



PDC Energy, Inc.
Third Quarter 2024 Groundwater Monitoring Summary

August 5, 2024
Former Ikenouye F29-22, 23 Tank Battery
NWSE Section 29 T5N R65W
Remediation # 31424

This groundwater monitoring summary has been prepared by Tasman, Inc. for the former Ikenouye F29-22, 23 tank battery location.

Site History and Background

On October 30, 2023, field screening and confirmation soil sampling activities were conducted in accordance with the ECMC Rule 911 during the decommissioning of the Ikenouye F29-22, 23 tank battery (Figure 1). On October 31, 2023, it was determined that a historic release was discovered when visually impacted soils were observed in contact with groundwater at the produced water vaults (PWVs) at approximately 6.5 feet bgs. Two additional historical releases were discovered on November 10, 2023, upon receipt of final analytical results from samples collected from under the above ground storage tanks on site. During decommissioning activities, groundwater was discovered beneath the produced water vaults at a depth of 6.5 feet bgs.

Between October 31, 2023, and March 11, 2024, approximately 2,727 cubic yards (CY) of impacted material were removed from the Ikenouye F29-22, 23 Tank Battery and transported off-site for disposal. Additionally, groundwater vacuum recovery was conducted concurrent with excavation activities and approximately 4,930 barrels (BBLs) of groundwater were removed from the former excavation.

Monitoring Well Installation Activities

On June 3, 2024, 11 monitoring wells (BH01 – BH11) [Figure 1] were installed to delineate dissolved-phase hydrocarbon impacts within and surrounding the former excavation extent. Lithologic descriptions and volatile organic compound (VOC) concentrations measured using a photoionization detector (PID) were recorded for each monitoring well. Per the COA issued in the approved Supplemental Form 27 (Document No. 403711161), samples were collected from the interval exhibiting the highest PID reading and the terminus of each soil boring. Twenty two (22) soil samples were collected from the borings at depths ranging from 5-6 feet to 11-12 feet bgs and were submitted to Summit Scientific Laboratory (Summit) for analysis of benzene, toluene, ethylbenzene, total xylenes (BTEX), naphthalene, 1,2,4-trimethylbenzene (TMB), 1,3,5-TMB, total petroleum hydrocarbons (TPH) [C6-C36], benz(a)anthracene, 1-methylnaphthalene (M), 2-M, and the Table 915-1 Metals Suite.

Soil analytical results indicated that organic compound concentrations were in compliance with the applicable ECMC Protection of Groundwater Soil Screening Levels (SSLs) in all 22 soil samples collected

during monitoring well installation activities. Arsenic concentrations were in exceedance of the applicable ECMC regulatory standard in all 22 soil sample locations. Additionally, the barium concentration in soil sample BH01 @ 11-12', the cadmium, lead, nickel, and selenium concentrations in soil sample BH04 @ 11-12', and the lead concentration in BH05 @ 5-6' were all in exceedance of the applicable ECMC regulatory standards. The remaining constituent concentrations were in compliance with the applicable ECMC regulatory standards in all soil sample locations.

Although boring logs were not completed for soil boring BKG01, the proximity of this background soil boring to monitoring well BH03 indicates that soil composition would be comparable between the two locations. Furthermore, monitoring wells BH03, BH04 and BH11 were installed within native material north of the former excavation, thus providing an accurate description of soil composition for the site's background material in this area. As seen in the boring logs completed for monitoring wells BH01 through BH11, site-wide soil types consist mostly of fine to coarse grained sands. Based on the homogeneity of site-wide soil composition from 2 feet to 12 feet bgs, site metals concentrations observed in soil samples BH01 through BH11 were compared to the metals concentrations observed in background soil samples BKG01 @ 2.5' and BKG01 @ 4'. Based on the results, all metals concentrations are below the highest background concentration recorded on site, aside from the cadmium, nickel, and selenium concentrations recorded in soil sample BH04 @ 11-12'.

Monitoring well locations are illustrated on Figure 1. Soil analytical results are summarized in Tables 1 and 2. GPS coordinates and field recorded VOC concentrations are summarized in Table 3. The analytical report is included in Attachment A. The soil boring and well completion logs are included in Attachment B.

Groundwater Monitoring Activities

On July 24, 2024, groundwater monitoring was conducted at all 11 monitoring wells (BH01 – BH11). Eleven groundwater samples were submitted to Summit for analysis of BTEX, naphthalene, 1,2,4-TMB, and 1,3,5-TMB by EPA Method 8260B, chloride and sulfate anions by EPA Method 300.0 and total dissolved solids (TDS) by Method SM 2540C.

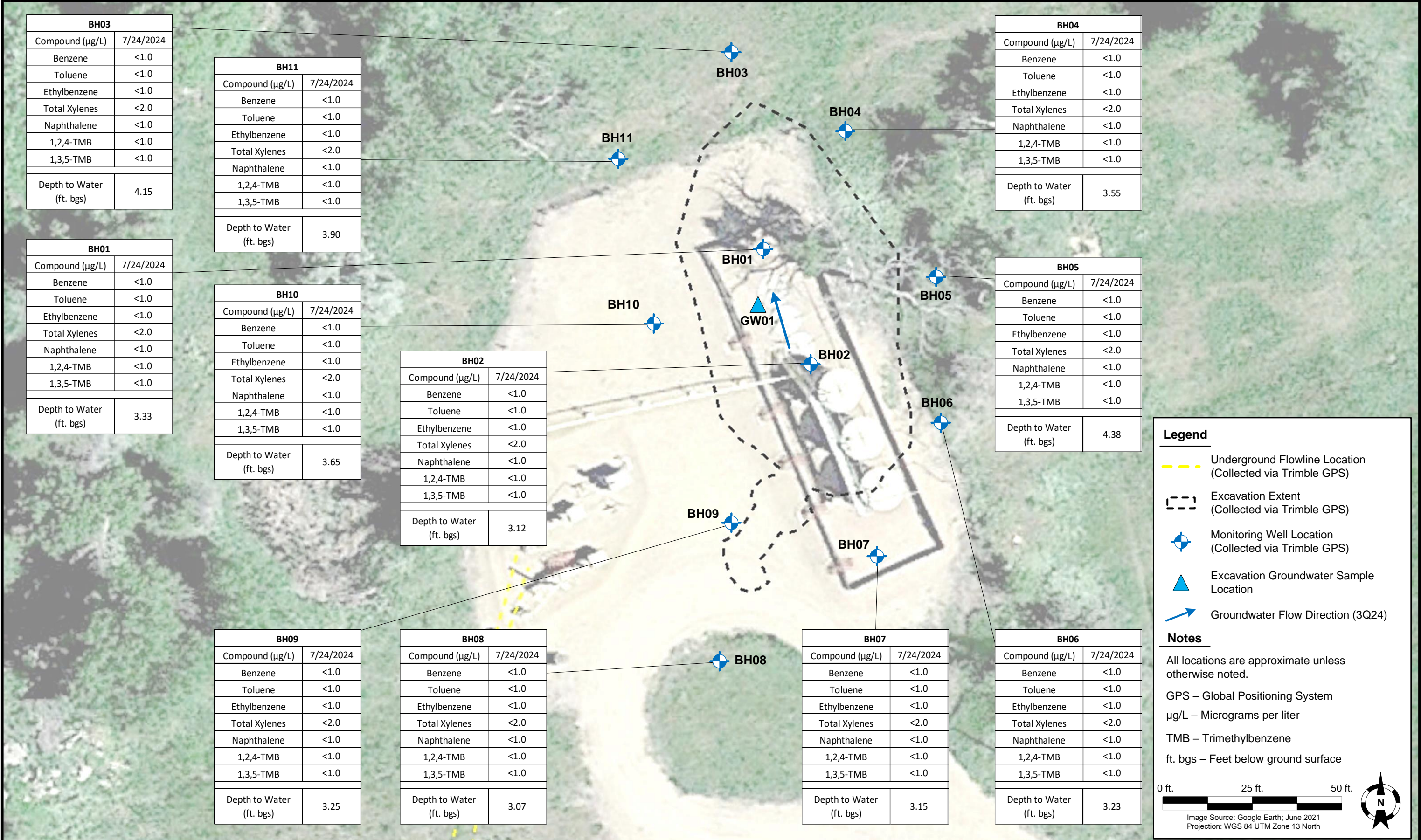
Third quarter 2024 analytical results indicated that organic compound concentrations were in compliance with the applicable ECMC Table 915-1 regulatory standards in all 11 monitoring well locations. Additionally, inorganic parameter concentrations were in compliance with the applicable regulatory standards or within 1.25x the background concentrations of the up-/cross-gradient monitoring wells (BH05 – BH08) in all 11 monitoring well locations. Sample locations and corresponding analytical results are illustrated on Figures 1 and 2. Groundwater elevation data is illustrated on Figure 3. Groundwater analytical results are summarized in Tables 4 and 5. The laboratory analytical report is included in Attachment A.

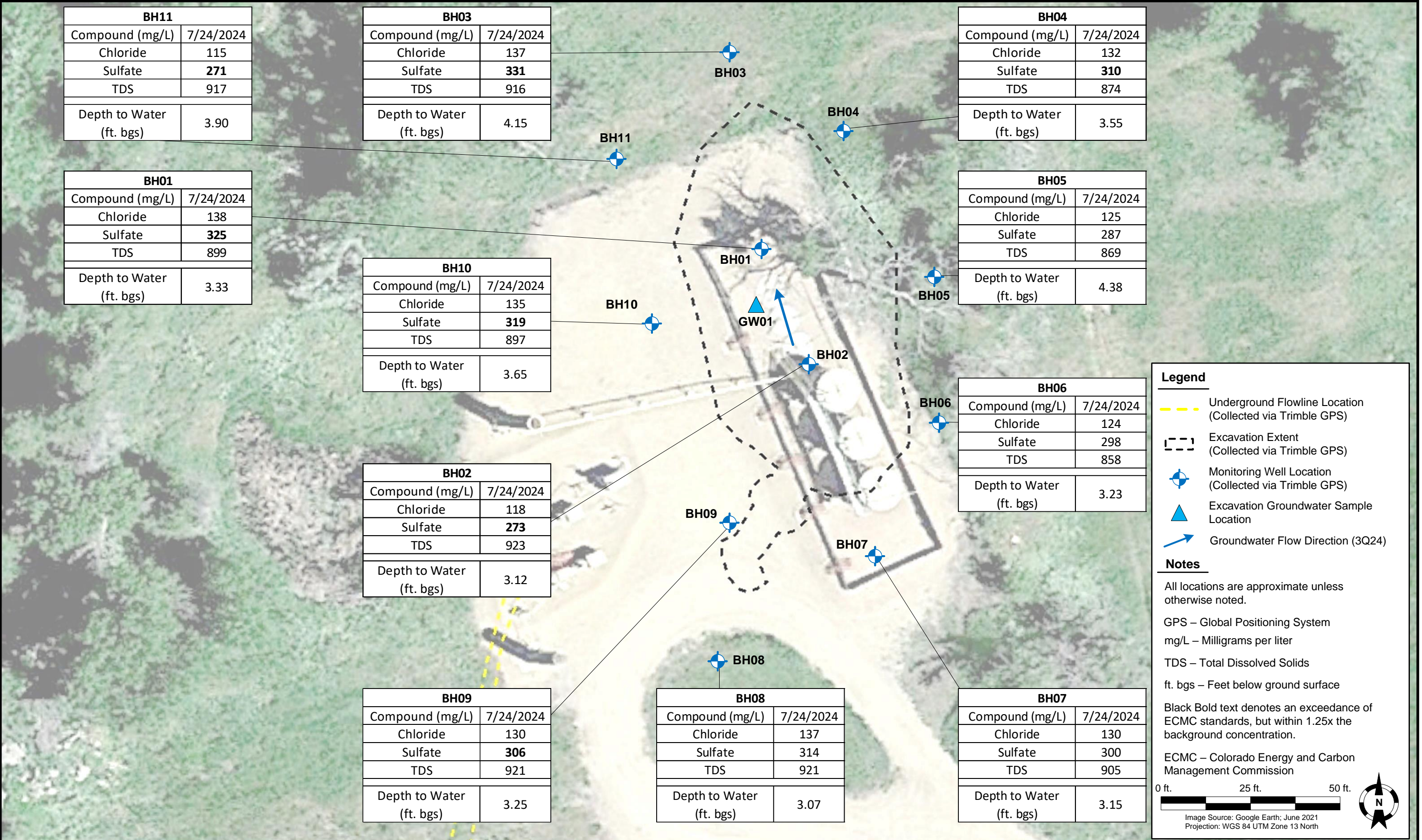
Current Remediation Activities and Path Forward

Monitored natural attenuation (MNA) was selected as the remediation strategy for this site during the third quarter 2024 and will remain the selected remediation strategy through the fourth quarter 2024.

Based on analytical results, further site investigation activities are required to vertically and horizontally delineate cadmium, nickel, and selenium exceedances observed in soil boring BH04 @ 11-12' and to continue to assess cadmium, nickel, and selenium concentrations in native soil on site. The proposed soil boring locations are illustrated on Figure 4.

Fourth quarter 2024 groundwater sampling will be conducted in October 2024.





DATE: August 2, 2024

DESIGNED BY: C. Hamlin

DRAWN BY: G. Semenza

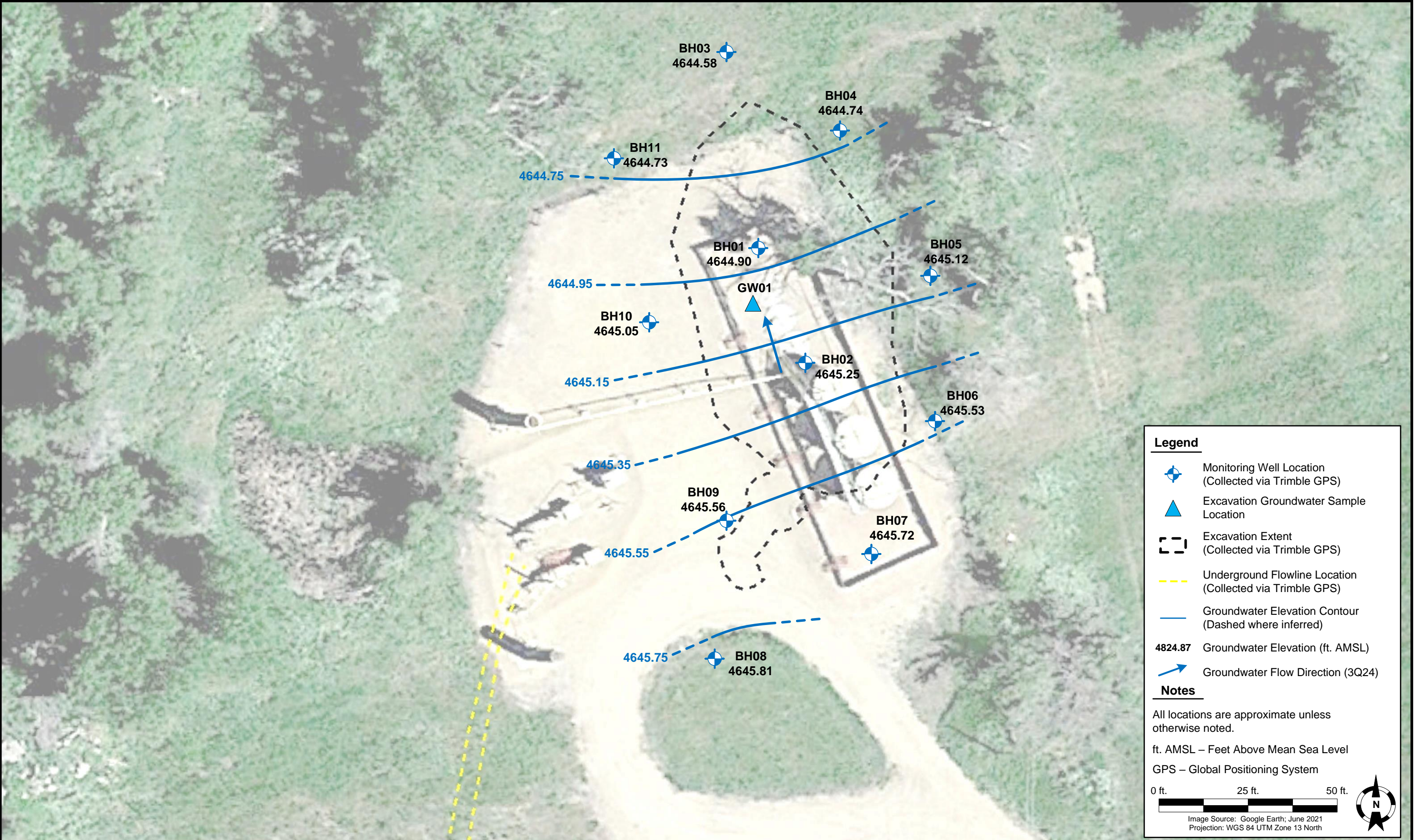


Tasman, Inc.
6855 W. 119th Ave.
Broomfield, CO 80020

PDC Energy, Inc. (69175) – DJ Basin
Former Ikenouye F29-22, 23 Tank Battery
NWSE, Section 29, Township 5 North, Range 65 West
Weld County, Colorado

GROUNDWATER
ANALYTICAL RESULTS
MAP
(INORGANIC PARAMETERS)

FIGURE
2



DATE:	August 5, 2024
DESIGNED BY:	B. Nelson
DRAWN BY:	J. Clonts

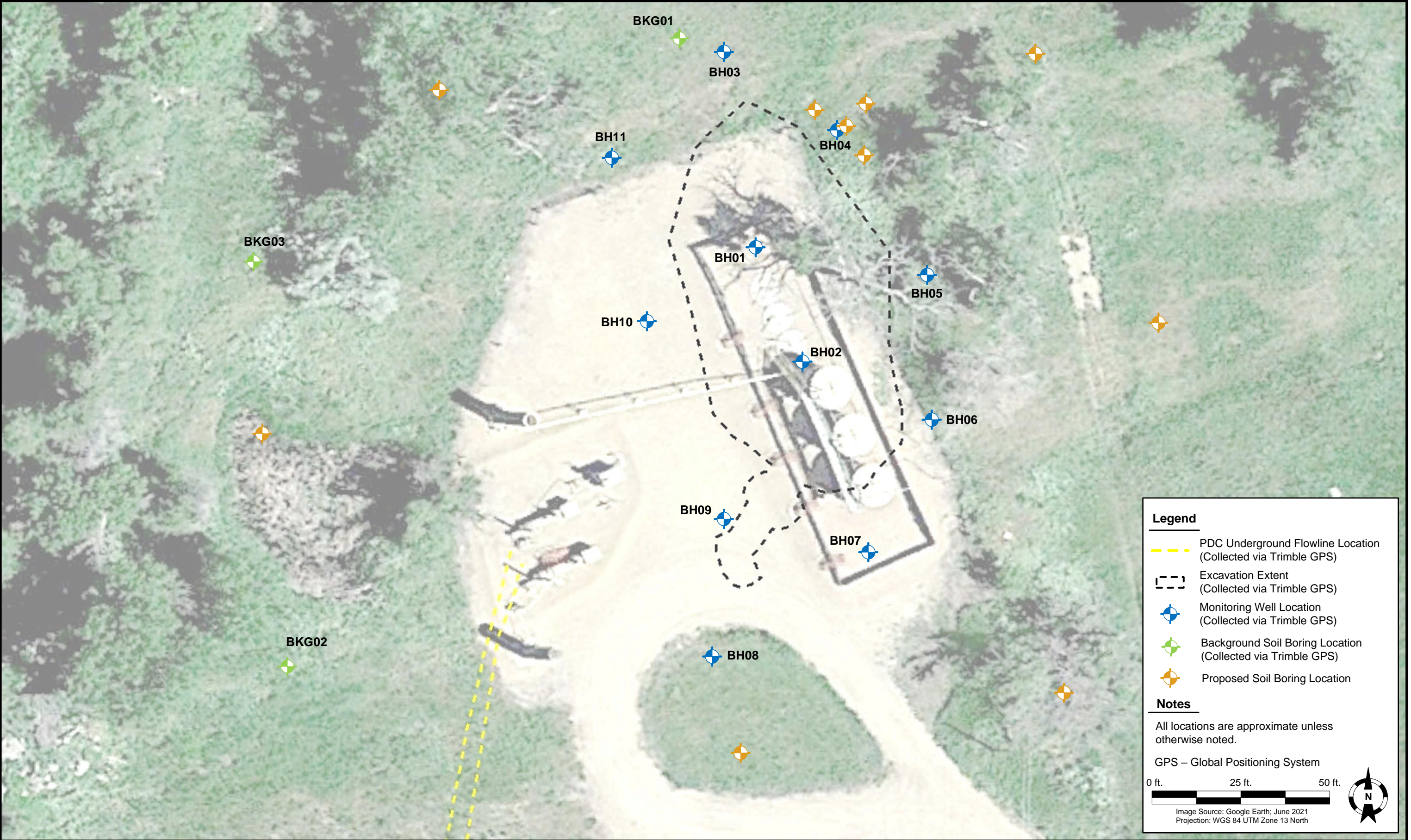


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PDC Energy, Inc. (69175) – DJ Basin
Former Ikenouye F29-22, 23 Tank Battery
NWSE, Section 29, Township 5 North, Range 65 West
Weld County, Colorado

GROUNDWATER
ELEVATION CONTOUR
MAP (07/24/2024)

FIGURE
3




DATE: August 5, 2024	 TASMAN Tasman, Inc. 6855 W. 119 th Ave. Broomfield, CO 80020	PDC Energy, Inc. (69175) – DJ Basin Former Ikenouye F29-22, 23 Tank Battery NWSE, Section 29, Township 5 North, Range 65 West Weld County, Colorado	PROPOSED SOIL BORING LOCATION MAP	FIGURE 4
DESIGNED BY: C. Hamlin				
DRAWN BY: G. Semenza				

TABLE 1
FORMER IKENOUYE F 29-22, 23 TANK BATTERY
SOIL ANALYTICAL RESULTS SUMMARY TABLE
CONTAMINANTS OF CONCERN

Sample ID	Date Sampled	Depth	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	1, 2, 4-TMB (mg/kg)	1, 3, 5-TMB (mg/kg)	Naphthalene (mg/kg)	TPH ⁽⁴⁾ (mg/kg)	Benz(a) (mg/kg)	1-M (mg/kg)	2-M (mg/kg)
Residential SSL ^(1,2)			1.2	490	5.8	58	30	27	2	500	1.1	18	24
Protection of Groundwater SSL ^(1,2,3)			0.0026	0.69	0.78	9.9	0.0081	0.0087	0.0038	500	0.011	0.006	0.019
AST01 @ 0-6"	10/30/2023	0-6 in. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500
AST02 @ 0-6"	10/30/2023	0-6 in. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	0.00714	0.00852
AST03 @ 0-6"	10/30/2023	0-6 in. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	0.038	<0.0038	3.1	<0.00500	<0.00500	<0.00500
SEP01-DL @ 4'	10/30/2023	4 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500
SEP01-FL @ 4'	10/30/2023	4 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500
SEP02-DL @ 4'	10/30/2023	4 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500
SEP02-FL @ 4'	10/30/2023	4 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	0.00812	<0.00500	<0.00500
WC01 @ 4'	10/31/2023	4 ft. bgs	0.17	0.048	5.6	52 ⁽⁵⁾	12 ⁽⁵⁾	8.4 ⁽⁵⁾	0.22 ⁽⁵⁾	2,160	<0.00500	0.119	0.270 ⁽⁵⁾
SS01 @ 7'	1/9/2024	7 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	NA	<0.00500	<0.00500
SS02 @ 4'	1/9/2024	4 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	NA	<0.00500	<0.00500
SS03 @ 6'	1/9/2024	6 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	NA	<0.00500	<0.00500
SS04 @ 7'	1/9/2024	7 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	NA	<0.00500	<0.00500
SS05 @ 4'	1/9/2024	4 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	NA	<0.00500	<0.00500
SS06 @ 6'	1/9/2024	6 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	NA	<0.00500	<0.00500
SS07 @ 4'	1/10/2024	4 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	NA	<0.00500	<0.00500
SS08 @ 6'	1/10/2024	6 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	NA	<0.00500	<0.00500
SS09 @ 7'	1/10/2024	7 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	NA	<0.00500	<0.00500
SS10 @ 7'	1/10/2024	7 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	NA	<0.00500	<0.00500
SS11 @ 7'	1/10/2024	7 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	NA	<0.00500	<0.00500
SS12 @ 4'	1/10/2024	4 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	NA	<0.00500	<0.00500
SS13 @ 6'	1/10/2024	6 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	NA	<0.00500	<0.00500
SS14 @ 7'	1/10/2024	7 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	NA	<0.00500	<0.00500
SS15 @ 4'	1/10/2024	4 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	NA	<0.00500	0.00664
SS16 @ 6'	1/10/2024	6 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	NA	<0.00500	<0.00500
SS17 @ 7'	1/10/2024	7 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	NA	<0.00500	<0.00500
SS18 @ 4'	1/10/2024	4 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	NA	<0.00500	<0.00500
SS19 @ 6'	1/10/2024	6 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	NA	<0.00500	<0.00500
SS20 @ 7'	1/10/2024	7 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	NA	<0.00500	<0.00500
SS22 @ 4'	1/10/2024	4 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	NA	<0.00500	<0.00500
SS23 @ 6'	1/10/2024	6 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	NA	<0.00500	<0.00500
SS25 @ 4'	1/11/2024	4 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	NA	<0.00500	<0.00500
SS26 @ 6'	1/11/2024	6 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	NA	<0.00500	<0.00500
SS27 @ 7'	1/11/2024	7 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	NA	<0.00500	<0.00500
SS28 @ 4'	1/11/2024	4 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	NA	<0.00500	<0.00500
SS29 @ 6'	1/11/2024	6 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	NA	<0.00500	<0.00500
SS30 @ 7'	1/11/2024	7 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	NA	<0.00500	<0.00500
SS31 @ 4'	1/17/2024	4 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	0.0304	<0.00500	<0.00500
SS32 @ 6'	1/17/2024	6 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	0.00949	<0.00500	<0.00500
SS33 @ 7'	1/17/2024	7 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500
SS34 @ 4'	1/17/2024	4 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	0.0337	<0.00500	<0.00500
SS35 @ 6'	1/17/2024	6 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500
SS36 @ 7'	1/17/2024	7 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500
SS37 @ 4'	1/17/2024	4 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	0.90	0.00822	<0.00500	<0.00500
SS38 @ 6'	1/17/2024	6 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500
SS39 @ 7'	1/17/2024	7 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500
SS40 @ 7'	1/17/2024	7 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500
SS41 @ 4'	1/17/2024	4 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	0.0192	<0.00500	<0.00500
SS42 @ 6'	1/17/2024	6 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500
SS43 @ 7'	1/17/2024	7 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500
SS45 @ 4'	1/17/2024	4 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	0.0285	<0.00500	<0.00500
SS46 @ 6'	1/17/2024	6 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500
SS48 @ 4'	1/17/2024	4 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	0.00901	<0.00500	<0.00500
SS49 @ 6'	1/17/2024	6 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500
SS50 @ 7'	1/17/2024	7 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500
SS51 @ 6"	1/17/2024	6 in. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	0.00651	<0.00500	<0.00500
SS52 @ 6"	1/17/2024	6 in. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500
SS53 @ 6"	1/17/2024	6 in. bgs	<0.0020	<0.0050	<0.0050	0.080	0.071	0.052	<0.0038	1.2	0.0389	<0.00500	<0.00500
SS54 @ 6"	1/17/2024	6 in. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500
SS55 @ 1'	1/18/2024	1 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	0.00651	<0.00500	<0.00500
SS56 @ 6"	1/18/2024	6 in. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500
SS57 @ 4'	1/22/2024	4 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500

