Attachment A

TABLE 1
FORMER STROHAUER F 32-32D WELLHEAD
SOIL ANALYTICAL RESULTS SUMMARY TABLE
ORGANIC COMPOUNDS

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)
Residential SSL [1,2]			**1.2**	**490**	**5.8**	**58**	**30**	**27**	**2**	**500**
Protection of Groundwater SSL [1,2,3]			**0.0026**	**0.69**	**0.78**	**9.9**	**0.0081**	**0.0087**	**0.0038**	**500**
FLR01 @ 4'	01/09/2024	4 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	183.00
WH01 @ 6'	01/09/2024	6 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50
FL01-02 @ 4'	01/11/2024	4 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50
FL01-04 @ 4'	01/11/2024	4 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50
FL01-05 @ 4'	01/11/2024	4 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50
FL01-06 @ 4'	01/11/2024	4 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50
FLR02 @ 4'	01/11/2024	4 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50

Notes:

1. Compounds referenced from the ECMC 2 CCR 404-1, Table 915-1, effective January 15, 2021.
2. Soil Screening Levels (SSL) referenced from EPA Regional Screening Levels (EPA RSLs) for Chemical Contaminants at Superfund Sites, effective November 2020.
3. SSLs are applicable if a pathway for communication with groundwater is present.
4. Value calculated by adding TPH-GRO, TPH-DRO, and TPH-ORO concentrations.

ECMC = Colorado 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
ft. = feet
bgs = Below ground surface
= Source material characterization sample

TABLE 2
FORMER STRONHAUER F 33-32D WELLHEAD
SOIL ANALYTICAL RESULTS SUMMARY TABLE
INORGANIC COMPOUNDS

Sample ID	Date Sampled	Depth	pH (units)	EC (mmhos/cm)	SAR (units)	Boron (mg/L)
Soil Suitability for Reclamation Standard [1]			**6-8.3**	**<4**	**<6**	**2**
FLR01 @ 4'	01/09/2024	4 ft. bgs	**8.50**	0.174	0.129	<2.00
WH01 @ 6'	01/09/2024	6 ft. bgs	**9.52**	0.194	0.189	<2.00
FL01-02 @ 4'	01/11/2024	4 ft. bgs	8.15	0.773	1.42	<2.00
FL01-04 @ 4'	01/11/2024	4 ft. bgs	**8.51**	0.160	0.421	<2.00
FL01-05 @ 4'	01/11/2024	4 ft. bgs	7.97	0.376	1.62	<2.00
FL01-06 @ 4'	01/11/2024	4 ft. bgs	7.20	0.0594	0.0308	<2.00
FLR02 @ 4'	01/11/2024	4 ft. bgs	7.95	0.151	0.0353	<2.00
BKG01 @ 4'	01/09/2024	4 ft. bgs	**8.45**	NA	NA	NA
BKG01 @ 5'	01/09/2024	5 ft. bgs	8.26	NA	NA	NA
BKG01 @ 6'	01/09/2024	6 ft. bgs	**8.48**	NA	NA	NA
BKG02 @ 4'	01/09/2024	4 ft. bgs	**8.55**	NA	NA	NA
BKG02 @ 5'	01/09/2024	5 ft. bgs	**8.46**	NA	NA	NA
BKG02 @ 6'	01/09/2024	6 ft. bgs	**8.36**	NA	NA	NA

Notes:

1. Compounds referenced from the ECMC 2 CCR 404-1, Table 915-1, effective January 15, 2021.

ECMC = Colorado Energy & Carbon Management Commission

EC = Electrical conductivity

SAR = Sodium adsorption ratio

mmhos/cm = millimhos per centimeter

mg/L = millgram per liter

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

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 below background concentration.

= Source material characterization sample

NA = Not analyzed

TABLE 3
FORMER STROHAUER F 33-32D WELLHEAD
SOIL ANALYTICAL RESULTS SUMMARY TABLE
ORGANIC COMPOUNDS - PAHs

Sample ID	Date Sampled	Depth	Acenaphthene (mg/kg)	Anthracene (mg/kg)	Benz(a) (mg/kg)	Benzo(a) (mg/kg)	Benzo(b) (mg/kg)	Benzo(k) (mg/kg)	Chrysene (mg/kg)	A,H (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	1,2,3-CD (mg/kg)	Pyrene (mg/kg)	1-M (mg/kg)	2-M (mg/kg)
Residential SSL [1,2]			**360**	**1,800**	**1.1**	**0.11**	**1.1**	**11**	**110**	**0.11**	**240**	**240**	**1.1**	**180**	**18**	**24**
Protection of Groundwater SSL [1,2,3]			**0.55**	**5.8**	**0.011**	**0.24**	**0.3**	**2.9**	**9**	**0.096**	**8.9**	**0.54**	**0.98**	**1.3**	**0.006**	**0.019**
FLR01 @ 4'	01/09/2024	4 ft. bgs	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
WH01 @ 6'	01/09/2024	6 ft. bgs	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
FL01-02 @ 4'	01/11/2024	4 ft. bgs	<0.00500	0.0261	**0.0404**	0.0214	0.0282	0.0110	0.0343	<0.00500	0.0865	0.00663	0.0143	0.0760	<0.00500	<0.00500
FL01-04 @ 4'	01/11/2024	4 ft. bgs	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
FL01-05 @ 4'	01/11/2024	4 ft. bgs	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
FL01-06 @ 4'	01/11/2024	4 ft. bgs	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
FLR02 @ 4'	01/11/2024	4 ft. bgs	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500

Notes:

1. Compounds referenced from the ECMC 2 CCR 404-1, Table 915-1, effective January 15, 2021.
2. Soil Screening Levels (SSL) referenced from EPA Regional Screening Levels (EPA RSLs) for Chemical Contaminants at Superfund Sites, effective November 2020.
3. SSLs are applicable if a pathway for communication with groundwater is present.

ECMC = Colorado Energy & Carbon Management Commission
(<) = Analytical result is less than the indicated laboratory reporting limit.
PAHs = Polycyclic aromatic hydrocarbons
Benz(a) = Benzanthracene
Benzo(a) = Benzopyrene
Benzo(b) = Benzofluoranthene
Benzo(k) = Benzofluoranthene
A,H = Dibenzoanthracene
1,2,3-CD = Indenopyrene
M = Methylnaphthalene
mg/kg = Milligrams per kilogram
= Source material characterization sample
ft. = Feet
bgs = Below ground surface
BOLD = Analytical result is in exceedance of applicable standard.

