

**PDC Energy, Inc.**  
Fourth Quarter 2020 Groundwater Monitoring Summary

November 3, 2020

Former Cecil K 35-29, 30; Schwab 26-12F, 13F Tank Battery  
SENW Section 26 T4N R66W  
Remediation # 15018

This groundwater monitoring summary has been prepared by Tasman Geosciences, Inc. for the former Cecil K 35-29, 30; Schwab 26-12F, 13F tank battery. On October 26, 2020, groundwater monitoring was conducted at all eight monitoring wells (BH01 – BH08). Eight groundwater samples were submitted to Summit Scientific Laboratory for analysis of benzene, toluene, ethylbenzene, and total xylenes (BTEX) by EPA Method 8260B.

Fourth quarter 2020 analytical results indicated that BTEX concentrations were below the applicable COGCC Table 910-1 standards in all eight monitoring well locations. Sample locations and corresponding analytical results are illustrated on Figure 1. Groundwater elevation data is illustrated on Figure 2. Groundwater analytical results are summarized in Table 1. The laboratory analytical report is included in Attachment A.

Monitored natural attenuation (MNA) was selected as the remediation strategy for this site during the second quarter 2020 and will remain the selected remediation strategy through the first quarter 2021.

First quarter 2021 groundwater sampling will be conducted in January 2021.

SURFACE DRAINAGE

BH08		
Compound (µg/L)	7/1/2020	10/26/2020
Benzene	<1.0	<1.0
Toluene	<1.0	<1.0
Ethylbenzene	<1.0	<1.0
Total Xylenes	<2.0	<2.0
Depth to Water (ft. bgs)	2.56	6.98

BH04		
Compound (µg/L)	7/1/2020	10/26/2020
Benzene	<1.0	<1.0
Toluene	<1.0	<1.0
Ethylbenzene	<1.0	<1.0
Total Xylenes	<2.0	<2.0
Depth to Water (ft. bgs)	2.84	7.36

BH03		
Compound (µg/L)	7/1/2020	10/26/2020
Benzene	<1.0	<1.0
Toluene	<1.0	<1.0
Ethylbenzene	<1.0	<1.0
Total Xylenes	<2.0	<2.0
Depth to Water (ft. bgs)	2.14	6.19

BH05		
Compound (µg/L)	7/1/2020	10/26/2020
Benzene	<1.0	<1.0
Toluene	<1.0	<1.0
Ethylbenzene	<1.0	<1.0
Total Xylenes	<2.0	<2.0
Depth to Water (ft. bgs)	3.22	7.83

BH02		
Compound (µg/L)	7/1/2020	10/26/2020
Benzene	<1.0	<1.0
Toluene	<1.0	<1.0
Ethylbenzene	<1.0	<1.0
Total Xylenes	<2.0	<2.0
Depth to Water (ft. bgs)	2.30	6.27

BH06		
Compound (µg/L)	7/1/2020	10/26/2020
Benzene	<1.0	<1.0
Toluene	<1.0	<1.0
Ethylbenzene	<1.0	<1.0
Total Xylenes	<2.0	<2.0
Depth to Water (ft. bgs)	3.40	7.63

BH07		
Compound (µg/L)	7/1/2020	10/26/2020
Benzene	<1.0	<1.0
Toluene	<1.0	<1.0
Ethylbenzene	<1.0	<1.0
Total Xylenes	<2.0	<2.0
Depth to Water (ft. bgs)	2.40	6.71

BH01		
Compound (µg/L)	7/1/2020	10/26/2020
Benzene	<1.0	<1.0
Toluene	<1.0	<1.0
Ethylbenzene	<1.0	<1.0
Total Xylenes	<2.0	<2.0
Depth to Water (ft. bgs)	2.62	6.57

**Legend**

- Excavation Extent (Collected via Trimble GPS)
- Monitoring Well Location (Collected via Trimble GPS)
- Excavation Groundwater Sample Location
- Groundwater Flow Direction (4Q20)

**Notes**

All locations are approximate unless otherwise noted.

