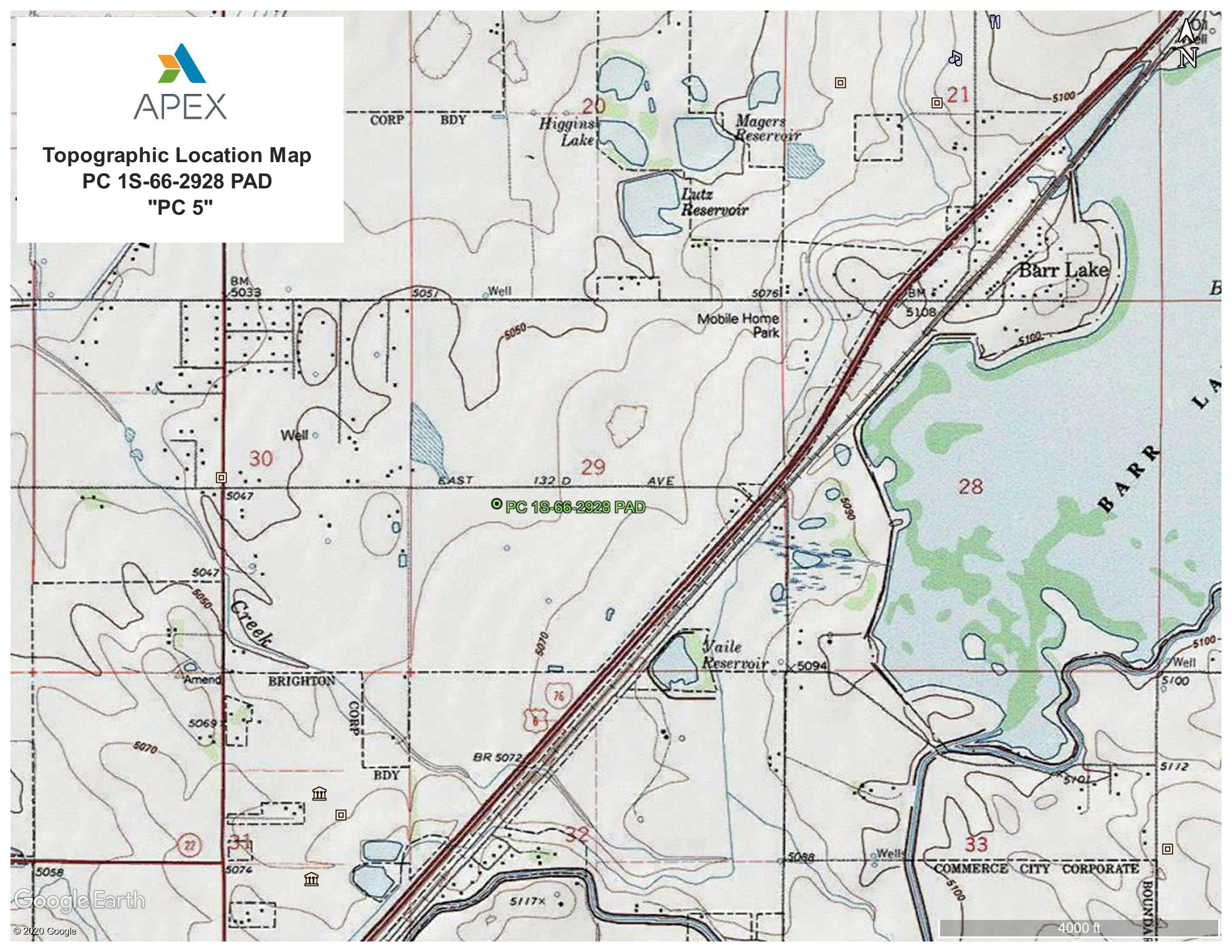




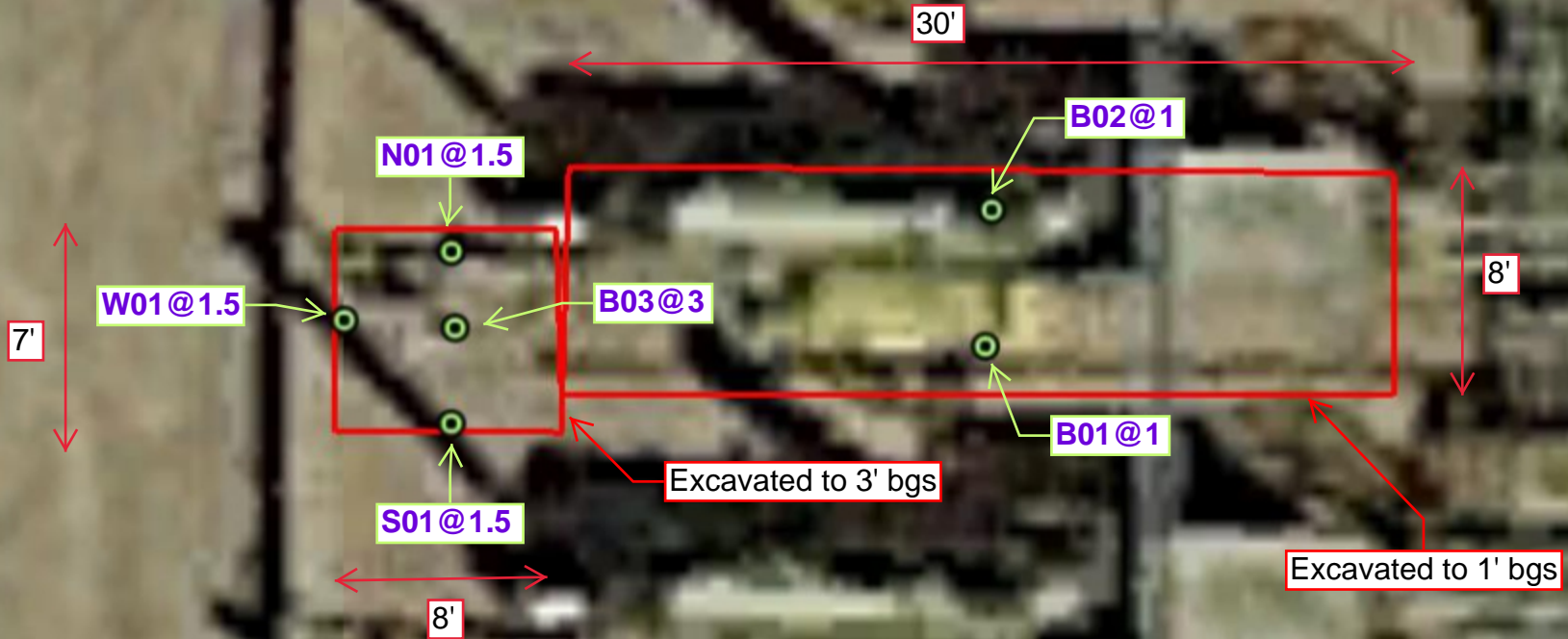
Topographic Location Map
PC 1S-66-2928 PAD
"PC 5"





PC 1S-66-2928 PAD
(Location ID: 450043)
"PC 5"

Purple font indicates COGCC
Table 910-1 exceedance.





Laboratory Results Summary Table - Soil PC 5

Location	Sample Date	Sample ID	Organics (mg/kg [ppm])					Inorganics		
			COGCC Allowable Concentration (Soil) -->	500	0.17	85	100	175	4	12
			TPH (total volatile and extractable petroleum hydrocarbons) (TPH-GRO + TPH-DRO) (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes - total (mg/kg)	EC (Specific Conductance) (<4 mmhos/cm or 2x background) (mmhos/cm)	SAR (Sodium Adsorption Ratio) (calculation)	pH (pH Units)
PC 5	8/14/2020	B01@1	20700	82	330	82	390	NA	NA	NA
PC 5	8/14/2020	B02@1	17500	38	250	68	330	NA	NA	NA
PC 5	8/14/2020	S01@1.5	20000	44	180	47	230	NA	NA	NA
PC 5	8/14/2020	W01@1.5	9400	7.9	67	14	67	NA	NA	NA
PC 5	8/14/2020	N01@1.5	16300	25	160	41	200	NA	NA	NA
PC 5	8/14/2020	B03@3	19300	50	230	58	280	0.388	0.292	8.67

