



PDC Energy, Inc.
First Quarter 2022 Groundwater Monitoring Summary

February 23, 2022

Former Dinner 14 B-1 Wellhead
SESW Section 14 T4N R66W
Remediation # 18114

This groundwater monitoring summary has been prepared by Tasman, Inc. for the former Dinner 14 B-1 Wellhead.

Site History and Background

On July 15, 2021, a historic hydrocarbon release was discovered at the former wellhead. Following the discovery, mitigation activities were initiated and between July 15, and August 9, 2021, approximately 3,189.5 cubic yards of impacted material were removed from the former excavation. During excavation activities, groundwater was encountered in the excavation at approximately 11 feet below ground surface (bgs). Groundwater vacuum recovery was conducted concurrent with excavation activities and 9,685 barrels of groundwater were removed from site. On October 18, 2021, eight monitoring wells (BH01 – BH08) were installed to confirm the absence of dissolved-phase hydrocarbon impacts within and adjacent to the former excavation extent.

Groundwater Monitoring Activities

On February 16, 2022, groundwater monitoring was conducted at all eight monitoring wells (BH01 – BH09). Eight (8) groundwater samples were submitted to Summit Scientific Laboratories for analysis of benzene, toluene, ethylbenzene, total xylenes (BTEX), naphthalene, 1,2,4-trimethylbenzene (TMB) 1,3,5-TMB by EPA Method 8260B.

First quarter 2022 analytical results indicated that organic compound concentrations were in compliance with the applicable COGCC Table 915-1 groundwater 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 as Attachment A.

Current Remediation Activities and Path Forward

Monitored natural attenuation (MNA) was selected as the remediation strategy for this site during the fourth quarter 2021 and will remain the selected remediation strategy through the second quarter 2022.

Second quarter 2022 groundwater sampling will be conducted in May 2022.



DATE: February 23, 2022

DESIGNED BY: B. Nelson

DRAWN BY: T. Murrel

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

PDC Energy, Inc. – DJ Basin
Former Dinner 14 B-1 Wellhead
SESW, Section 14, Township 4 North, Range 66 West
Weld County, Colorado

GROUNDWATER ANALYTICAL RESULTS MAP

FIGURE 1



DATE: February 21, 2022

DESIGNED BY: B. Nelson

DRAWN BY: L. Reed



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

PDC Energy, Inc. – DJ Basin
Former Dinner 14 B-1 Wellhead
SESW, Section 14, Township 4 North, Range 66 West
Weld County, Colorado

**GROUNDWATER
ELEVATION CONTOUR
MAP (2/16/2022)**

**FIGURE
2**

TABLE 1
FORMER DINNER 14-B1 WELLHEAD
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)
COGCC Table 915-1 Groundwater Standard (µg/L) ⁽¹⁾		5	560	700	1,400	140	67	67	-	-
BH01	11/12/2021	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	7.08	4707.94
BH01	2/16/2022	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	9.50	4705.52
BH02	11/12/2021	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	7.12	4707.79
BH02	2/16/2022	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	9.48	4705.43
BH03	11/12/2021	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	7.01	4707.65
BH03	2/16/2022	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	9.30	4705.36
BH04	11/12/2021	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	6.86	4707.86
BH04	2/16/2022	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	9.23	4705.49
BH05	11/12/2021	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	6.67	4707.66
BH05	2/16/2022	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	8.95	4705.38
BH06	11/12/2021	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	7.08	4707.86
BH06	2/16/2022	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	9.43	4705.51
BH07	11/12/2021	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	6.85	4707.79
BH07	2/16/2022	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	9.20	4705.44
BH08	11/12/2021	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	6.88	4707.66
BH08	2/16/2022	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	9.19	4705.35

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

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

Attachment A

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

February 23, 2022

Mark Longhurst

PDC Energy

1775 Sherman St. STE. 3000

Denver, CO 80203

RE: Dinner 14 B-1

Work Order #2202210

Enclosed are the results of analyses for samples received by Summit Scientific on 02/16/22 15:20. 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: Dinner 14 B-1

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
02/23/22 12:46

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH01	2202210-01	Water	02/16/22 13:08	02/16/22 15:20
BH02	2202210-02	Water	02/16/22 12:53	02/16/22 15:20
BH03	2202210-03	Water	02/16/22 13:03	02/16/22 15:20
BH04	2202210-04	Water	02/16/22 13:20	02/16/22 15:20
BH05	2202210-05	Water	02/16/22 13:15	02/16/22 15:20
BH06	2202210-06	Water	02/16/22 13:32	02/16/22 15:20
BH07	2202210-07	Water	02/16/22 13:27	02/16/22 15:20
BH08	2202210-08	Water	02/16/22 12:51	02/16/22 15:20

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.

