Final Groundwater Monitoring Well Construction Report

Simplot Grower Solutions J.R. Simplot Company

Warden, Washington October 2023

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1800 W. 1st Street Warden, WA 98857

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Appendices

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Acronyms

Acronym	Definition
AO	Agreed Order
bgs	below ground surface
CAP	Cleanup Action Plan
Ecology	Washington Department of Ecology
EDB	ethylene dibromide
HDR	HDR Engineering, Inc.
Holt	Holt Services, Inc
MTCA	Model Toxics Control Act
MW	monitoring well
QA/QC	Quality assurance/quality control
SGS	Simplot Grower Solutions
Simplot	J.R. Simplot Company
SOP	Standard operating procedure
µg/Kg	micrograms per kilogram
µg/L	micrograms per liter
UC	uniformity coefficient
USEPA	U.S. Environmental Protection Agency
WAC	Washington Administrative Code
Work Plan	Groundwater Monitoring Well Construction and Monitoring Plan



Introduction 1

This Groundwater Monitoring Well Construction Report describes the procedures that the J.R. Simplot Company (Simplot) performed to construct four groundwater monitoring wells for subsequent monitoring to comply with the cleanup action at the Simplot Grower Solutions (SGS) facility in Warden, Washington (Figure 1). The cleanup action and subsequent compliance monitoring is being conducted pursuant to Agreed Order (AO) DE 16890 and the Model Toxics Control Act (MTCA) regulations (Chapter 173-340 Washington Administrative Code [WAC]) to implement the remedies specified in the Cleanup Action Plan (CAP; Ecology 2019) to remove ethylene dibromide-(EDB) contaminated soil and groundwater.

Simplot entered into AO DE 16890 with Washington State Department of Ecology (Ecology) on May 7, 2020, to implement the CAP in accordance with the scope of work and schedule attached to the AO DE 16890.

The SGS site monitoring network was comprised of nine groundwater monitoring wells (MWs): MW-1, MW-2, MW-3, MW-6S, MW-7S, MW-7D, MW-8S, MW-9S, and MW-10S. Monitoring wells MW-5S and MW-5D were decommissioned in June 2020 (HDR 2020) because they were in the area of corrective action involving soil excavation, completed in spring 2021. The CAP calls for replacing these two wells after excavation and backfilling activities are complete (HDR 2021a). In addition, the CAP requires two additional downgradient wells to aid in compliance monitoring.

Excavation activities took place in March to April 2021, with excavation being completed by GrayMar and HDR conducting sampling, oversight, and reporting activities (HDR 2023b). Two pits (the west pit and a smaller pit to the east) were excavated. In total, approximately 13,000 cubic yards of soil were excavated from both pits, with approximately 6,500 to 7,200 cubic yards determined to be contaminated with EDB (this is based on the number of SVE treatment batches). The excavation depths of the west pit ranged from 25 feet bgs in the southern extent, to 37 feet bgs in the northern half. In the area where replacement wells MW-5DR and MW-5SR were installed, excavation depth appears to be between 28 and 33 feet bgs.

For further details on remediation activities and compliance monitoring, refer to the following documents:

- Final Engineering Design Report (HDR 2021a)
- Cleanup Action Implementation Compliance Monitoring Plan (HDR 2021b) •

A Groundwater Monitoring Well Construction and Monitoring Plan (Work Plan; HDR 2023a) was prepared and described the following activities.

- Construct four monitoring wells (Figure 2):
 - MW-5SR and MW-5DR replacement wells in the approximate location as the original wells, within the excavation area footprint.
 - MW-11S and MW-12S new downgradient wells from the excavation area.

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1.1 Site Description

Table 1. Site Description

Simplot Growers Solutions, Warden, Washington Site (Agreed Order refers to site as Warden City Wells site)
2802409
No. DE 16890
No. 1618 (Warden City Water Supply Wells 4&5)
1800 West 1st Street Warden, WA 98857
GPS: 46.97025 46° 58' 13" North and -119.060309 -119° 3' 37" West UTM: Zone 11 N; 343279.18, 5203918.33 Legal: SW T17N R30E S9 Parcel: 060697000 County: Grant, WA
Christer Loftenius, LG, LHG State of Washington Department of Ecology Toxics Cleanup Program, Eastern Region 4601 N Monroe Street Spokane, Washington 99205-1295 <u>clof461@ecywa.gov</u> 509.329.3400
J.R. Simplot Company P.O. Box 27 Boise, Idaho 83707
Molly Dimick, MBA Environmental Engineer J.R. Simplot Company PO Box 912 1130 W. Hwy 30 Pocatello, ID 83204 208.235.5682 Molly.Dimick@simplot.com
Same as PLP
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2 Site Description and Background

2.1 Geology and Hydrogeology

A description of site geology and hydrogeology is primarily taken from the *Preliminary Investigation of Ethylene Dibromide Contamination* (PGG 2007), *Phase II Preliminary Investigation Report* (Ecology 2009), and remedial investigation/feasibility study (RI/FS) activities conducted by HDR Engineering, Inc. (HDR 2018).

The City of Warden is located within the Columbia Plateau, which is dominated by the Columbia River Basalt Group (thick sequence of basalt flows). Unconsolidated sediment overlies basalt in the Warden area and is comprised of sand and silt deposited by outburst floods from Glacial Lake Missoula and Palouse Formation loess (windblown silt and fine sand). Lithology at the monitoring wells associated with the site is described as unconsolidated soil of very silty to slightly silty to silty fine sand 17 to 64 feet thick. Layers of caliche (hardened soil caused by calcium carbonate and/or salts) were also observed in the upper 27 feet of soil. During the 2007 investigation the Pacific Groundwater Group (PGG) hydrogeologist described the caliche in borings MW-1 and MW-4 as having reactions to hydrochloric acid, suggesting a significant proportion of the caliche has a carbonate fraction. At the SGS site, caliche is interbedded with sand from 4 to 25 feet below ground surface (bgs). Beneath the unconsolidated soil and caliche is 4.5 to 14 feet of weathered basalt overlying competent basalt. The contact between the overburden and weathered basalt, in the vicinity of the monitoring wells, slopes to the west-northwest. A summary of lithology for monitoring well MW-5, constructed at the SGS site, is as follows (PGG 2007):

Depth below ground surface	Description
0 to 4 feet	Fill material
4 to 18.5 feet	Fine sand with caliche interbeds
18.5 to 43 feet	Fine sand and silty sand
43 to 49 feet	Weathered basalt
49 to >55 feet	Hard basalt
55 feet	Boring bottom

The site and surrounding area lie in the Odessa groundwater management subarea, a segment of the Columbia Basin groundwater system, which is characterized by declining basalt aquifer water levels and high amounts of recharge to the shallow aquifer due to irrigated agricultural activities in the region. The surficial geologic deposits are outwash deposits and wind-blown aeolian deposits (loess). Below these surficial deposits, three aquifers are identified in the City of Warden area:

- <u>Shallow aquifer</u> comprised of unconsolidated deposits (includes weathered basalt, gravels, sand, silt, and clay); regionally, this aquifer flows toward the west (George, D., 2006). Monitoring wells associated with the RI/FS are constructed in the shallow aquifer.
- Deep Basalt aquifers comprised of the Wanapum and Grande Ronde deep aquifers. No monitoring wells associated with the RI/FS are constructed in the deep aquifer.
 - <u>Wanapum aquifer</u> part of the Wanapum Basalt formation of the Columbia River Basalt Group; this formation extends to a depth of approximately 600 feet bgs; regionally, groundwater flows southwest (Hansen et al., 1994).
 - <u>Grande Ronde aquifer</u> a deeper basalt aquifer found beneath the Wanapum formation; regionally, flows toward the south and southwest (Hansen et al. 1994).

The topography of the area is generally flat with a few gently sloping hills. Elevation of the site is approximately 1,252 feet above sea level. The geomorphologic setting of the area is characterized by outwash deposits and wind-blown aeolian deposits (loess). The nearest major natural surface water body is Warden Lake to the west approximately 4.5 miles. The nearest man-made surface water body is the East Low Canal just north of the site. The nearest undeveloped natural land is

approximately 3 miles west/southwest of the site, part of which is the Columbia National Wildlife Refuge. Other areas around Warden are residential or agriculturally developed land.

2.2 Groundwater Conditions

Figure 2 illustrates the updated groundwater monitoring well network for the site. The original wells were constructed to provide information on groundwater flow direction, seasonal variations in flow and gradient, and groundwater quality upgradient and downgradient of the SGS site. Table 2 summarizes monitoring well construction and survey information for the original wells. Shallow wells (MW-5S, MW-6S, MW-7S, MW-8S, MW-9S, and MW-10S) were screened in the upper portion of the shallow aguifer to monitor water at the groundwater/vadose zone interface. Well MW-7D and Ecology wells MW-1, MW-2, MW-3, MW-4, and MW-5D were screened in the lower portion of the shallow aguifer in unconsolidated to weathered basalt interface (ranging from 55 to 75 feet bgs). The upper and lower wells provide information as to potential groundwater gradient differences between the lower and upper zones within the shallow aguifer, as well as differences in EDB levels. Both upper and lower wells are within the shallow unconfined aguifer. Well MW-6D was planned but not drilled, because basalt was encountered at a depth of approximately 26 feet, so only MW-6S was installed. MW-9S, drilled off site to the south of the facility, encountered basalt at 16 feet bgs. Furthermore, the borehole was dry at the time of drilling in July 2013 and the well was dry in October 2013 and December 2017. MW-9S is screened from 7 to 17 feet bgs. Well MW-4 was decommissioned in April 2015 at the request of the landowner. Wells MW-5S and MW-5D were decommissioned in June 2020 to support remedial excavation in the area.

Following is a summary of groundwater monitoring well sampling results. Refer to the RI/FS for more details on groundwater conditions (HDR 2018).

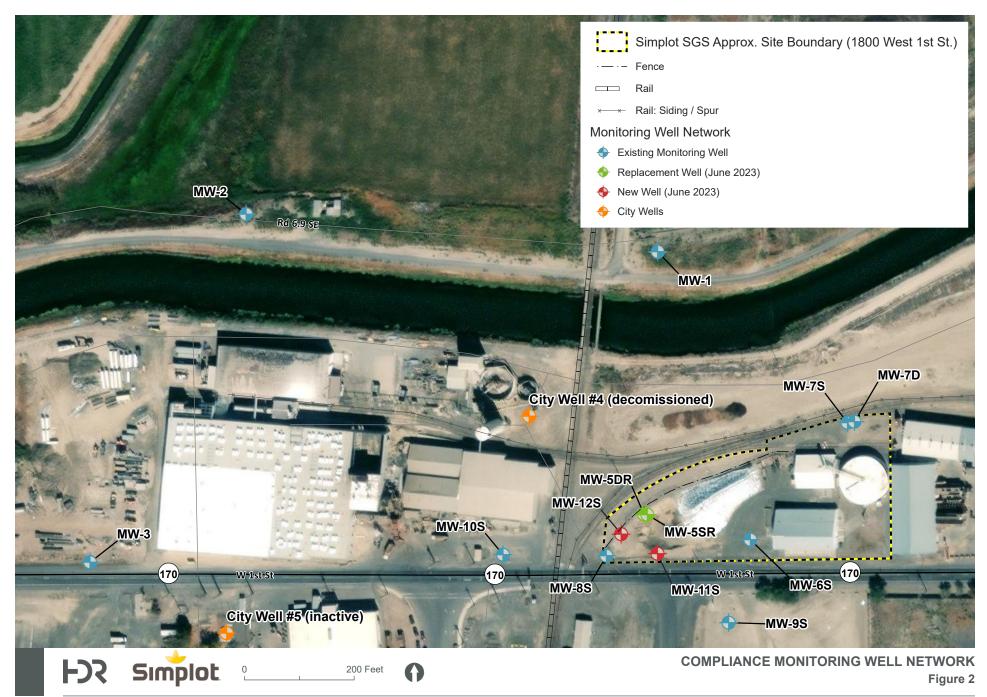
- Groundwater gradient, based on the upper wells, shows a southerly/southwesterly flow direction. Groundwater flow for the deeper wells is split where groundwater north of the canal flows northerly, and groundwater south of the canal flows in a southerly direction. No upper wells in the shallow aquifer have been installed north of the canal to confirm the observations found south of the canal. However, the observations from the shallow wells south of the canal are likely a result of groundwater mounding caused by the canal acting as a losing stream.
- EDB has been found in groundwater beneath the site associated with shallow well MW-5S (decommissioned June 2020), which was screened through the vadose zone/groundwater interface. Shallow well MW-6S was non-detect in October 2013 and measured 0.35 micrograms per liter (µg/L) in December 2017. Monitoring well MW-5D (paired well to MW-5S and also recently decommissioned), which was screened at the unconsolidated groundwater/basalt interface, was non-detect (except for detection of 0.27 µg/Kg in January 2012 and 0.01 µg/kg in April 212 and October 2013) during the RI monitoring period. EDB has not been detected in off-site monitoring wells, including wells that are downgradient (at least part of the year) from the SGS site. Groundwater samples collected and analyzed in December 2017 (3 years from the previous monitoring) were consistent with previous findings. Monitoring well MW-5S was screened in the caliche zone, and based on soil sampling from this well, it is postulated that the detection of EDB in this well is from the slow dissolution of EDB held in this confining layer. That EDB has not been detected in downgradient monitoring wells (e.g., MW-8S, MW-10S, MW-4, MW-3) suggests the

presence is localized and that there may not be an established plume in the shallow groundwater at this time. While EDB has not been detected in off-site monitoring wells, it had been detected in City of Warden water supply wells No. 4 (later decommissioned) and 5, including at levels in excess of the Washington groundwater quality standard (see RI/FS [HDR 2018] for more details). In addition, EDB has been detected in City wells No. 8 and 9, located approximately 0.4 and 0.66 miles south-southwest of the Site, with EDB levels in the wells at times exceeding the MCL. However, based on the existing site conceptual model, it is unclear if EDB is site related. Note that City well No.8 is 509 feet deep with a well screen from 110 to 120 ft bgs, and well No. 9 is 505 feet deep with screens from 120 to 220 and 315 to 355 ft bgs.



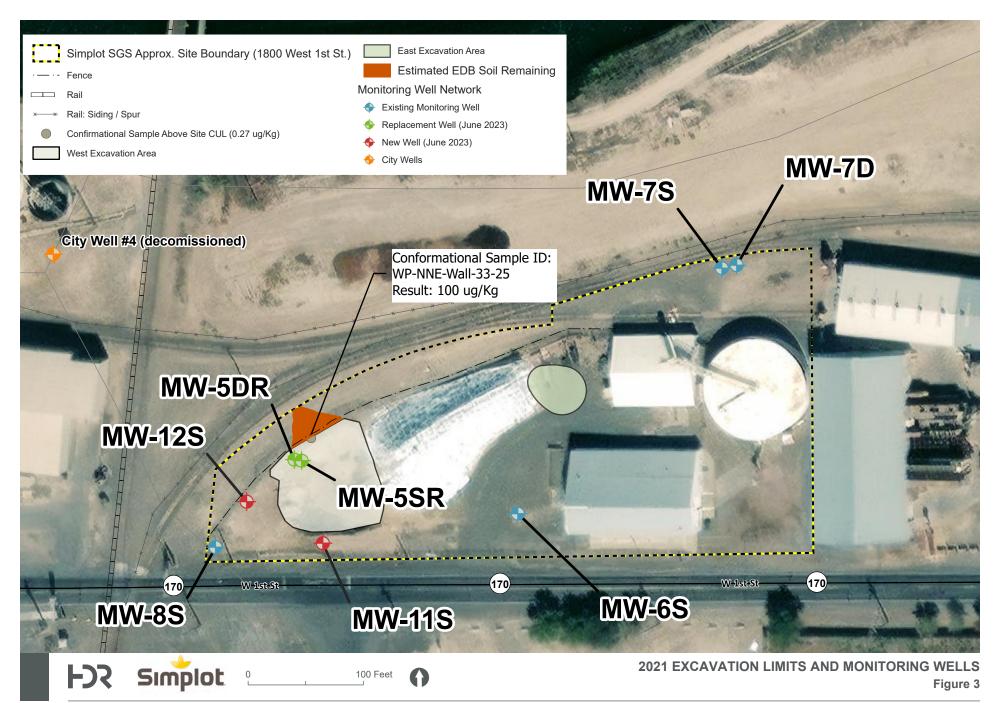
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GROUNDWATER MONITORING WELL CONSTRUCTION REPORT



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GROUNDWATER MONITORING WELL CONSTRUCTION REPORT



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Table 2. Existing Monitoring Well Summary

	MW-1	MW-2	MW-3	MW-4 ¹	MW-5D ²	MW-5S ²	MW-6S	MW-7D	MW-7S	MW-8S	MW-9S	MW-10S
Ecology Unique ID	APK 353	APK 354	APK 355	APK 356	APK 357	BCE 296	BCE 297	BCE 298	BCE 299	BHP-139	BHP-507	BHP-508
Installation Dates	8/14/06	8/15/06	8/15/06	8/16/06	8/16/06	12/5/11	12/5/11	12/7/11	12/6/11	1/16/13	7/8/13	7/8/13
	Measuring Point Coordinates ³											
Northing	600643.42	600712.43	600077.54	599989.55	600190.13	600180.56	600118.69	600334.17	600331.8	600089.61	599967.53	600091.31
Easting	1999635.94	1998885.78	1998600.99	1999197.52	1999618.84	1999634.23	1999804.74	1999994.82	1999981.87	1999542.40	1999765.18	1999354.01
	Elevations ³											
Ground Surface Elevation, feet	1243.22	1244.49	1240.88	1244.72	1245.14	1245.06	1245.36	1248.51	1248.36	1244.52	1244.77	1242.82
Measuring Point (PVC) Elevation, feet	1245.62	1247.09	1240.88	1244.72	1247.54	1247.66	1247.86	1251.01	1250.86	1248.84	1247.27	1245.32
Top of Screen Elevation, feet	1197.22	1179.99	1191.38	1195.22	1201.14	1228.56	1235.36	1206.51	1231.36	1230.52	1237.77	1227.82
Bottom of Screen Elevation, feet	1187.22	1169.99	1181.38	1185.22	1191.14	1208.56	1215.36	1196.51	1211.36	1210.52	1227.77	1207.82
	Depths											
Top of Screen, feet bgs	46	64.5	49.5	49.5	44	16.5	10	42	17	16	7	15
Bottom of Screen, feet bgs	56	74.5	59.5	59.5	54	36.5	30	52	37	36	17	35
Bottom of Well Casing, feet bgs	N/A	N/A	N/A	N/A	N/A	37	30.4	52.4	37.4	36.5	17.5	35.5
Depth of Borehole, feet bgs	60	75	60	60	55	39.5	37	52.5	38.5	36.5	17.5	35.5

¹ MW-4 decommissioned in April 2015 at landowner's request

² MW-5D and MW-5S decommissioned in June 2020

³ Survey conducted by Permit Surveying, Inc

3 Groundwater Monitoring Well Construction

Based on requirements of the CAP (Ecology 2019), two replacement and two new monitoring wells were installed per the Work Plan (HDR 2023) in order to monitor groundwater conditions at the Warden site.

3.1.1 Monitoring Well Locations

See **Figure 2** for well locations, both existing, replacement, and new monitoring wells. Note that wells MW-4, MW-5S, and MW-5D are marked as abandoned wells (see abandonment logs in Appendix A). MW-4 was abandoned in April 2015 due to new road construction being conducted by the City of Warden (HDR 2015). MW-5S and MW-5D were abandoned as they were within the planned excavation area for the 2021 excavation of soil for the CAP. MW-5SR and MW-5SD were designed to be installed within the backfilled excavation area as part of the CAP (with construction information described in following sections).

3.1.2 Drilling Conditions

Based on previous well driller reports for the site, HDR anticipated total well depths of the two new wells (MW-11S and MW-12S) of 36.5 feet bgs with unconsolidated material (sand, silt, and clay) and caliche layers from ground surface to depth. Replacement well MW-5SR was anticipated to be drilled to a total depth of 36.5 feet bgs and drilled through fill material, while replacement well MW-5DR was anticipated to be drilled to a total depth of 54 feet bgs and drilled through fill material, and unconsolidated material (sand, silt, and clay) and caliche. Fill material is the same native ground material that was determined to be clean and re-usable following ex-situ SVE treatment of excavated soils or clean imported fill. Groundwater was anticipated to be encountered at 19 to 33 feet bgs. During drilling, conditions generally met expectations.

3.2 Monitoring Well Construction Procedures

3.2.1 Utilities

HDR located and staked the four well locations prior to drilling. Washington Utilities Coordinating Council (Call Before You Dig, 1-800-424-5555) was contacted to locate public utilities in the area of the proposed wells and HDR subcontracted a private utility locator to locate any private utilities at or around the proposed monitoring well installation locations.

3.2.2 Drilling and Well Construction

Monitoring well MW-11S, MW-12S, MW-5SR, and MW-5DR are located in Section 9, Township 17N, Range 30E. Holt Services, Inc. (Holt) drilled and constructed the four wells on June 19 to 22, 2023.

The wells were drilled using a licensed rotosonic drill rig capable of drilling through unconsolidated materials and basalt. HDR's geologist supervised the drilling crew, logged lithology, collected soil samples, and documented well installation. The three shallow wells (MW-11S, MW-12S, and MW-5SR) were constructed to monitor static water levels and water quality within the shallow groundwater zone with 20 feet of well screen. The deep replacement well (MW-5DR) was constructed to monitor water in the intermediate zone (similar to the other "deep" wells shown in **Table 2**) and were constructed with 10 feet of well screen. Soil samples were collected every 10 feet (and from the bottom of the borehole) from the generated soil cuttings as well as at the first caliche

interval in wells MW-11S and MW-12S. **Table 3** shows well construction information for the four new wells.

Table 5. New Well Constituction Details	Table 3.	New Well	Construction	Details
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Well		MW-11S	MW-12S	MW-5SR	MW-5DR
Completion Date	6/22/2023	6/22/2023	6/21/2023	6/20/2023	
Ecology Well Tag ID		BPD-001	BPD-004	BPD-003	BPD-002
Northing ¹		600107.16	600139.00	600174.05	600174.97
Easting		1999644.64	1999580.17	1999626.08	1999620.12
Reference Point Elevation (NAVD88) (ft above mea	1250.06	1249.44	1249.41	1249.43	
Elevation of Concrete Pa	ad (NAVD88) (ft amsl)	1247.32	1246.75	1246.72	1246.73
Borehole depth (ft bgs)		38	37	37	55
Well depth (ft bgs)	36	36.5	36	54	
PVC stickup (ft above concrete pad)		2.74	2.69	2.69	2.7
Height of monument (ft	3.47	3.47	3.53	3.11	
Number of bollards (stee	3	3	3	3	
Well Screen	well screen interval (ft bgs)	16-36	16.5-36.5	16-36	44-54
	screen length (ft)	20	20	20	10
	slot size (inch)	0.010	0.010	0.010	0.020
	upper depth (ft bgs)	14	13.5	14	41
Filter Pack	lower depth (ft bgs)	38	37	37	55
	filter pack gradation	20/40	20/40	20/40	12/20
Bentonite Chips – 3/8	upper depth (ft bgs)	2	2	2	3
inch	lower depth (ft bgs)	14	13.5	14	41
Concrete	upper depth (ft bgs)	0	0	0	0
Concrete	lower depth (ft bgs)	2	2	2	3
SWL (after drilling)	(ft bgs)	25.73	24.81	24.29	24.36

¹ Survey completed on July 19, 2023 by AHBL.

ft amsl=feet above mean sea level; NAVD88=North American Vertical Datum of 1988; ft bgs=feet below ground surface; SWL=static water level

For filter pack determination for the shallow monitoring wells (MW-11S, MW-12S, and MW-5SR), HDR determined the optimal filter pack grain size by assuming a shallow aquifer formation consisting of the Palouse Formation, which was determined to consist of sandy loess of the Ritzville Formation (L.D. Beard et al. 1986). Using the associated sandy loess grain distribution, the following steps were taken to determine the filter pack needed using the procedure outlined in the Filter Pack Design Section of Groundwater and Wells (Driscol, Fletcher G., 1986):

- 1. Select the grading of the filter pack on the basis of the selected sieve analysis (described above).
- 2. Multiply the 70 percent size of the soil by a factor between 4 and 6 if the soil is uniform, and the 40 percent retained size is 0.010 (0.25 millimeters [mm]) or less; based on the sandy loess curve, the 40 percent retained size is approximately 0.075 mm (0.003 inches). Using 5 as a multiplier, the 70 percent retained size of the filter material is 5 x 0.003 inches = 0.015 inches.

3. Through the initial point on the filter pack curve, draw a smooth curve representing material with a uniformity coefficient of approximately 2.5 or less. The uniformity coefficient is defined as the 40 percent retained size divided by the 90 percent retained size.