TABLE 4
FORMER STROHAUER F 33-32D WELLHEAD
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)
			0.68	**15,000**	**71**	**0.3**	**3,100**	**400**	**1,500**	**390**	**390**	**23,000**
			0.29	**82**	**0.38**	**0.00067**	**46**	**14**	**26**	**0.26**	**0.8**	**370**
FLR01 @ 4'	01/09/2024	4 ft. bgs	**0.743**	**117**	0.202	<0.30	3.04	**88.3**	1.52	<0.260	0.0673	12.6
WH01 @ 6'	01/09/2024	6 ft. bgs	**0.658**	**252**	<0.200	<0.30	1.47	6.51	0.65	<0.260	<0.0200	3.21
FL01-02 @ 4'	01/11/2024	4 ft. bgs	**2.01**	62.3	0.356	<0.30	8.27	**12.7**	3.00	<0.260	0.142	35.0
FL01-04 @ 4'	01/11/2024	4 ft. bgs	**0.983**	28.0	<0.200	<0.30	2.59	3.94	1.91	<0.260	<0.0200	11.1
FL01-05 @ 4'	01/11/2024	4 ft. bgs	**0.941**	32.4	<0.200	<0.30	2.69	4.55	2.14	<0.260	<0.0200	12.6
FL01-06 @ 4'	01/11/2024	4 ft. bgs	**0.833**	37.5	<0.200	<0.30	2.47	6.30	2.01	<0.260	0.0233	14.8
FLR02 @ 4'	01/11/2024	4 ft. bgs	**1.90**	44.0	0.243	<0.30	6.31	8.91	3.13	<0.260	0.0591	28.5
BKG01 @ 5'	01/09/2024	5 ft. bgs	**0.908**	25.4	<0.200	<0.30	0.94	5.47	0.93	<0.260	<0.0200	6.17
BKG01 @ 4'	01/09/2024	4 ft. bgs	**0.629**	31.7	<0.200	<0.30	1.24	4.70	0.84	<0.260	0.031	5.55
BKG01 @ 6'	01/09/2024	6 ft. bgs	**0.785**	22.3	<0.200	<0.30	1.04	3.20	0.62	<0.260	<0.0200	5.03
BKG02 @ 4'	01/09/2024	4 ft. bgs	**0.536**	20.5	<0.200	<0.30	0.86	2.00	0.47	<0.260	<0.0200	3.37
BKG02 @ 5'												

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FL01-02@4'

2401219-01 (Soil)

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Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/11/24 09:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BHA0555	01/15/24	01/16/24	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: **01/11/24 09:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0377	*94.3 %*	*50-150*		"	"	"	"	
Surrogate: Toluene-d8	0.0438	*110 %*	*50-150*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0414	*104 %*	*50-150*		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/11/24 09:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BHA0552	01/15/24	01/16/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **01/11/24 09:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	7.06	*56.5 %*	*30-150*		"	"	"	"	

PAH by EPA Method 8270D SIM

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FL01-02@4'

2401219-01 (Soil)

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PAH by EPA Method 8270D SIM

Date Sampled: **01/11/24 09:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHA0541	01/15/24	01/16/24	EPA 8270D SIM	
Anthracene	**0.0261**	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	**0.0404**	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	**0.0214**	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	**0.0282**	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	**0.0110**	0.00500	"	"	"	"	"	"	
Chrysene	**0.0343**	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	**0.0865**	0.00500	"	"	"	"	"	"	
Fluorene	**0.00663**	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	**0.0143**	0.00500	"	"	"	"	"	"	
Pyrene	**0.0760**	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **01/11/24 09:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0175	*52.4 %*	*40-150*		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0173	*52.0 %*	*40-150*		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **01/11/24 09:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHA0569	01/16/24	01/18/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **01/11/24 09:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

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FL01-02@4'

2401219-01 (Soil)

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Total Metals by EPA 6020B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	**2.01**	0.200	mg/kg dry	1	BHA0556	01/15/24	01/19/24	EPA 6020B	
Barium	**62.3**	0.400	"	"	"	"	"	"	
Cadmium	**0.356**	0.200	"	"	"	"	"	"	
Copper	**8.27**	0.400	"	"	"	"	"	"	
Lead	**12.7**	0.200	"	"	"	"	"	"	
Nickel	**3.00**	0.400	"	"	"	"	"	"	
Silver	**0.142**	0.0200	"	"	"	"	"	"	
Zinc	**35.0**	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **01/11/24 09:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHA0471	01/12/24	01/12/24	EPA 7196A	

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **01/11/24 09:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	**39.6**	0.0500	mg/L dry	1	BHA0583	01/16/24	01/17/24	EPA 6020B	
Magnesium	**16.6**	0.0500	"	"	"	"	"	"	
Sodium	**42.1**	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **01/11/24 09:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	**1.42**	0.00100	units	1	BHA0651	01/18/24	01/18/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **01/11/24 09:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

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FL01-02@4'

2401219-01 (Soil)

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Physical Parameters by APHA/ASTM/EPA Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**87.4**		%	1	BHA0521	01/15/24	01/17/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **01/11/24 09:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	**0.773**	0.0100	mmhos/cm	1	BHA0608	01/17/24	01/17/24	EPA 120.1	

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: **01/11/24 09:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	**8.15**		pH Units	1	BHA0609	01/17/24	01/17/24	EPA 9045D	

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FL01-04@4'

2401219-02 (Soil)

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Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/11/24 09:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BHA0555	01/15/24	01/16/24	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: **01/11/24 09:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0334	*83.6 %*	*50-150*		"	"	"	"	
Surrogate: Toluene-d8	0.0441	*110 %*	*50-150*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0405	*101 %*	*50-150*		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/11/24 09:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BHA0552	01/15/24	01/16/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **01/11/24 09:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	9.66	*77.3 %*	*30-150*		"	"	"	"	

PAH by EPA Method 8270D SIM

S2

Tasman Geosciences 6855 W. 119th Ave. Broomfield CO, 80020	Project: PDC - Strohauer F 33-32D Wellhead Project Number: [none] Project Manager: Karen Olson	**Reported:** 01/29/24 08:18

FL01-04@4'

2401219-02 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **01/11/24 09:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHA0541	01/15/24	01/16/24	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **01/11/24 09:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0198	*59.4 %*	*40-150*		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0218	*65.3 %*	*40-150*		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **01/11/24 09:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHA0569	01/16/24	01/18/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **01/11/24 09:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Summit Scientific

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Tasman Geosciences 6855 W. 119th Ave. Broomfield CO, 80020	Project: PDC - Strohauer F 33-32D Wellhead Project Number: [none] Project Manager: Karen Olson	**Reported:** 01/29/24 08:18

FL01-04@4'

