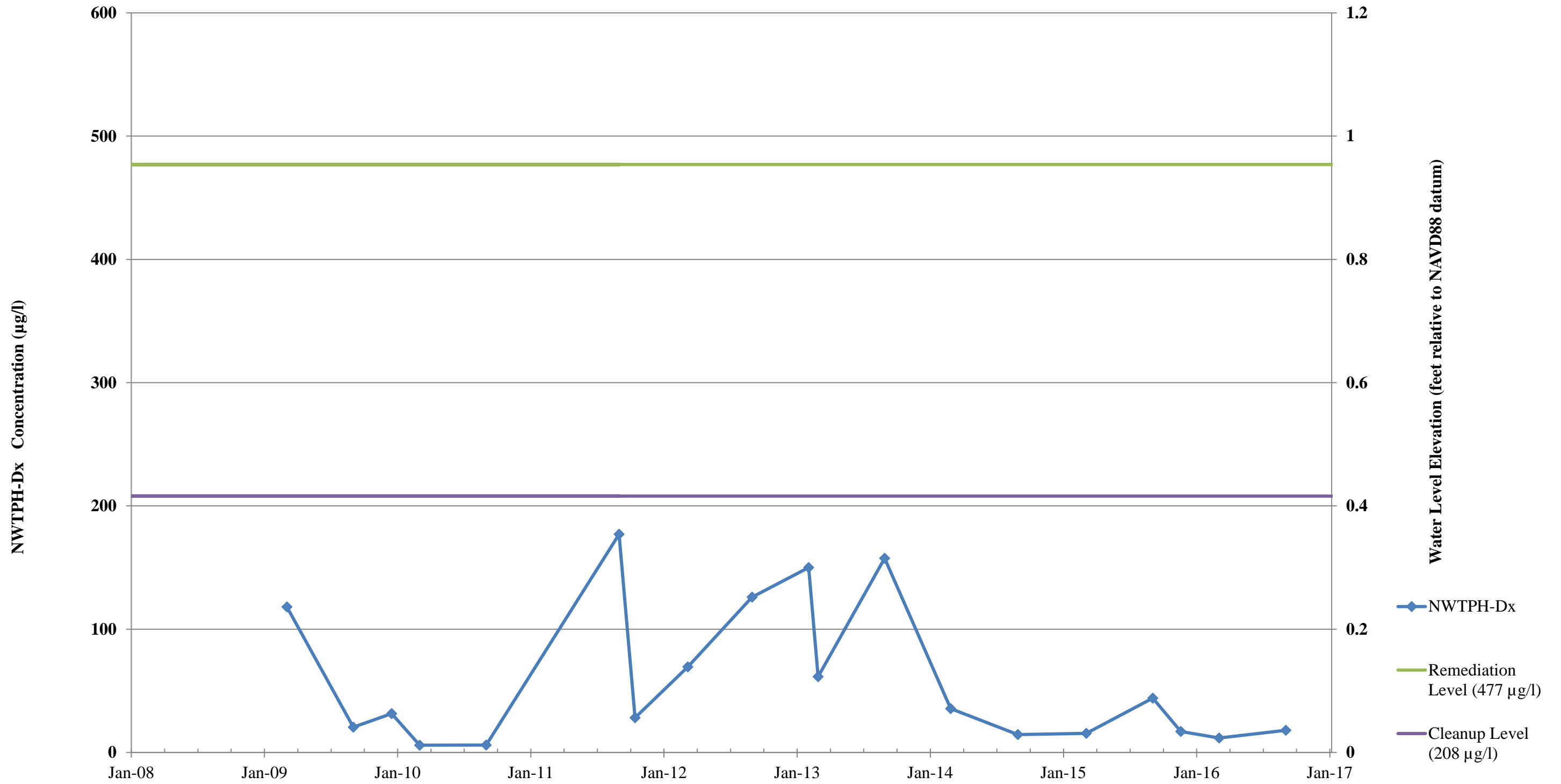




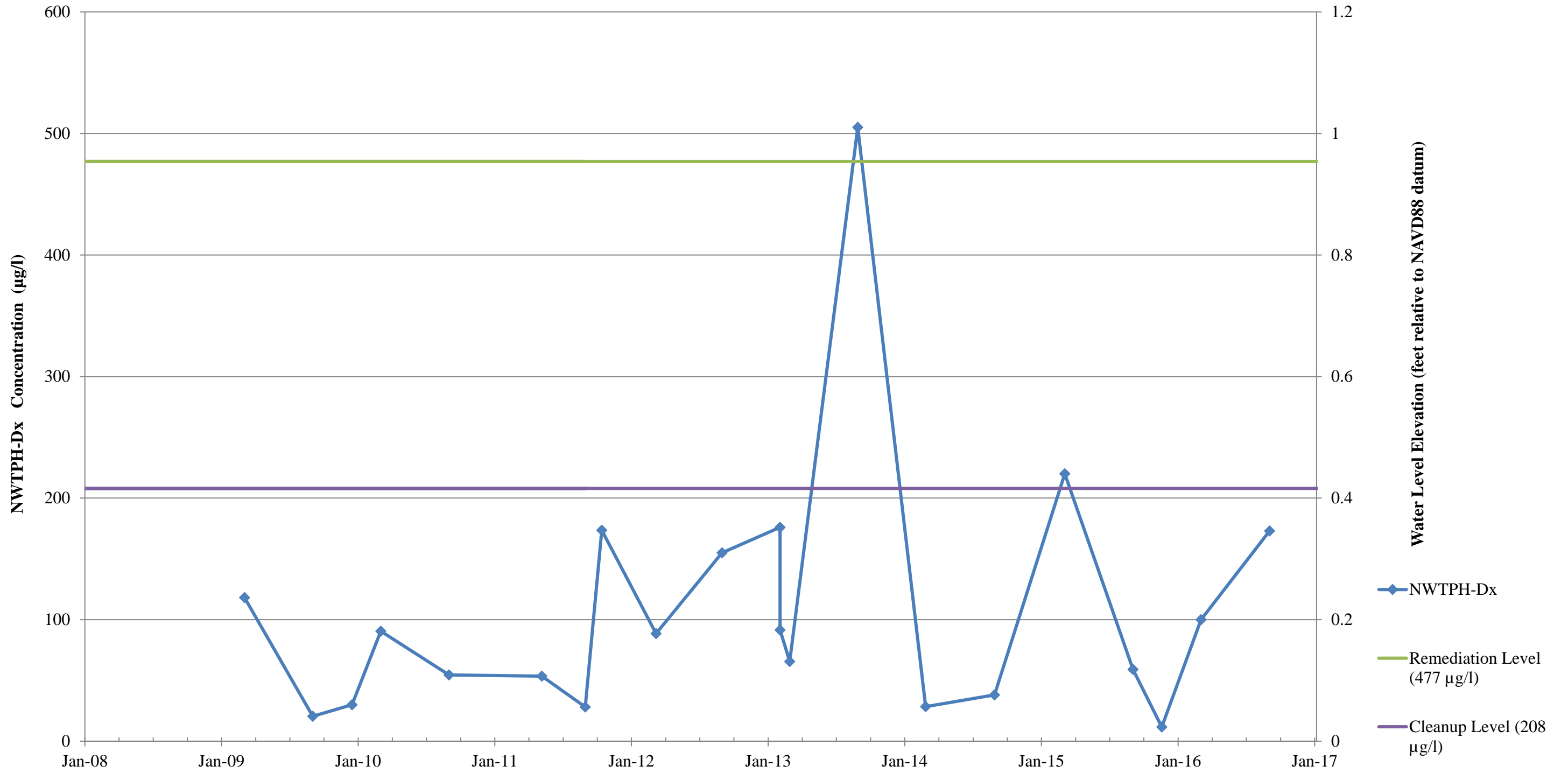
**NWTPH-Dx Trend Plot**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-043**  
**S2-AU**



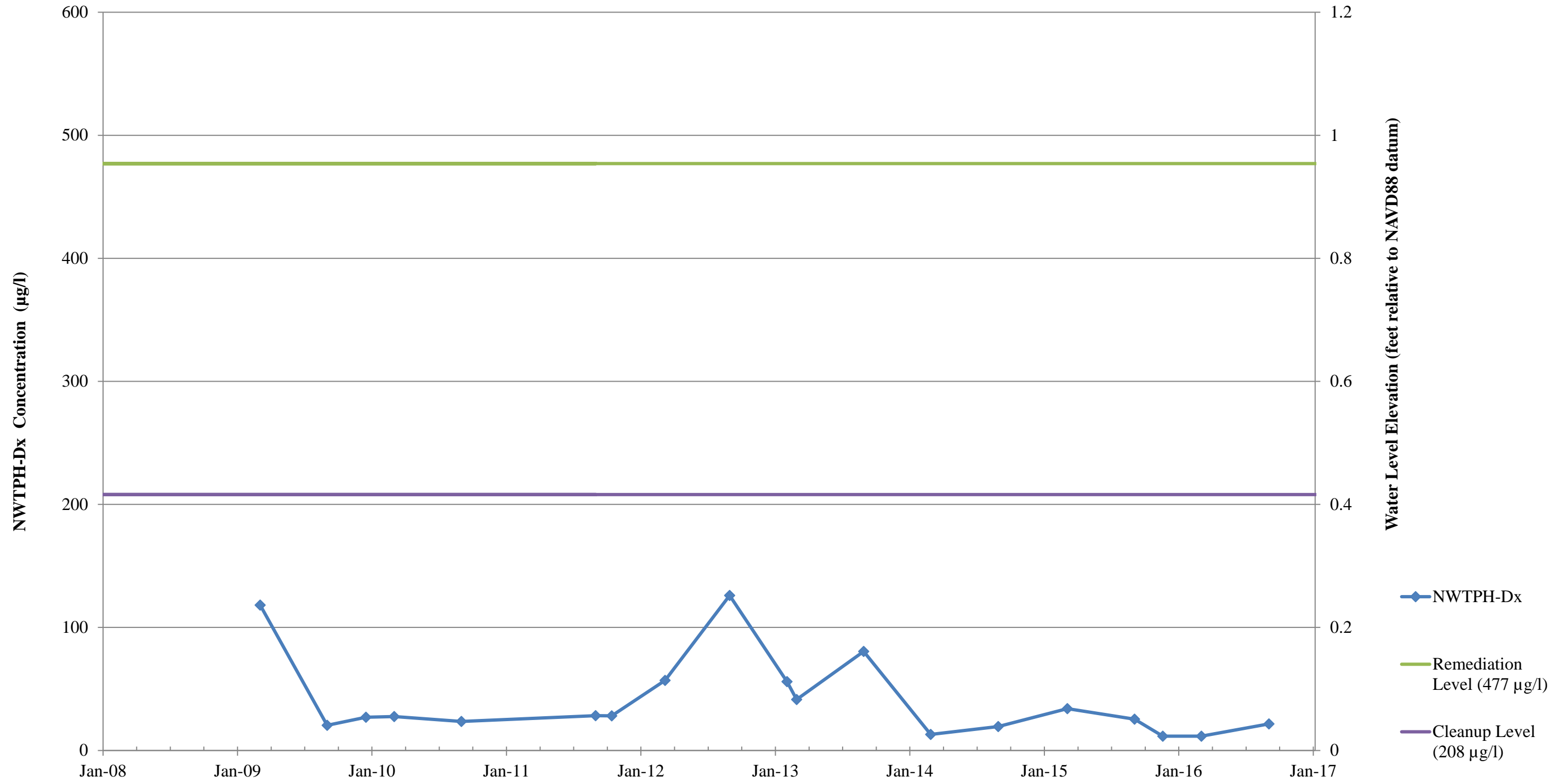
**NWTPH-Dx Trend Plot**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-043**  
**S2-BD**



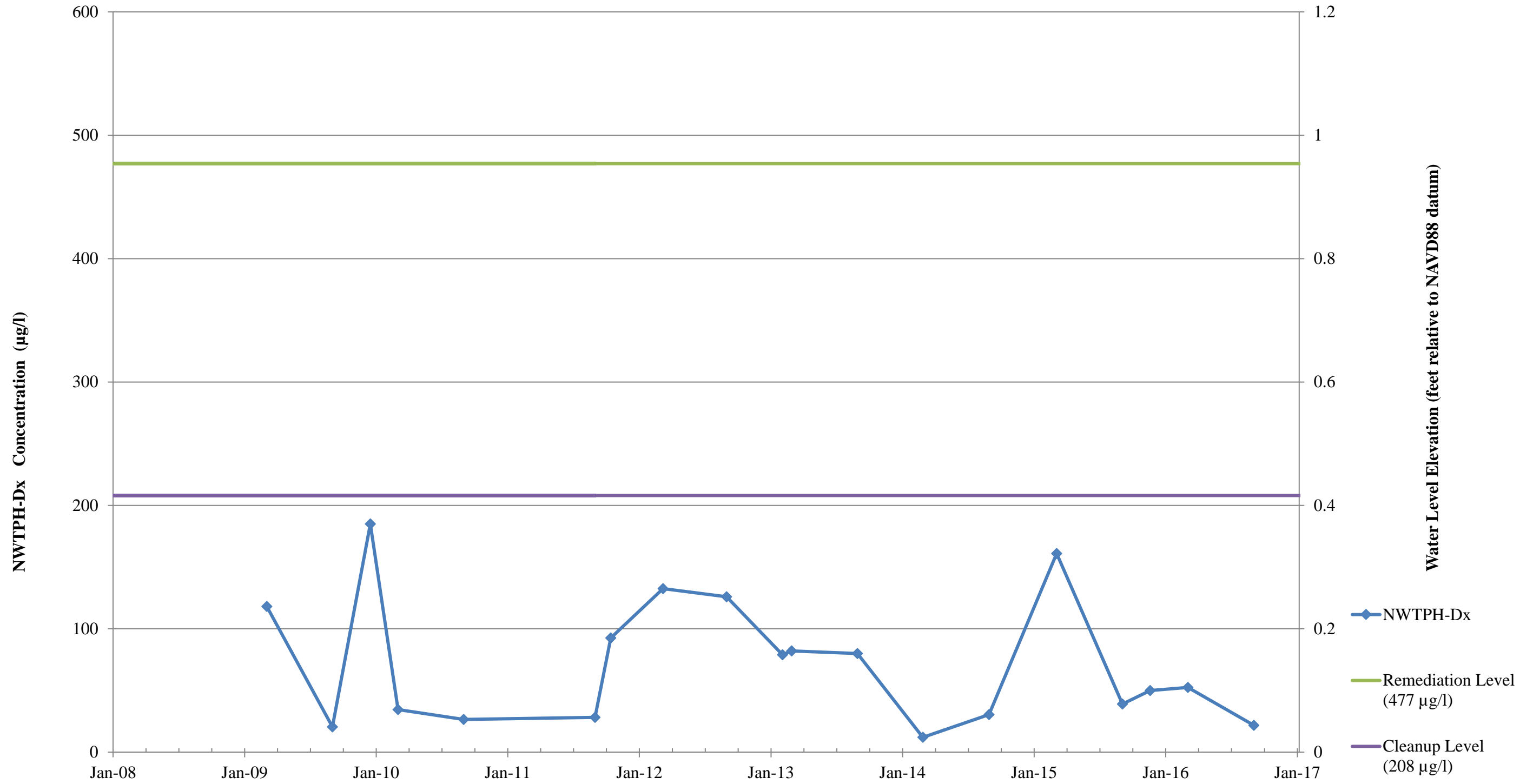
**NWTPH-Dx Trend Plot**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-043**  
**S2-BU**