Orange Highlight - Exceedance

NA - Not Analyzed

Attachment A

Laboratory Analytical Report

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

August 17, 2020

Maggie Graham

Extraction Oil&Gas

370 17th Street Suite 5300

Denver, CO 80202

RE: PC 5

Work Order # 2008114

Enclosed are the results of analyses for samples received by Summit Scientific on 08/14/20 11:30. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Paul Shrewsbury

President



Extraction Oil&Gas
370 17th Street Suite 5300
Denver CO, 80202

Project: PC 5

Project Number: 744.2001.01-450043

Project Manager: Maggie Graham

Reported:
08/17/20 08:55

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B01@1	2008114-01	Soil	08/14/20 10:03	08/14/20 11:30
B02@1	2008114-02	Soil	08/14/20 10:04	08/14/20 11:30
S01@1.5	2008114-03	Soil	08/14/20 10:06	08/14/20 11:30
W01@1.5	2008114-04	Soil	08/14/20 10:07	08/14/20 11:30
N01@1.5	2008114-05	Soil	08/14/20 10:08	08/14/20 11:30
B03@3	2008114-06	Soil	08/14/20 10:10	08/14/20 11:30

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

4653 Table Mountain Drive ♦ Golden, Colorado 80403
303-277-9310 ♦ 303-374-5933 Fax

2008184

Page 1 of 1

Client: APEX Companies, LLC
Address: 1746 Cole Blvd. Suite 250
City/State/Zip: Lakewood, Colorado 80101
Phone: 720-501-5065
Sampler Name: Sage Maher

Project Manager: Maggie Graham 720-501-5065; 907-538-7699c MaggieGraham@ApexCos.com
E-Mail: DenverRemediation@ApexCos.com juarlisu@ExtractionOV.com
Project Name: PC 5
Project Number: 744.2001.01 - 450043

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative				Matrix			Analyze For:							Special Instructions	
				HCl	HNO ₃	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)	TPH	BTEX	PH	EC	SAR	same day		24-hr
B01@1	8/14/20	1003	1			X			X			X	X					X	Call Maggie Graham with questions B03 on same day TAT all other samples on 24-hr turn *
B02@1		1004									X	X						X	
S01@1.5		1006									X	X						X	
N01@1.5		1007									X	X						X	
N01@1.5		1008									X	X						X	
B03@3		1010									X	X	X	X	X	X		X	
Relinquished by: <u>[Signature]</u> Date/Time: <u>8/14/20 11:30</u>				Received by: <u>Bill Gonzales</u> Date/Time: <u>11:30</u>				Turn Around Time (Check)				Notes							
Relinquished by: _____ Date/Time: _____				Received by: _____ Date/Time: _____				Same Day <input checked="" type="checkbox"/> 72 Hours <input type="checkbox"/>				Circle applicable regulatory agency:							
Relinquished by: _____ Date/Time: _____				Received in Lab by: _____ Date/Time: _____				24 Hours <input type="checkbox"/> 48 Hours <input type="checkbox"/>				COGCC/CDPHE							
Relinquished by: _____ Date/Time: _____				Received in Lab by: _____ Date/Time: _____				Sample Integrity: Temperature Upon Receipt: <u>19.5°C</u>				Client Name: <u>XDV</u>							
								Intact: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>											

Sample Receipt Checklist

S2 Work Order 2008114

Client: Apex Co. LLC Client Project ID: PCS

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

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

Temp (°C)	19.5°C
-----------	--------

Thermometer ID: 61857155-K

	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 provided that there is evidence that cooling has begun.	X			
Were all samples received intact ⁽¹⁾ ?	X			
Was adequate sample volume provided ⁽¹⁾ ?				
If custody seals are present, are they intact ⁽¹⁾ ?	/		X	
Are samples with holding times due within 48 hours sample due within 48 hours present?			X	
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	X			
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	X			
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	X			
Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ?	X			
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.			X	
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ? Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect			X	
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ? Record the pH in Comments.			X	
If dissolved metals are requested, were samples field filtered?			X	

