April 18, 2020

Incident ID: NCE2003540506 Characterization, Remediation and Closure Report Dagger Lake to Merchant Pond Line Test



Prepared for Advance Energy Partners Hat Mesa LLC Houston, Texas

Prepared by R.T. Hicks Consultants, Ltd. Albuquerque, New Mexico

R.T. Hicks Consultants, Ltd.

901 Rio Grande Blvd. NW, Suite F-142 Albuquerque, NM 87104

Incident ID	NCE2003540506
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: Advance Energy Partners Hat Mesa LLC	OGRID: 372417
Contact Name: David Harwell	Contact Telephone: 281-235-3431
Contact email: DHarwell@advanceenergypartners.com	Incident # (assigned by OCD)
Contact mailing address: 11490 Westheimer Rd. Suite 950.	
Houston, TX 77077	

Location of Release Source

Latitude 32.4201070

Longitude -103.6043589 (NAD 83 in decimal degrees to 5 decimal places)

Site Name: Dagger Lake to Merchant Pond Line Test	Site Type: Pipeline
Date Release Discovered: January 08, 2020 at 1:30am	API#

Unit Letter	Section	Township	Range	County
Ι	06	T22S	R33E	Lea

Surface Owner: State Federal Tribal Private (Merchant Livestock)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

Crude Oil	Volume Released (bbls) 4.3	Volume Recovered (bbls): 0
Produced Water	Volume Released (bbls) 52	Volume Recovered (bbls) 0
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	Yes No
Condensate	Volume Released (bbls)	Volume Recovered (bbls)
Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release: Pressure line test using fresh water from a nearby fresh water containment. Residual produced water and oil from a water transport truck being used to pressurize the line was the source of the release. After the line test, the water from the line was released along with the unknown contents of produced water and oil. The presence of produced water was confirmed upon receipt of laboratory analysis of soil sampling conducted on January 9, 2020

Oil Conservation Division

Incident ID	NCE2003540506
District RP	
Facility ID	
Application ID	

Was this a major	If YES, for what reason(s) does the responsible party consider this a major release?
release as defined by	
19.15.29.7(A) NMAC?	>25 barrels produced water
Yes 🗌 No	
If YES, was immediate n	otice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?
See attached email	

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

 \square The source of the release has been stopped.

The impacted area has been secured to protect human health and the environment.

Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.

All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have <u>not</u> been undertaken, explain why:

All free liquids infiltrated into the silty sand.

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: <u>Andrew Parker</u>	Title: <u>Sr. Env.</u>	Specialist
Signature: Advent and a	Date: <u>J</u>	Jan 17, 2020
email: <u>andrew@rthicksconsult.com</u>	Telephone	970-570-9535
OCD Only		
Received by: Cristina Eads	Date: <u>0</u>	02/04/2020

NCE2003540506

.

Spill Dimensions to Volume of Release (Produced Water)			
Input	volume of affected soil	[feet^3]	8335.85
Input	Porosity: typically is .35 to .40 for most soils	[-]	0.35
Input Proportion of porosity filled with release fluid [0,1]		[-]	0.10
Output	volume of fluid	[feet^3]	291.8
Output		[gal]	2182.5
Barrels 52.0			

From GIS		
Sq. Ft	16671.7	
Depth (ft)	0.500	
Cu. Ft	8335.85	

	Spill Dimensions to Volume of Release (Oil)		
Input			
Input	Porosity: typically is .35 to .40 for most soils	[-]	0.35
Proportion of porosity Input filled with release fluid [0,1]		[-]	0.10
Output	volume of fluid	[feet^3]	24.3
Output	Output		181.9
	Barrels 4.3		

From GIS		
Sq. Ft	16671.7	
Depth (ft)	0.042	
Cu. Ft	694.6542	

.