The resulting curve (see **Plot 1**) is a theoretical filter pack with a uniformity coefficient of 2 with the following characteristics (**Table 4**):

Sieve Opening (inches)	% Retained
0.022	40
0.015	70
0.011	90

Table 4. Theoretical Filter Pack Characteristics

The uniformity coefficient (UC) for the shallow wells was calculated to be 2, which is within the upper bound of an acceptable filter pack having a UC of 2.5.

UC - 0.022 = 2 < 2.5 (good) 100 90 0.011 m RFS 1 (20/40) 80 70 0.015 11 60 6 Revoired 50 40 0.022 In 30 Cateubtad Filter Pack 20 10 70 80 90 100 62 10 Grain Size (10-2 inch)

Plot 1. Calculated Filter Pack Curve

The closest commercially available filter sand is the P.W. Gillibrand Raptor Filter Sand 20/40 (formerly known as Colorado Silica) or equivalent with an effective size of 0.52 mm and a uniformity coefficient of 1.32. All three shallow wells (MW-11S, MW-12S, and MW-5SR) were constructed with this filter pack size.

Screen slot size for the shallow wells was selected as 0.010-inch slot size due to the size of the sandy loess material that makes up the Palouse Formation (see discussion above on filter pack sand size determination for the shallow wells), while the deep well (MW-5DR) was constructed with 0.020 slot screen for the weathered basalt formation, similar to previously constructed wells at the site. During well construction, well screens and sand sizes were checked for compatibility with the well screen they would be used with.

3.2.3 Monitoring Well MW-11S

Monitoring well MW-11S was drilled and constructed on June 19 through 22, 2023, to a total depth of 38 feet bgs. The driller log is in Appendix A and a well boring log is included in Appendix B. Observations made during drilling indicate a generalized lithologic sequence shown in **Table 5**.

Lithology	Depth
Silty sand	0 to 4 ft
Sandy gravel	4 to 7 ft
Caliche	7 to 9 ft
Silty sand	9 to 10 ft
Silt	10 to 12.5 ft
Silty sand	12.5 to 15 ft
Sandy gravel	15 to 18 ft
Fine sand	18 to 20 ft
Caliche	20 to 22 ft
Fine sand	22 to 38 ft

Table 5. MW-11S Generalized Lithology

As anticipated from nearby monitoring well driller logs, water was encountered at approximately 25 feet bgs (anticipated between 19 and 33 feet). Soil samples were collected every 10 feet for lab analysis and at the first caliche interval (7-8 feet). Soil samples are further described in **Section 4**.

Drilling was originally completed on June 20, 2023, however, during the installation of MW-5DR, it was discovered that the wrong sand size was used (12/20 instead of 20/40) for construction of MW-11S. Well MW-11S was re-drilled and re-constructed on June 22, 2023.

Monitoring well MW-11S was completed as follows:

- 2-inch diameter, flush-threaded, Schedule 40 PVC casing.
- 20 feet of factory-slotted well screen (0.010-inch slot size) from 16 to 36 feet bgs.
- End cap threaded to the base of the well screen.
- CSSI silica sand (Grade 20/40) used as a filter pack surrounding the well screen from total depth (38 feet bgs) to 14 feet bgs.
- Bentonite chip (3/8-inch) seal dry-poured, then hydrated (by remaining water in the annular space) from 14 feet bgs to approximately 2 feet bgs.
- Concrete from 0 to 2 feet bgs.

The wellhead was secured using a lockable well cap. A locking, protective steel monument was placed over the well and secured in a concrete pad. The top 2 feet of annular space surrounding the well was filled with concrete. Three steel bollards were placed into the ground around each well monument and filled with concrete to provide a protective barrier around each well. Both the bollards and the protective steel monument were painted yellow to provide higher visibility. An as-built well construction diagram is shown in Appendix C. Photos taken during drilling are included in Appendix D.

3.2.4 Monitoring Well MW-12S

Monitoring well MW-12S was drilled and constructed on June 21 and 22, 2023, to a total depth of 37 feet bgs. The driller log is in Appendix A and a well boring log is included in Appendix B. Observations made during drilling indicate a generalized lithologic sequence shown in **Table 6**.

Table 6.	MW-12S	Generalized	Lithology
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Lithology	Depth
Gravelly sand	0 to 3 ft
Sandy/silty gravel	3 to 7.5 ft
Silt	7.5 to 10 ft
Fine sand	10 to 12.5 ft
Sandy silt	12.5 to 14 ft
Caliche	14 to 17.5 ft
Sandy silt	17.5 to 20 ft
Silty sand	20 to 25 ft
Fine sand	25 to 37 ft

As anticipated from drillers' logs of the wells in the area, water was encountered at approximately 20 feet bgs (anticipated between 19 and 33 feet). Soil samples were collected every 10 feet for lab analysis and at the first caliche interval (7-8 feet). Soil samples are further described in **Section 4**.

Monitoring well MW-12S was completed as follows:

- 2-inch diameter, flush-threaded, Schedule 40 PVC casing.
- 20 feet of factory-slotted well screen (0.010-inch slot size) from 16.5 to 36.5 feet bgs.
- End cap threaded to the base of the well screen.
- CSSI silica sand (Grade 20/40) used as a filter pack surrounding the well screen from total depth (37 feet bgs) to approximately 13.5 feet bgs.
- Bentonite chip (3/8-inch) seal dry-poured, then hydrated (by remaining water in the annular space) from 13.5 ft bgs to approximately 2 feet bgs.
- Concrete from 0 to 2 feet bgs.

The wellhead was secured using a lockable well cap. A locking, protective steel monument was placed over the well and secured in a concrete pad. The top 2 feet of annular space surrounding the well was filled with concrete. Three steel bollards were placed into the ground around each well monument and filled with concrete to provide a protective barrier around each well. Both the bollards and the protective steel monument were painted yellow to provide higher visibility. An as-built well construction diagram is shown in Appendix C. Photos taken during drilling are included in Appendix D.

3.2.5 Monitoring Well MW-5SR

Monitoring well MW-5SR was drilled and constructed on June 21, 2023, to a total depth of 37 feet bgs, which is the same depth the north half of the west pit was excavated to in 2021. This well is a replacement well for MW-5S that was abandoned prior to the site's excavation in 2020. The well was redrilled in the same area within the footprint of the excavation;. The driller log is in Appendix A and

a well boring log is included in Appendix B. Observations made during drilling indicate a generalized lithologic sequence shown in **Table 7**.

Lithology	Depth
Fill (previously disturbed during site investigation/remediation actions)	0 to 20 ft
Fill: Gravelly sand	20 to 22 ft
Fill: Caliche	22 to 24.5 ft
Fill: Sandy silt	24.5 to 26 ft
Fill: Gravelly sand	26 to 27.5 ft
Fill: Fine sand	27.5 to 37 ft

As anticipated from drillers' logs of the wells in the area, water was encountered at approximately 24 feet bgs (anticipated between 19 and 33 feet). Soil samples were collected for laboratory analysis every 10 feet and at the bottom of the boring. Soil samples are further described in **Section 4**.

Monitoring well MW-5SR was completed as follows:

- 2-inch diameter, flush-threaded, Schedule 40 PVC casing.
- 20 feet of factory-slotted well screen (0.010-inch slot size) from 16 to 36 feet bgs.
- End cap threaded to the base of the well screen.
- CSSI silica sand (Grade 20/40) used as a filter pack surrounding the well screen from total depth (37 feet bgs) to approximately 14 feet bgs.
- Bentonite chip (3/8-inch) seal dry-poured, then hydrated (by remaining water in the annular space) from 14 feet bgs to approximately 2 feet bgs.
- Concrete from 0 to 2 feet bgs.

The wellhead was secured using a lockable well cap. A locking, protective steel monument was placed over the well and secured in a concrete pad. The top 2 feet of annular space surrounding the well was filled with concrete. Three steel bollards were placed into the ground around each well monument and filled with concrete to provide a protective barrier around each well. Both the bollards and the protective steel monument were painted yellow to provide higher visibility. An as-built well construction diagram is shown in Appendix C. Photos taken during drilling are included in Appendix D.

3.2.6 Monitoring Well MW-5DR

Monitoring well MW-5DR was drilled and constructed on July 20, 2023, to a total depth of 55 feet bgs. This well is a replacement well for MW-5D that was abandoned prior to the site's excavation in 2020. The well was redrilled in the same area within the footprint of the excavation; however the lower portion of the well (40to 55 ft bgs) is deeper than the extent of the excavation (37 ft bgs). The driller log is in Appendix A and a well boring log is included in Appendix B. Observations made during drilling indicate a generalized lithologic sequence shown in **Table 8**.

Table 6. WW-5DR Generalized Littlology						
Lithology	Depth	Notes				
Fill: Silty sand	0 to 2 ft	Likely fill material to ~12 feet				
Fill: Sandy/silty gravel	2 to 9 ft	(fill is from native material, so difficult to distinguish in places).				
Fill: Sandy gravel/caliche rubble	9 to 10 ft	Note that this replacement well				
Fill: Silty gravel	10 to 12 ft	is close to the northern edge of the excavation.				
Fill: Caliche	12 to 12.5 ft					
Fill: Silt	12.5 to 15 ft					
Fill: Sandy gravel	15 to 18 ft					
Fill: Silty sand	18 to 20 ft					
Fill: Fine sand	20 to 30 ft					
Fill: Silty sand	30 to 40 ft					
Fill: Gravel (weathered basalt)	40 to 55 ft					

Table 8. MW-5DR Generalized Lithology

As anticipated from drillers' logs of the wells in the area, water was encountered at approximately 20 feet bgs (anticipated between 19 and 33 feet). Soil samples were collected for laboratory analysis every 10 feet and at the bottom of the boring. Soil samples are further described in **Section 4**.

Monitoring well MW-5DR was completed as follows:

- 2-inch diameter, flush-threaded, Schedule 40 PVC casing.
- 10 feet of factory-slotted well screen (0.020-inch slot size) from 44 to 54 feet bgs.
- End cap threaded to the base of the well screen.
- CSSI silica sand (Grade 12/20) used as a filter pack surrounding the well screen from total depth (55 feet bgs) to approximately 41 feet bgs.
- Bentonite chip (3/8-inch) seal dry-poured, then hydrated (by remaining water in the annular space) from 41 feet bgs to approximately 3 feet bgs.
- Concrete from 0 to 3 feet bgs.

The wellhead was secured using a lockable well cap. A locking, protective steel monument was placed over the well and secured in a concrete pad. The top 3 feet of annular space surrounding the well was filled with concrete. Three steel bollards were placed into the ground around each well monument and filled with concrete to provide a protective barrier around each well. Both the bollards and the protective steel monument were painted yellow to provide higher visibility. An as-built well construction diagram is shown in Appendix C. Photos taken during drilling are included in Appendix D.

3.2.7 Well Development

Following well installation, the four wells were developed by surging and pumping to set the filter pack and remove fine sediment from the well. Surging the well forced groundwater to flow in and out of the well, breaking any particle bridges and setting the sand filter pack up against the well screen. The wells were then pumped using a 12-volt plastic pump (ProActive Pump or similar) to remove fine sand that was pulled through the screen during surging. Monitoring wells were considered developed when the well was relatively free of sediment and once parameters of temperature, pH, turbidity, and specific conductivity were stabilized; at a minimum 10 well casing volumes were to be

removed, up to a maximum of approximately 15 well casing volumes removed. **Table 9** shows volume removed from each well during development compared to 10 and 15 well casing volumes. Wells MW-11S and MW-12S had slightly more than 15 well casing volumes purged based on timing of turning off the pump after collecting measurements and to let turbidity stabilize.

Well	10 Well Casing Volumes (gal)	15 Well Casing Volumes (gal)	Total Removed During Development (gal)
MW-11S	17.49	26.23	32
MW-12S	18.46	27.7	32
MW-5SR	19.6	29.35	27.5
MW-5DR	48.22	72.34	55

Table 9. Volumes Removed During Development

3.2.8 Well Survey

AHBL out of Pasco, WA, a Washington-licensed surveyor, surveyed the wells to the top of the PVC well casing, rim of the steel casing, and to the surface of the concrete pad on July 19, 2023. Survey measurements for the wells are shown in **Table 3**. These measurements will be used to tie the new wells into the current monitoring well network and to determine the groundwater elevation and flow direction. The well survey is provided in Appendix E.

3.2.9 Well Sampling

Simplot will sample the four new wells and the full monitoring well network as part of the new groundwater monitoring program per the CAP. Groundwater will be sampled in August and January as specified by the CAP and the Work Plan.

4 Soil Sampling

Soil cuttings from the four monitoring wells were collected continuously with the rotosonic drill rig. To collect intact subsurface soil samples, an inner sampling core was advanced through the soil and can be retrieved, while an outer core remain in place to keep the borehole open. A minimum 100-gram sample was taken from the sample core soil and placed into laboratory-supplied glass jars for EDB analysis by U.S. Environmental Protection Agency (USEPA) Method 8011. Sampling personnel wore clean nitrile gloves when transferring soils, and aimed to transfer the soil samples into the sample jars as quickly as possible to prohibit EDB loss by volatilization. Procedures for collecting soil samples are provided in standard operating procedure 2 (SOP-2) in the Work Plan.

Soil samples from MW-5SR, MW-11S, and MW-12S were collected at the following depth intervals: 1 to 3 feet, 10 to 12 feet, 20 to 22 feet, 30 to 32 feet, and the bottom of the boring. The only variance to this was MW-11S where the sample for 20 to 22 feet was collected at 22 to 23 feet as the field geologist believed what was at the top of the soil cuttings was slough material. Soil samples for laboratory analysis from MW-5DR were collected from the following depth intervals: 1 to 3 feet, 10 to 12 feet, 20 to 22 feet, 30 to 32 feet, 40 to 42 feet, and at the bottom of the boring. In addition, MW-11S and MW-12S had a sample collected at the first caliche zone (7 to 8 feet in MW-11S and 15 feet in MW-12S). Soil samples were labeled as follows:

• BH – for borehole soil sample



- 5SR, 5DR, 11S, or 12S to identify the monitoring well borehole
- S for soil
- X-X for feet of depth below surface from which the sample was taken

For example, BH-11S-S-1-3 was a soil sample collected from boring 11S at a depth of 1 to 3 feet.

QC samples collected were as follows:

- Rinsate Blank equipment rinsate blank. Collected at one per week of field activities.
- Trip Blank for Trip Blank.
- Matrix spike/matrix spike duplicate (MS/MSD): MS and MSD will be appended to the end of the original sample ID
- Soil Duplicates: duplicate samples will be identified similarly to the original soil sample but will be given a fictitious sample depth (such as "00") and sample time. Collected at a minimum frequency of 10 percent of soil samples collected.

Laboratory reports are included in Appendix F and a data validation report is included in Appendix G.

Following collection, samples were immediately labeled and placed in a cooler with ice and kept under standard chain of custody procedures until delivery to the laboratory. All soil samples were analyzed for EDB by Eurofins in Spokane, WA. **Table 10** shows sample results for each sample.

	New Wells							Replacem	ent Wells		
BH	BH-11S (MW-11S) BH-12S (MW-12S)			BH-5SR (MW-5SR) BH-5DR (MW-5DR)			5DR)				
Sample Depth (ft)	Result (µg/Kg)	Qualifier	Sample Depth (ft)	Result (µg/Kg)	Qualifier	Sample Depth (ft)	Result (µg/Kg)	Qualifier	Sample Depth (ft)	Result (µg/Kg)	Qualifier
1 to 3	ND		1 to 3	ND		1 to 3	ND		1 to 3	ND	
7 to 8	ND		10 to 12	ND		10 to 12	ND		10 to 12	ND	
10 to 12	ND		15	ND		20 to 22	ND		20 to 22	1.2	F1, F2 ¹
22 to 23	0.25		20 to 22	ND		30 to 32	ND		30 to 32	ND	
30 to 32	1.8		30 to 32	ND		35 to 37	ND		40 to 42	ND	
36 to 38	2.4		35 to 37	ND					52 to 54	ND	

Table 10. EDB Sampling Results

ND=non-detect; ft=feet; μ g/Kg=micrograms per kilogram

¹F1 and F2 are laboratory flags due to MS and/or MSD recovery exceeding control limits and the MS/MSD RPD exceeding control limits

As shown in **Table 10**, EDB was non-detect in wells MW-12S and MW-5SR. MW-11S (samples labeled as BH-11S had detections of EDB below 22 feet, increasing in concentration with depth. This well is located outside of the excavation area as the excavation could not extend further south without crossing the property boundary or fence line. MW-5DR had one detection of EDB at 20 to 22 feet (1.2 μ g/Kg) but no other detections. This result was flagged by the lab due to the MSD recovery exceeding control limits and the MSD RPD exceeding control limits (see data validation report in Appendix G). The MS sample (Lab Sample ID 590-20844-9 MS) had no issues with recovery limits or control limits. Therefore, the sample result (BH-5DR-5-20-22) is considered representative and the data should be considered valid.



5 References

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Well Logs



BECOLOGY State of Washington
Resource Protecti
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	State of Washington				
	Resource Protection Well Report	Notice of Intent No. <u>RE24640</u> Type of Well: <u>Resource Protection Well</u> Injection Point <u>Remediation Well</u> Grounding Well <u>Geotechnical Soil Boring</u> Ground Source Heat Pump			
	Submit one well report per well installed. See page two for instructions.				
	Type of Work;				
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***	Ecology Well ID Tag No. BOD OG 1	Environmental Boring Other			
	Site Well Name	🕒 🗆 Soit- 🗆 Vapor- 🗆 Water-sampling			
	Consulting Firm HDR	Property Owner J. R. Simplat			
	Was a variance approved for this well/boring? Yes No	Well Street Address 800 W 154 St			
	If yes, what was the variance for?	City Warden County Grant			
		Tax Parcel No. 060697000			
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	reported are true to my best knowledge and belief. 🔯 Driller 🖂 Trainee 🗇 Engineer	Longitude (Example: -120,12345) 19.06104			
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	Company Name Hold				
	If trainee box is checked, sponsor's license number:	Stick-up of top of well casing <u>3</u> ft above ground surface			
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Ē	St Driller 🗍 Engineer 🗍 Trainee	•	Tax Parcel No. 06	13350	
Ē.	Name (Print Last, First Name)abstac	en With	Cased or Uncased Di	iameter Static Level	
Ξ	Driller or Trainee License No	0	Work/Decommission	n Start Date 4/28/15	
Ë	If trainee, licensed driller's Signature and I	icense Number:	Work/Decommission	a Completed Date 4/28/15	
]	Formation Description	
	Construction Design	Well		Formation Description	
warranty the Uata and/or the Information on		0 - 2 Toj 2 - 10 ben untreaded	p soil tenite chips well @ 10' below		
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n luall	1 ²² 60'			Department of Ecology Eastern Regional Office	
וווב הבאמונווובוו טו בנטוטאי שניצאט					
5		SCALE: 1"=	PAGE OF	Ecology is an Equal Opportunity Employ	

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1-0	DEPARTMENT OF
Contra Manageria	ECOLOGY
E	State of Washington

tion Well Report Res

Submit one well	report	per well	installed.	See page two	for instructions.
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3/8 Fldeplug

Resource Protection Well Reg Submit one well report per well installed. See page two Type of Work: Construction Consulting Firm <i>HOR Englise construction</i> Vas a variance approved for this well/boring? If yes, what was the variance for?	o for instructions.	Type of Well: X Resource Protection Remediation Well Geotechnical Soil B Environmental Bori Soil- Vapor- Property Owner J Well Street Address /	□ Water-sampling <u>Simplet Company</u> <u>800 W 1st St</u> <u>County</u> <u>Grant</u>
WELL CONSTRUCTION CERTIFICATION: I accept responsibility for construction of this well, and its con Washington well construction standards. Materials used and reported are true to my best knowledge and belief. Driller	Inc.	Location (see instruction SF 4-4 50 4, See Latitude (Example: 47.1 Longitude (Example: -12 (WGS) Borehole diameter 6 Static water level 24 Above-ground comple Stick-up of top of w	
Construction Design	W	/ell Data	Driller's Log

I have I V Kases had

JUL 2 0 2020

Department of Ecology

10000-00000	DEPARTMENT OF
State State State	ECOLOGY
Condition of the local division of the local	State of Washington

DEPARTMENT OF	
ECOLOGY State of Washington	JUL 2 0 2020
State of Washington Resource Protection Well Report Submit one well report per well installed. See page two for in Type of Work: Construction Decommission \Rightarrow Original NOI No. Ecology Well ID Tag No. <u>APK 357</u> Site Well Name <u>MW-5</u> Consulting Firm <u>HDR Englaceting</u> Was a variance approved for this well/boring? \Box Ye If yes, what was the variance for?	Notice of Intent No. $AE61351$ Department of Ecology structions. Type of Well: Eastern Washington Office \blacksquare Resource Protection Well Injection Point \blacksquare Remediation Well Grounding Well \blacksquare Geotechnical Soil Boring Ground Source Heat Pump \blacksquare Soil- \Box Vapor- \Box Water-sampling Property Owner \therefore $Si' mplot \square No Well Street Address $
WELL CONSTRUCTION CERTIFICATION: I construction of this well, and its compliance Washington well construction standards. Materials used and the inf reported are true to my best knowledge and belief.	Location (see instructions): WWM \Box or EWM \Box sted and/or with all rmation SE $\frac{1}{4}-\frac{1}{4}$ $\frac{5}{5}$ $\frac{1}{4}$, Section O $\frac{9}{4}$ Town $\frac{17}{17}$ Range $\frac{30E}{5}$ Latitude (Example: 47.12345) Longitude (Example: -120.12345)
Construction Design	Well Data Driller's Log

RECEIVED

Name (Print Last, Fi Driller/Engineer/Tra License No. 32 Company Name En If trainee box is che Sponsor's signature Const 3 55

ECY050-12 (07/2018) To request ADA accommodation including materials in a format for the visually impaired, call Ecology Water Resources Program 360-407-6872. Persons with impaired hearing may call Washington Relay Service at 711. Persons with speech disability may call TTY at 877-833-6341.