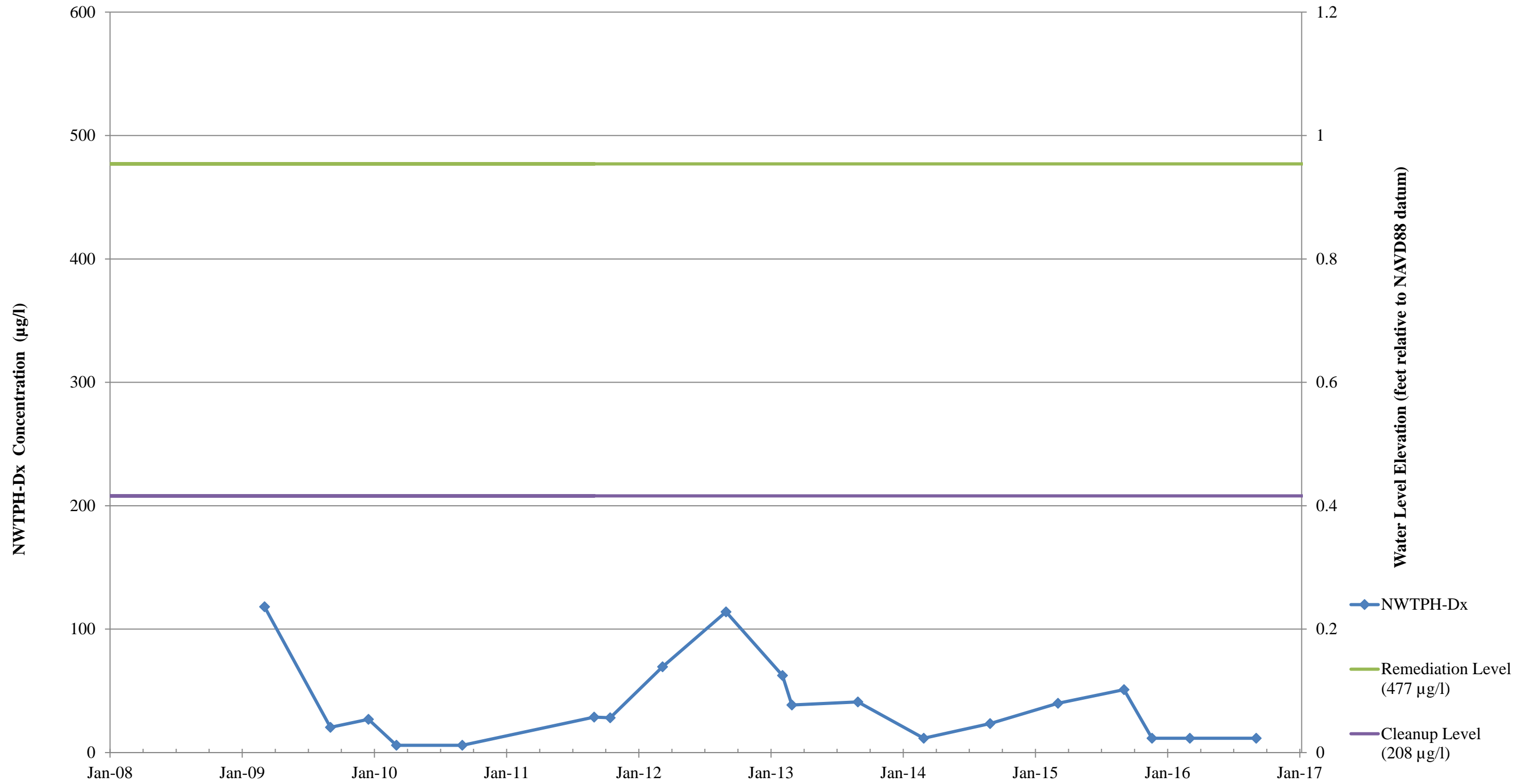
**NWTPH-Dx Trend Plot**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-043**  
**S3-AD**



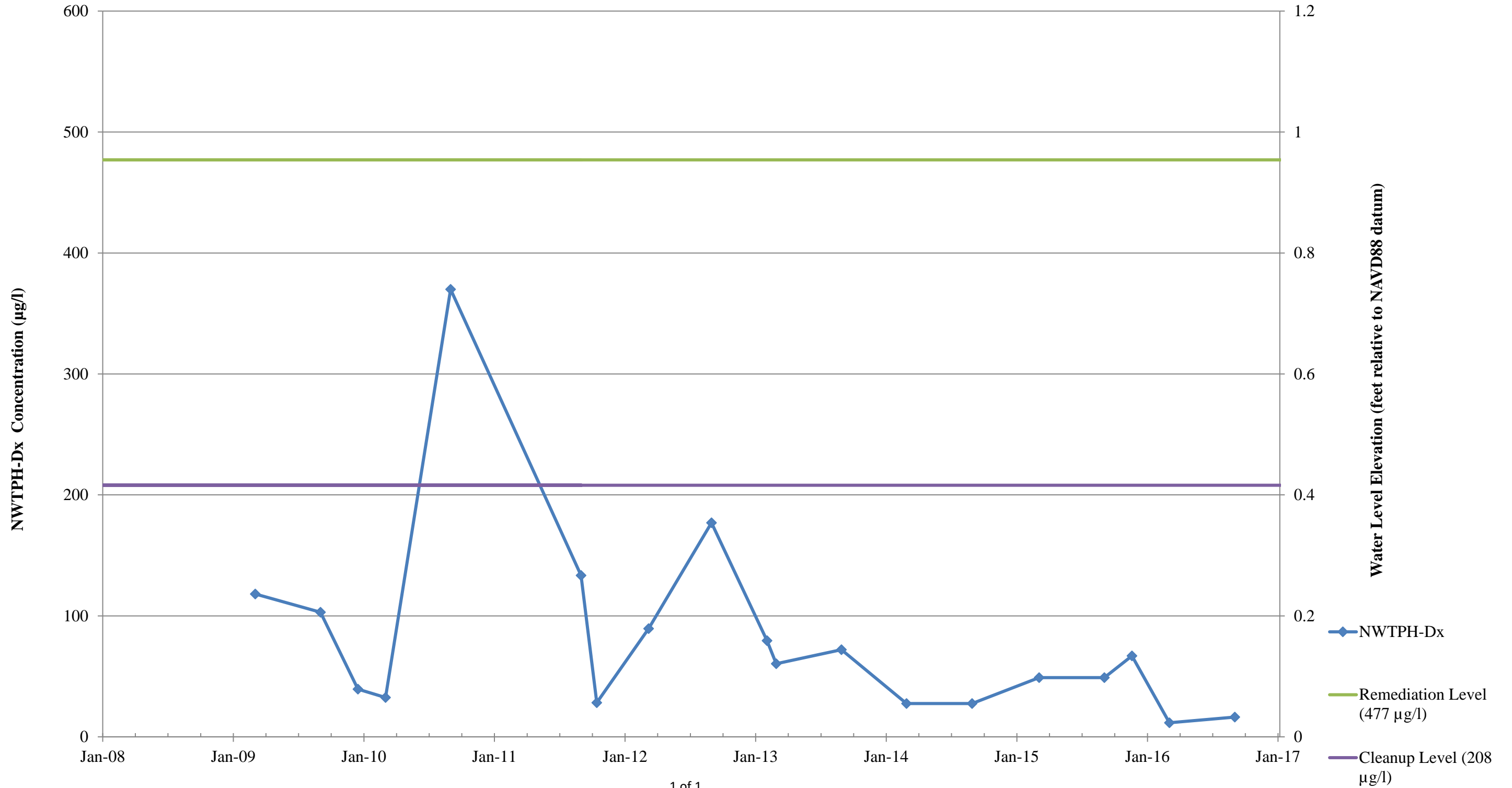
**NWTPH-Dx Trend Plot**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-043**  
**S3-AU**



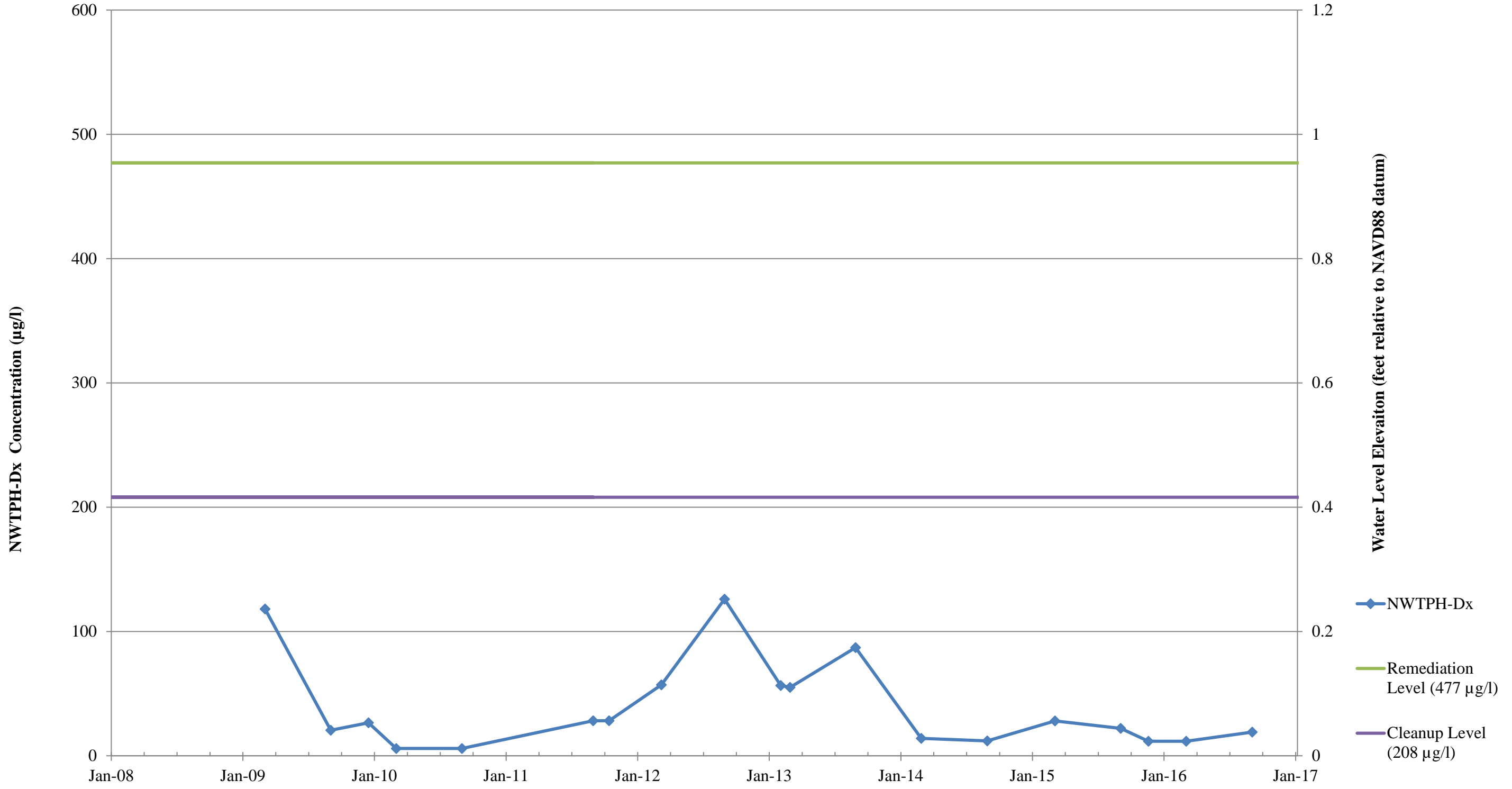
**NWTPH-Dx Trend Plot**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-043**  
**S3-BD**



