

# Field Report

**To:** Mark Nelson, Nelson Distributing, Inc.

**Copies:** Dianne Conway, Gordon Thomas Honeywell LLP

**From:** Kristin Anderson, Floyd|Snider

**Date:** September 20, 2023

**Project No:** Nelson-Granite Falls

**Re: Field Report for MW-04 Area Additional Soil Excavation**

Floyd|Snider oversaw excavation work at the former Nelson Distributing bulk-fuel facility (Nelson Petroleum Property) in Granite Falls, Washington on September 8, 2023. Excavation work was performed by Glacier Environmental Services. The purpose of the work was to remove remaining residual petroleum-contaminated soil from the vicinity of well MW-04, abutting excavation performed in 2021.

Prior excavation was completed on the Nelson Petroleum Property to remove petroleum-contaminated soil associated with the former bulk fuel facility in 2016. During this excavation, a buffer of native soil was left in place surrounding MW-04 to protect the well casing. Additional excavation to remove remaining petroleum-contaminated soil on the west-adjacent One Ballard Property was completed in 2021. This excavation was extended to the property line of the Nelson Petroleum Property and also did not damage or remove MW-04. The extents of the prior excavations and location of MW-04 were presented in a Remedial Excavation Summary to Ecology; a figure from that summary is provided as an attachment to report.

In response to a report documenting completion of the 2021 excavation, Ecology indicated that a No Further Action determination for the Nelson Petroleum Property would require a restrictive covenant to be placed on the property for the soil left in place surrounding MW-04 due to detected gasoline-range organics exceeding the cleanup level in a sample collected at 3 feet below ground surface (bgs) during well installation. Floyd|Snider proposed extending the property line excavation to remove this contaminated soil in lieu of a covenant, and Ecology provided email concurrence of this approach on May 24, 2023. Excavation was scheduled for September 2023 to occur during seasonal low water table conditions.

Site monitoring wells, including MW-04, were decommissioned by a licensed driller on September 5, 2023, prior to excavation. A safety meeting to discuss contaminated soil handling

was conducted prior to beginning ground-disturbing activities. Key photographs of site construction activities are provided as an attachment to this report.

Excavation was performed by removing the 1 to 2 feet of surface gravel beginning at the western property line of the Nelson Petroleum Property (approximately 2 feet west of MW-04), extending to the south, east and north of MW-04 until the 2016 excavation backfill was encountered on all sides of the well.

Quarry spalls comprising the 2016 backfill were encountered at the following distances from MW-04:

- 2 feet south of the well location
- 4 feet east of the well location
- 4 feet north of the well location

The dimensions of the native soil buffer on the Nelson Petroleum Property were generally consistent with, though slightly smaller than, the area assumed from previous excavation maps. The extents of excavated native soil and existing quarry spalls surrounding MW-04 are annotated on the attached map. Once the extents of the remaining native soil were delineated, the excavation was advanced to the target depth consistent with the approved excavation plan.

Native soil surrounding MW-04 exhibited petroleum odor and staining beginning at a depth of approximately 3 feet bgs. Petroleum odor was observed to a depth of approximately 6.5 feet bgs. Below 6.5 feet bgs, soils encountered were fine sand without odor or staining. Screening for volatiles was performed on excavated soil using a photoionization detector (PID). A maximum PID reading of 20 parts per million vapor (ppmv) was measured in soil with petroleum odor. Soil below 6.5 feet bgs had PID readings of 0.0 ppmv. Groundwater intrusion was encountered at approximately 5 feet bgs.

The excavation was advanced to a depth of 7.5 feet bgs, consistent with the base of the adjacent 2021 One Ballard Property excavation and approximately 1 foot below the deepest field indications of petroleum contamination observed. The depth of excavation was verified both by measuring from the ground surface with a tape measure and comparing against a pre-measured mark on the arm of the excavator. Excavated soils were stockpiled temporarily on-property in the order that they were removed, such that dry surface soils created a pad to receive deeper saturated soil. Saturated soils were additionally drained over the excavation to remove free water prior to stockpiling.

All contaminated soils and the surface soil immediately underlying the temporary stockpile were loaded to a truck operated by JDS trucking for off-site disposal. A total of 14.21 tons of soil were disposed as Class 3 petroleum-contaminated soil for thermal desorption at Iron Mountain Quarry (IMQ) landfill, a permitted disposal facility. Disposal records from IMQ are provided as an attachment to report. Imported gravel backfill from Iron Mountain Quarry matching the

specifications of the 2021 backfill was placed in the excavation and compacted. Documentation of gravel backfill importation is also provided as an attachment to this report.

This Field Report documents removal of all remaining petroleum-contaminated soil on the Nelson Petroleum Property. The Ecology Environmental Information database has been updated to reflect removal of the previous soil sample at MW-04. No contaminated soil that would be subject to a restrictive covenant remains on-property.












