From: <u>andrew@rthicksconsult.com</u>

To: Yu, Olivia, EMNRD; stucker@blm.gov; "Mann, Ryan"

Cc: <u>Hernandez, Christina, EMNRD; "David Harwell"; r@rthicksconsult.com</u>

Subject: [EXT] RE: status of Advance Energy releases

Date: Thursday, November 8, 2018 3:54:56 PM

Attachments: Nov 8 2018 Excavation Update Compiled.pdf

Ms. Yu:

Attached is a summary of activities at Advance Energy with the exception of the Coop State location. We are currently cleaning up the excavations and getting ready to line and backfill over the next few days. Mr. Harwell is in communication with the surface owners (Merchant) and will provide you an agreement from the Merchant's.

At the Coops State location we began excavation of a 30x30x1.d foot area. I will resume characterization on Monday. I believe another ½ foot depth will remove visible hydrocarbon impairment. I will vertically delineate with a backhoe to the extent practicable without having to mobilize a drill rig. Pending analytical results, we will determine if further vertical characterization will be necessary.

Andrew Parker R.T. Hicks Consultants Durango Field Office Cell: (970) 570-9535

From: Yu, Olivia, EMNRD < Olivia. Yu@state.nm.us>

Sent: Thursday, November 8, 2018 2:34 PM

To: 'Andrew Parker' <andrew@rthicksconsult.com>; stucker@blm.gov; Mann, Ryan

<rmann@slo.state.nm.us>

**Cc:** Hernandez, Christina, EMNRD < Christina. Hernandez@state.nm.us>

Subject: status of Advance Energy releases

Mr. Parker:

On Friday afternoon, November 2, 2018, we discussed on the phone about the statuses of Advance Energy projects. In order for everyone to be on the same page with the properly communicated information, please provide a written summary for the below projects as you had mentioned:

1RP-4821 Coop State 1RP-4778 Tomahawk 1RP-4953 Merchant Dagger frac line.

During the phone conversation, you had mentioned that the East of Battle 34 area of 1RP-4953 has been delineated and that a liner at 4 ft. bgs will be proposed as part of the remedial activities. Correct? Hicks Consultants will inform Advanced Energy that any liner requirement for impacted soil that is below 19.15.29 NMAC remediation levels for closure must be discussed with Mr. Blevins.

# Thanks,

Olivia Yu Environmental Specialist NMOCD, District I Olivia.yu@state.nm.us 575-393-6161 x113

OCD approval does not relieve the operator of liability should their operations fail to adequately investigate and remediate contamination that may pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the operator of responsibility for compliance with any other federal, state, local laws and/or regulations.

# R. T. HICKS CONSULTANTS, LTD.

901 Rio Grande Blvd NW ▲ Suite F-142 ▲ Albuquerque, NM 87104 ▲ 505.266.5004 ▲ Since 1996 Artesia ▲ Carlsbad ▲ Durango ▲ Midland

November 8, 2018

Mr. David Harwell ADVANCE ENERGY PARTNERS HAT MESA, LLC 11490 Westheimer Rd. STE 950 Houston, TX 77077 Via Email

RE: Excavation Results and Path Forward

Advance Energy – Merchant Containment/Merchant State 503H Release(s)

1RP-4953

Battle 34 East of Battle 34 Latitude 32 26 50 West of Merchant

1RP-4778

Tomahawk SWD

Dear Mr. Harwell:

From October 26 through Nov 8, 2018, RT Hicks Consultants worked with Storm Construction to finalize excavation extents for the above referenced sites. Figure 1 shows the sites relative to each other.

Horizontal extents were determined by field chloride titrations and laboratory confirmation. Horizontal extent was considered complete when the upper 4-feet of the soil column showed less than 600 mg/kg chloride verified by laboratory confirmation. One area requires additional laboratory confirmation prior to final backfilling. The areas is the north wall at E. of Battle 34, southeast excavation. Today, the north wall of the southeast excavation was extended to the top of the earth berm along the northern caliche lease road. Samples will be collected from the northern wall for laboratory confirmation.

Vertical extent was determined by backhoe bucket refusal due to the underlying very hard caliche. The back bucket was able to penetrate the caliche only about 3-inches before complete refusal. Refusal was typically 4 to 4.5 feet below ground surface.

According to the recently revised spill rule (NMAC 19.15.29) for areas "in-use" chloride concentration can be 20,000 mg/kg at any depth where groundwater is greater than 100 feet below the release. Groundwater at the site is greater than 100 feet. For areas "no longer in-use", the upper 4-feet must contain 600 mg/kg chloride or less.

Below is a summary of excavation delineation results followed by laboratory Certificate of Analysis of recent sampling. Please refer to past reports for full analytical and past trench and soil boring locations.

November 8, 2018 Page 7

A complete closure report showing all sampling locations and results will be submitted to NMOCD upon completion of backfilling.

# Battle 34 & East of Battle 34

Figure 2 is a map showing excavation extents. Below is a table showing chloride concentrations.

Location		Depth (ft)	Chloride	Chloride	Delineated
			Titration	Lab	
Battle 34					
Excavation					Yes - all
	North	0-4.5		208	
	South	0-4.5		48	
	East	0-4.5		32	
	West	0-4.5		240	
	Base	4.5		240	
Marathon Road	2-foot depth				Yes - "in use"
	Wall (0-100)	0-2		688	
	Base (0-100)	2	2938	3800	Liner
	Wall (100-200)	0-2		608	
	Base (100-200)	2	2594	3320	Liner
	Wall (200-270)	0-2		800	
	Base (200-270)	2	1655	1680	Liner
	S. Wall	0-2		432	+300ft
	N. Wall	0-2		272	Yes
Boring	T2	3.5		432	Yes
Boring	T2	4.5		496	Yes
E. of Battle 34					
SW Excavation					Yes - all
	North	0-4		64	
	South	0-4		32	
	East	0-4		48	
	West	0-4		<16	
	Base	4		32	
SE Excavation					See below
	North	0-4		Pending	Excavated to berm on road
	South	0-4		400	Yes
	East	0-4		80	Yes
	West	0-4		208	Yes
	Base	4		1157	Liner

# Battle 34

Battle 34 excavation is delineated. Remaining soil will be removed and backfilled with clean fill. The Marathon road defined as "in-use" meets closure limits of NMAC 19.15.29. Surface owner agreements may require placing a liner at the base of the road excavation. Placing a liner at the base of the excavation would reduce vertical migration of chlorides. Borehole data near the south end showed chloride below 600 mg/kg at 3.5 and 4.5 feet depth (see previous reports).

# East of Battle 34

The southwest excavation delineation is complete. The northern extent is excavated to the top of the berm associated with the East-West lease road. Laboratory confirmation of chloride concentrations are pending.

Vertical extent refusal was encountered at 4-feet at the interface of the underlying caliche. Chloride is greater than 600 mg/kg, therefore, a liner is recommended at the base to prevent vertical migration of chloride.

# Latitude 32 26 50

Figure 3 is a map showing the excavation extent. The layflat was rerouted and the north and south excavations have been merged into one continuous excavation. The northern extent was extended to the top of the berm associated with the East-West lease. Surface owner agreements may require placing a liner at the base of the excavation. Hard caliche was encountered at 4 to 5 feet below ground surface.

Location		Depth (ft)	Chloride	Chloride	Delineated
			Titration	Lab	
Latitude 32					
South of Layflat					See below
	South	0-4.5		400	Yes
	East	0-4.5		32	Yes
	West	0-4.5		48	Yes
	Base	5	2750	2872	Liner
North of Layflat					See below
	North	0-4	541	480	Road
	East	0-4.5	135	32	Yes
	West	0-4.5		80	Yes
	Base	4-5	874	1180	Liner

# **West of Merchant**

Figure 4 shows the extent of the north (west) and south (east) excavations. Both excavations are delineated. Remaining soil will be removed and backfilled with clean fill. Hard caliche was encountered at 4 and 4.5 feet below surface.

Location		Depth (ft)	Chloride	Delineated	Exca	avation	(ft)
					L (E-W)	W (N-S)	Depth
W. of Merchant							
North Excav				Yes - all	16	30	4.5
	North	0-4.5	<30				
	South	0-4.5	<30				
	East	0-4.5	81				
	West	0-4.5	<30				
	Base	4.5	<30				
South Excav				Yes - all	20	45	4
	North	0-4	80				
	South	0-4	45				
	East	0-4	120				
	West	0-4	35				
	Base	4	64				

# **Tomahawk SWD**

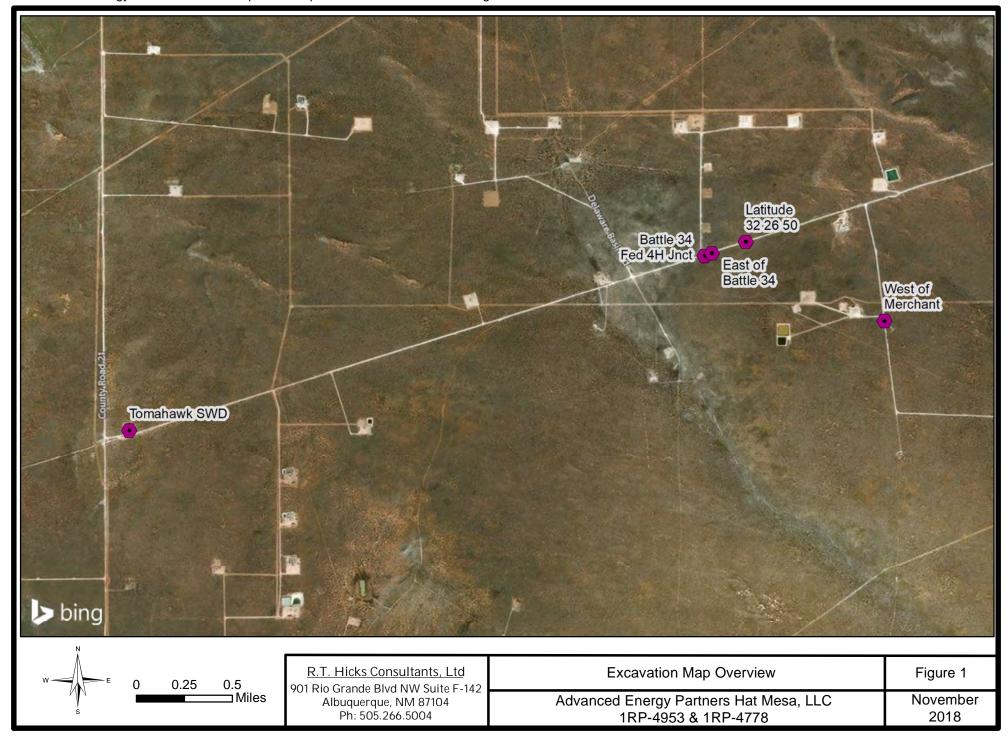
Figure 5 shows the excavation extent. Chloride concentrations in the upper 4 feet wall samples and below 4-feet base sample meet NMAC 19.15.29 closure limits. Hard caliche was encountered at 4.5 foot depth. Surface owner agreement may require a liner at the base of the excavation prior to backfilling with clean fill dirt.