Surface drainage direction is estimated based on topography and is not related to regional topography.

GPS – Global Positioning System  
 µg/L – Micrograms per liter  
 ft. bgs – Feet below ground surface

0 ft. 30 ft. 60 ft.

Image Source: Google Earth; 2017 Google  
 Projection: WGS 84 UTM Zone 13 North

DATE: November 3, 2020

DESIGNED BY: C. Hamlin

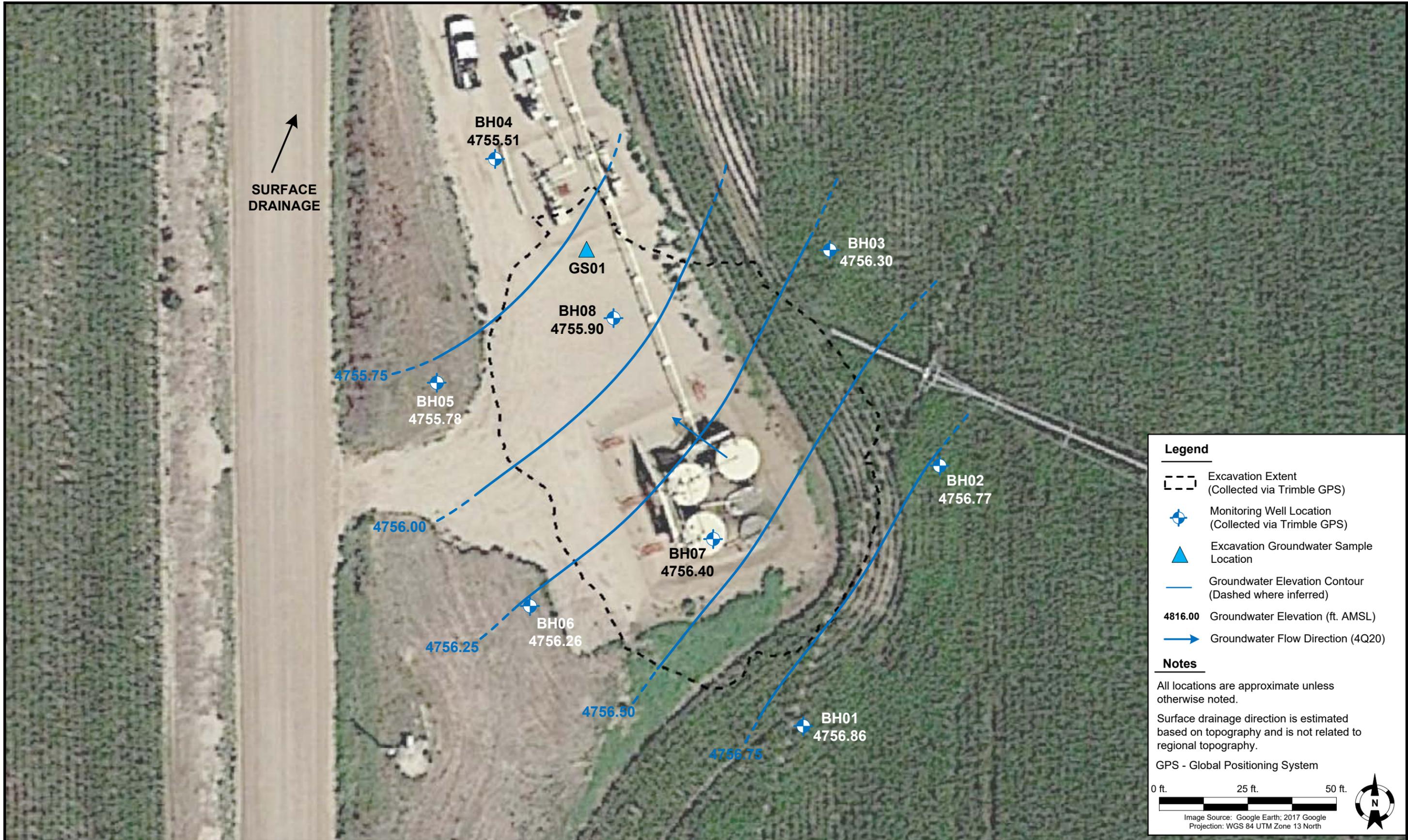
DRAWN BY: M. Dahlgren

**Tasman Geosciences, Inc.**  
 6855 W. 119<sup>th</sup> Ave.  
 Broomfield, CO 80020

**PDC Energy, Inc. – DJ Basin**  
 Former Cecil K 35-29, 30; Schwab 26-12F, 13F Tank Battery  
 SENW, Section 26, Township 4 North, Range 66 West  
 Weld County, Colorado

GROUNDWATER ANALYTICAL RESULTS MAP

FIGURE 1



DATE:	October 29, 2020
DESIGNED BY:	C. Hamlin
DRAWN BY:	A. Dahl



**Tasman Geosciences, Inc.**  
6855 W. 119<sup>th</sup> Ave.  
Broomfield, CO 80020

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Former Cecil K 35-29, 30; Schwab 26-12F, 13F Tank Battery  
SENW, Section 26, Township 4 North, Range 66 West  
Weld County, Colorado

**GROUNDWATER ELEVATION CONTOUR MAP (10/26/2020)**

**FIGURE 2**

**TABLE 1**  
**FORMER CECIL K 35-29, 30; SCHWAB 26-12F, 13F TANK BATTERY**  
**GROUNDWATER ANALYTICAL RESULTS SUMMARY TABLE**

Sample ID	Date Sampled	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Depth to Water <sup>(2)</sup> (ft.)	Groundwater Elevation (ft. AMSL)