B

Boring Logs





FC

Boring Log

Page 1 of 1

Ecology Well Tag: BPD-003

Project Name Project No.				Drilling Company					
Simplot-Warden 10331653									
Boring No Location			Holt Drilling Rig Type and Drilling Method						
-		North Fence L	ine			Sonic	pe and Drining Method		
Sample No.						Description (USCS)		Elevation Remarks (feet)	
BH-5SR-S-1-3 @ 0853		5	3/8" bentonite chips; 2-14 ft e	2-in Sch. 40 PVC casing (+2.69-16 ft)	0-2 ft	moist, tr cobble	terial (from native material), brown, 28, sandy GRAVEL to gravelly f-c gravel, angular to subrounded		Location is within the 2020 excavation footprint, should be a least 20 feet of fill (derived from origina excavated materials)
BH-5SR-S-10- 12 @ 0958			3/8" bentonit	2-in Sch. 40 PVC		to sandy GRAV gravelly sand v is sandy gravel sandy gravel w gravelly sand (dry to moist, sa	rom native material) gravelly SAND VEL like above (layers); 10-14 ft is vith some chunks of caliche, 14-15 ft , 15-16 gravelly sand, 16-18 ft is ith some caliche pieces, 18-20 is reddish browh). All have some silt, ume as above, just layers alternating lly sand and a sandy gravel (SM/GM)		
BH-5SR-S-20- 22 @ 1006; BH-5SR-S-0 (duplicate labeled 0830)		20	k; 14-37 ft	e-		20-22: gravelly similar to abov 20-24.5: calich		-	
		25	22	2" Sch 40, 0.010 slot screen: 16- 36 ft		(clumps), some f 26-27.5: orang silt, wet (SP-Sl 27.5-30: f. SAl red/brown (SP	ND w/silt/silty sand, wet, dense,	-	SWL (ft bgs); @1043: 25.5ft; @1048: 25.40ft; @1053: 25.32ft
BH-5SR-S-30- 32 @ 1035		35				dense (SP-SM)			
BH-5SR-S-35- 37 @ 1056							End of Boring at 37 ft		
						<u>.</u>	Logged By:	Drilled/Sample	ed By:
Water Level							Alyssa Veatch	Mitch McCa	rley
While Drilling:		After D	rilling:				Date Started:	Date Complete	ed:
25.32 ft bgs ~24.29 ft bgs				6/21/2023	6/21/2023				

FC

Boring Log

Page 1 of 2

Ecology Well Tag: BPD-002

Project Name Pr			Project	No.		Drilling Comp	anv					
Simplot-Warden 10331653				Holt								
Boring No Location			Drilling Rig Type and Drilling Method									
5			n Fence Line		Rotosonic	F						
Sample No.	PID Reading (ppm)	PID Reading Depth (feet)		Completion		Description (L	JSCS)	Elevation (feet)	Remarks			
BH-5DR-S-1-3 @ 0930		5	Concrete: 0-3ft	entonite chips: 3-41 ft Sch. 40 PVC casing: +3-44 ft	_		SM) 2-9: brown (mo	D w/some f-c gravel, dry, brown (S pre tan at 8.5), sandy/silty GRAVE sand, f-c gravel, subangular to twel (GW-GM)				
BH-5DR-S-10- 12 @0953			centonite chips: 3-41 ft			angular gravel to 10-12: dry, silty C with some caliche 12-12.5: calich 12.5-15: brown gravel (ML) 15-18: tan to re	an, caliche material, sandy GRAVEL, subangular (GW) GRAVEL, subangular gravel; light brow e at 11ft (GW-GM) e a, dry, SILT w/fine sand and some ddish brown, sandy GRAVEL with he material present, dry (GW-GM)	f-c 1				
BH-5DR-S-20- 22 @ 1011 (+MS/MSD)		20							2" Sch. 40 PVC casing: +3-4		some f-c subro	orown, dry to moist, silty f. SAND, unded gravel (SP-SM) O w/trace to some silt, orange-brow el (SP)
		25	3/8"			26.5-30: same 30-40: tan to lia	rown, some gravel (SP) but no gravel (SP) ght brown, wet, fine silty SAND to	_				
BH-5DR-S-30- 32 @ 1036		35				fine sand with	some silt (SP-SM)					
							Logged By:	Drilled/Samp	bled By:			
Water Level							Alyssa Veatch	Mitch McC	Carley			
While Drilling:		After Drilling:				Hours After:	Date Started:	Date Comple	eted:			
25.12 ft ft bg	(S	~24.36 ft bTO	С			~48	6/20/2023	6/20/2023				

FC

Boring Log

Page 2 of 2

Ecology Well Tag: BPD-002

Project Name	roject Name Project No.				Drilling Company				
Simplot-Warden 10331653				Holt					
Boring No Location			055	Drilling Rig Type and Drilling Method					
			Fence	Lina		ype and Drining Method			
		Depth (feet)	Comple				Elevation (feet)	Remarks	
BH-5DR-S-40- 42 @ 1220		-	Ĥ			ce clay, f-c GRAVEL, trace cobbles /pieces), dark brown (GW)		SWL (ft bgs): @ 1225: 26.85 ft; @1230: 26.75 ft; @1235: 26.70 ft; @1245: 26.60 ft	
		45	12x20 Sand Filter Pack: 41-55 ft	ell screen, 44-54 ft		, GRAVEL with sand (weathered nd cobbbles are basalt, angular)			
BH-5DR-S-52- 54 @ 1356		50	12x20 Sand F	2" Sch. 40 well screen, 0.020 slot: 44-54 ft	*50-55 ft run v	vas slough from above		SWL (ft bTOC): @1320: 25.68 ft; @1325: 25.25 ft; @1330: 25.12 ft	
		55				End of Boring at 55			
		60							
		65							
		70							
		75							
			1			Logged By:	Drilled/Sampl	ed Bv [.]	
Water Level						Alyssa Veatch	Mitch McCa		
While Drilling:		After Drilling:			Hours After:	Date Started:			
					Date Completed:				
25.12 ft ft bg	5.12 ft ft bgs ~24.36 ft bgs			~48	6/20/2023	6/20/2023			

FC

Boring Log

Page 1 of 1

Ecology Well Tag: BPD-001

							gy well lag: BPD-001					
Project Name			Project	No.		Drilling Company						
Simplot-War	den		10331653			Holt						
Boring No		Location				Drilling Rig Ty	pe and Drilling Method					
MW-11S		South	r Fence Line		Rotosonic							
Sample No.	PID Reading (ppm)	Depth (feet) Completion				Description (L	ISCS)	Elevation (feet)	Remarks			
BH-11S-S-1-3 @ 1317			Concr ete		0-2 ft	0-4: dry, brown semi rounded)	, silty fine SAND, some gravel (f-c (SP-SM)	· ,				
		5	: 2-14 ft	Casing: +2.74-16 ft			RAVEL, some silt, brown, moist, bunded (GW-GM)	-				
BH-11S-S-7-8 @ 1321		_	ite Chips: Casing:			7-9: caliche, gray	'tan, some large chunks, broken up, dry					
BH-11S-S-10- 12 @ 1340		10	3/8" Bentonite Chips: 2-14 ft	Sch. 40 PVC			st, f. silty SAND, trace f gravel (SP-SM) , SILT with trace f gravel, moist	-				
		15		2"	-	lense (gray, har 15-18: tan, san	o f silty SAND, bown, 1/2" clay d), trace f-c gravel (SP-SM) dy GRAVEL (sand f-m, gravel f-c), throughout, dry (GW)	-				
3H-11S-S-20-		20	• • •				sl damp/moist, f. SAND with silt, trace gers of c.c. (SP-SM) naterial	f				
22 @ 1405			0 Sand Filter Pack, 14-38 ft	40 PVC Screen, 0.010 slot; 16-		22-25: red/brow trace silt (SP)	vn f. SAND, wet, trace f-c gravel,					
		25	25 <u> </u>			25-38: brown, gravel (SP-SM)	wet, f. SAND with some silt, trace	-	SWL (ft bgs) @1438: 26 ft; @1443: 25.85 ft			
			0 Sand]	40 PVC S		@27: no silt, f brown, wet (SV	m SAND, trace to some gravel, V)					
BH-11S-S-30- 32 @ 1430		30	20x4	2" Sch. 36 ft			re caliche was present from 38-40 on the original hole)	ft				
BH-11S-S-36-		35										
38 @ 1440		_				E	nd of Boring at 38 feet	-				
							Logged By:	Drilled/Sampl	ed By:			
Vater Level							Alyssa Veatch	Mitch McCa	arley			
Vhile Drilling:		After Drilling:				Hours After:	Date Started:	Date Complet	ted:			
25.85 ft bgs		~25.73 ft bgs				7	6/19/2023	6/22/2023				

FC

Boring Log

Page 1 of 1

Ecology Well Tag: BPD-004

							gy Well Tag: BPD-004				
Project Name			Project No.			Drilling Company					
Simplot-Wa	den		10331653			Holt					
Boring No		Location				Drilling Rig Ty	pe and Drilling Method				
MW-12S		West	Fence Line			Rotosonic					
Sample No.	PID Reading (ppm)	Depth (feet)	Comple			Description (L	ISCS)	Elevation (feet)	Remarks		
BH-12S-S-1-3 @ 1310			Concr ete		0-2 ft		st, brown, gravelly f. SAND with nunded gravel, loose (SP-SM)				
		5	nips: 2-13.5 ft	g: +2.69-16.5 ft		GRAVEL with	ry to moist, loose, sandy/silty caliche lenses (some chaliche out, cobble size) (GW-GM)				
BH-12S-S-10- 12 @ 1328		10	3/8" Bentonite Chips: 2-13.5 ft	Sch. 40 PVC Casing: +2.69-16.5 ft		same material, ju 10-12.5: f SAN compaction (tr	ne f. sand, brown, moist; 9-10 ft is the st more tan and a little denser (ML) D w/gravel, some silt, slight clay), brown, moist (SP)				
		15		2" Sc		brown, moist, o 14-17.5: calich	e, tan/white, c gravel to cobbles	-			
BH-12S-S-15 @ 1331						(caliche chunks					
		20				sand, very thin (ML)	/red brown, vf sandy SILT, silty f lenses of clay and cc, tr f-c gravel vn, f. silty SAND w/some f-c grav				
BH-12S-S-20- 22 @ 1354			ack: 13.5-37 ft	n, 0.010 ft		wet/saturated (
		25	20x40 Sand Filter Pack: 13.5-37 ft	2" Sch. 40 PVC Screen, 0.010 slot; 16.5-36.5 ft			D, brown, wet (sat), some f-c grave ice gravel at 27.5-30 (SP)	ļ,			
BH-12S-S-30- 32 @ 1417; BH-12S-S-0 (DUP)		30	20			30-37: brown, s	ame but no gravel, wet/saturated		SWL (ft bgs): @1421: 26.9 ft; @1426: 26.8 ft; @1436: 26.73 ft		
BH-128-8-35- 37 @ 1433		35	-								
							End of Boring @ 37				
							Logged By:	Drilled/Sampl			
Water Level							Alyssa Veatch	Mitch McCa			
While Drilling:		After Drilling:				Hours After:	Date Started:	Date Complet	ted:		
26.73 ft bgs		~24.81 ft bgs				~24	6/21/2023	6/22/2023			

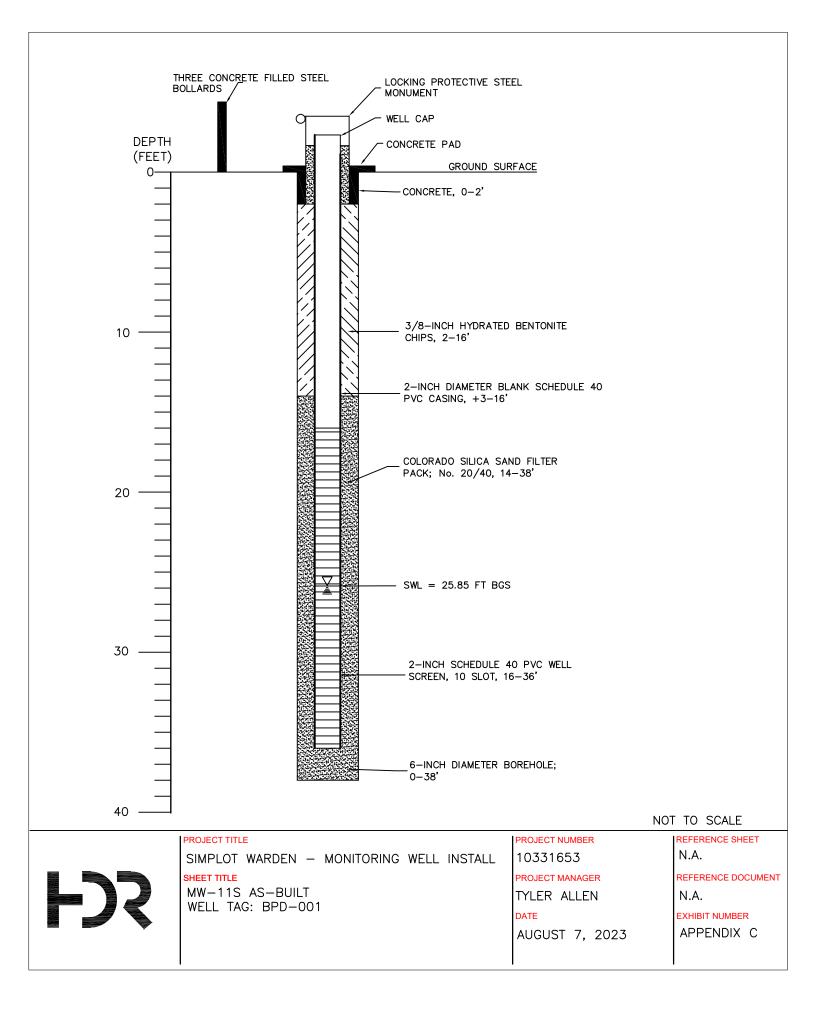


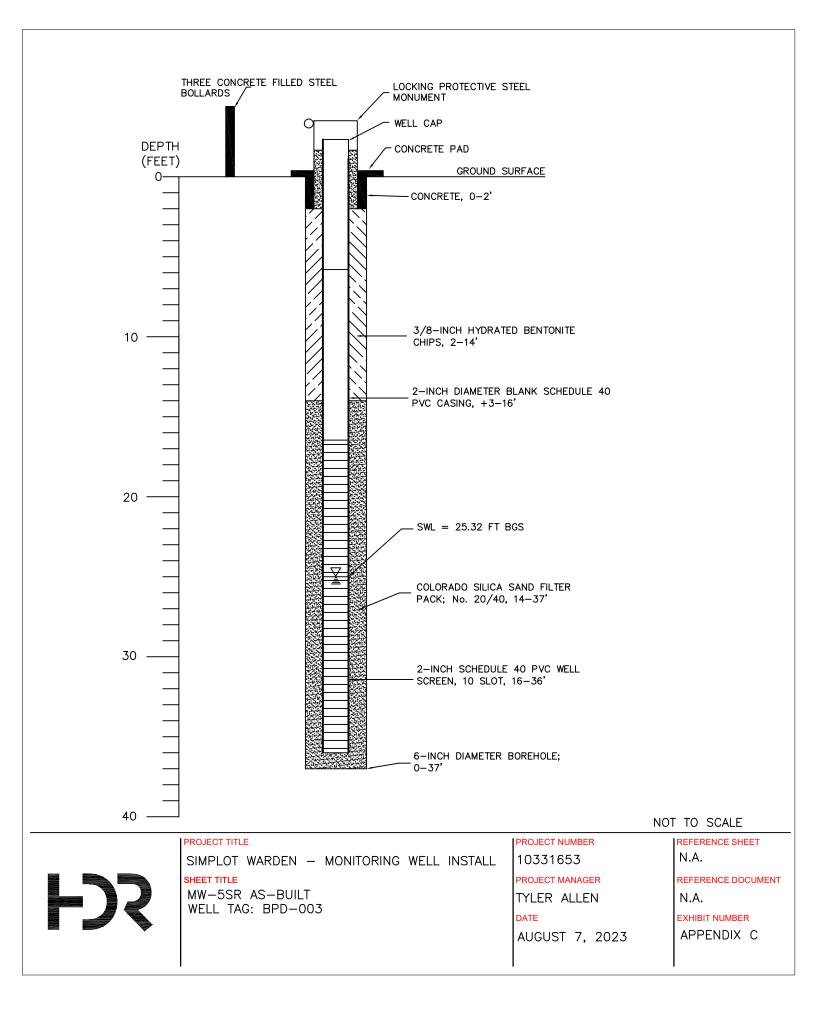
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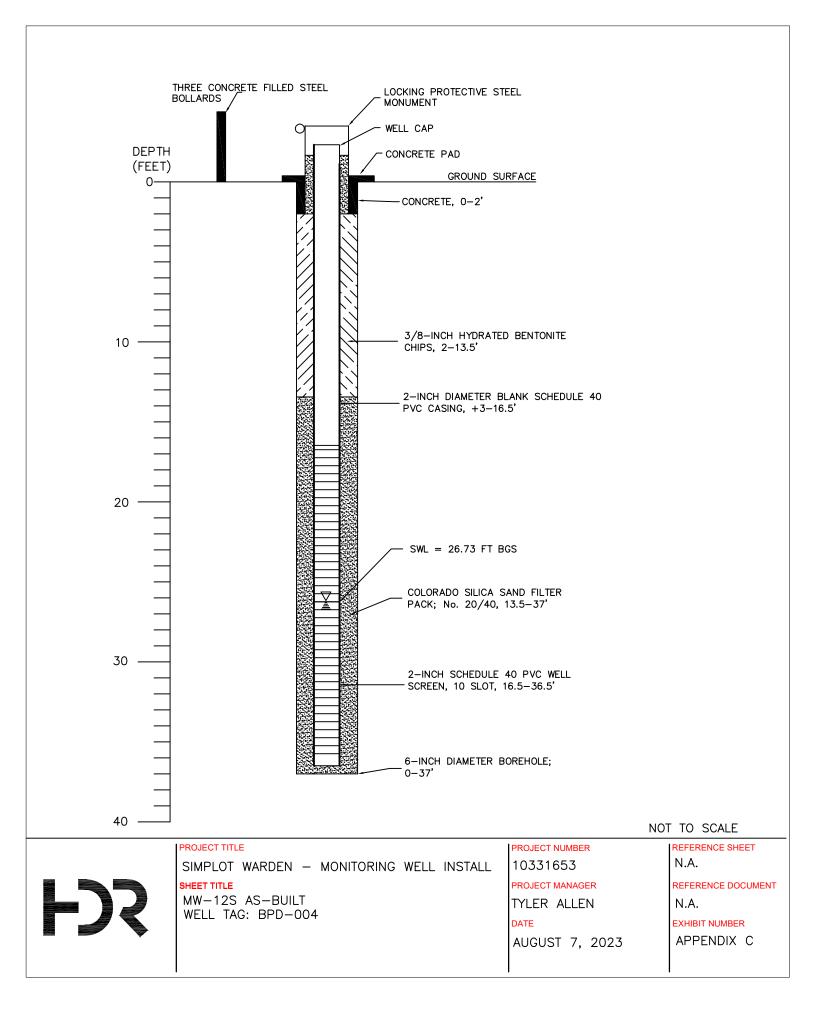
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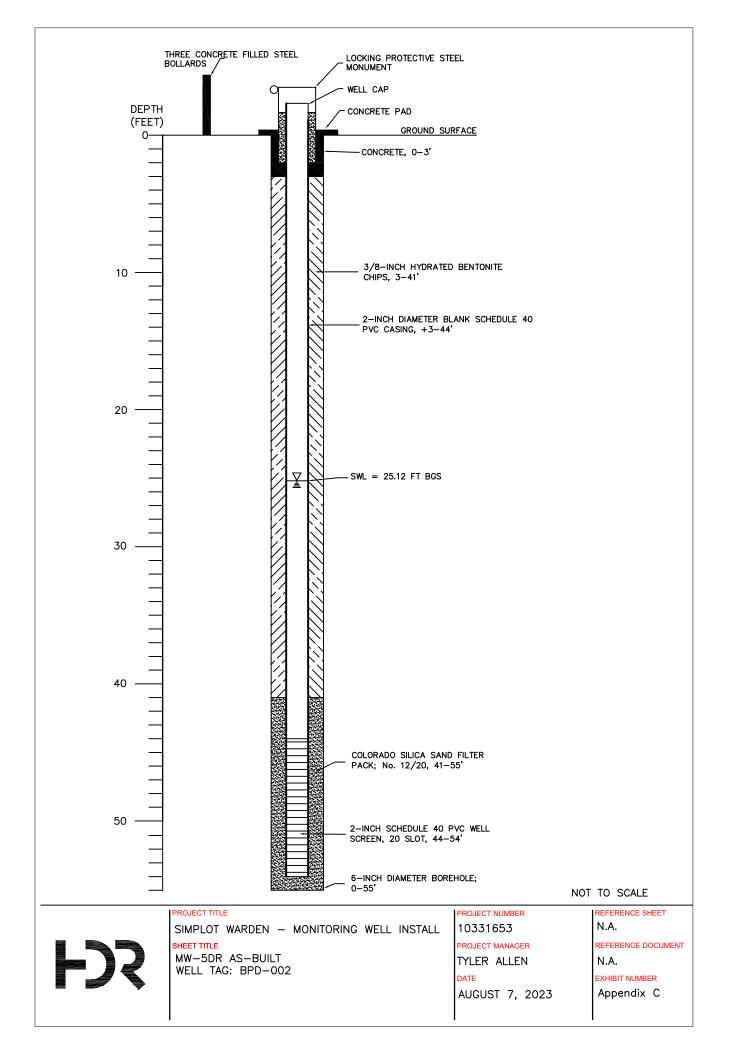














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Photos













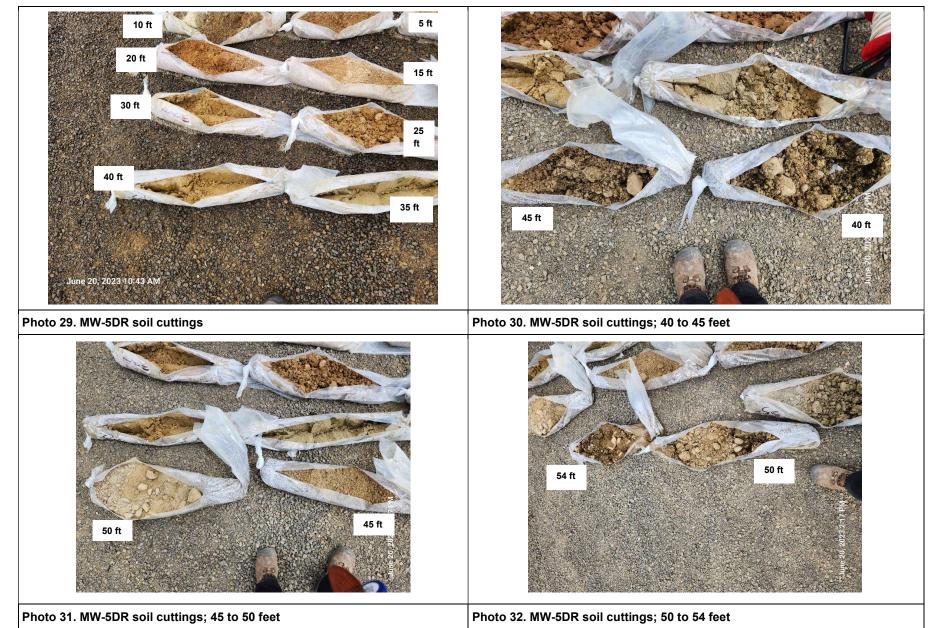
4

Simplot Warden Groundwater Monitoring Well Installation Report – Appendix D: Photolog *Warden, Washington August* 2023















Survey



LEGAL DESCRIPTION

PER CHICAGO TITLE INSURANCE COMPANY ORDER NO. 62242004128 DATED NOVEMBER 23, 2020 AN IRREGULAR TRACT OF LAND SITUATED IN THE SOUTH HALF OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 9, TOWNSHIP 17 NORTH, RANGE 30 E.W.M., IN THE TOWN OF WARDEN, GRANT COUNTY, WASHINGTON, MORE PARTICULARLY DESCRIBED AS

FOLLOWS: COMMENCING AT A POINT OF INTERSECTION BETWEEN THE CENTERLINE OF THE BURLINGTON NORTHERN'S MAINLINE TRACK AND THE CENTERLINE OF WASHINGTON STATE HIGHWAY NO. 170, THENCE SOUTH 89'05'20" EAST, ALONG SAID HIGHWAY CENTERLINE, 75.48 FEET; THENCE NORTH 7'20'40" EAST, A DISTANCE OF 40.25 FEET TO A POINT ON THE NORTH BOUNDARY LINE OF SAID STATE HIGHWAY AND TRUE POINT OF BEGINNING FOR THIS DESCRIPTION; THENCE CONTINUING NORTH 7'20'40" EAST. A DISTANCE OF 59.13 FEET TO A POINT WHICH IS 12 FEET SOUTHEASTERLY, WHEN MEASURED RADIALLY FROM THE CENTERLINE OF THE SPUR TRACK AS NOW CONSTRUCTED; THENCE ON A 474.4 FOOT RADIUS CURVE TO THE RIGHT, THROUGH AN ANGLE OF 39'10'52", A DISTANCE OF 325.4 FEET, THE LONG CHORD OF WHICH BEARS NORTH 67'49'44" EAST, 318.12 FEET; THENCE NORTH 0'41'04" EAST, A DISTANCE OF 16.75 FEET; THENCE NORTH 74'13'44" EAST, A DISTANCE OF 121.42 FEET; THENCE ON A 491.25 FOOT RADIUS CURVE TO THE RIGHT THROUGH AN ANGLE OF 12'50'40", A DISTANCE OF 109.9 FEET, THE LONG CHORD OF WHICH BEARS NORTH 83'46'04" EAST, 109.52 FEET THENCE SOUTH 0'41'04" WEST, A DISTANCE OF 248.8 FEET TO THE NORTH BOUNDARY LINE OF SAID STATE HIGHWAY; THENCE NORTH 89'05'20" WEST, ALONG SAID NORTH BOUNDARY LINE OF SAID STATE HIGHWAY, A DISTANCE OF 525.00 FEET TO THE TRUE POINT OF BEGINNING

VERTICAL DATUM

NAVD 1988 VERTICAL DATUM ON ORTHOMETRICALLY CORRECTED GPS OBSERVATIONS USING WSRN AND GEOID 2012A.

BASIS OF BEARING

NAD 1983/11 WASHINGTON STATE PLANE SOUTH PROJECTION, BASED ON GPS OBSERVATIONS USING WSRN AND GEOID 2012A. UNITS OF MEASUREMENT ARE US SURVEY FEET.

UTILITY NOTES

1. SURFACE UTILITY FACILITIES ARE SHOWN HEREON PER FIELD LOCATED VISIBLE EVIDENCE. THERE MAY BE UTILITIES THAT EXIST ON THIS SITE OTHER THAN THOSE GRAPHICALLY DEPICTED HEREON.

2. UNDERGROUND (BURIED) UTILITIES SHOWN HEREON ARE BASED ON COMBINATIONS OF VISIBLE SURFACE EVIDENCE, UTILITY LOCATOR MARKINGS AND RECORD DATA (SUCH AS AS-BUILT OR UTILITY DESIGN DRAWINGS). ALL UNDERGROUND UTILITIES SHOWN HEREON ARE APPROXIMATE AND, IN SOME CASES, ARE SHOWN AS STRAIGHT LINES BETWEEN FIELD LOCATED SURFACE UTILITY FACILITIES. UNDERGROUND UTILITIES MAY HAVE BENDS, CURVES OR CONNECTIONS WHICH ARE NOT SHOWN.