**NWTPH-Dx Trend Plot**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-043**  
**S3-BU**

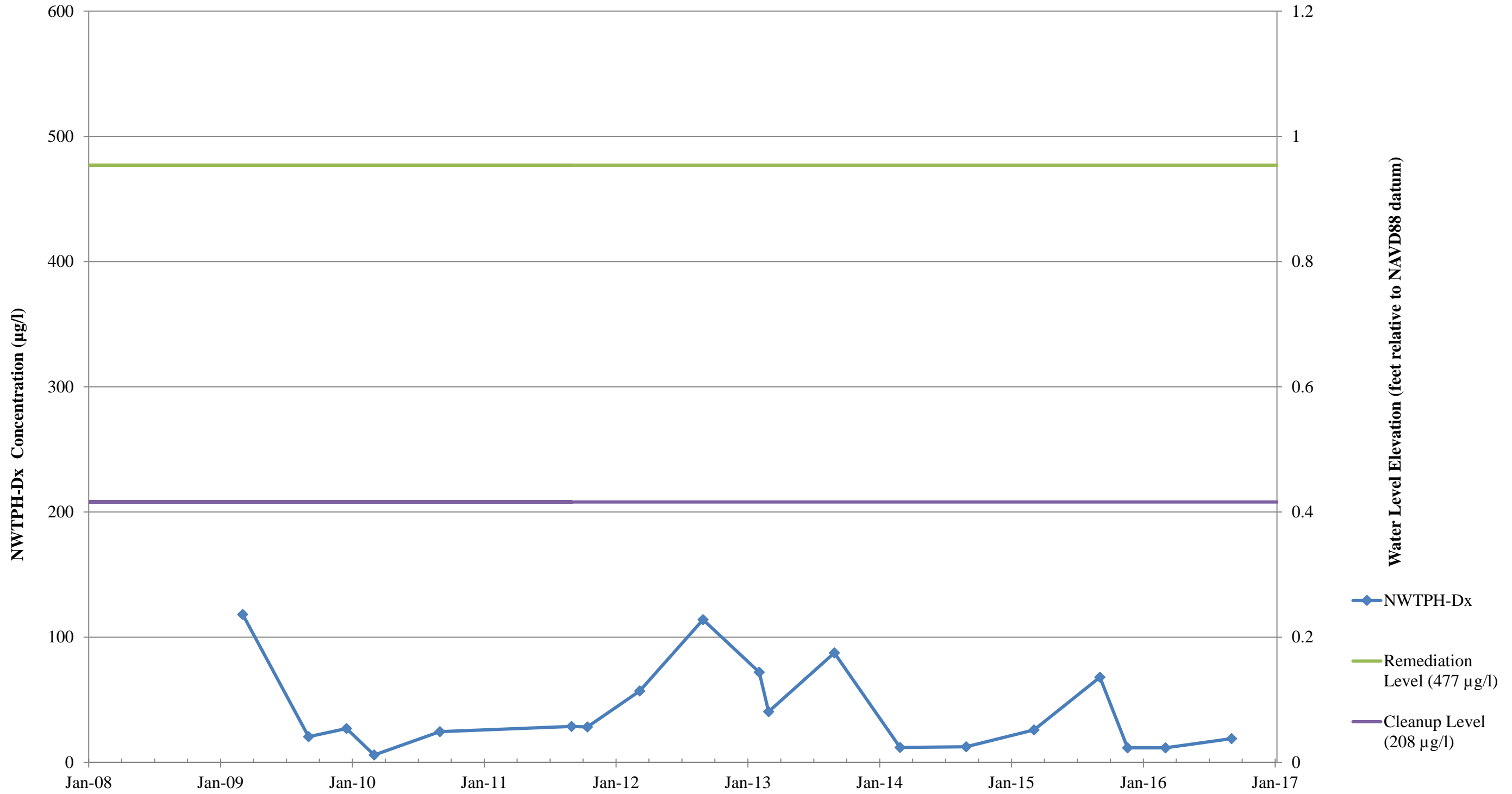


**NWTPH-Dx Trend Plot**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-043**  
**S3-CD**

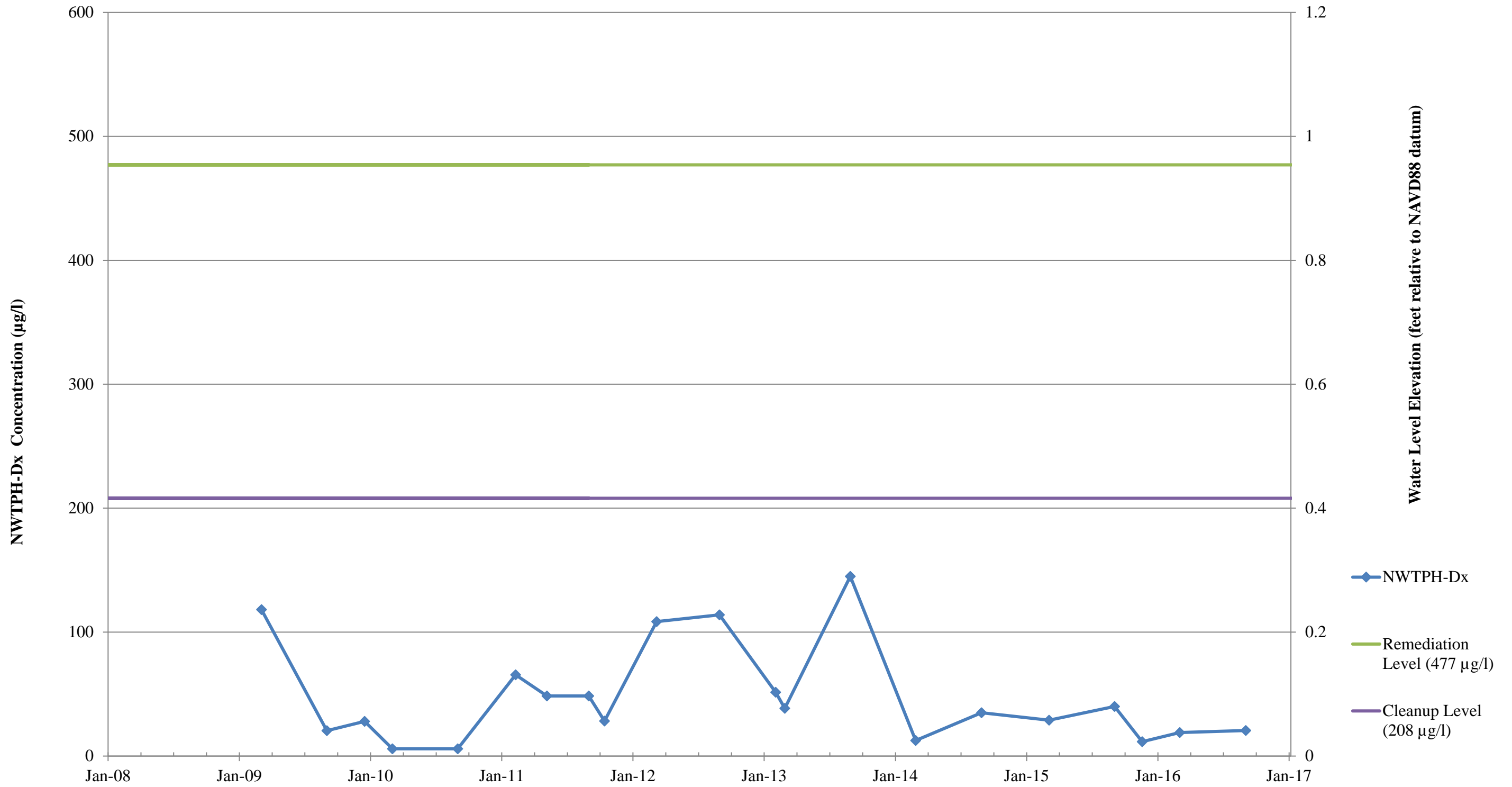




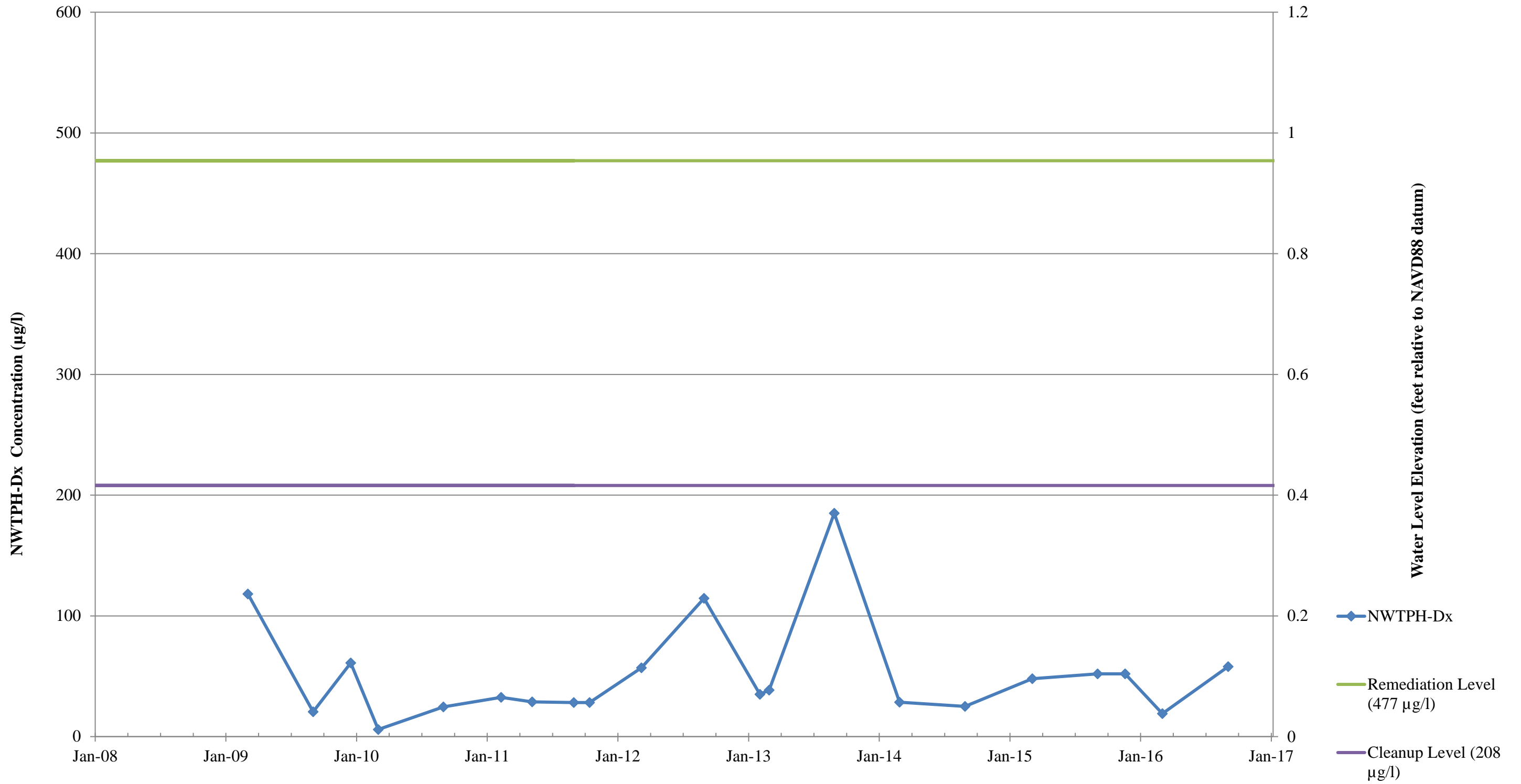
**NWTPH-Dx Trend Plot**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-043**  
**S3-CU**



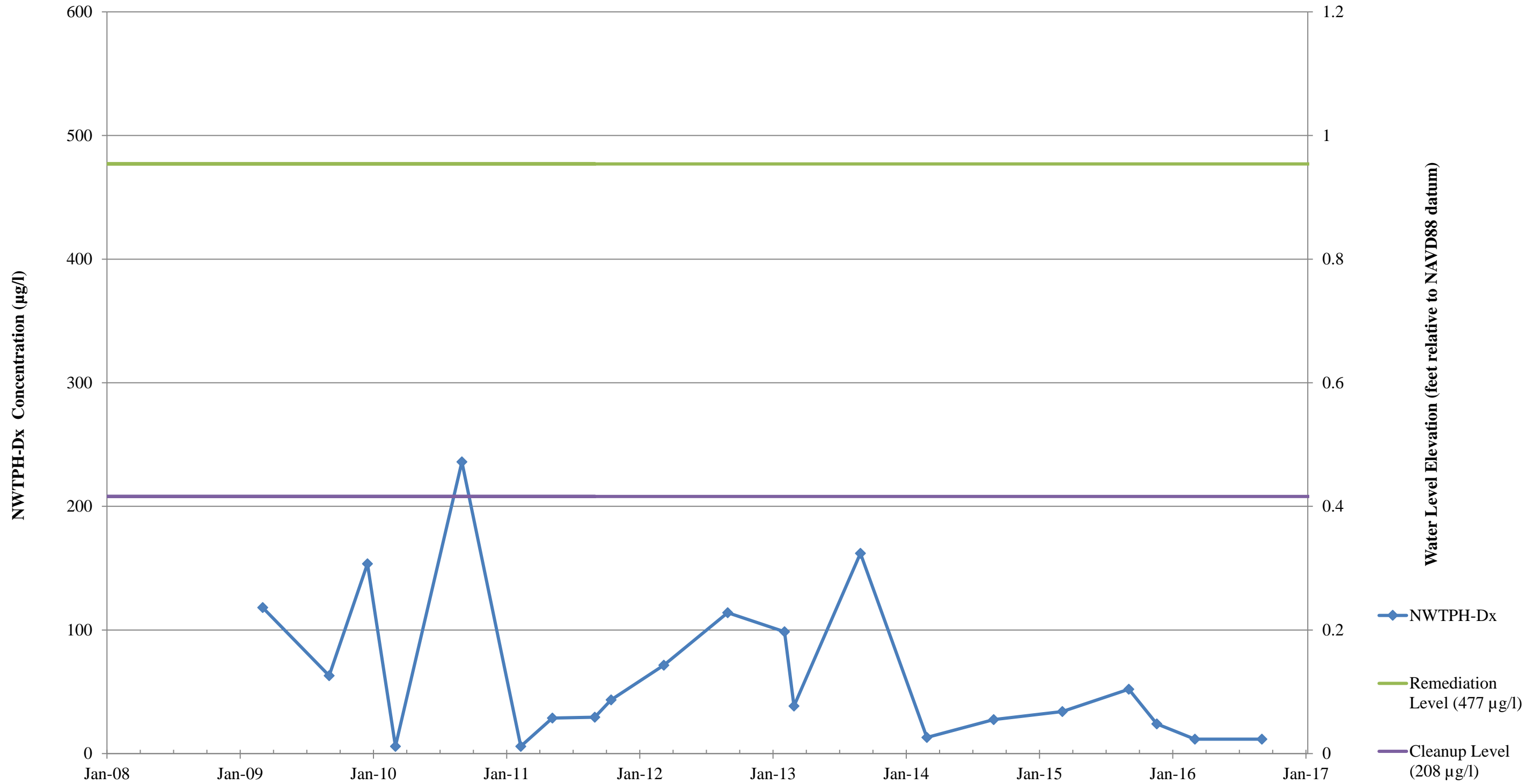
NWTPH-Dx Trend Plot  
BNSF Former Maintenance and Fueling Facility  
Skykomish, Washington  
Farallon PN: 683-043  
S4-AD



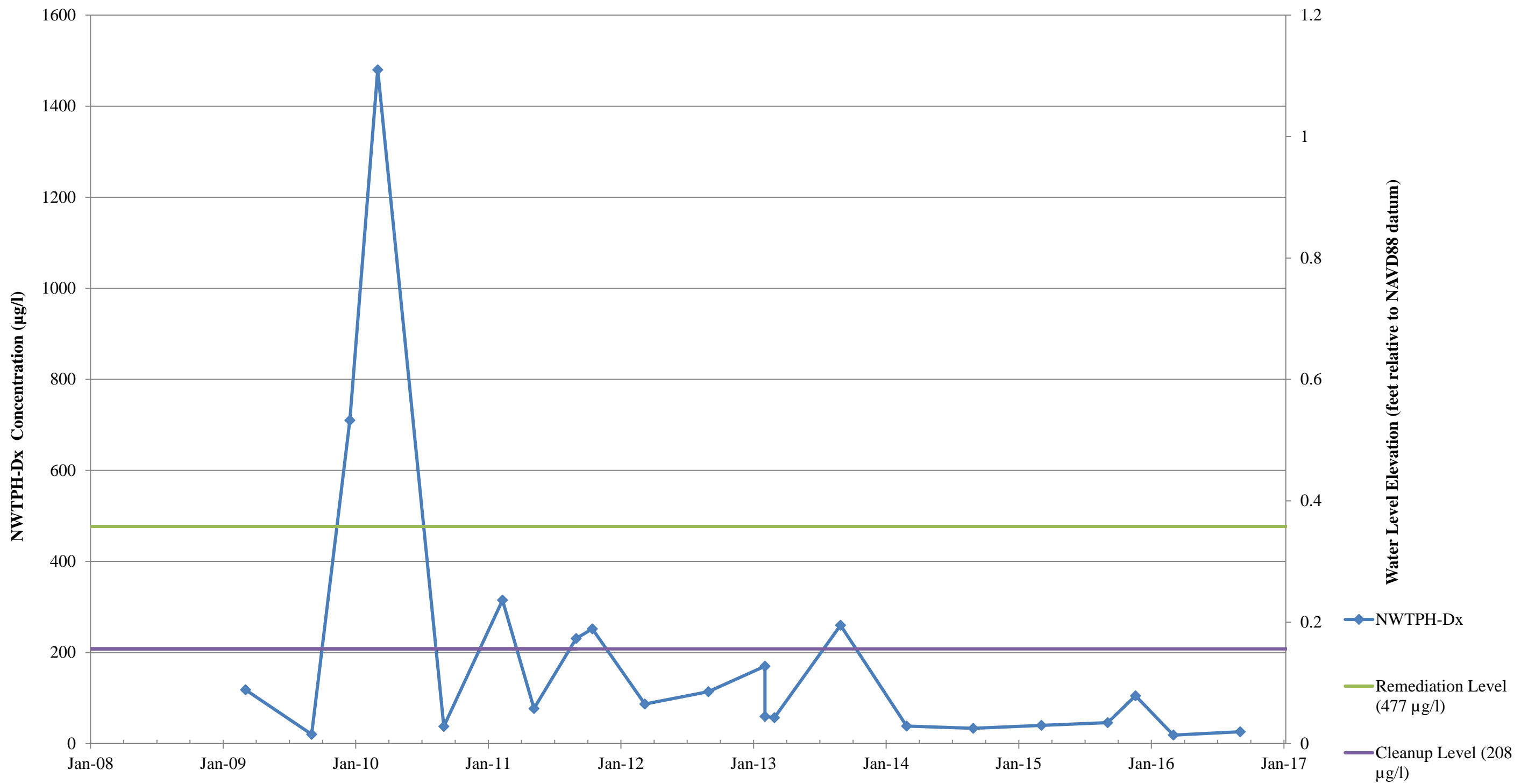
**NWTPH-Dx Trend Plot**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-043**  
**S4-AU**



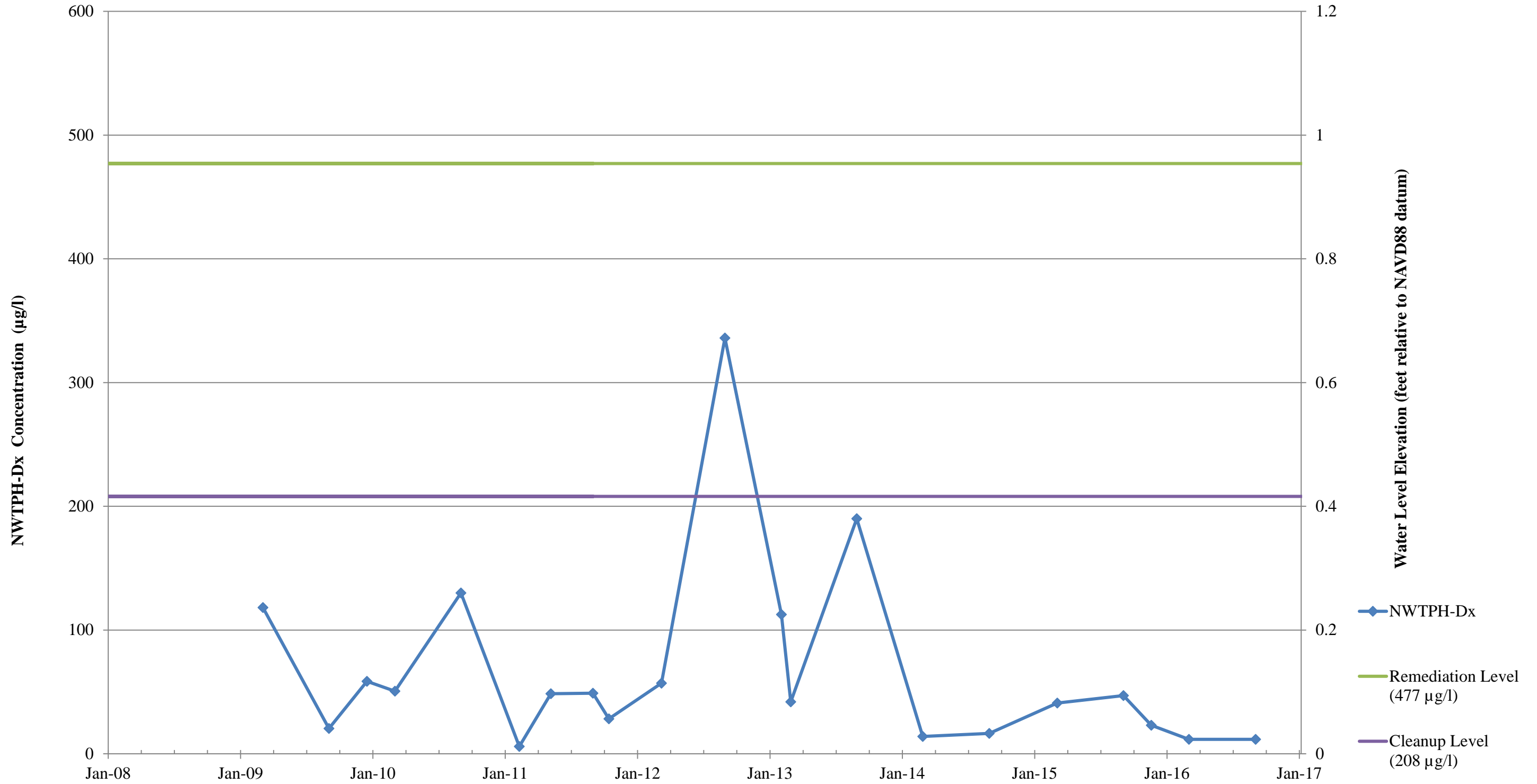
**NWTPH-Dx Trend Plot**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-043**  
**S4-BD**