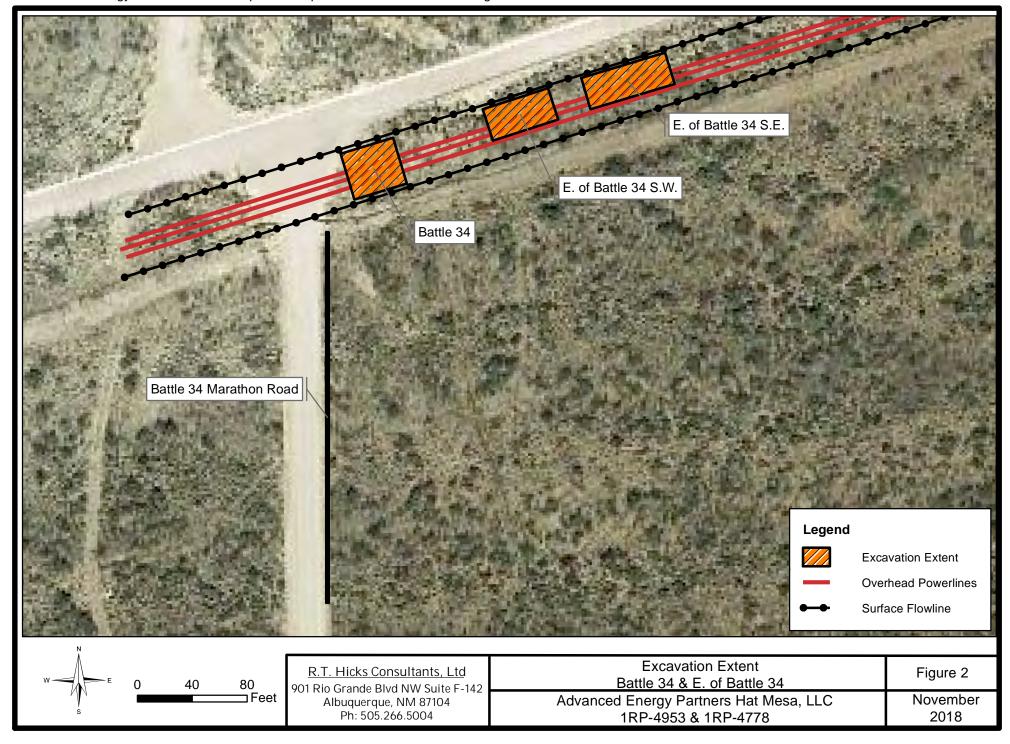
Location		Depth (ft)	Chlorid e	Delineated	Exc	avation	(ft)
					L (E- W)	W (N- S)	Dept h
Tomahawk							
Trench 1				Yes - ALL	50	25	4.5
	North	0-4.5	160				
	South	0-4.5	64				
	East	0-4.5	208				
	West	0-4.5	32				
	Base	4.5	672	Liner			
Boring	12/5/2017	5	6,100				
Boring	8/8/2018	7	3,480				
Boring	8/8/2018	10	3,400				
Boring	12/5/2017	13	5,700				
Boring	8/8/2018	16	10,100				
Boring	8/8/2018	20	13,700				
Boring	8/8/2018	25	3,840	,			

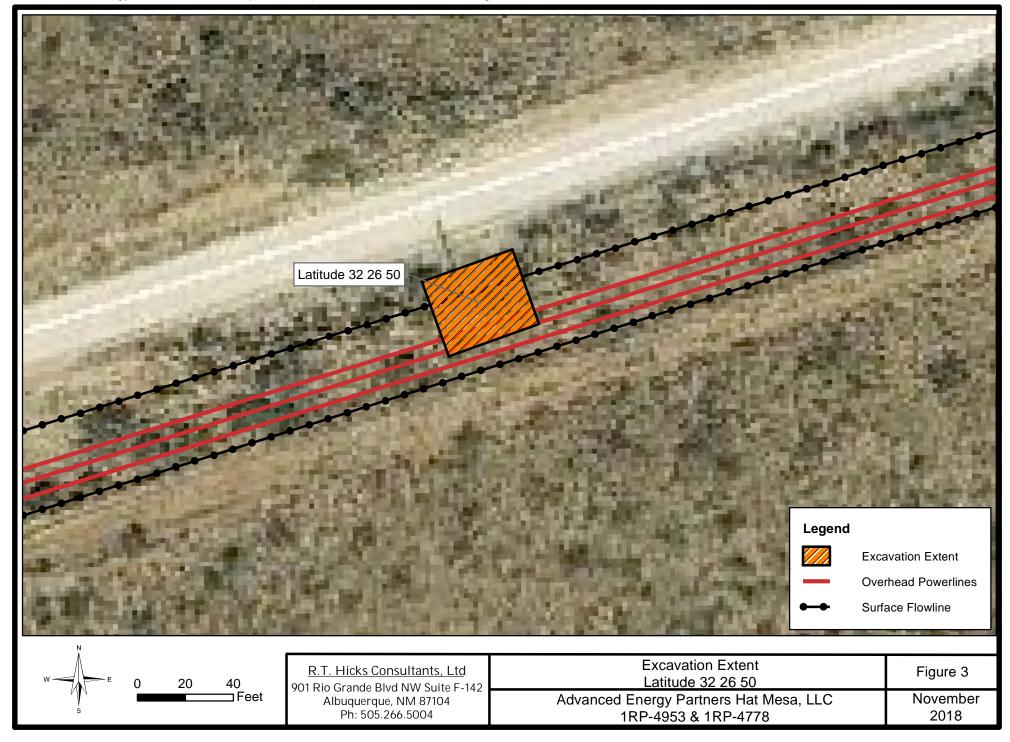
Please contact me at 970-570-9535 with any questions.

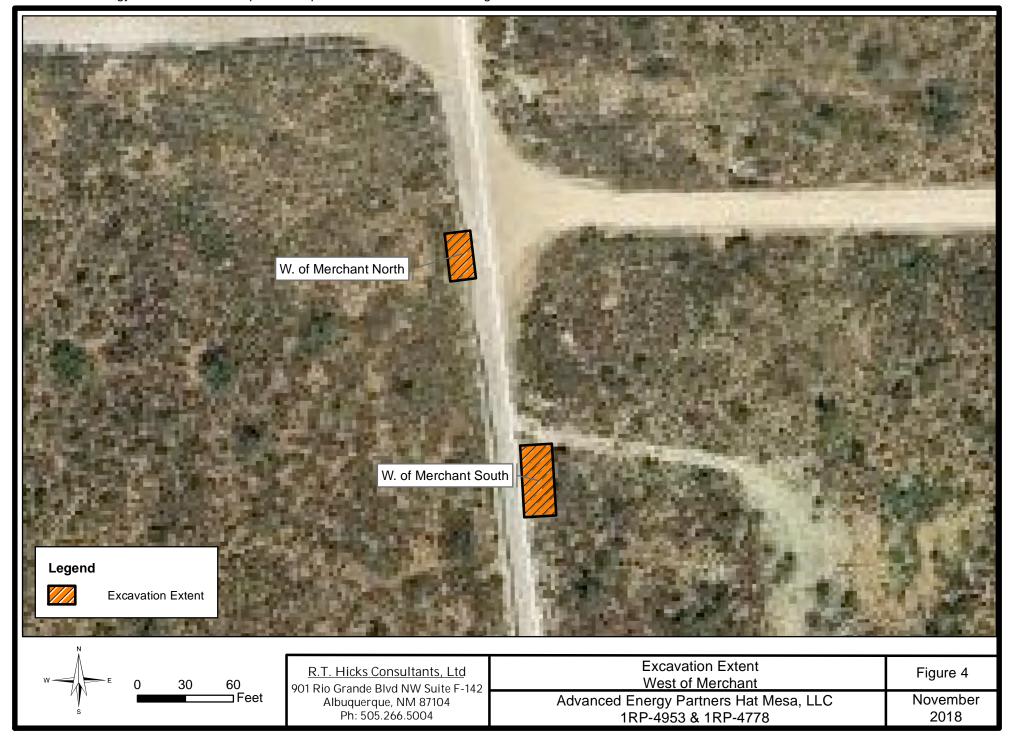
Sincerely, R.T. Hicks Consultants, Ltd.

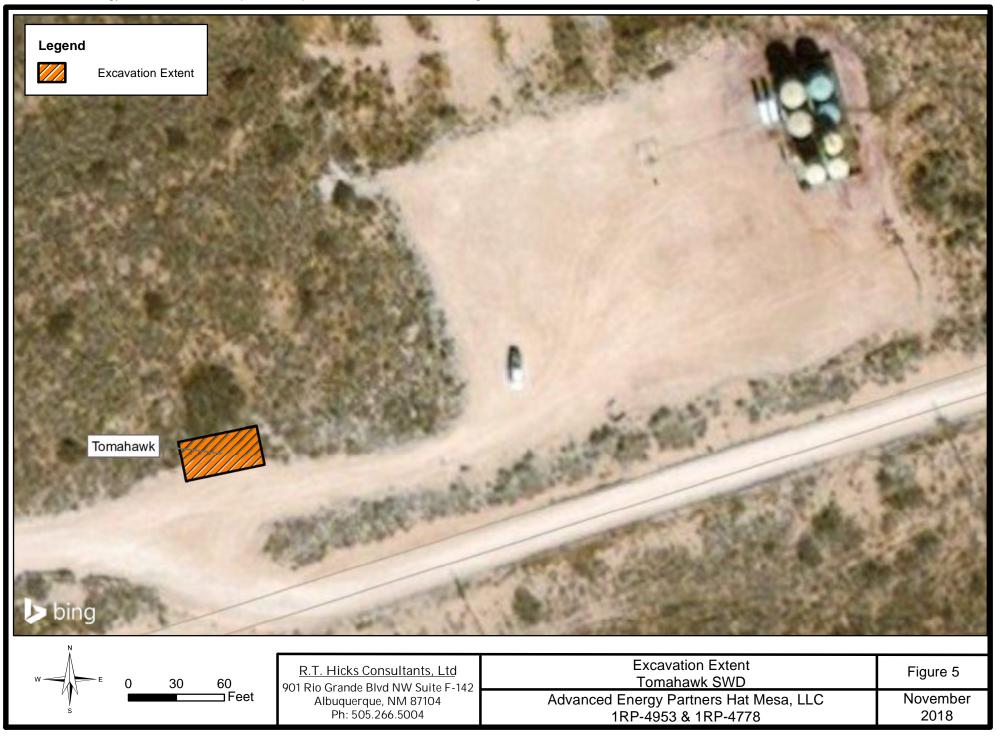
Andrew Parker Project Scientist













November 02, 2018

ANDREW PARKER
R T HICKS CONSULTANTS
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE, NM 87104

RE: ADVANCE ENERGY

Enclosed are the results of analyses for samples received by the laboratory on 11/01/18 16:25.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/ga/lab">www.tceq.texas.gov/field/ga/lab</a> accred certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2 Haloacetic Acids (HAA-5)
Method EPA 524.2 Total Trihalomethanes (TTHM)
Method EPA 524.4 Regulated VOCs (V1, V2, V3)

Celey D. Keine

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



R T HICKS CONSULTANTS
ANDREW PARKER
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received: 11/01/2018 Sampling Date: 11/01/2018
Reported: 11/02/2018 Sampling Type: Soil

Project Name: ADVANCE ENERGY Sampling Condition: Cool & Intact
Project Number: EAST OF BATTLE 34 Sample Received By: Tamara Oldaker

Project Location: NOT GIVEN

# Sample ID: SE EAST WALL (H803141-01)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	ed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	11/02/2018	ND	432	108	400	0.00	
Sample ID: SE EAST BASE	: /U0021 <i>4</i> 1_0	2)							
Sample ID: SE EAST BASE	(11003141-0	<b>2</b> )							
Chloride, SM4500Cl-B	mg,	/kg	Analyze	ed By: AC					

	, , , , , , , , , , , , , , , , , , ,				•					
	Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
C	Chloride	208	16.0	11/02/2018	ND	432	108	400	0.00	

### Sample ID: SE WEST WALL (H803141-03)

Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	11/02/2018	ND	432	108	400	0.00	

# Sample ID: SE WEST BASE (H803141-04)

Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2480	16.0	11/02/2018	ND	432	108	400	0.00	

Cardinal Laboratories \*=Accredited Analyte

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## **Notes and Definitions**

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

\*\* Samples not received at proper temperature of 6°C or below.

\*\*\* Insufficient time to reach temperature.