3. ALTHOUGH LOCATIONS OF UNDERGROUND UTILITIES BASED ON UTILITY LOCATOR MARKINGS AND RECORD DATA (SUCH AS AS-BUILT OR UTILITY DESIGN DRAWINGS) ARE DEEMED RELIABLE, AHBL, INC. ASSUMES NO LIABILITY FOR THE ACCURACY OF SAID DATA.

4. CALL 1-800-424-5555 BEFORE ANY CONSTRUCTION.

RELIANCE NOTE

THIS SURVEY WAS PREPARED AT THE REQUEST OF MOLLY DIMICK FOR THE SOLE AND EXCLUSIVE USE OF SIMPLOT. RIGHTS TO RELY UPON AND, OR USE THIS SURVEY DO NOT EXTEND TO ANY OTHER PARTY EXCEPT THROUGH EXPRESS RECERTIFICATION BY THE PROFESSIONAL LAND SURVEYOR WHOSE STAMP AND SIGNATURE APPEAR HEREON.

EQUIPMENT USED

3" TOTAL STATION UTILIZING STANDARD FIELD TRAVERSE METHODS FOR CONTROL AND STAKING.

LEGEND

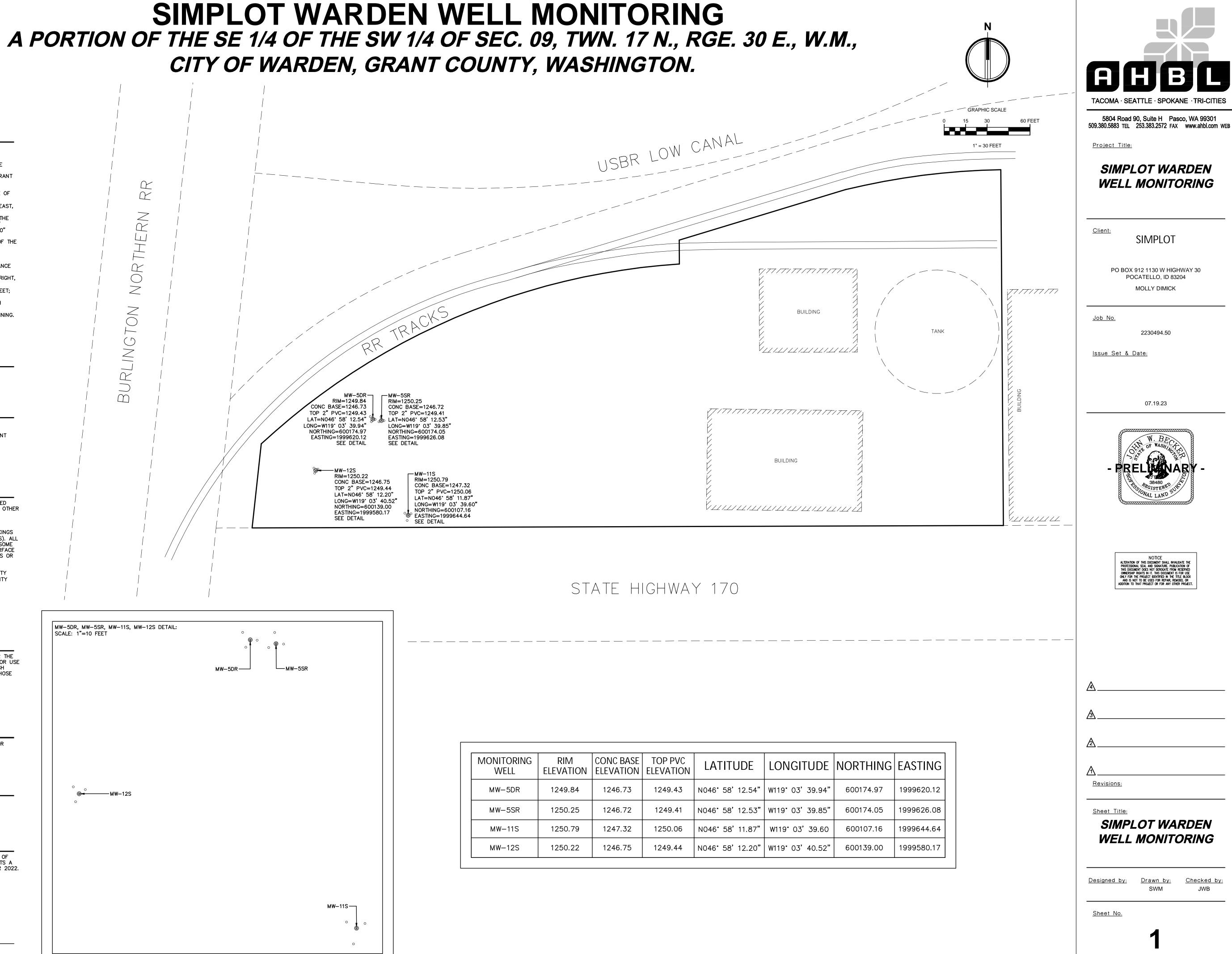
MONITORING WELL 0

BOLLARD 0

SURVEYOR'S CERTIFICATE

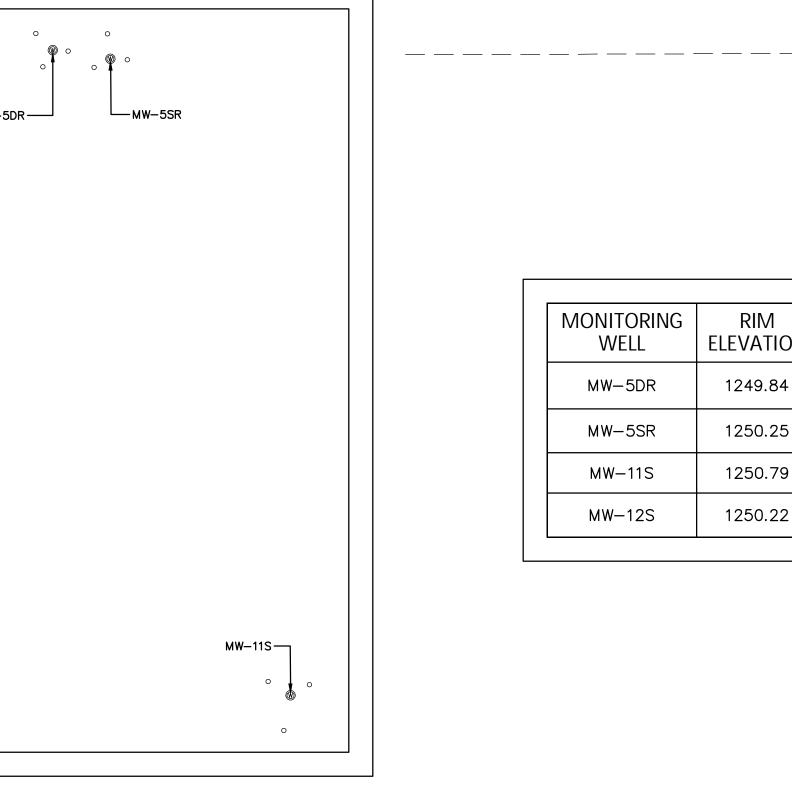
I, JOHN W. BECKER, A PROFESSIONAL LAND SURVEYOR IN THE STATE OF WASHINGTON, HEREBY CERTIFY THAT THIS MAP CORRECTLY REPRESENTS A SURVEY MADE BY ME OR UNDER MY DIRECT SUPERVISION IN OCTOBER 2022.

DATE



MW-5DR, MW-	·5SR,	MW-11S,	MW-12S DETAIL:	c	2
SCALE: I = IU	FEEI				(
					0
				MW-5DR-	
0		MW 400			
⊚ -		-MW-12S			

JOHN W. BECKER, PLS 38480



MONITORING WELL	RIM Elevation	CONC BASE ELEVATION	TOP PVC ELEVATION	LATITUDE	LON
MW-5DR	1249.84	1246.73	1249.43	N046 58 12.54"	W119°
MW-5SR	1250.25	1246.72	1249.41	N046° 58' 12.53"	W119°
MW-11S	1250.79	1247.32	1250.06	N046° 58' 11.87"	W119'
MW-12S	1250.22	1246.75	1249.44	N046° 58' 12.20"	W119°

1 of 1 Sheets





Lab Reports





Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Jered Newcomb HDR Inc 1401 E. Trent Ave Suite 101 Spokane, Washington 99202 Generated 7/11/2023 9:26:26 AM Revision 1

JOB DESCRIPTION

Simplot Warden

JOB NUMBER

590-20844-1

Eurofins Spokane 11922 East 1st Ave Spokane WA 99206





Eurofins Spokane

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northwest, LLC Project Manager.

Authorization

Cardue timpa

Generated 7/11/2023 9:26:26 AM Revision 1

Authorized for release by Randee Arrington, Business Unit Manager Randee.Arrington@et.eurofinsus.com (509)924-9200

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QC Sample Results	11
Chronicle	12
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Chain of Custody	18
Receipt Checklists	20

Job ID: 590-20844-1

Laboratory: Eurofins Spokane

Narrative

Revision

The report being provided is a revision of the original report sent on 6/30/2023. The report (revision 1) is being revised due to: Revised the following client sample IDs: 590-20844-1, 590-20844-2, 590-20844-3, 590-20844-4, 590-20844-5 & 590-20844-6.

Receipt

The samples were received on 6/20/2023 4:31 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 5.4° C.

GC Semi VOA

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

General Chemistry

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

Organic Prep

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

Sample Summary

Client: HDR Inc Project/Site: Simplot Warden

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	
590-20844-1	BH-11S-5-1-3	Solid	06/19/23 13:17	06/20/23 16:31	
590-20844-2	BH-11S-5-10-12	Solid	06/19/23 13:40	06/20/23 16:31	
590-20844-3	BH-11S-5-7-8	Solid	06/19/23 13:21	06/20/23 16:31	
590-20844-4	BH-11S-5-30-32	Solid	06/19/23 14:30	06/20/23 16:31	
590-20844-5	BH-11S-5-36-38	Solid	06/19/23 14:40	06/20/23 16:31	
590-20844-6	BH-11S-5-22-23	Solid	06/19/23 14:05	06/20/23 16:31	
590-20844-7	BH-5DR-5-1-3	Solid	06/20/23 09:30	06/20/23 16:31	
590-20844-8	BH-5DR-5-10-12	Solid	06/20/23 09:53	06/20/23 16:31	
590-20844-9	BH-5DR-5-20-22	Solid	06/20/23 10:11	06/20/23 16:31	
590-20844-10	BH-5DR-5-30-32	Solid	06/20/23 10:36	06/20/23 16:31	
590-20844-13	BH-5DR-5-40-42	Solid	06/20/23 12:20	06/20/23 16:31	1
590-20844-14	BH-5DR-5-52-54	Solid	06/20/23 13:56	06/20/23 16:31	
590-20844-15	Trip Blank	Solid	06/20/23 00:00	06/20/23 16:31	

Definitions/Glossary

Qualifiers

GC Semi V	OA	
Qualifier	Qualifier Description	4
F1	MS and/or MSD recovery exceeds control limits.	
F2	MS/MSD RPD exceeds control limits	5

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
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
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)
TNTC	Too Numerous To Count

Client: HDR Inc

Job ID: 590-20844-1

Project/Site: Simplot Warden									
Client Sample ID: BH-11S-5 Date Collected: 06/19/23 13:17 Date Received: 06/20/23 16:31	5-1-3					L	ab Sample	e ID: 590-20 Matrix)844-1 c: Solid
General Chemistry									
Analyte		Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	10.9		0.01	0.01				06/21/23 14:13	1
Percent Solids (EPA Moisture)	89.1		0.01	0.01	%			06/21/23 14:13	1
Client Sample ID: BH-11S-	5-1-3					L	ab Sample	e ID: 590-20	844-1
Date Collected: 06/19/23 13:17									c: Solid
Date Received: 06/20/23 16:31								Percent Solic	ls: 89.1
 Method: EPA 8011 - EDB									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	ND		0.055		ug/Kg		<u> </u>	06/22/23 16:52	1
				0.000					
Client Sample ID: BH-11S-	5-10-12					L	ab Sample	e ID: 590-20	
Date Collected: 06/19/23 13:40								Matrix	c: Solid
Date Received: 06/20/23 16:31									
General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	18.7		0.01	0.01	%			06/21/23 14:13	1
Percent Solids (EPA Moisture)	81.3		0.01	0.01	%			06/21/23 14:13	1
Date Collected: 06/19/23 13:40 Date Received: 06/20/23 16:31 Method: EPA 8011 - EDB							-	Matrix Percent Solic	c: Solid ls: 81.3
Analyte	Result	Qualifier	RL	MDL		D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	ND		0.061	0.043	ug/Kg	¢	06/22/23 13:58	06/22/23 17:08	1
Client Sample ID: BH-11S-5 Date Collected: 06/19/23 13:21 Date Received: 06/20/23 16:31	5-7-8					L	ab Sample	e ID: 590-20 Matrix)844-3 c: Solid
General Chemistry									
-									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Analyte Percent Moisture (EPA Moisture)	Result 9.7	Qualifier	RL 0.01	RL 0.01		<u>D</u>	Prepared	Analyzed 06/21/23 14:13	Dil Fac
		Qualifier			%	<u>D</u>	Prepared		
Percent Moisture (EPA Moisture) Percent Solids (EPA Moisture) Client Sample ID: BH-11S-	9.7 90.3	Qualifier	0.01	0.01	%			06/21/23 14:13	1
Percent Moisture (EPA Moisture) Percent Solids (EPA Moisture) Client Sample ID: BH-11S-5 Date Collected: 06/19/23 13:21	9.7 90.3	Qualifier	0.01	0.01	%		ab Sample	06/21/23 14:13 06/21/23 14:13 06/21/23 14:13 DI: 590-20 Matrix	1 1)844-3 (: Solid
Percent Moisture (EPA Moisture)	9.7 90.3	Qualifier _	0.01	0.01	%		ab Sample	06/21/23 14:13 06/21/23 14:13 06/21/23 14:13	1 1)844-3 (: Solid
Percent Moisture (EPA Moisture) Percent Solids (EPA Moisture) Client Sample ID: BH-11S- Date Collected: 06/19/23 13:21 Date Received: 06/20/23 16:31 Method: EPA 8011 - EDB	9.7 90.3 5-7-8		0.01	0.01	%	L	ab Sample	06/21/23 14:13 06/21/23 14:13 e ID: 590-20 Matrix Percent Solic	1 1)844-3 (: Solid Is: 90.3
Percent Moisture (EPA Moisture) Percent Solids (EPA Moisture) Client Sample ID: BH-11S-5 Date Collected: 06/19/23 13:21 Date Received: 06/20/23 16:31 Method: EPA 8011 - EDB Analyte	9.7 90.3 5-7-8 Result	Qualifier	0.01 0.01	0.01 0.01 MDL	% % Unit	L	ab Sample	06/21/23 14:13 06/21/23 14:13 • ID: 590-20 Matrix Percent Solic Analyzed	1 1 0844-3 k: Solid Is: 90.3 Dil Fac
Percent Moisture (EPA Moisture) Percent Solids (EPA Moisture) Client Sample ID: BH-11S- Date Collected: 06/19/23 13:21 Date Received: 06/20/23 16:31 Method: EPA 8011 - EDB	9.7 90.3 5-7-8		0.01	0.01 0.01 MDL	%	L	ab Sample	06/21/23 14:13 06/21/23 14:13 e ID: 590-20 Matrix Percent Solic Analyzed	1 1)844-3 (: Solid Is: 90.3
Percent Moisture (EPA Moisture) Percent Solids (EPA Moisture) Client Sample ID: BH-11S- Date Collected: 06/19/23 13:21 Date Received: 06/20/23 16:31 Method: EPA 8011 - EDB Analyte 1,2-Dibromoethane (EDB)	9.7 90.3 5-7-8 Result ND		0.01 0.01	0.01 0.01 MDL	% % Unit	L 	ab Sample <u>Prepared</u> 06/22/23 13:58	06/21/23 14:13 06/21/23 14:13 iD: 590-20 Matrix Percent Solic <u>Analyzed</u> 06/22/23 17:25	1 1 0844-3 (: Solid Is: 90.3 Dil Fac 1
Percent Moisture (EPA Moisture) Percent Solids (EPA Moisture) Client Sample ID: BH-11S- Date Collected: 06/19/23 13:21 Date Received: 06/20/23 16:31 Method: EPA 8011 - EDB Analyte 1,2-Dibromoethane (EDB) Client Sample ID: BH-11S- Date Collected: 06/19/23 14:30	9.7 90.3 5-7-8 Result ND		0.01 0.01	0.01 0.01 MDL	% % Unit	L 	ab Sample <u>Prepared</u> 06/22/23 13:58	06/21/23 14:13 06/21/23 14:13 e ID: 590-20 Matrix Percent Solic <u>Analyzed</u> 06/22/23 17:25 e ID: 590-20	1 1 0844-3 (: Solid Is: 90.3 Dil Fac 1
Percent Moisture (EPA Moisture) Percent Solids (EPA Moisture) Client Sample ID: BH-11S-5 Date Collected: 06/19/23 13:21 Date Received: 06/20/23 16:31 Method: EPA 8011 - EDB Analyte 1,2-Dibromoethane (EDB) Client Sample ID: BH-11S-5 Date Collected: 06/19/23 14:30 Date Received: 06/20/23 16:31 General Chemistry	9.7 90.3 5-7-8 Result ND 5-30-32	Qualifier	0.01 0.01 RL 0.055	0.01 0.01 MDL	% % Unit	L 	ab Sample <u>Prepared</u> 06/22/23 13:58	06/21/23 14:13 06/21/23 14:13 DO(21/23 14:13 DO(21/23 14:13 DO(22/23 14:13) DO(22/23 14:13 DO(22/23 14:13) DO(22/23 14:13) DO(22/23) DO(22/23) DO(22/23) DO(22/23) DO(22/23) DO(22/	1 1 1 1 1 1 1 1 1 1 1 1 1 1
Percent Moisture (EPA Moisture) Percent Solids (EPA Moisture) Client Sample ID: BH-11S- Date Collected: 06/19/23 13:21 Date Received: 06/20/23 16:31 Method: EPA 8011 - EDB Analyte 1,2-Dibromoethane (EDB) Client Sample ID: BH-11S- Date Collected: 06/19/23 14:30 Date Received: 06/20/23 16:31	9.7 90.3 5-7-8 Result ND 5-30-32		0.01 0.01	0.01 0.01 MDL 0.038	% % Unit ug/Kg Unit	L 	ab Sample <u>Prepared</u> 06/22/23 13:58	06/21/23 14:13 06/21/23 14:13 e ID: 590-20 Matrix Percent Solic <u>Analyzed</u> 06/22/23 17:25 e ID: 590-20	1 1 0844-3 c: Solid Is: 90.3 Dil Fac 1 0844-4

		Client	Sample i	vean	13				
Client: HDR Inc Project/Site: Simplot Warden			-					Job ID: 590-2	20844-1
Client Sample ID: BH-11S-5 Date Collected: 06/19/23 14:30 Date Received: 06/20/23 16:31	-30-32					L	ab Sample	e ID: 590-20 Matrix)844-4 c: Solid
General Chemistry (Continued)	Desult	Qualifier	RL		Unit	D	Duranta	Anglung	Dil Fac
Analyte Percent Solids (EPA Moisture)	82.4		0.01	0.01			Prepared	Analyzed 06/21/23 14:13	1 Di Fac
Client Sample ID: BH-11S-5-	-30-32					L	ab Sample	e ID: 590-20)844-4
Date Collected: 06/19/23 14:30 Date Received: 06/20/23 16:31								Matrix Percent Solic	c: Solid ls: 82.4
Method: EPA 8011 - EDB Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	1.8		0.060		ug/Kg			06/22/23 17:41	1
Client Sample ID: BH-11S-5- Date Collected: 06/19/23 14:40 Date Received: 06/20/23 16:31	-36-38					L	ab Sample	e ID: 590-20 Matrix)844-5 c: Solid
General Chemistry	Decult	Qualifian	ы	Ы	11		Drenered	Analyzad	
Analyte Percent Moisture (EPA Moisture)	21.6	Qualifier	RL	0.01	Unit %	<u> </u>	Prepared	Analyzed 06/21/23 14:13	Dil Fac
Percent Solids (EPA Moisture)	78.4		0.01	0.01	%			06/21/23 14:13	1
Date Collected: 06/19/23 14:40 Date Received: 06/20/23 16:31 Method: EPA 8011 - EDB								Matrix Percent Solic	c: Solid ls: 78.4
Analyte		Qualifier		MDL		D	Prepared 06/22/23 13:58	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	2.4		0.064	0.045	ug/Kg				1
Client Sample ID: BH-11S-5 Date Collected: 06/19/23 14:05 Date Received: 06/20/23 16:31	-22-23					L	ab Samplo.	e ID: 590-20 Matrix)844-6 c: Solid
General Chemistry		o	-			_			
Analyte Percent Moisture (EPA Moisture)	Result 14.3	Qualifier		0.01	Unit %	<u> </u>	Prepared	Analyzed 06/21/23 14:13	Dil Fac
Percent Solids (EPA Moisture)	85.7		0.01	0.01				06/21/23 14:13	1
Client Sample ID: BH-11S-5- Date Collected: 06/19/23 14:05 Date Received: 06/20/23 16:31	-22-23					L		e ID: 590-20 Matrix Percent Solic	c: Solid
Method: EPA 8011 - EDB Analyte	Posult	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	0.25		0.057		ug/Kg		<u> </u>	06/22/23 18:14	1
Client Sample ID: BH-5DR-5 Date Collected: 06/20/23 09:30 Date Received: 06/20/23 16:31	5-1-3					L	ab Sample	e ID: 590-20 Matrix)844-7 c: Solid
—						_			
General Chemistry	D!*	Qualifier			11				
General Chemistry Analyte Percent Moisture (EPA Moisture)	Result	Qualifier		0.01	Unit %	<u> </u>	Prepared	Analyzed 06/21/23 14:13	Dil Fac

Client: HDR Inc

Job ID: 590-20844-1

Client: HDR Inc Project/Site: Simplot Warden						Job ID: 590-20844-1
Client Sample ID: BH-5DR- Date Collected: 06/20/23 09:30 Date Received: 06/20/23 16:31	5-1-3					Lab Sample ID: 590-20844-7 Matrix: Solid Percent Solids: 89.8
Method: EPA 8011 - EDB						
Analyte		Qualifier		MDL		D Prepared Analyzed Dil Fac
1,2-Dibromoethane (EDB)	ND		0.056	0.039	ug/Kg	^a 06/22/23 13:58 06/22/23 18:31 1
Client Sample ID: BH-5DR- Date Collected: 06/20/23 09:53 Date Received: 06/20/23 16:31	5-10-12					Lab Sample ID: 590-20844-8 Matrix: Solid
General Chemistry		0.110				
Analyte		Qualifier		0.01	Unit	Dil Fac <u>06/21/23 14:13</u>
Percent Moisture (EPA Moisture) Percent Solids (EPA Moisture)	13.3 86.7		0.01	0.01		06/21/23 14:13 1
Client Sample ID: BH-5DR-	5-10-12					Lab Sample ID: 590-20844-8
Date Collected: 06/20/23 09:53						Matrix: Solid
Date Received: 06/20/23 16:31						Percent Solids: 86.7
Method: EPA 8011 - EDB						
Analyte		Qualifier		MDL		D Prepared Analyzed Dil Fac ∞ 06/22/23 13:58 06/22/23 18:47 1
1,2-Dibromoethane (EDB)	ND		0.056	0.039	ug/Kg	© 06/22/23 13:58 06/22/23 18:47 1
Client Sample ID: BH-5DR-	5-20-22					Lab Sample ID: 590-20844-9
Date Collected: 06/20/23 10:11 Date Received: 06/20/23 16:31						Matrix: Solid
General Chemistry						
Analyte		Qualifier			Unit	D Prepared Analyzed Dil Fac
Percent Moisture (EPA Moisture) Percent Solids (EPA Moisture)	18.5 81.5		0.01 0.01	0.01		06/21/23 14:13 1 06/21/23 14:13 1
Client Sample ID: BH-5DR-	5-20-22					Lab Sample ID: 590-20844-9
Date Collected: 06/20/23 10:11 Date Received: 06/20/23 16:31						Matrix: Solid Percent Solids: 81.5
Method: EPA 8011 - EDB						
Analyte	Result	Qualifier	RL	MDL	Unit	D Prepared Analyzed Dil Fac
1,2-Dibromoethane (EDB)	1.2	F1 F2	0.060	0.042	ug/Kg	\overline{
Client Sample ID: BH-5DR-	5-30-32					Lab Sample ID: 590-20844-10
Date Collected: 06/20/23 10:36 Date Received: 06/20/23 16:31						Matrix: Solid
General Chemistry						
Analyte	Result	Qualifier	RL		Unit	D Prepared Analyzed Dil Fac
Analyte Percent Moisture (EPA Moisture)	20.8	Qualifier	0.01	0.01	%	06/21/23 14:13 1
Analyte		Qualifier			%	
Analyte Percent Moisture (EPA Moisture)	20.8 79.2	Qualifier	0.01	0.01	%	06/21/23 14:13 1
Analyte Percent Moisture (EPA Moisture) Percent Solids (EPA Moisture)	20.8 79.2	Qualifier	0.01	0.01	%	06/21/23 14:13 1 06/21/23 14:13 1 06/21/23 14:13 1
Analyte Percent Moisture (EPA Moisture) Percent Solids (EPA Moisture) Client Sample ID: BH-5DR- Date Collected: 06/20/23 10:36	20.8 79.2	Qualifier	0.01	0.01	%	06/21/23 14:13 1 06/21/23 14:13 1 06/21/23 14:13 1 Lab Sample ID: 590-20844-10 Matrix: Solid
Analyte Percent Moisture (EPA Moisture) Percent Solids (EPA Moisture) Client Sample ID: BH-5DR-4 Date Collected: 06/20/23 10:36 Date Received: 06/20/23 16:31	20.8 79.2 5-30-32	Qualifier	0.01	0.01	%	06/21/23 14:13 1 06/21/23 14:13 1 06/21/23 14:13 1 Lab Sample ID: 590-20844-10 Matrix: Solid