TABLE 1
FORMER IKENOUYE F 29-22, 23 TANK BATTERY
SOIL ANALYTICAL RESULTS SUMMARY TABLE
CONTAMINANTS OF CONCERN

Sample ID	Date Sampled	Depth	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	1, 2, 4-TMB (mg/kg)	1, 3, 5-TMB (mg/kg)	Naphthalene (mg/kg)	TPH ⁽⁴⁾ (mg/kg)	Benz(a) (mg/kg)	1-M (mg/kg)	2-M (mg/kg)
Residential SSL ^(1,2)			1.2	490	5.8	58	30	27	2	500	1.1	18	24
Protection of Groundwater SSL ^(1,2,3)			0.0026	0.69	0.78	9.9	0.0081	0.0087	0.0038	500	0.011	0.006	0.019
SS58 @ 6'	1/22/2024	6 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500
SS59 @ 4'	1/22/2024	4 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500
SS60 @ 6'	1/22/2024	6 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500
SS61 @ 4'	1/22/2024	4 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	0.00562	<0.00500	<0.00500
SS62 @ 6'	1/22/2024	6 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500
SS63 @ 4'	1/22/2024	4 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	0.0274	<0.00500	<0.00500
SS64 @ 6'	1/22/2024	6 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500
SS65 @ 4'	2/9/2024	4 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	0.00851	<0.00500	<0.00500
SS66 @ 6'	2/9/2024	6 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	0.0466	<0.00500	<0.00500
SS67 @ 3'	2/16/2024	3 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	0.0107	<0.00500	<0.00500
SS68 @ 6'	2/16/2024	6 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500
SS69 @ 7'	2/16/2024	7 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500
SS70 @ 3'	2/16/2024	3 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	0.0147	<0.00500	<0.00500
SS71 @ 6'	2/16/2024	6 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500
SS72 @ 3'	2/16/2024	3 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	0.0106	<0.00500	<0.00500
SS73 @ 6'	2/16/2024	6 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500
SS74 @ 3'	2/28/2024	3 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	0.0115	<0.00500	<0.00500
SS75 @ 6'	2/28/2024	6 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	0.00745	<0.00500	<0.00500
SS76 @ 3'	3/11/2024	3 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	0.00629	<0.00500	<0.00500
SS77 @ 6'	3/11/2024	6 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500
SS78 @ 3'	3/11/2024	3 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500
SS79 @ 6'	3/11/2024	6 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500
SS80 @ 3'	3/11/2024	3 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500
SS81 @ 6'	3/11/2024	6 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500
BH01 @ 6-7'	6/3/2024	6-7 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500
BH01 @ 11-12'	6/3/2024	11-12 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500
BH02 @ 6-7'	6/3/2024	6-7 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500
BH02 @ 11-12'	6/3/2024	11-12 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500
BH03 @ 5-6'	6/3/2024	5-6 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500
BH03 @ 11-12'	6/3/2024	11-12 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500
BH04 @ 8-9'	6/3/2024	8-9 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500
BH04 @ 11-12'	6/3/2024	11-12 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500
BH05 @ 5-6'	6/3/2024	5-6 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500
BH05 @ 11-12'	6/3/2024	11-12 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500
BH06 @ 7-8'	6/3/2024	7-8 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500
BH06 @ 11-12'	6/3/2024	11-12 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500
BH07 @ 6-7'	6/3/2024	6-7 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500
BH07 @ 11-12'	6/3/2024	11-12 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500
BH08 @ 6-7'	6/3/2024	6-7 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500
BH08 @ 11-12'	6/3/2024	11-12 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500
BH09 @ 7-8'	6/3/2024	7-8 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500
BH09 @ 11-12'	6/3/2024	11-12 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500
BH10 @ 7-8'	6/3/2024	7-8 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500
BH10 @ 11-12'	6/3/2024	11-12 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500
BH11 @ 7-8'	6/3/2024	7-8 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500
BH11 @ 11-12'	6/3/2024	11-12 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500

TABLE 1
FORMER IKENOUYE F 29-22, 23 TANK BATTERY
SOIL ANALYTICAL RESULTS SUMMARY TABLE
CONTAMINANTS OF CONCERN

Sample ID	Date Sampled	Depth	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	1, 2, 4-TMB (mg/kg)	1, 3, 5-TMB (mg/kg)	Naphthalene (mg/kg)	TPH ⁽⁴⁾ (mg/kg)	Benz(a) (mg/kg)	1-M (mg/kg)	2-M (mg/kg)
Residential SSL ^(1,2)			1.2	490	5.8	58	30	27	2	500	1.1	18	24
Protection of Groundwater SSL ^(1,2,3)			0.0026	0.69	0.78	9.9	0.0081	0.0087	0.0038	500	0.011	0.006	0.019

Notes:

- Compounds referenced from the ECMC 2 CCR 404-1, Table 915-1, effective January 15, 2021.
- Soil Screening Levels (SSL) referenced from EPA Regional Screening Levels (EPA RSLs) for Chemical Contaminants at Superfund Sites, effective November 2020.
- SSLs are applicable if a pathway for communication with groundwater is present.
- Value calculated by adding TPH-GRO, TPH-DRO, and TPH-ORO concentrations.
- The concentration indicated for this analyte is an estimated value above the calibration range of the instrument.

ECMC = Energy & Carbon Management Commission

(<) = Analytical result is less than the indicated laboratory reporting limit.

TPH-GRO = Total petroleum hydrocarbons - gasoline range organics

TPH-DRO = Total petroleum hydrocarbons - diesel range organics

TPH-ORO = Total petroleum hydrocarbons - oil range organics

mg/kg = Milligrams per kilogram

TMB = Trimethylbenzene

Benz(a) = Benzanthracene

NA = Constituent not analyzed

 = Source material characterization sample material, excavated and transported off-site for disposal

 = Material excavated and transported off-site for disposal

ft. = Feet

in. = Inches

bgs = Below ground surface

BOLD = Analytical result is in exceedance of applicable standard.

TABLE 2
FORMER IKENOUYE F 29-22, 23 TANK BATTERY
SOIL ANALYTICAL RESULTS SUMMARY TABLE
METALS

Sample ID	Date Sampled	Depth	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (VI) (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Nickel (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)	Zinc (mg/kg)
Residential SSL ^(1,2)			0.68	15,000	71	0.3	3,100	400	1,500	390	390	23,000
Protection of Groundwater SSL ^(1,2,3)			0.29	82	0.38	0.00067	46	14	26	0.26	0.8	370
WC01 @ 4'	10/31/2023	4 ft. bgs	2.45	75.1	0.592	<0.30 ⁽⁴⁾	37.3	57.6	1.81	0.266	1.01	55.7
BKG01 @ 2.5'	10/30/2023	2.5 ft. bgs	39.2	119	1.49	<0.30 ⁽⁴⁾	109	306	3.26	0.620	8.93	126
BKG01 @ 4'	10/30/2023	4 ft. bgs	0.995	12.9	<0.200	<0.30 ⁽⁴⁾	80.1	26.7	1.15	<0.260	0.0904	47.6
BH01 @ 6-7'	6/3/2024	6-7 ft. bgs	0.393	19.4	<0.200	<0.30 ⁽⁴⁾	3.40	2.35	3.04	<0.260	<0.0200	11.5
BH01 @ 11-12'	6/3/2024	11-12 ft. bgs	1.85	87.6	<0.200	<0.30 ⁽⁴⁾	7.65	7.22	7.34	<0.260	0.0435	29.4
BH02 @ 6-7'	6/3/2024	6-7 ft. bgs	0.403	10.7	<0.200	<0.30 ⁽⁴⁾	2.59	2.17	2.11	<0.260	<0.0200	10.9
BH02 @ 11-12'	6/3/2024	11-12 ft. bgs	0.409	18.3	<0.200	<0.30 ⁽⁴⁾	2.31	2.09	1.19	<0.260	<0.0200	8.73
BH03 @ 5-6'	6/3/2024	5-6 ft. bgs	0.422	15.1	<0.200	<0.30 ⁽⁴⁾	2.39	2.52	1.83	<0.260	<0.0200	9.73
BH03 @ 11-12'	6/3/2024	11-12 ft. bgs	1.15	11.1	<0.200	<0.30 ⁽⁴⁾	3.10	4.33	1.99	<0.260	0.0222	13.6
BH04 @ 8-9'	6/3/2024	8-9 ft. bgs	0.358	15.2	<0.200	<0.30 ⁽⁴⁾	2.80	2.03	2.43	<0.260	<0.0200	9.41
BH04 @ 11-12'	6/3/2024	11-12 ft. bgs	36.2	68.9	2.19	<0.30 ⁽⁴⁾	42.2	24.8	42.4	3.73	2.07	51.8
BH05 @ 5-6'	6/3/2024	5-6 ft. bgs	1.55	37.5	<0.200	<0.30 ⁽⁴⁾	15.5	14.4	1.05	<0.260	0.153	36.8
BH05 @ 11-12'	6/3/2024	11-12 ft. bgs	1.13	38.2	<0.200	<0.30 ⁽⁴⁾	2.64	2.13	2.09	<0.260	<0.0200	10.3
BH06 @ 7-8'	6/3/2024	7-8 ft. bgs	0.822	18.3	<0.179	<0.30 ⁽⁴⁾	1.67	2.47	2.04	<0.232	<0.0179	8.08
BH06 @ 11-12'	6/3/2024	11-12 ft. bgs	0.567	9.61	<0.180	<0.30 ⁽⁴⁾	2.41	1.66	1.96	<0.234	<0.0180	8.31
BH07 @ 6-7'	6/3/2024	6-7 ft. bgs	0.653	15.5	<0.200	<0.30 ⁽⁴⁾	1.38	1.38	1.07	<0.260	<0.0200	4.92
BH07 @ 11-12'	6/3/2024	11-12 ft. bgs	0.534	11.1	<0.200	<0.30 ⁽⁴⁾	2.78	1.84	2.29	<0.260	<0.0200	10.1
BH08 @ 6-7'	6/3/2024	6-7 ft. bgs	0.380	6.40	<0.200	<0.30 ⁽⁴⁾	0.855	1.15	0.728	<0.260	<0.0200	4.50
BH08 @ 11-12'	6/3/2024	11-12 ft. bgs	0.575	6.98	<0.200	<0.30 ⁽⁴⁾	2.09	1.90	1.41	<0.260	<0.0200	7.07
BH09 @ 7-8'	6/3/2024	7-8 ft. bgs	0.979	12.4	<0.200	<0.30 ⁽⁴⁾	2.01	2.09	2.19	<0.260	<0.0200	7.94
BH09 @ 11-12'	6/3/2024	11-12 ft. bgs	0.886	14.4	<0.200	<0.30 ⁽⁴⁾	2.31	2.35	3.02	<0.260	<0.0200	12.8
BH10 @ 7-8'	6/3/2024	7-8 ft. bgs	0.337	7.85	<0.200	<0.30 ⁽⁴⁾	0.805	1.00	0.760	<0.260	<0.0200	5.13
BH10 @ 11-12'	6/3/2024	11-12 ft. bgs	0.436	13.8	<0.200	<0.30 ⁽⁴⁾	2.52	1.79	1.92	<0.260	<0.0200	8.61
BH11 @ 7-8'	6/3/2024	7-8 ft. bgs	0.396	12.2	<0.200	<0.30 ⁽⁴⁾	2.39	3.56	1.08	<0.260	<0.0200	9.59
BH11 @ 11-12'	6/3/2024	11-12 ft. bgs	0.632	18.0	<0.200	<0.30 ⁽⁴⁾	3.07	2.29	2.41	<0.260	<0.0200	9.85
Highest Background Concentration ⁽⁵⁾			39.2	119	1.49	0.30	109	306	3.26	0.620	8.93	126
1.25x Highest Background Concentration			49.0	149	1.86	0.38	136	383	4.08	0.775	11.2	158

Notes:

- Compounds referenced from the ECMC 2 CCR 404-1, Table 915-1, effective January 15, 2021.
- Soil Screening Levels (SSL) referenced from EPA Regional Screening Levels (EPA RSLs) for Chemical Contaminants at Superfund Sites, effective November 2020.
- SSLs are applicable if a pathway for communication with groundwater is present.
- Compound falls within ECMC Table 915-1 Footnote 9.
- Non-detect background results accounted for in the mean background concentration by using the reporting limit.

ECMC = Energy & Carbon Management Commission

(<) = Analytical result is less than the indicated laboratory reporting limit.

mg/kg = Milligrams per kilogram

ft. = Feet

bgs = Below ground surface

BOLD = Analytical result is in exceedance of applicable standard.

BOLD = Analytical result is in exceedance of applicable standard, but within 1.25x background concentration.

Source material characterization sample material, excavated and transported off-site for disposal

TABLE 3
FORMER IKENOUE F 29-22, 23 TANK BATTERY
FIELD DATA SUMMARY TABLE

Sample ID	Date Sampled	Depth	GPS Data ⁽¹⁾ Latitude / Longitude		PDOP Value	VOC Concentration ⁽²⁾ (ppm)
AST01 @ 0-6"	10/30/2023	0-6 in. bgs	40.367869	-104.682198	0.9	2.1
AST02 @ 0-6"	10/30/2023	0-6 in. bgs	40.367825	-104.682188	1.0	1.4
AST03 @ 0-6"	10/30/2023	0-6 in. bgs	40.367777	-104.682182	1.0	0.9
SEP01-DL @ 4'	10/30/2023	4 ft. bgs	40.367763	-104.682500	1.1	0.6
SEP01-FL @ 4'	10/30/2023	4 ft. bgs	40.367733	-104.682545	1.2	0.3
SEP02-DL @ 4'	10/30/2023	4 ft. bgs	40.367748	-104.682496	1.1	0.1
SEP02-FL @ 4'	10/30/2023	4 ft. bgs	40.367723	-104.682535	1.1	0.1
MH01 @ 0-6"	10/30/2023	0-6 in. bgs	40.367789	-104.682432	1.0	0.0
ECD01 @ 0-6"	10/31/2023	0-6 in. bgs	40.367845	-104.682544	0.9	0.0
ECD02 @ 0-6"	10/31/2023	0-6 in. bgs	40.367622	-104.682504	0.9	0.0
GW01 @ 6.5'	10/31/2023	6.5 ft. bgs	40.366794	-104.682655	1.4	NA
WC01 @ 4'	10/31/2023	4 ft. bgs	40.366794	-104.682648	1.2	994
SS01 @ 7'	1/9/2024	7 ft. bgs	NC	NC	NC	10.3
SS02 @ 4'	1/9/2024	4 ft. bgs	40.368011	-104.682210	NC	0.5
SS03 @ 6'	1/9/2024	6 ft. bgs	40.368011	-104.682210	NC	0.6
SS04 @ 7'	1/9/2024	7 ft. bgs	NC	NC	NC	0.9
SS05 @ 4'	1/9/2024	4 ft. bgs	40.368037	-104.682245	0.9	0.4
SS06 @ 6'	1/9/2024	6 ft. bgs	40.368037	-104.682245	0.9	1.4
SS07 @ 4'	1/10/2024	4 ft. bgs	40.368070	-104.682322	NC	0.2
SS08 @ 6'	1/10/2024	6 ft. bgs	40.368070	-104.682322	NC	6.4
SS09 @ 7'	1/10/2024	7 ft. bgs	NC	NC	NC	2.0
SS10 @ 7'	1/10/2024	7 ft. bgs	NC	NC	NC	1.8
SS11 @ 7'	1/10/2024	7 ft. bgs	NC	NC	NC	1.1
SS12 @ 4'	1/10/2024	4 ft. bgs	40.368032	-104.682362	NC	0.5
SS13 @ 6'	1/10/2024	6 ft. bgs	40.368032	-104.682362	NC	0.5
SS14 @ 7'	1/10/2024	7 ft. bgs	NC	NC	NC	0.5
SS15 @ 4'	1/10/2024	4 ft. bgs	40.367992	-104.682382	NC	0.3
SS16 @ 6'	1/10/2024	6 ft. bgs	40.367992	-104.682382	NC	0.3
SS17 @ 7'	1/10/2024	7 ft. bgs	NC	NC	NC	0.5
SS18 @ 4'	1/10/2024	4 ft. bgs	40.367953	-104.682362	NC	0.4
SS19 @ 6'	1/10/2024	6 ft. bgs	40.367953	-104.682362	NC	0.4
SS20 @ 7'	1/10/2024	7 ft. bgs	NC	NC	NC	0.8
SS21 @ 2.5'	1/10/2024	2.5 ft. bgs	40.367917	-104.682359	NC	0.4
SS22 @ 4'	1/10/2024	4 ft. bgs	40.367917	-104.682359	NC	0.2
SS23 @ 6'	1/10/2024	6 ft. bgs	40.367917	-104.682359	NC	3.0
SS24 @ 2.5'	1/11/2024	2.5 ft. bgs	40.367963	-104.682168	NC	0.0
SS25 @ 4'	1/11/2024	4 ft. bgs	40.367963	-104.682168	NC	0.1
SS26 @ 6'	1/11/2024	6 ft. bgs	40.367963	-104.682168	NC	7.5
SS27 @ 7'	1/11/2024	7 ft. bgs	NC	NC	NC	1.9
SS28 @ 4'	1/11/2024	4 ft. bgs	40.367888	-104.682178	NC	0.3
SS29 @ 6'	1/11/2024	6 ft. bgs	40.367888	-104.682178	NC	0.2

TABLE 3
FORMER IKENOUE F 29-22, 23 TANK BATTERY
FIELD DATA SUMMARY TABLE

Sample ID	Date Sampled	Depth	GPS Data ⁽¹⁾ Latitude / Longitude		PDOP Value	VOC Concentration ⁽²⁾ (ppm)
SS30 @ 7'	1/11/2024	7 ft. bgs	NC	NC	NC	3.0
SS31 @ 4'	1/17/2024	4 ft. bgs	40.367857	-104.682173	NC	0.2
SS32 @ 6'	1/17/2024	6 ft. bgs	40.367857	-104.682173	NC	0.3
SS33 @ 7'	1/17/2024	7 ft. bgs	NC	NC	NC	0.2
SS34 @ 4'	1/17/2024	4 ft. bgs	40.367862	-104.682333	NC	0.4
SS35 @ 6'	1/17/2024	6 ft. bgs	40.367862	-104.682333	NC	0.4
SS36 @ 7'	1/17/2024	7 ft. bgs	NC	NC	NC	0.9
SS37 @ 4'	1/17/2024	4 ft. bgs	40.367822	-104.682303	NC	0.7
SS38 @ 6'	1/17/2024	6 ft. bgs	40.367822	-104.682303	NC	0.5
SS39 @ 7'	1/17/2024	7 ft. bgs	NC	NC	NC	3.4
SS40 @ 7'	1/17/2024	7 ft. bgs	NC	NC	NC	0.7
SS41 @ 4'	1/17/2024	4 ft. bgs	40.367796	-104.682269	NC	0.4
SS42 @ 6'	1/17/2024	6 ft. bgs	40.367796	-104.682269	NC	0.3
SS43 @ 7'	1/17/2024	7 ft. bgs	NC	NC	NC	0.4
SS44 @ 2.5'	1/17/2024	2.5 ft. bgs	40.368070	-104.682322	NC	0.6
SS45 @ 4'	1/17/2024	4 ft. bgs	40.367814	-104.682173	NC	0.5
SS46 @ 6'	1/17/2024	6 ft. bgs	40.367814	-104.682173	NC	0.6
SS47 @ 2.5'	1/17/2024	2.5 ft. bgs	40.367785	-104.682200	0.8	1.5
SS48 @ 4'	1/17/2024	4 ft. bgs	40.367785	-104.682200	0.8	3.9
SS49 @ 6'	1/17/2024	6 ft. bgs	40.367785	-104.682200	0.8	1.9
SS50 @ 7'	1/17/2024	7 ft. bgs	NC	NC	NC	1.8
SS51 @ 6"	1/17/2024	6 in. bgs	40.367773	-104.682186	NC	2.1
SS52 @ 6"	1/17/2024	6 in. bgs	40.367776	-104.682168	NC	1.4
SS53 @ 6"	1/17/2024	6 in. bgs	40.367752	-104.682180	NC	6.7
SS54 @ 6"	1/17/2024	6 in. bgs	40.367770	-104.682199	NC	7.8
SS55 @ 1'	1/18/2024	1 ft. bgs	40.367794	-104.682131	NC	0.1
SS56 @ 6"	1/18/2024	6 in. bgs	40.367741	-104.682175	0.9	0.0
SS57 @ 4'	1/22/2024	4 ft. bgs	40.367842	-104.682147	NC	0.2
SS58 @ 6'	1/22/2024	6 ft. bgs	40.367842	-104.682147	NC	0.1
SS59 @ 4'	1/22/2024	4 ft. bgs	40.367816	-104.682151	NC	0.2
SS60 @ 6'	1/22/2024	6 ft. bgs	40.367816	-104.682151	NC	0.3
SS61 @ 4'	1/22/2024	4 ft. bgs	40.367854	-104.682343	1.1	0.2
SS62 @ 6'	1/22/2024	6 ft. bgs	40.367854	-104.682343	1.1	0.3
SS63 @ 4'	1/22/2024	4 ft. bgs	40.367775	-104.682284	NC	0.3
SS64 @ 6'	1/22/2024	6 ft. bgs	40.367775	-104.682284	NC	0.3
SS65 @ 4'	2/9/2024	4 ft. bgs	40.367757	-104.682295	1.0	0.3
SS66 @ 6'	2/9/2024	6 ft. bgs	40.367756	-104.682295	1.0	0.2
SS67 @ 3'	2/16/2024	3 ft. bgs	40.367752	-104.682276	0.9	0.0
SS68 @ 6'	2/16/2024	6 ft. bgs	40.367752	-104.682276	0.9	0.0
SS69 @ 7'	2/16/2024	7 ft. bgs	NC	NC	NC	0.0
SS70 @ 3'	2/16/2024	3 ft. bgs	40.367747	-104.682302	0.9	0.2