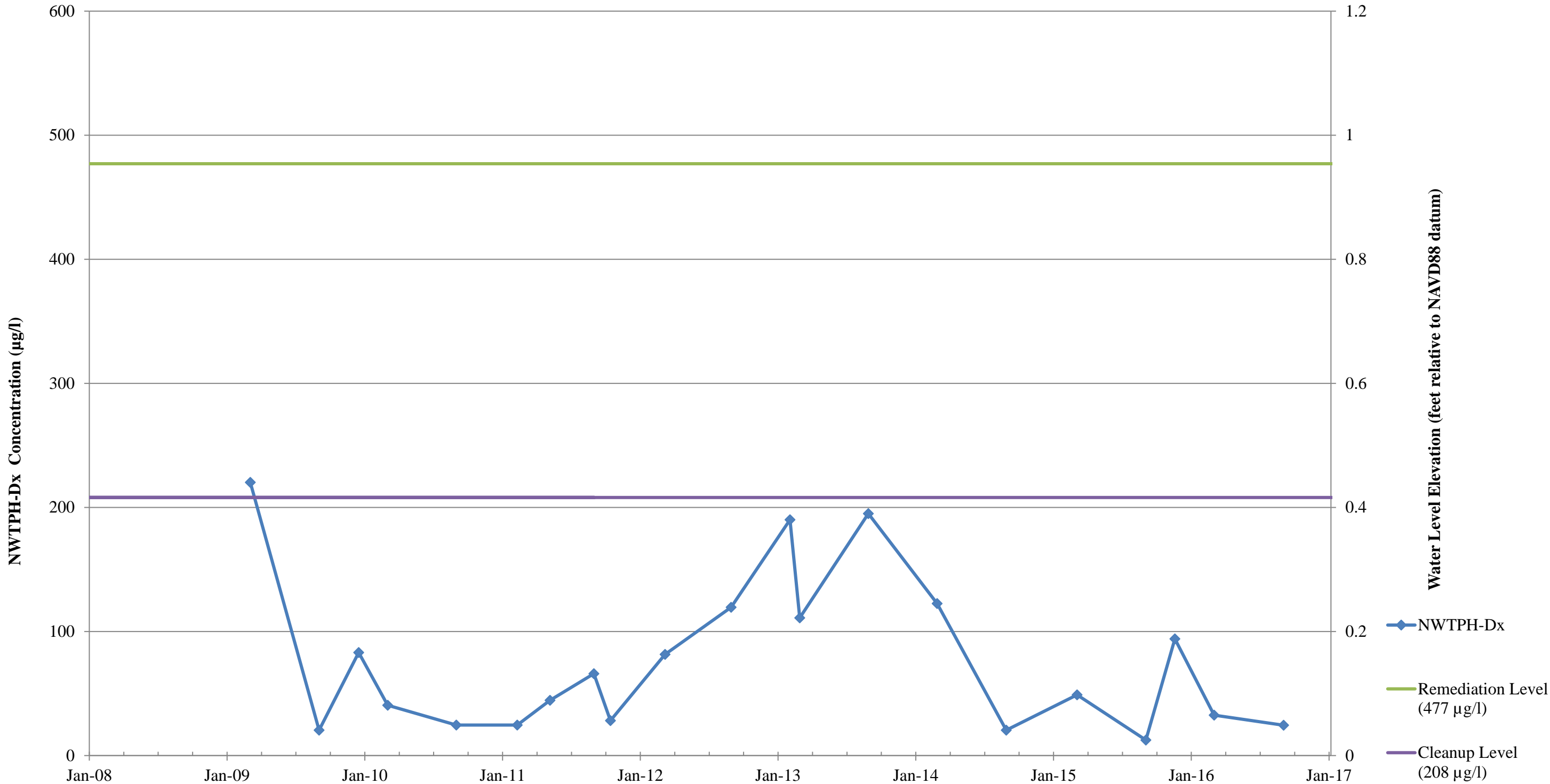
**NWTPH-Dx Trend Plot**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-043**  
**S4-BU**



**NWTPH-Dx Trend Plot**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-043**  
**S4-CD**



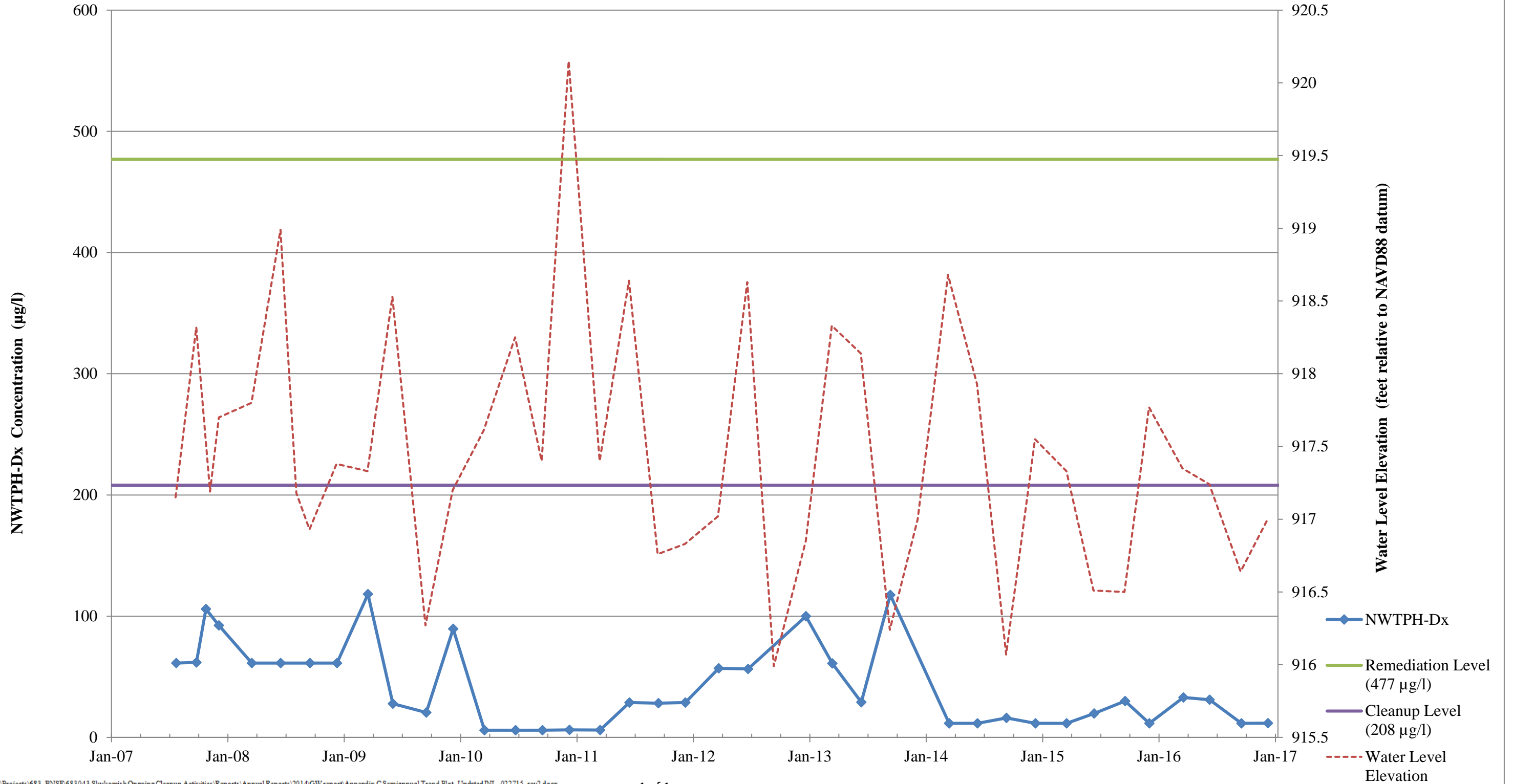
**NWTPH-Dx Trend Plot**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-043**  
**S4-CU**



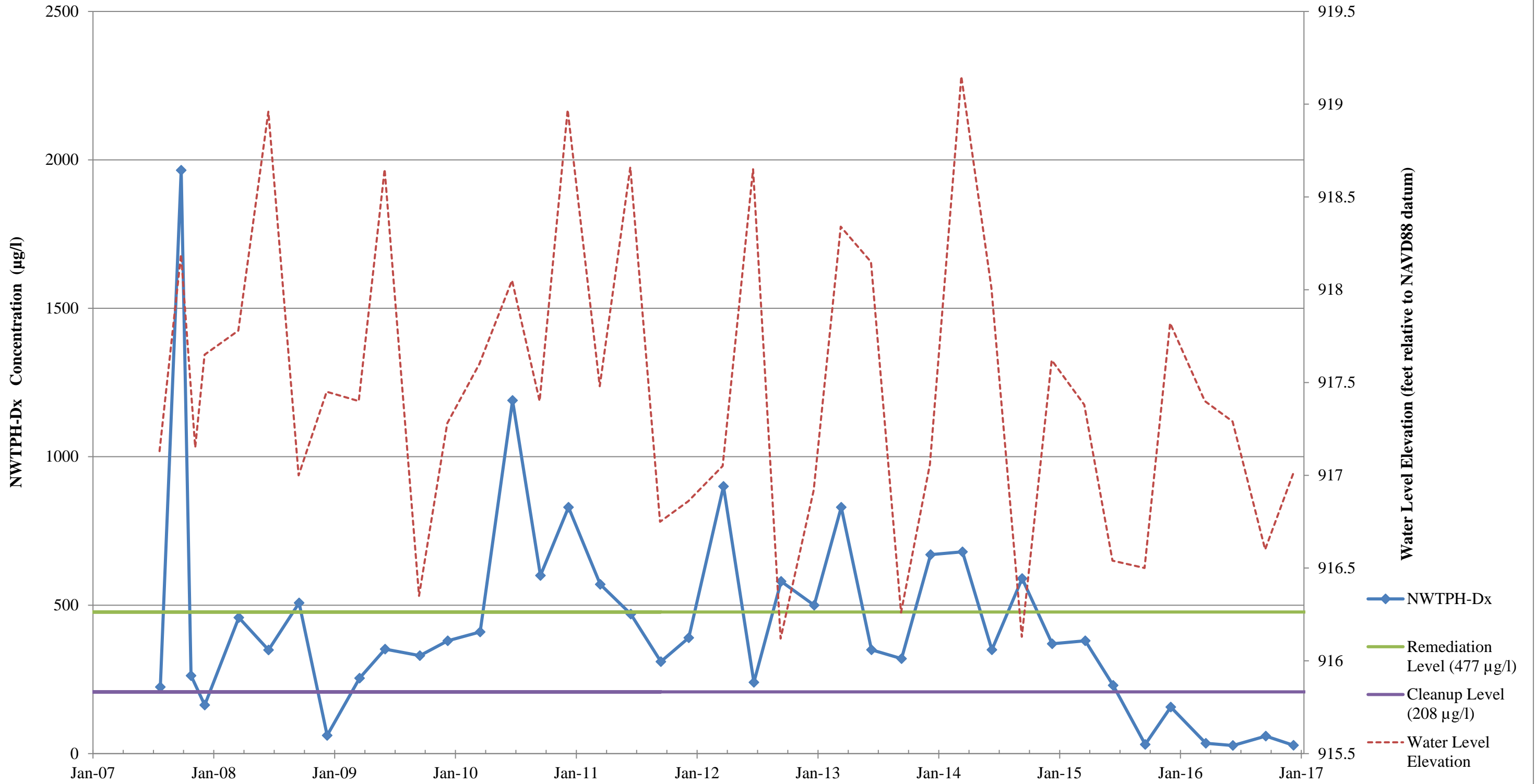
# Levee Zone



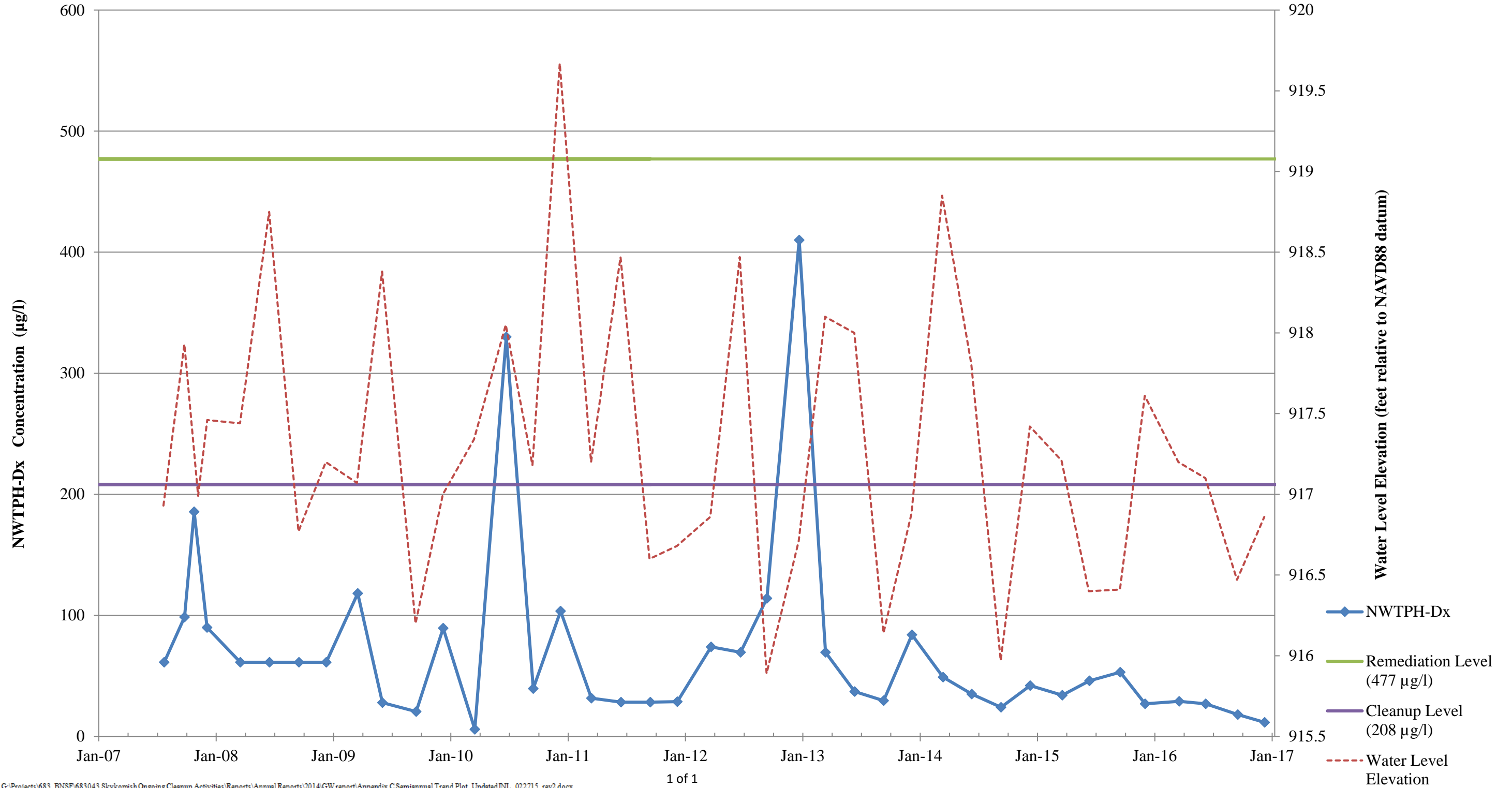
**NWTPH-Dx Trend Plot**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-043**  
**5-W-14**



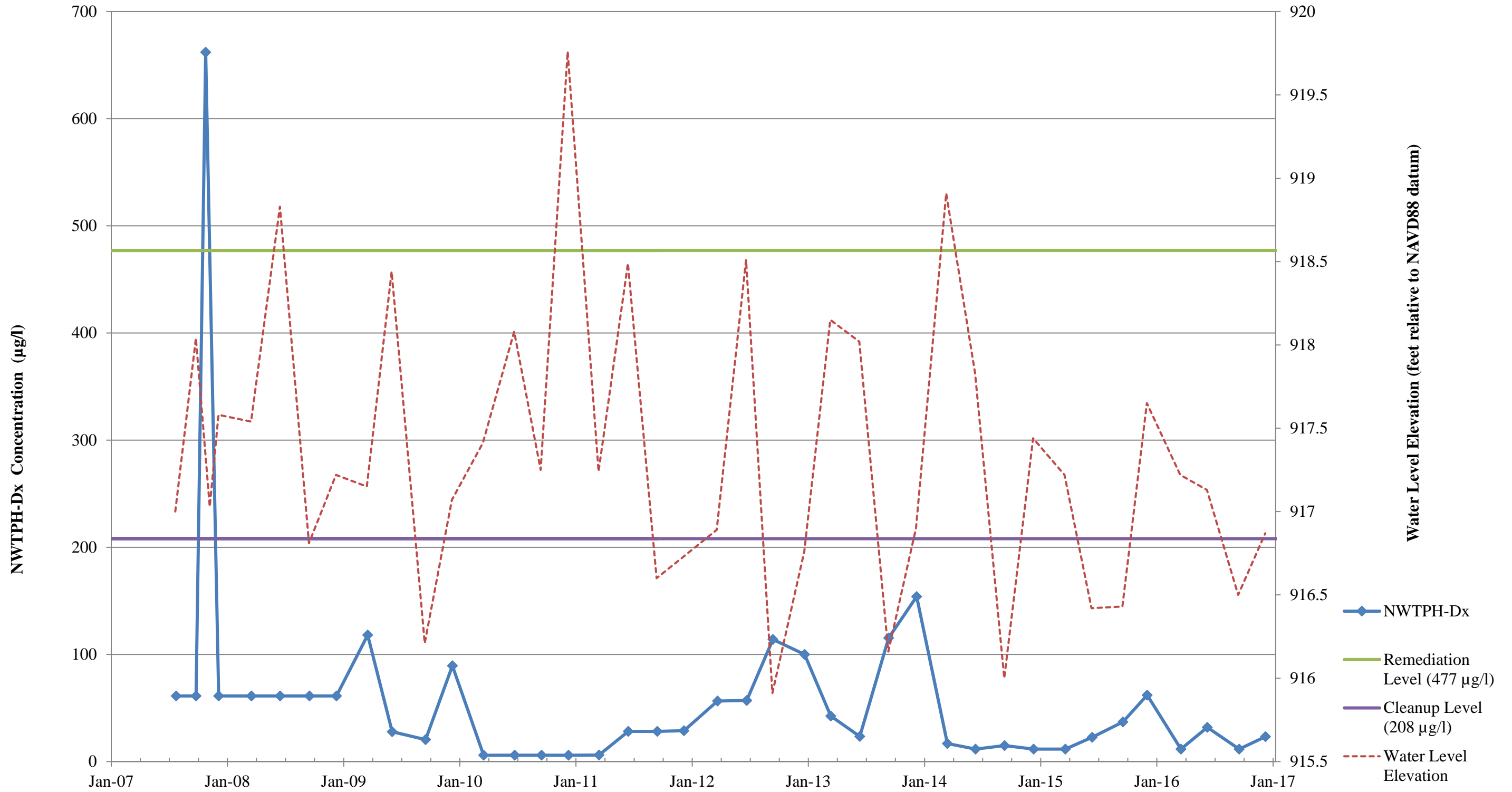
**NWTPH-Dx Trend Plot**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-043**  
**5-W-15**