Client: HDR Inc

Job ID: 590-20844-1

Project/Site: Simplot Warden						JOD ID: 590-20844-1
Client Sample ID: BH-5DR-5 Date Collected: 06/20/23 12:20 Date Received: 06/20/23 16:31	5-40-42					Lab Sample ID: 590-20844-13 Matrix: Solid
General Chemistry						
Analyte	Result	Qualifier	RL		Unit	D Prepared Analyzed Dil Fac
Percent Moisture (EPA Moisture)	11.1		0.01	0.01	%	06/21/23 14:13 1
Percent Solids (EPA Moisture)	88.9		0.01	0.01	%	06/21/23 14:13 1
Client Sample ID: BH-5DR-5	5-40-42					Lab Sample ID: 590-20844-13
Date Collected: 06/20/23 12:20 Date Received: 06/20/23 16:31						Matrix: Solid Percent Solids: 88.9
Method: EPA 8011 - EDB						
Analyte	Result	Qualifier	RL	MDL	Unit	D Prepared Analyzed Dil Fac
1,2-Dibromoethane (EDB)	ND		0.055	0.039	ug/Kg	Image: 06/22/23 13:58 06/22/23 20:27 1
Client Sample ID: BH-5DR-5 Date Collected: 06/20/23 13:56 Date Received: 06/20/23 16:31	0-02-04					Lab Sample ID: 590-20844-14 Matrix: Solid
General Chemistry						
Analyte		Qualifier	RL		Unit	D Prepared Analyzed Dil Fac
Percent Moisture (EPA Moisture)	8.9		0.01	0.01		06/21/23 14:13 1
Percent Solids (EPA Moisture)	91.1		0.01	0.01	%	06/21/23 14:13 1
Client Sample ID: BH-5DR-	5-52-54					Lab Sample ID: 590-20844-14
Date Collected: 06/20/23 13:56 Date Received: 06/20/23 16:31						Matrix: Solid Percent Solids: 91.1
Method: EPA 8011 - EDB		A 117	-			
Analyte		Qualifier	RL		Unit	D Prepared Analyzed Dil Fac
1,2-Dibromoethane (EDB)	ND		0.055	0.038	ug/Kg	☆ 06/22/23 13:58 06/22/23 20:43 1
Client Sample ID: Trip Blan	k					Lab Sample ID: 590-20844-15
Date Collected: 06/20/23 00:00 Date Received: 06/20/23 16:31						Matrix: Solid
Method: EPA 8011 - EDB		A 115				_
Analyte		Qualifier	RL		Unit	D Prepared Analyzed Dil Fac
1,2-Dibromoethane (EDB)	ND		0.047	0.033	ug/Kg	06/22/23 13:58 06/22/23 21:00 1

Method: 8011 - EDB

Matrix: Solid MB ME Analysis Batch: 42137 Result Qu ,2-Dibromoethane (EDB) ND ND .ab Sample ID: LCS 590-42136/3-A Aatrix: Solid Analysis Batch: 42137 Analyte	alifier Spike Added 	R(0.0 LCS L	Qualifier		_ 06/ ent Sa	%Rec 108	Prep Ty Prep B Analyz 06/22/23 : Lab Com Prep Ty Prep B %Rec Limits 60 - 140 le ID: BH-4 Prep Ty Prep B %Rec	atch: 4 red 16:19 atrol Sa pe: Tot Batch: 4 5DR-5- pe: Tot	42136 Dil Fac 1 ample al/NA 42136
MB ME Result Qu ,2-Dibromoethane (EDB) ND ND ND .ab Sample ID: LCS 590-42136/3-A Matrix: Solid Analysis Batch: 42137 ND .ab Sample ID: 590-20844-9 MS	spike Added 1.00	0.050	0.0 LCS L esult C 1.08	UCS Qualifier	Cli Unit ug/Kg	_ 06/ ent Sa	22/23 13:5 Imple ID <u>%Rec</u> 108	Analyz 8 06/22/23 Colored Content Content of the second	atrol Sa pe: Tot Batch: 4 5DR-5- pe: Tot	Dil Fa ample al/N/ 42130 20-22 al/N/
Analyte Result Qu ,2-Dibromoethane (EDB) ND ND ND Attrix: Solid Analysis Batch: 42137 Analyte	spike Added 1.00	0.050	0.0 LCS L esult C 1.08	UCS Qualifier	Cli Unit ug/Kg	_ 06/ ent Sa	22/23 13:5 Imple ID <u>%Rec</u> 108	8 06/22/23 : Lab Con Prep Ty Prep B %Rec Limits 60 - 140 e ID: BH-4 Prep Ty Prep B	16:19 atrol Sa pe: Tot Batch: 4 5DR-5- pe: Tot	ample al/N/ 42130 20-22 al/N/
"2-Dibromoethane (EDB) ND .ab Sample ID: LCS 590-42136/3-A Matrix: Solid Analysis Batch: 42137 .ab Sample ID: 590-20844-9 MS .ab Sample ID: 590-20844-9 MSD	Spike Added 1.00 Spike or Added	0.050	0.0 LCS L esult C 1.08	UCS Qualifier	Cli Unit ug/Kg	_ 06/ ent Sa	22/23 13:5 Imple ID <u>%Rec</u> 108	8 06/22/23 : Lab Con Prep Ty Prep B %Rec Limits 60 - 140 e ID: BH-4 Prep Ty Prep B	16:19 atrol Sa pe: Tot Batch: 4 5DR-5- pe: Tot	ample al/N/ 42130 20-22 al/N/
Lab Sample ID: LCS 590-42136/3-A Matrix: Solid Analysis Batch: 42137 Analysis Batch: 42137 Jab Sample ID: 590-20844-9 MS Matrix: Solid Analysis Batch: 42137 Sample Analysis Batch: 42137 Sample Matrix: Solid Analysis Batch: 42137 Sample Analysis Batch: 42137 Sample ID: 590-20844-9 MSD Atrix: Solid Analysis Batch: 42137 Sample ID: 590-20844-9 MSD Matrix: Solid Analysis Batch: 42137 Sample Result Qualifie Analysis Batch: 42137	Added 1.00 Spike	R(LCS L esuit C 1.08	LCS Qualifier MS	Cli Unit ug/Kg	ent Sa	windle ID %Rec 108	: Lab Con Prep Ty Prep B %Rec Limits 60 - 140 e ID: BH-4 Prep Ty Prep B	trol Sape: Tot atch: 4 5DR-5- pe: Tot	ample al/N/ 42136 20-22 al/N/
Matrix: Solid Analysis Batch: 42137 analyte ,2-Dibromoethane (EDB) .ab Sample ID: 590-20844-9 MS Matrix: Solid Analysis Batch: 42137 Sample Analysis Batch: 42137 Sample Analysis Batch: 42137 Sample Analysis Batch: 42137 Analysis Batch: 42137 Analysis Batch: 42137 Analysis Batch: 42137 Sample ID: 590-20844-9 MSD Matrix: Solid Analysis Batch: 42137 Sample Sample Sample Sample Matrix: Solid Analysis Batch: 42137 Sample Sample Sample Analysis Batch: 42137	Added 1.00 Spike	R(esult C 1.08	Qualifier	Unit ug/Kg	D	%Rec 108	Prep Ty Prep B %Rec Limits 60 - 140 e ID: BH-4 Prep Ty Prep B	pe: Tot Batch: 4 5DR-5- pe: Tot	al/N/ 4213(20-22 al/N/
Analysis Batch: 42137 (2-Dibromoethane (EDB) (2-Dibromoethane (EDB) (2-Dibr	Added 1.00 Spike	R(esult C 1.08	Qualifier	ug/Kg		108	Prep B %Rec Limits 60 - 140 e ID: BH-4 Prep Ty Prep B	5DR-5- pe: Tot	42136 20-22 al/NA
Analyte ,2-Dibromoethane (EDB) .ab Sample ID: 590-20844-9 MS Matrix: Solid Analysis Batch: 42137 Sample Sample analyte Result Qualifie ,2-Dibromoethane (EDB) 1.2 F1 F2 .ab Sample ID: 590-20844-9 MSD Matrix: Solid Analysis Batch: 42137 Sample Sample Matrix: Solid Analysis Batch: 42137 Sample Result Qualifie Matrixe Result Qualifie	Added 1.00 Spike	R(esult C 1.08	Qualifier	ug/Kg		108	%Rec Limits 60 - 140 e ID: BH-4 Prep Ty Prep B	 5DR-5- pe: Tot	20-22 al/N/
2-Dibromoethane (EDB) ab Sample ID: 590-20844-9 MS Matrix: Solid Analysis Batch: 42137 Sample Result Qualifie 2-Dibromoethane (EDB) 1.2 F1 F2 ab Sample ID: 590-20844-9 MSD Matrix: Solid Analysis Batch: 42137 Sample Sample Matrix: Solid Analysis Batch: 42137 Sample Result Qualifie Matrix: Solid	Added 1.00 Spike	R(esult C 1.08	Qualifier	ug/Kg		108	Limits 60 - 140 le ID: BH-4 Prep Ty Prep B	pe: Tot	al/N/
2-Dibromoethane (EDB) ab Sample ID: 590-20844-9 MS Matrix: Solid Analysis Batch: 42137 Sample Result Qualifie 2-Dibromoethane (EDB) 1.2 F1 F2 ab Sample ID: 590-20844-9 MSD Matrix: Solid Analysis Batch: 42137 Sample Sample Matrix: Solid Analysis Batch: 42137 Sample Result Qualifie Matrix: Solid	1.00 Spike or Added		1.08 MS M	MS	ug/Kg		108	60 - 140 e ID: BH-4 Prep Ty Prep B	pe: Tot	al/N/
Aab Sample ID: 590-20844-9 MSMatrix: Solid Analysis Batch: 42137Sample Result Qualifie F1 F2AnalyteResult F1 F2Qualifie F1 F2.ab Sample ID: 590-20844-9 MSD Matrix: Solid Analysis Batch: 42137Sample Sample Sample Sample Sample Sample Qualifie Qualifie Qualifie	Spike or Added	R	MS N	-		Clier		le ID: BH- Prep Ty Prep B	pe: Tot	al/N/
Matrix: Solid Analysis Batch: 42137 Sample Analysis Batch: 42137 Sample Result Qualifie ,2-Dibromoethane (EDB) 1.2 F1 F2 Lab Sample ID: 590-20844-9 MSD Matrix: Solid Analysis Batch: 42137 Sample Malyte Result Qualifie	r Added	Re	-	-	lin:4	Clier	nt Sampl	Prep Ty Prep B	pe: Tot	al/N/
Analysis Batch: 42137 Sample Sample Result Qualifie 7.2-Dibromoethane (EDB) Analysis Batch: 42137 Sample ID: 590-20844-9 MSD Matrix: Solid Analysis Batch: 42137 Sample Sample Result Qualifie Sample Qualifie Result Qualifie	r Added	R	-	-	l In:+			Prep B		
SampleSample(2-Dibromoethane (EDB)1.2(2-Dibromoethane (EDB)1.2(2-Dibromoethan	r Added	Re	-	-	l Init				Batch: 4	4213
Analyte Result Qualifie ,2-Dibromoethane (EDB) 1.2 F1 F2 Ab Sample ID: 590-20844-9 MSD Matrix: Solid Analysis Batch: 42137 Sample Sample analyte Result Qualifie	r Added	Re	-	-	l Init			%Rec		
2-Dibromoethane (EDB) ab Sample ID: 590-20844-9 MSD Matrix: Solid Analysis Batch: 42137 Sample Matrixe Sample Result Qualifie		Re	esult C	Qualifier	l Ini+			,		
ab Sample ID: 590-20844-9 MSD Matrix: Solid Analysis Batch: 42137 Sample Sample Malyte Result Qualifie	1 20			quannon	Unit	D		Limits		
Matrix: Solid Analysis Batch: 42137 Sample Sample Analyte Result Qualifie	1.20		2.77		ug/Kg	¢	129	60 - 140		
Analysis Batch: 42137 Sample Sample Nalyte Result Qualifie						Clier	t Samp	e ID: BH-	5DR-5-	20-2 2
nalyte Sample Sample Qualifie								Prep Ty	pe: Tot	al/N/
nalyte Result Qualifie								Prep B	atch: 4	4213
	Spike	I	MSD N	MSD				%Rec		RPI
2-Dibromoethane (EDB) 1.2 E1 E2		Re		Qualifier	Unit	D		Limits	RPD	Limi
	1.16		1.72 F	F1 F2	ug/Kg	¢	42	60 - 140	47	20
ethod: Moisture - Percent Moisture										
.ab Sample ID: 590-20844-1 DU						C	lient Sa	nple ID: B	H-115	5.1.
Atrix: Solid						•	Joint Out			
Analysis Batch: 42105								Prep Ty		a // N

	Sample	Sample	DU	DU				RPD
Analyte	Result	Qualifier	Result	Qualifier	Unit	D	RPD	Limit
Percent Moisture	10.9		9.9		%		 10	20
Percent Solids	89.1		90.1		%		1	20

Client Sample ID: BH-11S-5-1-3 Date Collected: 06/19/23 13:17 Date Received: 06/20/23 16:31

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			42105	06/21/23 14:13	M1V	EET SPK
Client Sample	e ID: BH-	11S-5-1-3					L	ab Sample	ID: 590	-20844-
Date Collected:	06/19/23 1	3:17						-	Ма	trix: Soli
Date Received:	06/20/23 1	6:31						P	ercent S	olids: 89.
_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	8011			10.14 g	2 mL	42136	06/22/23 13:58	M1V	EET SPK
Total/NA	Analysis	8011		1	1 mL	1 mL	42137	06/22/23 16:52	NMI	EET SPK
- Client Sample	D' BH-	115-5-10-12						ab Sample	ID: 590	-20844-
Date Collected:										trix: Soli
Date Received:									iiic	
_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	_ Analysis	Moisture		1	Amount	Amount	42105	000000000000000000000000000000000000		EET SPK
_				1						
Client Sample							L	ab Sample	ID: 590	-20844-
Date Collected:										trix: Soli
Date Received:	06/20/23 1	6:31						P	ercent S	olids: 81.
_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
D	_	Madhaad	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzeu	Analysi	LUD
Total/NA	Prep	8011		Factor	10.11 g	2 mL	42136	06/22/23 13:58	M1V	EET SPK
			<u></u>	1					M1V	
Total/NA Total/NA	Prep Analysis	8011 8011	<u></u>		10.11 g	2 mL	42136 42137	06/22/23 13:58 06/22/23 17:08	M1V NMI	EET SPK EET SPK
Total/NA Total/NA Client Sample	Prep Analysis	8011 8011 11S-5-7-8	<u></u>		10.11 g	2 mL	42136 42137	06/22/23 13:58	M1V NMI ID: 590	EET SPK EET SPK -20844-
Total/NA Total/NA Client Sample Date Collected:	Prep Analysis PiD: BH- 06/19/23 1	8011 8011 11S-5-7-8 3:21	<u>Kun</u>		10.11 g	2 mL	42136 42137	06/22/23 13:58 06/22/23 17:08	M1V NMI ID: 590	EET SPK EET SPK -20844-
Total/NA Total/NA Client Sample Date Collected:	Prep Analysis e ID: BH- 06/19/23 1 06/20/23 1	8011 8011 11S-5-7-8 3:21 6:31		1	10.11 g 1 mL	2 mL 1 mL	42136 42137	06/22/23 13:58 06/22/23 17:08 ab Sample	M1V NMI ID: 590	EET SPK EET SPK -20844-
Total/NA Total/NA Client Sample Date Collected: Date Received:	Prep Analysis e ID: BH- 06/19/23 1 06/20/23 1 Batch	8011 8011 11S-5-7-8 3:21 6:31 Batch		1 Dil	10.11 g 1 mL	2 mL 1 mL	42136 42137	06/22/23 13:58 06/22/23 17:08 ab Sample Prepared	M1V NMI ID: 590 Ma	EET SPK EET SPK -20844- atrix: Soli
Total/NA Total/NA Client Sample Date Collected:	Prep Analysis e ID: BH- 06/19/23 1 06/20/23 1	8011 8011 11S-5-7-8 3:21 6:31	Run	1	10.11 g 1 mL	2 mL 1 mL	42136 42137	06/22/23 13:58 06/22/23 17:08 ab Sample	M1V NMI ID: 590	EET SPK EET SPK -20844-
Total/NA Total/NA Client Sample Date Collected: Date Received: Prep Type Total/NA	Prep Analysis PID: BH- 06/19/23 1 06/20/23 10 Batch Type Analysis	8011 8011 11S-5-7-8 3:21 6:31 Batch Method Moisture		1 Dil Factor	10.11 g 1 mL	2 mL 1 mL	42136 42137 L Batch Number 42105	06/22/23 13:58 06/22/23 13:58 ab Sample Prepared or Analyzed 06/21/23 14:13	M1V NMI ID: 590 Ma Analyst M1V	EET SPK EET SPK -20844- htrix: Soli
Total/NA Total/NA Client Sample Date Collected: Date Received: Prep Type Total/NA Client Sample	Prep Analysis e ID: BH- 06/19/23 1 06/20/23 1 6/20/23 1 Batch Type Analysis e ID: BH-	8011 8011 11S-5-7-8 3:21 6:31 Batch Method Moisture 11S-5-7-8		1 Dil Factor	10.11 g 1 mL	2 mL 1 mL	42136 42137 L Batch Number 42105	06/22/23 13:58 06/22/23 17:08 ab Sample Prepared or Analyzed	M1V NMI ID: 590 Ma Analyst M1V ID: 590	EET SPK EET SPK -20844- htrix: Soli Lab EET SPK -20844-
Total/NA Total/NA Client Sample Date Collected: Date Received: Prep Type Total/NA Client Sample Date Collected:	Prep Analysis ID: BH- 06/19/23 1 06/20/23 1 06/20/23 1 Batch Type Analysis E ID: BH- 06/19/23 1	8011 8011 11S-5-7-8 3:21 6:31 Batch Method Moisture 11S-5-7-8 3:21		1 Dil Factor	10.11 g 1 mL	2 mL 1 mL	42136 42137 L Batch Number 42105	06/22/23 13:58 06/22/23 13:58 06/22/23 17:08 ab Sample Prepared or Analyzed 06/21/23 14:13 ab Sample	M1V NMI ID: 590 Ma Analyst M1V ID: 590 Ma	EET SPK EET SPK -20844- htrix: Soli EET SPK -20844- htrix: Soli
Total/NA Total/NA Client Sample Date Collected: Date Received: Prep Type Total/NA Client Sample Date Collected:	Prep Analysis ID: BH- 06/19/23 1 06/20/23 1 06/20/23 1 Batch Type Analysis E ID: BH- 06/19/23 1	8011 8011 11S-5-7-8 3:21 6:31 Batch Method Moisture 11S-5-7-8 3:21		1 Dil Factor 1	10.11 g 1 mL Initial Amount	2 mL 1 mL	42136 42137 L Batch Number 42105	06/22/23 13:58 06/22/23 13:58 ab Sample Prepared or Analyzed 06/21/23 14:13 ab Sample P	M1V NMI ID: 590 Ma Analyst M1V ID: 590 Ma	EET SPK EET SPK -20844- ttrix: Soli EET SPK -20844- ttrix: Soli
Total/NA Total/NA Client Sample Date Collected: Date Received: Prep Type Total/NA Client Sample Date Collected: Date Received:	Prep Analysis PID: BH- 06/19/23 1 06/20/23 1 Batch Type Analysis PID: BH- 06/19/23 1 06/20/23 1 06/20/23 1	8011 8011 11S-5-7-8 3:21 6:31 Batch Method Moisture 11S-5-7-8 3:21 6:31 Batch Batch	Run	1 Dil Factor 1 Dil	10.11 g 1 mL Initial Amount	2 mL 1 mL Final Amount	42136 42137 L Batch <u>Number</u> 42105 L Batch	06/22/23 13:58 06/22/23 13:58 06/22/23 17:08 ab Sample Prepared 06/21/23 14:13 ab Sample Prepared	M1V NMI ID: 590 Ma Analyst M1V ID: 590 Ma ercent S	EET SPK EET SPK -20844- htrix: Soli EET SPK -20844- htrix: Soli olids: 90.
Total/NA Total/NA Client Sample Date Collected: Date Received: Prep Type Total/NA Client Sample Date Collected: Date Received: Date Received:	Prep Analysis Prep Analysis PID: BH- 06/19/23 1 06/20/23 1 Batch Type Analysis PID: BH- 06/19/23 1 06/20/23 1 06/20/23 1 06/20/23 1	8011 8011 11S-5-7-8 3:21 6:31 Batch Method 11S-5-7-8 3:21 6:31 Batch Batch Method		1 Dil Factor 1	10.11 g 1 mL Initial Amount	2 mL 1 mL Final Amount Final Amount	42136 42137 L Batch Number 42105 L Batch Number	06/22/23 13:58 06/22/23 13:58 06/22/23 17:08 ab Sample Prepared 06/21/23 14:13 ab Sample P Prepared or Analyzed	M1V NMI ID: 590 Ma Analyst M1V ID: 590 Ma ercent S Analyst	EET SPK EET SPK -20844- htrix: Soli EET SPK -20844- htrix: Soli olids: 90. Lab
Total/NA Total/NA Client Sample Date Collected: Date Received: Prep Type Total/NA Client Sample Date Collected: Date Received: Prep Type Total/NA	Prep Analysis Prep Analysis PID: BH- 06/19/23 1 06/20/23 1 Batch Type Analysis PID: BH- 06/19/23 1 06/20/23 10 Batch Type Prep	8011 8011 11S-5-7-8 3:21 6:31 Batch Method Moisture 11S-5-7-8 3:21 6:31 Batch Method Moisture 11S-5-7-8 3:21 6:31 Batch Method 80:31	Run	1 Dil Factor 1 Dil Factor	10.11 g 1 mL Initial Amount Initial Amount 10.13 g	2 mL 1 mL Final Amount Final Amount 2 mL	42136 42137 L Batch <u>Number</u> 42105 L Batch <u>Number</u> 42136	06/22/23 13:58 06/22/23 13:58 06/22/23 17:08 ab Sample Prepared or Analyzed 06/21/23 14:13 ab Sample Prepared of/21/23 14:13 ab Sample P Prepared or Analyzed 06/22/23 13:58	M1V NMI ID: 590 Ma Analyst M1V ID: 590 Ma ercent S Analyst M1V	EET SPK EET SPK -20844- atrix: Soli EET SPK -20844- atrix: Soli olids: 90.
Total/NA Total/NA Client Sample Date Collected: Date Received: Prep Type Total/NA Client Sample Date Collected: Date Received: Date Received:	Prep Analysis Prep Analysis PID: BH- 06/19/23 1 06/20/23 1 Batch Type Analysis PID: BH- 06/19/23 1 06/20/23 1 06/20/23 1 06/20/23 1	8011 8011 11S-5-7-8 3:21 6:31 Batch Method 11S-5-7-8 3:21 6:31 Batch Batch Method	Run	1 Dil Factor 1 Dil	10.11 g 1 mL Initial Amount	2 mL 1 mL Final Amount Final Amount	42136 42137 L Batch Number 42105 L Batch Number	06/22/23 13:58 06/22/23 13:58 06/22/23 17:08 ab Sample Prepared 06/21/23 14:13 ab Sample P Prepared or Analyzed	M1V NMI ID: 590 Ma Analyst M1V ID: 590 Ma ercent S Analyst M1V	EET SPK EET SPK -20844- htrix: Soli EET SPK -20844- htrix: Soli olids: 90. Lab
Total/NA Total/NA Total/NA Client Sample Date Collected: Date Received: Prep Type Total/NA Client Sample Total/NA Total/NA Total/NA Client Sample	Prep Analysis Prep Analysis PID: BH- 06/19/23 1 06/20/23 1 Batch Type Analysis PID: BH- 06/19/23 1 06/20/23 10 Batch Type Prep Analysis PID: BH-	8011 8011 11S-5-7-8 3:21 6:31 Batch Method Moisture 11S-5-7-8 3:21 6:31 Batch Method 8:21 6:31 Batch Method 8:011 8011 11S-5-30-32	Run	1 Dil Factor 1 Dil Factor	10.11 g 1 mL Initial Amount Initial Amount 10.13 g	2 mL 1 mL Final Amount Final Amount 2 mL	42136 42137 L Batch Number 42105 L Batch Number 42136 42137	06/22/23 13:58 06/22/23 13:58 06/22/23 17:08 ab Sample Prepared or Analyzed 06/21/23 14:13 ab Sample Prepared of/21/23 14:13 ab Sample P Prepared or Analyzed 06/22/23 13:58	M1V NMI ID: 590 Ma Analyst M1V ID: 590 Ma ercent S Analyst M1V NMI	EET SPK EET SPK -20844- htrix: Soli EET SPK -20844- trix: Soli olids: 90.
Total/NA Total/NA Client Sample Date Collected: Date Received: Prep Type Total/NA Client Sample Date Collected: Date Received: Prep Type Total/NA Total/NA Total/NA Client Sample Date Collected:	Prep Analysis Prep Analysis PID: BH- 06/19/23 1 06/20/23 1 Batch Type Analysis PID: BH- 06/19/23 1 06/20/23 1 Batch Type Prep Analysis PID: BH- 06/19/23 1	8011 8011 8011 11S-5-7-8 3:21 6:31 Batch Method 3:21 6:31 Batch Method 8011 8012 11S-5-7-8 3:21 6:31 Batch Method 8011 8011 11S-5-30-32 4:30	Run	1 Dil Factor 1 Dil Factor	10.11 g 1 mL Initial Amount Initial Amount 10.13 g	2 mL 1 mL Final Amount Final Amount 2 mL	42136 42137 L Batch Number 42105 L Batch Number 42136 42137	06/22/23 13:58 06/22/23 13:58 06/22/23 17:08 ab Sample Prepared 06/21/23 14:13 ab Sample P Prepared or Analyzed 06/22/23 13:58 06/22/23 17:25	M1V NMI ID: 590 Ma Analyst M1V ID: 590 Ma ercent S Analyst M1V NMI ID: 590	EET SPK EET SPK -20844- htrix: Soli EET SPK -20844- trix: Soli olids: 90.
Total/NA Total/NA Client Sample Date Collected: Date Received: Prep Type Total/NA Client Sample Date Collected: Date Received: Prep Type Total/NA Total/NA Total/NA Client Sample Date Collected:	Prep Analysis Prep Analysis PID: BH- 06/19/23 1 06/20/23 1 Batch Type Analysis PID: BH- 06/19/23 1 06/20/23 1 Batch Type Prep Analysis PID: BH- 06/19/23 1	8011 8011 8011 11S-5-7-8 3:21 6:31 Batch Method 3:21 6:31 Batch Method 8011 8012 11S-5-7-8 3:21 6:31 Batch Method 8011 8011 11S-5-30-32 4:30	Run	1 Dil Factor 1 Dil Factor	10.11 g 1 mL Initial Amount Initial Amount 10.13 g	2 mL 1 mL Final Amount Final Amount 2 mL	42136 42137 L Batch Number 42105 L Batch Number 42136 42137	06/22/23 13:58 06/22/23 13:58 06/22/23 17:08 ab Sample Prepared 06/21/23 14:13 ab Sample P Prepared or Analyzed 06/22/23 13:58 06/22/23 17:25	M1V NMI ID: 590 Ma Analyst M1V ID: 590 Ma ercent S Analyst M1V NMI ID: 590	EET SPK EET SPK -20844- htrix: Soli EET SPK -20844- htrix: Soli olids: 90. Lab EET SPK EET SPK EET SPK EET SPK
Total/NA Total/NA Client Sample Date Collected: Date Received: Prep Type Total/NA Client Sample Date Collected: Date Received: Prep Type Total/NA	Prep Analysis Prep Analysis PID: BH- 06/19/23 1 06/20/23 1 Batch Type Analysis PID: BH- 06/19/23 1 06/20/23 1 Batch Type Prep Analysis PID: BH- 06/19/23 1	8011 8011 8011 11S-5-7-8 3:21 6:31 Batch Method 3:21 6:31 Batch Method 8011 8012 11S-5-7-8 3:21 6:31 Batch Method 8011 8011 11S-5-30-32 4:30	Run	1 Dil Factor 1 Dil Factor	10.11 g 1 mL Initial Amount Initial Amount 10.13 g	2 mL 1 mL Final Amount Final Amount 2 mL	42136 42137 L Batch Number 42105 L Batch Number 42136 42137	06/22/23 13:58 06/22/23 13:58 06/22/23 17:08 ab Sample Prepared 06/21/23 14:13 ab Sample P Prepared or Analyzed 06/22/23 13:58 06/22/23 17:25	M1V NMI ID: 590 Ma Analyst M1V ID: 590 Ma ercent S Analyst M1V NMI ID: 590	EET SPK EET SPK -20844- htrix: Soli EET SPK -20844- htrix: Soli olids: 90. Lab EET SPK EET SPK EET SPK EET SPK