TABLE 3
FORMER IKENOUYE F 29-22, 23 TANK BATTERY
FIELD DATA SUMMARY TABLE

Sample ID	Date Sampled	Depth	GPS Data ⁽¹⁾ Latitude / Longitude		PDOP Value	VOC Concentration ⁽²⁾ (ppm)
SS71 @ 6'	2/16/2024	6 ft. bgs	40.367747	-104.682302	0.9	0.0
SS72 @ 3'	2/16/2024	3 ft. bgs	40.367767	-104.682310	0.9	0.2
SS73 @ 6'	2/16/2024	6 ft. bgs	40.367767	-104.682310	0.9	0.0
SS74 @ 3'	2/28/2024	3 ft. bgs	40.367730	-104.682315	1.1	0.6
SS75 @ 6'	2/28/2024	6 ft. bgs	40.367730	-104.682315	1.1	0.4
SS76 @ 3'	3/11/2024	3 ft. bgs	40.367707	-104.682307	0.8	0.0
SS77 @ 6'	3/11/2024	6 ft. bgs	40.367707	-104.682307	0.8	0.1
SS78 @ 3'	3/11/2024	3 ft. bgs	40.367715	-104.682328	0.7	0.0
SS79 @ 6'	3/11/2024	6 ft. bgs	40.367715	-104.682328	0.7	0.0
SS80 @ 3'	3/11/2024	3 ft. bgs	40.367730	-104.682338	0.8	0.0
SS81 @ 6'	3/11/2024	6 ft. bgs	40.367730	-104.682338	0.8	0.1
BKG01 @ 2.5'	10/30/2023	2.5 ft. bgs	40.368129	-104.682373	1.2	0.0
BKG01 @ 4'	10/30/2023	4 ft. bgs	40.368129	-104.682373	1.2	0.2
BKG02 @ 2.5'	1/11/2024	2.5 ft. bgs	40.367644	-104.682772	NC	0.3
BKG02 @ 4'	1/11/2024	4 ft. bgs	40.367644	-104.682772	NC	0.3
BKG02 @ 6'	1/11/2024	6 ft. bgs	40.367644	-104.682772	NC	0.5
BKG02 @ 7'	1/11/2024	7 ft. bgs	40.367644	-104.682772	NC	0.4
BKG03 @ 2.5'	1/11/2024	2.5 ft. bgs	40.367957	-104.682804	1.0	0.2
BKG03 @ 4'	1/11/2024	4 ft. bgs	40.367957	-104.682804	1.0	0.2
BKG03 @ 6'	1/11/2024	6 ft. bgs	40.367957	-104.682804	1.0	0.3
BKG03 @ 7'	1/11/2024	7 ft. bgs	40.367957	-104.682804	1.0	0.5
BH01 @ 11-12'	6/3/2024	11-12 ft. bgs	40.36796997	-104.6822979	0.8	0.2
BH01 @ 6-7'	6/3/2024	6-7 ft. bgs	40.36796997	-104.6822979	0.8	0.3
BH02 @ 11-12'	6/3/2024	11-12 ft. bgs	40.36788091	-104.6822523	0.8	0.0
BH02 @ 6-7'	6/3/2024	6-7 ft. bgs	40.36788091	-104.6822523	0.8	0.3
BH03 @ 11-12'	6/3/2024	11-12 ft. bgs	40.36812188	-104.6823296	0.8	0.1
BH03 @ 5-6'	6/3/2024	5-6 ft. bgs	40.36812188	-104.6823296	0.8	0.2
BH04 @ 11-12'	6/3/2024	11-12 ft. bgs	40.368060	-104.682214	0.9	0.1
BH04 @ 8-9'	6/3/2024	8-9 ft. bgs	40.368060	-104.682214	0.9	0.6
BH05 @ 11-12'	6/3/2024	11-12 ft. bgs	40.36794786	-104.682124	0.8	0.2
BH05 @ 5-6'	6/3/2024	5-6 ft. bgs	40.36794786	-104.682124	0.8	0.4
BH06 @ 11-12'	6/3/2024	11-12 ft. bgs	40.3678352	-104.6821233	0.8	0.1
BH06 @ 7-8'	6/3/2024	7-8 ft. bgs	40.3678352	-104.6821233	0.8	0.2
BH07 @ 11-12'	6/3/2024	11-12 ft. bgs	40.36773168	-104.6821847	0.8	0.1
BH07 @ 6-7'	6/3/2024	6-7 ft. bgs	40.36773168	-104.6821847	0.8	0.4
BH08 @ 11-12'	6/3/2024	11-12 ft. bgs	40.36765095	-104.6823413	0.8	0.0
BH08 @ 6-7'	6/3/2024	6-7 ft. bgs	40.36765095	-104.6823413	0.8	0.4
BH09 @ 11-12'	6/3/2024	11-12 ft. bgs	40.36775889	-104.682329	0.8	0.0
BH09 @ 7-8'	6/3/2024	7-8 ft. bgs	40.36775889	-104.682329	0.8	0.3
BH10 @ 11-12'	6/3/2024	11-12 ft. bgs	40.36791236	-104.6824066	0.9	0.2
BH10 @ 7-8'	6/3/2024	7-8 ft. bgs	40.36791236	-104.6824066	0.9	0.3

TABLE 3
FORMER IKENOUYE F 29-22, 23 TANK BATTERY
FIELD DATA SUMMARY TABLE

Sample ID	Date Sampled	Depth	GPS Data ⁽¹⁾ Latitude / Longitude		PDOP Value	VOC Concentration ⁽²⁾ (ppm)
BH11 @ 11-12'	6/3/2024	11-12 ft. bgs	40.36803871	-104.6824411	1.0	0.2
BH11 @ 7-8'	6/3/2024	7-8 ft. bgs	40.36803871	-104.6824411	1.0	0.2

Notes:

1. Global Positioning System (GPS) data is provided in decimal degrees using North American Datum 1983 (NAD83) UTM Zone 13 North.

2. Volatile organic compound (VOC) concentrations are measured in the field using a photoionization detector (PID).

PDOP = Position Dilution of Precision

ppm = Parts per million

ft. = Feet

in. = Inches

bgs = Below ground surface

NC = Data not collected

NA = Not applicable

= Source material characterization sample material, excavated and transported off-site for disposal

= Material excavated and transported off-site for disposal

TABLE 4
FORMER IKENOUYE F29-22, 23 WELLHEADS
GROUNDWATER ANALYTICAL RESULTS SUMMARY TABLE
ORGANIC COMPOUNDS

Sample ID	Date Sampled	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Naphthalene (µg/L)	1,2,4-TMB (µg/L)	1,3,5-TMB (µg/L)	Depth to Water ⁽²⁾ (ft.)	Groundwater Elevation (ft. AMSL)
ECMC Table 915-1 Groundwater Standard (µg/L) ⁽¹⁾		5	560	700	1,400	140	67	67	-	-
GW01 @ 6.5'	10/31/2023	670	11	6,300	54,000	38	6,500	3,700	~6.50	NA
BH01	7/24/2024	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	3.33	4644.90
BH02	7/24/2024	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	3.12	4645.25
BH03	7/24/2024	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	4.15	4644.58
BH04	7/24/2024	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	3.55	4644.74
BH05	7/24/2024	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	4.38	4645.12
BH06	7/24/2024	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	3.23	4645.53
BH07	7/24/2024	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	3.15	4645.72
BH08	7/24/2024	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	3.07	4645.81
BH09	7/24/2024	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	3.25	4645.56
BH10	7/24/2024	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	3.65	4645.05
BH11	7/24/2024	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	3.90	4644.73

Notes:

1. Groundwater standards referenced from 2 CCR 404-1, Table 915-1, January 15, 2021.

2. Depth to water measurements were measured from ground surface for excavation samples. Monitoring well measurements were collected from top of casing and adjusted using survey data to reflect depth of water from ground surface.

TMB = Trimethylbenzene

ECMC = Colorado Energy and Carbon Management Commission

µg/L = Micrograms per liter

(<) = Analytical result is less than the indicated laboratory reporting limit.

ft. = Feet

AMSL = Above Mean Sea Level

NA = Not applicable

BOLD = Analytical result is in exceedance of applicable standard.

TABLE 5
FORMER IKENOUE F29-22, 23 WELLHEADS
GROUNDWATER ANALYTICAL RESULTS SUMMARY TABLE
INORGANIC PARAMETERS

Sample ID	Date Sampled	TDS (mg/L)	Chloride (mg/L)	Sulfate Ion (mg/L)	Depth to Water ⁽²⁾ (ft.)	Groundwater Elevation (ft. AMSL)
ECMC Table 915-1 Groundwater Standard (mg/L) ⁽¹⁾		<1.25 x BCKG	250 or <1.25 x BCKG	250 or <1.25 x BCKG	-	-
BH01	7/24/2024	899	138	325	3.33	4644.90
BH02	7/24/2024	923	118	273	3.12	4645.25
BH03	7/24/2024	916	137	331	4.15	4644.58
BH04	7/24/2024	874	132	310	3.55	4644.74
BH05	7/24/2024	869	125	287	4.38	4645.12
BH06	7/24/2024	858	124	298	3.23	4645.53
BH07	7/24/2024	905	130	300	3.15	4645.72
BH08	7/24/2024	921	137	314	3.07	4645.81
BH09	7/24/2024	921	130	306	3.25	4645.56
BH10	7/24/2024	897	135	319	3.65	4645.05
BH11	7/24/2024	917	115	271	3.90	4644.73

Notes:

1. Groundwater standards referenced from 2 CCR 404-1, Table 915-1, January 15, 2021.

2. Depth to water measurements were measured from ground surface for excavation samples. Monitoring well measurements were collected from top of casing and adjusted using survey data to reflect depth of water from ground surface.

TDS = Total dissolved solids

ECMC = Colorado Energy and Carbon Management Commission

BCKG = Background

mg/L = Milligrams per liter

(<) = Analytical result is less than the indicated laboratory reporting limit.

ft. = Feet

AMSL = Above Mean Sea Level

 = Up-/Cross-gradient well location used for background concentration.

BOLD = Analytical result is in exceedance of applicable standard, but below 1.25x background concentration.

Attachment A

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

June 12, 2024

Karen Olson

Tasman Geosciences

6855 W. 119th Ave.

Broomfield, CO 80020

RE: PDC - Ikenouye F29-23, 22 Tank Battery

Work Order #2406018

Enclosed are the results of analyses for samples received by Summit Scientific on 06/03/24 17:47. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Natalie Tessier". The signature is fluid and cursive, with the first name being more prominent.

Natalie Tessier For Paul Shrewsbury

President



Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-23, 22 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

ANALYTICAL REPORT FOR SAMPLES



Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH01@6-7'	2406018-01	Soil	06/03/24 12:00	06/03/24 17:47
BH01@11-12'	2406018-02	Soil	06/03/24 12:01	06/03/24 17:47
BH02@6-7'	2406018-03	Soil	06/03/24 11:00	06/03/24 17:47
BH02@11-12'	2406018-04	Soil	06/03/24 11:01	06/03/24 17:47
BH03@5-6'	2406018-05	Soil	06/03/24 13:20	06/03/24 17:47
BH03@11-12'	2406018-06	Soil	06/03/24 13:21	06/03/24 17:47
BH04@8-9'	2406018-07	Soil	06/03/24 13:50	06/03/24 17:47
BH04@11-12'	2406018-08	Soil	06/03/24 13:51	06/03/24 17:47
BH05@5-6'	2406018-09	Soil	06/03/24 15:00	06/03/24 17:47
BH05@11-12'	2406018-10	Soil	06/03/24 15:01	06/03/24 17:47
BH06@7-8'	2406018-11	Soil	06/03/24 15:30	06/03/24 17:47
BH06@11-12'	2406018-12	Soil	06/03/24 15:31	06/03/24 17:47
BH07@6-7'	2406018-13	Soil	06/03/24 10:40	06/03/24 17:47
BH07@11-12'	2406018-14	Soil	06/03/24 10:41	06/03/24 17:47
BH08@6-7'	2406018-15	Soil	06/03/24 10:00	06/03/24 17:47
BH08@11-12'	2406018-16	Soil	06/03/24 10:01	06/03/24 17:47
BH09@7-8'	2406018-17	Soil	06/03/24 10:20	06/03/24 17:47
BH09@11-12'	2406018-18	Soil	06/03/24 10:21	06/03/24 17:47
BH10@7-8'	2406018-19	Soil	06/03/24 11:30	06/03/24 17:47
BH10@11-12'	2406018-20	Soil	06/03/24 11:31	06/03/24 17:47
BH11@7-8'	2406018-21	Soil	06/03/24 14:20	06/03/24 17:47
BH11@11-12'	2406018-22	Soil	06/03/24 14:21	06/03/24 17:47

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

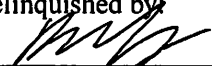

Client: PDC / Tasman		Send Data To:		Send Invoice To:	
Address: 6855 W 119th Ave		Project Manager: Karen Olson		Company: PDC Energy	
City/State/Zip: Broomfield / CO / 80020		E-Mail: karen.olson@chevron.com		Project Name/Location: Kenoye F29-23, 22 Tank Battery	
Phone: 303-487-1228		Project Name: Kenoye F29-23, 22 Tank Battery		AFE#:	
Sampler Name: R. Yavinsky		Project Number:		PO/Billing Codes:	
		Contact: Karen Olson			

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested						Special Instructions	
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	BTEXN - 8260B	TPH - (C6 - C36)	1,2,4 & 1,3,5-TMB	Boron - HWS	pH, EC, SAR	X		
1	BH01e 6-7'	6/3/24	1200	2			X			X				X	X	X			X	
2	BH01e 11-12'		1201																	
3	BH02e 6-7'		1100																	
4	BH02e 11-12'		1101																	
5	BH03e 5-6'		1320																	
6	BH03e 11-12'		1321																	
7	BH04e 8-9'		1350																	
8	BH04e 11-12'		1351																	
9	BH05e 5-6'		1500																	
10	BH05e 11-12'		1501																	
11	BH06e 7-8'		1530																	
12	BH06e 11-12'		1531																	
13	BH07e 6-7'		1040																	
14	BH07e 11-12'		1041																	
15	BH08e 6-7'		1000																	

Relinquished by: 	Date/Time: 6/3/24 1705	Received by: Tasman Lockbox	Date/Time: 6/3/24 1705	TAT Business Days	Field DO	Notes: * benzantracene, 1-M, 2-M, and 915-metals
Relinquished by: Tasman Lockbox	Date/Time: 6/3/24 1747	Received by: 	Date/Time: 6/3/24 1747	Same Day	Field EC	
				1 Day	Field ORP	
				2 Days	Field pH	
				3 Days	Field Temp.	
Relinquished by:	Date/Time:	Received by:	Date/Time:	Standard	X Field Turb.	
Temperature Upon Receipt: 79	Corrected Temperature: 8	IR gun #: 1	HNO3 lot #:			

Client: PDC / Tasman		Send Data To:		Send Invoice To:	
Address: 6855 W 119th Ave		Project Manager: Karen Olson		Company: PDC Energy	
City/State/Zip: Broomfield / CO / 80020		E-Mail: karen.olson@chevron.com		Project Name/Location: Kenosha F29-23, 22 Tank Battery	
Phone: 303-487-1228		Project Name: Kenosha F29-23, 22 Tank Battery		AFE#:	
Sampler Name: R. Tavinsky		Project Number:		PO/Billing Codes:	
				Contact: Karen Olson	

					Preservative				Matrix				Analysis Requested						Special Instructions
ID	Sample Description	Date Sampled	Time Sampled	# of containers	HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	BTEXN - 8260B	TPH - (C6 - C36)	1,2,4 & 1,3,5-TMB	Boron - HWS	pH, EC, SAR		
1	BH08 @ 11-12'	6/3/24	1001	2			X			X			X	X	X			X	
2	BH09 @ 7-8'		1020																
3	BH09 @ 11-12'		1021																
4	BH10 @ 7-8'		1130																
5	BH10 @ 11-12'		1131																
6	BH11 @ 7-8'		1420																
7	BH11 @ 11-12'		1421																
8																			
9																			
10																			
11																			
12																			
13																			
14																			
15																			

Relinquished by: 	Date/Time: 6/3/24 1705	Received by: Tasman Lockbox	Date/Time: 6/3/24 1705	TAT Business Days	Field DO	Notes: *benzanthracene, 1-M, 2-M, and 915-Metals
Relinquished by: Tasman Lockbox	Date/Time: 6/3/24 1747	Received by: 	Date/Time: 6/3/24 1747	Same Day	Field EC	
				1 Day	Field ORP	
				2 Days	Field pH	
				3 Days	Field Temp.	
				Standard	Field Turb.	
Temperature Upon Receipt: 79	Corrected Temperature: 8	IR gun #: 1	HNO3 lot #:			

S₂

2/2
Sample Receipt Checklist

S2 Work Order# 2406018

Client: Pactasman

Client Project ID:

Ikenouye F29-25, 2L Tank Battery

Shipped Via: H.D./P.U./FedEx/UPS/USPS/Other

Airbill #:

☐ ☐ ☐ ☐ ☐

Matrix (Check all that apply)

Air

☐

Soil/Solid

☐

Water

☐

Other

☐

Temp (°C)

7.9

Thermometer #

1

	Yes	No	N/A	Comments (if any)
If samples require cooling, is the temperature < 6°C? ⁽¹⁾ NOTE: If samples are delivered the same day of sampling, this requirement is met if there is evidence that cooling has begun.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ANZGE
If custody seals are present, are they intact? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are samples due within 48 hours present?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are water samples with short hold times present? Note the short hold analysis in the comments column - pH, Nitrate/Nitrite, Ferrous Iron (Fe ²⁺), Hexavalent Chromium (Cr ⁶⁺ , Cr VI), COD/BOD, Total Coliform, E. Coli, Total Residual Chlorine (TRC), Dissolved Oxygen	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out Completely? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all samples received intact? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling)? ⁽¹⁾ Note the type of preservative in the comments column – HCl, H ₂ SO ₄ , NaOH, HNO ₃ , etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2? ⁽¹⁾ Record the pH in Comments.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If dissolved metals are requested, were samples field filtered?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Additional Comments (if any):				

⁽¹⁾ If NO, then contact the client before proceeding with analysis and note in case narrative.

AS
Custodian Printed Name

6/3/24
Date/Time



Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-23, 22 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

BH01@6-7'
2406018-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/03/24 12:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BHF0086	06/04/24	06/06/24	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **06/03/24 12:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0431	108 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0413	103 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0419	105 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/03/24 12:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BHF0088	06/04/24	06/05/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **06/03/24 12:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	9.62	76.9 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-23, 22 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

BH01@6-7'
2406018-01 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **06/03/24 12:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzo (a) anthracene	ND	0.00500	mg/kg	1	BHF0059	06/04/24	06/04/24	EPA 8270D SIM	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **06/03/24 12:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10	0.0250	74.9 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0256	76.8 %	40-150		"	"	"	"	

Total Metals by EPA 6020B

Date Sampled: **06/03/24 12:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Arsenic	0.393	0.200	mg/kg dry	1	BHF0073	06/04/24	06/06/24	EPA 6020B	
Barium	19.4	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	3.40	0.400	"	"	"	"	"	"	
Lead	2.35	0.200	"	"	"	"	"	"	
Nickel	3.04	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	11.5	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **06/03/24 12:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHF0107	06/05/24	06/05/24	EPA 7196A	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-23, 22 Tank Battery
Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

BH01@6-7'
2406018-01 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **06/03/24 12:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	91.7			%	1	BHF0077	06/04/24	06/04/24	Calculation	

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-23, 22 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

BH01@11-12'
2406018-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/03/24 12:01**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BHF0086	06/04/24	06/06/24	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **06/03/24 12:01**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0421	105 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0398	99.4 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0393	98.3 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/03/24 12:01**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BHF0088	06/04/24	06/05/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **06/03/24 12:01**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	9.32	74.6 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-23, 22 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

BH01@11-12'
2406018-02 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **06/03/24 12:01**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzo (a) anthracene	ND	0.00500	mg/kg	1	BHF0059	06/04/24	06/04/24	EPA 8270D SIM	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **06/03/24 12:01**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10	0.0272	81.6 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0292	87.6 %	40-150		"	"	"	"	

Total Metals by EPA 6020B

Date Sampled: **06/03/24 12:01**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Arsenic	1.85	0.200	mg/kg dry	1	BHF0073	06/04/24	06/06/24	EPA 6020B	
Barium	87.6	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	7.65	0.400	"	"	"	"	"	"	
Lead	7.22	0.200	"	"	"	"	"	"	
Nickel	7.34	0.400	"	"	"	"	"	"	
Silver	0.0435	0.0200	"	"	"	"	"	"	
Zinc	29.4	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **06/03/24 12:01**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHF0107	06/05/24	06/05/24	EPA 7196A	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-23, 22 Tank Battery
Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

BH01@11-12'
2406018-02 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **06/03/24 12:01**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	87.8			%	1	BHF0077	06/04/24	06/04/24	Calculation	

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-23, 22 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

BH02@6-7'
2406018-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/03/24 11:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BHF0086	06/04/24	06/06/24	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **06/03/24 11:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0398	99.4 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0403	101 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0406	102 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/03/24 11:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BHF0088	06/04/24	06/05/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **06/03/24 11:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	10.6	84.4 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-23, 22 Tank Battery
Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

BH02@6-7'
2406018-03 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **06/03/24 11:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzo (a) anthracene	ND	0.00500	mg/kg	1	BHF0059	06/04/24	06/04/24	EPA 8270D SIM	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **06/03/24 11:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10	0.0273	81.9 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0266	79.7 %	40-150		"	"	"	"	

Total Metals by EPA 6020B

Date Sampled: **06/03/24 11:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Arsenic	0.403	0.200	mg/kg dry	1	BHF0073	06/04/24	06/06/24	EPA 6020B	
Barium	10.7	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	2.59	0.400	"	"	"	"	"	"	
Lead	2.17	0.200	"	"	"	"	"	"	
Nickel	2.11	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	10.9	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **06/03/24 11:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHF0107	06/05/24	06/05/24	EPA 7196A	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-23, 22 Tank Battery
Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

BH02@6-7'
2406018-03 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **06/03/24 11:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	86.4			%	1	BHF0077	06/04/24	06/04/24	Calculation	

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-23, 22 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

BH02@11-12'
2406018-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/03/24 11:01**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BHF0086	06/04/24	06/06/24	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **06/03/24 11:01**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0373	93.3 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0399	99.7 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0388	97.0 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/03/24 11:01**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BHF0088	06/04/24	06/05/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **06/03/24 11:01**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	12.4	99.2 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-23, 22 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

BH02@11-12'
2406018-04 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **06/03/24 11:01**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzo (a) anthracene	ND	0.00500	mg/kg	1	BHF0059	06/04/24	06/04/24	EPA 8270D SIM	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **06/03/24 11:01**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10	0.0232	69.6 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0240	71.9 %	40-150		"	"	"	"	

Total Metals by EPA 6020B

Date Sampled: **06/03/24 11:01**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Arsenic	0.409	0.200	mg/kg dry	1	BHF0073	06/04/24	06/06/24	EPA 6020B	
Barium	18.3	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	2.31	0.400	"	"	"	"	"	"	
Lead	2.09	0.200	"	"	"	"	"	"	
Nickel	1.19	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	8.73	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **06/03/24 11:01**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHF0107	06/05/24	06/05/24	EPA 7196A	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-23, 22 Tank Battery
Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

BH02@11-12'
2406018-04 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **06/03/24 11:01**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	91.2			%	1	BHF0077	06/04/24	06/04/24	Calculation	

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-23, 22 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

BH03@5-6'
2406018-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/03/24 13:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BHF0086	06/04/24	06/06/24	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **06/03/24 13:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0414	103 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0404	101 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0417	104 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/03/24 13:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BHF0088	06/04/24	06/05/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **06/03/24 13:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	10.8	86.4 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-23, 22 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

BH03@5-6'
2406018-05 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **06/03/24 13:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzo (a) anthracene	ND	0.00500		mg/kg	1	BHF0059	06/04/24	06/05/24	EPA 8270D SIM	
1-Methylnaphthalene	ND	0.00500		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500		"	"	"	"	"	"	

Date Sampled: **06/03/24 13:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 2-Methylnaphthalene-d10	0.0256	76.7 %		40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0274	82.2 %		40-150		"	"	"	"	

Total Metals by EPA 6020B

Date Sampled: **06/03/24 13:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Arsenic	0.422	0.200		mg/kg dry	1	BHF0073	06/04/24	06/06/24	EPA 6020B	
Barium	15.1	0.400		"	"	"	"	"	"	
Cadmium	ND	0.200		"	"	"	"	"	"	
Copper	2.39	0.400		"	"	"	"	"	"	
Lead	2.52	0.200		"	"	"	"	"	"	
Nickel	1.83	0.400		"	"	"	"	"	"	
Silver	ND	0.0200		"	"	"	"	"	"	
Zinc	9.73	0.400		"	"	"	"	"	"	
Selenium	ND	0.260		"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **06/03/24 13:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BHF0107	06/05/24	06/05/24	EPA 7196A	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-23, 22 Tank Battery
Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