2401219-02 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	**0.983**	0.200	mg/kg dry	1	BHA0556	01/15/24	01/19/24	EPA 6020B	
Barium	**28.0**	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	**2.59**	0.400	"	"	"	"	"	"	
Lead	**3.94**	0.200	"	"	"	"	"	"	
Nickel	**1.91**	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	**11.1**	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **01/11/24 09:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHA0471	01/12/24	01/12/24	EPA 7196A	

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **01/11/24 09:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	**24.4**	0.0500	mg/L dry	1	BHA0583	01/16/24	01/17/24	EPA 6020B	
Magnesium	**6.02**	0.0500	"	"	"	"	"	"	
Sodium	**8.95**	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **01/11/24 09:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	**0.421**	0.00100	units	1	BHA0651	01/18/24	01/18/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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Tasman Geosciences 6855 W. 119th Ave. Broomfield CO, 80020	Project: PDC - Strohauer F 33-32D Wellhead Project Number: [none] Project Manager: Karen Olson	**Reported:** 01/29/24 08:18

FL01-04@4'

2401219-02 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **01/11/24 09:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**95.9**		%	1	BHA0521	01/15/24	01/17/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **01/11/24 09:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	**0.160**	0.0100	mmhos/cm	1	BHA0608	01/17/24	01/17/24	EPA 120.1	

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: **01/11/24 09:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	**8.51**		pH Units	1	BHA0609	01/17/24	01/17/24	EPA 9045D	

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S2

Tasman Geosciences 6855 W. 119th Ave. Broomfield CO, 80020	Project: PDC - Strohauer F 33-32D Wellhead Project Number: [none] Project Manager: Karen Olson	**Reported:** 01/29/24 08:18

FL01-05@4'

2401219-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/11/24 11:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BHA0555	01/15/24	01/16/24	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: **01/11/24 11:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0382	*95.5 %*	*50-150*		"	"	"	"	
Surrogate: Toluene-d8	0.0449	*112 %*	*50-150*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0416	*104 %*	*50-150*		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/11/24 11:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BHA0552	01/15/24	01/16/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **01/11/24 11:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	6.51	*52.1 %*	*30-150*		"	"	"	"	

PAH by EPA Method 8270D SIM

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S2

Tasman Geosciences 6855 W. 119th Ave. Broomfield CO, 80020	Project: PDC - Strohauer F 33-32D Wellhead Project Number: [none] Project Manager: Karen Olson	**Reported:** 01/29/24 08:18

FL01-05@4'

2401219-03 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **01/11/24 11:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHA0541	01/15/24	01/16/24	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **01/11/24 11:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0171	*51.2 %*	*40-150*		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0189	*56.8 %*	*40-150*		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **01/11/24 11:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHA0569	01/16/24	01/18/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **01/11/24 11:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

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Tasman Geosciences 6855 W. 119th Ave. Broomfield CO, 80020	Project: PDC - Strohauer F 33-32D Wellhead Project Number: [none] Project Manager: Karen Olson	**Reported:** 01/29/24 08:18

FL01-05@4'

2401219-03 (Soil)

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Total Metals by EPA 6020B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	**0.941**	0.200	mg/kg dry	1	BHA0556	01/15/24	01/19/24	EPA 6020B	
Barium	**32.4**	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	**2.69**	0.400	"	"	"	"	"	"	
Lead	**4.55**	0.200	"	"	"	"	"	"	
Nickel	**2.14**	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	**12.6**	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **01/11/24 11:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHA0471	01/12/24	01/12/24	EPA 7196A	

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **01/11/24 11:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	**20.8**	0.0500	mg/L dry	1	BHA0583	01/16/24	01/17/24	EPA 6020B	
Magnesium	**4.24**	0.0500	"	"	"	"	"	"	
Sodium	**31.0**	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **01/11/24 11:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	**1.62**	0.00100	units	1	BHA0651	01/18/24	01/18/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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Tasman Geosciences 6855 W. 119th Ave. Broomfield CO, 80020	Project: PDC - Strohauer F 33-32D Wellhead Project Number: [none] Project Manager: Karen Olson	**Reported:** 01/29/24 08:18

FL01-05@4'

2401219-03 (Soil)

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Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **01/11/24 11:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**86.1**		%	1	BHA0521	01/15/24	01/17/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **01/11/24 11:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	**0.376**	0.0100	mmhos/cm	1	BHA0608	01/17/24	01/17/24	EPA 120.1	

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: **01/11/24 11:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	**7.97**		pH Units	1	BHA0609	01/17/24	01/17/24	EPA 9045D	

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Tasman Geosciences 6855 W. 119th Ave. Broomfield CO, 80020	Project: PDC - Strohauer F 33-32D Wellhead Project Number: [none] Project Manager: Karen Olson	**Reported:** 01/29/24 08:18

FL01-06@4'

2401219-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/11/24 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BHA0555	01/15/24	01/16/24	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: **01/11/24 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0415	*104 %*	*50-150*		"	"	"	"	
Surrogate: Toluene-d8	0.0464	*116 %*	*50-150*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0412	*103 %*	*50-150*		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/11/24 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BHA0552	01/15/24	01/16/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **01/11/24 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	10.5	*84.3 %*	*30-150*		"	"	"	"	

PAH by EPA Method 8270D SIM

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FL01-06@4'

2401219-04 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **01/11/24 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHA0541	01/15/24	01/16/24	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **01/11/24 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0196	*58.9 %*	*40-150*		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0206	*61.8 %*	*40-150*		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **01/11/24 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHA0569	01/16/24	01/18/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **01/11/24 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

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Tasman Geosciences 6855 W. 119th Ave. Broomfield CO, 80020	Project: PDC - Strohauer F 33-32D Wellhead Project Number: [none] Project Manager: Karen Olson	**Reported:** 01/29/24 08:18

FL01-06@4'

2401219-04 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	**0.833**	0.200	mg/kg dry	1	BHA0556	01/15/24	01/19/24	EPA 6020B	
Barium	**37.5**	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	**2.47**	0.400	"	"	"	"	"	"	
Lead	**6.30**	0.200	"	"	"	"	"	"	
Nickel	**2.01**	0.400	"	"	"	"	"	"	
Silver	**0.0233**	0.0200	"	"	"	"	"	"	
Zinc	**14.8**	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **01/11/24 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHA0471	01/12/24	01/12/24	EPA 7196A	

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **01/11/24 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	**25.7**	0.0500	mg/L dry	1	BHA0583	01/16/24	01/17/24	EPA 6020B	
Magnesium	**5.19**	0.0500	"	"	"	"	"	"	
Sodium	**0.655**	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **01/11/24 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	**0.0308**	0.00100	units	1	BHA0651	01/18/24	01/18/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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Tasman Geosciences 6855 W. 119th Ave. Broomfield CO, 80020	Project: PDC - Strohauer F 33-32D Wellhead Project Number: [none] Project Manager: Karen Olson	**Reported:** 01/29/24 08:18