Summit Scientific

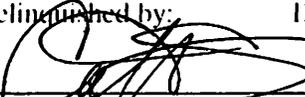
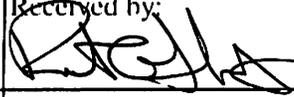
2202210

4653 Table Mountain Drive ♦ Golden, Colorado 80403
303-277-9310

Page 1 of 1

Client: FDC / Tasman Geosciences Project Manager: MARK LONGHURST
 Address: 6855 W. 119th Ave. E-Mail: mark.longhurst@pdce.com
 City/State/Zip: Broomfield / CO / 80020
 Phone: 303-487-1228 Project Name: DINNER 14 B-1
 Sampler Name: COLETTE RAMEY Project Number: N/A

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix			Analysis Requested						Special Instructions		
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	BTEX	Naphthalene	1,2,4-TMB	1,3,5-TMB	TDS		Chloride	Sulfate
1	BH01	2/14/22	1308	3	3					✓			✓	✓	✓	✓				
2	BH02		1253																	
3	BH03		1303																	
4	BH04		1320																	
5	BH05		1315																	
6	BH06		1332																	
7	BH07		1327																	
8	BH08		1251																	
9																				
10																				

Relinquished by: 	Date/Time: <u>2/14/22 1520</u>	Received by: <u>Tasman's Lock Box</u>	Date/Time: <u>2/14/22 1520</u>	Turn Around Time (Check) <input type="checkbox"/> Same Day <input type="checkbox"/> 24 hours <input checked="" type="checkbox"/> 48 hours <input type="checkbox"/> 72 hours <input checked="" type="checkbox"/> Standard	Notes: Sample Integrity: Temperature Upon Receipt: <u>6.7</u> Samples Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Relinquished by: <u>Tasman's Lock Box</u>	Date/Time:	Received by: 	Date/Time: <u>2/14/22 1520</u>		
Relinquished by:	Date/Time:	Received by:	Date/Time:		

S₂

2202210

Sample Receipt Checklist

S2 Work Order# _____

Client: RBC/Tasmanian Client Project ID: Dinner 14 B-1

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

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

Temp (°C) 6.7

Thermometer ID: G86A9201901378

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°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"/>	on ICE
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"/>	
If custody seals are present, are they intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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 ⁽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"/>	
Is the COC properly relinquished by the client w/ date and time recorded ⁽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.

[Signature]
Custodian Printed Name or Initials

2/6/22
Date/Time



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

Project: Dinner 14 B-1
 Project Number: [none]
 Project Manager: Mark Longhurst

Reported:
 02/23/22 12:46

BH01
2202210-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/16/22 13:08**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	BFB0196	02/17/22	02/19/22	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: **02/16/22 13:08**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		116 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		89.8 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		91.4 %		21-167		"	"	"	"	

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

Project: Dinner 14 B-1
 Project Number: [none]
 Project Manager: Mark Longhurst

Reported:
 02/23/22 12:46

BH02
2202210-02 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/16/22 12:53**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	1.0	ug/l	1	BFB0196	02/17/22	02/19/22	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: **02/16/22 12:53**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		106 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		90.5 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		93.0 %	21-167		"	"	"	"	

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

Project: Dinner 14 B-1
 Project Number: [none]
 Project Manager: Mark Longhurst

Reported:
 02/23/22 12:46

BH03
2202210-03 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/16/22 13:03**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	1.0	ug/l	1	BFB0196	02/17/22	02/19/22	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: **02/16/22 13:03**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		111 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		93.2 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		93.0 %	21-167		"	"	"	"	

Summit Scientific

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

Project: Dinner 14 B-1
 Project Number: [none]
 Project Manager: Mark Longhurst

Reported:
 02/23/22 12:46

BH04
2202210-04 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/16/22 13:20**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	1.0	ug/l	1	BFB0196	02/17/22	02/19/22	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: **02/16/22 13:20**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		123 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		92.6 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		91.7 %	21-167		"	"	"	"	

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

Project: Dinner 14 B-1

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
 02/23/22 12:46

BH05
2202210-05 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/16/22 13:15**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	1.0	ug/l	1	BFB0196	02/17/22	02/19/22	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: **02/16/22 13:15**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		124 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		91.4 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		93.8 %	21-167		"	"	"	"	

Summit Scientific

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

Project: Dinner 14 B-1

Project Number: [none]
 Project Manager: Mark Longhurst

Reported:
 02/23/22 12:46

BH06
2202210-06 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/16/22 13:32**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	1.0	ug/l	1	BFB0196	02/17/22	02/19/22	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: **02/16/22 13:32**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		117 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		90.8 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		92.3 %	21-167		"	"	"	"	

Summit Scientific

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

Project: Dinner 14 B-1

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
 02/23/22 12:46

BH07
2202210-07 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/16/22 13:27**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	1.0	ug/l	1	BFB0196	02/17/22	02/19/22	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: **02/16/22 13:27**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		111 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		91.4 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		90.9 %	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.