BH03@5-6'
2406018-05 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **06/03/24 13:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	92.3			%	1	BHF0077	06/04/24	06/04/24	Calculation	

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-23, 22 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

BH03@11-12'
2406018-06 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/03/24 13:21**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BHF0086	06/04/24	06/06/24	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **06/03/24 13:21**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0430	108 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0407	102 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0412	103 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/03/24 13:21**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BHF0088	06/04/24	06/05/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **06/03/24 13:21**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	10.3	82.8 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-23, 22 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

BH03@11-12'
2406018-06 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **06/03/24 13:21**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzo (a) anthracene	ND	0.00500	mg/kg	1	BHF0059	06/04/24	06/05/24	EPA 8270D SIM	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **06/03/24 13:21**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10	0.0262	78.7 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0281	84.4 %	40-150		"	"	"	"	

Total Metals by EPA 6020B

Date Sampled: **06/03/24 13:21**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Arsenic	1.15	0.200	mg/kg dry	1	BHF0073	06/04/24	06/06/24	EPA 6020B	
Barium	11.1	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	3.10	0.400	"	"	"	"	"	"	
Lead	4.33	0.200	"	"	"	"	"	"	
Nickel	1.99	0.400	"	"	"	"	"	"	
Silver	0.0222	0.0200	"	"	"	"	"	"	
Zinc	13.6	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **06/03/24 13:21**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHF0107	06/05/24	06/05/24	EPA 7196A	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-23, 22 Tank Battery
Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

BH03@11-12'
2406018-06 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **06/03/24 13:21**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	85.5			%	1	BHF0077	06/04/24	06/04/24	Calculation	

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-23, 22 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

BH04@8-9'
2406018-07 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/03/24 13:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BHF0086	06/04/24	06/06/24	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **06/03/24 13:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0446	112 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0413	103 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0415	104 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/03/24 13:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BHF0088	06/04/24	06/05/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **06/03/24 13:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	11.4	91.3 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-23, 22 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

BH04@8-9'
2406018-07 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **06/03/24 13:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzo (a) anthracene	ND	0.00500		mg/kg	1	BHF0059	06/04/24	06/05/24	EPA 8270D SIM	
1-Methylnaphthalene	ND	0.00500		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500		"	"	"	"	"	"	

Date Sampled: **06/03/24 13:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 2-Methylnaphthalene-d10	0.0293	87.8 %		40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0299	89.8 %		40-150		"	"	"	"	

Total Metals by EPA 6020B

Date Sampled: **06/03/24 13:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Arsenic	0.358	0.200		mg/kg dry	1	BHF0073	06/04/24	06/06/24	EPA 6020B	
Barium	15.2	0.400		"	"	"	"	"	"	
Cadmium	ND	0.200		"	"	"	"	"	"	
Copper	2.80	0.400		"	"	"	"	"	"	
Lead	2.03	0.200		"	"	"	"	"	"	
Nickel	2.43	0.400		"	"	"	"	"	"	
Silver	ND	0.0200		"	"	"	"	"	"	
Zinc	9.41	0.400		"	"	"	"	"	"	
Selenium	ND	0.260		"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **06/03/24 13:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BHF0107	06/05/24	06/05/24	EPA 7196A	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-23, 22 Tank Battery
Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

BH04@8-9'
2406018-07 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **06/03/24 13:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	90.3			%	1	BHF0077	06/04/24	06/04/24	Calculation	

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-23, 22 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

BH04@11-12'
2406018-08 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/03/24 13:51**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BHF0086	06/04/24	06/06/24	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **06/03/24 13:51**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0374	93.5 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0411	103 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0403	101 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/03/24 13:51**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BHF0088	06/04/24	06/05/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **06/03/24 13:51**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	13.5	108 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-23, 22 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

BH04@11-12'
2406018-08 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **06/03/24 13:51**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzo (a) anthracene	ND	0.00500		mg/kg	1	BHF0059	06/04/24	06/05/24	EPA 8270D SIM	
1-Methylnaphthalene	ND	0.00500		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500		"	"	"	"	"	"	

Date Sampled: **06/03/24 13:51**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 2-Methylnaphthalene-d10	0.0258	77.4 %		40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0269	80.6 %		40-150		"	"	"	"	

Total Metals by EPA 6020B

Date Sampled: **06/03/24 13:51**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Arsenic	36.2	0.200		mg/kg dry	1	BHF0073	06/04/24	06/06/24	EPA 6020B	
Barium	68.9	0.400		"	"	"	"	"	"	
Cadmium	2.19	0.200		"	"	"	"	"	"	
Copper	42.2	0.400		"	"	"	"	"	"	
Lead	24.8	0.200		"	"	"	"	"	"	
Nickel	42.4	0.400		"	"	"	"	"	"	
Silver	2.07	0.0200		"	"	"	"	"	"	
Zinc	51.8	0.400		"	"	"	"	"	"	
Selenium	3.73	0.260		"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **06/03/24 13:51**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BHF0107	06/05/24	06/05/24	EPA 7196A	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-23, 22 Tank Battery
Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

BH04@11-12'
2406018-08 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **06/03/24 13:51**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	87.1			%	1	BHF0077	06/04/24	06/04/24	Calculation	

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-23, 22 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

BH05@5-6'
2406018-09 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/03/24 15:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BHF0086	06/04/24	06/06/24	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **06/03/24 15:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0382	95.6 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0392	98.0 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0413	103 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/03/24 15:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BHF0088	06/04/24	06/05/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **06/03/24 15:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	10.4	83.3 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-23, 22 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

BH05@5-6'
2406018-09 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **06/03/24 15:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzo (a) anthracene	ND	0.00500	mg/kg	1	BHF0059	06/04/24	06/05/24	EPA 8270D SIM	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **06/03/24 15:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10	0.0227	68.1 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0264	79.1 %	40-150		"	"	"	"	

Total Metals by EPA 6020B

Date Sampled: **06/03/24 15:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Arsenic	1.55	0.200	mg/kg dry	1	BHF0074	06/04/24	06/06/24	EPA 6020B	
Barium	37.5	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	15.5	0.400	"	"	"	"	"	"	
Lead	14.4	0.200	"	"	"	"	"	"	
Nickel	1.05	0.400	"	"	"	"	"	"	
Silver	0.153	0.0200	"	"	"	"	"	"	
Zinc	36.8	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **06/03/24 15:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHF0107	06/05/24	06/05/24	EPA 7196A	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-23, 22 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

BH05@5-6'
2406018-09 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **06/03/24 15:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	92.3			%	1	BHF0077	06/04/24	06/04/24	Calculation	

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-23, 22 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

BH05@11-12'
2406018-10 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/03/24 15:01**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BHF0086	06/04/24	06/06/24	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **06/03/24 15:01**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0326	81.4 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0366	91.5 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0414	104 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/03/24 15:01**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BHF0088	06/04/24	06/05/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **06/03/24 15:01**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	11.3	90.5 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-23, 22 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

BH05@11-12'
2406018-10 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **06/03/24 15:01**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzo (a) anthracene	ND	0.00500	mg/kg	1	BHF0059	06/04/24	06/05/24	EPA 8270D SIM	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **06/03/24 15:01**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10	0.0257	77.2 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0285	85.4 %	40-150		"	"	"	"	

Total Metals by EPA 6020B

Date Sampled: **06/03/24 15:01**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Arsenic	1.13	0.200	mg/kg dry	1	BHF0074	06/04/24	06/06/24	EPA 6020B	
Barium	38.2	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	2.64	0.400	"	"	"	"	"	"	
Lead	2.13	0.200	"	"	"	"	"	"	
Nickel	2.09	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	10.3	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **06/03/24 15:01**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHF0107	06/05/24	06/05/24	EPA 7196A	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-23, 22 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

BH05@11-12'
2406018-10 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **06/03/24 15:01**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	87.8			%	1	BHF0077	06/04/24	06/04/24	Calculation	

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-23, 22 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

BH06@7-8'
2406018-11 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/03/24 15:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BHF0086	06/04/24	06/06/24	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **06/03/24 15:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0368	92.0 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0401	100 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0388	97.0 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/03/24 15:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BHF0088	06/04/24	06/05/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **06/03/24 15:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	8.81	70.5 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-23, 22 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

BH06@7-8'
2406018-11 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **06/03/24 15:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzo (a) anthracene	ND	0.00500	mg/kg	1	BHF0059	06/04/24	06/05/24	EPA 8270D SIM	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **06/03/24 15:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10	0.0250	75.0 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0253	75.9 %	40-150		"	"	"	"	

Total Metals by EPA 6020B

Date Sampled: **06/03/24 15:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Arsenic	0.822	0.179	mg/kg dry	1	BHF0074	06/04/24	06/06/24	EPA 6020B	
Barium	18.3	0.357	"	"	"	"	"	"	
Cadmium	ND	0.179	"	"	"	"	"	"	
Copper	1.67	0.357	"	"	"	"	"	"	
Lead	2.47	0.179	"	"	"	"	"	"	
Nickel	2.04	0.357	"	"	"	"	"	"	
Silver	ND	0.0179	"	"	"	"	"	"	
Zinc	8.08	0.357	"	"	"	"	"	"	
Selenium	ND	0.232	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **06/03/24 15:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHF0107	06/05/24	06/05/24	EPA 7196A	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-23, 22 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

BH06@7-8'
2406018-11 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **06/03/24 15:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	89.6			%	1	BHF0077	06/04/24	06/04/24	Calculation	

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-23, 22 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

BH06@11-12'
2406018-12 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/03/24 15:31**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BHF0086	06/04/24	06/06/24	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **06/03/24 15:31**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0381	95.3 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0408	102 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0402	100 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/03/24 15:31**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BHF0088	06/04/24	06/05/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **06/03/24 15:31**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	11.6	92.6 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-23, 22 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

BH06@11-12'
2406018-12 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **06/03/24 15:31**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzo (a) anthracene	ND	0.00500		mg/kg	1	BHF0059	06/04/24	06/05/24	EPA 8270D SIM	
1-Methylnaphthalene	ND	0.00500		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500		"	"	"	"	"	"	

Date Sampled: **06/03/24 15:31**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 2-Methylnaphthalene-d10	0.0270	81.0 %		40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0267	80.1 %		40-150		"	"	"	"	

Total Metals by EPA 6020B

Date Sampled: **06/03/24 15:31**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Arsenic	0.567	0.180		mg/kg dry	1	BHF0074	06/04/24	06/06/24	EPA 6020B	
Barium	9.61	0.360		"	"	"	"	"	"	
Cadmium	ND	0.180		"	"	"	"	"	"	
Copper	2.41	0.360		"	"	"	"	"	"	
Lead	1.66	0.180		"	"	"	"	"	"	
Nickel	1.96	0.360		"	"	"	"	"	"	
Silver	ND	0.0180		"	"	"	"	"	"	
Zinc	8.31	0.360		"	"	"	"	"	"	
Selenium	ND	0.234		"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **06/03/24 15:31**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BHF0107	06/05/24	06/05/24	EPA 7196A	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-23, 22 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

BH06@11-12'
2406018-12 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **06/03/24 15:31**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	87.6			%	1	BHF0077	06/04/24	06/04/24	Calculation	

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-23, 22 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

BH07@6-7'
2406018-13 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/03/24 10:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BHF0086	06/04/24	06/06/24	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **06/03/24 10:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0375	93.7 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0395	98.7 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0396	98.9 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/03/24 10:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BHF0088	06/04/24	06/05/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **06/03/24 10:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	11.2	89.4 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-23, 22 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

BH07@6-7'
2406018-13 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **06/03/24 10:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzo (a) anthracene	ND	0.00500	mg/kg	1	BHF0059	06/04/24	06/05/24	EPA 8270D SIM	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **06/03/24 10:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10	0.0283	84.8 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0287	86.2 %	40-150		"	"	"	"	

Total Metals by EPA 6020B

Date Sampled: **06/03/24 10:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Arsenic	0.653	0.200	mg/kg dry	1	BHF0074	06/04/24	06/06/24	EPA 6020B	
Barium	15.5	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	1.38	0.400	"	"	"	"	"	"	
Lead	1.38	0.200	"	"	"	"	"	"	
Nickel	1.07	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	4.92	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **06/03/24 10:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHF0107	06/05/24	06/05/24	EPA 7196A	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-23, 22 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

BH07@6-7'
2406018-13 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **06/03/24 10:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	88.4			%	1	BHF0077	06/04/24	06/04/24	Calculation	

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-23, 22 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

BH07@11-12'
2406018-14 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/03/24 10:41**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BHF0086	06/04/24	06/06/24	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **06/03/24 10:41**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0359	89.8 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0397	99.2 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0398	99.6 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/03/24 10:41**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BHF0088	06/04/24	06/05/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **06/03/24 10:41**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	12.8	103 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-23, 22 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

BH07@11-12'
2406018-14 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **06/03/24 10:41**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzo (a) anthracene	ND	0.00500	mg/kg	1	BHF0059	06/04/24	06/05/24	EPA 8270D SIM	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **06/03/24 10:41**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10	0.0275	82.4 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0268	80.4 %	40-150		"	"	"	"	

Total Metals by EPA 6020B

Date Sampled: **06/03/24 10:41**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Arsenic	0.534	0.200	mg/kg dry	1	BHF0074	06/04/24	06/06/24	EPA 6020B	
Barium	11.1	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	2.78	0.400	"	"	"	"	"	"	
Lead	1.84	0.200	"	"	"	"	"	"	
Nickel	2.29	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	10.1	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **06/03/24 10:41**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHF0107	06/05/24	06/05/24	EPA 7196A	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-23, 22 Tank Battery
Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

BH07@11-12'
2406018-14 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **06/03/24 10:41**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	90.2			%	1	BHF0077	06/04/24	06/04/24	Calculation	

Summit Scientific

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Broomfield CO, 80020

Project: PDC - Ikenouye F29-23, 22 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

BH08@6-7'
2406018-15 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/03/24 10:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BHF0086	06/04/24	06/06/24	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **06/03/24 10:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0362	90.4 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0396	98.9 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0416	104 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/03/24 10:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BHF0088	06/04/24	06/05/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **06/03/24 10:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	12.5	100 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-23, 22 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

BH08@6-7'
2406018-15 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **06/03/24 10:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzo (a) anthracene	ND	0.00500	mg/kg	1	BHF0059	06/04/24	06/05/24	EPA 8270D SIM	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **06/03/24 10:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10	0.0244	73.4 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0284	85.1 %	40-150		"	"	"	"	

Total Metals by EPA 6020B

Date Sampled: **06/03/24 10:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Arsenic	0.380	0.200	mg/kg dry	1	BHF0074	06/04/24	06/06/24	EPA 6020B	
Barium	6.40	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	0.855	0.400	"	"	"	"	"	"	
Lead	1.15	0.200	"	"	"	"	"	"	
Nickel	0.728	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	4.50	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **06/03/24 10:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHF0107	06/05/24	06/05/24	EPA 7196A	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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Broomfield CO, 80020

Project: PDC - Ikenouye F29-23, 22 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

BH08@6-7'
2406018-15 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **06/03/24 10:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	87.0			%	1	BHF0077	06/04/24	06/04/24	Calculation	

Summit Scientific

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Project: PDC - Ikenouye F29-23, 22 Tank Battery
Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

BH08@11-12'
2406018-16 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/03/24 10:01**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BHF0086	06/04/24	06/06/24	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **06/03/24 10:01**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0384	96.0 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0398	99.6 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0388	97.0 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/03/24 10:01**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BHF0088	06/04/24	06/05/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **06/03/24 10:01**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	9.70	77.6 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-23, 22 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

BH08@11-12'
2406018-16 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **06/03/24 10:01**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzo (a) anthracene	ND	0.00500	mg/kg	1	BHF0059	06/04/24	06/05/24	EPA 8270D SIM	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **06/03/24 10:01**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10	0.0263	78.9 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0283	84.8 %	40-150		"	"	"	"	

Total Metals by EPA 6020B

Date Sampled: **06/03/24 10:01**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Arsenic	0.575	0.200	mg/kg dry	1	BHF0074	06/04/24	06/06/24	EPA 6020B	
Barium	6.98	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	2.09	0.400	"	"	"	"	"	"	
Lead	1.90	0.200	"	"	"	"	"	"	
Nickel	1.41	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	7.07	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **06/03/24 10:01**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHF0107	06/05/24	06/05/24	EPA 7196A	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-23, 22 Tank Battery
Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

BH08@11-12'
2406018-16 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **06/03/24 10:01**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	87.4			%	1	BHF0077	06/04/24	06/04/24	Calculation	

Summit Scientific

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Broomfield CO, 80020

Project: PDC - Ikenouye F29-23, 22 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

BH09@7-8'
2406018-17 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/03/24 10:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BHF0086	06/04/24	06/06/24	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **06/03/24 10:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0414	103 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0419	105 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0397	99.3 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/03/24 10:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BHF0088	06/04/24	06/05/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **06/03/24 10:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	11.0	87.7 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-23, 22 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

BH09@7-8'
2406018-17 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **06/03/24 10:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzo (a) anthracene	ND	0.00500	mg/kg	1	BHF0059	06/04/24	06/05/24	EPA 8270D SIM	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **06/03/24 10:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10	0.0296	88.9 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0289	86.7 %	40-150		"	"	"	"	

Total Metals by EPA 6020B

Date Sampled: **06/03/24 10:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Arsenic	0.979	0.200	mg/kg dry	1	BHF0074	06/04/24	06/06/24	EPA 6020B	
Barium	12.4	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	2.01	0.400	"	"	"	"	"	"	
Lead	2.09	0.200	"	"	"	"	"	"	
Nickel	2.19	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	7.94	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **06/03/24 10:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHF0107	06/05/24	06/05/24	EPA 7196A	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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Tasman Geosciences
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Broomfield CO, 80020

Project: PDC - Ikenouye F29-23, 22 Tank Battery
Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

BH09@7-8'
2406018-17 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **06/03/24 10:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	92.6			%	1	BHF0077	06/04/24	06/04/24	Calculation	

Summit Scientific

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6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-23, 22 Tank Battery
Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

BH09@11-12'
2406018-18 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/03/24 10:21**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BHF0086	06/04/24	06/06/24	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **06/03/24 10:21**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0377	94.2 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0380	95.1 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0406	102 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/03/24 10:21**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BHF0088	06/04/24	06/05/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **06/03/24 10:21**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	12.8	102 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
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Project: PDC - Ikenouye F29-23, 22 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

BH09@11-12'
2406018-18 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **06/03/24 10:21**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzo (a) anthracene	ND	0.00500	mg/kg	1	BHF0059	06/04/24	06/05/24	EPA 8270D SIM	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **06/03/24 10:21**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10	0.0299	89.7 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0290	86.9 %	40-150		"	"	"	"	

Total Metals by EPA 6020B

Date Sampled: **06/03/24 10:21**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Arsenic	0.886	0.200	mg/kg dry	1	BHF0074	06/04/24	06/06/24	EPA 6020B	
Barium	14.4	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	2.31	0.400	"	"	"	"	"	"	
Lead	2.35	0.200	"	"	"	"	"	"	
Nickel	3.02	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	12.8	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **06/03/24 10:21**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHF0107	06/05/24	06/05/24	EPA 7196A	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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Broomfield CO, 80020

Project: PDC - Ikenouye F29-23, 22 Tank Battery
Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

BH09@11-12'
2406018-18 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **06/03/24 10:21**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	93.4			%	1	BHF0077	06/04/24	06/04/24	Calculation	

Summit Scientific

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Tasman Geosciences
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Broomfield CO, 80020

Project: PDC - Ikenouye F29-23, 22 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

BH10@7-8'
2406018-19 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/03/24 11:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BHF0086	06/04/24	06/06/24	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **06/03/24 11:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0413	103 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0416	104 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0399	99.8 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/03/24 11:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BHF0088	06/04/24	06/05/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **06/03/24 11:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	13.7	110 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-23, 22 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

BH10@7-8'
2406018-19 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **06/03/24 11:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzo (a) anthracene	ND	0.00500	mg/kg	1	BHF0059	06/04/24	06/05/24	EPA 8270D SIM	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **06/03/24 11:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10	0.0278	83.3 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0261	78.4 %	40-150		"	"	"	"	

Total Metals by EPA 6020B

Date Sampled: **06/03/24 11:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Arsenic	0.337	0.200	mg/kg dry	1	BHF0074	06/04/24	06/06/24	EPA 6020B	
Barium	7.85	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	0.805	0.400	"	"	"	"	"	"	
Lead	1.00	0.200	"	"	"	"	"	"	
Nickel	0.760	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	5.13	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **06/03/24 11:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHF0107	06/05/24	06/05/24	EPA 7196A	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-23, 22 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

BH10@7-8'
2406018-19 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **06/03/24 11:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	92.0			%	1	BHF0077	06/04/24	06/04/24	Calculation	

Summit Scientific

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6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-23, 22 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

BH10@11-12'
2406018-20 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/03/24 11:31**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BHF0086	06/04/24	06/06/24	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **06/03/24 11:31**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0375	93.8 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0394	98.4 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0393	98.2 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/03/24 11:31**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BHF0088	06/04/24	06/05/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **06/03/24 11:31**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	12.4	99.3 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-23, 22 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

BH10@11-12'
2406018-20 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **06/03/24 11:31**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzo (a) anthracene	ND	0.00500	mg/kg	1	BHF0059	06/04/24	06/05/24	EPA 8270D SIM	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **06/03/24 11:31**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10	0.0246	73.7 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0257	77.0 %	40-150		"	"	"	"	

Total Metals by EPA 6020B

Date Sampled: **06/03/24 11:31**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Arsenic	0.436	0.200	mg/kg dry	1	BHF0074	06/04/24	06/06/24	EPA 6020B	
Barium	13.8	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	2.52	0.400	"	"	"	"	"	"	
Lead	1.79	0.200	"	"	"	"	"	"	
Nickel	1.92	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	8.61	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **06/03/24 11:31**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHF0107	06/05/24	06/05/24	EPA 7196A	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-23, 22 Tank Battery
Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

BH10@11-12'
2406018-20 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **06/03/24 11:31**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	89.4			%	1	BHF0077	06/04/24	06/04/24	Calculation	

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-23, 22 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

BH11@7-8'
2406018-21 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/03/24 14:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BHF0087	06/04/24	06/05/24	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **06/03/24 14:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0472	118 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0409	102 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0404	101 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/03/24 14:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BHF0089	06/04/24	06/05/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **06/03/24 14:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	15.1	121 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-23, 22 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

BH11@7-8'
2406018-21 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **06/03/24 14:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzo (a) anthracene	ND	0.00500	mg/kg	1	BHF0058	06/04/24	06/05/24	EPA 8270D SIM	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **06/03/24 14:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10	0.0329	98.6 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0296	88.7 %	40-150		"	"	"	"	

Total Metals by EPA 6020B

Date Sampled: **06/03/24 14:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Arsenic	0.396	0.200	mg/kg dry	1	BHF0074	06/04/24	06/06/24	EPA 6020B	
Barium	12.2	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	2.39	0.400	"	"	"	"	"	"	
Lead	3.56	0.200	"	"	"	"	"	"	
Nickel	1.08	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	9.59	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **06/03/24 14:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHF0106	06/05/24	06/05/24	EPA 7196A	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-23, 22 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

BH11@7-8'
2406018-21 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **06/03/24 14:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	90.6			%	1	BHF0077	06/04/24	06/04/24	Calculation	

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-23, 22 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

BH11@11-12'
2406018-22 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/03/24 14:21**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BHF0087	06/04/24	06/06/24	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **06/03/24 14:21**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0407	102 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0390	97.6 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0422	105 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/03/24 14:21**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BHF0089	06/04/24	06/05/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **06/03/24 14:21**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	10.9	87.0 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-23, 22 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

BH11@11-12'
2406018-22 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **06/03/24 14:21**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzo (a) anthracene	ND	0.00500	mg/kg	1	BHF0058	06/04/24	06/05/24	EPA 8270D SIM	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **06/03/24 14:21**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10	0.0267	80.1 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0297	89.2 %	40-150		"	"	"	"	

Total Metals by EPA 6020B

Date Sampled: **06/03/24 14:21**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Arsenic	0.632	0.200	mg/kg dry	1	BHF0074	06/04/24	06/06/24	EPA 6020B	
Barium	18.0	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	3.07	0.400	"	"	"	"	"	"	
Lead	2.29	0.200	"	"	"	"	"	"	
Nickel	2.41	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	9.85	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **06/03/24 14:21**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHF0106	06/05/24	06/05/24	EPA 7196A	

Physical Parameters by APHA/ASTM/EPA Methods

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-23, 22 Tank Battery
Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

BH11@11-12'
2406018-22 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **06/03/24 14:21**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	84.4			%	1	BHF0077	06/04/24	06/04/24	Calculation	

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Tasman Geosciences
6855 W. 119th Ave.
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Project: PDC - Ikenouye F29-23, 22 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BHF0086 - EPA 5030 Soil MS