Chloride by SM4500Cl-B does not require samples be received at or below 6°C

Samples reported on an as received basis (wet) unless otherwise noted on report

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# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476

Company Name: RT Hicks consultants	BILL TO	ANALYSIS REQUEST
Project Manager: Andrew Parley	P.O. #:	
Address: On- file	Company: KT Haks	
City: State:	Zip: Attn: Andrew Parker	
Phone #: Fax #:	Address:	
Project #: Project Owner:		
Project Name: Esst of Battle 34 1		
Project Location: Advance Every	Phone #:	
Sampler Name: Andrew Parter		
FOR LAB USE ONLY	_	
Lab I.D. Sample I.D.	E : :SE:	CUS
4803141 SE	# CONT	<b>C)</b>
( EAST WALL		×
2 EAST BASE	08:141	
3 WEST WALL		
4 WEST BASE	A 14:00	

2.80

10

\* Sample IDS Start w/SE asper Andrews. 11/2/18 Ch

CHECKED BY: (Initials)

Sampler - UPS - Bus - Other: Delivered By: (Circle One) Relinquished By:

and when

Time: 16:25

Received By:

amara

Phone Result: Fax Result: REMARKS:

☐ Yes ☐ No

Add'l Phone #: Add'l Fax #:

RUSH 45AP

Toph Results to

920-570-9535

Time: Date: Date:

Received By:

Relinquished By



November 02, 2018

ANDREW PARKER
R T HICKS CONSULTANTS
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE, NM 87104

RE: ADVANCE ENERGY

Enclosed are the results of analyses for samples received by the laboratory on 10/31/18 7:55.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/ga/lab">www.tceq.texas.gov/field/ga/lab</a> accred certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2 Haloacetic Acids (HAA-5)
Method EPA 524.2 Total Trihalomethanes (TTHM)
Method EPA 524.4 Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

Celey D. Keine

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



R T HICKS CONSULTANTS
ANDREW PARKER
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

A .. . l. ... . d D. .. MC

Received: 10/31/2018
Reported: 11/02/2018
Project Name: ADVANCE ENERGY
Project Number: EAST OF BATTLE 34

Sampling Date: 10/30/2018
Sampling Type: Sludge
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Project Location: NOT GIVEN

# Sample ID: SW BASE @ 3.5' (H803104-01)

DTEV 0021D

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/01/2018	ND	2.04	102	2.00	0.533	
Toluene*	<0.050	0.050	11/01/2018	ND	1.87	93.6	2.00	0.393	
Ethylbenzene*	<0.050	0.050	11/01/2018	ND	1.78	88.9	2.00	0.535	
Total Xylenes*	<0.150	0.150	11/01/2018	ND	5.24	87.4	6.00	1.07	
Total BTEX	<0.300	0.300	11/01/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	100 %	69.8-14.	2						
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	10/31/2018	ND	432	108	400	3.64	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/01/2018	ND	196	98.2	200	1.45	
DRO >C10-C28*	<10.0	10.0	11/01/2018	ND	210	105	200	0.833	
EXT DRO >C28-C36	<10.0	10.0	11/01/2018	ND					
Surrogate: 1-Chlorooctane	91.2 9	% 41-142							
Surrogate: 1-Chlorooctadecane	95.4 9	% 37.6-14	7						

Cardinal Laboratories \*=Accredited Analyte

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R T HICKS CONSULTANTS ANDREW PARKER 901 RIO GRANDE BLVD SUITE F-142 ALBUQUERQUE NM, 87104 Fax To: NONE

Received: 10/31/2018 Reported: 11/02/2018 Project Name: ADVANCE ENERGY Project Number: EAST OF BATTLE 34 Sampling Date: 10/30/2018 Sampling Type: Sludge Sampling Condition: Cool & Intact Sample Received By: Tamara Oldaker

Project Location: **NOT GIVEN** 

# Sample ID: SW S. WALL (H803104-02)

BTEX 8021B	mg/	'kg	Analyze	ed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/01/2018	ND	2.04	102	2.00	0.533	
Toluene*	<0.050	0.050	11/01/2018	ND	1.87	93.6	2.00	0.393	
Ethylbenzene*	<0.050	0.050	11/01/2018	ND	1.78	88.9	2.00	0.535	
Total Xylenes*	<0.150	0.150	11/01/2018	ND	5.24	87.4	6.00	1.07	
Total BTEX	<0.300	0.300	11/01/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	97.8	% 69.8-14	2						
Chloride, SM4500CI-B	mg/	/kg	Analyze	ed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	10/31/2018	ND	432	108	400	3.64	
TPH 8015M	mg/	/kg	Analyze	ed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/01/2018	ND	196	98.2	200	1.45	
DRO >C10-C28*	<10.0	10.0	11/01/2018	ND	210	105	200	0.833	
EXT DRO >C28-C36	<10.0	10.0	11/01/2018	ND					
Surrogate: 1-Chlorooctane	90.7	% 41-142	?						
G	0.4.4	0/ 27/1	-						

Surrogate: 1-Chlorooctadecane 94.4 % 37.6-147

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10/30/2018

Cool & Intact

Tamara Oldaker

Sludge



# Analytical Results For:

R T HICKS CONSULTANTS
ANDREW PARKER
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received:10/31/2018Sampling Date:Reported:11/02/2018Sampling Type:Project Name:ADVANCE ENERGYSampling Condition:Project Number:EAST OF BATTLE 34Sample Received By:

Project Location: NOT GIVEN

### Sample ID: SW W. WALL (H803104-03)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/01/2018	ND	2.04	102	2.00	0.533	
Toluene*	<0.050	0.050	11/01/2018	ND	1.87	93.6	2.00	0.393	
Ethylbenzene*	<0.050	0.050	11/01/2018	ND	1.78	88.9	2.00	0.535	
Total Xylenes*	<0.150	0.150	11/01/2018	ND	5.24	87.4	6.00	1.07	
Total BTEX	<0.300	0.300	11/01/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	100 %	69.8-14	2						
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	10/31/2018	ND	432	108	400	3.64	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/01/2018	ND	196	98.2	200	1.45	
DRO >C10-C28*	<10.0	10.0	11/01/2018	ND	210	105	200	0.833	
EXT DRO >C28-C36	<10.0	10.0	11/01/2018	ND					
Surrogate: 1-Chlorooctane	89.6 %	6 41-142	!						
Surrogate: 1-Chlorooctadecane	94.4 %	6 37.6-14	7						

Cardinal Laboratories \*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whistoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results related only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



R T HICKS CONSULTANTS
ANDREW PARKER
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received: 10/31/2018
Reported: 11/02/2018
Project Name: ADVANCE ENERGY
Project Number: EAST OF BATTLE 34
Project Location: NOT GIVEN

Sampling Date: 10/30/2018
Sampling Type: Sludge
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

# Sample ID: SW E. WALL (H803104-04)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/01/2018	ND	2.04	102	2.00	0.533	
Toluene*	<0.050	0.050	11/01/2018	ND	1.87	93.6	2.00	0.393	
Ethylbenzene*	<0.050	0.050	11/01/2018	ND	1.78	88.9	2.00	0.535	
Total Xylenes*	<0.150	0.150	11/01/2018	ND	5.24	87.4	6.00	1.07	
Total BTEX	<0.300	0.300	11/01/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	99.7	% 69.8-14	2						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	10/31/2018	ND	416	104	400	3.92	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/01/2018	ND	196	98.2	200	1.45	
DRO >C10-C28*	<10.0	10.0	11/01/2018	ND	210	105	200	0.833	
EXT DRO >C28-C36	<10.0	10.0	11/01/2018	ND					
Surrogate: 1-Chlorooctane	83.2	% 41-142							
Surrogate: 1-Chlorooctadecane	87.3	% 37.6-14	7						

Cardinal Laboratories \*=Accredited Analyte

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R T HICKS CONSULTANTS ANDREW PARKER 901 RIO GRANDE BLVD SUITE F-142 ALBUQUERQUE NM, 87104 Fax To: NONE

Received: 10/31/2018 Sampling Date: 10/30/2018 Reported: 11/02/2018 Sampling Type: Sludge Project Name: ADVANCE ENERGY Sampling Condition: Cool & Intact Sample Received By: Project Number: EAST OF BATTLE 34 Tamara Oldaker

Project Location: NOT GIVEN

### Sample ID: SW N. WALL @ 0-4' (H803104-05)

BTEX 8021B	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/01/2018	ND	2.04	102	2.00	0.533	
Toluene*	<0.050	0.050	11/01/2018	ND	1.87	93.6	2.00	0.393	
Ethylbenzene*	<0.050	0.050	11/01/2018	ND	1.78	88.9	2.00	0.535	
Total Xylenes*	<0.150	0.150	11/01/2018	ND	5.24	87.4	6.00	1.07	
Total BTEX	<0.300	0.300	11/01/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	101 9	% 69.8-14	2						
Chloride, SM4500Cl-B	mg/	'kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	10/31/2018	ND	416	104	400	3.92	
TPH 8015M	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/01/2018	ND	196	98.2	200	1.45	
DRO >C10-C28*	<10.0	10.0	11/01/2018	ND	210	105	200	0.833	
EXT DRO >C28-C36	<10.0	10.0	11/01/2018	ND					
Surrogate: 1-Chlorooctane	88.8	% 41-142	?						
Surrogate: 1-Chlorooctadecane	92.8	% 37.6-14	7						

Cardinal Laboratories \*=Accredited Analyte

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Celeg D. Keene



R T HICKS CONSULTANTS
ANDREW PARKER
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received: 10/31/2018
Reported: 11/02/2018
Project Name: ADVANCE ENERGY
Project Number: EAST OF BATTLE 34
Project Location: NOT GIVEN

Sampling Date:
Sampling Type:
Sampling Condition:
Sample Received By:

Sludge Cool & Intact Tamara Oldaker

10/30/2018

### Sample ID: SE BASE @ 3' (H803104-06)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	784	16.0	10/31/2018	ND	416	104	400	3.92	
Sample ID: SE N. WALL (	H803104-07)								
Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4000	16.0	10/31/2018	ND	416	104	400	3.92	
Sample ID: SE S. WALL (H	1803104-08)								
Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	400	16.0	10/31/2018	ND	416	104	400	3.92	
Sample ID: SE E. WALL (H	1803104-09)								
Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3040	16.0	10/31/2018	ND	416	104	400	3.92	
Sample ID: SE W. WALL (	H803104-10)								
Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2200	16.0	10/31/2018	ND	416	104	400	3.92	

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## **Notes and Definitions**

QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS

recovery.

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

\*\* Samples not received at proper temperature of 6°C or below.

\*\*\* Insufficient time to reach temperature.

- Chloride by SM4500Cl-B does not require samples be received at or below 6°C

Samples reported on an as received basis (wet) unless otherwise noted on report

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# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476

Company Name:	" RT Hicks Consultants		<i>01.778</i>		ANALYSIS	SIS REQUEST	
Project Manager:	- Andrew PARKER		P.O. #:				
Address: On			Company: PT Hit	6			
City:	State:	Zip:	-	2	1/8		
Phone #:	Fax #:		Address:	10	11/		
Project #:	Project Owner:		City:	Ja	1/		
Project Name:	Advance Energy		State: Zip:	0	1		
Project Location:	£ 0 £		Phone #:		\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		
Sampler Name:	Andrew Parter		Fax #:		/		
FOR LAB USE ONLY	The second secon	MATRIX	PRESERV. SAMPLING		<b>X.</b> (		
Lab I.D.	Sample I.D.	CONTAINERS  ROUNDWATER  ASTEWATER  DIL  LUDGE	THER: CID/BASE: E / COOL THER:	CI TPH E	BTEX		
,	SW B&C @ 3.5A	<u>-</u>		12 pm 1 V	<		
2	SW S. WALL			12:15	-		
W	SW W. WALL			12:0	-		
4	SOU & WALL			12.45	1		
4	SW N. WALL BO-49			13:00	<		
6	SF BASE @ S A			14:45			
7	SE N. WALL			15:e			
8	SE S WALL			57:51			
2	SE E WALL			15:31			
10	SE W. WALL		~	15.45			
PLEASE NOTE: Liability an analyses. All claims includi service. In no event shall C	PLEASE NOTE: Liability and Damages, Cardinats liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequental damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries,	claim arising whether based in contract remed waived unless made in writing and without limitation, business interruptions, i	or tort, shall be limited to the amount pair received by Cardinal within 30 days afte oss of use, or loss of profits incurred by c	by the client for the completion of the applicable fient, its subsidiaries.			
amiliates of successors ansi	ailliaites or successors arising out of or related to me performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.	rdinal, regardless of whether such claim is	s based upon any of the above stated rea	sons or otherwise.			

Relinquished By: Relinquished By. Delivered By: (Circle One) Time: 155 Date: 31-18 Time: Date: Received By: Received By: lamara Sample Condition
Cool Intact
Pres Pres
No No CHECKED BY: (Initials) Phone Result: ☐ Yes Fax Result: ☐ Yes REMARKS:

RUSH !!!