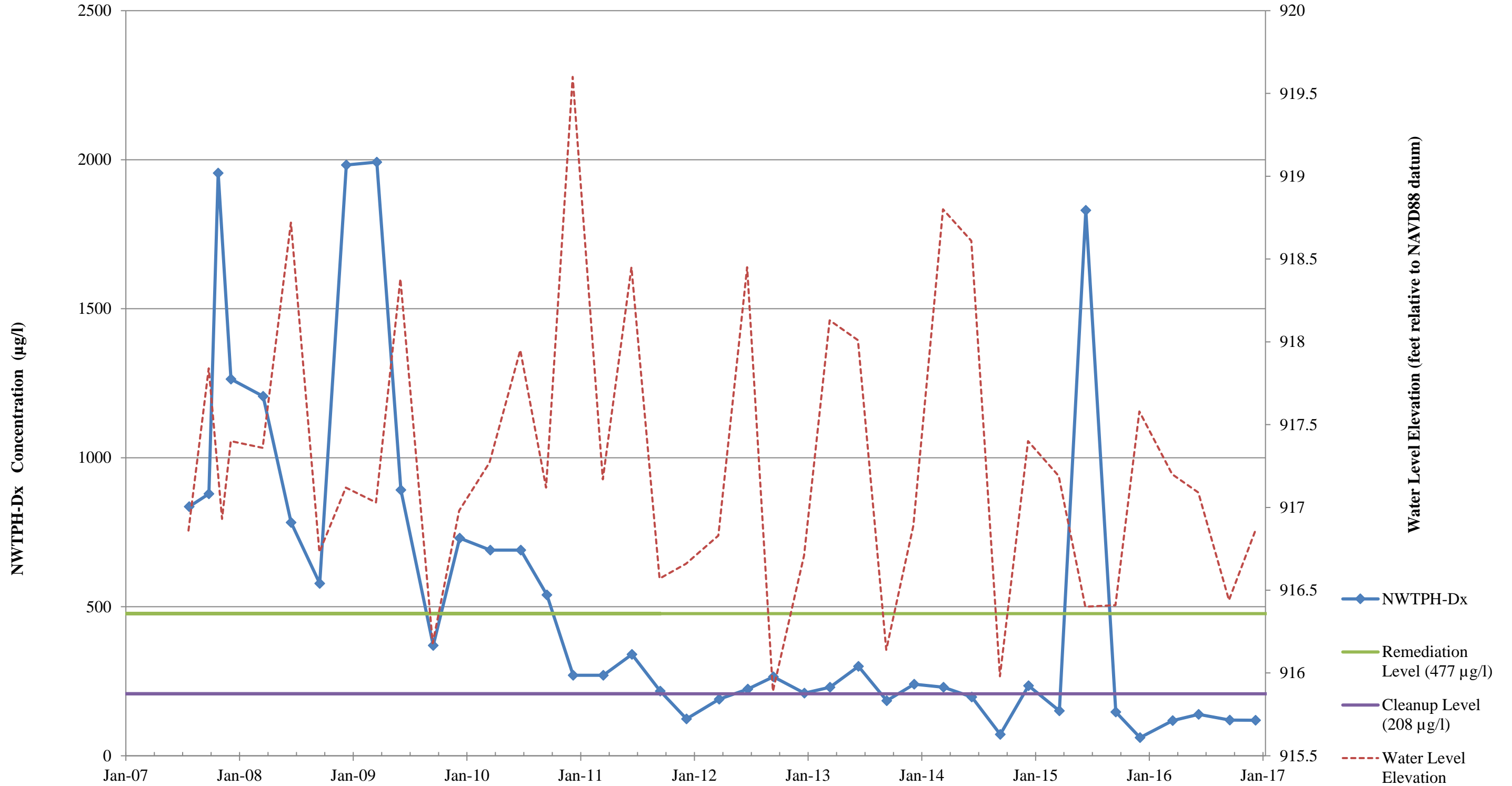
**NWTPH-Dx Trend Plot**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-043**  
**5-W-16**



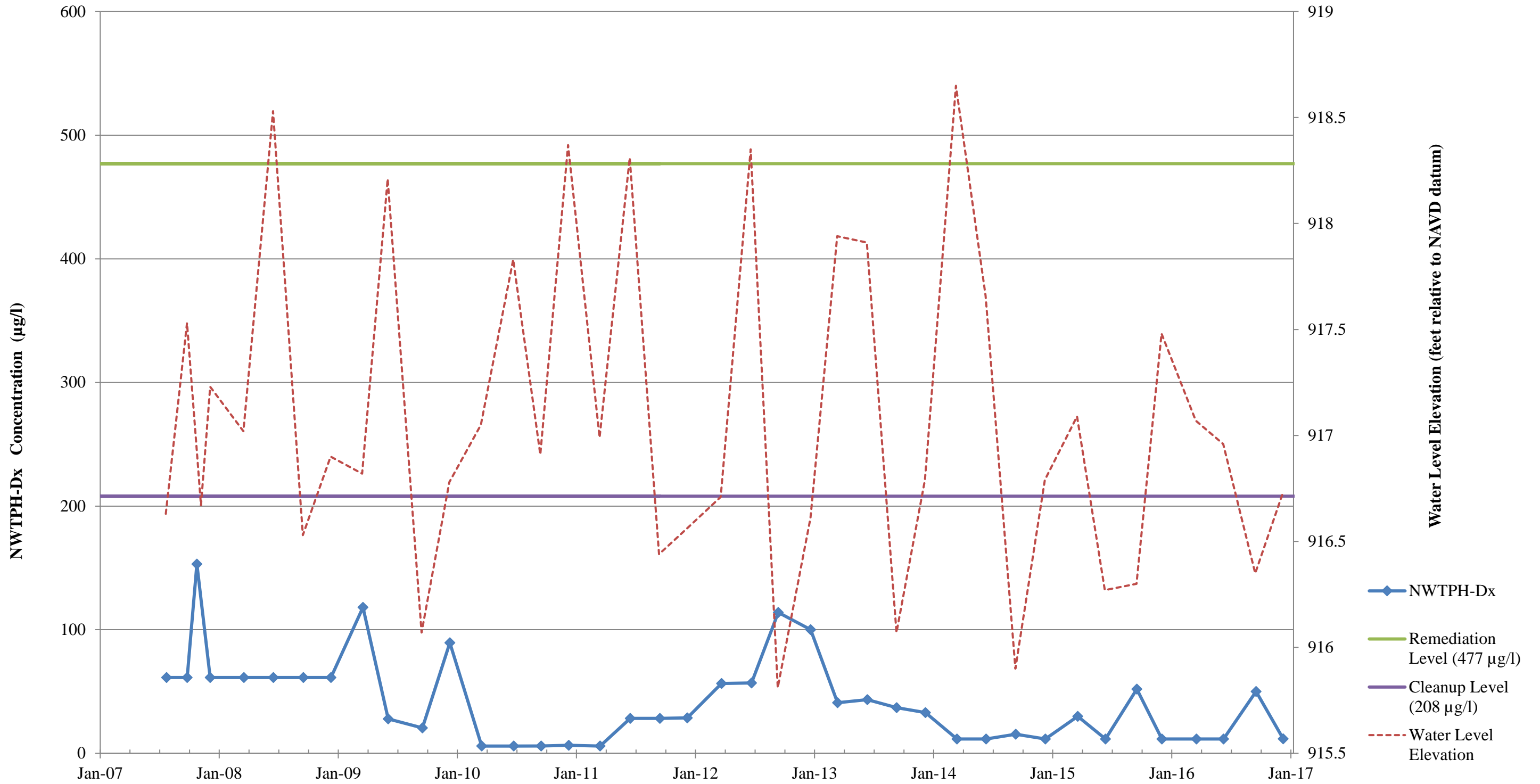
**NWTPH-Dx Trend Plot**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-043**  
**5-W-17**