**LIST OF ATTACHMENTS**

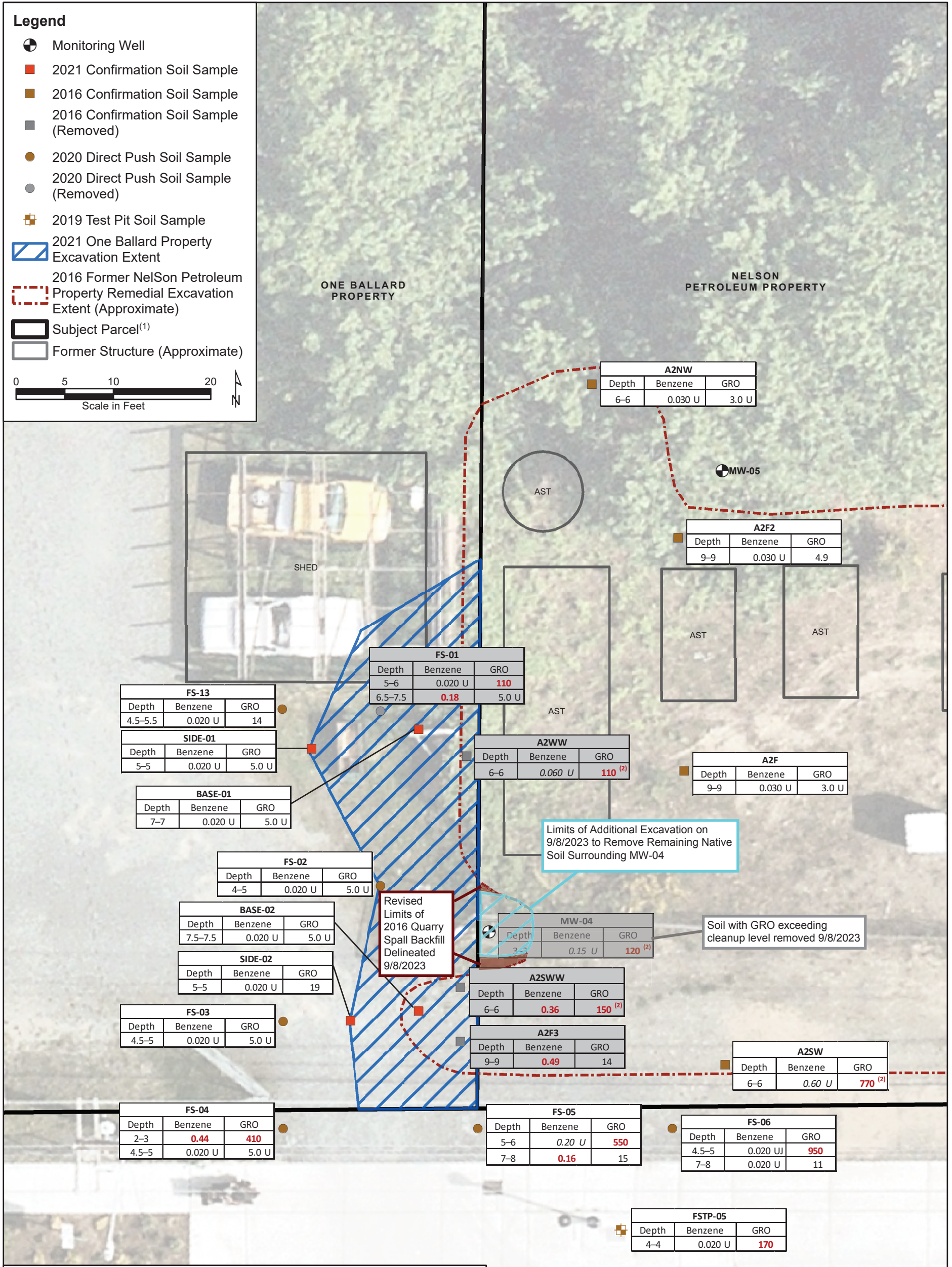
- Attachment 1 MW-04 Excavation Map Markup
- Attachment 2 Key Photographs
- Attachment 3 Soil Disposal Documentation
- Attachment 4 Imported Backfill Documentation



**Attachment 1**  
**MW-04 Excavation Map Markup**

**Legend**

-  Monitoring Well
-  2021 Confirmation Soil Sample
-  2016 Confirmation Soil Sample
-  2016 Confirmation Soil Sample (Removed)
-  2020 Direct Push Soil Sample
-  2020 Direct Push Soil Sample (Removed)
-  2019 Test Pit Soil Sample
-  2021 One Ballard Property Excavation Extent
-  2016 Former Nelson Petroleum Property Remedial Excavation Extent (Approximate)
-  Subject Parcel<sup>(1)</sup>
-  Former Structure (Approximate)



- Notes:
1. Property boundary based on visible fence lines in the east and west and on parcel data from Snohomish County in the north and south.
  2. Sample contains highly weathered gasoline.
    - Results shown in **RED BOLD** indicate a result that exceeds the MTCA Method A cleanup level for benzene (0.030 mg/kg) or GRO (30 mg/kg)
    - *Italics* indicate a reporting limit that exceeds the applicable cleanup level.
    - Depths are presented in feet bgs and benzene and GRO results are presented in mg/kg.
    - Direct push soil sample depths are approximate due to sample compression.
    - Measuring point for 2016 confirmation soil samples is presumed to be higher than current ground surface.
    - Orthoimagery obtained from Nearmap, 2020.