Blank (BHF0086-BLK1)

Prepared: 06/04/24 Analyzed: 06/06/24

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
1,2,4-Trimethylbenzene	ND	0.0050	"							
1,3,5-Trimethylbenzene	ND	0.0050	"							
Naphthalene	ND	0.0038	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0415		"	0.0400		104	50-150			
Surrogate: Toluene-d8	0.0406		"	0.0400		101	50-150			
Surrogate: 4-Bromofluorobenzene	0.0388		"	0.0400		97.1	50-150			

LCS (BHF0086-BS1)

Prepared: 06/04/24 Analyzed: 06/06/24

Benzene	0.0949	0.0020	mg/kg	0.100		94.9	70-130			
Toluene	0.103	0.0050	"	0.100		103	70-130			
Ethylbenzene	0.0976	0.0050	"	0.100		97.6	70-130			
m,p-Xylene	0.197	0.010	"	0.200		98.3	70-130			
o-Xylene	0.0979	0.0050	"	0.100		97.9	70-130			
1,2,4-Trimethylbenzene	0.0935	0.0050	"	0.100		93.5	70-130			
1,3,5-Trimethylbenzene	0.0945	0.0050	"	0.100		94.5	70-130			
Naphthalene	0.0830	0.0038	"	0.100		83.0	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0402		"	0.0400		100	50-150			
Surrogate: Toluene-d8	0.0416		"	0.0400		104	50-150			
Surrogate: 4-Bromofluorobenzene	0.0379		"	0.0400		94.6	50-150			

Matrix Spike (BHF0086-MS1)

Source: 2406018-01

Prepared: 06/04/24 Analyzed: 06/06/24

Benzene	0.0922	0.0020	mg/kg	0.100	ND	92.2	70-130			
Toluene	0.101	0.0050	"	0.100	ND	101	70-130			
Ethylbenzene	0.101	0.0050	"	0.100	ND	101	70-130			
m,p-Xylene	0.200	0.010	"	0.200	ND	100	70-130			
o-Xylene	0.0994	0.0050	"	0.100	ND	99.4	70-130			
1,2,4-Trimethylbenzene	0.0932	0.0050	"	0.100	ND	93.2	70-130			
1,3,5-Trimethylbenzene	0.0969	0.0050	"	0.100	ND	96.9	70-130			
Naphthalene	0.0794	0.0038	"	0.100	ND	79.4	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0389		"	0.0400		97.4	50-150			
Surrogate: Toluene-d8	0.0428		"	0.0400		107	50-150			
Surrogate: 4-Bromofluorobenzene	0.0386		"	0.0400		96.4	50-150			

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-23, 22 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Reporting			Spike		Source		%REC		RPD	
	Result	Limit	Units	Level		Result		%REC	Limits	RPD	Notes

Batch BHF0086 - EPA 5030 Soil MS

Matrix Spike Dup (BHF0086-MSD1)

Source: 2406018-01

Prepared: 06/04/24 Analyzed: 06/06/24

Benzene	0.0943	0.0020	mg/kg	0.100	ND	94.3	70-130	2.25	30	
Toluene	0.105	0.0050	"	0.100	ND	105	70-130	3.64	30	
Ethylbenzene	0.101	0.0050	"	0.100	ND	101	70-130	0.119	30	
m,p-Xylene	0.202	0.010	"	0.200	ND	101	70-130	1.13	30	
o-Xylene	0.0986	0.0050	"	0.100	ND	98.6	70-130	0.818	30	
1,2,4-Trimethylbenzene	0.0939	0.0050	"	0.100	ND	93.9	70-130	0.802	30	
1,3,5-Trimethylbenzene	0.0973	0.0050	"	0.100	ND	97.3	70-130	0.463	30	
Naphthalene	0.0825	0.0038	"	0.100	ND	82.5	70-130	3.86	30	
Surrogate: 1,2-Dichloroethane-d4	0.0362		"	0.0400		90.6	50-150			
Surrogate: Toluene-d8	0.0432		"	0.0400		108	50-150			
Surrogate: 4-Bromofluorobenzene	0.0392		"	0.0400		98.1	50-150			

Batch BHF0087 - EPA 5030 Soil MS

Blank (BHF0087-BLK1)

Prepared: 06/04/24 Analyzed: 06/05/24

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
1,2,4-Trimethylbenzene	ND	0.0050	"							
1,3,5-Trimethylbenzene	ND	0.0050	"							
Naphthalene	ND	0.0038	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0480		"	0.0400		120	50-150			
Surrogate: Toluene-d8	0.0397		"	0.0400		99.2	50-150			
Surrogate: 4-Bromofluorobenzene	0.0400		"	0.0400		100	50-150			

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Tasman Geosciences
6855 W. 119th Ave.
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Project: PDC - Ikenouye F29-23, 22 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BHF0087 - EPA 5030 Soil MS

LCS (BHF0087-BS1)

Prepared: 06/04/24 Analyzed: 06/05/24

Benzene	0.110	0.0020	mg/kg	0.100		110	70-130			
Toluene	0.117	0.0050	"	0.100		117	70-130			
Ethylbenzene	0.122	0.0050	"	0.100		122	70-130			
m,p-Xylene	0.243	0.010	"	0.200		121	70-130			
o-Xylene	0.120	0.0050	"	0.100		120	70-130			
1,2,4-Trimethylbenzene	0.115	0.0050	"	0.100		115	70-130			
1,3,5-Trimethylbenzene	0.117	0.0050	"	0.100		117	70-130			
Naphthalene	0.109	0.0038	"	0.100		109	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0442		"	0.0400		110	50-150			
Surrogate: Toluene-d8	0.0400		"	0.0400		100	50-150			
Surrogate: 4-Bromofluorobenzene	0.0409		"	0.0400		102	50-150			

Matrix Spike (BHF0087-MS1)

Source: 2405493-01

Prepared: 06/04/24 Analyzed: 06/05/24

Benzene	0.105	0.0020	mg/kg	0.100	ND	105	70-130			
Toluene	0.112	0.0050	"	0.100	ND	112	70-130			
Ethylbenzene	0.104	0.0050	"	0.100	ND	104	70-130			
m,p-Xylene	0.206	0.010	"	0.200	ND	103	70-130			
o-Xylene	0.102	0.0050	"	0.100	ND	102	70-130			
1,2,4-Trimethylbenzene	0.0967	0.0050	"	0.100	ND	96.7	70-130			
1,3,5-Trimethylbenzene	0.0973	0.0050	"	0.100	ND	97.3	70-130			
Naphthalene	0.0921	0.0038	"	0.100	ND	92.1	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0446		"	0.0400		112	50-150			
Surrogate: Toluene-d8	0.0443		"	0.0400		111	50-150			
Surrogate: 4-Bromofluorobenzene	0.0396		"	0.0400		99.1	50-150			

Matrix Spike Dup (BHF0087-MSD1)

Source: 2405493-01

Prepared: 06/04/24 Analyzed: 06/05/24

Benzene	0.118	0.0020	mg/kg	0.100	ND	118	70-130	11.5	30	
Toluene	0.124	0.0050	"	0.100	ND	124	70-130	10.2	30	
Ethylbenzene	0.117	0.0050	"	0.100	ND	117	70-130	12.5	30	
m,p-Xylene	0.234	0.010	"	0.200	ND	117	70-130	13.0	30	
o-Xylene	0.114	0.0050	"	0.100	ND	114	70-130	10.7	30	
1,2,4-Trimethylbenzene	0.106	0.0050	"	0.100	ND	106	70-130	9.04	30	
1,3,5-Trimethylbenzene	0.108	0.0050	"	0.100	ND	108	70-130	10.2	30	
Naphthalene	0.0970	0.0038	"	0.100	ND	97.0	70-130	5.20	30	
Surrogate: 1,2-Dichloroethane-d4	0.0484		"	0.0400		121	50-150			
Surrogate: Toluene-d8	0.0435		"	0.0400		109	50-150			
Surrogate: 4-Bromofluorobenzene	0.0394		"	0.0400		98.6	50-150			

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-23, 22 Tank Battery
Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BHF0088 - EPA 3550A

Blank (BHF0088-BLK1)

Prepared & Analyzed: 06/04/24

C10-C28 (DRO)	ND	50	mg/kg							
C28-C36 (ORO)	ND	50	"							
Surrogate: o-Terphenyl	15.5		"	12.5		124	30-150			

LCS (BHF0088-BS1)

Prepared & Analyzed: 06/04/24

C10-C28 (DRO)	563	50	mg/kg	500		113	70-130			
Surrogate: o-Terphenyl	13.2		"	12.5		105	30-150			

Matrix Spike (BHF0088-MS1)

Source: 2406018-01

Prepared & Analyzed: 06/04/24

C10-C28 (DRO)	494	50	mg/kg	500	36.7	91.4	70-130			
Surrogate: o-Terphenyl	10.7		"	12.5		85.7	30-150			

Matrix Spike Dup (BHF0088-MSD1)

Source: 2406018-01

Prepared & Analyzed: 06/04/24

C10-C28 (DRO)	479	50	mg/kg	500	36.7	88.5	70-130	2.96	20	
Surrogate: o-Terphenyl	10.2		"	12.5		81.5	30-150			

Batch BHF0089 - EPA 3550A

Blank (BHF0089-BLK1)

Prepared & Analyzed: 06/04/24

C10-C28 (DRO)	ND	50	mg/kg							
C28-C36 (ORO)	ND	50	"							
Surrogate: o-Terphenyl	16.7		"	12.5		134	30-150			

LCS (BHF0089-BS1)

Prepared & Analyzed: 06/04/24

C10-C28 (DRO)	591	50	mg/kg	500		118	70-130			
Surrogate: o-Terphenyl	15.8		"	12.5		126	30-150			

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Project: PDC - Ikenouye F29-23, 22 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BHF0089 - EPA 3550A

Matrix Spike (BHF0089-MS1)

Source: 2405493-01

Prepared: 06/04/24 Analyzed: 06/05/24

C10-C28 (DRO)	584	50	mg/kg	500	30.1	111	70-130			
Surrogate: o-Terphenyl	15.9		"	12.5		127	30-150			

Matrix Spike Dup (BHF0089-MSD1)

Source: 2405493-01

Prepared: 06/04/24 Analyzed: 06/05/24

C10-C28 (DRO)	510	50	mg/kg	500	30.1	96.0	70-130	13.5	20	
Surrogate: o-Terphenyl	15.0		"	12.5		120	30-150			

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Broomfield CO, 80020

Project: PDC - Ikenouye F29-23, 22 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

Analyte	Reporting			Spike	Source	%REC		RPD		
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BHF0058 - EPA 5030 Soil MS

Blank (BHF0058-BLK1)

Prepared & Analyzed: 06/04/24

Benzo (a) anthracene	ND	0.00500	mg/kg							
1-Methylnaphthalene	ND	0.00500	"							
2-Methylnaphthalene	ND	0.00500	"							
Surrogate: 2-Methylnaphthalene-d10	0.0264		"	0.0333		79.2	40-150			
Surrogate: Fluoranthene-d10	0.0282		"	0.0333		84.6	40-150			

LCS (BHF0058-BS1)

Prepared & Analyzed: 06/04/24

Benzo (a) anthracene	0.0280	0.00500	mg/kg	0.0333		84.1	30-120			
1-Methylnaphthalene	0.0250	0.00500	"	0.0333		74.9	35-142			
2-Methylnaphthalene	0.0265	0.00500	"	0.0333		79.5	35-142			
Surrogate: 2-Methylnaphthalene-d10	0.0259		"	0.0333		77.6	40-150			
Surrogate: Fluoranthene-d10	0.0284		"	0.0333		85.1	40-150			

Matrix Spike (BHF0058-MS1)

Source: 2406006-01

Prepared & Analyzed: 06/04/24

Benzo (a) anthracene	0.0196	0.00500	mg/kg	0.0333	ND	58.7	30-120			
1-Methylnaphthalene	0.0192	0.00500	"	0.0333	ND	57.5	15-130			
2-Methylnaphthalene	0.0200	0.00500	"	0.0333	ND	59.9	15-130			
Surrogate: 2-Methylnaphthalene-d10	0.0200		"	0.0333		60.1	40-150			
Surrogate: Fluoranthene-d10	0.0194		"	0.0333		58.2	40-150			

Matrix Spike Dup (BHF0058-MSD1)

Source: 2406006-01

Prepared & Analyzed: 06/04/24

Benzo (a) anthracene	0.0250	0.00500	mg/kg	0.0333	ND	74.9	30-120	24.2	30	
1-Methylnaphthalene	0.0244	0.00500	"	0.0333	ND	73.3	15-130	24.2	50	
2-Methylnaphthalene	0.0251	0.00500	"	0.0333	ND	75.2	15-130	22.7	50	
Surrogate: 2-Methylnaphthalene-d10	0.0249		"	0.0333		74.8	40-150			
Surrogate: Fluoranthene-d10	0.0250		"	0.0333		74.9	40-150			

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-23, 22 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BHF0059 - EPA 5030 Soil MS

Blank (BHF0059-BLK1)

Prepared & Analyzed: 06/04/24

Benzo (a) anthracene	ND	0.00500	mg/kg							
1-Methylnaphthalene	ND	0.00500	"							
2-Methylnaphthalene	ND	0.00500	"							
Surrogate: 2-Methylnaphthalene-d10	0.0277		"	0.0333		83.1	40-150			
Surrogate: Fluoranthene-d10	0.0334		"	0.0333		100	40-150			

LCS (BHF0059-BS1)

Prepared & Analyzed: 06/04/24

Benzo (a) anthracene	0.0316	0.00500	mg/kg	0.0333		94.9	30-120			
1-Methylnaphthalene	0.0301	0.00500	"	0.0333		90.2	35-142			
2-Methylnaphthalene	0.0299	0.00500	"	0.0333		89.6	35-142			
Surrogate: 2-Methylnaphthalene-d10	0.0308		"	0.0333		92.5	40-150			
Surrogate: Fluoranthene-d10	0.0321		"	0.0333		96.3	40-150			

Matrix Spike (BHF0059-MS1)

Source: 2406018-01

Prepared & Analyzed: 06/04/24

Benzo (a) anthracene	0.0260	0.00500	mg/kg	0.0333	ND	78.1	30-120			
1-Methylnaphthalene	0.0243	0.00500	"	0.0333	ND	72.9	15-130			
2-Methylnaphthalene	0.0242	0.00500	"	0.0333	ND	72.5	15-130			
Surrogate: 2-Methylnaphthalene-d10	0.0249		"	0.0333		74.7	40-150			
Surrogate: Fluoranthene-d10	0.0237		"	0.0333		71.0	40-150			

Matrix Spike Dup (BHF0059-MSD1)

Source: 2406018-01

Prepared & Analyzed: 06/04/24

Benzo (a) anthracene	0.0226	0.00500	mg/kg	0.0333	ND	67.9	30-120	14.0	30	
1-Methylnaphthalene	0.0203	0.00500	"	0.0333	ND	60.8	15-130	18.1	50	
2-Methylnaphthalene	0.0202	0.00500	"	0.0333	ND	60.5	15-130	18.1	50	
Surrogate: 2-Methylnaphthalene-d10	0.0207		"	0.0333		62.2	40-150			
Surrogate: Fluoranthene-d10	0.0218		"	0.0333		65.5	40-150			

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-23, 22 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

Total Metals by EPA 6020B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BHF0073 - EPA 3050B

Blank (BHF0073-BLK1)

Prepared: 06/04/24 Analyzed: 06/06/24

Arsenic	ND	0.200	mg/kg wet
Barium	ND	0.400	"
Cadmium	ND	0.200	"
Copper	ND	0.400	"
Lead	ND	0.200	"
Nickel	ND	0.400	"
Silver	ND	0.0200	"
Zinc	ND	0.400	"
Selenium	ND	0.260	"

LCS (BHF0073-BS1)

Prepared: 06/04/24 Analyzed: 06/06/24

Arsenic	38.7	0.200	mg/kg wet	38.8	99.9	80-120
Barium	38.8	0.400	"	38.8	100	80-120
Cadmium	1.89	0.200	"	1.94	97.7	80-120
Copper	36.8	0.400	"	38.8	94.9	80-120
Lead	18.9	0.200	"	19.4	97.6	80-120
Nickel	36.8	0.400	"	38.8	94.9	80-120
Silver	1.90	0.0200	"	1.94	98.0	80-120
Zinc	35.7	0.400	"	38.8	92.0	80-120
Selenium	3.47	0.260	"	3.88	89.4	80-120

Duplicate (BHF0073-DUP1)

Source: 2405488-01

Prepared: 06/04/24 Analyzed: 06/06/24

Arsenic	1.66	0.200	mg/kg dry	1.61	3.00	20
Barium	23.4	0.400	"	25.0	6.43	20
Cadmium	0.112	0.200	"	0.0984	13.3	20
Copper	2.70	0.400	"	2.48	8.44	20
Lead	4.05	0.200	"	3.85	5.01	20
Nickel	2.22	0.400	"	2.37	6.51	20
Silver	0.00797	0.0200	"	0.00891	11.1	20
Zinc	11.4	0.400	"	11.9	3.80	20
Selenium	ND	0.260	"	ND		20

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-23, 22 Tank Battery
Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

Total Metals by EPA 6020B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BHF0073 - EPA 3050B

Matrix Spike (BHF0073-MS1)

Source: 2405488-01

Prepared: 06/04/24 Analyzed: 06/06/24

Arsenic	30.8	0.200	mg/kg dry	37.4	1.61	77.9	75-125			
Barium	74.1	0.400	"	37.4	25.0	131	75-125			QM-07
Cadmium	2.02	0.200	"	1.87	0.0984	103	75-125			
Copper	39.1	0.400	"	37.4	2.48	98.0	75-125			
Lead	22.9	0.200	"	18.7	3.85	102	75-125			
Nickel	39.5	0.400	"	37.4	2.37	99.3	75-125			
Silver	1.82	0.0200	"	1.87	0.00891	96.8	75-125			
Zinc	48.6	0.400	"	37.4	11.9	98.2	75-125			
Selenium	3.20	0.260	"	3.74	ND	85.5	75-125			

Matrix Spike Dup (BHF0073-MSD1)

Source: 2405488-01

Prepared: 06/04/24 Analyzed: 06/06/24

Arsenic	30.4	0.200	mg/kg dry	37.1	1.61	77.5	75-125	1.16	25	
Barium	62.7	0.400	"	37.1	25.0	102	75-125	16.6	25	
Cadmium	1.89	0.200	"	1.86	0.0984	96.6	75-125	6.66	25	
Copper	38.0	0.400	"	37.1	2.48	95.6	75-125	2.93	25	
Lead	22.5	0.200	"	18.6	3.85	101	75-125	1.77	25	
Nickel	38.2	0.400	"	37.1	2.37	96.4	75-125	3.38	25	
Silver	1.75	0.0200	"	1.86	0.00891	93.7	75-125	3.97	25	
Zinc	47.1	0.400	"	37.1	11.9	95.0	75-125	3.07	25	
Selenium	3.10	0.260	"	3.71	ND	83.4	75-125	3.23	25	

Batch BHF0074 - EPA 3050B

Blank (BHF0074-BLK1)

Prepared: 06/04/24 Analyzed: 06/06/24

Arsenic	ND	0.200	mg/kg wet							
Barium	ND	0.400	"							
Cadmium	ND	0.200	"							
Copper	ND	0.400	"							
Lead	ND	0.200	"							
Nickel	ND	0.400	"							
Silver	ND	0.0200	"							
Zinc	ND	0.400	"							
Selenium	ND	0.260	"							

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-23, 22 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

Total Metals by EPA 6020B - Quality Control

Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BHF0074 - EPA 3050B

LCS (BHF0074-BS1)

Prepared: 06/04/24 Analyzed: 06/06/24

Arsenic	43.3	0.200	mg/kg wet	38.5		112	80-120
Barium	40.9	0.400	"	38.5		106	80-120
Cadmium	1.87	0.200	"	1.92		97.2	80-120
Copper	39.8	0.400	"	38.5		104	80-120
Lead	19.0	0.200	"	19.2		99.0	80-120
Nickel	40.3	0.400	"	38.5		105	80-120
Silver	1.86	0.0200	"	1.92		96.8	80-120
Zinc	41.0	0.400	"	38.5		107	80-120
Selenium	4.60	0.260	"	3.85		120	80-120

Duplicate (BHF0074-DUP1)

Source: 2404313-01RE1

Prepared: 06/04/24 Analyzed: 06/06/24

Arsenic	3.55	0.200	mg/kg wet		3.58		0.646	20
Barium	69.9	0.400	"		76.9		9.57	20
Cadmium	0.200	0.200	"		0.198		1.16	20
Copper	6.49	0.400	"		6.46		0.514	20
Lead	5.80	0.200	"		6.72		14.7	20
Nickel	6.57	0.400	"		6.72		2.24	20
Silver	0.0291	0.0200	"		0.0277		5.07	20
Zinc	27.1	0.400	"		27.2		0.230	20
Selenium	ND	0.260	"		0.190		200	20

Matrix Spike (BHF0074-MS1)

Source: 2404313-01RE1

Prepared: 06/04/24 Analyzed: 06/06/24

Arsenic	46.5	0.200	mg/kg wet	38.8	3.58	111	75-125
Barium	110	0.400	"	38.8	76.9	86.5	75-125
Cadmium	2.17	0.200	"	1.94	0.198	102	75-125
Copper	45.9	0.400	"	38.8	6.46	102	75-125
Lead	25.1	0.200	"	19.4	6.72	94.9	75-125
Nickel	47.6	0.400	"	38.8	6.72	105	75-125
Silver	1.90	0.0200	"	1.94	0.0277	96.4	75-125
Zinc	69.8	0.400	"	38.8	27.2	110	75-125
Selenium	4.06	0.260	"	3.88	0.190	99.8	75-125

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-23, 22 Tank Battery
Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

Total Metals by EPA 6020B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BHF0074 - EPA 3050B

Matrix Spike Dup (BHF0074-MSD1)

Source: 2404313-01RE1

Prepared: 06/04/24 Analyzed: 06/06/24

Arsenic	46.0	0.200	mg/kg wet	38.5	3.58	110	75-125	1.12	25
Barium	110	0.400	"	38.5	76.9	85.5	75-125	0.563	25
Cadmium	2.04	0.200	"	1.92	0.198	95.9	75-125	5.89	25
Copper	44.8	0.400	"	38.5	6.46	99.8	75-125	2.31	25
Lead	24.5	0.200	"	19.2	6.72	92.4	75-125	2.53	25
Nickel	46.2	0.400	"	38.5	6.72	103	75-125	2.89	25
Silver	1.81	0.0200	"	1.92	0.0277	92.9	75-125	4.43	25
Zinc	71.4	0.400	"	38.5	27.2	115	75-125	2.17	25
Selenium	3.88	0.260	"	3.85	0.190	96.0	75-125	4.37	25

Post Spike (BHF0074-PS1)

Source: 2404313-01RE1

Prepared: 06/04/24 Analyzed: 06/06/24

Arsenic	121		ug/l	100	9.30	111	75-125
Barium	297		"	100	200	96.7	75-125
Cadmium	5.32		"	5.00	0.514	96.1	75-125
Copper	118		"	100	16.8	101	75-125
Lead	65.1		"	50.0	17.5	95.3	75-125
Nickel	121		"	100	17.5	103	75-125
Silver	4.90		"	5.00	0.0720	96.5	75-125
Zinc	175		"	100	70.7	104	75-125
Selenium	10.6		"	10.0	0.494	101	75-125

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-23, 22 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

Hexavalent Chromium by EPA Method 7196 - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BHF0106 - 3060A Mod

Blank (BHF0106-BLK1)					Prepared & Analyzed: 06/05/24					
Chromium, Hexavalent	ND	0.30	mg/kg wet							
LCS (BHF0106-BS1)					Prepared & Analyzed: 06/05/24					
Chromium, Hexavalent	25.2	0.30	mg/kg wet	25.0		101	80-120			
Duplicate (BHF0106-DUP1)					Source: 2405494-01 Prepared & Analyzed: 06/05/24					
Chromium, Hexavalent	ND	0.30	mg/kg dry		ND				20	
Matrix Spike (BHF0106-MS1)					Source: 2405494-01 Prepared & Analyzed: 06/05/24					
Chromium, Hexavalent	26.2	0.30	mg/kg dry	29.0	ND	90.4	75-125			
Matrix Spike Dup (BHF0106-MSD1)					Source: 2405494-01 Prepared & Analyzed: 06/05/24					
Chromium, Hexavalent	27.2	0.30	mg/kg dry	30.5	ND	89.4	75-125	3.77	20	

Batch BHF0107 - 3060A Mod

Blank (BHF0107-BLK1)					Prepared & Analyzed: 06/05/24					
Chromium, Hexavalent	ND	0.30	mg/kg wet							
LCS (BHF0107-BS1)					Prepared & Analyzed: 06/05/24					
Chromium, Hexavalent	25.4	0.30	mg/kg wet	25.0		102	80-120			
Duplicate (BHF0107-DUP1)					Source: 2406018-01 Prepared & Analyzed: 06/05/24					
Chromium, Hexavalent	ND	0.30	mg/kg dry		ND				20	
Matrix Spike (BHF0107-MS1)					Source: 2406018-01 Prepared & Analyzed: 06/05/24					
Chromium, Hexavalent	26.1	0.30	mg/kg dry	26.5	ND	98.8	75-125			

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-23, 22 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

Hexavalent Chromium by EPA Method 7196 - Quality Control

Summit Scientific

Analyte	Result	Reporting			Spike	Source	%REC		RPD	
		Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BHF0107 - 3060A Mod

Matrix Spike Dup (BHF0107-MSD1)

Source: 2406018-01

Prepared & Analyzed: 06/05/24

Chromium, Hexavalent	27.8	0.30	mg/kg dry	27.5	ND	101	75-125	6.16	20
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Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-23, 22 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

Physical Parameters by APHA/ASTM/EPA Methods - Quality Control

Summit Scientific

Analyte	Result	Reporting		Spike Level	Source		%REC		RPD	
		Limit	Units		Result	%REC	Limits	RPD	Limit	Notes

Batch BHF0077 - General Preparation

Duplicate (BHF0077-DUP1)		Source: 2406018-01		Prepared & Analyzed: 06/04/24						
% Solids	90.8		%		91.7			0.953	20	

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-23, 22 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
06/12/24 11:52

Notes and Definitions

QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS/LCSD recovery.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

July 31, 2024

Karen Olson

Tasman Geosciences

6855 W. 119th Ave.

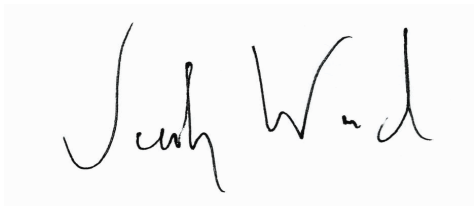
Broomfield, CO 80020

RE: PDC - Ikenouye F29-22, 23 Tank Battery

Work Order #2407325

Enclosed are the results of analyses for samples received by Summit Scientific on 07/24/24 17:57. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Jacob Wood". The signature is written in a cursive, flowing style.