FL01-06@4'

2401219-04 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **01/11/24 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**94.4**		%	1	BHA0521	01/15/24	01/17/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **01/11/24 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	**0.0594**	0.0100	mmhos/cm	1	BHA0608	01/17/24	01/17/24	EPA 120.1	

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: **01/11/24 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	**7.20**		pH Units	1	BHA0609	01/17/24	01/17/24	EPA 9045D	

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Tasman Geosciences 6855 W. 119th Ave. Broomfield CO, 80020	Project: PDC - Strohauer F 33-32D Wellhead Project Number: [none] Project Manager: Karen Olson	**Reported:** 01/29/24 08:18

FLR02@4'

2401219-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/11/24 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BHA0555	01/15/24	01/16/24	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: **01/11/24 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0400	*100 %*	*50-150*		"	"	"	"	
Surrogate: Toluene-d8	0.0437	*109 %*	*50-150*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0411	*103 %*	*50-150*		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/11/24 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BHA0552	01/15/24	01/16/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **01/11/24 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	7.75	*62.0 %*	*30-150*		"	"	"	"	

PAH by EPA Method 8270D SIM

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Tasman Geosciences 6855 W. 119th Ave. Broomfield CO, 80020	Project: PDC - Strohauer F 33-32D Wellhead Project Number: [none] Project Manager: Karen Olson	**Reported:** 01/29/24 08:18

FLR02@4'

2401219-05 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **01/11/24 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHA0541	01/15/24	01/16/24	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **01/11/24 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0217	*65.0 %*	*40-150*		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0233	*69.9 %*	*40-150*		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **01/11/24 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHA0569	01/16/24	01/18/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **01/11/24 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

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2401219-05 (Soil)

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Total Metals by EPA 6020B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	**1.90**	0.200	mg/kg dry	1	BHA0556	01/15/24	01/19/24	EPA 6020B	
Barium	**44.0**	0.400	"	"	"	"	"	"	
Cadmium	**0.243**	0.200	"	"	"	"	"	"	
Copper	**6.31**	0.400	"	"	"	"	"	"	
Lead	**8.91**	0.200	"	"	"	"	"	"	
Nickel	**3.13**	0.400	"	"	"	"	"	"	
Silver	**0.0591**	0.0200	"	"	"	"	"	"	
Zinc	**28.5**	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **01/11/24 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHA0471	01/12/24	01/12/24	EPA 7196A	

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **01/11/24 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	**58.5**	0.0500	mg/L dry	1	BHA0583	01/16/24	01/17/24	EPA 6020B	
Magnesium	**9.09**	0.0500	"	"	"	"	"	"	
Sodium	**1.10**	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **01/11/24 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	**0.0353**	0.00100	units	1	BHA0651	01/18/24	01/18/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **01/11/24 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

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Tasman Geosciences 6855 W. 119th Ave. Broomfield CO, 80020	Project: PDC - Strohauer F 33-32D Wellhead Project Number: [none] Project Manager: Karen Olson	**Reported:** 01/29/24 08:18

FLR02@4'

2401219-05 (Soil)

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Physical Parameters by APHA/ASTM/EPA Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**92.7**		%	1	BHA0521	01/15/24	01/17/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **01/11/24 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	**0.151**	0.0100	mmhos/cm	1	BHA0608	01/17/24	01/17/24	EPA 120.1	

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: **01/11/24 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	**7.95**		pH Units	1	BHA0609	01/17/24	01/17/24	EPA 9045D	

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Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BHA0555 - EPA 5030 Soil MS										
Blank (BHA0555-BLK1)				Prepared & Analyzed: 01/15/24						
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	*0.0461*		*"*	*0.0400*		*115*	*50-150*			
Surrogate: Toluene-d8	*0.0408*		*"*	*0.0400*		*102*	*50-150*			
Surrogate: 4-Bromofluorobenzene	*0.0401*		*"*	*0.0400*		*100*	*50-150*			
LCS (BHA0555-BS1)				Prepared & Analyzed: 01/15/24						
Benzene	0.0819	0.0020	mg/kg	0.100		81.9	70-130			
Toluene	0.105	0.0050	"	0.100		105	70-130			
Ethylbenzene	0.104	0.0050	"	0.100		104	70-130			
m,p-Xylene	0.206	0.010	"	0.200		103	70-130			
o-Xylene	0.0932	0.0050	"	0.100		93.2	70-130			
1,2,4-Trimethylbenzene	0.0952	0.0050	"	0.100		95.2	70-130			
1,3,5-Trimethylbenzene	0.0939	0.0050	"	0.100		93.9	70-130			
Naphthalene	0.0869	0.0038	"	0.100		86.9	70-130			
Surrogate: 1,2-Dichloroethane-d4	*0.0416*		*"*	*0.0400*		*104*	*50-150*			
Surrogate: Toluene-d8	*0.0427*		*"*	*0.0400*		*107*	*50-150*			
Surrogate: 4-Bromofluorobenzene	*0.0414*		*"*	*0.0400*		*104*	*50-150*			
Matrix Spike (BHA0555-MS1)	**Source: 2401203-01**			Prepared & Analyzed: 01/15/24						
Benzene	0.0756	0.0020	mg/kg	0.100	ND	75.6	70-130			
Toluene	0.0886	0.0050	"	0.100	ND	88.6	70-130			
Ethylbenzene	0.0832	0.0050	"	0.100	ND	83.2	70-130			
m,p-Xylene	0.170	0.010	"	0.200	ND	85.0	70-130			
o-Xylene	0.0795	0.0050	"	0.100	ND	79.5	70-130			
1,2,4-Trimethylbenzene	0.0775	0.0050	"	0.100	ND	77.5	70-130			
1,3,5-Trimethylbenzene	0.0773	0.0050	"	0.100	ND	77.3	70-130			
Naphthalene	0.0823	0.0038	"	0.100	ND	82.3	70-130			
Surrogate: 1,2-Dichloroethane-d4	*0.0446*		*"*	*0.0400*		*111*	*50-150*			
Surrogate: Toluene-d8	*0.0451*		*"*	*0.0400*		*113*	*50-150*			
Surrogate: 4-Bromofluorobenzene	*0.0428*		*"*	*0.0400*		*107*	*50-150*			