O No

Add'l Phone #: Add'l Fax #:

Took when emiled

970-570-9535

PALE 1

Sampler - UPS - Bus - Other:



November 02, 2018

ANDREW PARKER
R T HICKS CONSULTANTS
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE, NM 87104

RE: ADVANCE ENERGY

Enclosed are the results of analyses for samples received by the laboratory on 11/01/18 16:05.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/ga/lab">www.tceq.texas.gov/field/ga/lab</a> accred certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2 Haloacetic Acids (HAA-5)
Method EPA 524.2 Total Trihalomethanes (TTHM)
Method EPA 524.4 Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

Celey D. Keine

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



R T HICKS CONSULTANTS
ANDREW PARKER
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

 Received:
 11/01/2018
 Sampling Date:
 10/31/2018

 Reported:
 11/02/2018
 Sampling Type:
 Soil

Project Name: ADVANCE ENERGY Sampling Condition: Cool & Intact
Project Number: LATITUDE NORTH Sample Received By: Tamara Oldaker

Project Location: NOT GIVEN

# Sample ID: N FLOWLINE WALL (H803140-01)

Chloride, SM4500CI-B	mg	/kg	Analyze	ed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1330	16.0	11/02/2018	ND	432	108	400	0.00	
Sample ID: N FLOWLINE	BASE (H80314	10-02)							
Chloride, SM4500Cl-B	mg	/kg	Analyze	ed By: AC					

	, , , , , , , , , , , , , , , , , , ,				•					
	Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
CI	hloride	1180	16.0	11/02/2018	ND	432	108	400	0.00	

# Sample ID: EAST #2 WALL (H803140-03)

Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	11/02/2018	ND	432	108	400	0.00	

# Sample ID: WEST WALL (H803140-04)

Chloride, SM4500CI-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	11/02/2018	ND	432	108	400	0.00	

Cardinal Laboratories \*=Accredited Analyte

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## **Notes and Definitions**

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

\*\* Samples not received at proper temperature of 6°C or below.

\*\*\* Insufficient time to reach temperature.

Chloride by SM4500Cl-B does not require samples be received at or below 6°C

Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories \*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whistoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results related only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476

Company Name.	RT Aids Gosvillet	1	8/11/70		ANALYSIS REQUEST	
Project Manager:	Andrew	F	P.O. #:		- 1	
Address:		0	Company: 2T Hales			
City:	State:	Zip:	Attn: Andrew Parker	e,		
Phone #:	Fax #:	Þ	Address:			
Project #:	Project Owner:		City:			
Project Name:	Advance Energy	(0)	State: Zip:			
Project Location:	Lathba	7	Phone #:	)		
Sampler Name:	Andrew Parker	7	Fax #:	0		
FOR LAB USE ONLY	A STATE OF THE PARTY OF THE PAR	MATRIX	PRESERV. SAMPLING			
Lab I.D.	Sample I.D.	CONTAINERS  GROUNDWATER  WASTEWATER  SOIL  DIL  SLUDGE	OTHER: CE/COOL OTHER:	C1 (4		
-	N. Flowling wall	C - X	18:01	0.30		
7	N. Flowing Base	×	10-31	24:01		
W	East #2 wall		=	11:00		
4	Guest West wall	**		11:15		
	N. Base					
PLEASE NOTE: Liability and	PLEASE NOTE: Liability and Damages, Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or lord, shall be limited to the amount paid by the client for the	of any claim arising whether based in contract or	to the shall be limited to the amount paid by	the client for the		
analyses. All claims including service. In no event shall Ca	analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequental damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries,	all be deemed waived unless made in writing and re luding without limitation, business interruptions, los	sceived by Cardinal within 30 days after one of use, or loss of profits incurred by clies.	ompletion of the applicable nt, its subsidiaries.		
Polinguished By	Deligner is the head Burner of the periodinal periodina	Docinal P	based upon any of the above stated reason	ons or otherwise.		

2.80

497

Sample Condition
Cool Intact
Tyes Tyes
No No

CHECKED BY: (Initials)

Delivered By: (Circle One)
Sampler - UPS - Bus - Other:

Relinquished By:

Date: 10 - 3 | Time: 16:05

Date: Time:

Received By:

Received By:

Phone Result:
Fax Result:
REMARKS:

□ Yes

No o

Add'l Phone #: Add'l Fax #:

ASA ASA

Test to Results

970-570-9535

Relinquished By:

<sup>+</sup> Cardinal cannot accent verbal channee Bloace for written channee to 18781 202\_2228



November 02, 2018

ANDREW PARKER
R T HICKS CONSULTANTS
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE, NM 87104

RE: ADVANCE ENERGY

Enclosed are the results of analyses for samples received by the laboratory on 11/01/18 16:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/ga/lab">www.tceq.texas.gov/field/ga/lab</a> accred certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2 Haloacetic Acids (HAA-5)
Method EPA 524.2 Total Trihalomethanes (TTHM)
Method EPA 524.4 Regulated VOCs (V1, V2, V3)

Celey D. Keine

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



R T HICKS CONSULTANTS ANDREW PARKER 901 RIO GRANDE BLVD SUITE F-142 ALBUQUERQUE NM, 87104

Fax To: NONE

Received: 11/01/2018 Sampling Date: 11/01/2018

Reported: 11/02/2018 Sampling Type: Soil

Project Name: ADVANCE ENERGY Sampling Condition: Cool & Intact
Project Number: LATITUDE SOUTH Sample Received By: Tamara Oldaker

Project Location: NOT GIVEN

# Sample ID: WEST WALL (H803139-01)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	11/02/2018	ND	432	108	400	0.00	

## Sample ID: WEST BASE (H803139-02)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	11/02/2018	ND	432	108	400	0.00	

Cardinal Laboratories \*=Accredited Analyte

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## **Notes and Definitions**

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

\*\* Samples not received at proper temperature of 6°C or below.

\*\*\* Insufficient time to reach temperature.

Chloride by SM4500Cl-B does not require samples be received at or below 6°C

Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories \*=Accredited Analyte

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# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

(575) 393-2326 FAX (575) 393-2476 101 East Marland, Hobbs, NM 88240

Company Name: RT Hocks Consultats	BILL TO	ANALYSIS REQUEST
~	P.O. #:	
7	Company: LT 1+x4	
City: State:	Zip: Attn: Indrew Parker	
Phone #: Fax #:	Address:	
Project #: Project Owner:	mer: City:	
Project Name: Advance Encry	State: Zip:	
Project Location: Latitude South	Phone #:	
Sampler Name: Andrew Parker	Fax #:	)
	MATRIX PRESERV. SAMPLING	90
Lab I.D. Sample I.D.	(G)RAB OR (C)OMP. # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER: ACID/BASE: ICE / COOL OTHER:	C1 (450
1 Wat wall	C   X   11·1   13:45	
2 West Bue	C   X   11-1   3:30	
PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remediate	PLEASE NOTE: Liability and Damages, Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the	or the
service. In no event shall Cardinal be liable for incidental or consequental damages, inc	analyses, on usun a must not repair to the control of the control	daries.

00

Sample Condition
Cool Intact
Yes Yes
No No

CHECKED BY: (Initials) 9

ASAP ASAP

Test Roults to

3556-045-026

□ Yes

Add'l Phone #: Add'l Fax #:

Sampler - UPS - Bus - Other: Delivered By: (Circle One) Relinquished By:

Relinquished By:

Relinquished By:

| Date: | Received By: | Phone Result: | Fax Result: | Fax Result: | Remarks: | R

Time: [6]: 00

Received By:

Time:

<sup>+</sup> Cardinal rannot arrent verbal channes Blease fav written channes to (KTK) 202-2226



November 02, 2018

ANDREW PARKER
R T HICKS CONSULTANTS
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE, NM 87104

RE: ADVANCE ENERGY

Enclosed are the results of analyses for samples received by the laboratory on 10/31/18 7:55.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/ga/lab">www.tceq.texas.gov/field/ga/lab</a> accred certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2 Haloacetic Acids (HAA-5)
Method EPA 524.2 Total Trihalomethanes (TTHM)
Method EPA 524.4 Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

Celey D. Keine

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Lab Director/Quality Manager

10/30/2018

Soil



### Analytical Results For:

R T HICKS CONSULTANTS ANDREW PARKER 901 RIO GRANDE BLVD SUITE F-142 ALBUQUERQUE NM, 87104 Fax To: NONE

Sampling Date:

Received: 10/31/2018 Reported: 11/02/2018

Sampling Type: Project Name: ADVANCE ENERGY Sampling Condition: Cool & Intact Project Number: BATTLE 34 Sample Received By: Tamara Oldaker

Project Location: NOT GIVEN

### Sample ID: BATTLE 34 ROAD 0-100 WALL (H803103-01)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	688	16.0	10/31/2018	ND	432	108	400	3.64	

### Sample ID: BATTLE 34 ROAD 0-100 BASE (H803103-02)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3800	16.0	10/31/2018	ND	432	108	400	3.64	

### Sample ID: BATTLE 34 ROAD 100 - 200 WALL (H803103-03)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	608	16.0	10/31/2018	ND	432	108	400	3.64	

### Sample ID: BATTLE 34 ROAD 100 - 200 BASE (H803103-04)

Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3320	16.0	10/31/2018	ND	432	108	400	3.64	

Cardinal Laboratories \*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after competent of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



R T HICKS CONSULTANTS ANDREW PARKER 901 RIO GRANDE BLVD SUITE F-142 ALBUQUERQUE NM, 87104

Fax To: NONE

Received: 10/31/2018 Sampling Date: 10/30/2018

Reported: 11/02/2018 Sampling Type: Soil

Project Name: ADVANCE ENERGY Sampling Condition: Cool & Intact
Project Number: BATTLE 34 Sample Received By: Tamara Oldaker

Project Location: NOT GIVEN

### Sample ID: BATTLE 34 ROAD 200 - 270 WALL (H803103-05)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	800	16.0	10/31/2018	ND	432	108	400	3.64	

### Sample ID: BATTLE 34 ROAD 200 - 270 BASE (H803103-06)

Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1680	16.0	10/31/2018	ND	432	108	400	3.64	

### Sample ID: BATTLE 34 ROAD NORTH WALL (H803103-07)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	608	16.0	10/31/2018	ND	432	108	400	3.64	

### Sample ID: BATTLE 34 ROAD SOUTH WALL (H803103-08)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	272	16.0	10/31/2018	ND	432	108	400	3.64		

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R T HICKS CONSULTANTS ANDREW PARKER 901 RIO GRANDE BLVD SUITE F-142 ALBUQUERQUE NM, 87104 Fax To: NONE

Received: 10/31/2018 Sampling Date: 10/30/2018

Reported: 11/02/2018 Sampling Type: Soil

Project Name: ADVANCE ENERGY Sampling Condition: Cool & Intact Sample Received By: Tamara Oldaker Project Number: BATTLE 34

Project Location: NOT GIVEN

### Sample ID: BATTLE 34 SOUTH WALL (H803103-09)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/01/2018	ND	2.04	102	2.00	0.533	
Toluene*	<0.050	0.050	11/01/2018	ND	1.87	93.6	2.00	0.393	
Ethylbenzene*	<0.050	0.050	11/01/2018	ND	1.78	88.9	2.00	0.535	
Total Xylenes*	<0.150	0.150	11/01/2018	ND	5.24	87.4	6.00	1.07	
Total BTEX	<0.300	0.300	11/01/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	102	% 69.8-14	2						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	10/31/2018	ND	432	108	400	3.64	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/01/2018	ND	196	98.2	200	1.45	
DRO >C10-C28*	<10.0	10.0	11/01/2018	ND	210	105	200	0.833	
EXT DRO >C28-C36	<10.0	10.0	11/01/2018	ND					
Surrogate: 1-Chlorooctane	83.9	% 41-142	?						
G 1 CH 1	07.4	0/ 27/14	7						

Surrogate: 1-Chlorooctadecane 87.4 % 37.6-147

Cardinal Laboratories \*=Accredited Analyte

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R T HICKS CONSULTANTS
ANDREW PARKER
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received: 10/31/2018 Sampling Date: 10/30/2018

Reported: 11/02/2018 Sampling Type: Soil

Project Name: ADVANCE ENERGY Sampling Condition: Cool & Intact
Project Number: BATTLE 34 Sample Received By: Tamara Oldaker

Project Location: NOT GIVEN

### Sample ID: BATTLE 34 EAST WALL (H803103-10)

BTEX 8021B	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/01/2018	ND	2.04	102	2.00	0.533	
Toluene*	<0.050	0.050	11/01/2018	ND	1.87	93.6	2.00	0.393	
Ethylbenzene*	<0.050	0.050	11/01/2018	ND	1.78	88.9	2.00	0.535	
Total Xylenes*	<0.150	0.150	11/01/2018	ND	5.24	87.4	6.00	1.07	
Total BTEX	<0.300	0.300	11/01/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	99.2	% 69.8-14	2						
Chloride, SM4500Cl-B	mg/	'kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	10/31/2018	ND	432	108	400	3.64	
TPH 8015M	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/01/2018	ND	196	98.2	200	1.45	
DRO >C10-C28*	<10.0	10.0	11/01/2018	ND	210	105	200	0.833	
EXT DRO >C28-C36	<10.0	10.0	11/01/2018	ND					
Surrogate: 1-Chlorooctane	85.9	% 41-142	?						