**NWTPH-Dx Trend Plot**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-043**  
**5-W-18**

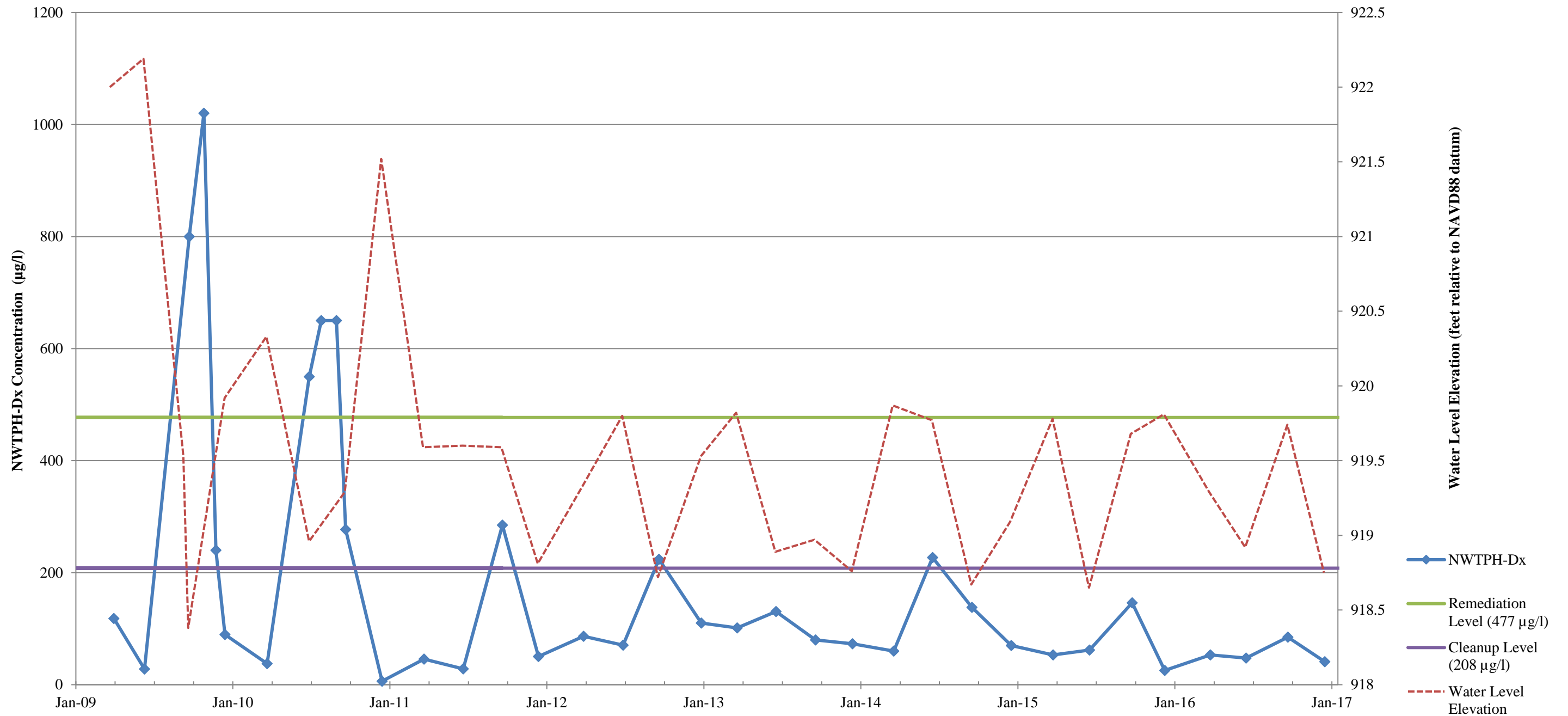


**NWTPH-Dx Trend Plot**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-043**  
**5-W-19**



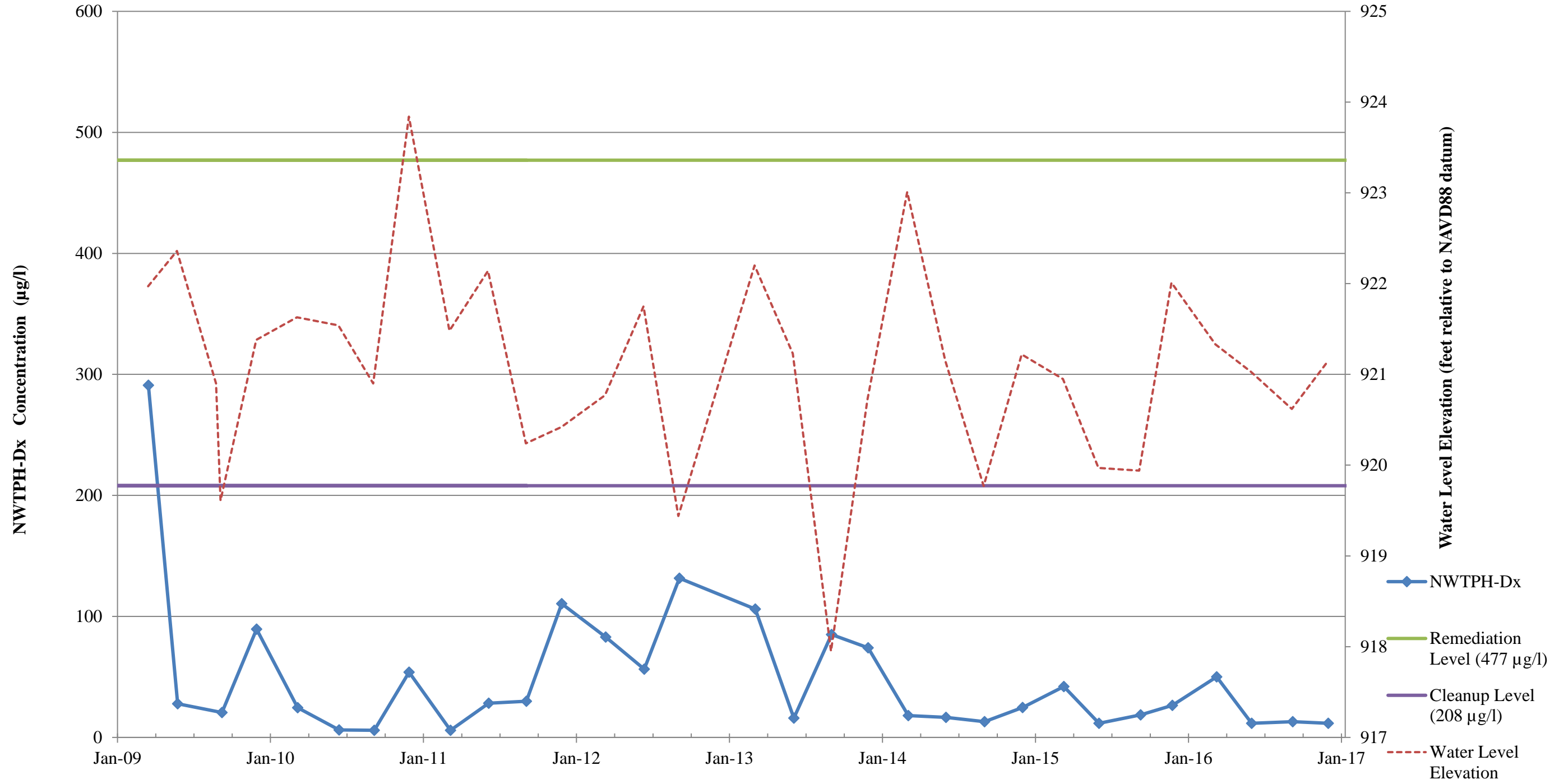
# Down-Gradient of HCC

**NWTPH-Dx Trend Plot**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-043**  
**1B-W-23**

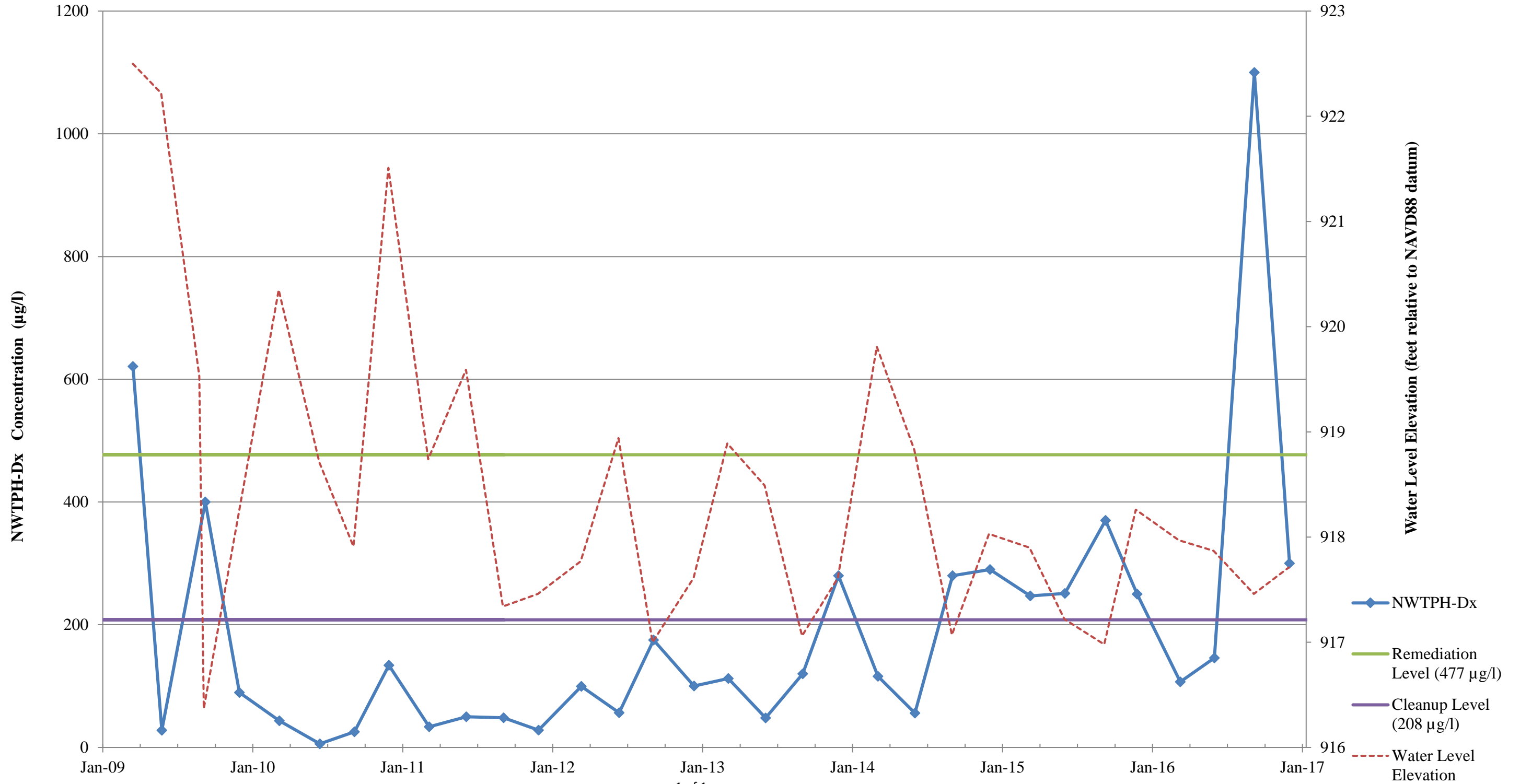




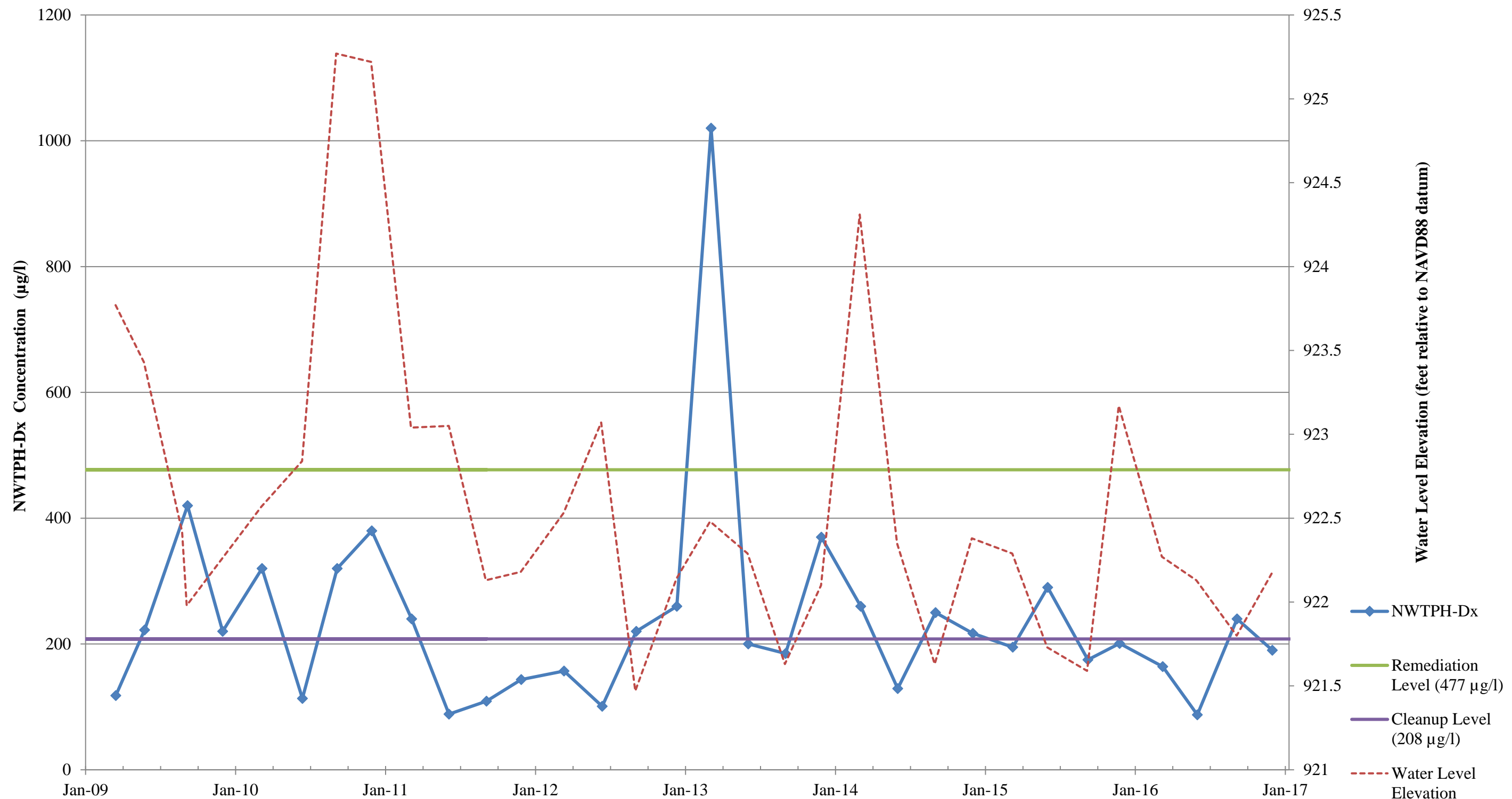
**NWTPH-Dx Trend Plot**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-043**  
**2A-W-40**



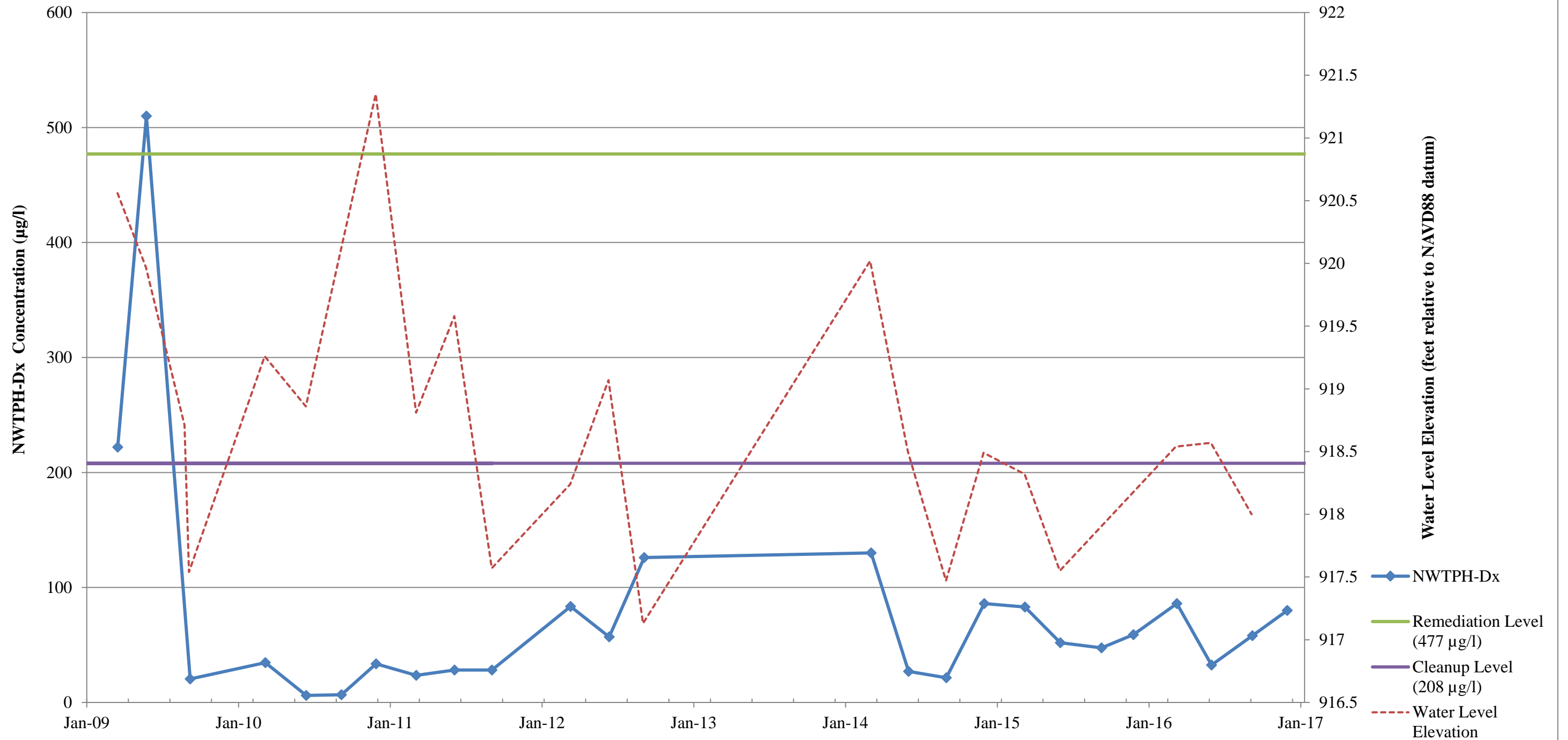
**NWTPH-Dx Trend Plot**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-043**  
**2A-W-41**