Summit Scientific

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Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BHA0555 - EPA 5030 Soil MS										
Matrix Spike Dup (BHA0555-MSD1)	**Source: 2401203-01**			Prepared & Analyzed: 01/15/24						
Benzene	0.0696	0.0020	mg/kg	0.100	ND	69.6	70-130	8.18	30	QM-07
Toluene	0.0783	0.0050	"	0.100	ND	78.3	70-130	12.3	30	
Ethylbenzene	0.0761	0.0050	"	0.100	ND	76.1	70-130	8.89	30	
m,p-Xylene	0.154	0.010	"	0.200	ND	77.0	70-130	9.89	30	
o-Xylene	0.0722	0.0050	"	0.100	ND	72.2	70-130	9.61	30	
1,2,4-Trimethylbenzene	0.0641	0.0050	"	0.100	ND	64.1	70-130	18.9	30	QM-07
1,3,5-Trimethylbenzene	0.0655	0.0050	"	0.100	ND	65.5	70-130	16.6	30	QM-07
Naphthalene	0.0657	0.0038	"	0.100	ND	65.7	70-130	22.5	30	QM-07
Surrogate: 1,2-Dichloroethane-d4	*0.0458*		*"*	*0.0400*		*114*	*50-150*			
Surrogate: Toluene-d8	*0.0430*		*"*	*0.0400*		*108*	*50-150*			
Surrogate: 4-Bromofluorobenzene	*0.0403*		*"*	*0.0400*		*101*	*50-150*			

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Tasman Geosciences 6855 W. 119th Ave. Broomfield CO, 80020	Project: PDC - Strohauer F 33-32D Wellhead Project Number: [none] Project Manager: Karen Olson	**Reported:** 01/29/24 08:18

Extractable Petroleum Hydrocarbons by 8015 - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BHA0552 - EPA 3550A										
Blank (BHA0552-BLK1)				Prepared & Analyzed: 01/15/24						
C10-C28 (DRO)	ND	50	mg/kg							
C28-C36 (ORO)	ND	50	"							
Surrogate: o-Terphenyl	*11.0*		*"*	*12.5*		*88.2*	*30-150*			
LCS (BHA0552-BS1)				Prepared & Analyzed: 01/15/24						
C10-C28 (DRO)	452	50	mg/kg	500		90.5	70-130			
Surrogate: o-Terphenyl	*11.6*		*"*	*12.5*		*92.6*	*30-150*			
Matrix Spike (BHA0552-MS1)	**Source: 2401203-01**			Prepared & Analyzed: 01/15/24						
C10-C28 (DRO)	521	50	mg/kg	500	41.0	96.1	70-130			
Surrogate: o-Terphenyl	*10.4*		*"*	*12.5*		*83.6*	*30-150*			
Matrix Spike Dup (BHA0552-MSD1)	**Source: 2401203-01**			Prepared & Analyzed: 01/15/24						
C10-C28 (DRO)	465	50	mg/kg	500	41.0	84.8	70-130	11.4	20	
Surrogate: o-Terphenyl	*11.0*		*"*	*12.5*		*87.8*	*30-150*			

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Tasman Geosciences 6855 W. 119th Ave. Broomfield CO, 80020	Project: PDC - Strohauer F 33-32D Wellhead Project Number: [none] Project Manager: Karen Olson	**Reported:** 01/29/24 08:18

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BHA0541 - EPA 5030 Soil MS										
Blank (BHA0541-BLK1)				Prepared & Analyzed: 01/15/24						
Acenaphthene	ND	0.00500	mg/kg							
Anthracene	ND	0.00500	"							
Benzo (a) anthracene	ND	0.00500	"							
Benzo (a) pyrene	ND	0.00500	"							
Benzo (b) fluoranthene	ND	0.00500	"							
Benzo (k) fluoranthene	ND	0.00500	"							
Chrysene	ND	0.00500	"							
Dibenz (a,h) anthracene	ND	0.00500	"							
Fluoranthene	ND	0.00500	"							
Fluorene	ND	0.00500	"							
Indeno (1,2,3-cd) pyrene	ND	0.00500	"							
Pyrene	ND	0.00500	"							
1-Methylnaphthalene	ND	0.00500	"							
2-Methylnaphthalene	ND	0.00500	"							
Surrogate: 2-Methylnaphthalene-d10	*0.0262*		*"*	*0.0333*		*78.5*	*40-150*			
Surrogate: Fluoranthene-d10	*0.0293*		*"*	*0.0333*		*88.0*	*40-150*			
LCS (BHA0541-BS1)				Prepared & Analyzed: 01/15/24						
Acenaphthene	0.0240	0.00500	mg/kg	0.0333		72.1	31-137			
Anthracene	0.0243	0.00500	"	0.0333		72.9	30-120			
Benzo (a) anthracene	0.0188	0.00500	"	0.0333		56.3	30-120			
Benzo (a) pyrene	0.0220	0.00500	"	0.0333		66.0	30-120			
Benzo (b) fluoranthene	0.0199	0.00500	"	0.0333		59.6	30-120			
Benzo (k) fluoranthene	0.0223	0.00500	"	0.0333		67.0	30-120			
Chrysene	0.0259	0.00500	"	0.0333		77.7	30-120			
Dibenz (a,h) anthracene	0.0194	0.00500	"	0.0333		58.2	30-120			
Fluoranthene	0.0238	0.00500	"	0.0333		71.4	30-120			
Fluorene	0.0241	0.00500	"	0.0333		72.3	30-120			
Indeno (1,2,3-cd) pyrene	0.0210	0.00500	"	0.0333		63.1	30-120			
Pyrene	0.0300	0.00500	"	0.0333		89.9	35-142			
1-Methylnaphthalene	0.0271	0.00500	"	0.0333		81.3	35-142			
2-Methylnaphthalene	0.0190	0.00500	"	0.0333		57.1	35-142			
Surrogate: 2-Methylnaphthalene-d10	*0.0291*		*"*	*0.0333*		*87.4*	*40-150*			
Surrogate: Fluoranthene-d10	*0.0235*		*"*	*0.0333*		*70.5*	*40-150*			

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Tasman Geosciences 6855 W. 119th Ave. Broomfield CO, 80020	Project: PDC - Strohauer F 33-32D Wellhead Project Number: [none] Project Manager: Karen Olson	**Reported:** 01/29/24 08:18