COGCC Table 910-1 Groundwater Standard (µg/L) <sup>(1)</sup>		5	560	700	1,400		
GS01	3/16/2020	<b>12</b>	26	3.0	51	~ 10	NM
BH01	4/28/2020	<1.0	<1.0	<1.0	<2.0	3.14	4760.29
BH01	7/1/2020	<1.0	<1.0	<1.0	<2.0	2.62	4760.81
BH01	10/26/2020	<1.0	<1.0	<1.0	<2.0	6.57	4756.86
BH02	4/28/2020	<1.0	<1.0	<1.0	<2.0	2.86	4760.18
BH02	7/1/2020	<1.0	<1.0	<1.0	<2.0	2.30	4760.74
BH02	10/26/2020	<1.0	<1.0	<1.0	<2.0	6.27	4756.77
BH03	4/28/2020	<1.0	<1.0	<1.0	<2.0	2.84	4759.65
BH03	7/1/2020	<1.0	<1.0	<1.0	<2.0	2.14	4760.35
BH03	10/26/2020	<1.0	<1.0	<1.0	<2.0	6.19	4756.30
BH04	4/28/2020	<1.0	<1.0	<1.0	<2.0	3.85	4759.02
BH04	7/1/2020	<1.0	<1.0	<1.0	<2.0	2.84	4760.03
BH04	10/26/2020	<1.0	<1.0	<1.0	<2.0	7.36	4755.51
BH05	4/28/2020	<1.0	<1.0	<1.0	<2.0	4.20	4759.41
BH05	7/1/2020	<1.0	<1.0	<1.0	<2.0	3.22	4760.39
BH05	10/26/2020	<1.0	<1.0	<1.0	<2.0	7.83	4755.78
BH06	4/28/2020	<1.0	<1.0	<1.0	<2.0	3.99	4759.90
BH06	7/1/2020	<1.0	<1.0	<1.0	<2.0	3.40	4760.49
BH06	10/26/2020	<1.0	<1.0	<1.0	<2.0	7.63	4756.26
BH07	4/28/2020	<1.0	<1.0	<1.0	<2.0	6.77	4756.34
BH07	7/1/2020	<1.0	<1.0	<1.0	<2.0	2.40	4760.71
BH07	10/26/2020	<1.0	<1.0	<1.0	<2.0	6.71	4756.40
BH08	4/28/2020	<1.0	<1.0	<1.0	<2.0	4.79	4758.09
BH08	7/1/2020	<1.0	<1.0	<1.0	<2.0	2.56	4760.32
BH08	10/26/2020	<1.0	<1.0	<1.0	<2.0	6.98	4755.90