**NWTPH-Dx Trend Plot**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-043**  
**2A-W-42**

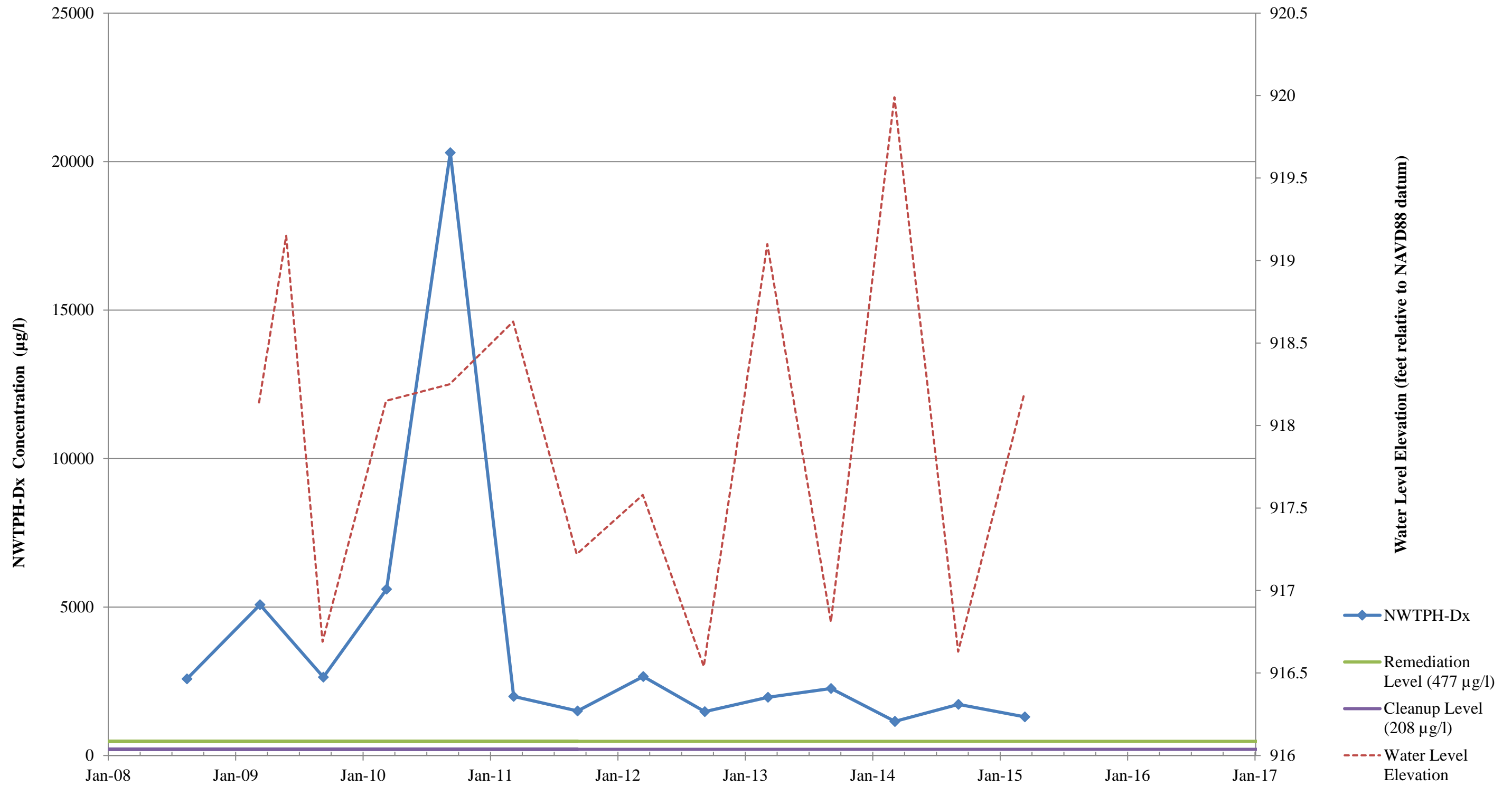


**NWTPH-Dx Trend Plot**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-043**  
**5-W-43**

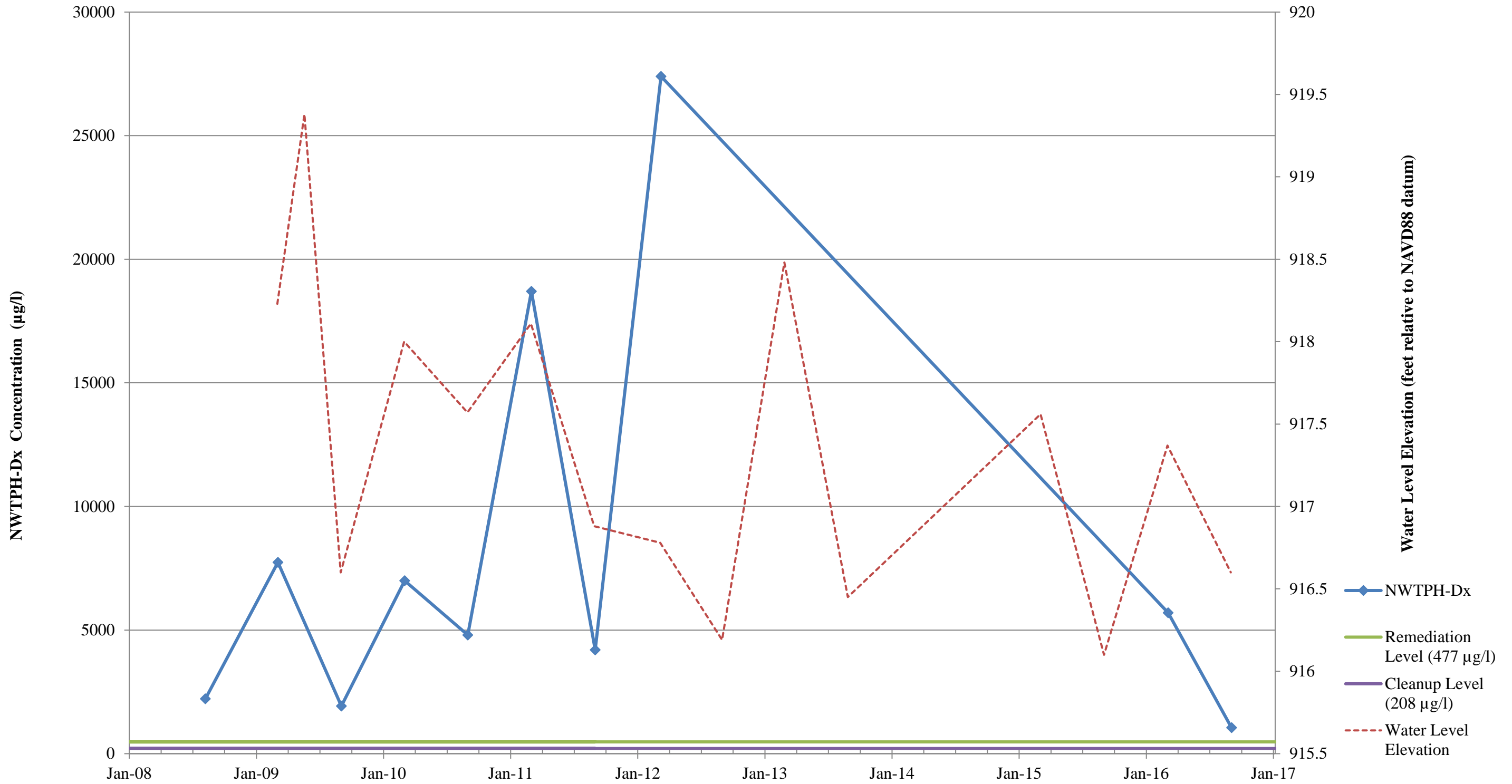


# Schoolyard

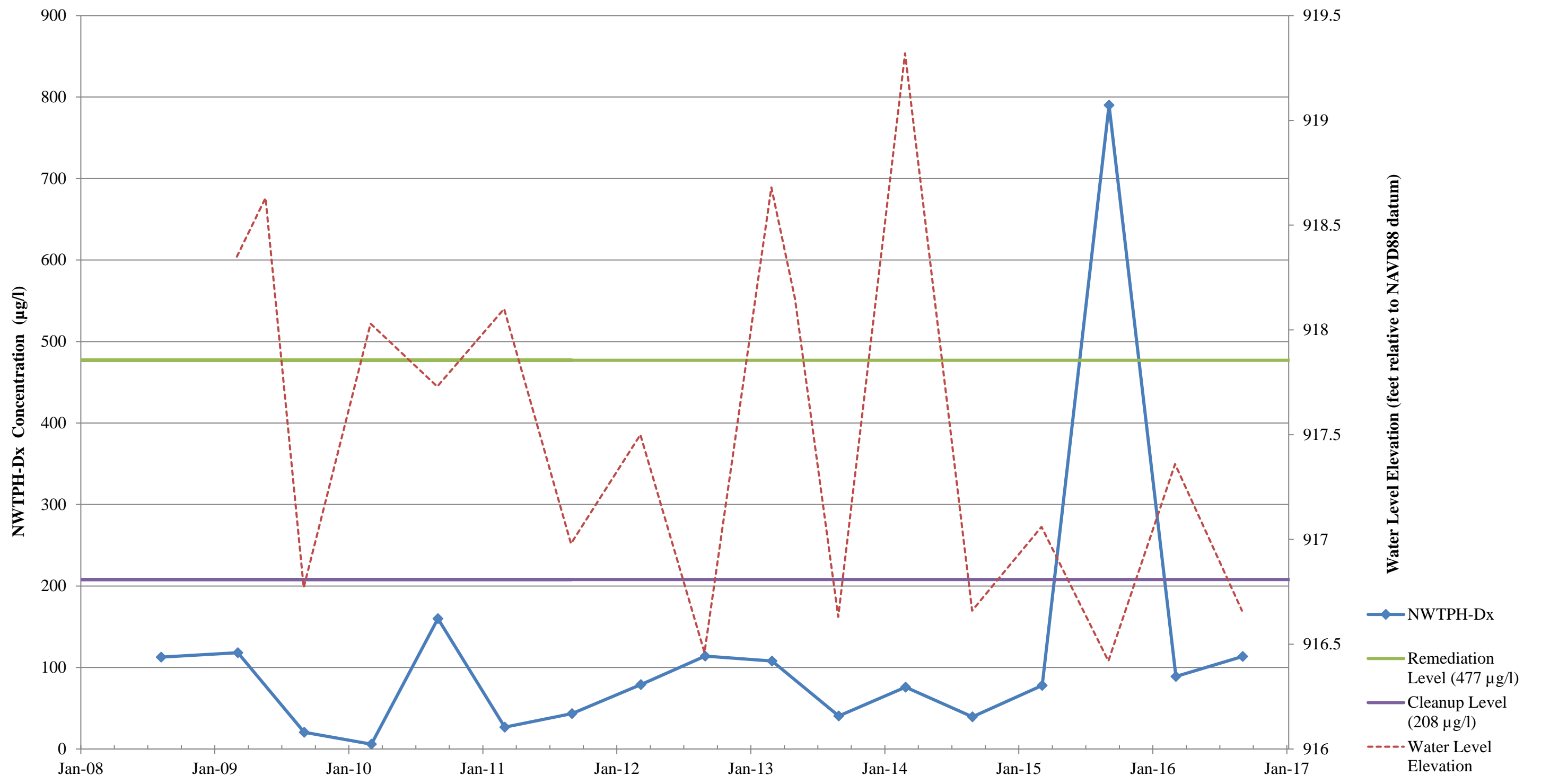
**NWTPH-Dx Trend Plot**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-043**  
**5-W-50**