Surrogate: 1-Chlorooctadecane 89.0 % 37.6-147

Cardinal Laboratories \*=Accredited Analyte

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R T HICKS CONSULTANTS
ANDREW PARKER
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received: 10/31/2018 Sampling Date: 10/30/2018

Reported: 11/02/2018 Sampling Type: Soil

Project Name: ADVANCE ENERGY Sampling Condition: Cool & Intact
Project Number: BATTLE 34 Sample Received By: Tamara Oldaker

Project Location: NOT GIVEN

### Sample ID: BATTLE 34 NORTH WALL (H803103-11)

BTEX 8021B	mg,	/kg	Analyze	ed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/01/2018	ND	2.04	102	2.00	0.533	
Toluene*	<0.050	0.050	11/01/2018	ND	1.87	93.6	2.00	0.393	
Ethylbenzene*	<0.050	0.050	11/01/2018	ND	1.78	88.9	2.00	0.535	
Total Xylenes*	<0.150	0.150	11/01/2018	ND	5.24	87.4	6.00	1.07	
Total BTEX	<0.300	0.300	11/01/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	100	% 69.8-14	2						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	ed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	10/31/2018	ND	432	108	400	3.64	
TPH 8015M	mg,	/kg	Analyze	ed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/01/2018	ND	196	98.2	200	1.45	
DRO >C10-C28*	<10.0	10.0	11/01/2018	ND	210	105	200	0.833	
EXT DRO >C28-C36	<10.0	10.0	11/01/2018	ND					
Surrogate: 1-Chlorooctane	92.4	% 41-142	?						
Surrogate: 1-Chlorooctadecane	95.3	% 37.6-14	7						

Cardinal Laboratories \*=Accredited Analyte

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### **Notes and Definitions**

QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS

recovery.

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

\*\* Samples not received at proper temperature of 6°C or below.

\*\*\* Insufficient time to reach temperature.

- Chloride by SM4500Cl-B does not require samples be received at or below 6°C

Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories \*=Accredited Analyte

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# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476

ompany Name: 97 II-V					
roject Manager: Andrew Parter		P.O. #:			
ddress: On-Alk		Company: PT Hints	Hinds		
ity: State:	Zip:	Attn: Andrew Panter	Panter		
hone #: Fax #:		Address: On- file	file		
roject #: Project Owner:	er:	City:			
oject Name: Advance Energy		State: Zi	Zip:		
roject Location: (Settle 34)		Phone #:			
ampler Name: Andrew Parti		Fax #:			
┒	M	MATRIX PRESERV.	SAMPLING		
Lab I.D. Sample I.D.	(G)RAB OR (C)OMP # CONTAINERS GROUNDWATER WASTEWATER	SLUDGE OTHER:	DATE TIME	CI	
1 Battle 34 Road 0-100 WALL	1.7		WO 01 08:00	×	
	10	7	11	*:	
3 Battle 34 Road 100-200 WALL				×	
Battle 34	- 0	*	24:01	×	
5 Bathe 34 Road 100-270 WALL	10	7	11,000	× :	
6 Bothe 34 Road 200-120 BASE	c -	*	11:50	×	
7 Battle 34 Road N. WALL	0 1	_	£:1]	×	
BATTLE 34 Red S. WALL	C I		N 11:45	×	

Text when 1/2

970-570-9535

Relinquished By

Relinquished By:

mo

Time: 55

Received By:

10-31-18

Phone Result: Fax Result: REMARKS:

☐ Yes

□ No

Add'l Phone #: Add'l Fax #:

andrower thicks consult. com

Date: Time:

Sample Condition

CHECKED BY: (Initials)

Delivered By: (Circle One)
Sampler - UPS - Bus - Other:



# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476

Company Name:	RT Hicks Consultats		8771	ы	BILL 10				ANALYSIS		KEWUESI		
roject Manager:			٩	P.O. #:			-			-			_
Address:			C	Company:			1						
City:	State:	Zip:	A	Attn:			ea	8		_			_
hone #:	Fax #:		A	Address:			1	11					
roject #:	Project Owner:	ner:	Ω	City:			-1	77					_
ame: A	vand Eneral		St	State:	Zip:		1	11		_			
Project Location:	Battle 34 J'		P	Phone #:				20		_			
Sampler Name:			Fa	Fax #:				1		_			_
FOR LAB USE ONLY			MATRIX	PRESERV.	SAMPLING	Ĩ	v F			_			_
Lab I.D.	Sample I.D.	RAB OR (C)OMF		ID/BASE: / COOL HER :			TPHE	BTEX					
14803103	Public Str C Wall		VVA SO OIL SL	AC	DATE	TIME	X C	1	#	+	1	+	+
10 3	Path 34 r wall	-(	_		-	50:h1	-	1					
	BATTLE 34 N.WALL	*	<		+		7	1					

Relinquished By: Sampler - UPS - Bus - Other: Relinquished By Delivered By: (Circle One) Time: Date: Received By: Sample Condition CHECKED BY: Fax Result: P46E2 ☐ Yes ☐ No Add'l Phone #: Add'l Fax #: PUSE QUE

Paralle of annual annual annual channes Planes for willfan abaness to 18781 200 2026



November 01, 2018

ANDREW PARKER
R T HICKS CONSULTANTS
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE, NM 87104

RE: ADVANCE ENERGY

Enclosed are the results of analyses for samples received by the laboratory on 11/01/18 8:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/ga/lab">www.tceq.texas.gov/field/ga/lab</a> accred certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2 Haloacetic Acids (HAA-5)
Method EPA 524.2 Total Trihalomethanes (TTHM)
Method EPA 524.4 Regulated VOCs (V1, V2, V3)

Celey D. Keine

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



R T HICKS CONSULTANTS ANDREW PARKER 901 RIO GRANDE BLVD SUITE F-142 ALBUQUERQUE NM, 87104

Fax To: NONE

Received: 11/01/2018 Sampling Date: 10/31/2018

Reported: 11/01/2018 Sampling Type: Soil

Project Name: ADVANCE ENERGY Sampling Condition: Cool & Intact
Project Number: LATITUDE SOUTH TRENCH Sample Received By: Tamara Oldaker

Project Location: NOT GIVEN

### Sample ID: NORTH WALL (H803127-01)

Chlorida SM4500Cl B	•	•	A	d Dur AC					
Chloride, SM4500Cl-B	mg	/kg	Апагуге	ed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	896	16.0	11/01/2018	ND	416	104	400	3.77	
Sample ID: SOUTH WALL	(H803127-02	)							
Chloride, SM4500Cl-B	mg	/kg	Analyze	ed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier

ND

416

104

400

3.77

### **Sample ID: WEST WALL (H803127-03)**

400

16.0

Chloride

Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	912	16.0	11/01/2018	ND	416	104	400	3.77	

11/01/2018

### Sample ID: EAST WALL (H803127-04)

Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	11/01/2018	ND	416	104	400	3.77		

Cardinal Laboratories \*=Accredited Analyte

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R T HICKS CONSULTANTS ANDREW PARKER 901 RIO GRANDE BLVD SUITE F-142 ALBUQUERQUE NM, 87104

Fax To: NONE

Received: 11/01/2018 Sampling Date: 10/31/2018

Reported: 11/01/2018 Sampling Type: Soil

Project Name: ADVANCE ENERGY Sampling Condition: Cool & Intact
Project Number: LATITUDE SOUTH TRENCH Sample Received By: Tamara Oldaker

Project Location: NOT GIVEN

### Sample ID: BASE @ 4.5' (H803127-05)

Chioride, SM4500CI-B	mg/	кд	Analyze	а ву: АС					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2840	16.0	11/01/2018	ND	416	104	400	3.77	

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### **Notes and Definitions**

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

\*\* Samples not received at proper temperature of 6°C or below.

\*\*\* Insufficient time to reach temperature.

Chloride by SM4500Cl-B does not require samples be received at or below 6°C

Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories \*=Accredited Analyte

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Celeg D. Freene



# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476

Collipany Maile. KT Hicks Consultants		ANALYSIS REQUEST
Project Manager: Andrew Parker	P.O. #:	
	Company: RT His	
City: State:	Zip: Attn: Andrew Parker	
Phone #: Fax #:	Address:	
Project #: Project Owner:	City:	
Project Name: Advance Encry	State: Zip:	
Project Location: Latitude South Trock	Phone #:	
Sampler Name: Andrew Parker	Fax #:	)
FOR LAB USE ONLY	MATRIX	
Lab I.D. Sample I.D.	DGE ER: D/BASE: COOL	1 (450
	# CO GRO WAS SOIL OIL SLUE OTHI	TIME
North Wall	C 1 X 10·31	
West		
4 East wall		11:45
~		12:00 V
PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or fort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deepned valved unless made in writing and received by Cardinal within 20 days after complete and the co	any claim arising whether based in contract or tort, shall be limited to the amount paid	by the client for the

Relinquished By: service. In no event shall Cardinal be liable for incidental or consequental damages, including without Imitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or or therwise.

Received By:

| Phone Result: Fax Result: ReMARKS: Sampler - UPS - Bus - Other: Delivered By: (Circle One) Time: 8:00 Date: Time: #97 Received By: amara Sample Condition
Cool Intact
TYes TYes
No No CHECKED BY: (Initials) andrew@ Hhicks consult rom SAME DAY RUSH ☐ Yes ☐ No Add'I Phone #:
☐ Yes ☐ No Add'I Fax #: Text 970-570-9535 Roults to



November 01, 2018

ANDREW PARKER
R T HICKS CONSULTANTS
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE, NM 87104

RE: ADVANCE ENERGY

Enclosed are the results of analyses for samples received by the laboratory on 11/01/18 8:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/ga/lab">www.tceq.texas.gov/field/ga/lab</a> accred certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2 Haloacetic Acids (HAA-5)
Method EPA 524.2 Total Trihalomethanes (TTHM)
Method EPA 524.4 Regulated VOCs (V1, V2, V3)

Celey D. Keine

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



R T HICKS CONSULTANTS ANDREW PARKER 901 RIO GRANDE BLVD SUITE F-142 ALBUQUERQUE NM, 87104

Fax To: NONE

Received: 11/01/2018 Sampling Date: 10/31/2018

Reported: 11/01/2018 Sampling Type: Soil

Project Name: ADVANCE ENERGY Sampling Condition: Cool & Intact
Project Number: WEST OF MERCHANT Sample Received By: Tamara Oldaker

Project Location: NOT GIVEN

### Sample ID: NORTH WALL (H803126-01)

Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	11/01/2018	ND	416	104	400	3.77	

### Sample ID: BASE @ 4' (H803126-02)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	11/01/2018	ND	416	104	400	3.77	

Cardinal Laboratories \*=Accredited Analyte

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### **Notes and Definitions**

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

\*\* Samples not received at proper temperature of 6°C or below.

\*\*\* Insufficient time to reach temperature.

Chloride by SM4500Cl-B does not require samples be received at or below 6°C

Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories \*=Accredited Analyte

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# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

# 101 East Marland, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476

Company Name.	KI HICKS CONSULTANT			6		ANALYSIS REQUEST	
Project Manager:	Andrew P		P.O. #:				
Address: o	on-file		Company: QT Hick	Hicks			
City:	State:	Zip:	Attn: Andrew Parker	o Perker			
Phone #:	Fax #:		Address:				
Project #:	Project Owner:	*	City:				
Project Name: 🕨	Project Name: West of Merchant		State: Zip:	3:			
Project Location:	Advance Energy &		Phone #:				
Sampler Name:	Andrew Parker		Fax #:				
FOR LAB USE ONLY		MATRIX	PRESERV.	SAMPLING	œ)		
Lab I.D. <i>H</i> 863126	Sample I.D.	# CONTAINERS GROUNDWATER WASTEWATER SOIL OIL	SLUDGE OTHER: ACID/BASE: ICE / COOL OTHER:	DATE TIME	C1 (450		
1	North Wall	c -		10.31 16:00	×		
2	Base @ 4 ft	6 - X		16:15	×		
PLEASE NOTE: Liability and I	PLEASE NOTE: Liability and Damages, Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or fort, shall be limited to the amount paid by the client for the	any claim arising whether based in con	ntract or tort, shall be limited to the	amount paid by the client for	the		
analyses. All claims including	analyses. All claims including those for negligence and any other cause whatspever shall be deemed waived unless made in writing and received by Cardinal within 20 days after	deemed waived unless made in writin	and received by Cardinal within "	20			

40

CHECKED BY: (Initials)

andrew@rthicksconsult.com

970-570-9535

SAME DAY RUSH

Text

Results to

Sampler - UPS - Bus - Other: Delivered By: (Circle One) Relinquished By:

service. In no event shall Cardinal be liable for incidental or consequental damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Received By:

r such claim is based upon any of the above stated reasons or otherwise.

