PERMIAN BASIN
ENVIRONMENTAL LAB, LP
1400 Rankin Hwy
Midland, TX 79701

PBELAB

Analytical Report

Prepared for:

Christine Alderman

Cimarex

600 N. Marinfeld, Ste. 600

Midland, TX 79701

Project: Assault SWD

Project Number: [none]

Location:

Lab Order Number: 7H15005

NELAP ACCREDITED TNI LABORATORY

NELAP/TCEQ # T104704516-16-7

Report Date: 08/23/17

Cimarex
600 N. Marinfeld, Ste. 600
Midland TX, 79701

Project: Assault SWD
Project Number: [none]
Project Manager: Christine Alderman

Fax: (432) 571-7832

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
DUP 8/14/17	7H15005-01	Water	08/14/17 00:00	08-15-2017 17:03
7	7H15005-02	Water	08/14/17 09:25	08-15-2017 17:03
8	7H15005-03	Water	08/14/17 10:35	08-15-2017 17:03
10	7H15005-04	Water	08/14/17 10:55	08-15-2017 17:03
9	7H15005-05	Water	08/14/17 11:10	08-15-2017 17:03
12	7H15005-06	Water	08/14/17 11:25	08-15-2017 17:03
7A	7H15005-07	Water	08/14/17 11:50	08-15-2017 17:03
7B	7H15005-08	Water	08/14/17 12:40	08-15-2017 17:03
7C	7H15005-09	Water	08/14/17 12:50	08-15-2017 17:03
7D	7H15005-10	Water	08/14/17 13:00	08-15-2017 17:03

DUP 8/14/17

7H15005-01 (Water)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
C6-C12	ND	2.50	mg/L	1	P7H1710	08/16/17	08/16/17	TX 1005	
>C12-C28	ND	2.50	mg/L	1	P7H1710	08/16/17	08/16/17	TX 1005	
>C28-C35	ND	2.50	mg/L	1	P7H1710	08/16/17	08/16/17	TX 1005	
Surrogate: 1-Chlorooctane		*85.5 %*	*70-130*		*P7H1710*	*08/16/17*	*08/16/17*	*TX 1005*	
Surrogate: o-Terphenyl		*106 %*	*70-130*		*P7H1710*	*08/16/17*	*08/16/17*	*TX 1005*	
Total Hydrocarbon nC6-nC35	ND	2.50	mg/L	1	[CALC]	08/16/17	08/16/17	[CALC]	
General Chemistry Parameters by EPA / Standard Methods									
Total Alkalinity	**92.0**	10.0	mg/L	1	P7H1514	08/15/17	08/15/17	EPA 310.1M	
Carbonate Alkalinity	ND	10.0	mg/L	1	P7H1514	08/15/17	08/15/17	EPA 310.1M	
Bicarbonate Alkalinity	**92.0**	10.0	mg/L	1	P7H1514	08/15/17	08/15/17	EPA 310.1M	
Hydroxide Alkalinity	ND	10.0	mg/L	1	P7H1514	08/15/17	08/15/17	EPA 310.1M	
Bromide	ND	0.0500	mg/L	1	P7H1505	08/15/17	08/17/17	EPA 300.0	
Chloride	**1820**	25.0	mg/L	50	P7H1505	08/15/17	08/17/17	EPA 300.0	
Specific Conductance (EC)	**8030**	5.00	umhos/cm	1	P7H1703	08/17/17	08/17/17	EPA 120.1	
Dissolved Oxygen	**6.00**		mg/L	1	P7H1513	08/15/17	08/15/17	CHEMets	QAL1
pH	**8.07**		pH Units	1	P7H1515	08/15/17	08/15/17	EPA 150.1	
Temperature	**21.60**		pH Units	1	P7H1515	08/15/17	08/15/17	EPA 150.1	
Total Dissolved Solids	**5990**	20.0	mg/L	1	P7H1516	08/15/17	08/15/17	EPA 160.1	
Sulfate	**1920**	50.0	mg/L	50	P7H1505	08/15/17	08/17/17	EPA 300.0	
Total Metals by EPA / Standard Methods									
Calcium	**536**	5.00	mg/L	1	P7H1606	08/16/17	08/16/17	EPA 6010B	QAL2
Magnesium	**217**	5.00	mg/L	1	P7H1606	08/16/17	08/16/17	EPA 6010B	QAL2
Potassium	**20.0**	5.00	mg/L	1	P7H1606	08/16/17	08/16/17	EPA 6010B	QAL2
Sodium	**1070**	5.00	mg/L	1	P7H1606	08/16/17	08/16/17	EPA 6010B	QAL2
Hardness	**2230**	5.00	mg/L	1	P7H1606	08/16/17	08/16/17	EPA 6010B	QAL2

Cimarex	Project: Assault SWD	Fax: (432) 571-7832
600 N. Marinfeld, Ste. 600	Project Number: [none]	
Midland TX, 79701	Project Manager: Christine Alderman	