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BHA0541 - EPA 5030 Soil MS										
Matrix Spike (BHA0541-MS1)	**Source: 2401215-02**			Prepared & Analyzed: 01/15/24						
Acenaphthene	0.0219	0.00500	mg/kg	0.0333	ND	65.7	31-137			
Anthracene	0.0219	0.00500	"	0.0333	ND	65.8	30-120			
Benzo (a) anthracene	0.0187	0.00500	"	0.0333	ND	56.2	30-120			
Benzo (a) pyrene	0.0183	0.00500	"	0.0333	ND	55.0	30-120			
Benzo (b) fluoranthene	0.0154	0.00500	"	0.0333	ND	46.1	30-120			
Benzo (k) fluoranthene	0.0182	0.00500	"	0.0333	ND	54.6	30-120			
Chrysene	0.0217	0.00500	"	0.0333	ND	65.0	30-120			
Dibenz (a,h) anthracene	0.0162	0.00500	"	0.0333	ND	48.5	30-120			
Fluoranthene	0.0222	0.00500	"	0.0333	ND	66.7	30-120			
Fluorene	0.0219	0.00500	"	0.0333	ND	65.6	30-120			
Indeno (1,2,3-cd) pyrene	0.0165	0.00500	"	0.0333	ND	49.4	30-120			
Pyrene	0.0256	0.00500	"	0.0333	ND	76.9	35-142			
1-Methylnaphthalene	0.0220	0.00500	"	0.0333	ND	65.9	15-130			
2-Methylnaphthalene	0.0158	0.00500	"	0.0333	ND	47.5	15-130			
Surrogate: 2-Methylnaphthalene-d10	*0.0228*		*"*	*0.0333*		*68.5*	*40-150*			
Surrogate: Fluoranthene-d10	*0.0234*		*"*	*0.0333*		*70.2*	*40-150*			
Matrix Spike Dup (BHA0541-MSD1)	**Source: 2401215-02**			Prepared & Analyzed: 01/15/24						
Acenaphthene	0.0249	0.00500	mg/kg	0.0333	ND	74.6	31-137	12.7	30	
Anthracene	0.0255	0.00500	"	0.0333	ND	76.4	30-120	15.0	30	
Benzo (a) anthracene	0.0164	0.00500	"	0.0333	ND	49.2	30-120	13.3	30	
Benzo (a) pyrene	0.0225	0.00500	"	0.0333	ND	67.6	30-120	20.5	30	
Benzo (b) fluoranthene	0.0199	0.00500	"	0.0333	ND	59.6	30-120	25.5	30	
Benzo (k) fluoranthene	0.0219	0.00500	"	0.0333	ND	65.6	30-120	18.3	30	
Chrysene	0.0254	0.00500	"	0.0333	ND	76.1	30-120	15.7	30	
Dibenz (a,h) anthracene	0.0188	0.00500	"	0.0333	ND	56.5	30-120	15.3	30	
Fluoranthene	0.0251	0.00500	"	0.0333	ND	75.4	30-120	12.3	30	
Fluorene	0.0245	0.00500	"	0.0333	ND	73.5	30-120	11.2	30	
Indeno (1,2,3-cd) pyrene	0.0192	0.00500	"	0.0333	ND	57.7	30-120	15.4	30	
Pyrene	0.0291	0.00500	"	0.0333	ND	87.2	35-142	12.6	30	
1-Methylnaphthalene	0.0244	0.00500	"	0.0333	ND	73.1	15-130	10.4	50	
2-Methylnaphthalene	0.0197	0.00500	"	0.0333	ND	59.2	15-130	22.0	50	
Surrogate: 2-Methylnaphthalene-d10	*0.0263*		*"*	*0.0333*		*78.8*	*40-150*			
Surrogate: Fluoranthene-d10	*0.0266*		*"*	*0.0333*		*79.7*	*40-150*			

Tasman Geosciences 6855 W. 119th Ave. Broomfield CO, 80020	Project: PDC - Strohauer F 33-32D Wellhead Project Number: [none] Project Manager: Karen Olson	**Reported:** 01/29/24 08:18

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BHA0802 - EPA 5030 Soil MS										
Blank (BHA0802-BLK1)				Prepared & Analyzed: 01/23/24						
Acenaphthene	ND	0.00500	mg/kg							
Anthracene	ND	0.00500	"							
Benzo (a) anthracene	ND	0.00500	"							
Benzo (a) pyrene	ND	0.00500	"							
Benzo (b) fluoranthene	ND	0.00500	"							
Benzo (k) fluoranthene	ND	0.00500	"							
Chrysene	ND	0.00500	"							
Dibenz (a,h) anthracene	ND	0.00500	"							
Fluoranthene	ND	0.00500	"							
Fluorene	ND	0.00500	"							
Indeno (1,2,3-cd) pyrene	ND	0.00500	"							
Pyrene	ND	0.00500	"							
1-Methylnaphthalene	ND	0.00500	"							
2-Methylnaphthalene	ND	0.00500	"							
Surrogate: 2-Methylnaphthalene-d10	*0.0324*		*"*	*0.0333*		*97.2*	*40-150*			
Surrogate: Fluoranthene-d10	*0.0320*		*"*	*0.0333*		*96.0*	*40-150*			
LCS (BHA0802-BS1)				Prepared & Analyzed: 01/23/24						
Acenaphthene	0.0392	0.00500	mg/kg	0.0333		118	31-137			
Anthracene	0.0387	0.00500	"	0.0333		116	30-120			
Benzo (a) anthracene	0.0282	0.00500	"	0.0333		84.7	30-120			
Benzo (a) pyrene	0.0382	0.00500	"	0.0333		114	30-120			
Benzo (b) fluoranthene	0.0395	0.00500	"	0.0333		118	30-120			
Benzo (k) fluoranthene	0.0368	0.00500	"	0.0333		110	30-120			
Chrysene	0.0387	0.00500	"	0.0333		116	30-120			
Dibenz (a,h) anthracene	0.0357	0.00500	"	0.0333		107	30-120			
Fluoranthene	0.0385	0.00500	"	0.0333		115	30-120			
Fluorene	0.0366	0.00500	"	0.0333		110	30-120			
Indeno (1,2,3-cd) pyrene	0.0269	0.00500	"	0.0333		80.7	30-120			
Pyrene	0.0391	0.00500	"	0.0333		117	35-142			
1-Methylnaphthalene	0.0378	0.00500	"	0.0333		113	35-142			
2-Methylnaphthalene	0.0188	0.00500	"	0.0333		56.5	35-142			
Surrogate: 2-Methylnaphthalene-d10	*0.0311*		*"*	*0.0333*		*93.3*	*40-150*			
Surrogate: Fluoranthene-d10	*0.0373*		*"*	*0.0333*		*112*	*40-150*			