**Notes:**

1. Groundwater standards referenced from 2 CCR 404-1, Table 910-1, effective May 1, 2018.

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.

COGCC = Colorado Oil and Gas Conservation Commission

µg/L = Micrograms per liter

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

ft. = Feet

AMSL = Above Mean Sea Level

NM = Not measured

**BOLD** = Analytical result is in exceedance of COGCC groundwater standards.

## Attachment A

# Summit Scientific

---

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

November 02, 2020

Mark Longhurst

PDC Energy

1775 Sherman St. STE. 3000

Denver, CO 80203

RE: Cecil K 35-29,30; Schwab 26-12F,13F

Work Order #2010322

Enclosed are the results of analyses for samples received by Summit Scientific on 10/26/20 17:10. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Muri Premer". The signature is written in a cursive style with a large, stylized 'M' and 'P'.

Muri Premer For Paul Shrewsbury  
President



PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Cecil K 35-29,30; Schwab 26-12F,13F

Project Number: [none]

Project Manager: Mark Longhurst

**Reported:**  
11/02/20 15:37

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH01	2010322-01	Water	10/26/20 13:10	10/26/20 17:10
BH02	2010322-02	Water	10/26/20 13:22	10/26/20 17:10
BH03	2010322-03	Water	10/26/20 13:32	10/26/20 17:10
BH04	2010322-04	Water	10/26/20 13:47	10/26/20 17:10
BH05	2010322-05	Water	10/26/20 13:38	10/26/20 17:10
BH06	2010322-06	Water	10/26/20 13:22	10/26/20 17:10
BH07	2010322-07	Water	10/26/20 13:30	10/26/20 17:10
BH08	2010322-08	Water	10/26/20 13:38	10/26/20 17:10

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.*



**Sample Receipt Checklist**

S2 Work Order 2010322

Client: POC/TIBUAN Client Project ID: Cecil KC35-29,30; SCHWAB

Shipped Via:  H.D./R.U./FedEx/UPS/USPS/Other  Airbill #: 26-12F, 13F

Matrix (check all that apply):  Air  Soil/Solid  Water  Other: \_\_\_\_\_ (Describe)

Temp (°C) 3.2

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C <sup>(1)</sup> ? NOTE: If samples are delivered the same day of sampling, this requirement is met provided that there is evidence that cooling has begun.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all samples received intact <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If custody seals are present, are they intact <sup>(1)</sup> ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples with holding times due within 48 hours sample due within 48 hours present?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out completely <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace present? <b>If yes, contact client and note in narrative.</b>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling) <sup>(1)</sup> ? Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2 <sup>(1)</sup> ? 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):

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

PTB  
Custodian Printed Name or Initials

[Signature]  
Signature of Custodian

10/26/2020  
Date/Time



PDC Energy  
 1775 Sherman St. STE. 3000  
 Denver CO, 80203

Project: Cecil K 35-29,30; Schwab 26-12F,13F

Project Number: [none]  
 Project Manager: Mark Longhurst

**Reported:**  
 11/02/20 15:37

**BH01**  
**2010322-01 (Water)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **10/26/20 13:10**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	1.0	ug/l	1	BDJ0350	10/28/20	10/29/20	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	"	"	"	"	"	"	

Date Sampled: **10/26/20 13:10**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		103 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		95.7 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		80.8 %	21-167		"	"	"	"	

Summit Scientific

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PDC Energy  
 1775 Sherman St. STE. 3000  
 Denver CO, 80203