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

Project: Dinner 14 B-1

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
 02/23/22 12:46

BH08
2202210-08 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/16/22 12:51**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	1.0	ug/l	1	BFB0196	02/17/22	02/19/22	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: **02/16/22 12:51**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		108 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		90.3 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		89.6 %	21-167		"	"	"	"	

Summit Scientific

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

Project: Dinner 14 B-1

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
02/23/22 12:46

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BFB0196 - EPA 5030 Water MS

Blank (BFB0196-BLK1)

Prepared: 02/17/22 Analyzed: 02/19/22

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	14.3		"	13.3		107		23-173			
Surrogate: Toluene-d8	12.2		"	13.3		91.7		20-170			
Surrogate: 4-Bromofluorobenzene	12.2		"	13.3		91.4		21-167			

LCS (BFB0196-BS1)

Prepared: 02/17/22 Analyzed: 02/19/22

Benzene	37.0	1.0	ug/l	33.3		111		51-132			
Toluene	36.6	1.0	"	33.3		110		51-138			
Ethylbenzene	41.4	1.0	"	33.3		124		58-146			
m,p-Xylene	80.7	2.0	"	66.7		121		57-144			
o-Xylene	40.5	1.0	"	33.3		122		53-146			
Naphthalene	38.1	1.0	"	33.3		114		70-130			
1,2,4-Trimethylbenzene	34.2	1.0	"	33.3		103		70-130			
1,3,5-Trimethylbenzene	33.9	1.0	"	33.3		102		70-130			
Surrogate: 1,2-Dichloroethane-d4	14.9		"	13.3		112		23-173			
Surrogate: Toluene-d8	12.2		"	13.3		91.9		20-170			
Surrogate: 4-Bromofluorobenzene	12.7		"	13.3		95.1		21-167			

Matrix Spike (BFB0196-MS1)

Source: 2202210-01

Prepared: 02/17/22 Analyzed: 02/19/22

Benzene	38.0	1.0	ug/l	33.3	ND	114		34-141			
Toluene	36.8	1.0	"	33.3	ND	110		27-151			
Ethylbenzene	41.4	1.0	"	33.3	ND	124		29-160			
m,p-Xylene	81.1	2.0	"	66.7	ND	122		20-166			
o-Xylene	41.6	1.0	"	33.3	ND	125		33-159			
Naphthalene	36.4	1.0	"	33.3	ND	109		70-130			
1,2,4-Trimethylbenzene	34.7	1.0	"	33.3	ND	104		70-130			
1,3,5-Trimethylbenzene	34.3	1.0	"	33.3	ND	103		70-130			
Surrogate: 1,2-Dichloroethane-d4	16.4		"	13.3		123		23-173			
Surrogate: Toluene-d8	12.4		"	13.3		93.3		20-170			
Surrogate: 4-Bromofluorobenzene	12.9		"	13.3		96.5		21-167			

Summit Scientific

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

Project: Dinner 14 B-1

Project Number: [none]
 Project Manager: Mark Longhurst

Reported:
 02/23/22 12:46

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BFB0196 - EPA 5030 Water MS

Matrix Spike Dup (BFB0196-MSD1)	Source: 2202210-01			Prepared: 02/17/22 Analyzed: 02/19/22							
Benzene	37.8	1.0	ug/l	33.3	ND	114	34-141	0.290	30		
Toluene	37.4	1.0	"	33.3	ND	112	27-151	1.70	30		
Ethylbenzene	41.2	1.0	"	33.3	ND	124	29-160	0.484	30		
m,p-Xylene	82.2	2.0	"	66.7	ND	123	20-166	1.32	30		
o-Xylene	40.8	1.0	"	33.3	ND	122	33-159	1.87	30		
Naphthalene	35.5	1.0	"	33.3	ND	107	70-130	2.39	30		
1,2,4-Trimethylbenzene	34.3	1.0	"	33.3	ND	103	70-130	1.22	30		
1,3,5-Trimethylbenzene	34.1	1.0	"	33.3	ND	102	70-130	0.614	30		
Surrogate: 1,2-Dichloroethane-d4	16.2		"	13.3		121	23-173				
Surrogate: Toluene-d8	12.6		"	13.3		94.2	20-170				
Surrogate: 4-Bromofluorobenzene	12.5		"	13.3		93.5	21-167				

Summit Scientific

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

Project: Dinner 14 B-1
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
02/23/22 12:46

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