



PDC Energy, Inc.
First Quarter 2018 Groundwater Monitoring Summary

March 13, 2018

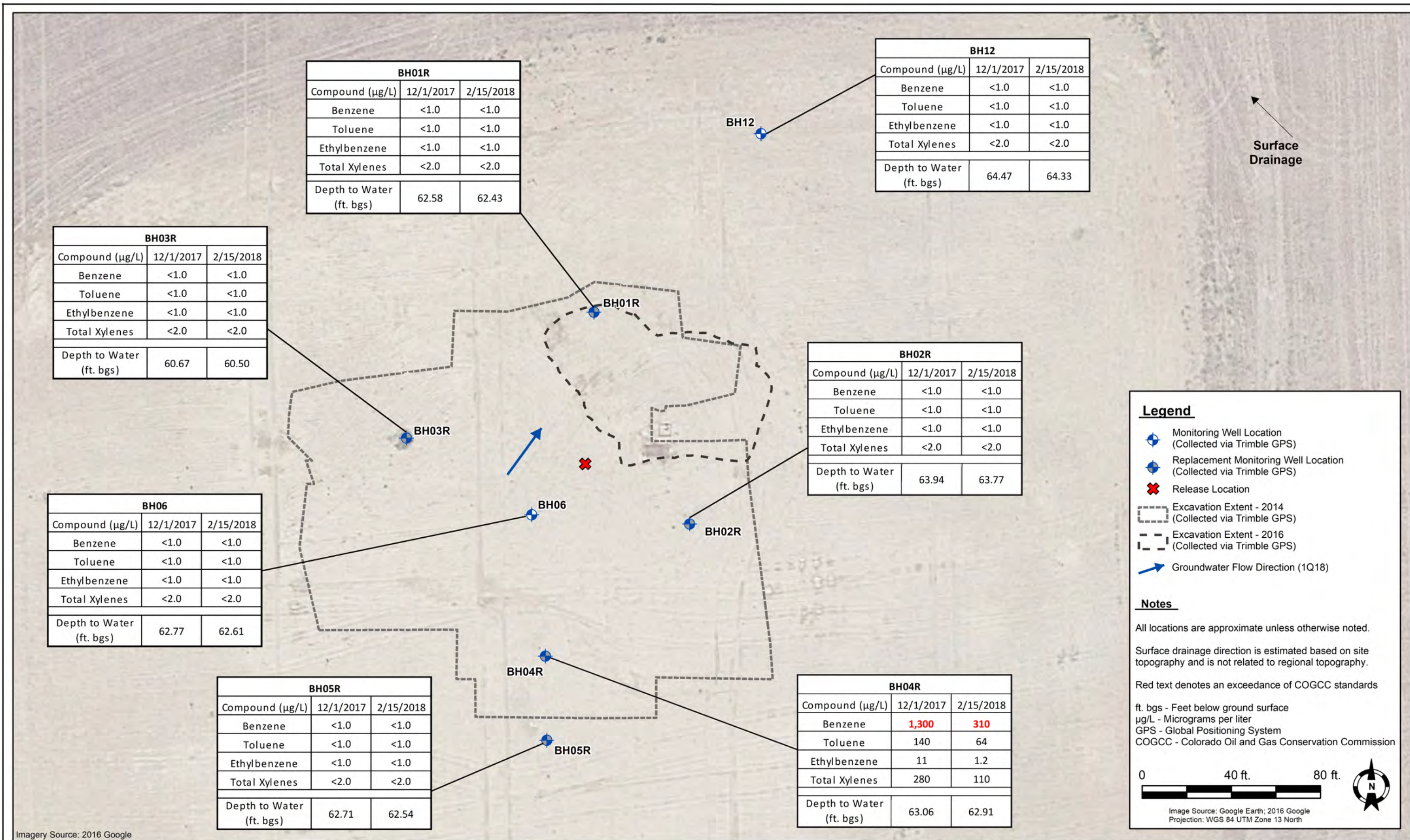
Former Steinwald 1 Tank Battery
NWNW S3 T1N R64W
Weld County, API # 05-123-10892
Facility ID # 437254
Remediation # 8954