Abbreviations:  
 AST = Aboveground storage tank  
 bgs = Below ground surface  
 GRO = Gasoline-range organics  
 MTCA = Model Toxics Control Act  
 mg/kg = Milligrams per kilogram

Qualifiers:  
 U = Analyte was not detected at the given reporting limit.  
 UJ = Analyte was not detected at the given reporting limit; reporting limit is considered an estimate.

*Figure annotated with 2023 additional excavation details*

I:\GIS\Projects\Nelson-Granite Falls\MXD\One Ballard Property Remedial Excavation Summary\Figure 2 Excavation and Confirmation Sample Summary.mxd  
 1/21/2022

**Attachment 2**  
**Key Photographs**





Photograph 1. MW-04 vicinity and property line fence (facing N)



Photograph 2. Surface soil removal from fence line to north, east and south (facing N)





Photograph 3. 2016 excavation quarry spall backfill ~2 feet south of MW-04 (facing SW)



Photograph 4. 2016 excavation quarry spall backfill ~4 feet north and east of MW-04 (facing NE)





Photograph 5. Excavation to 7.5 foot depth marker on excavator (facing W)



Photograph 6. Completed native soil excavation extent surrounding MW-04 (facing N)





Photograph 7. Temporary contaminated soil stockpile and imported backfill (facing NE)



Photograph 8. Contaminated soil loaded for off-site disposal





Photograph 9. Full removal of residual contaminated soil stockpile



Photograph 10. Excavation backfilled with gravel borrow



**Attachment 3**  
**Soil Disposal Documentation**

# Iron Mountain Quarry

22121 17th Ave SE STE 117

Bothell, WA 98021

425-481-0999

Ticket No.:

**144900**

REPRINT

Date : 9/8/2023 Time: 9:28:44AM  
 Location : **Granite Falls Pit ID # D3:**  
 Customer : 844 GLACIER ENVIROMENTAL SERVICES INC  
 Order : 4 Nelson Petroleum Granite Falls Wa  
 P.O. : W Stanley St  
 Product : 510 CLASS 3 CONTAMINATED SOIL **14.21** Ton

	<u>Pounds</u>	<u>Tons</u>	<u>Metric</u>
Gross	55320	27.66	25.09
Tare	26900 *	13.45 *	12.20 *
Net	28420	14.21	12.89

\* P.T.

Ordered	0.00
Received	0.00
Remaining	0.00
Today:	14.21 Loads: 1

Weighmaster: BRAD

Carrier : 769 J D S TRUCKING  
 Vehicle : JDS4S J D S Trucking

Received : \_\_\_\_\_

COPY 1 CARRIER

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 Customer : 844 GLACIER ENVIROMENTAL SERVICES INC  
 Order : 4 Nelson Petroleum Granite Falls Wa  
 P.O. : W Stanley St  
 Product : 408 Trucking Houlry IWL Products **1.00** Each

Carrier : 769 J D S TRUCKING  
 Vehicle : JDS4S J D S Trucking

Received : \_\_\_\_\_

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Ticket No.: **144900**

REPRINT

	<u>Pounds</u>	<u>Tons</u>	<u>Metric</u>
Gross	0	0.00	0.00
Tare	0 *	0.00 *	0.00 *
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**Attachment 4**  
**Imported Backfill Documentation**

# Iron Mountain Quarry

22121 17th Ave SE STE 117  
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Ticket No.: **144876**

REPRINT

Date : 9/8/2023 Time: 8:22:20AM  
Location : **Granite Falls Pit ID # D3:**  
Customer : 844 GLACIER ENVIROMENTAL SERVICES INC  
Order : 4 Nelson Petroleum Granite Falls Wa  
P.O. : W Stanley St  
Product : 31 2 1/2" MINUS **14.66 Ton**

	<u>Pounds</u>	<u>Tons</u>	<u>Metric</u>
Gross	56220	28.11	25.50
Tare	26900 *	13.45 *	12.20 *
Net	29320	14.66	13.30

\* P.T.

Ordered	0.00
Received	0.00
Remaining	0.00
Today:	14.66 Loads: 1

Weighmaster: BRAD

Carrier : 769 J D S TRUCKING  
Vehicle : JDS4S J D S Trucking  
Received : \_\_\_\_\_

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Location : **Granite Falls Pit ID # D3:**  
Customer : 844 GLACIER ENVIROMENTAL SERVICES INC  
Order : 4 Nelson Petroleum Granite Falls Wa  
P.O. : W Stanley St  
Product : 400 TRUCKING HOURLY ROCK PRODL **1.00** Ton

Carrier : 769 J D S TRUCKING  
Vehicle : JDS4S J D S Trucking

Received : \_\_\_\_\_

COPY 1 CARRIER

Ticket No.: **144876**

REPRINT

	<u>Pounds</u>	<u>Tons</u>	<u>Metric</u>
Gross	0	0.00	0.00
Tare	0 *	0.00 *	0.00 *
Net	0	0.00	0.00

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