Additional Comments (if any):

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

BG
Custodian Printed Name or Initials

Bill Gonzalez
Signature of Custodian

8-14-20 11:30 am
Date/Time



Extraction Oil&Gas
370 17th Street Suite 5300
Denver CO, 80202

Project: PC 5

Project Number: 744.2001.01-450043
Project Manager: Maggie Graham

Reported:
08/17/20 08:55

B01@1
2008114-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/14/20 10:03**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	82	0.20	mg/kg	100	2008152	08/14/20	08/14/20	EPA 8260B	E
Toluene	330	0.50	"	"	"	"	"	"	E
Ethylbenzene	82	0.50	"	"	"	"	"	"	E
Xylenes (total)	390	1.0	"	"	"	"	"	"	E
Gasoline Range Hydrocarbons	6700	50	"	"	"	"	"	"	E

Date Sampled: **08/14/20 10:03**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<i>Surrogate: 1,2-Dichloroethane-d4</i>		78.7 %	23-173		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		121 %	20-170		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		314 %	21-167		"	"	"	"	S-02

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/14/20 10:03**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	14000	50	mg/kg	1	2008153	08/14/20	08/14/20	EPA 8015M	

Date Sampled: **08/14/20 10:03**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<i>Surrogate: o-Terphenyl</i>		508 %	30-150		"	"	"	"	S-02

Summit Scientific

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Extraction Oil&Gas
370 17th Street Suite 5300
Denver CO, 80202

Project: PC 5

Project Number: 744.2001.01-450043
Project Manager: Maggie Graham

Reported:
08/17/20 08:55

B02@1
2008114-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/14/20 10:04**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	38	0.20	mg/kg	100	2008152	08/14/20	08/14/20	EPA 8260B	
Toluene	250	0.50	"	"	"	"	"	"	E
Ethylbenzene	68	0.50	"	"	"	"	"	"	E
Xylenes (total)	330	1.0	"	"	"	"	"	"	E
Gasoline Range Hydrocarbons	6500	50	"	"	"	"	"	"	

Date Sampled: **08/14/20 10:04**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		117 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		121 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		310 %	21-167		"	"	"	"	S-02

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/14/20 10:04**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	11000	50	mg/kg	1	2008153	08/14/20	08/14/20	EPA 8015M	

Date Sampled: **08/14/20 10:04**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		308 %	30-150		"	"	"	"	S-02

Summit Scientific

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Extraction Oil&Gas
370 17th Street Suite 5300
Denver CO, 80202

Project: PC 5

Project Number: 744.2001.01-450043
Project Manager: Maggie Graham

Reported:
08/17/20 08:55

S01@1.5
2008114-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/14/20 10:06**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	44	0.20	mg/kg	100	2008152	08/14/20	08/14/20	EPA 8260B	
Toluene	180	0.50	"	"	"	"	"	"	E
Ethylbenzene	47	0.50	"	"	"	"	"	"	
Xylenes (total)	230	1.0	"	"	"	"	"	"	E
Gasoline Range Hydrocarbons	6000	50	"	"	"	"	"	"	

Date Sampled: **08/14/20 10:06**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<i>Surrogate: 1,2-Dichloroethane-d4</i>		210 %	23-173		"	"	"	"	S-02
<i>Surrogate: Toluene-d8</i>		123 %	20-170		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		259 %	21-167		"	"	"	"	S-02

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/14/20 10:06**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	14000	50	mg/kg	1	2008153	08/14/20	08/14/20	EPA 8015M	

Date Sampled: **08/14/20 10:06**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<i>Surrogate: o-Terphenyl</i>		416 %	30-150		"	"	"	"	S-02

Summit Scientific

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Extraction Oil&Gas
370 17th Street Suite 5300
Denver CO, 80202

Project: PC 5

Project Number: 744.2001.01-450043
Project Manager: Maggie Graham

Reported:
08/17/20 08:55

W01@1.5
2008114-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/14/20 10:07**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	7.9	0.20	mg/kg	100	2008152	08/14/20	08/14/20	EPA 8260B	
Toluene	67	0.50	"	"	"	"	"	"	E
Ethylbenzene	14	0.50	"	"	"	"	"	"	
Xylenes (total)	67	1.0	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	2700	50	"	"	"	"	"	"	