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7H15005-02 (Water)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
C6-C12	ND	2.50	mg/L	1	P7H1710	08/16/17	08/16/17	TX 1005	
>C12-C28	ND	2.50	mg/L	1	P7H1710	08/16/17	08/16/17	TX 1005	
>C28-C35	ND	2.50	mg/L	1	P7H1710	08/16/17	08/16/17	TX 1005	
Surrogate: 1-Chlorooctane		*85.6 %*	*70-130*		*P7H1710*	*08/16/17*	*08/16/17*	*TX 1005*	
Surrogate: o-Terphenyl		*107 %*	*70-130*		*P7H1710*	*08/16/17*	*08/16/17*	*TX 1005*	
Total Hydrocarbon nC6-nC35	ND	2.50	mg/L	1	[CALC]	08/16/17	08/16/17	[CALC]	
General Chemistry Parameters by EPA / Standard Methods									
Total Alkalinity	**80.0**	10.0	mg/L	1	P7H1514	08/15/17	08/15/17	EPA 310.1M	
Carbonate Alkalinity	ND	10.0	mg/L	1	P7H1514	08/15/17	08/15/17	EPA 310.1M	
Bicarbonate Alkalinity	**80.0**	10.0	mg/L	1	P7H1514	08/15/17	08/15/17	EPA 310.1M	
Hydroxide Alkalinity	ND	10.0	mg/L	1	P7H1514	08/15/17	08/15/17	EPA 310.1M	
Bromide	**0.247**	0.0500	mg/L	1	P7H1505	08/15/17	08/17/17	EPA 300.0	
Chloride	**87.6**	12.5	mg/L	25	P7H1505	08/15/17	08/17/17	EPA 300.0	
Specific Conductance (EC)	**2930**	5.00	umhos/cm	1	P7H1703	08/17/17	08/17/17	EPA 120.1	
Dissolved Oxygen	**6.00**		mg/L	1	P7H1513	08/15/17	08/15/17	CHEMets	QAL1
pH	**7.78**		pH Units	1	P7H1515	08/15/17	08/15/17	EPA 150.1	
Temperature	**21.50**		pH Units	1	P7H1515	08/15/17	08/15/17	EPA 150.1	
Total Dissolved Solids	**2830**	20.0	mg/L	1	P7H1516	08/15/17	08/15/17	EPA 160.1	
Sulfate	**1600**	25.0	mg/L	25	P7H1505	08/15/17	08/17/17	EPA 300.0	
Total Metals by EPA / Standard Methods									
Calcium	**623**	5.00	mg/L	1	P7H1606	08/16/17	08/16/17	EPA 6010B	QAL2
Magnesium	**38.8**	5.00	mg/L	1	P7H1606	08/16/17	08/16/17	EPA 6010B	QAL2
Potassium	**2.45**	5.00	mg/L	1	P7H1606	08/16/17	08/16/17	EPA 6010B	J, QAL2
Sodium	**80.5**	5.00	mg/L	1	P7H1606	08/16/17	08/16/17	EPA 6010B	QAL2
Hardness	**1720**	5.00	mg/L	1	P7H1606	08/16/17	08/16/17	EPA 6010B	QAL2

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7H15005-03 (Water)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
C6-C12	ND	2.50	mg/L	1	P7H1710	08/16/17	08/16/17	TX 1005	
>C12-C28	ND	2.50	mg/L	1	P7H1710	08/16/17	08/16/17	TX 1005	
>C28-C35	ND	2.50	mg/L	1	P7H1710	08/16/17	08/16/17	TX 1005	
Surrogate: 1-Chlorooctane		*85.0 %*	*70-130*		*P7H1710*	*08/16/17*	*08/16/17*	*TX 1005*	
Surrogate: o-Terphenyl		*105 %*	*70-130*		*P7H1710*	*08/16/17*	*08/16/17*	*TX 1005*	
Total Hydrocarbon nC6-nC35	ND	2.50	mg/L	1	[CALC]	08/16/17	08/16/17	[CALC]	
General Chemistry Parameters by EPA / Standard Methods									
Total Alkalinity	**82.0**	10.0	mg/L	1	P7H1514	08/15/17	08/15/17	EPA 310.1M	
Carbonate Alkalinity	ND	10.0	mg/L	1	P7H1514	08/15/17	08/15/17	EPA 310.1M	
Bicarbonate Alkalinity	**82.0**	10.0	mg/L	1	P7H1514	08/15/17	08/15/17	EPA 310.1M	
Hydroxide Alkalinity	ND	10.0	mg/L	1	P7H1514	08/15/17	08/15/17	EPA 310.1M	
Bromide	**0.259**	0.0500	mg/L	1	P7H1505	08/15/17	08/17/17	EPA 300.0	
Chloride	**101**	12.5	mg/L	25	P7H1505	08/15/17	08/17/17	EPA 300.0	
Specific Conductance (EC)	**2700**	5.00	umhos/cm	1	P7H1703	08/17/17	08/17/17	EPA 120.1	
Dissolved Oxygen	**6.00**		mg/L	1	P7H1513	08/15/17	08/15/17	CHEMets	QAL1
pH	**7.85**		pH Units	1	P7H1515	08/15/17	08/15/17	EPA 150.1	
Temperature	**21.40**		pH Units	1	P7H1515	08/15/17	08/15/17	EPA 150.1	
Total Dissolved Solids	**2630**	20.0	mg/L	1	P7H1516	08/15/17	08/15/17	EPA 160.1	
Sulfate	**1430**	25.0	mg/L	25	P7H1505	08/15/17	08/17/17	EPA 300.0	
Total Metals by EPA / Standard Methods									
Calcium	**509**	5.00	mg/L	1	P7H1606	08/16/17	08/16/17	EPA 6010B	QAL2
Magnesium	**30.4**	5.00	mg/L	1	P7H1606	08/16/17	08/16/17	EPA 6010B	QAL2
Potassium	**5.80**	5.00	mg/L	1	P7H1606	08/16/17	08/16/17	EPA 6010B	QAL2
Sodium	**77.2**	5.00	mg/L	1	P7H1606	08/16/17	08/16/17	EPA 6010B	QAL2
Hardness	**1400**	5.00	mg/L	1	P7H1606	08/16/17	08/16/17	EPA 6010B	QAL2