Project: Cecil K 35-29,30; Schwab 26-12F,13F

Project Number: [none]  
 Project Manager: Mark Longhurst

**Reported:**  
 11/02/20 15:37

**BH02**  
**2010322-02 (Water)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **10/26/20 13:22**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	BDJ0350	10/28/20	10/29/20	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	ND	1.0		"	"	"	"	"	"	
Xylenes (total)	ND	2.0		"	"	"	"	"	"	

Date Sampled: **10/26/20 13:22**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		103 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		92.7 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		81.4 %		21-167		"	"	"	"	

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 Denver CO, 80203

Project: Cecil K 35-29,30; Schwab 26-12F,13F

Project Number: [none]  
 Project Manager: Mark Longhurst

**Reported:**  
 11/02/20 15:37

**BH03**  
**2010322-03 (Water)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **10/26/20 13:32**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	BDJ0350	10/28/20	10/29/20	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	ND	1.0		"	"	"	"	"	"	
Xylenes (total)	ND	2.0		"	"	"	"	"	"	

Date Sampled: **10/26/20 13:32**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		103 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		92.9 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		81.2 %		21-167		"	"	"	"	

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PDC Energy  
 1775 Sherman St. STE. 3000  
 Denver CO, 80203

Project: Cecil K 35-29,30; Schwab 26-12F,13F

Project Number: [none]  
 Project Manager: Mark Longhurst

**Reported:**  
 11/02/20 15:37

**BH04**  
**2010322-04 (Water)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **10/26/20 13:47**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	BDJ0350	10/28/20	10/29/20	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	ND	1.0		"	"	"	"	"	"	
Xylenes (total)	ND	2.0		"	"	"	"	"	"	

Date Sampled: **10/26/20 13:47**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		101 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		96.1 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		80.7 %		21-167		"	"	"	"	

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 Denver CO, 80203

Project: Cecil K 35-29,30; Schwab 26-12F,13F

Project Number: [none]  
 Project Manager: Mark Longhurst

**Reported:**  
 11/02/20 15:37

**BH05**  
**2010322-05 (Water)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **10/26/20 13:38**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	BDJ0350	10/28/20	10/29/20	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	ND	1.0		"	"	"	"	"	"	
Xylenes (total)	ND	2.0		"	"	"	"	"	"	

Date Sampled: **10/26/20 13:38**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		104 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		93.9 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		80.2 %		21-167		"	"	"	"	

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Project: Cecil K 35-29,30; Schwab 26-12F,13F

Project Number: [none]  
 Project Manager: Mark Longhurst

**Reported:**  
 11/02/20 15:37

**BH06**  
**2010322-06 (Water)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **10/26/20 13:22**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	BDJ0350	10/28/20	10/29/20	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	ND	1.0		"	"	"	"	"	"	
Xylenes (total)	ND	2.0		"	"	"	"	"	"	

Date Sampled: **10/26/20 13:22**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		104 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		94.3 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		79.7 %		21-167		"	"	"	"	

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PDC Energy  
 1775 Sherman St. STE. 3000  
 Denver CO, 80203

Project: Cecil K 35-29,30; Schwab 26-12F,13F

Project Number: [none]  
 Project Manager: Mark Longhurst

**Reported:**  
 11/02/20 15:37

**BH07**  
**2010322-07 (Water)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **10/26/20 13:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	BDJ0350	10/28/20	10/29/20	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	ND	1.0		"	"	"	"	"	"	
Xylenes (total)	ND	2.0		"	"	"	"	"	"	

Date Sampled: **10/26/20 13:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		102 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		94.2 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		81.2 %		21-167		"	"	"	"	

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PDC Energy  
 1775 Sherman St. STE. 3000  
 Denver CO, 80203