This groundwater summary has been prepared by Tasman Geosciences, Inc. for the former Steinwald 1 tank battery. On February 15, 2018, groundwater sampling was conducted at seven monitoring well locations (BH01R – BH05R, BH06, and BH12) at the site. Seven groundwater samples were submitted to Summit Scientific Laboratory for analysis of benzene, toluene, ethylbenzene, total xylenes (BTEX) by USEPA Method 8260B. Groundwater analytical results are summarized in Table 1 and the laboratory report is included as Attachment A. Sample locations and corresponding analytical results are illustrated on Figure 1. Additionally, groundwater elevation contours indicating groundwater flow direction are illustrated on the attached Figure 2. First quarter 2018 analytical results indicate that the benzene concentration is above the applicable COGCC Table 910-1 groundwater standard in monitoring well location BH04R. BTEX concentrations are below COGCC regulatory standards in six well locations.

Monitoring wells BH01 – BH05 were destroyed during fourth quarter 2016 soil remediation activities. Between April 17 and May 1, 2017, five replacement wells (BH01R – BH05R) and two additional monitoring wells (BH06 and BH12) were installed using hollow-stem drilling methods.

Monitored natural attenuation (MNA) was selected as the remediation strategy for the site during the fourth quarter 2014 and will continue through the second quarter 2018.

Second quarter 2018 groundwater sampling will be conducted during May 2018.



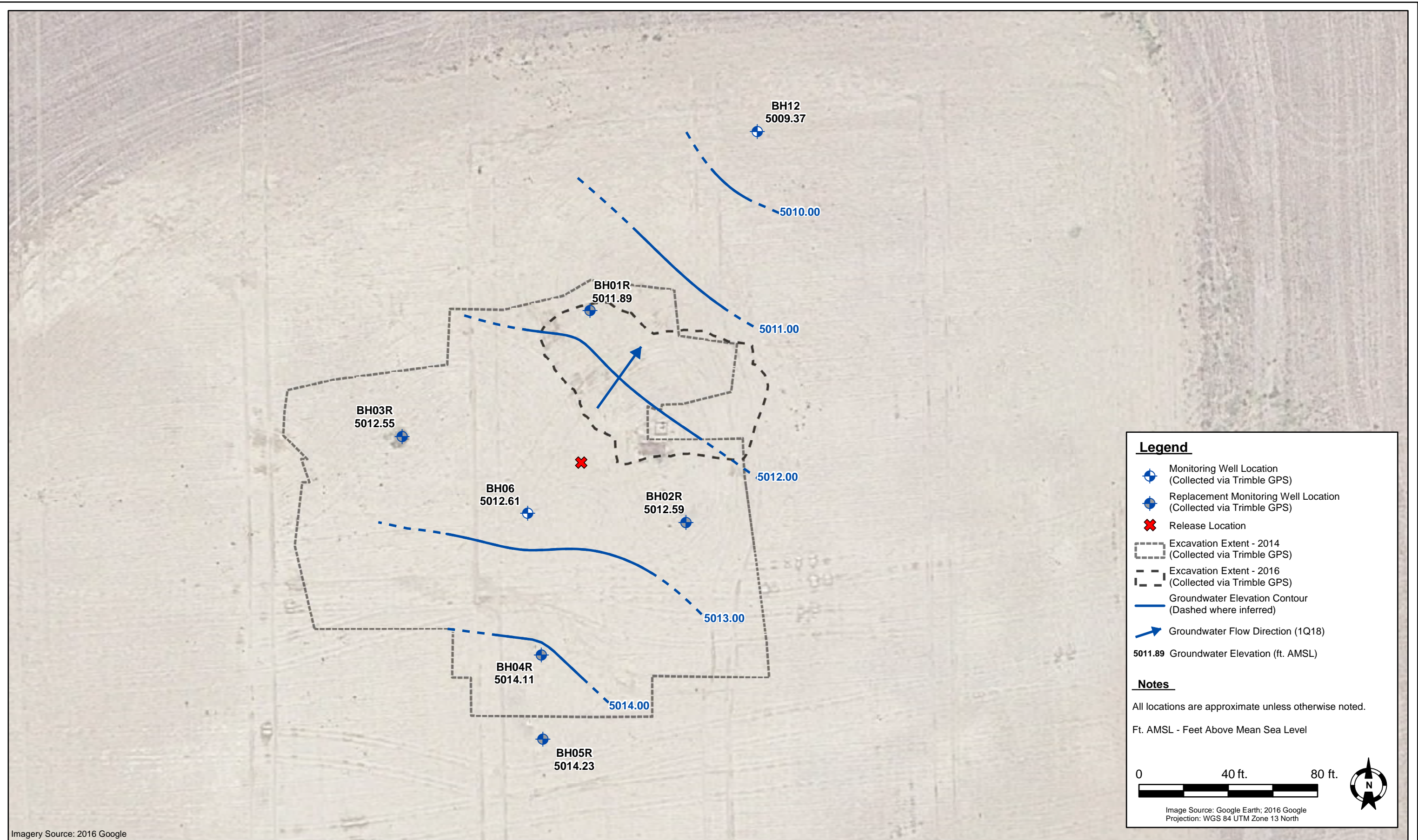
DATE: March 2018
 DESIGNED BY: C. Hamlin
 DRAWN BY: D. Cavinder