NCE2003540506 andrew@rthicksconsult.com

То:	EMNRD-OCD-District1spills@state.nm.us
Cc:	'David Harwell'; 'robbyo@roctx.com'; Robert Munoz; 'jacob@rthicksconsult.com';
	laura@rthicksconsult.com; 'Mann, Ryan'
Subject:	24-Hour Notification of Major Release

NMOCD:

Per 19.15.29.10.A(1), on the behalf of Advance Energy Partners Hat Mesa, R.T. Hicks Consultants submits this 24-hour Notification of a Major Release.

The release occurred on January 8, 2020 at approximately 1:30am during a pressure line test using fresh water from a nearby fresh water containment. Residual produced water and oil from a water transport truck being used to pressurize the line was the source of the release. After the line test, the fresh water from the line was released along with the unknown contents of produced water and oil. The presence of produced water was confirmed upon receipt of laboratory analysis of soil sampling conducted on January 9, 2020.

After clearance from the on-call, excavation began January 15th for the removal of hydrocarbons observed on surface soils within the release extent. It was not until evaluation of laboratory results that identified produced water was present in the released fluid.

Attached is a copy of the C-141. Portions reproduced below.

Responsible Party

	OGRID: 372417	
Contact Name: David Harwell	Contact Telephone: 281-235-3431	
Contact email: DHarwell@advanceenergypartners.com	Incident # (assigned by OCD)	

Location of Release Source

Latitude <u>32.4201070</u> (NAD 83 in dec	Longitude <u>-103.6043589</u> (NAD 83 in decimal degrees to 5 decimal places)		
Site Name: Dagger Lake to Merchant Pond Line Test	Site Type: Pipeline	1	
Date Release Discovered: January 08, 2020 at 1:30am	API#		

Unit Letter	Section	Township	Range	County
I	06	T22S	R33E	Lea

Surface Owner: X State Federal Tribal Private (Merchant Livestock)

Andrew Parker R.T. Hicks Consultants Durango Field Office 970-570-9535 Received by OCD: 4/25/2020 11:18:26 AM Form C-121 State of New Mexico

Oil Conservation Division

	Page 6 of 16
Incident ID	NRM2000354631
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release? Plate 4 & 5	<u>370</u> (ft bgs)
Did this release impact groundwater or surface water?	🗌 Yes 🛛 No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse? Plate 7	🗌 Yes 🛛 No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)? Plate 7	🗌 Yes 🛛 No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church? Plate 8	🗌 Yes 🛛 No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes? Plate 6	🗌 Yes 🛛 No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring? Plate 6	🗌 Yes 🛛 No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field? Plate 6	🗌 Yes 🛛 No
Are the lateral extents of the release within 300 feet of a wetland? Plate 9	🗌 Yes 🛛 No
Are the lateral extents of the release overlying a subsurface mine? Plate 10	🗌 Yes 🛛 No
Are the lateral extents of the release overlying an unstable area such as karst geology? Plate 11	🗌 Yes 🛛 No
Are the lateral extents of the release within a 100-year floodplain? Plate 12	🗌 Yes 🛛 No
Did the release impact areas not on an exploration, development, production, or storage site?	🛛 Yes 🗌 No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: Each of the following items must be included in the report.

- Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- Field data
- Data table of soil contaminant concentration data
- \square Depth to water determination
- Determination of water sources and significant watercourses within ¹/₂-mile of the lateral extents of the release
- \boxtimes Boring or excavation logs
- Photographs including date and GIS information
- Topographic/Aerial maps
- \square Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

Page 3

eceived by OCD: 4/25/202	0 11:18:26 AM State of New Mexico			Page 7 of
			Incident ID	NRM2000354631
ige 4	Oil Conservation Division	n	District RP	
			Facility ID	
			Application ID	
regulations all operators are r public health or the environm failed to adequately investiga addition, OCD acceptance of and/or regulations. Printed Name: <u>Andrew</u> Signature: <u>Maken</u>	mation given above is true and complete to t equired to report and/or file certain release m ent. The acceptance of a C-141 report by th te and remediate contamination that pose a t a C-141 report does not relieve the operator <u>Parker</u> Title:	botifications and perform of the OCD does not relieve the threat to groundwater, surf- of responsibility for comp Sr. Env. Specialist Date:Apri	corrective actions for rele ne operator of liability sh face water, human health pliance with any other fe	eases which may endanger ould their operations have or the environment. In deral, state, or local laws
OCD Only Received by:		_ Date:		

Received by OCD: 4/25/2020 11:18:26 AM Form C-141 State of New Mexico

Oil Conservation Division

<u>Remediation Plan Checklist</u>: Each of the following items must be included in the plan.