Project: Cecil K 35-29,30; Schwab 26-12F,13F

Project Number: [none]  
 Project Manager: Mark Longhurst

**Reported:**  
 11/02/20 15:37

**BH08**  
**2010322-08 (Water)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **10/26/20 13:38**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	BDJ0350	10/28/20	10/29/20	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	ND	1.0		"	"	"	"	"	"	
Xylenes (total)	ND	2.0		"	"	"	"	"	"	

Date Sampled: **10/26/20 13:38**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		101 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		95.9 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		82.1 %		21-167		"	"	"	"	

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Cecil K 35-29,30; Schwab 26-12F,13F

Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
11/02/20 15:37

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**

**Summit Scientific**

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

**Batch BDJ0350 - EPA 5030 Water MS**

**Blank (BDJ0350-BLK1)**

Prepared & Analyzed: 10/28/20

Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes (total)	ND	2.0	"							
Surrogate: 1,2-Dichloroethane-d4	13.2		"	13.3		99.2	23-173			
Surrogate: Toluene-d8	13.0		"	13.3		97.9	20-170			
Surrogate: 4-Bromofluorobenzene	11.3		"	13.3		84.8	21-167			

**LCS (BDJ0350-BS1)**

Prepared & Analyzed: 10/28/20

Benzene	22.8	1.0	ug/l	33.3		68.5	51-132			
Toluene	31.3	1.0	"	33.3		93.8	51-138			
Ethylbenzene	37.8	1.0	"	33.3		113	58-146			
m,p-Xylene	76.3	2.0	"	66.7		114	57-144			
o-Xylene	36.3	1.0	"	33.3		109	53-146			
Surrogate: 1,2-Dichloroethane-d4	14.0		"	13.3		105	23-173			
Surrogate: Toluene-d8	13.2		"	13.3		98.9	20-170			
Surrogate: 4-Bromofluorobenzene	11.5		"	13.3		86.1	21-167			

**Matrix Spike (BDJ0350-MS1)**

Source: 2010321-01

Prepared & Analyzed: 10/28/20

Benzene	22.2	1.0	ug/l	33.3	ND	66.8	34-141			
Toluene	30.7	1.0	"	33.3	ND	92.1	27-151			
Ethylbenzene	37.4	1.0	"	33.3	ND	112	29-160			
m,p-Xylene	75.5	2.0	"	66.7	ND	113	20-166			
o-Xylene	36.4	1.0	"	33.3	ND	109	33-159			
Surrogate: 1,2-Dichloroethane-d4	14.0		"	13.3		105	23-173			
Surrogate: Toluene-d8	13.0		"	13.3		97.4	20-170			
Surrogate: 4-Bromofluorobenzene	11.4		"	13.3		85.8	21-167			

Summit Scientific

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PDC Energy  
 1775 Sherman St. STE. 3000  
 Denver CO, 80203

Project: Cecil K 35-29,30; Schwab 26-12F,13F

Project Number: [none]  
 Project Manager: Mark Longhurst

**Reported:**  
 11/02/20 15:37

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**

**Summit Scientific**

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

**Batch BDJ0350 - EPA 5030 Water MS**

**Matrix Spike Dup (BDJ0350-MSD1)**

Source: 2010321-01

Prepared & Analyzed: 10/28/20

Benzene	22.6	1.0	ug/l	33.3	ND	67.8	34-141	1.60	30	
Toluene	30.6	1.0	"	33.3	ND	91.7	27-151	0.490	30	
Ethylbenzene	37.5	1.0	"	33.3	ND	112	29-160	0.107	30	
m,p-Xylene	76.2	2.0	"	66.7	ND	114	20-166	0.909	30	
o-Xylene	36.5	1.0	"	33.3	ND	109	33-159	0.220	30	
Surrogate: 1,2-Dichloroethane-d4	14.6		"	13.3		110	23-173			
Surrogate: Toluene-d8	13.2		"	13.3		99.3	20-170			
Surrogate: 4-Bromofluorobenzene	11.5		"	13.3		86.3	21-167			

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Cecil K 35-29,30; Schwab 26-12F,13F

Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
11/02/20 15:37

### 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