Phone Result:

Fax Result:

REMARKS:

□ Yes

□ No

Add'l Phone #: Add'l Fax #:

Relinquished By:

and and

Time: 08:00 Date:

lamara

Received By:

Time: Date:

<sup>+</sup> Pardinal cannot accept verhal changes Bleace fav written changes to IRTE1 202\_2226 Sample Condition
Cool Intact
Tyes Tyes
No No



September 18, 2018

ANDREW PARKER
R T HICKS CONSULTANTS
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE, NM 87104

RE: BATTLE 34 RELEASE

Enclosed are the results of analyses for samples received by the laboratory on 09/13/18 14:55.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/ga/lab">www.tceq.texas.gov/field/ga/lab</a> accred certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2 Haloacetic Acids (HAA-5)
Method EPA 524.2 Total Trihalomethanes (TTHM)
Method EPA 524.4 Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

Celey D. Keine

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



R T HICKS CONSULTANTS ANDREW PARKER 901 RIO GRANDE BLVD SUITE F-142 ALBUQUERQUE NM, 87104

Fax To: NONE

Received: 09/13/2018 Sampling Date: 09/13/2018
Reported: 09/18/2018 Sampling Type: Soil

Project Name: BATTLE 34 RELEASE Sampling Condition: \*\* (See Notes)
Project Number: NONE GIVEN Sample Received By: Tamara Oldaker

A -- - | -- - - - | D- -- -- --

Project Location: ADVANCE ENERGY - LEA CO NM

### Sample ID: W WALL COMP (H802595-01)

BTEX 8021B	mg/	'kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/14/2018	ND	2.22	111	2.00	0.102	
Toluene*	<0.050	0.050	09/14/2018	ND	2.09	105	2.00	0.0941	
Ethylbenzene*	<0.050	0.050	09/14/2018	ND	2.08	104	2.00	0.398	
Total Xylenes*	<0.150	0.150	09/14/2018	ND	6.27	105	6.00	0.456	
Total BTEX	<0.300	0.300	09/14/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	93.3	% 69.8-14	2						
Chloride, SM4500CI-B	mg/	'kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	240	16.0	09/14/2018	ND	416	104	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/14/2018	ND	194	96.8	200	2.79	
DRO >C10-C28*	<10.0	10.0	09/14/2018	ND	190	95.0	200	2.47	
EXT DRO >C28-C36	<10.0	10.0	09/14/2018	ND					
Surrogate: 1-Chlorooctane	119 9	% 41-142	)						
Surrogate: 1-Chlorooctadecane	118 9	% 37.6-14	7						

Cardinal Laboratories \*=Accredited Analyte

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R T HICKS CONSULTANTS ANDREW PARKER 901 RIO GRANDE BLVD SUITE F-142 ALBUQUERQUE NM, 87104

Fax To: NONE

Received: 09/13/2018 Sampling Date: 09/13/2018

Reported: 09/18/2018 Sampling Type: Soil
Project Name: BATTLE 34 RELEASE Sampling Condition: \*\* (9

Project Name: BATTLE 34 RELEASE Sampling Condition: \*\* (See Notes)
Project Number: NONE GIVEN Sample Received By: Tamara Oldaker

Analyzed By, me

Project Location: ADVANCE ENERGY - LEA CO NM

ma/ka

### Sample ID: FLOOR COMP @ 4.25' - 5.0' BGS (H802595-02)

RTFY 8021R

BIEX 8021B	mg/	кд	Anaiyze	a By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/14/2018	ND	2.22	111	2.00	0.102	
Toluene*	<0.050	0.050	09/14/2018	ND	2.09	105	2.00	0.0941	
Ethylbenzene*	<0.050	0.050	09/14/2018	ND	2.08	104	2.00	0.398	
Total Xylenes*	<0.150	0.150	09/14/2018	ND	6.27	105	6.00	0.456	
Total BTEX	<0.300	0.300	09/14/2018	ND					
Surrogate: 4-Bromofluorobenzene (PID	91.3	% 69.8-14	2						
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	240	16.0	09/14/2018	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/14/2018	ND	194	96.8	200	2.79	
DRO >C10-C28*	<10.0	10.0	09/14/2018	ND	190	95.0	200	2.47	
EXT DRO >C28-C36	<10.0	10.0	09/14/2018	ND					
Surrogate: 1-Chlorooctane	106 %	6 41-142	?						

Surrogate: 1-Chlorooctadecane 99.4 % 37.6-147

Cardinal Laboratories \*=Accredited Analyte

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### **Notes and Definitions**

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

\*\* Samples not received at proper temperature of 6°C or below.

\*\*\* Insufficient time to reach temperature.

Chloride by SM4500Cl-B does not require samples be received at or below 6°C

Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories \*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whistoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results related only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celeg D. Freene



# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

(575) 393-2326 FAX (575) 393-2476 101 East Marland, Hobbs, NM 88240

Company Name	Company Name: RT HICKS Consultants		BILL TO	ANALYSIS REQUEST	
Project Manager:	· Andrew Parker		P.O. #:		
Address: 90/	1	Suite F-142	Company: RT HICKS		
city: Albuquerque	State: NM	1	Attn: Randy Hicks	2	
Phone #: 87	5050266-5004 Fax#:			DR.	
Project #:		Project Owner: Advance Energy City:	City:	/ <i>/m</i>	
Project Name:	Project Name: Battle 34 Roladse	JI	State: Zip:	201	
Project Location:	ii Lea Co.		Phone #:	GK	
Sampler Name:	K. Pool		Fax #:	0/	
FOR LAB USE ONLY	/	MATRIX	PRESERV. SAMPLING		
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL SLUDGE	OTHER: ACID/BASE: ICE / COOL OTHER: DATE	8015 P Chlorida BTEX	
1	W wall comp	X	×	XXX	
N	Floor comp! @-5.0 ff BGS	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		XXX	
PLEASE NOTE: Liability ar	d Damages. Cardinal's liability and client's exclusive remedy for a	v claim arising whether based in contra	of or for chall be limited to the amount notice by the office	of faction	
analyses. All claims includir service. In no event shall C	analyses. All data including these for negligence and any other cause whatsoever shall be deemed which cause white seed to the same that the cause whatsoever shall be deemed which cause white seed to same the same that the sam	without limitation, business interruptions	nd on this shall be unitated to the arrount paid by the call nd received by Cardinal within 30 days after completions, loss of use, or loss of profits incurred by client, its su	on to me on the applicable soldaries,	
The same of sa	namenes a successing out of or related to the performance of services network the services retroubled by Cardinal, regardless of whitefull successing out of or a related to the performance of services networks.	ilulial, regardess of whether such clair	n is based upon any of the above stated reasons or of	ermse.	

Slede

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CHECKED BY: (Initials)

Kristin@"

androw@ "

Sampler - UPS - Bus - Other: Delivered By: (Circle One) Relinquished By:

14:55 09/3/8

Received By:

Phone Result: Fax Result: REMARKS:

□ Yes

☐ No Add'I Phone #:

Email to R@ rthicks consult. com,

Received By:

Time: Date: Relinquished By:

<sup>+</sup> Pardinal rannot acrost verbal rhannes Blease for written rhannes to 18781 202\_2296 Sample Condition
Cool Intact
Yes Yes



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

September 25, 2018

Andrew Parker R.T. Hicks Consultants, LTD 901 Rio Grande Blvd. NW Suite F-142

Albuquerque, NM 87104 TEL: (505) 266-5004 FAX (505) 266-0745

RE: W of Merchant Release W of rd OrderNo.: 1809976

### Dear Andrew Parker:

Hall Environmental Analysis Laboratory received 5 sample(s) on 9/14/2018 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to <a href="www.hallenvironmental.com">www.hallenvironmental.com</a> or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman

Laboratory Manager

andel

4901 Hawkins NE

Albuquerque, NM 87109

### Lab Order 1809976

Date Reported: 9/25/2018

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: R.T. Hicks Consultants, LTD

Client Sample ID: W Wall Comp

 Project:
 W of Merchant Release W of rd
 Collection Date: 9/11/2018 12:30:00 PM

 Lab ID:
 1809976-001
 Matrix: SOIL
 Received Date: 9/14/2018 8:55:00 AM

Analyses	Result	PQL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: smb
Chloride	ND	30	mg/Kg	20	9/23/2018 2:51:08 PM	40520
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS				Analyst	: TOM
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	9/20/2018 11:13:49 AM	40460
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	9/20/2018 11:13:49 AM	40460
Surr: DNOP	112	50.6-138	%Rec	1	9/20/2018 11:13:49 AM	40460
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: NSB
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	9/20/2018 4:08:59 PM	40453
Surr: BFB	93.1	15-316	%Rec	1	9/20/2018 4:08:59 PM	40453
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
Benzene	ND	0.024	mg/Kg	1	9/20/2018 4:08:59 PM	40453
Toluene	ND	0.048	mg/Kg	1	9/20/2018 4:08:59 PM	40453
Ethylbenzene	ND	0.048	mg/Kg	1	9/20/2018 4:08:59 PM	40453
Xylenes, Total	ND	0.096	mg/Kg	1	9/20/2018 4:08:59 PM	40453
Surr: 4-Bromofluorobenzene	94.9	80-120	%Rec	1	9/20/2018 4:08:59 PM	40453

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 1 of 10
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

### Lab Order **1809976**

Date Reported: 9/25/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: R.T. Hicks Consultants, LTD Client Sample ID: N Wall Comp

**Project:** W of Merchant Release W of rd
 Collection Date: 9/11/2018 12:48:00 PM

 **Lab ID:** 1809976-002
 Matrix: SOIL
 Received Date: 9/14/2018 8:55:00 AM

Analyses	Result	PQL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	smb
Chloride	ND	30	mg/Kg	20	9/23/2018 3:28:21 PM	40520
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	TOM
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	9/20/2018 12:20:29 PM	40460
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	9/20/2018 12:20:29 PM	40460
Surr: DNOP	117	50.6-138	%Rec	1	9/20/2018 12:20:29 PM	40460
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: NSB
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	9/20/2018 5:18:50 PM	40453
Surr: BFB	92.3	15-316	%Rec	1	9/20/2018 5:18:50 PM	40453
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.024	mg/Kg	1	9/20/2018 5:18:50 PM	40453
Toluene	ND	0.048	mg/Kg	1	9/20/2018 5:18:50 PM	40453
Ethylbenzene	ND	0.048	mg/Kg	1	9/20/2018 5:18:50 PM	40453
Xylenes, Total	ND	0.096	mg/Kg	1	9/20/2018 5:18:50 PM	40453
Surr: 4-Bromofluorobenzene	95.8	80-120	%Rec	1	9/20/2018 5:18:50 PM	40453

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 2 of 10
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Date Reported: 9/25/2018

### Lab Order **1809976**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: R.T. Hicks Consultants, LTD

Client Sample ID: Wall Comp

**Project:** W of Merchant Release W of rd
 Collection Date: 9/11/2018 1:08:00 PM

 **Lab ID:** 1809976-003
 Matrix: SOIL
 Received Date: 9/14/2018 8:55:00 AM

Analyses	Result	PQL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	smb
Chloride	81	30	mg/Kg	20	9/23/2018 3:40:46 PM	40520
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	TOM
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	9/20/2018 12:42:33 PM	40460
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	9/20/2018 12:42:33 PM	40460
Surr: DNOP	133	50.6-138	%Rec	1	9/20/2018 12:42:33 PM	40460
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: NSB
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	9/20/2018 6:28:43 PM	40453
Surr: BFB	90.3	15-316	%Rec	1	9/20/2018 6:28:43 PM	40453
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.024	mg/Kg	1	9/20/2018 6:28:43 PM	40453
Toluene	ND	0.049	mg/Kg	1	9/20/2018 6:28:43 PM	40453
Ethylbenzene	ND	0.049	mg/Kg	1	9/20/2018 6:28:43 PM	40453
Xylenes, Total	ND	0.097	mg/Kg	1	9/20/2018 6:28:43 PM	40453
Surr: 4-Bromofluorobenzene	90.4	80-120	%Rec	1	9/20/2018 6:28:43 PM	40453