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PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BHA0802 - EPA 5030 Soil MS										
Matrix Spike (BHA0802-MS1)	**Source: 2401317-01**			Prepared & Analyzed: 01/23/24						
Acenaphthene	0.0180	0.00500	mg/kg	0.0333	ND	54.1	31-137			
Anthracene	0.0178	0.00500	"	0.0333	ND	53.4	30-120			
Benzo (a) anthracene	0.0148	0.00500	"	0.0333	ND	44.3	30-120			
Benzo (a) pyrene	0.0183	0.00500	"	0.0333	ND	54.8	30-120			
Benzo (b) fluoranthene	0.0204	0.00500	"	0.0333	ND	61.2	30-120			
Benzo (k) fluoranthene	0.0225	0.00500	"	0.0333	ND	67.4	30-120			
Chrysene	0.0200	0.00500	"	0.0333	ND	59.9	30-120			
Dibenz (a,h) anthracene	0.0180	0.00500	"	0.0333	ND	54.0	30-120			
Fluoranthene	0.0204	0.00500	"	0.0333	ND	61.3	30-120			
Fluorene	0.0189	0.00500	"	0.0333	ND	56.8	30-120			
Indeno (1,2,3-cd) pyrene	0.0181	0.00500	"	0.0333	ND	54.2	30-120			
Pyrene	0.0203	0.00500	"	0.0333	ND	60.8	35-142			
1-Methylnaphthalene	0.0172	0.00500	"	0.0333	ND	51.6	15-130			
2-Methylnaphthalene	0.0183	0.00500	"	0.0333	ND	55.0	15-130			
Surrogate: 2-Methylnaphthalene-d10	*0.0134*		*"*	*0.0333*		*40.3*	*40-150*			
Surrogate: Fluoranthene-d10	*0.0203*		*"*	*0.0333*		*60.9*	*40-150*			
Matrix Spike Dup (BHA0802-MSD1)	**Source: 2401317-01**			Prepared & Analyzed: 01/23/24						
Acenaphthene	0.0270	0.00500	mg/kg	0.0333	ND	81.0	31-137	39.7	30	QR-02
Anthracene	0.0254	0.00500	"	0.0333	ND	76.3	30-120	35.4	30	QR-02
Benzo (a) anthracene	0.0195	0.00500	"	0.0333	ND	58.6	30-120	27.8	30	
Benzo (a) pyrene	0.0252	0.00500	"	0.0333	ND	75.5	30-120	31.7	30	QR-02
Benzo (b) fluoranthene	0.0280	0.00500	"	0.0333	ND	83.9	30-120	31.4	30	QR-02
Benzo (k) fluoranthene	0.0293	0.00500	"	0.0333	ND	87.8	30-120	26.3	30	
Chrysene	0.0271	0.00500	"	0.0333	ND	81.3	30-120	30.3	30	QR-02
Dibenz (a,h) anthracene	0.0242	0.00500	"	0.0333	ND	72.5	30-120	29.3	30	
Fluoranthene	0.0287	0.00500	"	0.0333	ND	86.0	30-120	33.6	30	QR-02
Fluorene	0.0270	0.00500	"	0.0333	ND	81.1	30-120	35.3	30	QR-02
Indeno (1,2,3-cd) pyrene	0.0182	0.00500	"	0.0333	ND	54.5	30-120	0.644	30	
Pyrene	0.0281	0.00500	"	0.0333	ND	84.3	35-142	32.4	30	QR-02
1-Methylnaphthalene	0.0282	0.00500	"	0.0333	ND	84.5	15-130	48.3	50	
2-Methylnaphthalene	0.0302	0.00500	"	0.0333	ND	90.6	15-130	48.9	50	
Surrogate: 2-Methylnaphthalene-d10	*0.0207*		*"*	*0.0333*		*62.2*	*40-150*			
Surrogate: Fluoranthene-d10	*0.0289*		*"*	*0.0333*		*86.8*	*40-150*			

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Tasman Geosciences 6855 W. 119th Ave. Broomfield CO, 80020	Project: PDC - Strohauer F 33-32D Wellhead Project Number: [none] Project Manager: Karen Olson	**Reported:** 01/29/24 08:18

Total Metals by EPA 6020B Hot Water Soluble Extraction - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BHA0569 - EPA 3050B										
Blank (BHA0569-BLK1)				Prepared: 01/16/24 Analyzed: 01/18/24						
Boron	ND	2.00	mg/L							
LCS (BHA0569-BS1)				Prepared: 01/16/24 Analyzed: 01/18/24						
Boron	4.62	2.00	mg/L	5.00		92.3	80-120			
Duplicate (BHA0569-DUP1)		**Source: 2401219-01**		Prepared: 01/16/24 Analyzed: 01/18/24						
Boron	0.141	2.00	mg/L		0.157			10.7	20	
Matrix Spike (BHA0569-MS1)		**Source: 2401219-01**		Prepared: 01/16/24 Analyzed: 01/18/24						
Boron	4.75	2.00	mg/L	5.00	0.157	91.9	75-125			
Matrix Spike Dup (BHA0569-MSD1)		**Source: 2401219-01**		Prepared: 01/16/24 Analyzed: 01/18/24						
Boron	4.92	2.00	mg/L	5.00	0.157	95.3	75-125	3.59	25	

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Tasman Geosciences 6855 W. 119th Ave. Broomfield CO, 80020	Project: PDC - Strohauer F 33-32D Wellhead Project Number: [none] Project Manager: Karen Olson	**Reported:** 01/29/24 08:18

Total Metals by EPA 6020B - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BHA0556 - EPA 3050B										
Blank (BHA0556-BLK1)				Prepared: 01/15/24 Analyzed: 01/19/24						
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 (BHA0556-BS1)				Prepared: 01/15/24 Analyzed: 01/19/24						
Arsenic	40.5	0.200	mg/kg wet	40.0		101	80-120			
Barium	41.6	0.400	"	40.0		104	80-120			
Cadmium	2.03	0.200	"	2.00		102	80-120			
Copper	42.2	0.400	"	40.0		105	80-120			
Lead	20.3	0.200	"	20.0		102	80-120			
Nickel	41.6	0.400	"	40.0		104	80-120			
Silver	2.04	0.0200	"	2.00		102	80-120			
Zinc	42.1	0.400	"	40.0		105	80-120			
Selenium	4.19	0.260	"	4.00		105	80-120			
Duplicate (BHA0556-DUP1)		**Source: 2401219-01**		Prepared: 01/15/24 Analyzed: 01/19/24						
Arsenic	1.98	0.200	mg/kg dry		2.01			1.40	20	
Barium	61.3	0.400	"		62.3			1.66	20	
Cadmium	0.365	0.200	"		0.356			2.54	20	
Copper	9.08	0.400	"		8.27			9.37	20	
Lead	14.2	0.200	"		12.7			11.0	20	
Nickel	3.16	0.400	"		3.00			5.35	20	
Silver	0.159	0.0200	"		0.142			11.2	20	
Zinc	37.9	0.400	"		35.0			7.81	20	
Selenium	ND	0.260	"		ND				20	