Date Sampled: **08/14/20 10:07**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		107 %	23-173		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		151 %	20-170		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		169 %	21-167		"	"	"	"	S-02

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/14/20 10:07**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	6700	50	mg/kg	1	2008153	08/14/20	08/14/20	EPA 8015M	

Date Sampled: **08/14/20 10:07**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: o-Terphenyl</i>		178 %	30-150		"	"	"	"	S-02

Summit Scientific

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Extraction Oil&Gas
370 17th Street Suite 5300
Denver CO, 80202

Project: PC 5

Project Number: 744.2001.01-450043
Project Manager: Maggie Graham

Reported:
08/17/20 08:55

N01@1.5
2008114-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/14/20 10:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	25	0.20	mg/kg	100	2008152	08/14/20	08/14/20	EPA 8260B	
Toluene	160	0.50	"	"	"	"	"	"	E
Ethylbenzene	41	0.50	"	"	"	"	"	"	
Xylenes (total)	200	1.0	"	"	"	"	"	"	E
Gasoline Range Hydrocarbons	5300	50	"	"	"	"	"	"	

Date Sampled: **08/14/20 10:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		156 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		124 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		258 %	21-167		"	"	"	"	S-02

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/14/20 10:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	11000	50	mg/kg	1	2008153	08/14/20	08/14/20	EPA 8015M	

Date Sampled: **08/14/20 10:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		186 %	30-150		"	"	"	"	S-02

Summit Scientific

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Extraction Oil&Gas
370 17th Street Suite 5300
Denver CO, 80202

Project: PC 5

Project Number: 744.2001.01-450043
Project Manager: Maggie Graham

Reported:
08/17/20 08:55

B03@3
2008114-06 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/14/20 10:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	50	0.20	mg/kg	100	2008152	08/14/20	08/14/20	EPA 8260B	
Toluene	230	0.50	"	"	"	"	"	"	E
Ethylbenzene	58	0.50	"	"	"	"	"	"	
Xylenes (total)	280	1.0	"	"	"	"	"	"	E
Gasoline Range Hydrocarbons	6300	50	"	"	"	"	"	"	

Date Sampled: **08/14/20 10:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		245 %	23-173	"	"	"	"	"	S-02
<i>Surrogate: Toluene-d8</i>		116 %	20-170	"	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		259 %	21-167	"	"	"	"	"	S-02

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/14/20 10:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	13000	50	mg/kg	1	2008153	08/14/20	08/14/20	EPA 8015M	

Date Sampled: **08/14/20 10:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: o-Terphenyl</i>		245 %	30-150	"	"	"	"	"	S-02

Soluble Nutrients by EPA 6020/USDA60 6(2, 3A) - Dry Weight Basis

Date Sampled: **08/14/20 10:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	9780	11.6	mg/kg dry	1	2008151	08/14/20	08/14/20	EPA 6020B	
Magnesium	704	5.78	"	"	"	"	"	"	
Sodium	111	5.78	"	"	"	"	"	"	

Summit Scientific

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Extraction Oil&Gas
 370 17th Street Suite 5300
 Denver CO, 80202

Project: PC 5
 Project Number: 744.2001.01-450043
 Project Manager: Maggie Graham

Reported:
 08/17/20 08:55

B03@3
2008114-06 (Soil)

Summit Scientific

Soluble Nutrients by EPA 6020/USDA60 6(2, 3A) - Dry Weight Basis

Calculated Analysis

Date Sampled: **08/14/20 10:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.292	0.100	units	1	2008157	08/17/20	08/17/20	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **08/14/20 10:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	86.5		%	1	2008140	08/14/20	08/17/20	Calculation	
pH	8.67		pH Units	"	2008141	"	08/14/20	EPA 9045D	

Specific Conductance by EPA Method 120.1

Date Sampled: **08/14/20 10:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.388	0.0100	mmhos/cm	1	2008142	"	08/14/20	EPA 120.1	