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			42105	06/21/23 14:13	M1V	EET SPK

Eurofins Spokane

Job ID: 590-20844-1

Matrix: Solid

Lab Sample ID: 590-20844-1

Client Sam	ple ID: BH-	-11S-5-30-32					L	ab Sample	ID: 590	-20844-4
Date Collecte	d: 06/19/23 1	4:30						-	Ма	atrix: Solie
Date Receive	d: 06/20/23 1	6:31						Р	ercent S	olids: 82.
_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type		Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	8011	_ <u></u>		10.03 g	2 mL	42136	06/22/23 13:58	M1V	EET SPK
Total/NA	Analysis	8011		1	1 mL	2 mL 1 mL	42130	06/22/23 13:38	NMI	EET SPK
	Analysis	0011		I	1 111	1 111	42137	00/22/23 17.41	INIVII	LEISEN
Client Sam	ple ID: BH-	-11S-5-36-38					L	ab Sample	ID: 590	-20844-
Date Collecte	d: 06/19/23 1	4:40							Ма	atrix: Soli
Date Receive	d: 06/20/23 1	6:31								
_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	Amount	Amount	42105	000000000000000000000000000000000000	-	EET SPK
-	, analysis			· ·			12100			
Client Sam	ple ID: BH-	-11S-5-36-38					L	ab Sample	ID: 590	-20844-
Date Collecte	d: 06/19/23 1	4:40							Ма	atrix: Soli
Date Receive	d: 06/20/23 1	6:31						Р	ercent S	olids: 78.
_	- / ·					-				
	Batch	Batch	_	Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	8011			10.01 g	2 mL	42136	06/22/23 13:58	M1V	EET SPK
Total/NA	Analysis	8011		1	1 mL	1 mL	42137	06/22/23 17:58	NMI	EET SPK
Client Sam	ple ID: BH-	-11S-5-22-23					L	ab Sample	ID: 590	-20844-(
Date Collecte										atrix: Soli
Date Receive										
_										
	Batch	Batch	_	Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			42105	06/21/23 14:13	M1V	EET SPK
Client Sam	ple ID: BH-	11S-5-22-23					L	ab Sample	ID: 590	-20844-
Date Collecte	-									atrix: Soli
Date Receive								Р		olids: 85.
		D - 4 - I		Dil	Initial	Final	Batch	Prepared		
-	Batch	Batch			Amount	Amount	Number	or Analyzed	Analyst	Lab
Ргер Туре	Туре	Method	Run	Factor	Amount	Amount		•	Analyst	
_			Run	Factor	10.24 g	2 mL	42136	06/22/23 13:58	M1V	
Ргер Туре	Туре	Method	Run	Factor				•	M1V	
Prep Type Total/NA Total/NA	Type Prep Analysis	Method 8011 8011	Run		10.24 g	2 mL	42136 42137	06/22/23 13:58 06/22/23 18:14	M1V NMI	EET SPK EET SPK
Prep Type Total/NA Total/NA	Type Prep Analysis	Method 8011 8011 5DR-5-1-3	Run		10.24 g	2 mL	42136 42137	06/22/23 13:58	M1V NMI ID: 590	EET SPK EET SPK -20844-
Prep Type Total/NA Total/NA Client Sam Date Collecte	Type Prep Analysis Ple ID: BH- d: 06/20/23 0	Method 8011 8011 •5DR-5-1-3 9:30	Run		10.24 g	2 mL	42136 42137	06/22/23 13:58 06/22/23 18:14	M1V NMI ID: 590	EET SPK EET SPK -20844-
Prep Type Total/NA	Type Prep Analysis Ple ID: BH- d: 06/20/23 0	Method 8011 8011 •5DR-5-1-3 9:30	Run		10.24 g	2 mL	42136 42137	06/22/23 13:58 06/22/23 18:14	M1V NMI ID: 590	EET SPK EET SPK

Lab Chronicle

Client: HDR Inc

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Туре	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			42105	06/21/23 14:13	M1V	EET SPK

Eurofins Spokane

Job ID: 590-20844-1

Client Sample ID: BH-5DR-5-1-3

3 4 5

Date Received	d: 06/20/23 1	6:31						Р	ercent S	olids: 89.
	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	8011			10.00 g	2 mL	42136	06/22/23 13:58	M1V	EET SPK
Total/NA	Analysis	8011		1	1 mL	1 mL	42137	06/22/23 18:31	NMI	EET SPK
		-5DR-5-10-12					L	ab Sample		
Date Collecte									Ма	atrix: Sol
_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	Amount	Amount	42105	06/21/23 14:13	-	EET SPK
- Client Sam	ole ID: BH·	-5DR-5-10-12					L	ab Sample	ID: 590	-20844-
Date Collecte	d: 06/20/23 0	9:53								atrix: Soli
Date Received	d: 06/20/23 1	6:31						Р	ercent S	olids: 86
_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	8011			10.30 g	2 mL	42136	06/22/23 13:58	M1V	EET SPK
Total/NA	Analysis	8011		1	1 mL	1 mL	42137	06/22/23 18:47	NMI	EET SPK
Client Sam	ole ID: BH-	-5DR-5-20-22					L	ab Sample	ID: 590	-20844-
Date Collecte									Ма	atrix: Soli
Date Received	d: 06/20/23 1	6:31								
_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			42105	06/21/23 14:13	M1V	EET SPK
		-5DR-5-20-22					L	ab Sample	ID: 590	-20844-
Date Collecte									Ма	atrix: Soli
Date Received	d: 06/20/23 1	6:31						Р	ercent S	olids: 81
_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed		
Total/NA	Prep	8011			10.28 g	2 mL	42136	06/22/23 13:58		EET SPK
Total/NA	Analysis	8011		1	1 mL	1 mL	42137	06/22/23 19:20	NMI	EET SPK
		-5DR-5-30-32					La	b Sample I		
Date Collecter Date Received									Ма	atrix: Soli
	a. UUIZUIZJ I	0.01						Prepared		
	Batch	Batch		Dil	Initial	Final	Batch			

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Туре	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			42105	06/21/23 14:13	M1V	EET SPK

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nlot Warde	n						·	Job ID: 59	90-20044-1
•							h Sampla II	D. 500 ·	20844 10
						La	n Sample II		
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06/20/23 1	6:31						Р	ercent S	olids: 79.2
Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Prep	8011			10.40 g	2 mL	42136	06/22/23 13:58	M1V	EET SPK
Analysis	8011		1	1 mL	1 mL	42137	06/22/23 20:10	NMI	EET SPK
						La	b Sample II		
								Ма	atrix: Solic
Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Type	Method	Run	Factor	Amount	Amount	Number	•	Analyst	Lab
Analysis	Moisture		1			42105		-	EET SPK
e ID: BH-	5DR-5-40-42					La	b Sample II	D: 590-	20844-1
							•		atrix: Soli
							Р		
Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
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Analysis			1	-		42137		NMI	EET SPK
Analysis	8011 • 5DR-5-52-54		1	-		42137	06/22/23 20:27	NMI D: 590-2	EET SPK
Analysis e ID: BH-	8011 •5DR-5-52-54 3:56		1	-		42137	06/22/23 20:27	NMI D: 590-2	EET SPK
Analysis e ID: BH- 06/20/23 1	8011 •5DR-5-52-54 3:56		1 Dil	-		42137	06/22/23 20:27	NMI D: 590-2	EET SPK
Analysis e ID: BH- 06/20/23 1 06/20/23 1	8011 5DR-5-52-54 3:56 6:31	Run		1 mL	1 mL	42137 La	06/22/23 20:27 b Sample II	NMI D: 590-2	EET SPK
Analysis e ID: BH- 06/20/23 1 06/20/23 1 Batch	8011 5DR-5-52-54 3:56 6:31 Batch	Run	Dil	1 mL	1 mL	42137 La Batch	06/22/23 20:27 b Sample II Prepared	NMI D: 590-/ Ma	EET SPK 20844-14 atrix: Solid
Analysis e ID: BH- 06/20/23 1 06/20/23 1 Batch Type Analysis	8011 5DR-5-52-54 3:56 6:31 Batch Method	Run	Dil Factor	1 mL	1 mL	42137 La Batch <u>Number</u> 42105	06/22/23 20:27 b Sample II Prepared or Analyzed	NMI D: 590-2 Ma Analyst M1V	EET SPK 20844-14 atrix: Solic Lab EET SPK
Analysis e ID: BH- 06/20/23 1 06/20/23 1 Batch Type Analysis	8011 5DR-5-52-54 3:56 6:31 Batch Method Moisture 5DR-5-52-54	Run	Dil Factor	1 mL	1 mL	42137 La Batch <u>Number</u> 42105	06/22/23 20:27 b Sample II Prepared or Analyzed 06/21/23 14:13	NMI D: 590-2 Ma <u>Analyst</u> M1V D: 590-2	EET SPK 20844-14 atrix: Solid EET SPK 20844-14
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Lab Chronicle

	Batch	Batch Mathad	Dura	Dil	Initial	Final	Batch	Prepared	Amalunat	Lak
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	8011			10.53 g	2 mL	42136	06/22/23 13:58	M1V	EET SPK
Total/NA	Analysis	8011		1	1 mL	1 mL	42137	06/22/23 21:00	NMI	EET SPK

Laboratory References:

EET SPK = Eurofins Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

Laboratory: Eurofins Spokane

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Р	rogram	Identification Number	Expiration Date
Washington	S	tate	C569	01-07-24
The following analyte	s are included in this rep	port, but the laboratory is	not certified by the governing authority.	This list may include analytes for which
the agency does not o	offer certification.			
the agency does not o Analysis Method	offer certification. Prep Method	Matrix	Analyte	
8 ,		Matrix Solid	Analyte Percent Moisture	

Method Summary

Method	Method Description	Protocol	Laboratory
8011	EDB	EPA	EET SPK
Moisture	Percent Moisture	EPA	EET SPK
8011	Microextraction	SW846	EET SPK

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET SPK = Eurofins Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

Eurofins Spokane

11922 East 1st Ave Spokane, WA 99206 Phone (509) 924-9200 Phone (509) 924-9290

Chain of Custody Record

Client Information	Sampler Jeryd Phone: FO1-	Newson	h	Lab	PM:	Dar	adaa E					T	Carrie	er Tracł	ing No	(s):			COC No:		
Client Information	Phone:		10 1	E-N	rington, Iail:	Rai	idee E						State of Origin: WA						590-8638-2504.1 Page:		
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Eurofins Spokane

11922 East 1st Ave Spokane, WA 99206

Chain of Custody Record

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Phone (509) 924-9200 Phone (509) 924-9290

Client Information	Sampler Jery	News	dino		PM: ingtor	n. R:	ande	e E							Trackie	-				COC No: 590-8638-2504.2		
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		Sample	(C=comp,	S=solid, O=waste/oil, BT=Tissue, A=A	몽	Pertorm MS/I	8011	6010D, 7470	6010D, 7470A	1010	8270C	8260D	8260D	SM4500_H+	9045D				Total	Currential line		1-4-4
Sample Identification	Sample Date	Time		ation Code:							N F		<u>ه</u>	N I			+	-	Ń	Special Ins		vote:
BU-500 E-10 DAME	6/20/23	1011	G	Solid		N	X	1.80	2.5 1	4.3 <u></u> :	13 11		æ		<u></u>			S. and and	ŕ			
BIL EDD E VI VI MED		1011		Solid	-11	Τ	$\frac{2}{2}$							-	+		+		-			
01		<u> </u>										_					+	-	-			
1315-570R-5-40-42		1770		Solid		4	×					_	_					<u> </u>			<u></u>	
011-50R-5-20-22-M5 DH-50R-5-20-22-M5D BH-50R-5-40-42 BH-50R-5-52-54 Trip Blank	V	1356	V	Solid	1		Y					\square		\square				_	<u></u>			
Trip Blank		-		Solid	Ń	\sim	Х												1			
1				Solid																		
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Possible Hazard Identification		<u> </u>		J		San	nple	Disp	osa	I (A	fee n	ay b	og/as	ses	sed if	sam	ples a	re re	etain	ed longer than 1 i	month)	
Non-Hazard Flammable Skin Irritant Pois	son B 🛄 Unkn	nown	Radiologica	al				eturn	To	Clien	t	Ľ		ispos	al By	Lab			Arch	nive For	Months	
Deliverable Requested: I, II III, IV Other (specify)						Spe	ecial I	instru	uctio	ns/Q	C Red	lnite	men	ts.								
Empty Kit Relinquished by		Date:				ne:									Method		-					
Relinquished by Jered Newsonh AM	Date/Time:	€ 16	30	Company I+FD	R		Rice	ived b	у 27	Ь	Ę	_	>			D.	ate/Tim e(2	。 ©(*	23	5 16:31	Company	2 20.
Relinquished by:	Date/Time:			Company			Recei	ived b	Y	-					<u> </u>		ate/Tim				Company	
Relinquished by	Date/Time:	·		Company			Recei	ived b	y			<u> </u>				D	ate/Tim	e:			Company	
Custody Seals Intact: Custody Seal No.	<u> </u>			1			Coole	er Ten	nperat	ure(s)	í 8	Olhe	er Ren	narks:			0	-/			<u>I</u>	
Δ Yes Δ No		,					L				1 0	<u> </u>	2.	ч		1			2		Ver 01/16/	/2019

Login Sample Receipt Checklist

Client: HDR Inc

Login Number: 20844 List Number: 1 Creator: Morris, Mackenzie 1

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
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.	N/A	
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	

Job Number: 590-20844-1

List Source: Eurofins Spokane



Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Jered Newcomb HDR Inc 1401 E. Trent Ave Suite 101 Spokane, Washington 99202 Generated 7/5/2023 8:14:50 PM

JOB DESCRIPTION

Simplot Warden

JOB NUMBER

590-20878-1

Eurofins Spokane 11922 East 1st Ave Spokane WA 99206





Eurofins Spokane

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northwest, LLC Project Manager.

Authorization

Candue Aming

Generated 7/5/2023 8:14:50 PM

Authorized for release by Randee Arrington, Business Unit Manager Randee.Arrington@et.eurofinsus.com (509)924-9200

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Job ID: 590-20878-1

Laboratory: Eurofins Spokane

Narrative

Receipt

The samples were received on 6/23/2023 11:50 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.9° C.

GC Semi VOA

Method 8011: The method blank for preparation batch 590-42168 and analytical batch 590-42173 contained 1,2-Dibromoethane (EDB) above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

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

General Chemistry

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

Organic Prep

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

Sample Summary

Client: HDR Inc Project/Site: Simplot Warden Job ID: 590-20878-1

ab Sample ID	Client Sample ID	Matrix	Collected	Received	
90-20878-1	BH-12S-S-1-3	Solid	06/21/23 13:10	06/23/23 11:50	
90-20878-2	BH-5SR-S-35-37	Solid	06/21/23 10:56	06/23/23 11:50	
90-20878-3	BH-12S-S-10-12	Solid	06/21/23 13:28	06/23/23 11:50	
90-20878-4	BH-5SR-S-1-3	Solid	06/21/23 08:57	06/23/23 11:50	
90-20878-5	BH-12S-S-0	Solid	06/21/23 14:00	06/23/23 11:50	
90-20878-6	BH-12S-S-20-22	Solid	06/21/23 13:54	06/23/23 11:50	
90-20878-7	BH-5SR-S-20-22	Solid	06/21/23 10:06	06/23/23 11:50	
90-20878-8	BH-5SR-S-30-32	Solid	06/21/23 10:35	06/23/23 11:50	
90-20878-9	BH-12S-S-30-32	Solid	06/21/23 14:17	06/23/23 11:50	
90-20878-10	BH-12S-S-35-37	Solid	06/21/23 14:33	06/23/23 11:50	
90-20878-11	BH-12S-S-15	Solid	06/21/23 13:31	06/23/23 11:50	
90-20878-12	BH-5SR-S-10-12	Solid	06/21/23 09:58	06/23/23 11:50	
90-20878-13	BH-5SR-S-0	Solid	06/21/23 08:30	06/23/23 11:50	
90-20878-14	EB-01	Water	06/22/23 08:31	06/23/23 11:50	

5

Qualifiers

GC

GC Semi VC	
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
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)

Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)

EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"

MDA Minimum Detectable Activity (Radiochemistry)

- MDC Minimum Detectable Concentration (Radiochemistry)
- MDL Method Detection Limit ML Minimum Level (Dioxin)
- MPN Most Probable Number Method Quantitation Limit
- MQL NC Not Calculated
- ND Not Detected at the reporting limit (or MDL or EDL if shown)
- NEG Negative / Absent
- POS Positive / Present Practical Quantitation Limit PQL
- PRES Presumptive
- **Quality Control** QC
- RER Relative Error Ratio (Radiochemistry)
- 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)
- TNTC Too Numerous To Count

Client: HDR Inc

Job ID: 590-20878-1

Project/Site: Simplot Warden								JOD ID. 590-	20070-1
Client Sample ID: BH-12S-S Date Collected: 06/21/23 13:10 Date Received: 06/23/23 11:50	6-1-3					L	.ab Sample	e ID: 590-2 Matri	0878-1 x: Solid
General Chemistry									
Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture) Percent Solids (EPA Moisture)	11.0 89.0		0.01 0.01	0.01 0.01				06/26/23 15:30 06/26/23 15:30	1 1
Client Sample ID: BH-12S-S	6-1-3					L	ab Sample	e ID: 590-2	0878-1
Date Collected: 06/21/23 13:10 Date Received: 06/23/23 11:50								Matri Percent Solie	x: Solid ds: 89.0
Method: EPA 8011 - EDB	Decell	0			11-24		Descent	A so a b social	
Analyte 1,2-Dibromoethane (EDB)	ND	Qualifier	RL		Unit ug/Kg	<u> </u>	Prepared 06/30/23 08:34	Analyzed 06/30/23 13:45	Dil Fac
			0.000	0.000	aging				
Client Sample ID: BH-5SR-5 Date Collected: 06/21/23 10:56 Date Received: 06/23/23 11:50	5-35-37						ab Sample	e ID: 590-20 Matri	0878-2 x: Solid
General Chemistry	Dessil	0	5.		11	_	Durand	A	D1 5
Analyte Percent Moisture (EPA Moisture)	27.6	Qualifier	RL	0.01	Unit %	D	Prepared	Analyzed 06/26/23 15:30	Dil Fac
Percent Solids (EPA Moisture)	72.4		0.01	0.01				06/26/23 15:30	1
Date Collected: 06/21/23 10:56 Date Received: 06/23/23 11:50 Method: EPA 8011 - EDB Analyte	Posult	Qualifier	RL	MDL	Unit	D	Prepared	Percent Solie	x: Solid ds: 72.4 Dil Fac
1,2-Dibromoethane (EDB)	ND	Quaimer	0.068		ug/Kg			06/30/23 14:51	1
Client Sample ID: BH-12S-S Date Collected: 06/21/23 13:28 Date Received: 06/23/23 11:50	5-10-12					L	ab Sample	e ID: 590-20 Matri	0878-3 x: Solid
General Chemistry Analyte	Pocult	Qualifier	RL	ы	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	14.9	Quaimer	0.01	0.01			Fiepaieu	06/26/23 15:30	<u>1</u>
Percent Solids (EPA Moisture)	85.1		0.01	0.01				06/26/23 15:30	1
Client Sample ID: BH-12S-S Date Collected: 06/21/23 13:28 Date Received: 06/23/23 11:50	5-10-12					L		e ID: 590-20 Matri Percent Solie	x: Solid
Method: EPA 8011 - EDB									
Analyte 1,2-Dibromoethane (EDB)	Result ND	Qualifier			Unit ug/Kg	<u> </u>	Prepared 06/30/23 08:34	Analyzed 06/30/23 15:07	Dil Fac
			0.001	0.040	ug/itg				
Client Sample ID: BH-5SR-5 Date Collected: 06/21/23 08:57 Date Received: 06/23/23 11:50	5-1-3					L	ao Sample	e ID: 590-20 Matri	0878-4 x: Solid
General Chemistry	Decult	Qualifier	D 1		l In:t	~	Drenerad	م بر مرود م	
Analyte Percent Moisture (EPA Moisture)	12.4	Qualifier	RL	0.01	Unit	<u>D</u>	Prepared	Analyzed 06/26/23 15:30	Dil Fac
	12.4		0.01	0.01	70			00/20/23 13.30	1