	Page 8 of 10	68
Incident ID	NRM2000354631	
District RP		
Facility ID		
Application ID		

Remediation Plan

Detailed description of proposed remediation technique Scaled sitemap with GPS coordinates showing delineation points \boxtimes Estimated volume of material to be remediated Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required) Deferral Requests Only: Each of the following items must be confirmed as part of any request for deferral of remediation. Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction. Extents of contamination must be fully delineated. Contamination does not cause an imminent risk to human health, the environment, or groundwater. I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. Printed Name: Andrew Parker Title: Sr. Env. Specialist (Maren anon Date: _____ April 18, 2020 Signature: Telephone: ____<u>970-570-9535</u>_____ email: <u>andrew@rthicksconsult.com</u>_____ OCD Only Received by: _____ Date: Approved Approved with Attached Conditions of Approval Denied Deferral Approved Signature: Date:

Page 5

Page 6

Oil Conservation Division

Incident ID	NRM2000354631
District RP	
Facility ID	
Application ID	

Page 9 of 168

Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

<u>Closure Report Attachment Checklist</u> : Each of the following items n	nust be included in the closure report.		
A scaled site and sampling diagram as described in 19.15.29.11 NMAC			
Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)			
Laboratory analyses of final sampling (Note: appropriate ODC Dist	rict office must be notified 2 days prior to final sampling)		
Description of remediation activities			
I hereby certify that the information given above is true and complete to the and regulations all operators are required to report and/or file certain releases may endanger public health or the environment. The acceptance of a C-1 should their operations have failed to adequately investigate and remediate human health or the environment. In addition, OCD acceptance of a C-14 compliance with any other federal, state, or local laws and/or regulations. restore, reclaim, and re-vegetate the impacted surface area to the condition accordance with 19.15.29.13 NMAC including notification to the OCD we	ase notifications and perform corrective actions for releases which 41 report by the OCD does not relieve the operator of liability e contamination that pose a threat to groundwater, surface water, 41 report does not relieve the operator of responsibility for The responsible party acknowledges they must substantially ns that existed prior to the release or their final land use in		
Printed Name: <u>Andrew Parker</u> Title: <u>Sr.</u>	Env. Specialist		
Signature: Advent and a	Date:April 18, 2020		
email: <u>andrew@rthicksconsult.com</u> Telep	phone:970-570-9535		
OCD Only			
Received by:	Date:		
Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.			
Closure Approved by:	Date:		
Printed Name:	Title:		

R. T. HICKS CONSULTANTS, LTD.

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

April 13, 2020

NMOCD District 1 District 1 - HOBBS 1625 N. French Drive Hobbs, New Mexico 88240 Electronic Submittal via portal

RE: Incident ID: NCE2003540506 Characterization, Remediation and Closure Report Dagger Lake to Merchant Pond Line Test Advance Energy Partners Hat Mesa, LLC

NMOCD:

R.T. Hicks Consultants submits this characterization, remediation and closure report on the behalf of Advance Energy Partners Hat Mesa, LLC (Advance Energy). The location of the release is 32.4201070, -103.604.3589 (Latitude/Longitude; NAD 83); Unit Letter I, Sec 06, T22S., R33E; Lea County.

The release occurred on January 8, 2020. State of New Mexico is the surface owner. The release occurred during pressure line testing using fresh water from a nearby freshwater containment. Residual produced water and oil from a water transport truck being used to pressurize the line was the source of the release. After the line test, the water from the line was released along with the unknown presence of produced water and oil. The discovery of produced water was confirmed upon receipt of laboratory analysis of soil sampling conducted on January 9, 2020.