PDC Energy, Inc.
Former Steinwald #1 Tank Battery
 NWNW Section 3, Township 1 North, Range 64 West
 Weld County, Colorado

GROUNDWATER ANALYTICAL
 RESULTS MAP

FIGURE
 1



Imagery Source: 2016 Google

DATE:	March 2018
DESIGNED BY:	C. Hamlin
DRAWN BY:	D. Cavinder



PDC Energy, Inc.
Former Steinwald #1 Tank Battery
NWNW Section 3, Township 1 North, Range 64 West
Weld County, Colorado

GROUNDWATER ELEVATION
CONTOUR MAP

FIGURE
2

TABLE 1
FORMER STEINWALD #1 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 ⁽³⁾ (feet)
COGCC Table 910-1 Groundwater Standard (µg/L) ⁽¹⁾		5	560	700	1,400	
BH01	10/7/2014	4.6	15	<1.0	9.2	NM
BH01	10/20/2014	<1.0	<1.0	<1.0	<1.0	67.08
BH01	2/23/2015	95	3.9	<1.0	5.1	66.90
BH01	5/14/2015	81	<1.0	<1.0	<1.0	66.56
BH01	8/6/2015	160	<1.0	<1.0	2.2	66.53
BH01	11/12/2015	360	3.8	<1.0	10	66.51
BH01	2/10/2016	22	1.0	<1.0	2.3	66.49
BH01	5/3/2016	280	2.3	<1.0	3.8	66.45
BH01	8/15/2016	220	19	<1.0	33	66.28
BH01	Destroyed					
BH01R	5/11/2017	<1.0	<1.0	<1.0	<2.0	63.10
BH01R	12/1/2017	<1.0	<1.0	<1.0	<2.0	62.58
BH01R	2/15/2018	<1.0	<1.0	<1.0	<2.0	62.43
BH02	10/7/2014	<1.0	<1.0	<1.0	<1.0	NM
BH02	10/20/2014	<1.0	<1.0	<1.0	<1.0	68.90
BH02	2/23/2015	<1.0	<1.0	<1.0	<1.0	68.61
BH02	5/14/2015	5.2	<1.0	<1.0	<1.0	68.30
BH02	8/6/2015	6.9	<1.0	<1.0	<1.0	68.29
BH02	11/12/2015	21	<1.0	<1.0	<1.0	68.20
BH02	2/10/2016	13	<1.0	<1.0	<1.0	68.17
BH02	5/3/2016	7.3	<1.0	<1.0	<1.0	68.17
BH02	8/15/2016	3.2	7.8	<1.0	<1.0	68.04
BH02	Destroyed					
BH02R	5/11/2017	<1.0	<1.0	<1.0	<2.0	64.49
BH02R	12/1/2017	<1.0	<1.0	<1.0	<2.0	63.94
BH02R	2/15/2018	<1.0	<1.0	<1.0	<2.0	63.77
BH03	10/7/2014	<1.0	2.7	<1.0	5.7	NM
BH03	10/20/2014	<1.0	<1.0	<1.0	<1.0	63.86
BH03	2/23/2015	<1.0	<1.0	<1.0	<1.0	63.69
BH03	5/14/2015	6.1	<1.0	<1.0	<1.0	63.41
BH03	8/6/2015	10	<1.0	<1.0	<1.0	63.39