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7H15005-04 (Water)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
C6-C12	ND	2.50	mg/L	1	P7H1710	08/16/17	08/16/17	TX 1005	
>C12-C28	ND	2.50	mg/L	1	P7H1710	08/16/17	08/16/17	TX 1005	
>C28-C35	ND	2.50	mg/L	1	P7H1710	08/16/17	08/16/17	TX 1005	
Surrogate: 1-Chlorooctane		*80.7 %*	*70-130*		*P7H1710*	*08/16/17*	*08/16/17*	*TX 1005*	
Surrogate: o-Terphenyl		*101 %*	*70-130*		*P7H1710*	*08/16/17*	*08/16/17*	*TX 1005*	
Total Hydrocarbon nC6-nC35	ND	2.50	mg/L	1	[CALC]	08/16/17	08/16/17	[CALC]	
General Chemistry Parameters by EPA / Standard Methods									
Total Alkalinity	**95.0**	10.0	mg/L	1	P7H1514	08/15/17	08/15/17	EPA 310.1M	
Carbonate Alkalinity	ND	10.0	mg/L	1	P7H1514	08/15/17	08/15/17	EPA 310.1M	
Bicarbonate Alkalinity	**95.0**	10.0	mg/L	1	P7H1514	08/15/17	08/15/17	EPA 310.1M	
Hydroxide Alkalinity	ND	10.0	mg/L	1	P7H1514	08/15/17	08/15/17	EPA 310.1M	
Bromide	ND	0.0500	mg/L	1	P7H1506	08/15/17	08/15/17	EPA 300.0	
Chloride	**1740**	25.0	mg/L	50	P7H1506	08/15/17	08/15/17	EPA 300.0	
Specific Conductance (EC)	**7820**	5.00	umhos/cm	1	P7H1703	08/17/17	08/17/17	EPA 120.1	
Dissolved Oxygen	**6.00**		mg/L	1	P7H1513	08/15/17	08/15/17	CHEMets	QAL1
pH	**8.10**		pH Units	1	P7H1515	08/15/17	08/15/17	EPA 150.1	
Temperature	**21.20**		pH Units	1	P7H1515	08/15/17	08/15/17	EPA 150.1	
Total Dissolved Solids	**6140**	20.0	mg/L	1	P7H1516	08/15/17	08/15/17	EPA 160.1	
Sulfate	**1630**	50.0	mg/L	50	P7H1506	08/15/17	08/15/17	EPA 300.0	
Total Metals by EPA / Standard Methods									
Calcium	**501**	5.00	mg/L	1	P7H1606	08/16/17	08/16/17	EPA 6010B	QAL2
Magnesium	**200**	5.00	mg/L	1	P7H1606	08/16/17	08/16/17	EPA 6010B	QAL2
Potassium	**19.5**	5.00	mg/L	1	P7H1606	08/16/17	08/16/17	EPA 6010B	QAL2
Sodium	**943**	5.00	mg/L	1	P7H1606	08/16/17	08/16/17	EPA 6010B	QAL2
Hardness	**2070**	5.00	mg/L	1	P7H1606	08/16/17	08/16/17	EPA 6010B	QAL2

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7H15005-05 (Water)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
C6-C12	ND	2.50	mg/L	1	P7H1710	08/16/17	08/16/17	TX 1005	
>C12-C28	ND	2.50	mg/L	1	P7H1710	08/16/17	08/16/17	TX 1005	
>C28-C35	ND	2.50	mg/L	1	P7H1710	08/16/17	08/16/17	TX 1005	
Surrogate: 1-Chlorooctane		*73.2 %*	*70-130*		*P7H1710*	*08/16/17*	*08/16/17*	*TX 1005*	
Surrogate: o-Terphenyl		*90.7 %*	*70-130*		*P7H1710*	*08/16/17*	*08/16/17*	*TX 1005*	
Total Hydrocarbon nC6-nC35	ND	2.50	mg/L	1	[CALC]	08/16/17	08/16/17	[CALC]	
General Chemistry Parameters by EPA / Standard Methods									
Total Alkalinity	**95.0**	10.0	mg/L	1	P7H1514	08/15/17	08/15/17	EPA 310.1M	
Carbonate Alkalinity	ND	10.0	mg/L	1	P7H1514	08/15/17	08/15/17	EPA 310.1M	
Bicarbonate Alkalinity	**95.0**	10.0	mg/L	1	P7H1514	08/15/17	08/15/17	EPA 310.1M	
Hydroxide Alkalinity	ND	10.0	mg/L	1	P7H1514	08/15/17	08/15/17	EPA 310.1M	
Bromide	ND	0.0500	mg/L	1	P7H1506	08/15/17	08/15/17	EPA 300.0	
Chloride	**1890**	25.0	mg/L	50	P7H1506	08/15/17	08/15/17	EPA 300.0	
Specific Conductance (EC)	**8240**	5.00	umhos/cm	1	P7H1703	08/17/17	08/17/17	EPA 120.1	
Dissolved Oxygen	**6.00**		mg/L	1	P7H1513	08/15/17	08/15/17	CHEMets	QAL1
pH	**8.00**		pH Units	1	P7H1515	08/15/17	08/15/17	EPA 150.1	
Temperature	**21.10**		pH Units	1	P7H1515	08/15/17	08/15/17	EPA 150.1	
Total Dissolved Solids	**6200**	20.0	mg/L	1	P7H1516	08/15/17	08/15/17	EPA 160.1	
Sulfate	**1750**	50.0	mg/L	50	P7H1506	08/15/17	08/15/17	EPA 300.0	
Total Metals by EPA / Standard Methods									
Calcium	**554**	5.00	mg/L	1	P7H1606	08/16/17	08/16/17	EPA 6010B	QAL2
Magnesium	**225**	5.00	mg/L	1	P7H1606	08/16/17	08/16/17	EPA 6010B	QAL2
Potassium	**20.3**	5.00	mg/L	1	P7H1606	08/16/17	08/16/17	EPA 6010B	QAL2
Sodium	**1100**	5.00	mg/L	1	P7H1606	08/16/17	08/16/17	EPA 6010B	QAL2
Hardness	**2310**	5.00	mg/L	1	P7H1606	08/16/17	08/16/17	EPA 6010B	QAL2