Excavation of impacted soil began on January 9th and was completed by April 3rd, 2020. Surface flow lines (lay flats) used for completion operations delayed the remediation until well completion.

The C-141, including the Characterization, Remediation, and Closure Forms, is attached.

We respectfully ask NMOCD for closure of the regulatory file.

Hick Consultants relied on 19.15.29 NMAC for characterization, remediation, and closure reporting for the above referenced release.

The report is divided into three sections:

- I. Initial Response
- II. Characterization
- III. Remediation and Closure

Plates

- Plate 1 Site Map
- Plate 2 EMI Survey In-Phase Metal Susceptibility (Horizontal Mode at 1m Separation)
- Plate 3 EMI Survey ECa in the Horizontal Dipole Mode at 1.0 m coil separation.
- Plate 4 Depth to Water
- Plate 5 Potentiometric Surface
- Plate 6 Wellhead Protection
- Plate 7 Water Courses
- Plate 8 Nearby Structures
- Plate 9 Wetlands
- Plate 10 Mines and Minerals
- Plate 11 Karst Potential
- Plate 12 Flood Hazard Potential (FEMA)
- Plate 13 Base Sample Grid Diagram
- Plate 14 Wall Sample Grid Diagram

Tables

- Table 1 Sample Results Summary
- Table 2 Nearby OSE Well Summary

Appendices

- Appendix A Laboratory Certificate of Analyses
- Appendix B OSE Well Logs

Dagger Lake to Merchant Pond Line Test Incident #: NCE2003540506

1 Initial Response

The release occurred on January 08, 2020 during pressure line testing using fresh water from a nearby freshwater containment. Residual produced water and oil from a water transport truck being used to pressurize the line was the source of the release. After the line test, the water from the line was released along with the unknown presence of produced water and oil. The release occurred in a pipeline right-of-way, flowed west across a lease road and into two more pipeline right-of-ways then into pasture land (Plate 1 and Figure 1).

All free liquids infiltrated into the silty sand. Excavation of impacted soil caused by the release began on January 09, 2020. Excavated material was transported to an approved disposal facility.



Figure 1: Photograph viewing northeast toward the source of the release. A pipeline right-ofway is visible in photo center. Date: 0/09/2020. GPS: 32.4193722 N, 103.6051722 W.

Dagger Lake to Merchant Pond Line Test Incident #: NCE2003540506

2 Characterization

The following sections address items as described in 19.15.29.11.A, paragraphs 1-4. Please refer to the C-141 characterization checklist for additional setback criteria and verification (Plates 4-12).

2.1 Site Map

Horizontal extent of the release was determined by visual observations. R.T. Hicks Consultants was on-location the day of the release and mapped the release extent using GPS technology.

Plate 1 shows the release extent relative to the source point and pipelines.

2.2 Electromagnetic Induction Survey (EMI)

EMI Surveys are commonly used to measure apparent electrical conductivity (EC_a, "soil salinity") in soils. Employing a Geonics EM38-MKII, field personnel can effectively delineate the horizontal and vertical (up to a depth of 5-feet) extent of a produced water release by measuring EC_a and monitoring for EC changes between background and higher EC readings. At produced water releases, increasing EC measurements suggest a higher chloride.

On January 19, 2020 we performed an EMI Survey to measure the electrical conductivity of the release area. The EMI Survey was conducted in the horizontal and vertical dipole modes at 0.5 and 1.0 meter coil separations. Sensitivity to surface material is greatest at the 0.5 coil separation, zero feet in the horizontal mode and 0.66 feet in the vertical mode (below table and Figure 2a). At the 1.0 meter coil separation, greatest sensitivity is zero feet in the horizontal mode and 1.31 feet in the vertical mode (Figure 2b). Furthermore, at the 1.0 meter coil separation, sensitivity to subsurface material has a greater depth range. For example, at the 0.5 meter coil separation in the vertical mode the sensitivity ranges from 0.7 to 2.5 feet below ground surface; at the 1.0 meter coil separation in the vertical mode the sensitivity ranges from 1.3 to 4.9 feet below ground surface.