Summit Scientific

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Extraction Oil&Gas
370 17th Street Suite 5300
Denver CO, 80202

Project: PC 5

Project Number: 744.2001.01-450043
Project Manager: Maggie Graham

Reported:
08/17/20 08:55

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 2008152 - EPA 5030 Soil MS

Blank (2008152-BLK1)

Prepared & Analyzed: 08/14/20

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0184		"	0.0400		46.0	23-173			
Surrogate: Toluene-d8	0.0434		"	0.0400		109	20-170			
Surrogate: 4-Bromofluorobenzene	0.0445		"	0.0400		111	21-167			

LCS (2008152-BS1)

Prepared & Analyzed: 08/14/20

Benzene	0.0845	0.0020	mg/kg	0.100		84.5	70-130			
Toluene	0.111	0.0050	"	0.100		111	70-130			
Ethylbenzene	0.0939	0.0050	"	0.100		93.9	70-130			
m,p-Xylene	0.192	0.010	"	0.200		95.9	70-130			
o-Xylene	0.0976	0.0050	"	0.100		97.6	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0176		"	0.0400		43.9	23-173			
Surrogate: Toluene-d8	0.0461		"	0.0400		115	20-170			
Surrogate: 4-Bromofluorobenzene	0.0448		"	0.0400		112	21-167			

Matrix Spike (2008152-MS1)

Source: 2007270-02

Prepared & Analyzed: 08/14/20

Benzene	0.0860	0.0020	mg/kg	0.100	ND	86.0	70-130			
Toluene	0.119	0.0050	"	0.100	ND	119	70-130			
Ethylbenzene	0.0928	0.0050	"	0.100	ND	92.8	70-130			
m,p-Xylene	0.182	0.010	"	0.200	ND	90.9	70-130			
o-Xylene	0.0962	0.0050	"	0.100	ND	96.2	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0169		"	0.0400		42.3	23-173			
Surrogate: Toluene-d8	0.0473		"	0.0400		118	20-170			
Surrogate: 4-Bromofluorobenzene	0.0458		"	0.0400		115	21-167			

Summit Scientific

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Extraction Oil&Gas
370 17th Street Suite 5300
Denver CO, 80202

Project: PC 5

Project Number: 744.2001.01-450043
Project Manager: Maggie Graham

Reported:
08/17/20 08:55

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

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

Batch 2008152 - EPA 5030 Soil MS

Matrix Spike Dup (2008152-MSD1)	Source: 2007270-02			Prepared & Analyzed: 08/14/20						
Benzene	0.0893	0.0020	mg/kg	0.100	ND	89.3	70-130	3.83	30	
Toluene	0.108	0.0050	"	0.100	ND	108	70-130	9.81	30	
Ethylbenzene	0.0819	0.0050	"	0.100	ND	81.9	70-130	12.5	30	
m,p-Xylene	0.168	0.010	"	0.200	ND	84.0	70-130	7.85	30	
o-Xylene	0.0882	0.0050	"	0.100	ND	88.2	70-130	8.65	30	
Surrogate: 1,2-Dichloroethane-d4	0.0196		"	0.0400		49.0	23-173			
Surrogate: Toluene-d8	0.0454		"	0.0400		114	20-170			
Surrogate: 4-Bromofluorobenzene	0.0471		"	0.0400		118	21-167			

Summit Scientific

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Extraction Oil&Gas
 370 17th Street Suite 5300
 Denver CO, 80202

Project: PC 5

Project Number: 744.2001.01-450043
 Project Manager: Maggie Graham

Reported:
 08/17/20 08:55

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch 2008153 - EPA 3550A

Blank (2008153-BLK1)

Prepared & Analyzed: 08/14/20

C10-C28 (DRO) ND 50 mg/kg

LCS (2008153-BS1)

Prepared & Analyzed: 08/14/20

C10-C28 (DRO) 471 50 mg/kg 500 94.1 70-130

Matrix Spike (2008153-MS1)

Source: 2007270-02

Prepared & Analyzed: 08/14/20

C10-C28 (DRO) 496 50 mg/kg 500 34.8 92.2 70-130

Matrix Spike Dup (2008153-MSD1)