Jacob Wood For Paul Shrewsbury

President



Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-22, 23 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

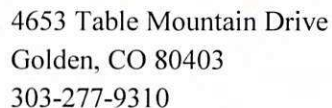
Reported:
07/31/24 08:50

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH01	2407325-01	Water	07/24/24 10:07	07/24/24 17:57
BH02	2407325-02	Water	07/24/24 09:54	07/24/24 17:57
BH03	2407325-03	Water	07/24/24 09:33	07/24/24 17:57
BH04	2407325-04	Water	07/24/24 09:18	07/24/24 17:57
BH05	2407325-05	Water	07/24/24 09:22	07/24/24 17:57
BH06	2407325-06	Water	07/24/24 09:20	07/24/24 17:57
BH07	2407325-07	Water	07/24/24 09:52	07/24/24 17:57
BH08	2407325-08	Water	07/24/24 09:25	07/24/24 17:57
BH09	2407325-09	Water	07/24/24 09:39	07/24/24 17:57
BH10	2407325-10	Water	07/24/24 09:50	07/24/24 17:57
BH11	2407325-11	Water	07/24/24 09:40	07/24/24 17:57

Summit Scientific

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S₂

Sample Receipt Checklist

S2 Work Order# 2407325Client: Prof TormanClient Project ID: Kerridge F29-22, 23 Tank BottomShipped Via: H.D./P.U./FedEx/UPS/USPS/Other ☐ Airbill #: _____
☐ ☐ ☐ ☐ ☐

Matrix (Check all that apply)

Air

☐

Soil/Solid

☐

Water

☒

Other

☐

Temp (°C)

Thermometer #

	Yes	No	N/A	Comments (if any)
If samples require cooling, is the temperature < 6°C? ⁽¹⁾ NOTE: If samples are delivered the same day of sampling, this requirement is met if there is evidence that cooling has begun.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	once
If custody seals are present, are they intact? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are samples due within 48 hours present?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are water samples with short hold times present? Note the short hold analysis in the comments column - pH, Nitrate/Nitrite, Ferrous Iron (Fe ²⁺), Hexavalent Chromium (Cr ⁶⁺ , Cr VI), COD/BOD, Total Coliform, E. Coli, Total Residual Chlorine (TRC), Dissolved Oxygen	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out Completely? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all samples received intact? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling)? ⁽¹⁾ Note the type of preservative in the comments column – HCl, H ₂ SO ₄ , NaOH, HNO ₃ , etc.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	HCl
If samples are acid preserved for metals, is the pH ≤ 2? ⁽¹⁾ Record the pH in Comments.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If dissolved metals are requested, were samples field filtered?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Additional Comments (if any):				

⁽¹⁾ If NO, then contact the client before proceeding with analysis and note in case narrative.

Custodian Printed Name

Date/Time



Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-22, 23 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
07/31/24 08:50

BH01
2407325-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/24/24 10:07**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	1.0	ug/l	1	BHG0812	07/26/24	07/28/24	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	"	"	"	"	"	"	
Naphthalene	ND	1.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	

Date Sampled: **07/24/24 10:07**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4	13.5	101 %	23-173		"	"	"	"	
Surrogate: Toluene-d8	13.2	99.2 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	12.8	96.2 %	21-167		"	"	"	"	

Anions by EPA Method 300.0

Date Sampled: **07/24/24 10:07**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chloride	138	0.0600	mg/L	200	BHG0764	07/25/24	07/29/24	EPA 300.0	
Sulfate	325	0.300	"	"	"	"	"	"	

Total Dissolved Solids by SM2540C

Date Sampled: **07/24/24 10:07**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Total Dissolved Solids	899	10.0	mg/L	1	BHG0709	07/25/24	07/25/24	SM2540C	

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-22, 23 Tank Battery
Project Number: [none]
Project Manager: Karen Olson

Reported:
07/31/24 08:50

BH02
2407325-02 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/24/24 09:54**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	BHG0812	07/26/24	07/28/24	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	ND	1.0		"	"	"	"	"	"	
Xylenes (total)	ND	2.0		"	"	"	"	"	"	
Naphthalene	ND	1.0		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.0		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.0		"	"	"	"	"	"	

Date Sampled: **07/24/24 09:54**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	13.6	102 %		23-173		"	"	"	"	
Surrogate: Toluene-d8	13.1	98.5 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	12.9	97.1 %		21-167		"	"	"	"	

Anions by EPA Method 300.0

Date Sampled: **07/24/24 09:54**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Chloride	118	0.0600		mg/L	200	BHG0764	07/25/24	07/29/24	EPA 300.0	
Sulfate	273	0.300		"	"	"	"	"	"	

Total Dissolved Solids by SM2540C

Date Sampled: **07/24/24 09:54**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Total Dissolved Solids	923	10.0		mg/L	1	BHG0709	07/25/24	07/25/24	SM2540C	

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-22, 23 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
07/31/24 08:50

BH03
2407325-03 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/24/24 09:33**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	1.0	ug/l	1	BHG0812	07/26/24	07/28/24	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	"	"	"	"	"	"	
Naphthalene	ND	1.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	

Date Sampled: **07/24/24 09:33**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	13.8	104 %	23-173		"	"	"	"	
Surrogate: Toluene-d8	13.3	99.7 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	12.8	96.2 %	21-167		"	"	"	"	

Anions by EPA Method 300.0

Date Sampled: **07/24/24 09:33**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chloride	137	0.0600	mg/L	200	BHG0764	07/25/24	07/29/24	EPA 300.0	
Sulfate	331	0.300	"	"	"	"	"	"	

Total Dissolved Solids by SM2540C

Date Sampled: **07/24/24 09:33**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Total Dissolved Solids	916	10.0	mg/L	1	BHG0709	07/25/24	07/25/24	SM2540C	

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-22, 23 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
07/31/24 08:50

BH04
2407325-04 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/24/24 09:18**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	1.0	ug/l	1	BHG0812	07/26/24	07/28/24	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	"	"	"	"	"	"	
Naphthalene	ND	1.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	

Date Sampled: **07/24/24 09:18**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	13.8	104 %	23-173		"	"	"	"	
Surrogate: Toluene-d8	13.3	100 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	13.1	98.0 %	21-167		"	"	"	"	

Anions by EPA Method 300.0

Date Sampled: **07/24/24 09:18**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chloride	132	0.0600	mg/L	200	BHG0764	07/25/24	07/29/24	EPA 300.0	
Sulfate	310	0.300	"	"	"	"	"	"	

Total Dissolved Solids by SM2540C

Date Sampled: **07/24/24 09:18**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Total Dissolved Solids	874	10.0	mg/L	1	BHG0709	07/25/24	07/25/24	SM2540C	

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-22, 23 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
07/31/24 08:50

BH05
2407325-05 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/24/24 09:22**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	1.0	ug/l	1	BHG0812	07/26/24	07/28/24	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	"	"	"	"	"	"	
Naphthalene	ND	1.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	

Date Sampled: **07/24/24 09:22**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	13.7	103 %	23-173		"	"	"	"	
Surrogate: Toluene-d8	13.2	99.1 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	12.9	96.9 %	21-167		"	"	"	"	

Anions by EPA Method 300.0

Date Sampled: **07/24/24 09:22**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chloride	125	0.0600	mg/L	200	BHG0764	07/25/24	07/29/24	EPA 300.0	
Sulfate	287	0.300	"	"	"	"	"	"	

Total Dissolved Solids by SM2540C

Date Sampled: **07/24/24 09:22**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Total Dissolved Solids	869	10.0	mg/L	1	BHG0709	07/25/24	07/25/24	SM2540C	

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-22, 23 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
07/31/24 08:50

BH06
2407325-06 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/24/24 09:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	1.0	ug/l	1	BHG0812	07/26/24	07/28/24	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	"	"	"	"	"	"	
Naphthalene	ND	1.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	

Date Sampled: **07/24/24 09:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	13.8	104 %	23-173		"	"	"	"	
Surrogate: Toluene-d8	13.3	100 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	13.1	98.0 %	21-167		"	"	"	"	

Anions by EPA Method 300.0

Date Sampled: **07/24/24 09:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chloride	124	0.0600	mg/L	200	BHG0764	07/25/24	07/29/24	EPA 300.0	
Sulfate	298	0.300	"	"	"	"	"	"	

Total Dissolved Solids by SM2540C

Date Sampled: **07/24/24 09:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Total Dissolved Solids	858	10.0	mg/L	1	BHG0709	07/25/24	07/25/24	SM2540C	

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-22, 23 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
07/31/24 08:50

BH07
2407325-07 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/24/24 09:52**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	1.0	ug/l	1	BHG0812	07/26/24	07/28/24	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	"	"	"	"	"	"	
Naphthalene	ND	1.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	

Date Sampled: **07/24/24 09:52**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	14.0	105 %	23-173		"	"	"	"	
Surrogate: Toluene-d8	13.4	100 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	13.2	98.7 %	21-167		"	"	"	"	

Anions by EPA Method 300.0

Date Sampled: **07/24/24 09:52**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chloride	130	0.0600	mg/L	200	BHG0764	07/25/24	07/29/24	EPA 300.0	
Sulfate	300	0.300	"	"	"	"	"	"	

Total Dissolved Solids by SM2540C

Date Sampled: **07/24/24 09:52**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Total Dissolved Solids	905	10.0	mg/L	1	BHG0709	07/25/24	07/25/24	SM2540C	

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-22, 23 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
07/31/24 08:50

BH08
2407325-08 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/24/24 09:25**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	1.0	ug/l	1	BHG0812	07/26/24	07/28/24	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	"	"	"	"	"	"	
Naphthalene	ND	1.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	

Date Sampled: **07/24/24 09:25**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	14.1	106 %	23-173		"	"	"	"	
Surrogate: Toluene-d8	13.4	100 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	12.9	97.0 %	21-167		"	"	"	"	

Anions by EPA Method 300.0

Date Sampled: **07/24/24 09:25**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chloride	137	0.0600	mg/L	200	BHG0764	07/25/24	07/29/24	EPA 300.0	
Sulfate	314	0.300	"	"	"	"	"	"	

Total Dissolved Solids by SM2540C

Date Sampled: **07/24/24 09:25**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Total Dissolved Solids	921	10.0	mg/L	1	BHG0709	07/25/24	07/25/24	SM2540C	

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-22, 23 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
07/31/24 08:50

BH09
2407325-09 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/24/24 09:39**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	1.0	ug/l	1	BHG0812	07/26/24	07/28/24	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	"	"	"	"	"	"	
Naphthalene	ND	1.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	

Date Sampled: **07/24/24 09:39**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	14.1	106 %	23-173		"	"	"	"	
Surrogate: Toluene-d8	13.2	99.4 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	13.0	97.7 %	21-167		"	"	"	"	

Anions by EPA Method 300.0

Date Sampled: **07/24/24 09:39**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chloride	130	0.0600	mg/L	200	BHG0764	07/25/24	07/29/24	EPA 300.0	
Sulfate	306	0.300	"	"	"	"	"	"	

Total Dissolved Solids by SM2540C

Date Sampled: **07/24/24 09:39**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Total Dissolved Solids	921	10.0	mg/L	1	BHG0709	07/25/24	07/25/24	SM2540C	

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-22, 23 Tank Battery
Project Number: [none]
Project Manager: Karen Olson

Reported:
07/31/24 08:50

BH10
2407325-10 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/24/24 09:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	1.0	ug/l	1	BHG0812	07/26/24	07/28/24	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	"	"	"	"	"	"	
Naphthalene	ND	1.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	

Date Sampled: **07/24/24 09:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	13.6	102 %	23-173		"	"	"	"	
Surrogate: Toluene-d8	13.2	98.9 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	12.8	96.0 %	21-167		"	"	"	"	

Anions by EPA Method 300.0

Date Sampled: **07/24/24 09:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chloride	135	0.0600	mg/L	200	BHG0764	07/25/24	07/30/24	EPA 300.0	
Sulfate	319	0.300	"	"	"	"	"	"	

Total Dissolved Solids by SM2540C

Date Sampled: **07/24/24 09:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Total Dissolved Solids	897	10.0	mg/L	1	BHG0709	07/25/24	07/25/24	SM2540C	

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-22, 23 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
07/31/24 08:50

BH11
2407325-11 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/24/24 09:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	1.0	ug/l	1	BHG0812	07/26/24	07/28/24	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	"	"	"	"	"	"	
Naphthalene	ND	1.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	

Date Sampled: **07/24/24 09:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	14.0	105 %	23-173		"	"	"	"	
Surrogate: Toluene-d8	13.2	99.3 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	13.1	98.4 %	21-167		"	"	"	"	

Anions by EPA Method 300.0

Date Sampled: **07/24/24 09:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chloride	115	0.0600	mg/L	200	BHG0764	07/25/24	07/30/24	EPA 300.0	
Sulfate	271	0.300	"	"	"	"	"	"	

Total Dissolved Solids by SM2540C

Date Sampled: **07/24/24 09:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Total Dissolved Solids	917	10.0	mg/L	1	BHG0709	07/25/24	07/25/24	SM2540C	

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-22, 23 Tank Battery
Project Number: [none]
Project Manager: Karen Olson

Reported:
07/31/24 08:50

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BHG0812 - EPA 5030 Water MS

Blank (BHG0812-BLK1)

Prepared: 07/26/24 Analyzed: 07/28/24

Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes (total)	ND	2.0	"							
Naphthalene	ND	1.0	"							
1,2,4-Trimethylbenzene	ND	1.0	"							
1,3,5-Trimethylbenzene	ND	1.0	"							
Surrogate: 1,2-Dichloroethane-d4	13.6		"	13.3		102	23-173			
Surrogate: Toluene-d8	13.2		"	13.3		99.3	20-170			
Surrogate: 4-Bromofluorobenzene	13.0		"	13.3		97.4	21-167			

LCS (BHG0812-BS1)

Prepared: 07/26/24 Analyzed: 07/28/24

Benzene	36.6	1.0	ug/l	33.3		110	51-132			
Toluene	37.4	1.0	"	33.3		112	51-138			
Ethylbenzene	37.7	1.0	"	33.3		113	58-146			
m,p-Xylene	70.5	2.0	"	66.7		106	57-144			
o-Xylene	33.9	1.0	"	33.3		102	53-146			
Naphthalene	32.5	1.0	"	33.3		97.4	70-130			
1,2,4-Trimethylbenzene	33.9	1.0	"	33.3		102	70-130			
1,3,5-Trimethylbenzene	34.3	1.0	"	33.3		103	70-130			
Surrogate: 1,2-Dichloroethane-d4	13.1		"	13.3		98.3	23-173			
Surrogate: Toluene-d8	13.2		"	13.3		99.1	20-170			
Surrogate: 4-Bromofluorobenzene	13.2		"	13.3		99.0	21-167			

Matrix Spike (BHG0812-MS1)

Source: 2407325-01

Prepared: 07/26/24 Analyzed: 07/28/24

Benzene	36.5	1.0	ug/l	33.3	ND	109	34-141			
Toluene	37.4	1.0	"	33.3	ND	112	27-151			
Ethylbenzene	37.2	1.0	"	33.3	ND	112	29-160			
m,p-Xylene	69.0	2.0	"	66.7	ND	103	20-166			
o-Xylene	33.5	1.0	"	33.3	ND	100	33-159			
Naphthalene	33.0	1.0	"	33.3	ND	99.0	70-130			
1,2,4-Trimethylbenzene	34.1	1.0	"	33.3	ND	102	70-130			
1,3,5-Trimethylbenzene	34.0	1.0	"	33.3	ND	102	70-130			
Surrogate: 1,2-Dichloroethane-d4	13.2		"	13.3		99.4	23-173			
Surrogate: Toluene-d8	13.1		"	13.3		98.0	20-170			
Surrogate: 4-Bromofluorobenzene	13.4		"	13.3		101	21-167			

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-22, 23 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
07/31/24 08:50

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BHG0812 - EPA 5030 Water MS

Matrix Spike Dup (BHG0812-MSD1)	Source: 2407325-01			Prepared: 07/26/24 Analyzed: 07/28/24						
Benzene	37.4	1.0	ug/l	33.3	ND	112	34-141	2.65	30	
Toluene	38.2	1.0	"	33.3	ND	115	27-151	2.12	30	
Ethylbenzene	38.6	1.0	"	33.3	ND	116	29-160	3.59	30	
m,p-Xylene	72.2	2.0	"	66.7	ND	108	20-166	4.62	30	
o-Xylene	34.9	1.0	"	33.3	ND	105	33-159	4.04	30	
Naphthalene	34.2	1.0	"	33.3	ND	103	70-130	3.45	30	
1,2,4-Trimethylbenzene	35.1	1.0	"	33.3	ND	105	70-130	2.72	30	
1,3,5-Trimethylbenzene	35.2	1.0	"	33.3	ND	105	70-130	3.18	30	
Surrogate: 1,2-Dichloroethane-d4	13.4		"	13.3		101	23-173			
Surrogate: Toluene-d8	13.3		"	13.3		99.7	20-170			
Surrogate: 4-Bromofluorobenzene	13.4		"	13.3		100	21-167			

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-22, 23 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
07/31/24 08:50

Anions by EPA Method 300.0 - Quality Control

Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BHG0764 - General Preparation

Blank (BHG0764-BLK1)

Prepared: 07/25/24 Analyzed: 07/29/24

Chloride	ND	0.0600	mg/L
Sulfate	ND	0.300	"

LCS (BHG0764-BS1)

Prepared: 07/25/24 Analyzed: 07/29/24

Chloride	3.19	0.0600	mg/L	3.00	106	90-110
Sulfate	15.6	0.300	"	15.0	104	90-110

Duplicate (BHG0764-DUP1)

Source: 2407315-22

Prepared: 07/25/24 Analyzed: 07/29/24

Chloride	48.3	0.0600	mg/L	46.2	4.57	20
Sulfate	450	0.300	"	453	0.625	20

Matrix Spike (BHG0764-MS1)

Source: 2407315-22

Prepared: 07/25/24 Analyzed: 07/29/24

Chloride	716	0.0600	mg/L	600	46.2	112	80-120
Sulfate	3690	0.300	"	3000	453	108	80-120

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-22, 23 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
07/31/24 08:50

Total Dissolved Solids by SM2540C - Quality Control
Summit Scientific

Analyte	Result	Reporting			Spike	Source	%REC		RPD		
		Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes	

Batch BHG0709 - General Preparation

Blank (BHG0709-BLK1)

Prepared & Analyzed: 07/25/24

Total Dissolved Solids ND 10.0 mg/L

Duplicate (BHG0709-DUP1)

Source: 2407315-22

Prepared & Analyzed: 07/25/24

Total Dissolved Solids 1080 10.0 mg/L 1060 1.49 20

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Ikenouye F29-22, 23 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
07/31/24 08:50

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

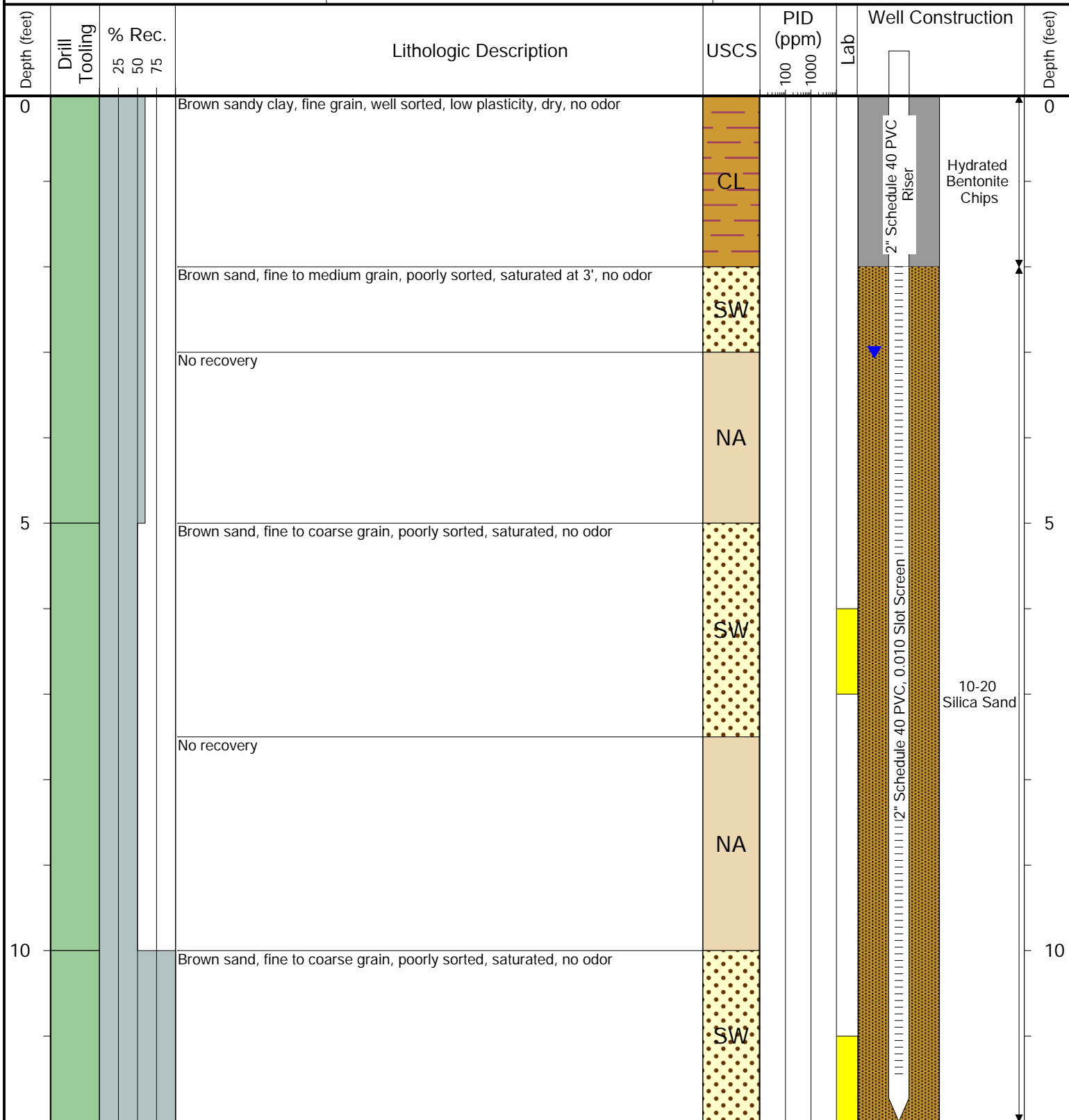
Attachment B



TASMAN

6855 W. 119th Ave.
Broomfield, CO 80020

CLIENT: PDC Energy	Ikenouye F29-22, 23 Facility
LOGGED BY: Ryan Yavinsky	
PROJECT MANAGER: Brock Nelson	BORING / WELL ID: BH01
DRILLING CONTRACTOR: Tasman	
DRILLING EQUIPMENT: GeoProbe	LOCATION: Weld County, Colorado
DRILL BIT SIZE (INCHES): 3.25"	LATITUDE (NAD 83): 40.367969973903
DATE STARTED - COMPLETED: 6/3/2024 - 6/3/2024	LONGITUDE (NAD 83): -104.6822979426
TOTAL WELL DEPTH (FT. BGS): 12	CASING ELEVATION (FT. AMSL): 4648.08561
DEPTH TO WATER (FT. BGS): 3	GROUND ELEVATION (FT. AMSL): 4648.22561