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7H15005-06 (Water)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
C6-C12	ND	2.50	mg/L	1	P7H1710	08/16/17	08/16/17	TX 1005	
>C12-C28	ND	2.50	mg/L	1	P7H1710	08/16/17	08/16/17	TX 1005	
>C28-C35	ND	2.50	mg/L	1	P7H1710	08/16/17	08/16/17	TX 1005	
Surrogate: 1-Chlorooctane		*85.5 %*	*70-130*		*P7H1710*	*08/16/17*	*08/16/17*	*TX 1005*	
Surrogate: o-Terphenyl		*107 %*	*70-130*		*P7H1710*	*08/16/17*	*08/16/17*	*TX 1005*	
Total Hydrocarbon nC6-nC35	ND	2.50	mg/L	1	[CALC]	08/16/17	08/16/17	[CALC]	
General Chemistry Parameters by EPA / Standard Methods									
Total Alkalinity	**95.0**	10.0	mg/L	1	P7H1514	08/15/17	08/15/17	EPA 310.1M	
Carbonate Alkalinity	ND	10.0	mg/L	1	P7H1514	08/15/17	08/15/17	EPA 310.1M	
Bicarbonate Alkalinity	**95.0**	10.0	mg/L	1	P7H1514	08/15/17	08/15/17	EPA 310.1M	
Hydroxide Alkalinity	ND	10.0	mg/L	1	P7H1514	08/15/17	08/15/17	EPA 310.1M	
Bromide	ND	0.0500	mg/L	1	P7H1506	08/15/17	08/15/17	EPA 300.0	
Chloride	**1880**	25.0	mg/L	50	P7H1506	08/15/17	08/15/17	EPA 300.0	
Specific Conductance (EC)	**8130**	5.00	umhos/cm	1	P7H1703	08/17/17	08/17/17	EPA 120.1	
Dissolved Oxygen	**6.00**		mg/L	1	P7H1513	08/15/17	08/15/17	CHEMets	QAL1
pH	**8.06**		pH Units	1	P7H1515	08/15/17	08/15/17	EPA 150.1	
Temperature	**21.00**		pH Units	1	P7H1515	08/15/17	08/15/17	EPA 150.1	
Total Dissolved Solids	**6130**	20.0	mg/L	1	P7H1516	08/15/17	08/15/17	EPA 160.1	
Sulfate	**1700**	50.0	mg/L	50	P7H1506	08/15/17	08/15/17	EPA 300.0	
Total Metals by EPA / Standard Methods									
Calcium	**510**	5.00	mg/L	1	P7H1606	08/16/17	08/16/17	EPA 6010B	QAL2
Magnesium	**199**	5.00	mg/L	1	P7H1606	08/16/17	08/16/17	EPA 6010B	QAL2
Potassium	**24.3**	5.00	mg/L	1	P7H1606	08/16/17	08/16/17	EPA 6010B	QAL2
Sodium	**705**	5.00	mg/L	1	P7H1606	08/16/17	08/16/17	EPA 6010B	QAL2
Hardness	**2090**	5.00	mg/L	1	P7H1606	08/16/17	08/16/17	EPA 6010B	QAL2

7A

7H15005-07 (Water)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
C6-C12	ND	2.50	mg/L	1	P7H1710	08/16/17	08/16/17	TX 1005	
>C12-C28	ND	2.50	mg/L	1	P7H1710	08/16/17	08/16/17	TX 1005	
>C28-C35	ND	2.50	mg/L	1	P7H1710	08/16/17	08/16/17	TX 1005	
Surrogate: 1-Chlorooctane		*91.4 %*	*70-130*		*P7H1710*	*08/16/17*	*08/16/17*	*TX 1005*	
Surrogate: o-Terphenyl		*112 %*	*70-130*		*P7H1710*	*08/16/17*	*08/16/17*	*TX 1005*	
Total Hydrocarbon nC6-nC35	ND	2.50	mg/L	1	[CALC]	08/16/17	08/16/17	[CALC]	
General Chemistry Parameters by EPA / Standard Methods									
Total Alkalinity	**97.0**	10.0	mg/L	1	P7H1514	08/15/17	08/15/17	EPA 310.1M	
Carbonate Alkalinity	ND	10.0	mg/L	1	P7H1514	08/15/17	08/15/17	EPA 310.1M	
Bicarbonate Alkalinity	**97.0**	10.0	mg/L	1	P7H1514	08/15/17	08/15/17	EPA 310.1M	
Hydroxide Alkalinity	ND	10.0	mg/L	1	P7H1514	08/15/17	08/15/17	EPA 310.1M	
Bromide	ND	0.0500	mg/L	1	P7H1506	08/15/17	08/15/17	EPA 300.0	
Chloride	**120**	25.0	mg/L	50	P7H1506	08/15/17	08/15/17	EPA 300.0	
Specific Conductance (EC)	**3080**	5.00	umhos/cm	1	P7H1703	08/17/17	08/17/17	EPA 120.1	
Dissolved Oxygen	**6.00**		mg/L	1	P7H1513	08/15/17	08/15/17	CHEMets	QAL1
pH	**7.97**		pH Units	1	P7H1515	08/15/17	08/15/17	EPA 150.1	
Temperature	**21.80**		pH Units	1	P7H1515	08/15/17	08/15/17	EPA 150.1	
Total Dissolved Solids	**2830**	20.0	mg/L	1	P7H1516	08/15/17	08/15/17	EPA 160.1	
Sulfate	**1540**	50.0	mg/L	50	P7H1506	08/15/17	08/15/17	EPA 300.0	
Total Metals by EPA / Standard Methods									
Calcium	**613**	5.00	mg/L	1	P7H1606	08/16/17	08/16/17	EPA 6010B	QAL2
Magnesium	**45.8**	5.00	mg/L	1	P7H1606	08/16/17	08/16/17	EPA 6010B	QAL2
Potassium	**7.10**	5.00	mg/L	1	P7H1606	08/16/17	08/16/17	EPA 6010B	QAL2
Sodium	**95.1**	5.00	mg/L	1	P7H1606	08/16/17	08/16/17	EPA 6010B	QAL2
Hardness	**1720**	5.00	mg/L	1	P7H1606	08/16/17	08/16/17	EPA 6010B	QAL2

Cimarex	Project: Assault SWD	Fax: (432) 571-7832
600 N. Marinfeld, Ste. 600	Project Number: [none]	
Midland TX, 79701	Project Manager: Christine Alderman	