**NWTPH-Dx Trend Plot**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-043**  
**5-W-51**

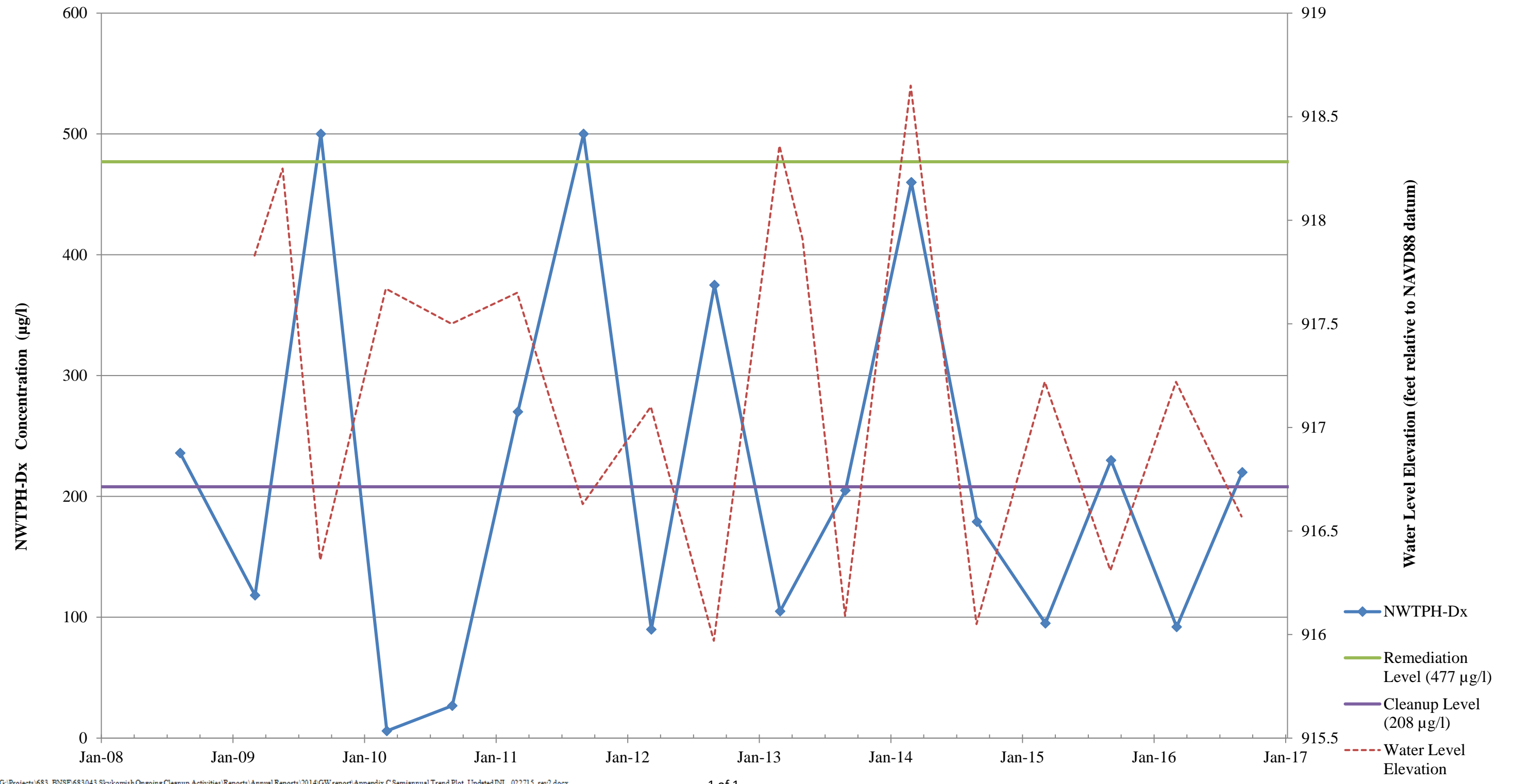


**NWTPH-Dx Trend Plot**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-043**  
**5-W-54**

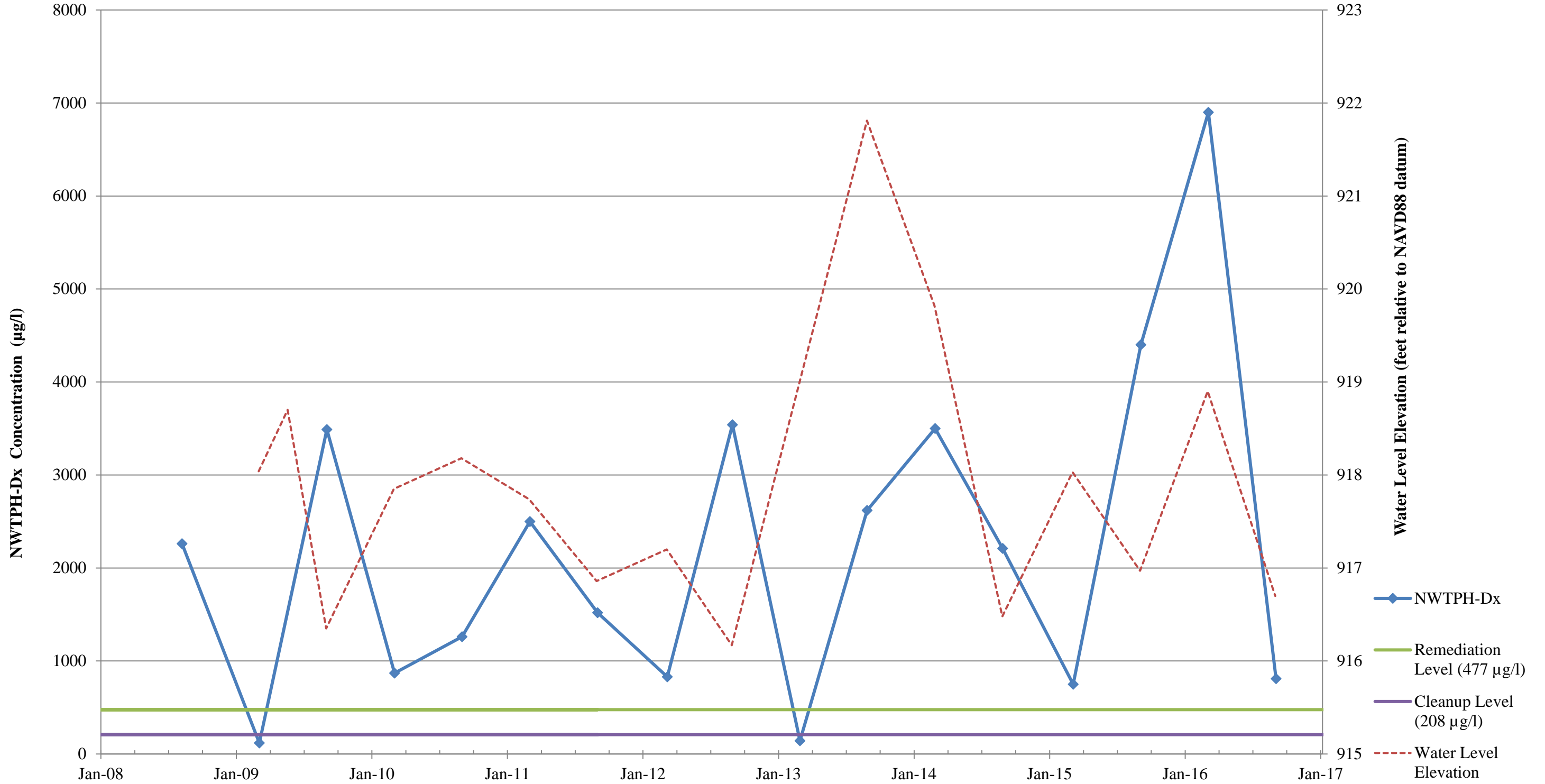




**NWTPH-Dx Trend Plot**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-043**  
**5-W-55**

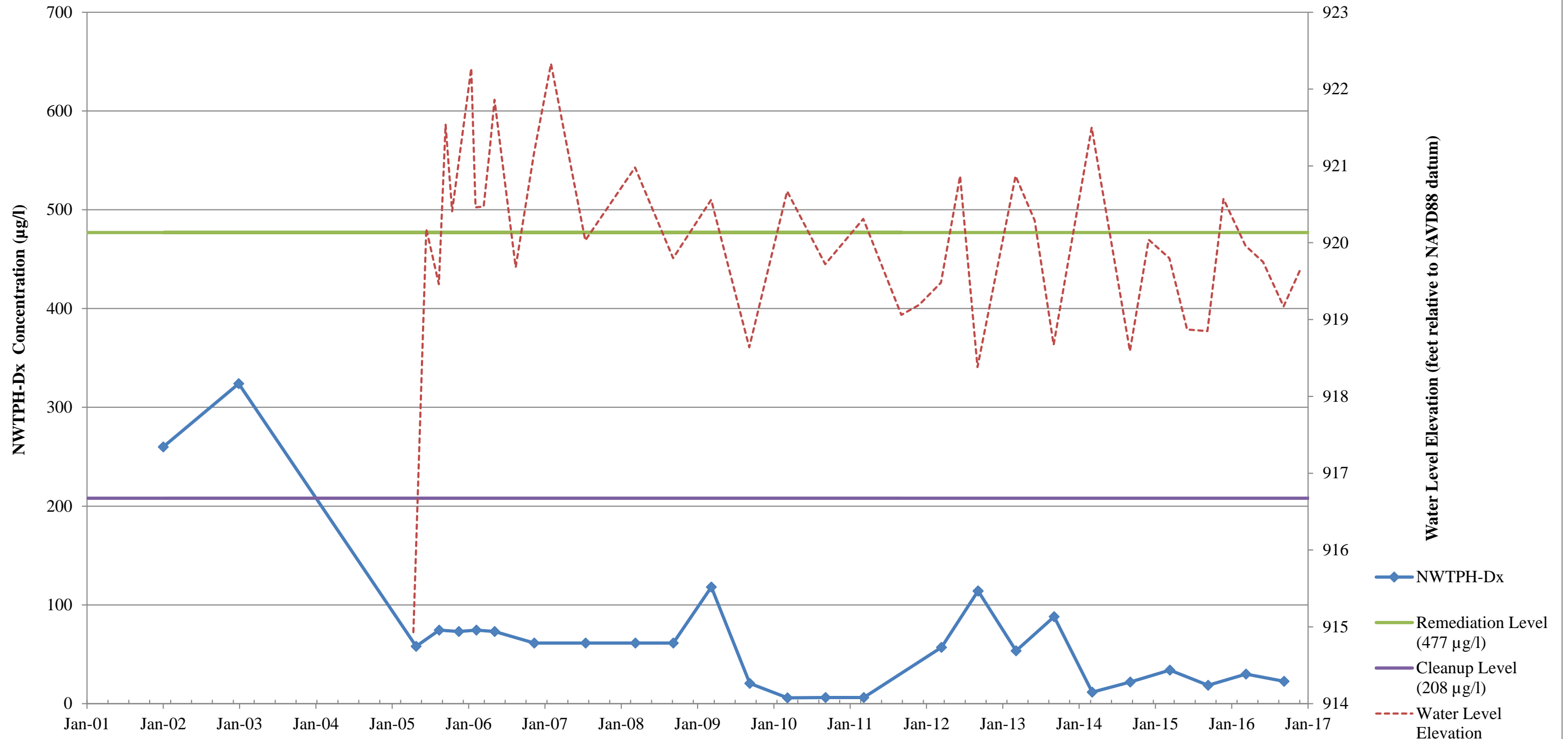


**NWTPH-Dx Trend Plot**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-043**  
**5-W-56**

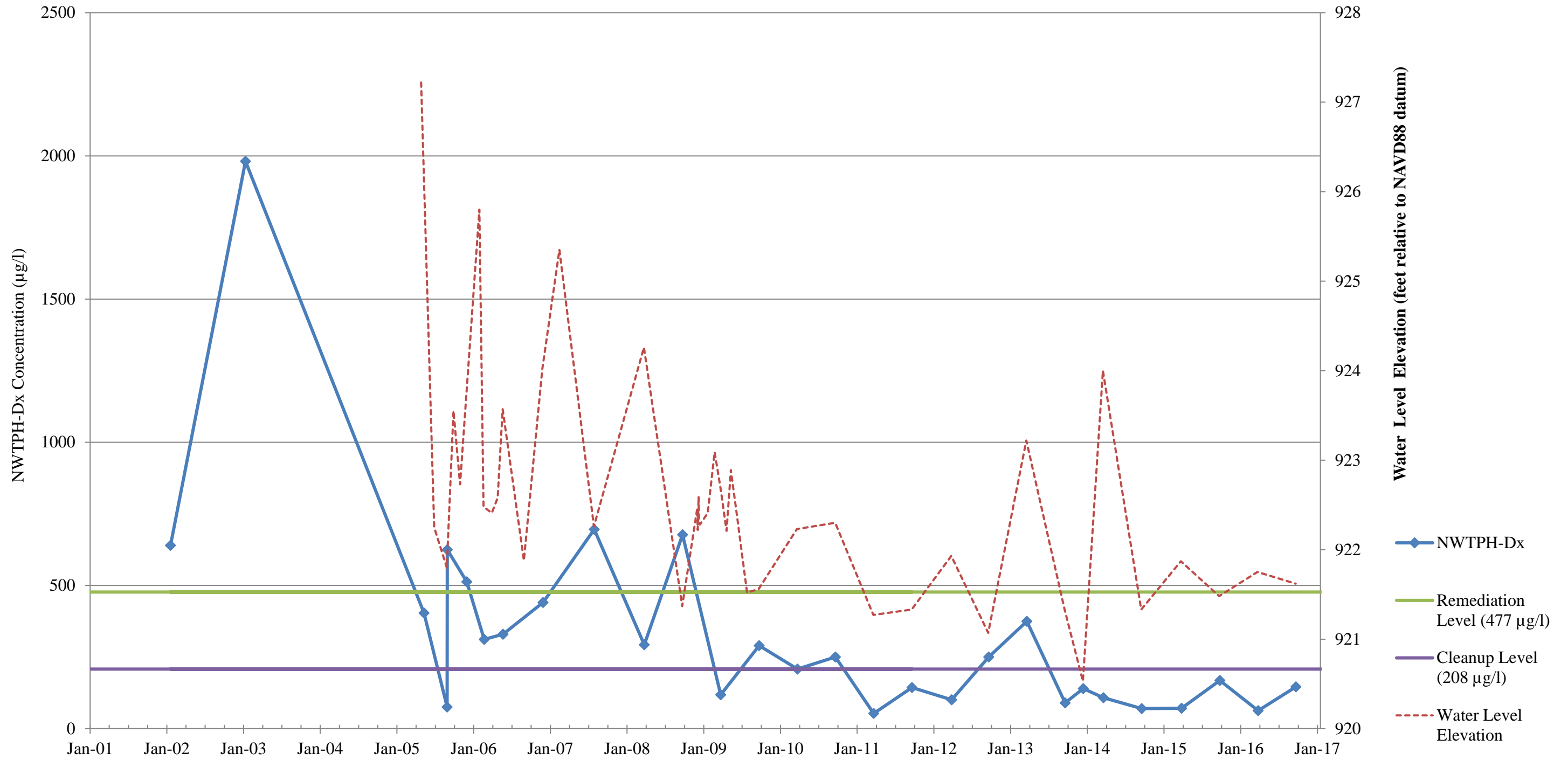


# Site-Wide Locations

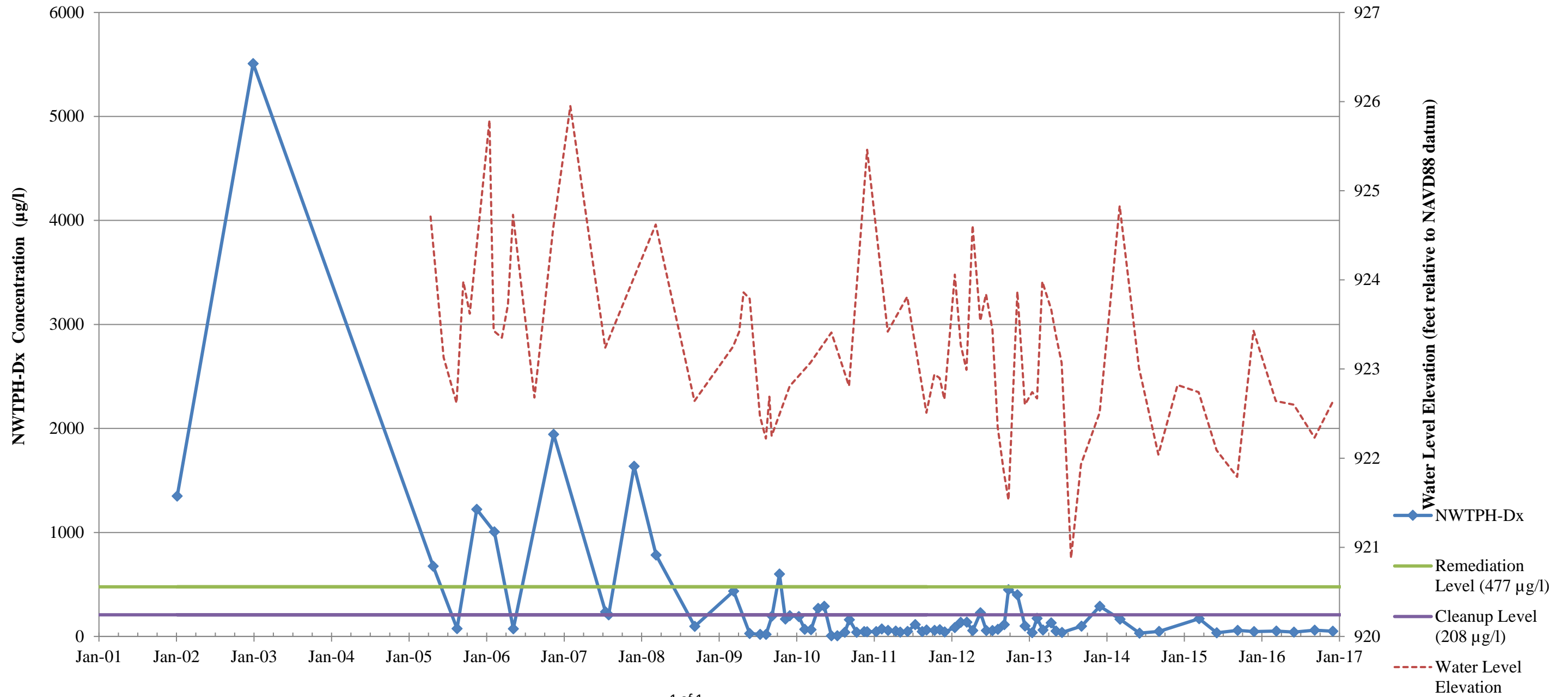
**NWTPH-Dx Trend Plot**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-043**  
**1A-W-4**



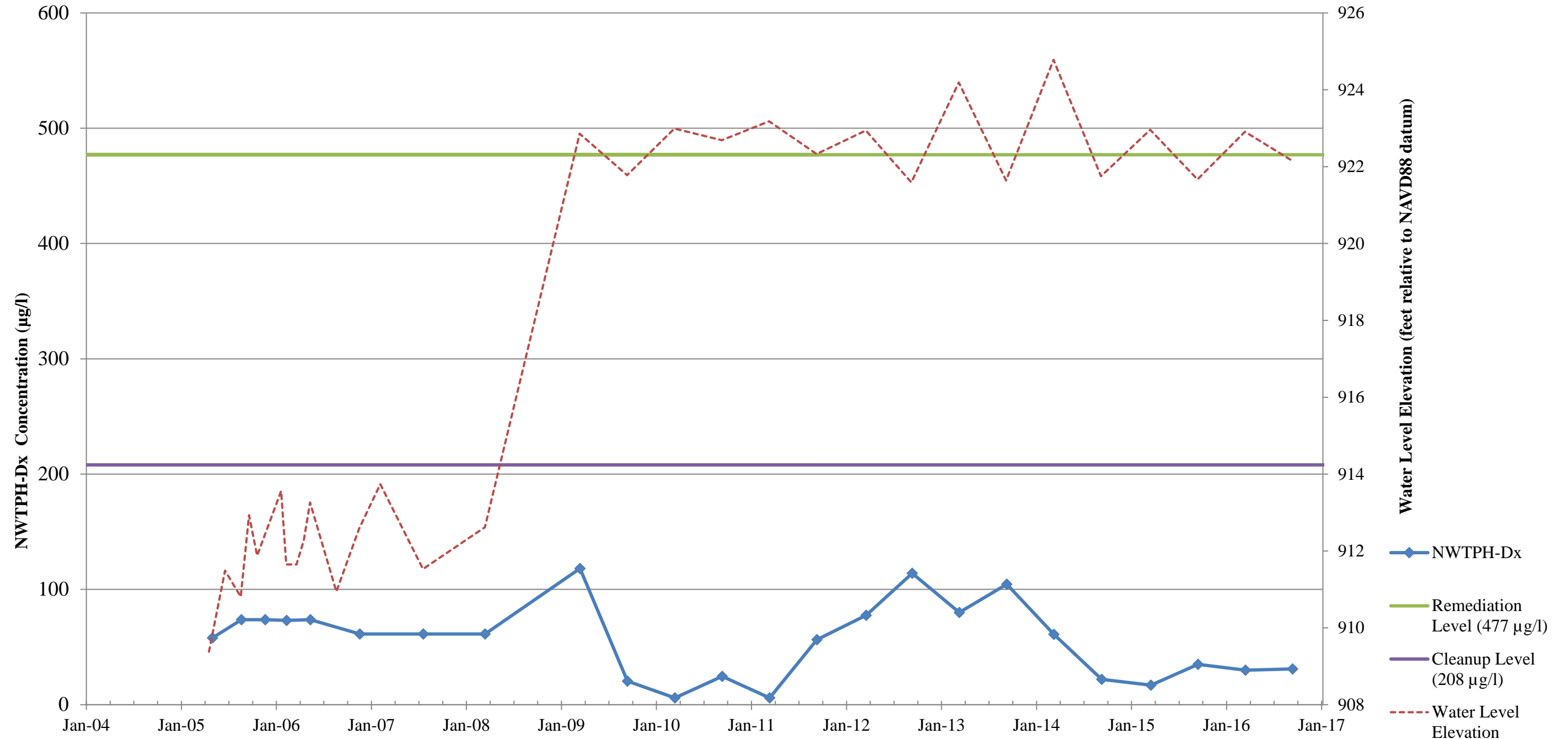
**NWTPH-Dx Trend Plot**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-043**  
**1B-W-2**



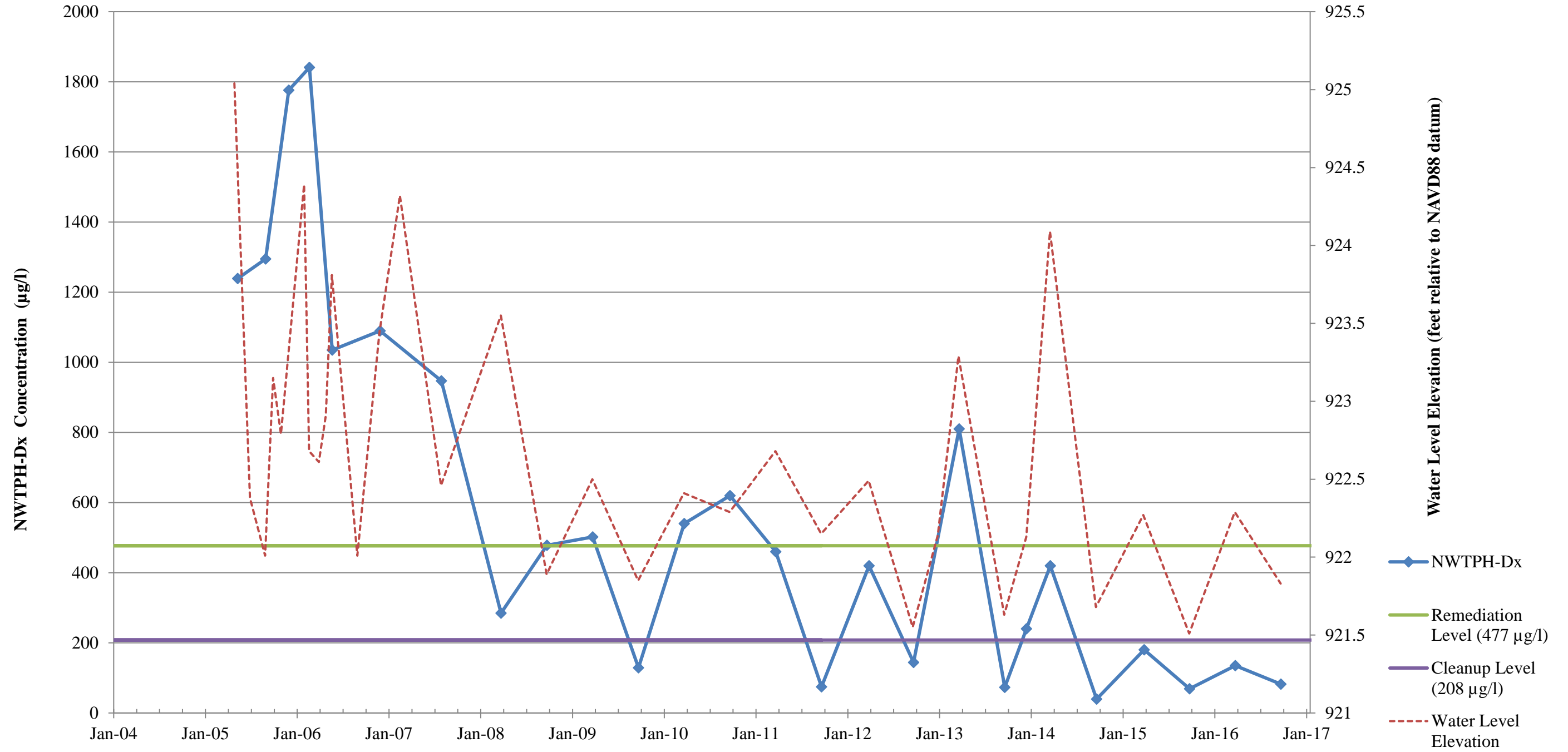
**NWTPH-Dx Trend Plot**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-043**  
**1C-W-1**



**NWTPH-Dx Trend Plot**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-043**  
**1C-W-3**

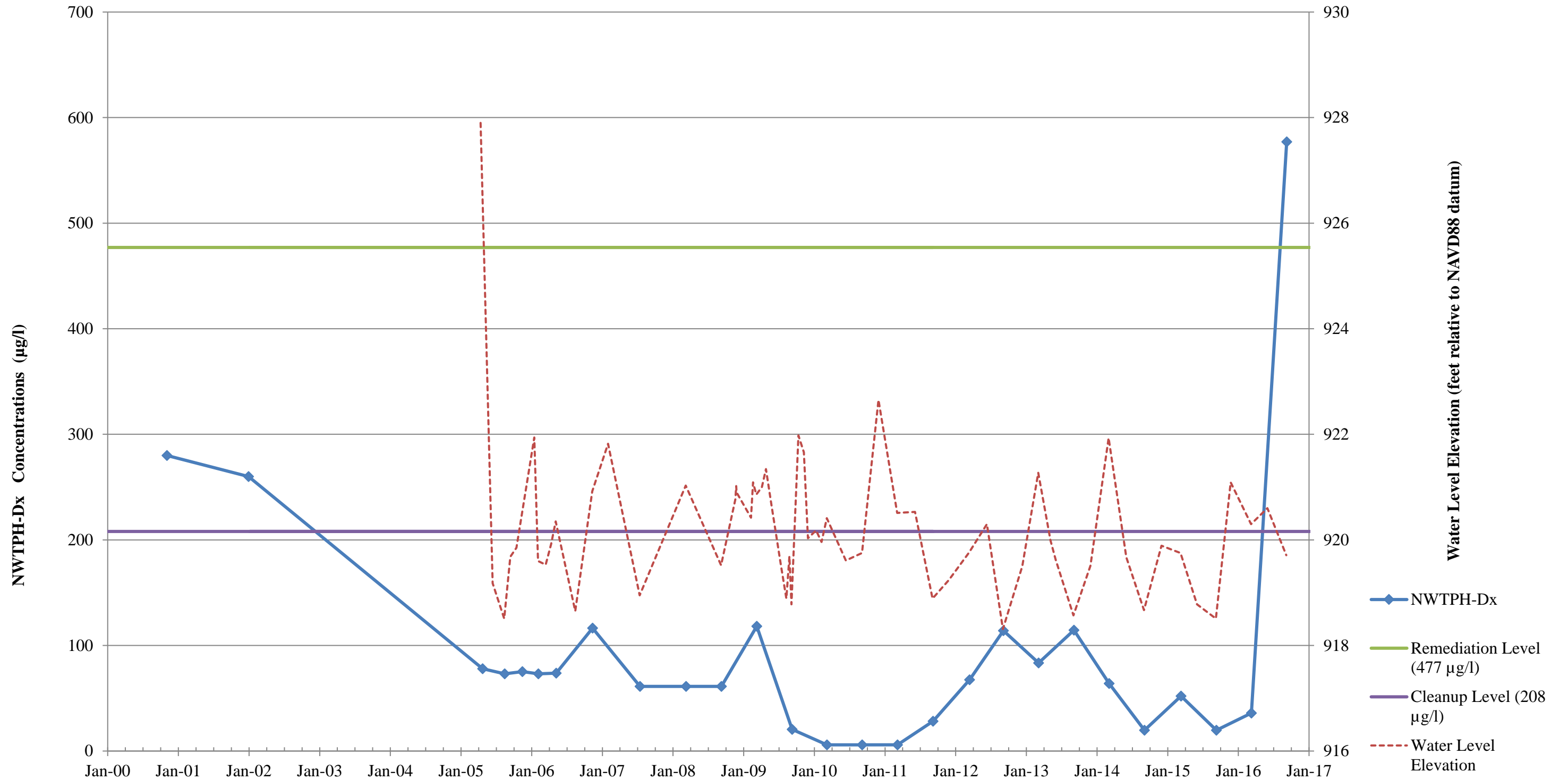


**NWTPH-Dx Trend Plot**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-043**  
**1C-W-4**





**NWTPH-Dx Trend Plot**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-043**  
**MW-16**



**NWTPH-Dx Trend Plot**  
**BNSF Former Maintenance and Fueling Facility**  
**Skykomish, Washington**  
**Farallon PN: 683-043**  
**MW-38R**