Source: 2007270-02

Prepared & Analyzed: 08/14/20

C10-C28 (DRO) 484 50 mg/kg 500 34.8 89.8 70-130 2.43 20

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370 17th Street Suite 5300
Denver CO, 80202

Project: PC 5

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Project Manager: Maggie Graham

Reported:
08/17/20 08:55

Soluble Nutrients by EPA 6020/USDA60 6(2, 3A) - Dry Weight Basis - Quality Control
Summit Scientific

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

Batch 2008151 - General Preparation

Blank (2008151-BLK1)

Prepared & Analyzed: 08/14/20

Calcium	ND	10.0	mg/kg wet						
Magnesium	ND	5.00	"						
Sodium	ND	5.00	"						

LCS (2008151-BS1)

Prepared & Analyzed: 08/14/20

Calcium	546	10.0	mg/kg wet	500	109	70-130			
Magnesium	626	5.00	"	500	125	70-130			
Sodium	561	5.00	"	500	112	70-130			

Duplicate (2008151-DUP1)

Source: 2008114-06

Prepared & Analyzed: 08/14/20

Calcium	8830	11.6	mg/kg dry	9780			10.3	20	
Magnesium	658	5.78	"	704			6.80	20	
Sodium	93.8	5.78	"	111			16.5	20	

Matrix Spike (2008151-MS1)

Source: 2008114-06

Prepared & Analyzed: 08/14/20

Calcium	10400	11.6	mg/kg dry	578	9780	115	70-130		
Magnesium	1150	5.78	"	578	704	76.4	70-130		
Sodium	662	5.78	"	578	111	95.4	70-130		

Matrix Spike Dup (2008151-MSD1)

Source: 2008114-06

Prepared & Analyzed: 08/14/20

Calcium	10500	11.6	mg/kg dry	578	9780	117	70-130	0.151	25
Magnesium	1160	5.78	"	578	704	78.5	70-130	1.05	25
Sodium	659	5.78	"	578	111	94.8	70-130	0.479	25

Summit Scientific

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Extraction Oil&Gas
 370 17th Street Suite 5300
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Project: PC 5

Project Number: 744.2001.01-450043
 Project Manager: Maggie Graham

Reported:
 08/17/20 08:55

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

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

Batch 2008140 - General Preparation

Duplicate (2008140-DUP1)		Source: 2008094-01			Prepared & Analyzed: 08/14/20				
% Solids	82.7		%		82.9		0.240	20	

Batch 2008141 - General Preparation

LCS (2008141-BS1)					Prepared & Analyzed: 08/14/20				
pH	9.11		pH Units		9.18		99.2	95-105	
Duplicate (2008141-DUP1)		Source: 2008094-01			Prepared & Analyzed: 08/14/20				
pH	8.07		pH Units		8.06		0.124	20	

Summit Scientific

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Extraction Oil&Gas
 370 17th Street Suite 5300
 Denver CO, 80202

Project: PC 5

Project Number: 744.2001.01-450043
 Project Manager: Maggie Graham

Reported:
 08/17/20 08:55

Specific Conductance by EPA Method 120.1 - Quality Control
Summit Scientific

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

Batch 2008142 - General Preparation

Blank (2008142-BLK1)

Prepared & Analyzed: 08/14/20

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (2008142-BS1)

Prepared & Analyzed: 08/14/20

Specific Conductance (EC) 0.791 0.0100 mmhos/cm 0.750 105 90-110

Duplicate (2008142-DUP1)

Source: 2008094-01

Prepared & Analyzed: 08/14/20

Specific Conductance (EC) 4.33 0.0100 mmhos/cm 4.31 0.370 20

Summit Scientific

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Extraction Oil&Gas
370 17th Street Suite 5300
Denver CO, 80202

Project: PC 5

Project Number: 744.2001.01-450043
Project Manager: Maggie Graham

Reported:
08/17/20 08:55

Notes and Definitions

- S-02 The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample extract.
- E The concentration indicated for this analyte is an estimated value above the calibration range of the instrument.
- 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