7B

7H15005-08 (Water)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
C6-C12	ND	2.50	mg/L	1	P7H1710	08/16/17	08/16/17	TX 1005	
>C12-C28	ND	2.50	mg/L	1	P7H1710	08/16/17	08/16/17	TX 1005	
>C28-C35	ND	2.50	mg/L	1	P7H1710	08/16/17	08/16/17	TX 1005	
Surrogate: 1-Chlorooctane		*85.6 %*	*70-130*		*P7H1710*	*08/16/17*	*08/16/17*	*TX 1005*	
Surrogate: o-Terphenyl		*105 %*	*70-130*		*P7H1710*	*08/16/17*	*08/16/17*	*TX 1005*	
Total Hydrocarbon nC6-nC35	ND	2.50	mg/L	1	[CALC]	08/16/17	08/16/17	[CALC]	
General Chemistry Parameters by EPA / Standard Methods									
Total Alkalinity	**95.0**	10.0	mg/L	1	P7H1514	08/15/17	08/15/17	EPA 310.1M	
Carbonate Alkalinity	ND	10.0	mg/L	1	P7H1514	08/15/17	08/15/17	EPA 310.1M	
Bicarbonate Alkalinity	**95.0**	10.0	mg/L	1	P7H1514	08/15/17	08/15/17	EPA 310.1M	
Hydroxide Alkalinity	ND	10.0	mg/L	1	P7H1514	08/15/17	08/15/17	EPA 310.1M	
Bromide	ND	0.0500	mg/L	1	P7H1506	08/15/17	08/16/17	EPA 300.0	
Chloride	**106**	12.5	mg/L	25	P7H1506	08/15/17	08/16/17	EPA 300.0	
Specific Conductance (EC)	**2940**	5.00	umhos/cm	1	P7H1703	08/17/17	08/17/17	EPA 120.1	
Dissolved Oxygen	**6.00**		mg/L	1	P7H1513	08/15/17	08/15/17	CHEMets	QAL1
pH	**7.88**		pH Units	1	P7H1515	08/15/17	08/15/17	EPA 150.1	
Temperature	**21.70**		pH Units	1	P7H1515	08/15/17	08/15/17	EPA 150.1	
Total Dissolved Solids	**2800**	20.0	mg/L	1	P7H1516	08/15/17	08/15/17	EPA 160.1	
Sulfate	**1460**	25.0	mg/L	25	P7H1506	08/15/17	08/16/17	EPA 300.0	
Total Metals by EPA / Standard Methods									
Calcium	**577**	5.00	mg/L	1	P7H1607	08/16/17	08/22/17	EPA 6010B	QAL2
Magnesium	**45.8**	5.00	mg/L	1	P7H1607	08/16/17	08/22/17	EPA 6010B	QAL2
Potassium	**5.38**	5.00	mg/L	1	P7H1607	08/16/17	08/22/17	EPA 6010B	QAL2
Sodium	**95.2**	5.00	mg/L	1	P7H1607	08/16/17	08/22/17	EPA 6010B	QAL2
Hardness	**1630**	5.00	mg/L	1	P7H1607	08/16/17	08/22/17	EPA 6010B	QAL2

Cimarex	Project: Assault SWD	Fax: (432) 571-7832
600 N. Marinfeld, Ste. 600	Project Number: [none]	
Midland TX, 79701	Project Manager: Christine Alderman	

7C

7H15005-09 (Water)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
C6-C12	ND	2.50	mg/L	1	P7H1710	08/16/17	08/16/17	TX 1005	
>C12-C28	ND	2.50	mg/L	1	P7H1710	08/16/17	08/16/17	TX 1005	
>C28-C35	ND	2.50	mg/L	1	P7H1710	08/16/17	08/16/17	TX 1005	
Surrogate: 1-Chlorooctane		*82.8 %*	*70-130*		*P7H1710*	*08/16/17*	*08/16/17*	*TX 1005*	
Surrogate: o-Terphenyl		*104 %*	*70-130*		*P7H1710*	*08/16/17*	*08/16/17*	*TX 1005*	
Total Hydrocarbon nC6-nC35	ND	2.50	mg/L	1	[CALC]	08/16/17	08/16/17	[CALC]	
General Chemistry Parameters by EPA / Standard Methods									
Total Alkalinity	**90.0**	10.0	mg/L	1	P7H1514	08/15/17	08/15/17	EPA 310.1M	
Carbonate Alkalinity	ND	10.0	mg/L	1	P7H1514	08/15/17	08/15/17	EPA 310.1M	
Bicarbonate Alkalinity	**90.0**	10.0	mg/L	1	P7H1514	08/15/17	08/15/17	EPA 310.1M	
Hydroxide Alkalinity	ND	10.0	mg/L	1	P7H1514	08/15/17	08/15/17	EPA 310.1M	
Bromide	ND	0.0500	mg/L	1	P7H1506	08/15/17	08/16/17	EPA 300.0	
Chloride	**159**	25.0	mg/L	50	P7H1506	08/15/17	08/16/17	EPA 300.0	
Specific Conductance (EC)	**3090**	5.00	umhos/cm	1	P7H1703	08/17/17	08/17/17	EPA 120.1	
Dissolved Oxygen	**6.00**		mg/L	1	P7H1513	08/15/17	08/15/17	CHEMets	QAL1
pH	**8.00**		pH Units	1	P7H1515	08/15/17	08/15/17	EPA 150.1	
Temperature	**21.50**		pH Units	1	P7H1515	08/15/17	08/15/17	EPA 150.1	
Total Dissolved Solids	**2620**	20.0	mg/L	1	P7H1516	08/15/17	08/15/17	EPA 160.1	
Sulfate	**1460**	50.0	mg/L	50	P7H1506	08/15/17	08/16/17	EPA 300.0	
Total Metals by EPA / Standard Methods									
Calcium	**612**	5.00	mg/L	1	P7H1607	08/16/17	08/22/17	EPA 6010B	QAL2
Magnesium	**50.5**	5.00	mg/L	1	P7H1607	08/16/17	08/22/17	EPA 6010B	QAL2
Potassium	**6.56**	5.00	mg/L	1	P7H1607	08/16/17	08/22/17	EPA 6010B	QAL2
Sodium	**102**	5.00	mg/L	1	P7H1607	08/16/17	08/22/17	EPA 6010B	QAL2
Hardness	**1740**	5.00	mg/L	1	P7H1607	08/16/17	08/22/17	EPA 6010B	QAL2

Cimarex	Project: Assault SWD	Fax: (432) 571-7832
600 N. Marinfeld, Ste. 600	Project Number: [none]	
Midland TX, 79701	Project Manager: Christine Alderman	