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Tasman Geosciences 6855 W. 119th Ave. Broomfield CO, 80020	Project: PDC - Strohauer F 33-32D Wellhead Project Number: [none] Project Manager: Karen Olson	**Reported:** 01/29/24 08:18

Total Metals by EPA 6020B - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BHA0556 - EPA 3050B										
Matrix Spike (BHA0556-MS1)	**Source: 2401219-01**			Prepared: 01/15/24 Analyzed: 01/19/24						
Arsenic	48.1	0.200	mg/kg dry	45.8	2.01	101	75-125			
Barium	102	0.400	"	45.8	62.3	86.8	75-125			
Cadmium	2.76	0.200	"	2.29	0.356	105	75-125			
Copper	41.1	0.400	"	45.8	8.27	71.8	75-125			QM-07
Lead	37.5	0.200	"	22.9	12.7	108	75-125			
Nickel	35.0	0.400	"	45.8	3.00	70.0	75-125			QM-07
Silver	2.55	0.0200	"	2.29	0.142	105	75-125			
Zinc	70.6	0.400	"	45.8	35.0	77.8	75-125			
Selenium	3.86	0.260	"	4.58	ND	84.5	75-125			
Matrix Spike Dup (BHA0556-MSD1)	**Source: 2401219-01**			Prepared: 01/15/24 Analyzed: 01/19/24						
Arsenic	48.2	0.200	mg/kg dry	45.8	2.01	101	75-125	0.215	25	
Barium	102	0.400	"	45.8	62.3	87.5	75-125	0.332	25	
Cadmium	2.79	0.200	"	2.29	0.356	106	75-125	0.957	25	
Copper	41.9	0.400	"	45.8	8.27	73.4	75-125	1.81	25	QM-07
Lead	37.9	0.200	"	22.9	12.7	110	75-125	0.983	25	
Nickel	35.7	0.400	"	45.8	3.00	71.5	75-125	1.92	25	QM-07
Silver	2.57	0.0200	"	2.29	0.142	106	75-125	0.608	25	
Zinc	71.5	0.400	"	45.8	35.0	79.6	75-125	1.21	25	
Selenium	3.92	0.260	"	4.58	ND	85.7	75-125	1.41	25	

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Tasman Geosciences 6855 W. 119th Ave. Broomfield CO, 80020	Project: PDC - Strohauer F 33-32D Wellhead Project Number: [none] Project Manager: Karen Olson	**Reported:** 01/29/24 08:18

Hexavalent Chromium by EPA Method 7196 - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BHA0471 - 3060A_Mod										
Blank (BHA0471-BLK1)				Prepared & Analyzed: 01/12/24						
Chromium, Hexavalent	ND	0.30	mg/kg wet							
LCS (BHA0471-BS1)				Prepared & Analyzed: 01/12/24						
Chromium, Hexavalent	26.4	0.30	mg/kg wet	25.0		106	80-120			
Duplicate (BHA0471-DUP1)	**Source: 2401219-01**			Prepared & Analyzed: 01/12/24						
Chromium, Hexavalent	ND	0.30	mg/kg dry		ND				20	
Matrix Spike (BHA0471-MS1)	**Source: 2401219-01**			Prepared & Analyzed: 01/12/24						
Chromium, Hexavalent	29.2	0.30	mg/kg dry	28.6	ND	102	75-125			
Matrix Spike Dup (BHA0471-MSD1)	**Source: 2401219-01**			Prepared & Analyzed: 01/12/24						
Chromium, Hexavalent	28.7	0.30	mg/kg dry	28.6	ND	100	75-125	1.78	20	

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Tasman Geosciences 6855 W. 119th Ave. Broomfield CO, 80020	Project: PDC - Strohauer F 33-32D Wellhead Project Number: [none] Project Manager: Karen Olson	**Reported:** 01/29/24 08:18

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BHA0583 - General Preparation										
Blank (BHA0583-BLK1)				Prepared: 01/16/24 Analyzed: 01/17/24						
Calcium	ND	0.0500	mg/L wet							
Magnesium	ND	0.0500	"							
Sodium	ND	0.0500	"							
LCS (BHA0583-BS1)				Prepared: 01/16/24 Analyzed: 01/17/24						
Calcium	5.57	0.0500	mg/L wet	5.00		111	70-130			
Magnesium	5.36	0.0500	"	5.00		107	70-130			
Sodium	5.34	0.0500	"	5.00		107	70-130			

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Tasman Geosciences 6855 W. 119th Ave. Broomfield CO, 80020	Project: PDC - Strohauer F 33-32D Wellhead Project Number: [none] Project Manager: Karen Olson	**Reported:** 01/29/24 08:18

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

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BHA0521 - General Preparation										
Duplicate (BHA0521-DUP1)	**Source: 2401218-01**			Prepared: 01/15/24 Analyzed: 01/17/24						
% Solids	94.0		%		94.6			0.614	20	

Tasman Geosciences 6855 W. 119th Ave. Broomfield CO, 80020	Project: PDC - Strohauer F 33-32D Wellhead Project Number: [none] Project Manager: Karen Olson	**Reported:** 01/29/24 08:18

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BHA0608 - General Preparation										
Blank (BHA0608-BLK1)				Prepared & Analyzed: 01/17/24						
Specific Conductance (EC)	ND	0.0100	mmhos/cm							
LCS (BHA0608-BS1)				Prepared & Analyzed: 01/17/24						
Specific Conductance (EC)	0.150	0.0100	mmhos/cm	0.150		100	95-105			
Duplicate (BHA0608-DUP1)		**Source: 2312142-01**		Prepared & Analyzed: 01/17/24						
Specific Conductance (EC)	0.136	0.0100	mmhos/cm		0.136			0.442	20	

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Tasman Geosciences 6855 W. 119th Ave. Broomfield CO, 80020	Project: PDC - Strohauer F 33-32D Wellhead Project Number: [none] Project Manager: Karen Olson	**Reported:** 01/29/24 08:18

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BHA0609 - General Preparation										
LCS (BHA0609-BS1)				Prepared & Analyzed: 01/17/24						
pH	9.12		pH Units	9.18		99.3	95-105			
Duplicate (BHA0609-DUP1)		**Source: 2401219-01**		Prepared & Analyzed: 01/17/24						
pH	8.04		pH Units		8.15			1.36	20	

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S2

Tasman Geosciences 6855 W. 119th Ave. Broomfield CO, 80020	Project: PDC - Strohauer F 33-32D Wellhead Project Number: [none] Project Manager: Karen Olson	**Reported:** 01/29/24 08:18

Notes and Definitions

QR-02	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
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