TABLE 1
FORMER STEINWALD #1 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 ⁽³⁾ (feet)
COGCC Table 910-1 Groundwater Standard (µg/L) ⁽¹⁾		5	560	700	1,400	
BH03	11/12/2015	56	<1.0	<1.0	<1.0	63.35
BH03	2/10/2016	24	<1.0	<1.0	<1.0	63.28
BH03	5/3/2016	26	<1.0	<1.0	<1.0	63.30
BH03	8/15/2016	22	<1.0	<1.0	<1.0	63.12
BH03	Destroyed					
BH03R	5/11/2017	<1.0	<1.0	<1.0	<2.0	61.14
BH03R	12/1/2017	<1.0	<1.0	<1.0	<2.0	60.67
BH03R	2/15/2018	<1.0	<1.0	<1.0	<2.0	60.50
BH04	10/7/2014	130	670	29	390	NM
BH04	10/20/2014	91	720	51	1,000	66.58
BH04	10/23/2014	110	320	11	260	66.46
BH04	2/23/2015	260	8.2	<1.0	100	66.32
BH04	5/14/2015	500	10	2.3	41	66.00
BH04	8/6/2015	300	6.1	1.7	47	65.99
BH04	11/12/2015	1,000	4.2	3.2	44	65.96
BH04	2/10/2016	710	<1.0	1.2	5.3	65.81
BH04	5/3/2016	660	<1.0	1.1	2.9	65.87
BH04	8/15/2016	160	<1.0	<1.0	<1.0	65.69
BH04	Destroyed					
BH04R	5/11/2017	86	620	12	700	63.63
BH04R	12/1/2017	1,300	140	11	280	63.06
BH04R	2/15/2018	310	64	1.2	110	62.91
BH05 ⁽²⁾	11/26/2014	<1.0	<1.0	<1.0	<1.0	65.68 ⁽²⁾
BH05	2/23/2015	<1.0	<1.0	<1.0	<1.0	65.88
BH05	5/14/2015	<1.0	<1.0	<1.0	<1.0	65.52
BH05	8/6/2015	<1.0	<1.0	<1.0	<1.0	65.56
BH05	11/12/2015	<1.0	<1.0	<1.0	<1.0	65.54
BH05	2/10/2016	<1.0	<1.0	<1.0	<1.0	65.38
BH05	5/3/2016	<1.0	<1.0	<1.0	<1.0	65.45
BH05	8/15/2016	<1.0	<1.0	<1.0	<1.0	65.28
BH05	Destroyed					

TABLE 1
FORMER STEINWALD #1 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 ⁽³⁾ (feet)
COGCC Table 910-1 Groundwater Standard (µg/L) ⁽¹⁾		5	560	700	1,400	
BH05R	5/11/2017	<1.0	<1.0	<1.0	<2.0	63.36
BH05R	12/1/2017	<1.0	<1.0	<1.0	<2.0	62.71
BH05R	2/15/2018	<1.0	<1.0	<1.0	<2.0	62.54
BH06	5/11/2017	<1.0	1.1	<1.0	<2.0	63.37
BH06	12/1/2017	<1.0	<1.0	<1.0	<2.0	62.77
BH06	2/15/2018	<1.0	<1.0	<1.0	<2.0	62.61
BH12	4/26/2017	<1.0	<1.0	<1.0	<2.0	64.66
BH12	12/1/2017	<1.0	<1.0	<1.0	<2.0	64.47
BH12	2/15/2018	<1.0	<1.0	<1.0	<2.0	64.33

Notes:

COGCC = Colorado Oil and Gas Conservation Commission

1. Groundwater standards referenced from 2 CCR 404-1, Table 910-1, effective January 30, 2015.

2. Water level measured on 11/24/2014.

3. Depth to water measurements collected prior to fourth quarter 2016 were measured from top of casing or ground surface for monitoring well samples. Subsequent monitoring well measurements were collected from top of casing and adjusted using survey data to reflect depth of water from ground surface.