Client: HDR Inc

Job ID: 590-20878-1

Client: HDR Inc Project/Site: Simplot Warden						Job ID: 590-20878-1
Client Sample ID: BH-5SR-S Date Collected: 06/21/23 08:57 Date Received: 06/23/23 11:50	8-1-3					Lab Sample ID: 590-20878-4 Matrix: Solid
General Chemistry (Continued)	Decult	Qualifier	Ы	Ы	11-1-14	D. Branavad Analyzad Dil Faa
Analyte Percent Solids (EPA Moisture)	87.6	Qualifier	RL	0.01	Unit %	D Prepared Analyzed Dil Fac 06/26/23 15:30 1
Client Sample ID: BH-5SR-S	6-1-3					Lab Sample ID: 590-20878-4
Date Collected: 06/21/23 08:57 Date Received: 06/23/23 11:50						Matrix: Solid Percent Solids: 87.6
Method: EPA 8011 - EDB		0.117				
Analyte 1,2-Dibromoethane (EDB)	Result ND	Qualifier			Unit ug/Kg	D Prepared Analyzed Dil Fac ∞ 06/30/23 08:34 06/30/23 15:23 1
Client Sample ID: BH-12S-S	-0					Lab Sample ID: 590-20878-5
Date Collected: 06/21/23 14:00 Date Received: 06/23/23 11:50	-0					Matrix: Solid
General Chemistry Analyte	Result	Qualifier	RL	RL	Unit	D Prepared Analyzed Dil Fac
Percent Moisture (EPA Moisture)	19.3		0.01	0.01		
Percent Solids (EPA Moisture)	80.7		0.01	0.01	%	06/26/23 15:30 1
Client Sample ID: BH-12S-S Date Collected: 06/21/23 14:00 Date Received: 06/23/23 11:50	-0					Lab Sample ID: 590-20878-5 Matrix: Solid Percent Solids: 80.7
Method: EPA 8011 - EDB Analyte	Posult	Qualifier	RL	МП	Unit	D Prepared Analyzed Dil Fac
1,2-Dibromoethane (EDB)	ND		0.060		ug/Kg	$\frac{1}{2} \frac{1}{06/30/23} \frac{1}{06/30/23} \frac{1}{06/30/23} \frac{1}{06/30/23} \frac{1}{1}$
Client Sample ID: BH-12S-S Date Collected: 06/21/23 13:54 Date Received: 06/23/23 11:50	-20-22					Lab Sample ID: 590-20878-6 Matrix: Solid
General Chemistry						
Analyte Percent Moisture (EPA Moisture)	Result 18.2	Qualifier	RL 0.01	RL 0.01	Unit	<u>Dil Fac</u> 06/26/23 15:30 <u>Dil Fac</u>
Percent Solids (EPA Moisture)	81.8		0.01	0.01		06/26/23 15:30
Client Sample ID: BH-12S-S Date Collected: 06/21/23 13:54 Date Received: 06/23/23 11:50	-20-22					Lab Sample ID: 590-20878-6 Matrix: Solid Percent Solids: 81.8
Method: EPA 8011 - EDB Analyte	Popult	Qualifier	В	MDI	Unit	D Brongrad Applyzed Dil Eco
1,2-Dibromoethane (EDB)	ND	Qualifier	RL 0.061		Unit ug/Kg	D Prepared Analyzed Dil Fac 06/30/23 08:34 06/30/23 15:56 1
Client Sample ID: BH-5SR-S Date Collected: 06/21/23 10:06 Date Received: 06/23/23 11:50	5-20-22					Lab Sample ID: 590-20878-7 Matrix: Solid
General Chemistry Analyte	Booult	Qualifier	RL	ы	Unit	D Prepared Analyzed Dil Fac
Percent Moisture (EPA Moisture)	10.6		0.01	0.01		$\frac{D}{100000000000000000000000000000000000$
Percent Solids (EPA Moisture)	89.4		0.01	0.01		06/26/23 15:30 1

		Client	Sample i	VE 201	ເວ			
Client: HDR Inc Project/Site: Simplot Warden							Job ID: 590-2	20878-1
Client Sample ID: BH-5SR-	S-20-22					Lab Samp	le ID: 590-20	0878-7
Date Collected: 06/21/23 10:06								x: Solid
Date Received: 06/23/23 11:50							Percent Soli	
Method: EPA 8011 - EDB								
Analyte		Qualifier		MDL		D Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	ND		0.052	0.036	ug/Kg	☆ 06/30/23 08:3	4 06/30/23 16:13	1
Client Sample ID: BH-5SR-	S-30-32					Lab Samp	le ID: 590-20	0878-8
Date Collected: 06/21/23 10:35							Matri	x: Solid
Date Received: 06/23/23 11:50								
General Chemistry Analyte	Rosult	Qualifier	RL	RI	Unit	D Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	20.1	quanner	0.01	0.01			06/26/23 15:30	
Percent Solids (EPA Moisture)	79.9		0.01	0.01			06/26/23 15:30	
Client Sample ID: BH-5SR-	S-30-32					Lab Samp	le ID: 590-20	
Date Collected: 06/21/23 10:35								x: Solid
Date Received: 06/23/23 11:50							Percent Solie	ds: 79.9
Method: EPA 8011 - EDB								
Analyte	Result	Qualifier	RL	MDL	Unit	D Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	ND		0.061	0.043	ug/Kg	06/30/23 08:3	4 06/30/23 16:29	1
Client Comple ID: PH 126 6	20.22					Lob Somn		0070 0
Client Sample ID: BH-12S-S	5-30-32					Lap Samp	le ID: 590-2	
Date Collected: 06/21/23 14:17 Date Received: 06/23/23 11:50							Matri	x: Solid
General Chemistry								
Analyte		Qualifier	RL		Unit	D Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	19.2		0.01	0.01			06/26/23 15:30	1
Percent Solids (EPA Moisture)	80.8		0.01	0.01	%		06/26/23 15:30	1
Client Sample ID: BH-12S-S	5-30-32					Lab Samp	le ID: 590-2	0878-9
Date Collected: 06/21/23 14:17							Matri	x: Solid
Date Received: 06/23/23 11:50							Percent Solie	ds: 80.8
Method: EPA 8011 - EDB Analyte	Pocult	Qualifier	RL	МП	Unit	D Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	ND	Quaimer	0.061		ug/Kg	06/30/23 08:3		
			0.001	0.042	ug/itg	* 00/00/20 00.0	+ 00/00/20 10.40	· · ·
Client Sample ID: BH-12S-S	6-35-37					Lab Sample	e ID: 590-20	878-10
Date Collected: 06/21/23 14:33							Matri	x: Solid
Date Received: 06/23/23 11:50								
General Chemistry								Dil Fac
General Chemistry Analyte	Result	Qualifier	RL	RL	Unit	D Prepared	Analyzed	Diriuo
-	Result	Qualifier	RL 0.01	RL 0.01		D Prepared	- Analyzed 06/26/23 15:30	
Analyte		Qualifier			%	D Prepared		1
Analyte Percent Moisture (EPA Moisture) Percent Solids (EPA Moisture)	20.7 79.3	Qualifier	0.01	0.01	%		06/26/23 15:30 06/26/23 15:30	1
Analyte Percent Moisture (EPA Moisture) Percent Solids (EPA Moisture) Client Sample ID: BH-12S-S	20.7 79.3	Qualifier	0.01	0.01	%	D Prepared	06/26/23 15:30 06/26/23 15:30 06/26/23 15:30	1 1 878-10
Analyte Percent Moisture (EPA Moisture) Percent Solids (EPA Moisture) Client Sample ID: BH-12S-S Date Collected: 06/21/23 14:33	20.7 79.3	Qualifier	0.01	0.01	%		06/26/23 15:30 06/26/23 15:30 06/26/23 15:30 ID: 590-203 Matri	1 1 878-10 x: Solid
Analyte Percent Moisture (EPA Moisture) Percent Solids (EPA Moisture) Client Sample ID: BH-12S-S	20.7 79.3	Qualifier	0.01	0.01	%		06/26/23 15:30 06/26/23 15:30 06/26/23 15:30	1 1 878-10 x: Solid
Analyte Percent Moisture (EPA Moisture) Percent Solids (EPA Moisture) Client Sample ID: BH-12S-S Date Collected: 06/21/23 14:33	20.7 79.3	Qualifier	0.01	0.01	%		06/26/23 15:30 06/26/23 15:30 06/26/23 15:30 ID: 590-203 Matri	1 1 878-10 x: Solid
Analyte Percent Moisture (EPA Moisture) Percent Solids (EPA Moisture) Client Sample ID: BH-12S-S Date Collected: 06/21/23 14:33 Date Received: 06/23/23 11:50	20.7 79.3 3-35-37	Qualifier	0.01	0.01 0.01 MDL	%		06/26/23 15:30 06/26/23 15:30 ID: 590-200 Matri Percent Solid	1 8 78-10 x: Solid ds: 79.3 Dil Fac

Client: HDR Inc

Job ID: 590-20878-1

Project/Site: Simplot Warden						JOD ID. 590-20876-1
Client Sample ID: BH-12S- Date Collected: 06/21/23 13:31 Date Received: 06/23/23 11:50	S-15					Lab Sample ID: 590-20878-11 Matrix: Solid
General Chemistry						
Analyte	Result	Qualifier	RL	RL	Unit	D Prepared Analyzed Dil Fac
Percent Moisture (EPA Moisture)	11.5		0.01	0.01	%	06/26/23 15:30 1
Percent Solids (EPA Moisture)	88.5		0.01	0.01	%	06/26/23 15:30 1
Client Sample ID: BH-12S-	S-15					Lab Sample ID: 590-20878-11
Date Collected: 06/21/23 13:31						Matrix: Solid
Date Received: 06/23/23 11:50						Percent Solids: 88.5
Method: EPA 8011 - EDB						
Analyte		Qualifier	RL		Unit	D Prepared Analyzed Dil Fac
1,2-Dibromoethane (EDB)	ND		0.056	0.039	ug/Kg	☆ 06/30/23 08:34 06/30/23 17:35 1
Client Sample ID: BH-5SR-	-S-10-12					Lab Sample ID: 590-20878-12
Date Collected: 06/21/23 09:58						Matrix: Solid
Date Received: 06/23/23 11:50						
General Chemistry						
Analyte		Qualifier	RL		Unit	D Prepared Analyzed Dil Fac
Percent Moisture (EPA Moisture)	13.1		0.01	0.01		06/26/23 15:30 1
Percent Solids (EPA Moisture)	86.9		0.01	0.01	%	06/26/23 15:30 1
Client Sample ID: BH-5SR-	-S-10-12					Lab Sample ID: 590-20878-12
Date Collected: 06/21/23 09:58						Matrix: Solid
Date Received: 06/23/23 11:50						Percent Solids: 86.9
Method: EPA 8011 - EDB						
Analyte	Result	Qualifier	RL	MDL	Unit	D Prepared Analyzed Dil Fac
1,2-Dibromoethane (EDB)	ND		0.052	0.037	ug/Kg	\overline{\alpha} \overline{\alpha} \overline{\alpha} 06/30/23 17:51 1
Client Sample ID: BH-5SR-	-S-0					Lab Sample ID: 590-20878-13
Date Collected: 06/21/23 08:30						Matrix: Solid
Date Received: 06/23/23 11:50						
General Chemistry						
Analyte		Qualifier	RL		Unit	D Prepared Analyzed Dil Fac
Percent Moisture (EPA Moisture)	10.3		0.01	0.01		06/26/23 15:30 1
Percent Solids (EPA Moisture)	89.7		0.01	0.01	%	06/26/23 15:30 1
Client Sample ID: BH-5SR-	-S-0					Lab Sample ID: 590-20878-13
Date Collected: 06/21/23 08:30						Matrix: Solid
Date Received: 06/23/23 11:50						Percent Solids: 89.7
Method: EPA 8011 - EDB						
Analyte		Qualifier	RL	MDL	Unit	D Prepared Analyzed Dil Fac
1,2-Dibromoethane (EDB)	ND		0.055	0.038	ug/Kg	\overline{\alpha} \overline{\alpha} \overline{\alpha} 1
Client Sample ID: EB-01						Lab Sample ID: 590-20878-14
Date Collected: 06/22/23 08:31						Matrix: Water
Date Received: 06/23/23 11:50						
Method: EPA 8011 - EDB						
Analyte	Result	Qualifier	RL	MDL	Unit	D Prepared Analyzed Dil Fac
1,2-Dibromoethane (EDB)	ND		0.010	0.0025	ug/L	06/26/23 12:46 06/26/23 22:09 1
—						

Job ID: 590-20878-1

Method: 8011 - EDB

Lab Sample ID: MB 590-421	168/2-A						Clie	ent Samp	ole ID: Met		
Matrix: Water									Prep Type		
Analysis Batch: 42173									Prep Bat	tch: 4	4216
	I	MB MB									
Analyte	Res	sult Qualifier	F	RL	MDL Unit) Р	repared	Analyzed	l k	Dil Fa
1,2-Dibromoethane (EDB)	0.008	326 J	0.0	10 0.	0025 ug/L		06/2	6/23 12:44	06/26/23 16	:39	
Lab Sample ID: LCS 590-42	2168/3-A					Clie	nt Sai	nple ID:	Lab Contr	ol Sa	ampl
Matrix: Water									Prep Type	: Tot	al/N
Analysis Batch: 42173									Prep Bat	tch: 4	4216
			Spike	LCS	LCS				%Rec		
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits		
1,2-Dibromoethane (EDB)			0.125	0.136		ug/L		109	60 - 140		
Lab Sample ID: LCSD 590-4	42168/4-A				c	lient Sa	mple	ID: Lab	Control Sa	mple	e Du
Matrix: Water									Prep Type		
Analysis Batch: 42173									Prep Bat	tch: 4	4216
			Spike	LCSD	LCSD				%Rec		RP
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Lim
1,2-Dibromoethane (EDB)			0.125	0.150		ug/L		120	60 - 140	10	2
Lab Sample ID: MB 590-422	254/2-A						Clie	ent Samp	ole ID: Met	hod l	Blan
									Prep Type	· Tot	
Matrix: Solid									Lieh ihhe		.al/1
									Prep Bat		
	I	MB MB									
		MB MB sult Qualifier	F	RL	MDL Unit	ſ) Р	repared		tch: 4	4225
Analysis Batch: 42256	Res		F 0.03		MDL Unit 0.035 ug/Ка				Prep Ba	tch: 4	4225 Dil Fa
Analysis Batch: 42256 Analyte	Res	ult Qualifier]	06/3	0/23 08:34	Prep Bat Analyzed	tch: 4 1 1:56	4225 Dil Fa
Analysis Batch: 42256 Analyte 1,2-Dibromoethane (EDB)	Res	ult Qualifier]	06/3	0/23 08:34	Prep Bat Analyzed 06/30/23 12	tch: 4 1::56	4225 Dil Fa
Analysis Batch: 42256 Analyte 1,2-Dibromoethane (EDB) Lab Sample ID: LCS 590-42	Res	ult Qualifier]	06/3	0/23 08:34	Prep Bat Analyzec 06/30/23 12 Lab Contr	tch: 4 1::56 rol Sa e: Tot	4225 Dil Fa ampl al/N
Analysis Batch: 42256 Analyte 1,2-Dibromoethane (EDB) Lab Sample ID: LCS 590-42 Matrix: Solid	Res	ult Qualifier		50 C]	06/3	0/23 08:34	Prep Bar Analyzec 06/30/23 12 Lab Contr Prep Type	tch: 4 1::56 rol Sa e: Tot	4225 Dil Fa ampl al/N
Analysis Batch: 42256 Analyte 1,2-Dibromoethane (EDB) Lab Sample ID: LCS 590-42 Matrix: Solid Analysis Batch: 42256	Res	ult Qualifier	0.0	50 C).035 ug/Κε]	06/3	0/23 08:34	Prep Bat Analyzed 06/30/23 12 Lab Contr Prep Type Prep Bat	tch: 4 1::56 rol Sa e: Tot	4225 Dil Fa ampl al/N
Analysis Batch: 42256 Analyte 1,2-Dibromoethane (EDB) Lab Sample ID: LCS 590-42 Matrix: Solid Analysis Batch: 42256 Analyte	Res	ult Qualifier	0.03 Spike	50 C	0.035 ug/Kg LCS	Clie	06/3	0/23 08:34	Prep Bat Analyzec 06/30/23 12 Lab Contr Prep Type Prep Bat %Rec	tch: 4 1::56 rol Sa e: Tot	4225 Dil Fa ampl al/N
Analysis Batch: 42256 Analyte 1,2-Dibromoethane (EDB) Lab Sample ID: LCS 590-42 Matrix: Solid Analysis Batch: 42256 Analyte 1,2-Dibromoethane (EDB)	Res	ult Qualifier	0.03 Spike Added	50 C LCS Result	0.035 ug/Kg LCS	Clier	06/3 nt Sai D	0/23 08:34 mple ID: <u>%Rec</u> 99 —	Prep Bat Analyzec 06/30/23 12 Lab Contr Prep Type Prep Bat %Rec Limits	tch: 4 ::56 ol Sa e: Tot tch: 4	4225 Dil Fa amp al/N 4225
Analysis Batch: 42256 Analyte 1,2-Dibromoethane (EDB) Lab Sample ID: LCS 590-42 Matrix: Solid Analysis Batch: 42256 Analyte 1,2-Dibromoethane (EDB) Lab Sample ID: 590-20878-	Res	ult Qualifier	0.03 Spike Added	50 C LCS Result	0.035 ug/Kg LCS	Clier	06/3 nt Sai D	0/23 08:34 mple ID: <u>%Rec</u> 99 —	Prep Bat Analyzec 06/30/23 12 Lab Contr Prep Type Prep Bat %Rec Limits 60 - 140	tch: 4 1::56 2: Tot tch: 4 -12S-	4225 Dil Fa ampl al/N 4225
Analysis Batch: 42256 Analyte 1,2-Dibromoethane (EDB) Lab Sample ID: LCS 590-42 Matrix: Solid	Res	ult Qualifier	0.03 Spike Added	50 C LCS Result	0.035 ug/Kg LCS	Clier	06/3 nt Sai D	0/23 08:34 mple ID: <u>%Rec</u> 99 —	Prep Bat Analyzec 06/30/23 12 Lab Contr Prep Type Prep Bat %Rec Limits 60 - 140 ple ID: BH	tch: 4 1::56	4225 Dil Fa ampl al/N 4225 -S-1- al/N
Analysis Batch: 42256 Analyte 1,2-Dibromoethane (EDB) Lab Sample ID: LCS 590-42 Matrix: Solid Analysis Batch: 42256 Analyte 1,2-Dibromoethane (EDB) Lab Sample ID: 590-20878- Matrix: Solid	Res	ND Qualifier	0.03 Spike Added	50 C LCS Result 0.986	0.035 ug/Kg LCS	Clier	06/3 nt Sai D	0/23 08:34 mple ID: <u>%Rec</u> 99 —	Prep Bat Analyzec 06/30/23 12 Lab Contr Prep Type Prep Bat %Rec Limits 60 - 140 ple ID: BH Prep Type	tch: 4 1::56	4225 Dil Fa ampl al/N, 4225 -S-1- al/N,
Analysis Batch: 42256 Analyte 1,2-Dibromoethane (EDB) Lab Sample ID: LCS 590-42 Matrix: Solid Analysis Batch: 42256 Analyte 1,2-Dibromoethane (EDB) Lab Sample ID: 590-20878- Matrix: Solid	Res 2254/3-A 1 MS Sample	ND Qualifier	Spike Added 1.00	50 C LCS Result 0.986	LCS Qualifier	Clier	06/3 nt Sai D	0/23 08:34 mple ID: <u>%Rec</u> 99 —	Prep Bat Analyzec 06/30/23 12 Lab Contr Prep Type Prep Bat %Rec Limits 60 - 140 Ple ID: BH Prep Type Prep Bat	tch: 4 1::56	4225 Dil Fa ampl al/N, 4225 -S-1- al/N,
Analysis Batch: 42256 Analyte 1,2-Dibromoethane (EDB) Lab Sample ID: LCS 590-42 Matrix: Solid Analysis Batch: 42256 Analyte 1,2-Dibromoethane (EDB) Lab Sample ID: 590-20878- Matrix: Solid Analysis Batch: 42256 Analysis Batch: 42256 Analysis Batch: 42256	Res 2254/3-A 1 MS Sample	Sample	0.03 Spike Added 1.00 Spike	50 C LCS Result 0.986	LCS Qualifier MS	Unit ug/Kg	- 06/3 nt Sai D Clie	0/23 08:34 mple ID: <u>%Rec</u> 99 ent Sam	Prep Bat Analyzec 06/30/23 12 Lab Contr Prep Type Prep Bat %Rec Limits 60 - 140 Prep Type Prep Bat %Rec	tch: 4 1::56	4225 Dil Fa ampl al/N, 4225 -S-1- al/N,
Analysis Batch: 42256 Analyte 1,2-Dibromoethane (EDB) Lab Sample ID: LCS 590-42 Matrix: Solid Analysis Batch: 42256 Analyte 1,2-Dibromoethane (EDB) Lab Sample ID: 590-20878- Matrix: Solid Analysis Batch: 42256 Analyte 1,2-Dibromoethane (EDB) Lab Sample ID: 590-20878-	Res 2254/3-A 1 MS Sample Result ND	Sample	Spike Added 1.00 Spike Added	50 C LCS Result 0.986 MS Result	LCS Qualifier MS	Unit Unit ug/Kg	- 06/3 nt Sai _ D Clia _ D ≈	<u>%Rec</u>	Prep Bat Analyzec 06/30/23 12 Lab Contr Prep Type Prep Bat %Rec Limits 60 - 140 Prep Type Prep Bat %Rec Limits 60 - 140 Prep Type Prep Bat %Rec Limits 60 - 140 Prep Type Prep Bat %Rec Limits 60 - 140 Prep Bat %Rec Difference Bat %Rec Di	tch: 4 1::56 - 2:01 Sa 2: Tot tch: 4 -12S- 2: Tot tch: 4 -12S- -12S-	4225 Dil Fa ampl al/N 4225 S-1- sal/N 4225
Analysis Batch: 42256 Analyte 1,2-Dibromoethane (EDB) Lab Sample ID: LCS 590-42 Matrix: Solid Analysis Batch: 42256 Analyte 1,2-Dibromoethane (EDB) Lab Sample ID: 590-20878- Matrix: Solid Analyte 1,2-Dibromoethane (EDB) Lab Sample ID: 590-20878- Matrix: Solid	Res 2254/3-A 1 MS Sample Result ND	Sample	Spike Added 1.00 Spike Added	50 C LCS Result 0.986 MS Result	LCS Qualifier MS	Unit Unit ug/Kg	- 06/3 nt Sai _ D Clia _ D ≈	<u>%Rec</u>	Prep Bat Analyzec 06/30/23 12 Lab Contr Prep Type Prep Bat %Rec Limits 60 - 140 Prep Type Prep Bat %Rec Limits 60 - 140 Prep Bat %Rec Limits 60 - 140 Prep Bat %Rec Limits 60 - 140 Prep Bat %Rec Prep Type Prep Bat %Rec Prep Type Prep Bat %Rec Prep Type Prep Bat %Rec Prep Type Prep Bat %Rec Prep Type Prep Bat %Rec Prep Bat	tch: 4 a ol Sa col Sa	4225 Dil Fa ampli cal/N 4225
Analysis Batch: 42256 Analyte 1,2-Dibromoethane (EDB) Lab Sample ID: LCS 590-42 Matrix: Solid Analysis Batch: 42256 Analyte 1,2-Dibromoethane (EDB) Lab Sample ID: 590-20878- Matrix: Solid Analyte 1,2-Dibromoethane (EDB) Lab Sample ID: 590-20878- Matrix: Solid	Res 2254/3-A 1 MS Sample Result ND	Sample	Spike Added 1.00 Spike Added	50 C LCS Result 0.986 MS Result 0.840	LCS Qualifier Qualifier	Unit Unit ug/Kg	- 06/3 nt Sai _ D Clia _ D ≈	<u>%Rec</u>	Prep Bat Analyzec 06/30/23 12 Lab Contr Prep Type Prep Bat %Rec Limits 60 - 140 Prep Type Prep Bat %Rec Limits 60 - 140 Prep Type Prep Bat %Rec Limits 60 - 140 Prep Type Prep Bat %Rec Limits 60 - 140 Prep Bat %Rec Difference Bat %Rec Di	tch: 4 a ol Sa col Sa	4225 Dil Fa ampl al/N. 4225 S-1- al/N. 4225 S-1- al/N.
Analysis Batch: 42256 Analyte 1,2-Dibromoethane (EDB) Lab Sample ID: LCS 590-42 Matrix: Solid Analysis Batch: 42256 Analyte 1,2-Dibromoethane (EDB) Lab Sample ID: 590-20878- Matrix: Solid Analysis Batch: 42256 Analyte 1,2-Dibromoethane (EDB) Lab Sample ID: 590-20878-	Res 2254/3-A 1 MS Sample Result ND	Sample	Spike Added 1.00 Spike Added	50 C LCS Result 0.986 MS Result 0.840	LCS Qualifier MS	Unit Unit ug/Kg	- 06/3 nt Sai _ D Clia _ D ≈	<u>%Rec</u>	Prep Bat Analyzec 06/30/23 12 Lab Contr Prep Type Prep Bat %Rec Limits 60 - 140 Prep Type Prep Bat %Rec Limits 60 - 140 Prep Bat %Rec Limits 60 - 140 Prep Bat %Rec	tch: 4 = -12S- = -12S- = : Tot tch: 4 -12S- = : Tot tch: 4	4225 Dil Fa ample al/N/ 4225 S-1 S-1 S-1 S-1 X-25 S-1 A225
Analysis Batch: 42256 Analyte 1,2-Dibromoethane (EDB) Lab Sample ID: LCS 590-42 Matrix: Solid Analysis Batch: 42256 Analyte 1,2-Dibromoethane (EDB) Lab Sample ID: 590-20878- Matrix: Solid Analyte 1,2-Dibromoethane (EDB) Lab Sample ID: 590-20878- Matrix: Solid	Res 2254/3-A 1 MS Sample Result ND 1 MSD Sample	Sample	Spike Added 1.00 Spike Added 1.09	50 C LCS Result 0.986 MS Result 0.840	LCS Qualifier Qualifier	Unit Unit ug/Kg	- 06/3 nt Sai _ D Clia _ D ≈	<u>%Rec</u>	Prep Bat Analyzec 06/30/23 12 Lab Contr Prep Type Prep Bat %Rec Limits 60 - 140 Prep Type Prep Bat %Rec Limits 60 - 140 Prep Bat %Rec Limits 60 - 140 Prep Bat %Rec	tch: 4 a ol Sa col Sa	42254 Dil Fa ample al/N/ 42254