Drilling / Sample Method:

Macro-Core

Hollow Stem Auger

Solid Stem Auger

Hand Auger

Laboratory Sample Types:

Geotechnical Lab

Analytical Chemistry Lab

Geotechnical & Analytical Chemistry Lab



TASMAN

6855 W. 119th Ave.
Broomfield, CO 80020

CLIENT: PDC Energy

LOGGED BY: Ryan Yavinsky

PROJECT MANAGER: Brock Nelson

DRILLING CONTRACTOR: Tasman

DRILLING EQUIPMENT: GeoProbe

DRILL BIT SIZE (INCHES): 3.25"

DATE STARTED - COMPLETED: 6/3/2024 - 6/3/2024

TOTAL WELL DEPTH (FT. BGS): 12

DEPTH TO WATER (FT. BGS): 3

Ikenouye F29-22, 23 Facility

BORING / WELL ID: BH02

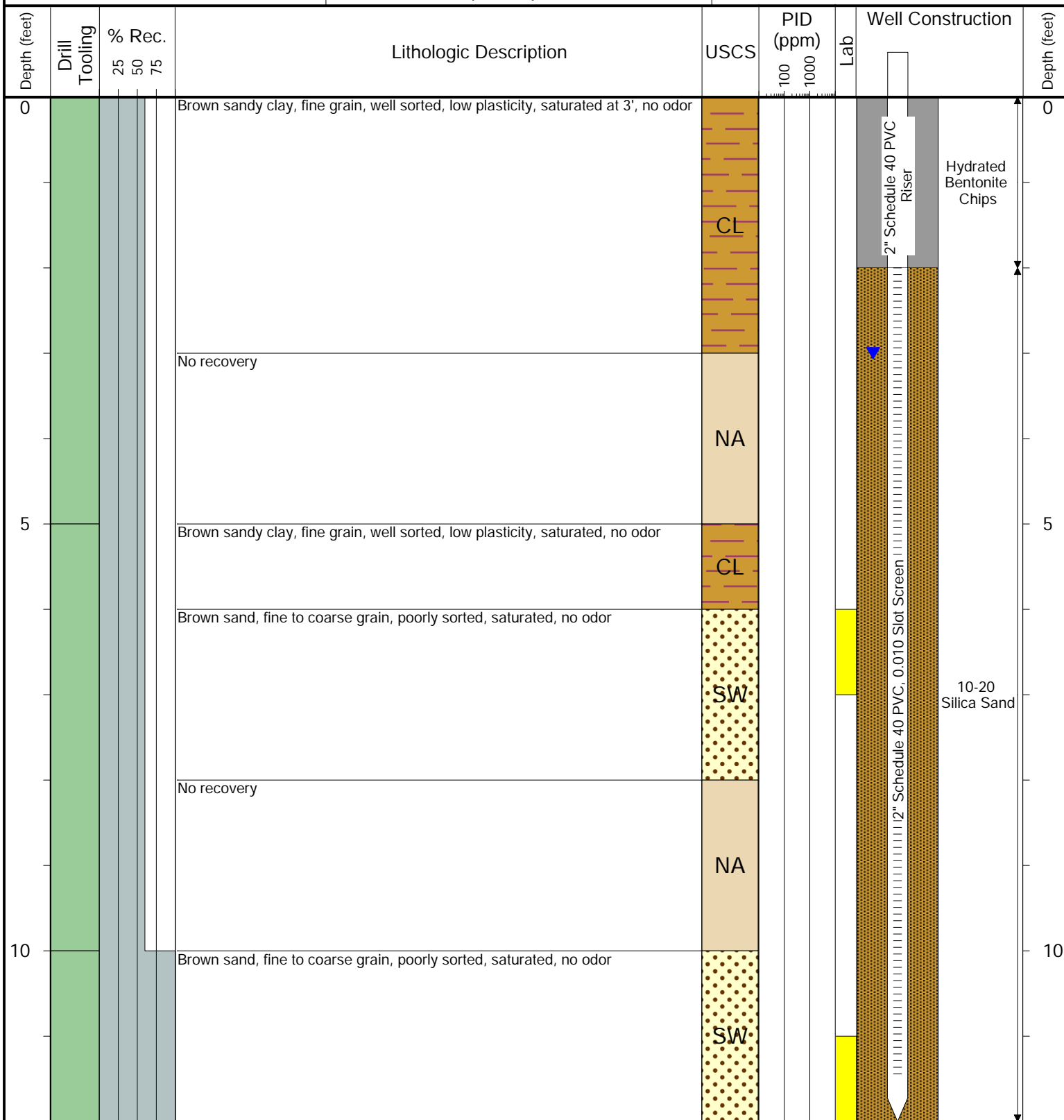
LOCATION: Weld County, Colorado

LATITUDE (NAD 83): 40.367880912078

LONGITUDE (NAD 83): -104.68225230449

CASING ELEVATION (FT. AMSL): 4648.29561

GROUND ELEVATION (FT. AMSL): 4648.36561



Drilling / Sample Method:

Macro-Core

Hollow Stem Auger

Solid Stem Auger

Hand Auger

Laboratory Sample Types:

Geotechnical Lab

Analytical Chemistry Lab

Geotechnical & Analytical Chemistry Lab



TASMAN

6855 W. 119th Ave.
Broomfield, CO 80020

CLIENT: PDC Energy

LOGGED BY: Ryan Yavinsky

PROJECT MANAGER: Brock Nelson

DRILLING CONTRACTOR: Tasman

DRILLING EQUIPMENT: GeoProbe

DRILL BIT SIZE (INCHES): 3.25"

DATE STARTED - COMPLETED: 6/3/2024 - 6/3/2024

TOTAL WELL DEPTH (FT. BGS): 12

DEPTH TO WATER (FT. BGS): 3

Ikenouye F29-22, 23 Facility

BORING / WELL ID: BH03

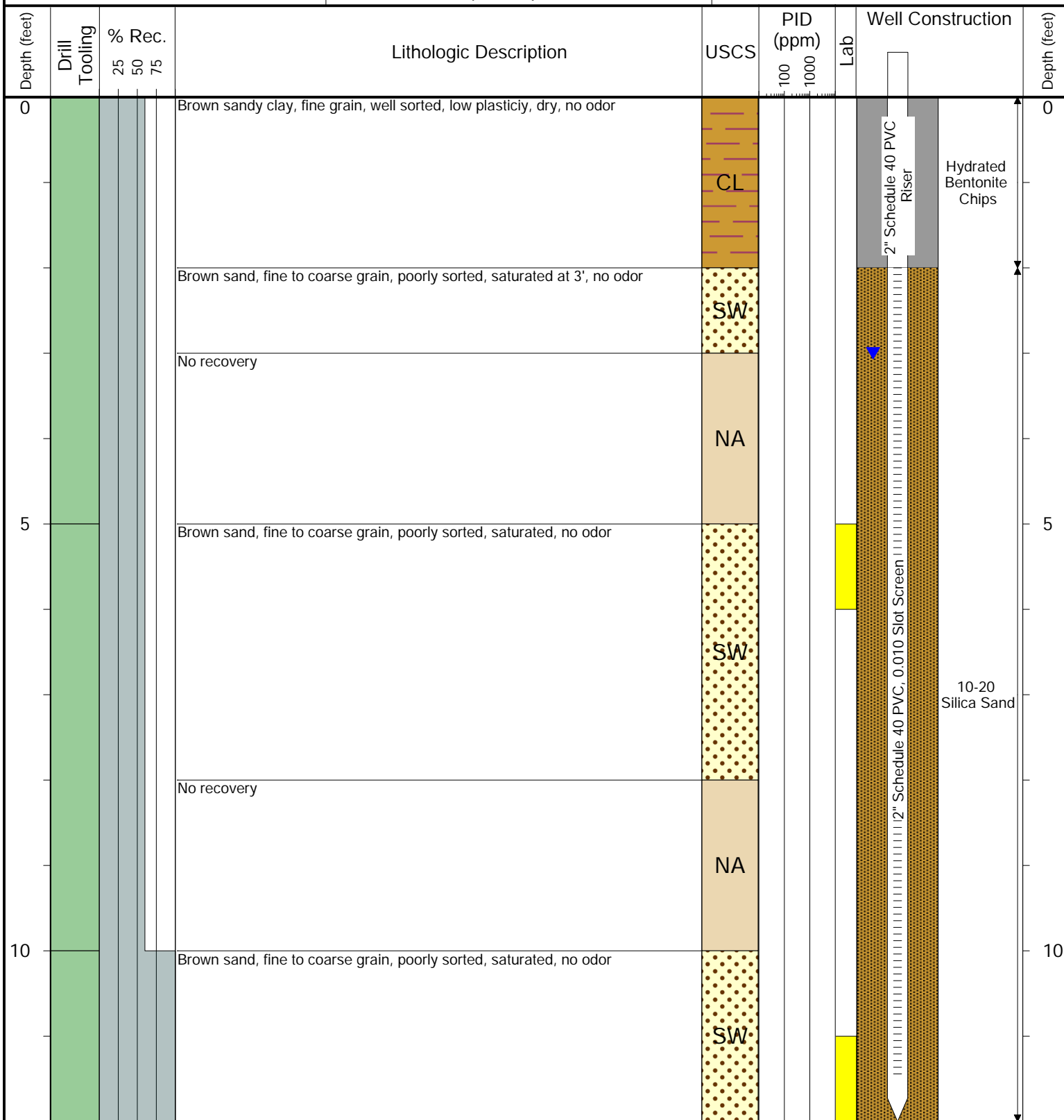
LOCATION: Weld County, Colorado

LATITUDE (NAD 83): 40.368121878537

LONGITUDE (NAD 83): -104.68232963425

CASING ELEVATION (FT. AMSL): 4648.54561

GROUND ELEVATION (FT. AMSL): 4648.72561



Drilling / Sample Method:

Macro-Core

Hollow Stem Auger

Solid Stem Auger

Hand Auger

Laboratory Sample Types:

Geotechnical Lab

Analytical Chemistry Lab

Geotechnical & Analytical Chemistry Lab



TASMAN

6855 W. 119th Ave.
Broomfield, CO 80020

CLIENT: PDC Energy

LOGGED BY: Ryan Yavinsky

PROJECT MANAGER: Brock Nelson

DRILLING CONTRACTOR: Tasman

DRILLING EQUIPMENT: GeoProbe

DRILL BIT SIZE (INCHES): 3.25"

DATE STARTED - COMPLETED: 6/3/2024 - 6/3/2024

TOTAL WELL DEPTH (FT. BGS): 12

DEPTH TO WATER (FT. BGS): 3

Ikenouye F29-22, 23 Facility

BORING / WELL ID: BH04

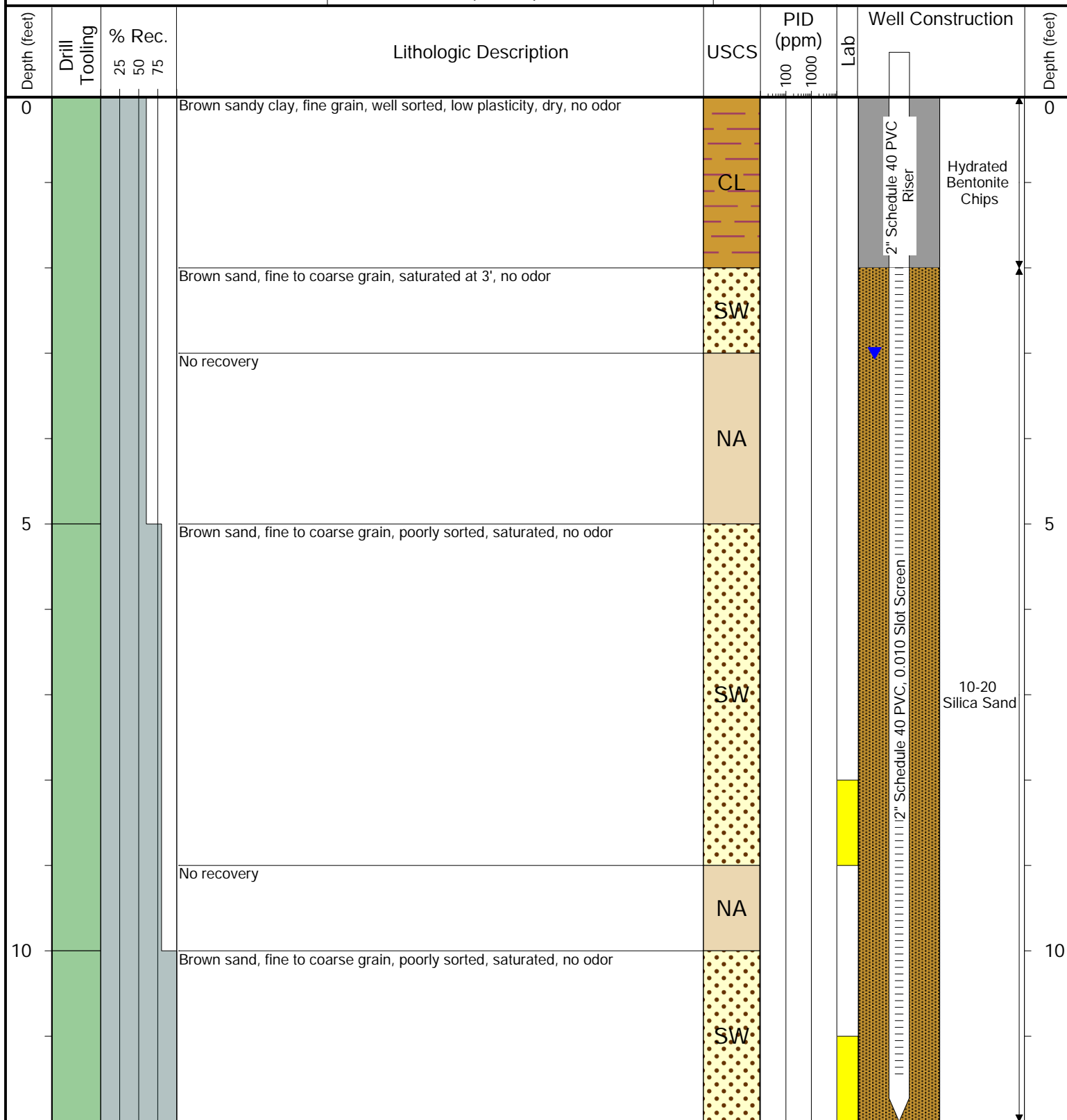
LOCATION: Weld County, Colorado

LATITUDE (NAD 83): 40.368060320564

LONGITUDE (NAD 83): -104.68221378133

CASING ELEVATION (FT. AMSL): 4648.12561

GROUND ELEVATION (FT. AMSL): 4648.28561



Drilling / Sample Method:

Macro-Core

Hollow Stem Auger

Solid Stem Auger

Hand Auger

Laboratory Sample Types:

Geotechnical Lab

Analytical Chemistry Lab

Geotechnical & Analytical Chemistry Lab



TASMAN

6855 W. 119th Ave.
Broomfield, CO 80020

CLIENT: PDC Energy

LOGGED BY: Ryan Yavinsky

PROJECT MANAGER: Brock Nelson

DRILLING CONTRACTOR: Tasman

DRILLING EQUIPMENT: GeoProbe

DRILL BIT SIZE (INCHES): 3.25"

DATE STARTED - COMPLETED: 6/3/2024 - 6/3/2024

TOTAL WELL DEPTH (FT. BGS): 12

DEPTH TO WATER (FT. BGS): 3

Ikenouye F29-22, 23 Facility

BORING / WELL ID: BH05

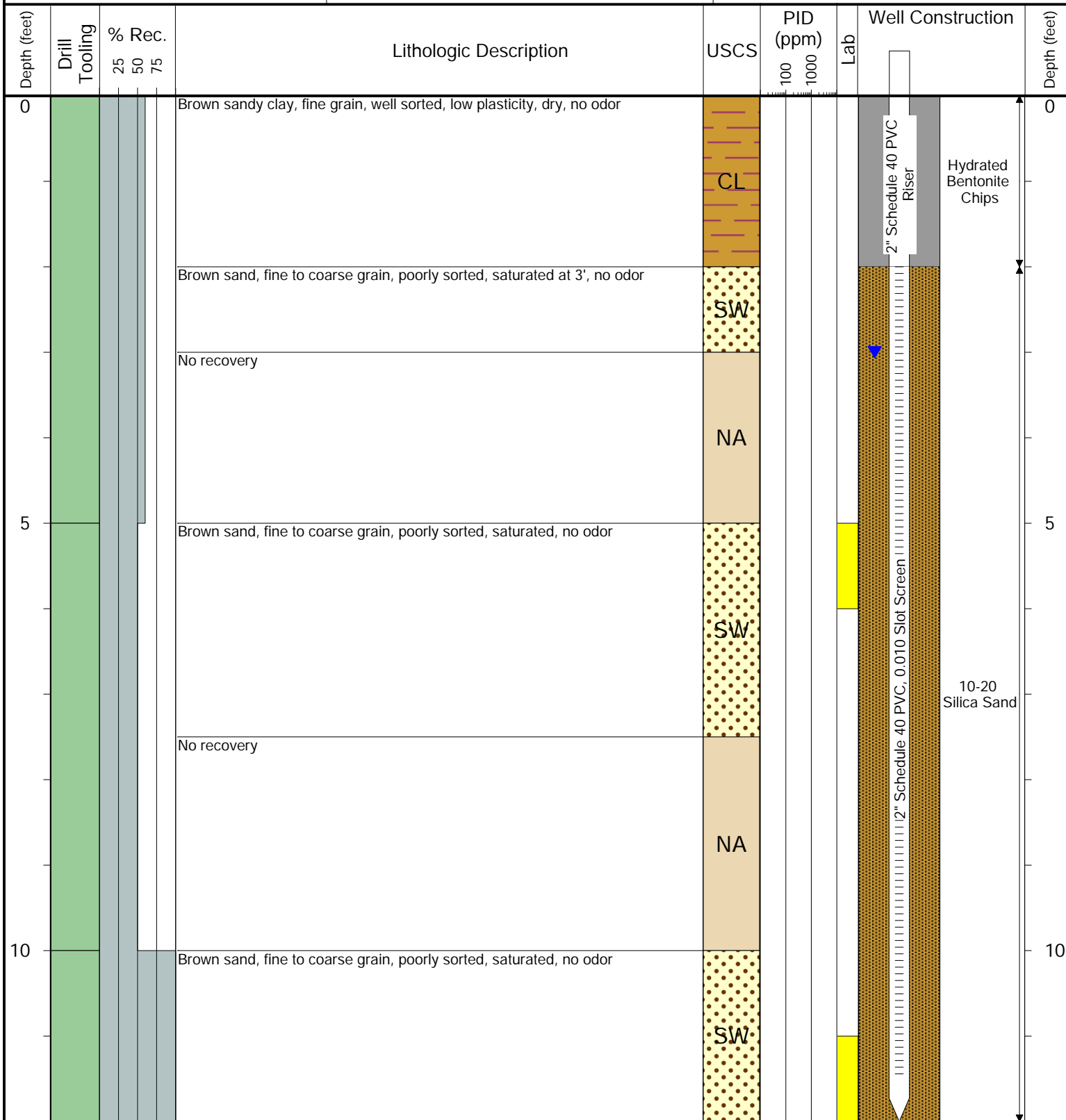
LOCATION: Weld County, Colorado

LATITUDE (NAD 83): 40.367947856771

LONGITUDE (NAD 83): -104.6821239568

CASING ELEVATION (FT. AMSL): 4649.16561

GROUND ELEVATION (FT. AMSL): 4649.49561



Drilling / Sample Method:

Macro-Core

Hollow Stem Auger

Solid Stem Auger

Hand Auger

Laboratory Sample Types:

Geotechnical Lab

Analytical Chemistry Lab

Geotechnical & Analytical Chemistry Lab



TASMAN

6855 W. 119th Ave.
Broomfield, CO 80020

CLIENT: PDC Energy

LOGGED BY: Ryan Yavinsky

PROJECT MANAGER: Brock Nelson

DRILLING CONTRACTOR: Tasman

DRILLING EQUIPMENT: GeoProbe

DRILL BIT SIZE (INCHES): 3.25"

DATE STARTED - COMPLETED: 6/3/2024 - 6/3/2024

TOTAL WELL DEPTH (FT. BGS): 12

DEPTH TO WATER (FT. BGS): 2

Ikenouye F29-22, 23 Facility

BORING / WELL ID: BH06

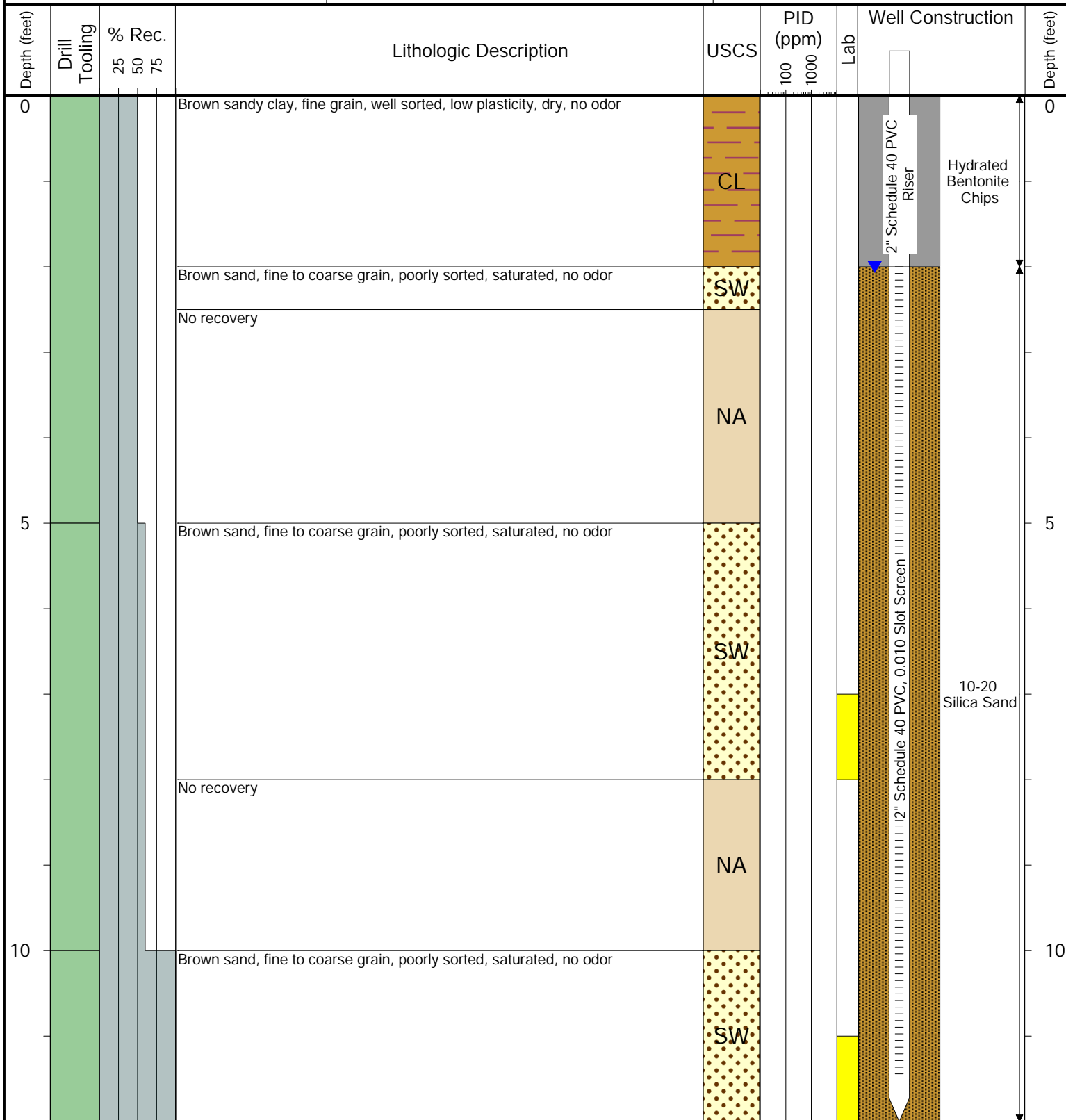
LOCATION: Weld County, Colorado

LATITUDE (NAD 83): 40.367835201379

LONGITUDE (NAD 83): -104.68212331249

CASING ELEVATION (FT. AMSL): 4648.58561

GROUND ELEVATION (FT. AMSL): 4648.75561



Drilling / Sample Method:

Macro-Core

Hollow Stem Auger

Solid Stem Auger

Hand Auger

Laboratory Sample Types:

Geotechnical Lab

Analytical Chemistry Lab

Geotechnical & Analytical Chemistry Lab



TASMAN

6855 W. 119th Ave.
Broomfield, CO 80020

CLIENT: PDC Energy

LOGGED BY: Ryan Yavinsky

PROJECT MANAGER: Brock Nelson

DRILLING CONTRACTOR: Tasman

DRILLING EQUIPMENT: GeoProbe

DRILL BIT SIZE (INCHES): 3.25"

DATE STARTED - COMPLETED: 6/3/2024 - 6/3/2024

TOTAL WELL DEPTH (FT. BGS): 12

DEPTH TO WATER (FT. BGS): 2

Ikenouye F29-22, 23 Facility

BORING / WELL ID: BH07

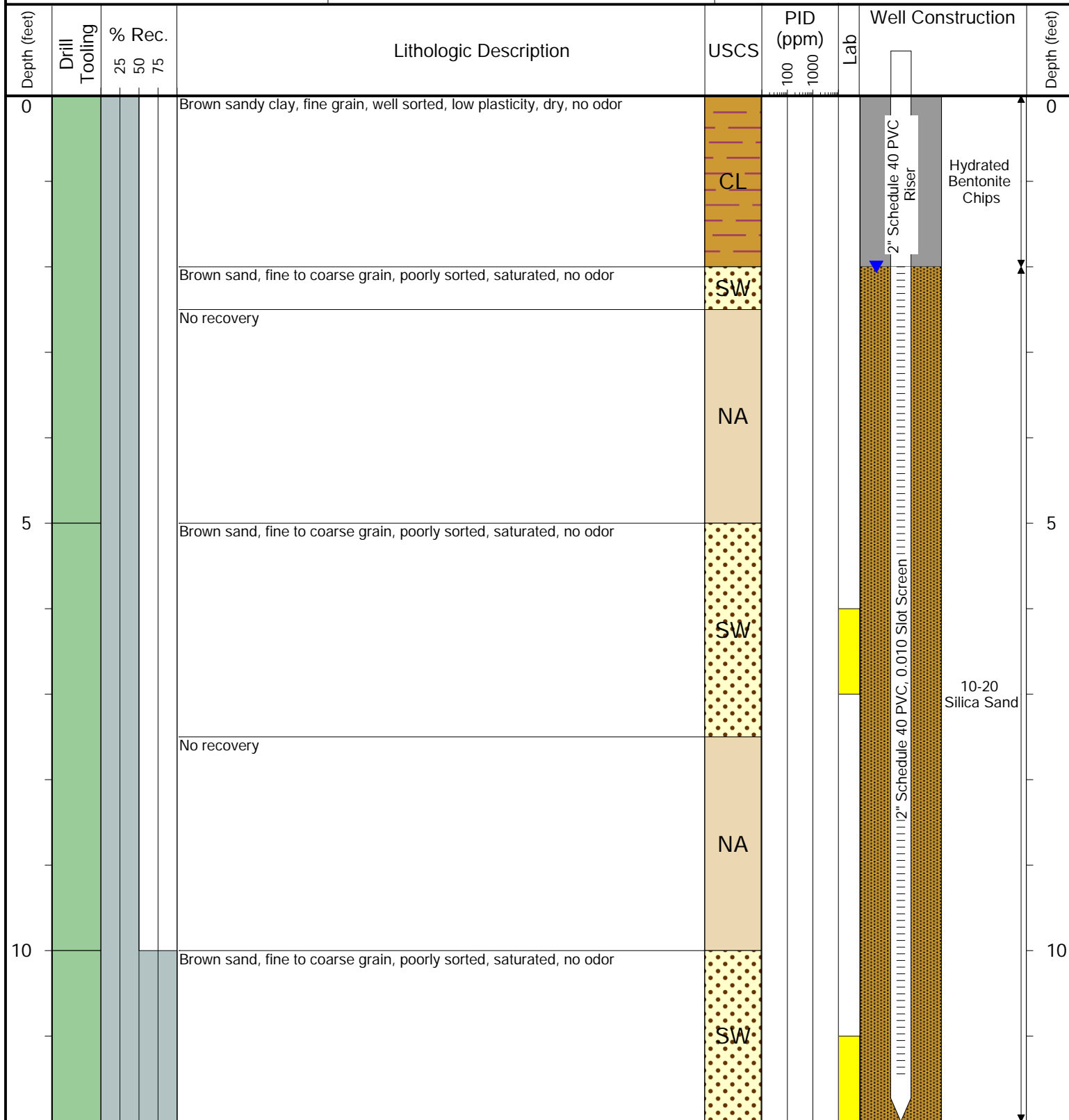
LOCATION: Weld County, Colorado

LATITUDE (NAD 83): 40.367731681775

LONGITUDE (NAD 83): -104.68218473671

CASING ELEVATION (FT. AMSL): 4648.60561

GROUND ELEVATION (FT. AMSL): 4648.86561



Drilling / Sample Method:

Macro-Core

Hollow Stem Auger

Solid Stem Auger

Hand Auger

Laboratory Sample Types:

Geotechnical Lab

Analytical Chemistry Lab

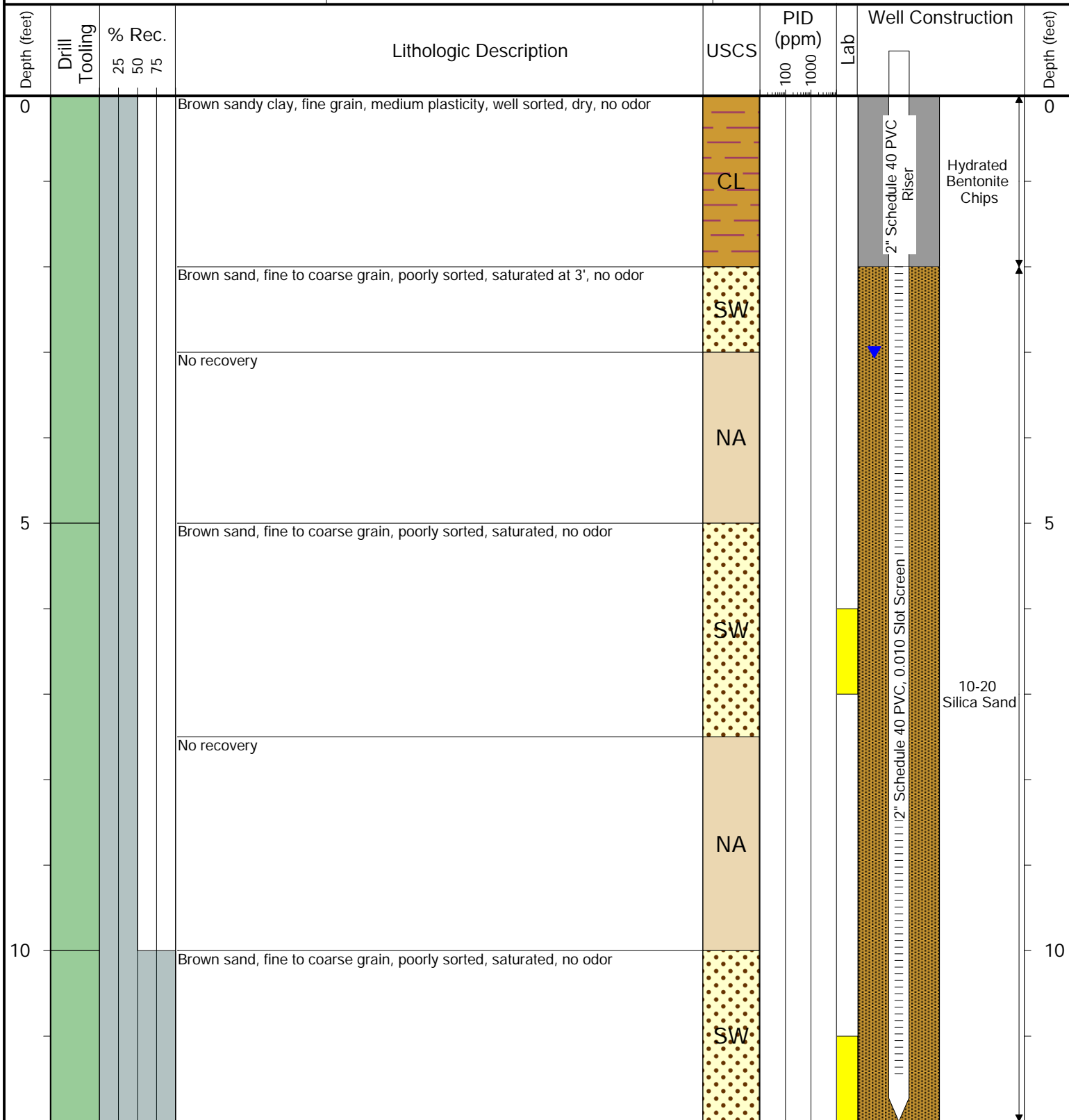
Geotechnical & Analytical Chemistry Lab



TASMAN

6855 W. 119th Ave.
Broomfield, CO 80020

CLIENT: PDC Energy	Ikenouye F29-22, 23 Facility
LOGGED BY: Ryan Yavinsky	
PROJECT MANAGER: Brock Nelson	BORING / WELL ID: BH08
DRILLING CONTRACTOR: Tasman	
DRILLING EQUIPMENT: GeoProbe	LOCATION: Weld County, Colorado
DRILL BIT SIZE (INCHES): 3.25"	LATITUDE (NAD 83): 40.367650947564
DATE STARTED - COMPLETED: 6/3/2024 - 6/3/2024	LONGITUDE (NAD 83): -104.68234125437
TOTAL WELL DEPTH (FT. BGS): 12	CASING ELEVATION (FT. AMSL): 4648.68561
DEPTH TO WATER (FT. BGS): 3	GROUND ELEVATION (FT. AMSL): 4648.87561



Drilling / Sample Method:

- Macro-Core
- Hollow Stem Auger
- Solid Stem Auger
- Hand Auger

Laboratory Sample Types:

- Geotechnical Lab
- Analytical Chemistry Lab
- Geotechnical & Analytical Chemistry Lab



TASMAN

6855 W. 119th Ave.
Broomfield, CO 80020

CLIENT: PDC Energy

LOGGED BY: Ryan Yavinsky

PROJECT MANAGER: Brock Nelson

DRILLING CONTRACTOR: Tasman

DRILLING EQUIPMENT: GeoProbe

DRILL BIT SIZE (INCHES): 3.25"

DATE STARTED - COMPLETED: 6/3/2024 - 6/3/2024

TOTAL WELL DEPTH (FT. BGS): 12

DEPTH TO WATER (FT. BGS): 3

Ikenouye F29-22, 23 Facility

BORING / WELL ID: BH09

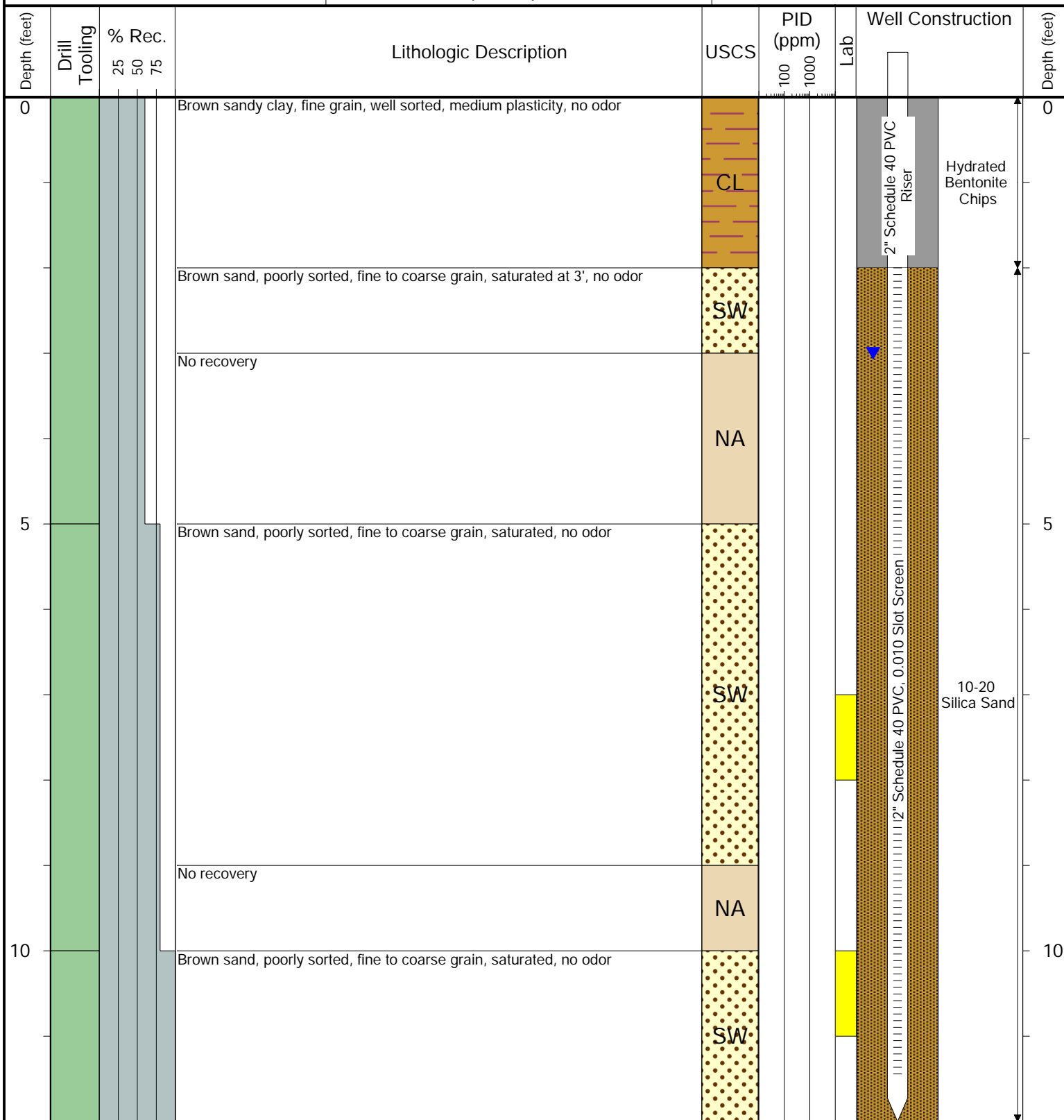
LOCATION: Weld County, Colorado

LATITUDE (NAD 83): 40.367758893949

LONGITUDE (NAD 83): -104.68232902515

CASING ELEVATION (FT. AMSL): 4648.72561

GROUND ELEVATION (FT. AMSL): 4648.80561



Drilling / Sample Method:

Macro-Core

Hollow Stem Auger

Solid Stem Auger

Hand Auger

Laboratory Sample Types:

Geotechnical Lab

Analytical Chemistry Lab

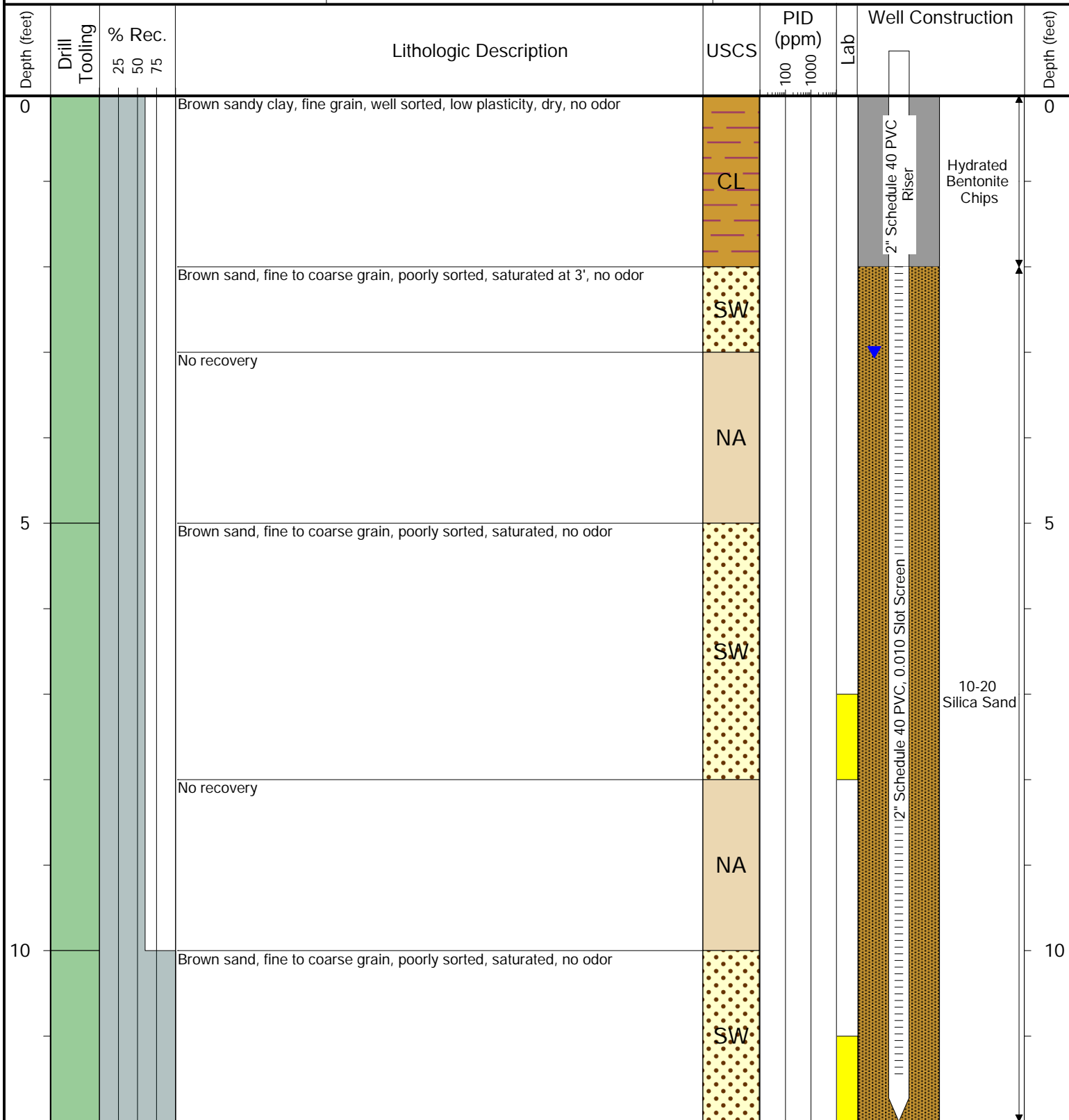
Geotechnical & Analytical Chemistry Lab



TASMAN

6855 W. 119th Ave.
Broomfield, CO 80020

CLIENT: PDC Energy	Ikenouye F29-22, 23 Facility
LOGGED BY: Ryan Yavinsky	
PROJECT MANAGER: Brock Nelson	BORING / WELL ID: BH10
DRILLING CONTRACTOR: Tasman	
DRILLING EQUIPMENT: GeoProbe	LOCATION: Weld County, Colorado
DRILL BIT SIZE (INCHES): 3.25"	LATITUDE (NAD 83): 40.367912360797
DATE STARTED - COMPLETED: 6/3/2024 - 6/3/2024	LONGITUDE (NAD 83): -104.68240656723
TOTAL WELL DEPTH (FT. BGS): 12	CASING ELEVATION (FT. AMSL): 4648.59561
DEPTH TO WATER (FT. BGS): 3	GROUND ELEVATION (FT. AMSL): 4648.69561



Drilling / Sample Method:

Macro-Core

Hollow Stem Auger

Solid Stem Auger

Hand Auger

Laboratory Sample Types:

Geotechnical Lab

Analytical Chemistry Lab

Geotechnical & Analytical Chemistry Lab



TASMAN

6855 W. 119th Ave.
Broomfield, CO 80020

CLIENT: PDC Energy

LOGGED BY: Ryan Yavinsky

PROJECT MANAGER: Brock Nelson

DRILLING CONTRACTOR: Tasman

DRILLING EQUIPMENT: GeoProbe

DRILL BIT SIZE (INCHES): 3.25"

DATE STARTED - COMPLETED: 6/3/2024 - 6/3/2024

TOTAL WELL DEPTH (FT. BGS): 12

DEPTH TO WATER (FT. BGS): 2.5

Ikenouye F29-22, 23 Facility

BORING / WELL ID: BH11

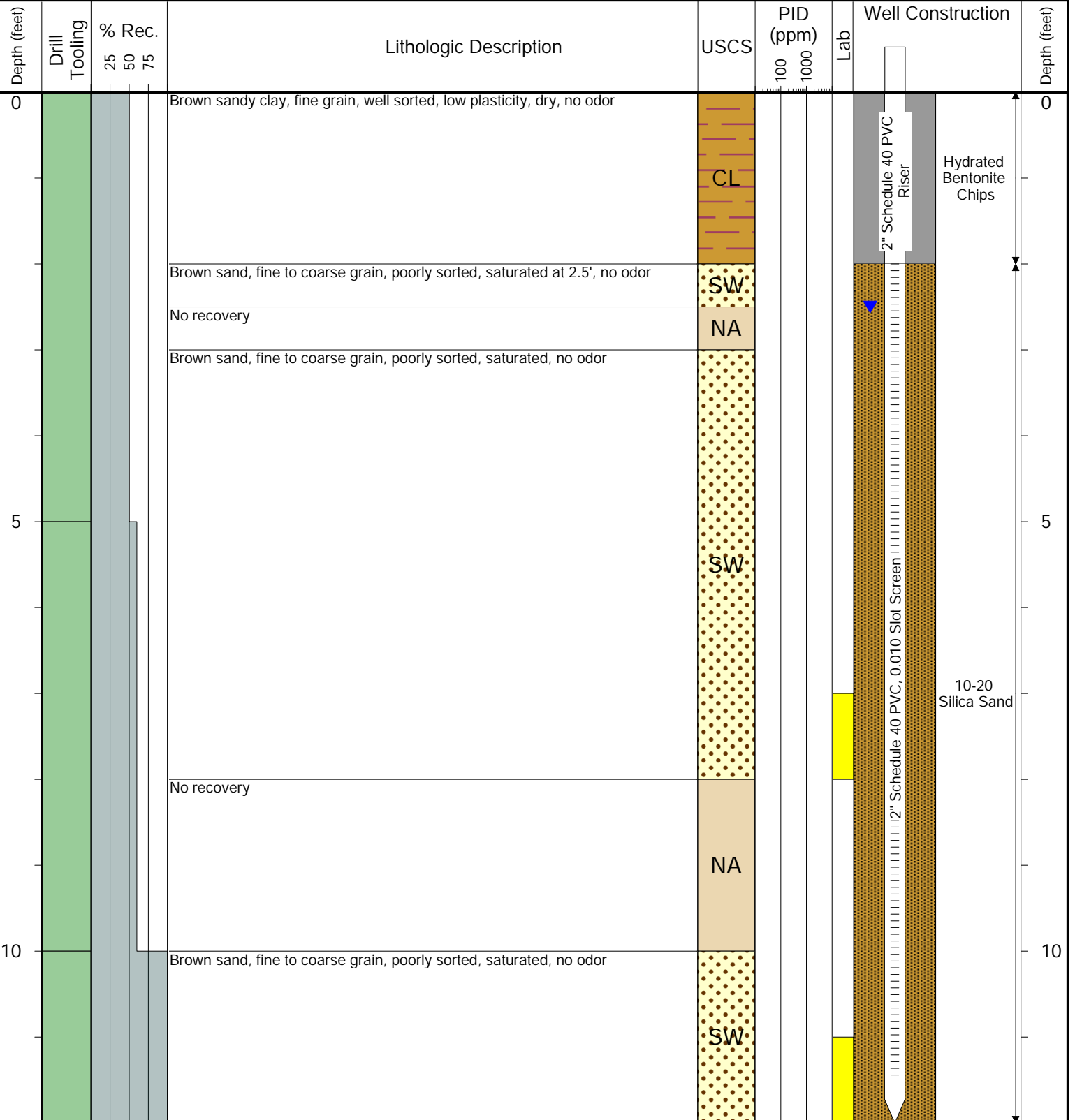
LOCATION: Weld County, Colorado

LATITUDE (NAD 83): 40.368038712166

LONGITUDE (NAD 83): -104.68244113708

CASING ELEVATION (FT. AMSL): 4648.50561

GROUND ELEVATION (FT. AMSL): 4648.62561



Drilling / Sample Method:

Macro-Core

Hollow Stem Auger

Solid Stem Auger

Hand Auger

Laboratory Sample Types:

Geotechnical Lab

Analytical Chemistry Lab

Geotechnical & Analytical Chemistry Lab