µg/L = Micrograms per liter

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

NM = Not measured

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

ATTACHMENT A

Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

February 26, 2018

Mark Longhurst
PDC Energy
1775 Sherman St. STE. 3000
Denver, CO 80203
RE: Steinwald #1

Enclosed are the results of analyses for samples received by Summit Scientific on 02/15/18 17:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Paul Shrewsbury For Ben Shrewsbury
Laboratory Manager



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

Project: Steinwald #1

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
02/26/18 16:10

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH01R	1802173-01	Water	02/15/18 11:05	02/15/18 17:00
BH02R	1802173-02	Water	02/15/18 11:40	02/15/18 17:00
BH03R	1802173-03	Water	02/15/18 11:05	02/15/18 17:00
BH04R	1802173-04	Water	02/15/18 12:05	02/15/18 17:00
BH05R	1802173-05	Water	02/15/18 10:30	02/15/18 17:00
BH06	1802173-06	Water	02/15/18 11:33	02/15/18 17:00
BH12	1802173-07	Water	02/15/18 10:28	02/15/18 17:00

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

1802173

S2 Work Order: _____

Client: PDC/Tasman Client Project ID: Steinwald

Shipped Via: P.V. Airbill #: _____
(UPS, FedEx, Hand Delivered, Pick-up, etc.)

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

Cooler ID					
Temp (°C)	<u>3.6</u>				

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

Additional Comments (if any):

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

Mucip.
Custodian Printed Name

KA 2-15-19
Signature or Initials of Custodian

17:30
Date/Time



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

Project: Steinwald #1

Project Number: [none]
 Project Manager: Mark Longhurst

Reported:
 02/26/18 16:10

BH01R
1802173-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/15/18 11:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1802230	02/23/18	02/23/18	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	"	"	"	"	"	"	

Date Sampled: **02/15/18 11:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		108 %	37-154		"	"	"	"	
Surrogate: Toluene-d8		95.6 %	45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.0 %	45-146		"	"	"	"	

Summit Scientific

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

Project: Steinwald #1

Project Number: [none]
 Project Manager: Mark Longhurst

Reported:
 02/26/18 16:10

BH02R
1802173-02 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/15/18 11:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1802230	02/23/18	02/23/18	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	"	"	"	"	"	"	

Date Sampled: **02/15/18 11:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		100 %	37-154		"	"	"	"	
Surrogate: Toluene-d8		97.2 %	45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %	45-146		"	"	"	"	

Summit Scientific

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

Project: Steinwald #1

Project Number: [none]
 Project Manager: Mark Longhurst

Reported:
 02/26/18 16:10

BH03R
1802173-03 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/15/18 11:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1802230	02/23/18	02/23/18	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	"	"	"	"	"	"	

Date Sampled: **02/15/18 11:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		104 %	37-154		"	"	"	"	
Surrogate: Toluene-d8		96.4 %	45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		100 %	45-146		"	"	"	"	

Summit Scientific

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

Project: Steinwald #1

Project Number: [none]
 Project Manager: Mark Longhurst

Reported:
 02/26/18 16:10

BH04R
1802173-04 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/15/18 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	310	10	ug/l	10	1802230	02/23/18	02/23/18	EPA 8260B	
Toluene	64	1.0	"	1	"	"	"	"	
Ethylbenzene	1.2	1.0	"	"	"	"	"	"	
Xylenes (total)	110	2.0	"	"	"	"	"	"	

Date Sampled: **02/15/18 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		99.7 %	37-154		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		95.3 %	45-149		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		99.4 %	45-146		"	"	"	"	

Summit Scientific

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

Project: Steinwald #1

Project Number: [none]
 Project Manager: Mark Longhurst

Reported:
 02/26/18 16:10

BH05R
1802173-05 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/15/18 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1802230	02/23/18	02/23/18	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	"	"	"	"	"	"	

Date Sampled: **02/15/18 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		105 %	37-154		"	"	"	"	
Surrogate: Toluene-d8		95.1 %	45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.6 %	45-146		"	"	"	"	