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 3 of 10
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

### Lab Order **1809976**

Date Reported: 9/25/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: R.T. Hicks Consultants, LTD

Client Sample ID: Wall Comp

**Project:** W of Merchant Release W of rd
 Collection Date: 9/11/2018 1:19:00 PM

 **Lab ID:** 1809976-004
 Matrix: SOIL
 Received Date: 9/14/2018 8:55:00 AM

Analyses	Result	PQL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: smb
Chloride	ND	30	mg/Kg	20	9/23/2018 3:53:11 PM	40520
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	: TOM
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	9/20/2018 1:04:35 PM	40460
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	9/20/2018 1:04:35 PM	40460
Surr: DNOP	126	50.6-138	%Rec	1	9/20/2018 1:04:35 PM	40460
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: NSB
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	9/20/2018 11:54:58 PM	40453
Surr: BFB	91.1	15-316	%Rec	1	9/20/2018 11:54:58 PM	40453
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
Benzene	ND	0.024	mg/Kg	1	9/20/2018 11:54:58 PM	40453
Toluene	ND	0.048	mg/Kg	1	9/20/2018 11:54:58 PM	40453
Ethylbenzene	ND	0.048	mg/Kg	1	9/20/2018 11:54:58 PM	40453
Xylenes, Total	ND	0.096	mg/Kg	1	9/20/2018 11:54:58 PM	40453
Surr: 4-Bromofluorobenzene	93.2	80-120	%Rec	1	9/20/2018 11:54:58 PM	40453

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 4 of 10
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

## Hall Environmental Analysis Laboratory, Inc.

Date Reported: 9/25/2018

CLIENT:R.T. Hicks Consultants, LTDClient Sample ID: Floor Comp @ 5' BGSProject:W of Merchant Release W of rdCollection Date: 9/11/2018 1:33:00 PMLab ID:1809976-005Matrix: SOILReceived Date: 9/14/2018 8:55:00 AM

Analyses	Result	PQL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	smb
Chloride	ND	30	mg/Kg	20	9/23/2018 4:30:25 PM	40520
EPA METHOD 8015M/D: DIESEL RANGE ORGA	ANICS				Analyst	: TOM
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	9/20/2018 1:26:36 PM	40460
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	9/20/2018 1:26:36 PM	40460
Surr: DNOP	88.7	50.6-138	%Rec	1	9/20/2018 1:26:36 PM	40460
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: NSB
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	9/21/2018 12:18:18 AM	40453
Surr: BFB	91.5	15-316	%Rec	1	9/21/2018 12:18:18 AM	40453
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
Benzene	ND	0.023	mg/Kg	1	9/21/2018 12:18:18 AM	40453
Toluene	ND	0.047	mg/Kg	1	9/21/2018 12:18:18 AM	40453
Ethylbenzene	ND	0.047	mg/Kg	1	9/21/2018 12:18:18 AM	40453
Xylenes, Total	ND	0.094	mg/Kg	1	9/21/2018 12:18:18 AM	40453
Surr: 4-Bromofluorobenzene	93.5	80-120	%Rec	1	9/21/2018 12:18:18 AM	40453

*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	Е	Value above quantitation range
Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 5 of 10
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified
	D H ND	<ul> <li>D Sample Diluted Due to Matrix</li> <li>H Holding times for preparation or analysis exceeded</li> <li>ND Not Detected at the Reporting Limit</li> <li>PQL Practical Quanitative Limit</li> </ul>	D     Sample Diluted Due to Matrix     E       H     Holding times for preparation or analysis exceeded     J       ND     Not Detected at the Reporting Limit     P       PQL     Practical Quanitative Limit     RL

## Hall Environmental Analysis Laboratory, Inc.

WO#: **1809976** 

25-Sep-18

Client: R.T. Hicks Consultants, LTD

Project: W of Merchant Release W of rd

Sample ID MB-40520 SampType: mblk TestCode: EPA Method 300.0: Anions

Client ID: PBS Batch ID: 40520 RunNo: 54364

Prep Date: 9/22/2018 Analysis Date: 9/23/2018 SeqNo: 1800846 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride ND 1.5

Sample ID LCS-40520 SampType: Ics TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 40520 RunNo: 54364

Prep Date: 9/22/2018 Analysis Date: 9/23/2018 SeqNo: 1800847 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride 14 1.5 15.00 0 95.0 90 110

### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

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**Client:** 

**Project:** 

Analyte

Surr: DNOP

Diesel Range Organics (DRO)

## Hall Environmental Analysis Laboratory, Inc.

R.T. Hicks Consultants, LTD W of Merchant Release W of rd

Result

51

4.4

WO#: **1809976** 

25-Sep-18

Sample ID	1809976-001AMS	SampType: MS TestCode: EPA Method 8					8015M/D: Di	esel Rang	e Organics		
Client ID:	W Wall Comp	Batch	ID: <b>40</b>	460	RunNo: <b>54275</b>						
Prep Date:	9/19/2018	Analysis Date: 9/20/2018			SeqNo: 1797637			Units: mg/Kg			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range C	Organics (DRO)	58	9.9	49.70	0	117	53.5	126			
Surr: DNOP		5.5		4.970		111	50.6	138			
Sample ID 1809976-001AMSD SampType: MSD TestCode: EPA Method 8015M/D: Diesel Range Organics											
Client ID:	W Wall Comp	Batch	Batch ID: 40460 RunNo: 54275								
Prep Date:	9/19/2018	Analysis Da	ite: <b>9/</b>	20/2018	SeqNo: 1797638 Units: mg/Kg			<b>(</b> g			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range C	rganics (DRO)	58	9.9	49.41	0	118	53.5	126	0.181	21.7	
Surr: DNOP		5.6		4.941		113	50.6	138	0	0	
Sample ID	LCS-40460	SampTy	pe: <b>LC</b>	s	Test	tCode: El	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID:	LCSS	Batch	ID: <b>40</b>	460	R	tunNo: 5	4275				
Prep Date:	9/19/2018	Analysis Da	nte: 9/	20/2018	S	SeqNo: 1	797655	Units: mg/k	<b>(</b> g		

Sample ID MB-40460	SampT	уре: МЕ	BLK	Test	tCode: El	PA Method	8015M/D: Die	esel Range	e Organics	
Client ID: PBS	Batch	1D: <b>40</b>	460	RunNo: <b>54275</b>						
Prep Date: 9/19/2018	Analysis Date: 9/20/2018			SeqNo: <b>1797656</b>			Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		101	50.6	138			

%REC

101

87.3

LowLimit

70

50.6

HighLimit

130

138

SPK value SPK Ref Val

50.00

5.000

Sample ID LCS-40485	SampTyp	e: LCS		Tes	tCode: E	PA Method	8015M/D: Die	esel Rang	e Organics	
Client ID: LCSS	Batch II	D: <b>4048</b>	35	R	RunNo: 5	4322				
Prep Date: 9/20/2018	Analysis Date	e: <b>9/2</b> 1	1/2018	S	SeqNo: 1	798291	Units: %Re	С		
Analyte	Result	PQL S	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.0		5.000		100	50.6	138			

Sample ID MB-40485	SampType: MBLK	TestCode: EPA Method	8015M/D: Diesel Range Organics
Client ID: PBS	Batch ID: 40485	RunNo: <b>54322</b>	
Prep Date: 9/20/2018	Analysis Date: 9/21/2018	SeqNo: <b>1798292</b>	Units: %Rec
Analyte	Result PQL SPK value SI	PK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit Qual

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

D. Complemental Design

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%RPD

**RPDLimit** 

Qual

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

WO#: **1809976** 

25-Sep-18

Client: R.T. Hicks Consultants, LTD

Project: W of Merchant Release W of rd

Sample ID MB-40485 SampType: MBLK TestCode: EPA Method 8015M/D: Diesel Range Organics

Client ID: PBS Batch ID: 40485 RunNo: 54322

Prep Date: 9/20/2018 Analysis Date: 9/21/2018 SeqNo: 1798292 Units: %Rec

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Surr: DNOP 11 10.00 108 50.6 138

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

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# Hall Environmental Analysis Laboratory, Inc.

WO#: **1809976** 

25-Sep-18

Client:	R.T. Hicks Consultants, LTD
Project:	W of Merchant Release W of rd

rroject: w of M	ciciant ici									
Sample ID MB-40453	SampT	уре: МЕ	BLK	Tes	tCode: El	PA Method	8015D: Gaso	line Rang	е	
Client ID: PBS	Batch	n ID: <b>40</b>	453	R	RunNo: 54	<b>4282</b>				
Prep Date: 9/19/2018	Analysis D	ate: <b>9/</b>	20/2018	S	SeqNo: 1	796709	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	910		1000		91.4	15	316			
Sample ID LCS-40453	SampT	ype: <b>LC</b>	s	Tes	tCode: El	PA Method	8015D: Gaso	line Rang	e	
Client ID: LCSS	Batch	n ID: <b>40</b>	453	R	RunNo: 54	<b>4282</b>				
Prep Date: 9/19/2018	Analysis D	ate: <b>9/</b>	20/2018	S	SeqNo: 1	796710	Units: mg/K	ζg		
A a luida	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Analyte										
Gasoline Range Organics (GRO)	24	5.0	25.00	0	96.8	75.9	131			
,	24 1100	5.0	25.00 1000	0	96.8 107	75.9 15	131 316			
Gasoline Range Organics (GRO)	1100	5.0 Type: <b>M\$</b>	1000		107	15	_	oline Rang	e	
Gasoline Range Organics (GRO) Surr: BFB	1100 SampT		1000	Tes	107	15 PA Method	316	oline Rang	e	
Gasoline Range Organics (GRO) Surr: BFB Sample ID 1809976-001AMS	1100 SampT	ype: <b>M</b> \$	1000 S 453	Tes:	107 tCode: El	15 PA Method	316	J	e	
Gasoline Range Organics (GRO) Surr: BFB  Sample ID 1809976-001AMS Client ID: W Wall Comp	1100 S SampT Batch	ype: <b>M</b> \$	1000 S 453 (20/2018	Tes:	107 tCode: <b>EF</b> RunNo: <b>5</b> 4	15 PA Method	316 <b>8015D: Gasc</b>	J	<b>e</b> RPDLimit	Qual
Gasoline Range Organics (GRO) Surr: BFB  Sample ID 1809976-001AMS Client ID: W Wall Comp Prep Date: 9/19/2018	1100 S SampT Batch Analysis D	Type: <b>M\$</b> ID: <b>40</b> Date: <b>9</b>	1000 S 453 (20/2018	Tes:	tCode: Eff RunNo: 54	15 PA Method 4282 796712	316 <b>8015D: Gasc</b> Units: <b>mg/k</b>	(g		Qual
Gasoline Range Organics (GRO) Surr: BFB  Sample ID 1809976-001AMS Client ID: W Wall Comp Prep Date: 9/19/2018 Analyte	1100 S SampT Batch Analysis D Result	Type: <b>M\$</b> ID: <b>40</b> Pate: <b>9</b>	1000 6 453 720/2018 SPK value	Tes R S SPK Ref Val	107 tCode: ER RunNo: 5- SeqNo: 17 %REC	15 PA Method 4282 796712 LowLimit	316  8015D: Gasc  Units: mg/K  HighLimit	(g		Qual
Gasoline Range Organics (GRO) Surr: BFB  Sample ID 1809976-001AMS Client ID: W Wall Comp Prep Date: 9/19/2018 Analyte Gasoline Range Organics (GRO)	1100 S SampT Batch Analysis D Result 29 1000	Type: <b>M\$</b> ID: <b>40</b> Pate: <b>9</b>	1000 6 453 20/2018 SPK value 23.58 943.4	Tes R S SPK Ref Val 0	107 tCode: <b>EF</b> RunNo: <b>5</b> SeqNo: <b>1</b> %REC 122 109	7A Method 4282 796712 LowLimit 77.8 15	316  8015D: Gasc  Units: mg/k  HighLimit  128	Kg %RPD	RPDLimit	Qual
Gasoline Range Organics (GRO) Surr: BFB  Sample ID 1809976-001AMS Client ID: W Wall Comp Prep Date: 9/19/2018  Analyte Gasoline Range Organics (GRO) Surr: BFB	S SampT Batch Analysis D Result 29 1000 SD SampT	PQL 4.7	1000 8 453 720/2018 SPK value 23.58 943.4	Tes R S SPK Ref Val 0	107 tCode: <b>EF</b> RunNo: <b>5</b> SeqNo: <b>1</b> %REC 122 109	7A Method 4282 796712 LowLimit 77.8 15	316  8015D: Gaso  Units: mg/k  HighLimit  128  316	Kg %RPD	RPDLimit	Qual
Gasoline Range Organics (GRO) Surr: BFB  Sample ID 1809976-001AMS Client ID: W Wall Comp Prep Date: 9/19/2018 Analyte Gasoline Range Organics (GRO) Surr: BFB  Sample ID 1809976-001AMS	S SampT Batch Analysis D Result 29 1000 SD SampT	PQL 4.7  Type: MS  Type: MS  Type: MS	1000 6 453 20/2018 SPK value 23.58 943.4 SD 453	Tes F S SPK Ref Val 0	107 tCode: EF RunNo: 5- SeqNo: 1: %REC 122 109 tCode: EF	7A Method 4282 796712 LowLimit 77.8 15 PA Method 4282	316  8015D: Gaso  Units: mg/k  HighLimit  128  316	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO) Surr: BFB  Sample ID 1809976-001AMS Client ID: W Wall Comp Prep Date: 9/19/2018  Analyte Gasoline Range Organics (GRO) Surr: BFB  Sample ID 1809976-001AMS Client ID: W Wall Comp	SampT Batch Analysis D Result 29 1000  SD SampT Batch	PQL 4.7  Type: MS  Type: MS  Type: MS	1000 6 453 20/2018 SPK value 23.58 943.4 6D 453 20/2018	Tes F S SPK Ref Val 0	107 tCode: EF RunNo: 56 SeqNo: 1: %REC 122 109 tCode: EF RunNo: 56 SeqNo: 1:	7A Method 4282 796712 LowLimit 77.8 15 PA Method 4282	316  8015D: Gaso  Units: mg/k  HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO) Surr: BFB  Sample ID 1809976-001AMS Client ID: W Wall Comp Prep Date: 9/19/2018  Analyte Gasoline Range Organics (GRO) Surr: BFB  Sample ID 1809976-001AMS Client ID: W Wall Comp Prep Date: 9/19/2018	S SampT Batch Analysis D Result 29 1000 SD SampT Batch Analysis D	Type: MS a ID: 40a ate: 9/ PQL 4.7 Type: MS a ID: 40a ate: 9/	1000 6 453 20/2018 SPK value 23.58 943.4 6D 453 20/2018	Tes R S SPK Ref Val 0	107 tCode: EF RunNo: 56 SeqNo: 1: %REC 122 109 tCode: EF RunNo: 56 SeqNo: 1:	7A Method 4282 796712 LowLimit 77.8 15 PA Method 4282 796713	316  8015D: Gaso  Units: mg/k  HighLimit 128 316  8015D: Gaso  Units: mg/k	%RPD  Oline Rang	RPDLimit e	

### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

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## Hall Environmental Analysis Laboratory, Inc.

WO#: **1809976** 

25-Sep-18

Client: R.T. Hicks Consultants, LTD

Project: W of Merchant Release W of rd

Sample ID MB-40453 SampType: MBLK TestCode: EPA Method 8021B: Volatiles Client ID: **PBS** Batch ID: 40453 RunNo: 54282 Prep Date: 9/19/2018 Analysis Date: 9/20/2018 SeqNo: 1796749 Units: mg/Kg Analyte Result **PQL** SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Benzene ND 0.025 Toluene ND 0.050 Ethylbenzene ND 0.050 Xylenes, Total ND 0.10 Surr: 4-Bromofluorobenzene 0.92 1.000 91.5 80 120

Sample ID LCS-40453 SampType: LCS TestCode: EPA Method 8021B: Volatiles Batch ID: 40453 Client ID: **LCSS** RunNo: 54282 Prep Date: 9/19/2018 Analysis Date: 9/20/2018 SeqNo: 1796750 Units: mg/Kg **PQL** SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Analyte Result Qual 0.025 1.000 O 93.8 77.3 128 Benzene 0.94 Toluene 0.98 0.050 1.000 0 98.0 79.2 125 Ethylbenzene 0.96 0.050 0 96.4 80.7 127 1.000 Xylenes, Total 2.9 0.10 3.000 0 97.0 81.6 129 Surr: 4-Bromofluorobenzene 0.99 1.000 99.4 80 120

Sample ID 1809976-002AMS SampType: MS TestCode: EPA Method 8021B: Volatiles Client ID: N Wall Comp Batch ID: 40453 RunNo: 54282 9/19/2018 Analysis Date: 9/20/2018 SeqNo: 1796753 Prep Date: Units: mg/Kg Analyte Result **PQL** SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Benzene 0.94 0.024 0.9737 97.0 68.5 133 Toluene 0.98 0.049 0.9737 0.01580 99.5 75 130 0.98 0.049 0.9737 101 79.4 128 Ethylbenzene 0 0.01580 Xylenes, Total 2.9 0.097 2.921 100 77.3 131 Surr: 4-Bromofluorobenzene 0.9737 0.97 99.4 80 120

Sample ID 1809976-002AMSD SampType: MSD TestCode: EPA Method 8021B: Volatiles Client ID: Batch ID: 40453 RunNo: 54282 N Wall Comp Prep Date: 9/19/2018 Analysis Date: 9/20/2018 SeqNo: 1796754 Units: mg/Kg %REC **RPDLimit** Analyte Result **PQL** SPK value SPK Ref Val LowLimit HighLimit %RPD Qual 0.91 0.024 0.9524 0 96.1 68.5 133 3.19 20 Benzene Toluene 0.97 0.048 0.9524 0.01580 100 75 130 1.65 20 Ethylbenzene 0.95 0.048 0.9524 Λ 100 79.4 128 2.63 20 Xylenes, Total 2.9 0.095 2.857 0.01580 99.5 77.3 131 2.68 20 Surr: 4-Bromofluorobenzene 0.94 0.9524 98.2 80 120 0 0

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

D C----1- -II N-+ I- D----

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P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified



Hall Environmental Analysis Laborator) 4901 Hawkins NE Albuquerque, NM 87105

Sample Log-In Check List

TEL: 505-345-3975 FAX: 505-345-410; Website: www.hallenvironmental.con

Client Name: RT HIC	KS	Work Order Number:	1809976		RcptNo: 1	
Received By: Jazzmi	ine Burkhead 9/	14/2018 8:55:00 AM		figer Backfiel		
Completed By: Ashley	Gallegos 9/	17/2018 4:39:01 PM		A		
Reviewed By:	9/19	La La	beled	b4:	m 09/19	)18
Chain of Custody					O	
Is Chain of Custody co	mplete?		Yes 🗹	No 🗌	Not Present	
2. How was the sample de	elivered?		Courier			
Log In  3. Was an attempt made:	to cool the samples?		Yes 🗹	No 🗆	na 🗔	
4 144				No 🗆	🗆	
<ol> <li>Were all samples received.</li> </ol>	ved at a temperature of >	•0° C to 6.0°C	Yes 🗹	140	NA 📙	
5. Sample(s) in proper con	ntainer(s)?		Yes 🗹	No 🗆		
6. Sufficient sample volum	ne for indicated test(s)?		Yes 🗹	No 🗆		
<ol><li>7. Are samples (except VC</li></ol>	OA and ONG) properly pro	eserved?	Yes 🗹	No 🗌		ls.
8. Was preservative added	d to bottles?		Yes 🗌	No 🗹	NA 🗆	04/(41.
9. VOA vials have zero he	adspace?		Yes 🔲	No 🗆	No VOA Vials <b>✓</b>	monthal
10, Were any sample conta	ainers received broken?		Yes 🗌	No 🔽	# of preserved	
11. Does paperwork match (Note discrepancies on			Yes 🔽	No 🗆	bottles checked for pH: (<2 or >1	2 unless noted)
2. Are matrices correctly in	**	tody?	Yes 🗹	No 🗌	Adjusted?	,
3. Is it clear what analyses		•	Yes 🗹	No 🗆		
4. Were all holding times a (If no, notify customer for			Yes 🗹	No 🗆	Checked by:	
Special Handling (if a	pplicable)					
15. Was client notified of a	ll discrepancies with this	order?	Yes	No 🗌	NA 🗹	
Person Notified: By Whom: Regarding: Client Instructions		Date The Committee of t	eMail Pr	none  Fax	In Person	
16. Additional remarks:						
17. Cooler Information Cooler No Temp 1 4.2	°C Condition Seal I Good Not Pre		eal Date	Signed By		

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November 01, 2018

ANDREW PARKER
R T HICKS CONSULTANTS
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE, NM 87104

RE: ADVANCE ENERGY

Enclosed are the results of analyses for samples received by the laboratory on 11/01/18 8:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/ga/lab">www.tceq.texas.gov/field/ga/lab</a> accred certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2 Haloacetic Acids (HAA-5)
Method EPA 524.2 Total Trihalomethanes (TTHM)
Method EPA 524.4 Regulated VOCs (V1, V2, V3)

Celey D. Keine

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



R T HICKS CONSULTANTS ANDREW PARKER 901 RIO GRANDE BLVD SUITE F-142 ALBUQUERQUE NM, 87104

Fax To: NONE

Received: 11/01/2018 Sampling Date: 10/31/2018

Reported: 11/01/2018 Sampling Type: Soil

Project Name: ADVANCE ENERGY Sampling Condition: Cool & Intact
Project Number: TOMAHAWK TRENCH 1 Sample Received By: Tamara Oldaker

Project Location: NOT GIVEN

### Sample ID: EAST WALL (H803128-01)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	11/01/2018	ND	416	104	400	3.77	
Sample ID: WEST WALL (	(H803128-02)								
Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	11/01/2018	ND	416	104	400	3.77	
Sample ID: NORTH WALL	. (H803128-03	)							
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	11/01/2018	ND	416	104	400	3.77	
Sample ID: SOUTH WALL	(H803128-04	)							
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride									

Cardinal Laboratories \*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whistoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results related only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



R T HICKS CONSULTANTS ANDREW PARKER 901 RIO GRANDE BLVD SUITE F-142 ALBUQUERQUE NM, 87104

Fax To: NONE

Received: 11/01/2018 Sampling Date: 10/31/2018

Reported: 11/01/2018 Sampling Type: Soil

Project Name: ADVANCE ENERGY Sampling Condition: Cool & Intact
Project Number: TOMAHAWK TRENCH 1 Sample Received By: Tamara Oldaker

Project Location: NOT GIVEN

### Sample ID: BASE @ 4.5' (H803128-05)

Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	672	16.0	11/01/2018	ND	416	104	400	3.77	

Cardinal Laboratories \*=Accredited Analyte

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### **Notes and Definitions**

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

\*\* Samples not received at proper temperature of 6°C or below.

\*\*\* Insufficient time to reach temperature.

Chloride by SM4500Cl-B does not require samples be received at or below 6°C

Samples reported on an as received basis (wet) unless otherwise noted on report

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Celeg D. Freene



# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476

Company Name: PT Hicks Consultants	8111 70	ANALYSIS REQUEST	
Project Manager: Andrew Parker	P.O. #:		
Address: on- File	Company: 27	Hicks	
City: State:	Zip: Attn: Andrew Parker	Parker	
Phone #: Fax #:	Address:		
Project #: Project Owner:	er: City:		
Project Name: Advance Energy	State: Zip:		
5	Phone #:		
-	Fax #:	,)	
FOR LAB USE ONLY	MATRIX PRESERV.	SAMPLING	
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PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the arabyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequental damages, including without firstation, business interruptions, loss of use, or loss of grading incurred by client, its subsidiaries.	r any claim arising whether based in contract or tort, shall be limited to the an be deemed waived unless made in writing and received by Cardinal within 30 in without limitation, business interruptions, loss of use, or loss of profits incu	ount paid by the client for the ays after completion of the applicable red by client its subsidiaries.	
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Relinquished By: Relinquished By: Sampler - UPS - Bus - Other: affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated Delivered By: (Circle One) Date: 11/1 Date: Time: Time: 08 w 4.00 Received By: Received By: Sample Condition
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No No 19. CHECKED BY: (Initials) Fax Result: REMARKS: Phone Result: ☐ Yes 0 0 8 8 Add'l Phone #: Add'l Fax #:

andorw@rthicks consult. co	24 hour Rush