7D

7H15005-10 (Water)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
C6-C12	ND	2.50	mg/L	1	P7H1710	08/16/17	08/16/17	TX 1005	
>C12-C28	ND	2.50	mg/L	1	P7H1710	08/16/17	08/16/17	TX 1005	
>C28-C35	ND	2.50	mg/L	1	P7H1710	08/16/17	08/16/17	TX 1005	
Surrogate: 1-Chlorooctane		*77.3 %*	*70-130*		*P7H1710*	*08/16/17*	*08/16/17*	*TX 1005*	
Surrogate: o-Terphenyl		*94.3 %*	*70-130*		*P7H1710*	*08/16/17*	*08/16/17*	*TX 1005*	
Total Hydrocarbon nC6-nC35	ND	2.50	mg/L	1	[CALC]	08/16/17	08/16/17	[CALC]	
General Chemistry Parameters by EPA / Standard Methods									
Total Alkalinity	**82.0**	10.0	mg/L	1	P7H1514	08/15/17	08/15/17	EPA 310.1M	
Carbonate Alkalinity	ND	10.0	mg/L	1	P7H1514	08/15/17	08/15/17	EPA 310.1M	
Bicarbonate Alkalinity	**82.0**	10.0	mg/L	1	P7H1514	08/15/17	08/15/17	EPA 310.1M	
Hydroxide Alkalinity	ND	10.0	mg/L	1	P7H1514	08/15/17	08/15/17	EPA 310.1M	
Bromide	ND	0.0500	mg/L	1	P7H1506	08/15/17	08/16/17	EPA 300.0	
Chloride	**111**	12.5	mg/L	25	P7H1506	08/15/17	08/16/17	EPA 300.0	
Specific Conductance (EC)	**2820**	5.00	umhos/cm	1	P7H1703	08/17/17	08/17/17	EPA 120.1	
Dissolved Oxygen	**6.00**		mg/L	1	P7H1513	08/15/17	08/15/17	CHEMets	QAL1
pH	**7.91**		pH Units	1	P7H1515	08/15/17	08/15/17	EPA 150.1	
Temperature	**21.50**		pH Units	1	P7H1515	08/15/17	08/15/17	EPA 150.1	
Total Dissolved Solids	**2430**	20.0	mg/L	1	P7H1516	08/15/17	08/15/17	EPA 160.1	
Sulfate	**1490**	25.0	mg/L	25	P7H1506	08/15/17	08/16/17	EPA 300.0	
Total Metals by EPA / Standard Methods									
Calcium	**643**	5.00	mg/L	1	P7H1607	08/16/17	08/22/17	EPA 6010B	QAL2
Magnesium	**43.8**	5.00	mg/L	1	P7H1607	08/16/17	08/22/17	EPA 6010B	QAL2
Potassium	**7.00**	5.00	mg/L	1	P7H1607	08/16/17	08/22/17	EPA 6010B	QAL2
Sodium	**128**	5.00	mg/L	1	P7H1607	08/16/17	08/22/17	EPA 6010B	QAL2
Hardness	**1790**	5.00	mg/L	1	P7H1607	08/16/17	08/22/17	EPA 6010B	QAL2

Organics by GC - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P7H1710 - TX 1005										
Blank (P7H1710-BLK1)				Prepared & Analyzed: 08/16/17						
C6-C12	ND	2.50	mg/L							
>C12-C28	ND	2.50	"							
>C28-C35	ND	2.50	"							
Surrogate: 1-Chlorooctane	*11.6*		*"*	*9.38*		*124*	*70-130*			
Surrogate: o-Terphenyl	*6.74*		*"*	*4.69*		*144*	*70-130*			*S-GC*
LCS (P7H1710-BS1)				Prepared & Analyzed: 08/16/17						
C6-C12	85.0	2.50	mg/L	93.8		90.7	75-125			
>C12-C28	73.7	2.50	"	93.8		78.6	75-125			
Surrogate: 1-Chlorooctane	*10.9*		*"*	*9.38*		*116*	*70-130*			
Surrogate: o-Terphenyl	*5.71*		*"*	*4.69*		*122*	*70-130*			
LCS Dup (P7H1710-BSD1)				Prepared & Analyzed: 08/16/17						
C6-C12	75.0	2.50	mg/L	93.8		80.0	75-125	12.6	20	
>C12-C28	75.9	2.50	"	93.8		80.9	75-125	2.97	20	
Surrogate: 1-Chlorooctane	*12.1*		*"*	*9.38*		*129*	*70-130*			
Surrogate: o-Terphenyl	*6.45*		*"*	*4.69*		*138*	*70-130*			*S-GC*

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600 N. Marinfeld, Ste. 600
Midland TX, 79701

Project: Assault SWD
Project Number: [none]
Project Manager: Christine Alderman

Fax: (432) 571-7832

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P7H1505 - * DEFAULT PREP *** **										
Blank (P7H1505-BLK1)				Prepared: 08/15/17 Analyzed: 08/17/17						
Chloride	ND	0.500	mg/L							
Bromide	ND	0.0500	"							
Sulfate	ND	1.00	"							
LCS (P7H1505-BS1)				Prepared: 08/15/17 Analyzed: 08/17/17						
Chloride	43.5	0.500	mg/L	40.0		109	85-115			
Bromide	6.01	0.0500	"	5.00		120	80-120			
Sulfate	39.5	1.00	"	40.0		98.7	85-115			
LCS Dup (P7H1505-BSD1)				Prepared: 08/15/17 Analyzed: 08/17/17						
Bromide	6.03	0.0500	mg/L	5.00		121	80-120	0.432	20	
Chloride	43.6	0.500	"	40.0		109	85-115	0.413	20	
Sulfate	39.6	1.00	"	40.0		99.0	85-115	0.346	20	
Duplicate (P7H1505-DUP1)		**Source: 7H14006-01**		Prepared: 08/15/17 Analyzed: 08/17/17						
Sulfate	1610	25.0	mg/L		1620			0.520	20	
Chloride	96.7	12.5	"		92.8			4.17	20	
Bromide	ND	0.0500	"		0.199				20	
Duplicate (P7H1505-DUP2)		**Source: 7H14006-11**		Prepared: 08/15/17 Analyzed: 08/17/17						
Sulfate	1560	25.0	mg/L		1560			0.559	20	
Chloride	79.5	12.5	"		80.4			1.13	20	
Bromide	ND	0.0500	"		ND				20	
Matrix Spike (P7H1505-MS1)		**Source: 7H14006-01**		Prepared: 08/15/17 Analyzed: 08/17/17						
Chloride	424	12.5	mg/L	200	92.8	165	80-120			
Sulfate	1950	25.0	"	200	1620	169	80-120			
Bromide	42.2	1.25	"	25.0	ND	169	75-125			