Summit Scientific

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

Project: Steinwald #1

Project Number: [none]
 Project Manager: Mark Longhurst

Reported:
 02/26/18 16:10

BH06
1802173-06 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/15/18 11:33**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1802230	02/23/18	02/23/18	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	"	"	"	"	"	"	

Date Sampled: **02/15/18 11:33**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		105 %	37-154		"	"	"	"	
Surrogate: Toluene-d8		94.7 %	45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.5 %	45-146		"	"	"	"	

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: Steinwald #1

Project Number: [none]
 Project Manager: Mark Longhurst

Reported:
 02/26/18 16:10

BH12
1802173-07 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/15/18 10:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1802230	02/23/18	02/23/18	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	"	"	"	"	"	"	

Date Sampled: **02/15/18 10:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		107 %	37-154		"	"	"	"	
Surrogate: Toluene-d8		96.8 %	45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		100 %	45-146		"	"	"	"	

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: Steinwald #1

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
02/26/18 16:10

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 1802230 - EPA 5030 Water MS

Blank (1802230-BLK1)

Prepared & Analyzed: 02/23/18

Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes (total)	ND	2.0	"							
Surrogate: 1,2-Dichloroethane-d4	13.9		"	13.3		104	37-154			
Surrogate: Toluene-d8	12.9		"	13.3		97.0	45-149			
Surrogate: 4-Bromofluorobenzene	13.2		"	13.3		99.3	45-146			

LCS (1802230-BS1)

Prepared & Analyzed: 02/23/18

Benzene	33.6	1.0	ug/l	33.3		101	51-132			
Toluene	33.8	1.0	"	33.3		102	51-138			
Ethylbenzene	37.9	1.0	"	33.1		115	58-146			
m,p-Xylene	70.6	2.0	"	66.5		106	57-144			
o-Xylene	34.4	1.0	"	32.7		105	53-146			
Surrogate: 1,2-Dichloroethane-d4	14.3		"	13.3		107	37-154			
Surrogate: Toluene-d8	13.0		"	13.3		97.5	45-149			
Surrogate: 4-Bromofluorobenzene	13.3		"	13.3		99.7	45-146			

Matrix Spike (1802230-MS1)

Source: 1802173-01

Prepared & Analyzed: 02/23/18

Benzene	34.1	1.0	ug/l	33.3	ND	102	34-141			
Toluene	33.9	1.0	"	33.3	ND	102	27-151			
Ethylbenzene	37.9	1.0	"	33.1	ND	115	29-160			
m,p-Xylene	70.5	2.0	"	66.5	ND	106	20-166			
o-Xylene	34.9	1.0	"	32.7	ND	107	33-159			
Surrogate: 1,2-Dichloroethane-d4	14.2		"	13.3		107	37-154			
Surrogate: Toluene-d8	13.2		"	13.3		99.2	45-149			
Surrogate: 4-Bromofluorobenzene	13.4		"	13.3		100	45-146			

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: Steinwald #1
 Project Number: [none]
 Project Manager: Mark Longhurst

Reported:
 02/26/18 16:10

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 1802230 - EPA 5030 Water MS

Matrix Spike Dup (1802230-MSD1)	Source: 1802173-01			Prepared & Analyzed: 02/23/18						
Benzene	33.6	1.0	ug/l	33.3	ND	101	34-141	1.45	32	
Toluene	33.7	1.0	"	33.3	ND	101	27-151	0.681	25	
Ethylbenzene	38.2	1.0	"	33.1	ND	116	29-160	0.788	50	
m,p-Xylene	70.7	2.0	"	66.5	ND	106	20-166	0.382	36	
o-Xylene	34.8	1.0	"	32.7	ND	106	33-159	0.287	26	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>15.2</i>		<i>"</i>	<i>13.3</i>		<i>114</i>	<i>37-154</i>			
<i>Surrogate: Toluene-d8</i>	<i>12.9</i>		<i>"</i>	<i>13.3</i>		<i>96.7</i>	<i>45-149</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>13.4</i>		<i>"</i>	<i>13.3</i>		<i>101</i>	<i>45-146</i>			

Summit Scientific

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02/26/18 16:10

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