Method: Moisture - Percent Moisture

Lab Sample ID: 590-20 Matrix: Solid Analysis Batch: 42174						Client	Sample ID: E Prep Ty		
	Sample	•	DU			-			RPD
Analyte	Result	Qualifier	Result	Qualifier	Unit	D		RPD	Limit
Percent Moisture	11.0		 10.9		%			0.9	20
Percent Solids	89.0		89.1		%			0.1	20

Client Sample ID: BH-12S-S-1-3 Date Collected: 06/21/23 13:10 Date Received: 06/23/23 11:50

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			42174	06/26/23 15:30	M1V	EET SPK
Client Sam	ple ID: BH-	-12S-S-1-3					L	ab Sample	ID: 590	-20878-
Date Collecte	d: 06/21/23 1	3:10						-	Ма	atrix: Soli
Date Receive	d: 06/23/23 1	1:50						P	ercent S	olids: 89.
-	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	8011			10.27 g	2 mL	42254	06/30/23 08:34	M1V	EET SPK
Total/NA	Analysis	8011		1	1 mL	1 mL	42256	06/30/23 13:45	NMI	EET SPK
Client Sam	ole ID: BH-	-5SR-S-35-37					L	ab Sample	ID: 590	-20878-
Date Collecte							_			atrix: Soli
Date Receive										
-	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			42174	06/26/23 15:30	M1V	EET SPK
- Client Sami		-5SR-S-35-37						ah Samala		20070
Date Collecte								ab Sample		atrix: Soli
Date Conecte								Р		olids: 72.
-		1.00								
	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	_ Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	
Total/NA Total/NA	Prep Analysis	8011 8011		1	10.22 g 1 mL	2 mL 1 mL	42254 42256	06/30/23 08:34 06/30/23 14:51	M1V	EET SPK EET SPK
_					1 111	1 111				
		-12S-S-10-12					L	ab Sample	ID: 590	-20878-
Date Collecte									Ма	atrix: Soli
Date Receive	d: 06/23/23 1	1:50								
	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			42174	06/26/23 15:30	M1V	EET SPK
Client Sam	ple ID: BH-	12S-S-10-12					L	ab Sample	ID: 590	-20878-
Date Collecte	d: 06/21/23 1	3:28							Ма	atrix: Soli
Date Receive	d: 06/23/23 1	1:50						P	ercent S	olids: 85.
_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	8011			10.33 g	2 mL	42254	06/30/23 08:34	M1V	EET SPK
Total/NA	Analysis	8011		1	1 mL	1 mL	42256	06/30/23 15:07	NMI	EET SPK
Client Sam	ole ID [.] BH.	-5SR-S-1-3					1	ab Sample	ID: 590	-20878-
Date Collecte								an campio		atrix: Soli
Date Received									1410	
-					l	F ² ·····	Datala	Due o constal		
	Batch	Batch		Dil	Initial	Final	Batch	Prepared		

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			42174	06/26/23 15:30	M1V	EET SPK

Eurofins Spokane

Job ID: 590-20878-1

Lab Sample ID:	590-20878-1
	Matrix: Solid

						C				
Client: HDR Inc Project/Site: Si		n							Job ID: 59	90-20878-
Client Samp	•							ah Samplo		20878
								ab Sample		
Date Collected Date Received										atrix: Soli
Jale Received	1: 06/23/23 1	1:50						P	ercent 5	olids: 87.
_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	8011			10.35 g	2 mL	42254	06/30/23 08:34	M1V	EET SPK
Total/NA	Analysis	8011		1	1 mL	1 mL	42256	06/30/23 15:23	NMI	EET SPK
Client Samp	ole ID: BH-	-12S-S-0					L	ab Sample	ID: 590	-20878-
Date Collected	d: 06/21/23 1	4:00								atrix: Soli
Date Received	d: 06/23/23 1	1:50								
-	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			42174	06/26/23 15:30	-	EET SPK
Client Samp	ole ID: BH-	12S-S-0					L	ab Sample	ID: 590)-20878-
Date Collected										atrix: Soli
Date Received								P		olids: 80
-	Details	Detal		D .1	1	El a al	Datab	B		
Data Trans	Batch	Batch Mathad	Dum	Dil	Initial	Final	Batch	Prepared	Awalwat	Lab
Prep Type Total/NA		- Method	Run	Factor	Amount	Amount	Number	or Analyzed 06/30/23 08:34	Analyst M1V	
Total/NA	Prep	8011 8011		1	10.36 g 1 mL	2 mL 1 mL	42254 42256	06/30/23 08:34		EET SPK EET SPK
	Analysis	8011		1	1 111	1 111	42230	00/30/23 13.40		EETSPK
Client Samp	ole ID: BH-	12S-S-20-22					L	ab Sample	ID: 590)-20878-
Date Collected	d: 06/21/23 1	3:54							Ma	atrix: Soli
Date Received	d: 06/23/23 1	1:50								
-	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			42174	06/26/23 15:30	M1V	EET SPK
Client Samp	ole ID: BH-	12S-S-20-22					L	ab Sample	ID: 590	-20878-
Date Collected	d: 06/21/23 1	3:54								atrix: Soli
Date Received	d: 06/23/23 1	1:50						P	ercent S	olids: 81
-	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	8011		·	10.05 g	2 mL	42254	06/30/23 08:34		EET SPK
Total/NA	Analysis	8011		1	1 mL	1 mL	42256	06/30/23 15:56		EET SPK
Client Same	ole ID: BH-	5SR-S-20-22					L	ab Sample	ID: 590)-20878-
Date Collected							_			atrix: Soli
Date Received										
-	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
	Baton	Jucon			minutar		Baton	i i opai ou		

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_										
	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Туре	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			42174	06/26/23 15:30	M1V	EET SPK

Client: HDR Ind Project/Site: Si		n							Job ID: 59	90-20878-
-	•	-5SR-S-20-22						ab Sample	ID: 590	-20878-
Date Collecter										
										atrix: Soli
Date Received	1: 06/23/23 1	1:50						r	ercent 5	olids: 89
_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	8011			10.79 g	2 mL	42254	06/30/23 08:34	M1V	EET SPK
Total/NA	Analysis	8011		1	1 mL	1 mL	42256	06/30/23 16:13	NMI	EET SPK
Client Sam	ble ID: BH	-5SR-S-30-32						ab Sample	ID: 590	-20878-
Date Collected							_			atrix: Soli
Date Received										
_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	Amount	Amount	42174	06/26/23 15:30		EET SPK
		-5SR-S-30-32					L	ab Sample		
Date Collected	d: 06/21/23 1	0:35							Ма	atrix: Sol
Date Received	d: 06/23/23 1	1:50						P	ercent S	olids: 79
-	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	8011			10.21 g	2 mL	42254	06/30/23 08:34	M1V	EET SPK
Total/NA	Analysis	8011		1	1 mL	1 mL	42256	06/30/23 16:29	NMI	EET SPK
Client Sam	ble ID' BH	-12S-S-30-32					1	ab Sample	ID: 590	-20878.
Date Collected										atrix: Soli
Date Received									IVIC	atrix. 501
_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
		Method	D	Factor				•	Analyst	Lah
Prep Type Total/NA	Type Analysis	Moisture	Run	1	Amount	Amount	- Number 42174	or Analyzed 06/26/23 15:30	Analyst M1V	EET SPK
- Niont Samr		-12S-S-30-32						ab Sample		20270
								ab Sample		
Date Collecter								-		atrix: Sol
Date Received	1. 00/23/23 1	1.30						P	ercent 5	olids: 80
	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	8011			10.21 g	2 mL	42254	06/30/23 08:34	M1V	EET SPK
Total/NA	Analysis	8011		1	1 mL	1 mL	42256	06/30/23 16:45	NMI	EET SPK
Client Sam	ole ID: BH	-12S-S-35-37					La	b Sample I	D: 590-	20878-1
Date Collected	d: 06/21/23 1	4:33								atrix: Soli
Date Received	d: 06/23/23 1	1:50								
-	Potoh	Potob			Initial	Final	Potob	Bronarad		

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	Batch	Batch		Dil	Initial	Final	Batch	Prepared	A	
Prep Type Total/NA	Type Analvsis	Method Moisture	Run	Factor	Amount	Amount	Number 42174	or Analyzed 06/26/23 15:30	Analyst	Lab EET SPK
IUIAI/INA	Analysis	woisture		1			42174	00/20/23 15.50		EETSFR

						e				
Client: HDR Inc Project/Site: Sir		n							Job ID: 59	90-20878-
-	-	-12S-S-35-37					la	b Sample I	D· 590-	20878-1
ate Collected							La			atrix: Soli
ate Conected								D		olids: 79.
	. 00/23/23 1	1.50						r	ercent S	01105.79
-	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	8011			10.68 g	2 mL	42254	06/30/23 08:34	M1V	EET SPK
Total/NA	Analysis	8011		1	1 mL	1 mL	42256	06/30/23 17:18	NMI	EET SPK
Client Samp	le ID: BH-	-12S-S-15					La	b Sample I	D: 590-	20878-1
Date Collected										atrix: Soli
Date Received	: 06/23/23 1	1:50								
-	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			42174	06/26/23 15:30		EET SPK
Client Samp	Ie ID' BH.	128-8-15					La	b Sample I	D [.] 590-	20878-2
Date Collected										atrix: Sol
ate Received								D		olids: 88
	. 00/23/23 1	1.50							ercent o	01103.00
	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	8011			10.02 g	2 mL	42254	06/30/23 08:34	M1V	EET SPK
Total/NA	Analysis	8011		1	1 mL	1 mL	42256	06/30/23 17:35	NMI	EET SPK
Client Samp	le ID: BH-	-5SR-S-10-12					La	b Sample I	D: 590-	20878-1
Date Collected										atrix: Sol
Date Received	: 06/23/23 1	1:50								
-	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			42174	06/26/23 15:30		EET SPK
lient Samp	le ID: BH-	-5SR-S-10-12					la	b Sample I	D: 590-	20878-1
ate Collected										atrix: Sol
Date Received								Р		olids: 86
-	Detak	Deteb		D :/	lusit:-1	Einel	Detab			
Bron Tuno	Batch	Batch Mothod	Dun	Dil Eactor	Initial Amount	Final Amount	Batch	Prepared	Analyst	l ab
Prep Type Total/NA	Prep	8011	Run	Factor	Amount	Amount	42254	or Analyzed 06/30/23 08:34	Analyst M1V	EET SPK
Total/NA				4	10.97 g	2 mL 1 ml				
_	Analysis	8011		1	1 mL	1 mL	42256	06/30/23 17:51		EET SPK
Client Samp							La	b Sample I	D: 590-	20878-1
Date Collected									Ма	atrix: Sol
Date Received	: 06/23/23 1	1:50								
-	Batch	Batch		Dil	Initial	Final	Batch	Prepared		

Lab Chronicle

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Туре	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			42174	06/26/23 15:30	M1V	EET SPK

Eurofins Spokane

Client Sample ID: BH-5SR-S-0 Date Collected: 06/21/23 08:30 Date Received: 06/23/23 11:50

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	8011			10.21 g	2 mL	42254	06/30/23 08:34	M1V	EET SPK
Total/NA	Analysis	8011		1	1 mL	1 mL	42256	06/30/23 18:08	NMI	EET SPK

1 mL

1

Client Sample ID: EB-01 Date Collected: 06/22/23 08:31 Date Received: 06/23/23 11:50

Analysis

06/22/23 06/23/23 1							-	Ма	trix: Water
Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Prep	8011			80 mL	2 mL	42168	06/26/23 12:46	M1V	EET SPK

1 mL

42173

Laboratory References:

Prep Type Total/NA

Total/NA

EET SPK = Eurofins Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

8011

Job ID: 590-20878-1

EET SPK

8

Lab Sample ID: 590-20878-13

Lab Sample ID: 590-20878-14

06/26/23 22:09 NMI

Matrix: Solid Percent Solids: 89.7

Laboratory: Eurofins Spokane

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Pr	ogram	Identification Number	Expiration Date
Washington	St	ate	C569	01-07-24
The following analytes	s are included in this repo	ort but the laboratory is i	not certified by the governing authority.	This list may include analytes for which
the agency does not o	•	,		
• •	•	Matrix	Analyte	
the agency does not o	offer certification.		, , , , , ,	

Method Summary

Client: HDR Inc Project/Site: Simplot Warden

Method	Method Description	Protocol	Laboratory
8011	EDB	EPA	EET SPK
Moisture	Percent Moisture	EPA	EET SPK
8011	Microextraction	SW846	EET SPK

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET SPK = Eurofins Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

Eurofins Spokane 11922 East 1st Ave

Chain of Custody Record

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Envision of in

Spokane, WA 99206 Phone (509) 924-9200 Phone (509) 924-9290

Client Information	Sampler: Alyss Phone: 208-3	. Nont	ch	Lab PA		andee	F					Carrier	Trackin	g No(s)			COC No: 590-8638-25	14.3	
Client Contact:	Phone:	and m		E Mail								State o	í Örigin				Page:		
Jered Newcomb Company:	1908-2	<u> </u>	ILS WSID:	Rand	ee.Arr	ington(@et.e	urofin	sus.c	om							Page 3 of 3		
HDR Inc			11010.					A	naly	/sis	Req	uest	ed				000 #.		
Address: 1401 E. Trent Ave Suite 101	Due Date Requeste	id;															Preservation		
City:	TAT Requested (da	ys):															A HCL B NaOH	M Hexane N None	
Spokane									{							ŀ	C Zn Acetate	O AsNaO2 P Na2O4S	
State, Zip: WA, 99202	Compliance Projec	t: <u>A</u> Yes A	No														D Nitric Acid E NaHSO4	Q Na2SO3 R Na2S2O	
Phone:	PO #:																F MeOH G Amchlor	S H2SO4	
509-343-8446(Tel) Email:	Purchase Order W0#;	not required			ş		8 4										H Ascorbic Ac	U Aceione	
jered.newcomb@hdrinc.com	WO #.				<u>6</u>		Met										J. DI Water	V MCAA W pH4-5	
Project Name:	Project #:				or 1		LLY KUKA 8 Metals Total RCRA 8 Metals			è Lis:	e List					containare	K EDTA L EDA	Y Trizma	
Simplot Warden	59002373 SSOW#:				ple (Yes				4	talyti	alyte						Other [.]	Z other (sp	ecity)
					Sam		ICLY KUKA 8 Metals Total RCRA 8 Meta		SVOA	u An	d An	- I					S		
Xother Samples of Sample Identification On back of	Sample Date	Sample (Sample Type (C=comp, G=grab)	ater lid, te/oil, h, A=Atr)	Fleid Filtered Perform MS/W	8011 EDB	60100, 7470A	1010	8270C Routine	8260D Standard Analyte List	8260D Standard Analyte List	SM4500	9045D pH			Trist Nimber of	Specia	I Instructions	/Note:
		$\geq \leq$	Preservation Co	ode:	\propto	N N	N	N	N	F	A	N N	(<u> </u>			
BH-125-5-1-3	6/21/23	1310	Sol	id		\mathbb{X}											~		
BH-55B-5-35-37	1 1	1056	Gy Sol	lid		X		·											
BH-125-5-10-12		1328	G Sol	lid		X								_		1			
BH-55R-5-1-3		0867	67 Sol			X													
BH-125-5-0		1400	G See	- T t		×			ł	1 1		,1	I	1		Γ			
BH-125-5-20-22		354	Gy Sold	g_		<u>v</u> L		_											
BH-65R-5-20-20		1006	Gn Sol			Ŕ										nin.			
BH-55R-5-30-32		1035	6 504	Ø		1													
311-125-5-30-32		1417	G1 501	id		4			590	0-208	378 (Chain	of Cu	stody					
BH-125-5-35-37	\mathbf{N}	1433	(2 Soli	ð_		4										100,00 100,000			
BH-125-5-15		1331	G1 501	cd		Y													
Possible Hazard Identification					Sar					may r	be as	sess	ed if s	ampl		_	ned longer tha	n 1 month)	
	on B 🛄 Unkn	own Ra	adiological		<u> </u>			o Clie			D	ispos	al By I	.ab		- Are	chive For	Months	:
Deliverable Requested: I, II III, IV Other (specify)					Spe	ecial In	struct	lións/C	JC Ri	equire /	emen	IS.							
Empty Kit Relinquished by	Image: 1	Date:		ľ	Time:		~	11	7	/		٨	lethod o	of Shipn	nent:				
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Relinquished by:	Date/Time:		Compan	vy		Receive	ed by:							Date	/Time:			Company	
Custody Seals Intact: Custody Seal No.	-					Cooler -	Tempe	rature(s	s) °C a	nd Olh	er Rei	narks:	1	.2	3.	9	WROOG	I	
			Pane	20 0	of 22								7	` 7		/	<u></u>	Ver: 01/16	1/20197/5/20

Sample ID	Date	Time	Sample Type	Matrix	Analysis
BH-55R-5 10-12	6/21/23	0958	1 -	Solid	EDB
BH-55R-5-0	6/21/23	0830	Grab	Solid	EDB
EB-01	6/22/23	6831	Grab	Water	EDB
				T	
		}			
		I			

Login Sample Receipt Checklist

Client: HDR Inc

Login Number: 20878 List Number: 1 Creator: Morris, Mackenzie 1

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
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.	N/A	
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	

Job Number: 590-20878-1

List Source: Eurofins Spokane



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Data Validation Report



SIMPLOT WARDEN

DATA VALIDATION REPORT FOR JULY 2023 WELL INSTALLATION REPORT

Introduction

This report summarizes the data validation performed on the soil analytical results of the samples collected in July 2023 from soil cuttings generated during groundwater monitoring well drilling. These samples were collected and analyzed in general accordance with the procedures and protocols specified in the 2023 *Groundwater Monitoring Well Construction and Monitoring Plan* (Work Plan).

The data validation for groundwater samples considered the following elements:

- Sampling procedures
- Holding times
- Detection limit
- Surrogate spike recoveries
- Laboratory method blank
- Laboratory control sample
- Equipment rinsate blank
- Laboratory spikes and spike duplicates
- Duplicate field sample

Sampling Procedures

Soil samples were collected from soil cuttings generated from the drilling of each of the four monitoring wells being installed as part of the Work Plan. New monitoring wells MW-11S and MW-12S, and replacement monitoring wells MW-5SR and MW-5DR were drilled in July 2023 using a rotosonic drill method which generates continuous soil cuttings during drilling for lithologic logging and sampling. Soils were sampled as outlined in the Work Plan.

Samples were labeled, sealed, placed in a cooler, and hand delivered to Eurofins in Spokane, WA on 6/20/2023 (first set of samples) and shipped to Eurofins in Spokane, WA on 6/22/2023 (second set of samples).

Eurofins analyzed soil samples for EDB by EPA method 8011.

Holding Times

A total of 27 samples were submitted to Eurofins (25 soil, 2 water), including a trip blank, rinsate blank, and two duplicate samples. Holding times were met for all analytes. HDR collected an MS/MSD from BH-5DR-S-20-22 and the lab ran an additional MS/MSD off of BH-12S-S-1-3 (separate lab report).

Detection Limit

Detection limits are specified by the analytical methods and for the samples, ranged from 0.033 to 0.047 μ g/Kg.

Laboratory Method Blank

All analytes were below the reporting limit in the method blank except for the following:

• EDB was detected in method blank MB 590-42168/2-A at 0.00526 µg/L and was J qualified as it was between the method detection limit and the reporting limit.

Laboratory Control Sample

Percent recoveries of the laboratory control samples were reported within acceptance limits. The relative percent difference (RPD) for the laboratory control sample duplicate was within limits.

Equipment Rinsate Blank

An equipment rinsate blank (EB-01) was collected with the samples and analyzed for EDB. The equipment rinsate blank was below detection limits for EDB.

Trip Blank

A trip blank (TB-01) was carried with the samples and analyzed for EDB. The trip blank was below detection limits for EDB.

Laboratory Spikes and Spike Duplicates

MS and MSD analyses were performed on MS and MSD samples collected from BH-5DR-S-20-22 as well as analyzed from BH-12S-S-1-3 (lab selected for the second batch of samples).

For matrix spike and matrix spike duplicate 590-20878-1 run from BH-12S-S-1-3, percent recoveries and RPD was within recovery limits.

For matrix spike 590-20844-9 MS (from BH-5DR-S-20-22), the recover was within recovery limits. For matrix spike duplicate 590-20844-9 MSD (from BH-5DR-S-20-22), the percent recover was below recovery limits and the RPD was above the RPD limit (RPD of 47 compared to a limit of 20). Associated sample results were flagged as F1 and F2 accordingly.

Duplicate Field Sample

Two duplicate samples were secured during sampling at a rate of 10% of the total samples. Duplicates were collected from BH-5SR-S-20-22 (duplicated labeled as BH-5SR-S-0) and BH-12S-S-30-32 (duplicate labeled as BH-12SR-0). The results of the duplicates are presented in **Table 1**. The Work Plan/SOPs specify an RPD limit of 20 percent. The duplicate is within the acceptable range for all analytes. Note that EDB was non-detect in all four samples, so only percent moisture and solids are used in **Table 1** for RPD comparison.

Table 1. Relative Percent Difference (RPD) of Detected Compounds for Duplicate Samples fromBH-5SR and BH-12S

Detected Compound	BH-5SR-S-20-22 (µg/Kg)	DUPLICATE (BH-5SR-S-0) (µg/Kg)	RPD
Percent Moisture	10.6	10.3	2.87%
Percent Solids	89.4	89.7	-0.34%
Detected Compound	BH-12S-S-30-32 (µg/Kg)	DUPLICATE (BH-12S-S-0) (µg/Kg)	RPD
-		2 0 · _ · · · _ (_ · · · · _ 0 · · / (# 9 · · · 9 /	
Dissolved calcium	19.2	19.3	-0.52%

RPD (relative percent difference) = [Parent – Dup]/ [mean (Parent, Dup)] X 100

mg/L = milligrams per liter