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Midland TX, 79701

Project: Assault SWD
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General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P7H1506 - * DEFAULT PREP *** **										
LCS (P7H1506-BS1)				Prepared: 08/15/17 Analyzed: 08/16/17						
Sulfate	43.4	1.00	mg/L	40.0		108	85-115			
Bromide	5.85	0.0500	"	5.00		117	80-120			
Chloride	42.3	0.500	"	40.0		106	85-115			
LCS Dup (P7H1506-BSD1)				Prepared: 08/15/17 Analyzed: 08/16/17						
Chloride	42.3	0.500	mg/L	40.0		106	85-115	0.0993	20	
Bromide	5.85	0.0500	"	5.00		117	80-120	0.0684	20	
Sulfate	43.3	1.00	"	40.0		108	85-115	0.148	20	
Duplicate (P7H1506-DUP1)		**Source: 7H15005-04**		Prepared & Analyzed: 08/15/17						
Sulfate	1620	50.0	mg/L		1630			1.16	20	
Chloride	1760	25.0	"		1740			1.27	20	
Bromide	ND	0.0500	"		ND				20	
Matrix Spike (P7H1506-MS1)		**Source: 7H15005-04**		Prepared & Analyzed: 08/15/17						
Chloride	2190	25.0	mg/L	500	1740	90.2	80-120			
Sulfate	2020	50.0	"	500	1630	77.7	80-120			
Bromide	57.4	2.50	"	62.5	ND	91.9	75-125			
Batch P7H1513 - * DEFAULT PREP *** **										
Duplicate (P7H1513-DUP1)		**Source: 7H14006-01**		Prepared & Analyzed: 08/15/17						
Dissolved Oxygen	6.00		mg/L		6.00			0.00	200	QAL1
Batch P7H1514 - * DEFAULT PREP *** **										
Blank (P7H1514-BLK1)				Prepared & Analyzed: 08/15/17						
Total Alkalinity	ND	10.0	mg/L							
Carbonate Alkalinity	ND	10.0	"							
Bicarbonate Alkalinity	ND	10.0	"							
Hydroxide Alkalinity	ND	10.0	"							

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P7H1514 - * DEFAULT PREP *** **										
Blank (P7H1514-BLK2)				Prepared & Analyzed: 08/15/17						
Total Alkalinity	ND	10.0	mg/L							
Carbonate Alkalinity	ND	10.0	"							
Bicarbonate Alkalinity	ND	10.0	"							
Hydroxide Alkalinity	ND	10.0	"							
Duplicate (P7H1514-DUP1)		**Source: 7H14006-01**		Prepared & Analyzed: 08/15/17						
Total Alkalinity	130	10.0	mg/L		132			1.53	20	
Carbonate Alkalinity	ND	10.0	"		ND				20	
Bicarbonate Alkalinity	130	10.0	"		132			1.53	20	
Hydroxide Alkalinity	ND	10.0	"		ND				20	
Duplicate (P7H1514-DUP2)		**Source: 7H15005-04**		Prepared & Analyzed: 08/15/17						
Total Alkalinity	97.0	10.0	mg/L		95.0			2.08	20	
Carbonate Alkalinity	ND	10.0	"		ND				20	
Bicarbonate Alkalinity	97.0	10.0	"		95.0			2.08	20	
Hydroxide Alkalinity	ND	10.0	"		ND				20	
Batch P7H1515 - * DEFAULT PREP *** **										
Duplicate (P7H1515-DUP1)		**Source: 7H14006-01**		Prepared & Analyzed: 08/15/17						
pH	7.90		pH Units		7.90			0.00	20	
Temperature	22.10		"		22.00			0.454	200	
Duplicate (P7H1515-DUP2)		**Source: 7H15005-04**		Prepared & Analyzed: 08/15/17						
pH	8.05		pH Units		8.10			0.619	20	
Temperature	21.20		"		21.20			0.00	200	

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P7H1516 - * DEFAULT PREP *** **										
Blank (P7H1516-BLK1)				Prepared & Analyzed: 08/15/17						
Total Dissolved Solids	ND	20.0	mg/L							
Blank (P7H1516-BLK2)				Prepared & Analyzed: 08/15/17						
Total Dissolved Solids	ND	20.0	mg/L							
Duplicate (P7H1516-DUP1)		**Source: 7H14006-01**		Prepared & Analyzed: 08/15/17						
Total Dissolved Solids	2930	20.0	mg/L		2750			6.34	20	
Duplicate (P7H1516-DUP2)		**Source: 7H15005-04**		Prepared & Analyzed: 08/15/17						
Total Dissolved Solids	6200	20.0	mg/L		6140			0.972	20	
Batch P7H1703 - * DEFAULT PREP *** **										
Duplicate (P7H1703-DUP1)		**Source: 7H14006-01**		Prepared & Analyzed: 08/17/17						
Specific Conductance (EC)	3100	5.00	umhos/cm		3010			2.95	20	
Duplicate (P7H1703-DUP2)		**Source: 7H15005-01**		Prepared & Analyzed: 08/17/17						
Specific Conductance (EC)	8070	5.00	umhos/cm		8030			0.497	20	

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600 N. Marinfeld, Ste. 600
Midland TX, 79701

Project: Assault SWD
Project Number: [none]
Project Manager: Christine Alderman

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Total Metals by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P7H1606 - * DEFAULT PREP *** **										
Blank (P7H1606-BLK1)				Prepared & Analyzed: 08/16/17						
Calcium	0.447	5.00	mg/L							J, QAL2
Magnesium	ND	5.00	"							QAL2
Potassium	0.0743	5.00	"							J, QAL2
Sodium	0.355	5.00	"							QAL2, J
Hardness	ND	5.00	"							QAL2
LCS (P7H1606-BS1)				Prepared & Analyzed: 08/16/17						
Calcium	54.2	5.00	mg/L	50.0		108	80-120			QAL2
Magnesium	53.3	5.00	"	50.0		107	80-120			QAL2
Potassium	57.0	5.00	"	50.0		114	80-120			QAL2
Sodium	58.6	5.00	"	50.0		117	80-120			QAL2
Duplicate (P7H1606-DUP1)	**Source: 7H14006-05**			Prepared & Analyzed: 08/16/17						
Calcium	642	5.00	mg/L		613			4.60	20	QAL2
Magnesium	41.1	5.00	"		40.3			2.04	20	QAL2
Potassium	5.99	5.00	"		5.99			0.00925	20	QAL2
Sodium	77.3	5.00	"		75.5			2.27	20	QAL2
Hardness	1770	5.00	"		1700			4.35	20	QAL2
Matrix Spike (P7H1606-MS1)	**Source: 7H14006-05**			Prepared & Analyzed: 08/16/17						
Calcium	575	5.00	mg/L	50.0	613	NR	75-125			QAL2, QM-07
Magnesium	80.1	5.00	"	50.0	40.3	79.6	75-125			QAL2
Potassium	56.7	5.00	"	50.0	5.99	101	75-125			QAL2
Sodium	113	5.00	"	50.0	75.5	75.5	75-125			QAL2
Batch P7H1607 - * DEFAULT PREP *** **										
Blank (P7H1607-BLK1)				Prepared: 08/16/17 Analyzed: 08/22/17						
Calcium	ND	5.00	mg/L							QAL2
Magnesium	0.0374	5.00	"							J, QAL2
Potassium	ND	5.00	"							QAL2
Sodium	ND	5.00	"							QAL2
Hardness	ND	5.00	"							QAL2

Total Metals by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P7H1607 - * DEFAULT PREP *** **										
LCS (P7H1607-BS1)				Prepared: 08/16/17 Analyzed: 08/22/17						
Calcium	49.7	5.00	mg/L	50.0		99.4	80-120			QAL2
Magnesium	49.3	5.00	"	50.0		98.7	80-120			QAL2
Potassium	48.7	5.00	"	50.0		97.4	80-120			QAL2
Sodium	52.9	5.00	"	50.0		106	80-120			QAL2
LCS Dup (P7H1607-BSD1)				Prepared: 08/16/17 Analyzed: 08/22/17						
Calcium	52.5	5.00	mg/L	50.0		105	80-120	5.53	20	QAL2
Magnesium	52.3	5.00	"	50.0		105	80-120	5.87	20	QAL2
Potassium	51.7	5.00	"	50.0		103	80-120	5.90	20	QAL2
Sodium	55.9	5.00	"	50.0		112	80-120	5.55	20	QAL2
Duplicate (P7H1607-DUP1)	**Source: 7H15005-08**			Prepared: 08/16/17 Analyzed: 08/22/17						
Calcium	637	5.00	mg/L		577			9.75	20	QAL2
Magnesium	51.1	5.00	"		45.8			10.9	20	QAL2
Potassium	5.95	5.00	"		5.38			10.1	20	QAL2
Sodium	105	5.00	"		95.2			10.2	20	QAL2
Hardness	1800	5.00	"		1630			9.89	20	QAL2
Matrix Spike (P7H1607-MS1)	**Source: 7H15005-08**			Prepared: 08/16/17 Analyzed: 08/22/17						
Calcium	1040	5.00	mg/L	5.00	577	NR	75-125			QAL2
Magnesium	588	5.00	"	5.00	45.8	NR	75-125			QAL2
Potassium	688	5.00	"	5.00	5.38	NR	75-125			QAL2
Sodium	868	5.00	"	5.00	95.2	NR	75-125			QAL2

Notes and Definitions

S-GC	Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
QAL2	Certification in process for this analyte.
QAL1	The Laboratory is not NELAC Certified for this analyte or analysis.
J	Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).
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
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: Brent Barron Date: 8/23/2017

Brent Barron, Laboratory Director/Technical Director

CIMAREX

CHAIN OF CUSTODY RECORD

7H15805

000163

Facility Name: Assault SWD	Analytical Laboratory Name: PBE		Today's Date: 8/14/17
Address	Address: 1400 Fakin Hwy	City: Midland, TX	Zip: TC 79701	Page: 1	Of: 1
City	State: TX/NM	Zip	Contact Name and Report to: Cimarex' Person in Charge	Analysis/Analytes	
Sample Group Identifier	Phone: 432-571-7800	Fax: 432-571-7832			
Site/Project Name or Identifier: Assault SWD	Carrier Waybill Number				
Special Instructions					

	Station Name or Sample ID	Sample Date	Time 24 hrs	Matrix	Sample Top	Sample Btm	Size	Containers Type	Containers No.	Filtered Y	Filtered N	Preservative	Comments
1	OVP - 8/14	8/14/17	0000	H2O	N/A	N/A	250 40ml	plastic glass	2 1		X	Nothing HCL	TC/BB/KM
2	7		0925								X		TC
3	8		1035								X		TC/BB/KM
4	10		1055								X		
5	9		1110								X		
6	12		1125								X		
7	7A		1150								X		
8	7B		1240								X		
9	7C		1250								X		
10	7D		1300								X		
11	11		0920								X		BB
	Not Present												

Notes: CST; Samplers NTGE Trey Charanza, Brandon Brown and Kenny M

→ To be delivered 8/15/17

Potential Hazardous Characteristics

☒ Non-Haz ☐ RCRA D001, 2&3, or 4 ☐ RCRA Listed ☐ Radioactive ☐ Unknown

Sample Disposal

☐ Disposal by Lab ☐ Return to Client ☐ Hold pending further instructions

Relinquished by: Trey Charanza; Brandon Brown; Kenny M.	Date: 8/14/17	Time: 1330	2. Received by: Trey Charanza	Date: 8/14/17	Time: 1330
Relinquished by: Trey Charanza	Date: 8/14/17	Time: 17:03	4. Received by	Date	Time
Relinquished by	Date	Time	6. Received by: Marissa Martin	Date: 8/14/17	Time: 17:03
Comments			Samples released by or H.P. name	Date	Time
Comments			Send invoice to ESH Department		

2.5 NCF L1