Coil Separation	Dipole Mode	Greatest Sensitivity	Relative f	Range
meters		meters (feet)	Depth (meters)	Depth (feet)
0.5				
	Horizontal	0	0 - 0.4	0 - 1.3
	Vertical	0.2 (0.66)	0.2 - 0.8	0.7 - 2.5
1				
	Horizontal	0	0 - 0.8	0 - 2.5
	Vertical	0.4 (1.31)	0.4 - 1.5	1.3 - 4.9

Dagger Lake to Merchant Pond Line Test Incident #: NCE2003540506

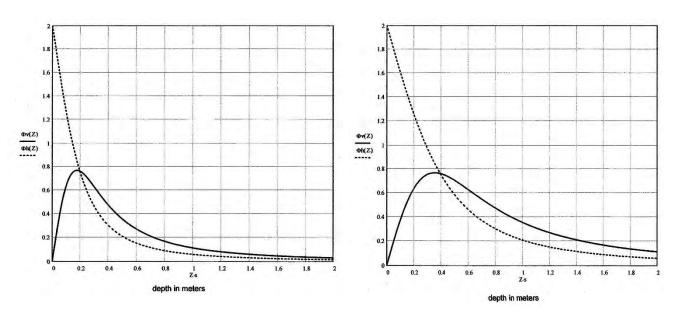


Figure 2a: 0.5-meter coil separation. Relative sensitivity with depth. Dashed line horizontal dipole mode. Solid line vertical dipole mode.

Figure 2b: 1.0-meter coil separation. Relative sensitivity with depth. Dashed line horizontal dipole mode. Solid line vertical dipole mode.

The difference in sensitivity ranges in the two coil configurations and dipole modes is important; the horizontal dipole mode will be relatively sensitive to variations near surface whereas the vertical dipole mode will be insensitive near the surface and sensitive at greater depths. This difference in sensitivity allows for a quick method for determining whether the near surface soil is more conductive (higher chloride concentration) than soils at depth, where

if a higher EC_a reading is obtained in the horizontal position than the vertical position, chloride has likely impacted the upper surface more than soils at lower depths. If a higher EC_a reading is obtained in the vertical position than the horizontal position, chloride has likely impacted soils at lower depths than the upper surface soils.

It is important to note that the EM38 is very susceptible to metal and electrical interferences. A metal object small as a steel nail can cause the apparent electrical conductivity to read high or go negative. EMI surveys near pipelines, wellheads, tank batteries, and powerlines must account for these interferences.

2.3 Metal Interference

As discussed above, the EM38-MK2 is susceptible to metal and electrical interference. These interferences need to be identified and evaluated prior to evaluation of electrical conductivity of subsurface soils.

Dagger Lake to Merchant Pond Line Test Incident #: NCE2003540506

The In-phase (IP) susceptibility of metal and electrical interferences is measured in parts per thousand (PPT). It is common for susceptibility readings to have very high and very low (negative) value.

Plate 2 shows the IP readings in the horizontal dipole mode at the 1.0 meter receiver coil separation relative to IP interferences within the survey area. The IP susceptibility in this mode/coil separation, is most sensitive from 0.0 to 2.5 ft below ground surface (bgs). Red, yellow, and bright blue shading highlights areas with greatest IP susceptibility. Purple shading represents areas of no metal susceptibility. The following areas shows high IP susceptibility:

- At the pipeline riser connection (source)
- Along the metal pipelines and connectors (yellow, red and bright blue).
- Polyline roll feeder. South of the release area near the source (yellow and bright blue)
- Light pole and generator. North of the release area near the source (red, yellow, bright blue)
- An unknown metal object at the southwest corner of the release (yellow and bright blue).

Interpretation notes:

• Metal objects will have an influence on the electrical conductivity readings during the Quad-phase (QP) EMI survey. The user of the EMI survey needs to be aware of QP false readings near these two objects.

2.4 Electrical Conductivity

Field soil testing of electrical conductivity at discreate depths were obtained from four hand auger samples (PA-02, SF-01, Source, and WNH). Discrete soil samples were field tested for electrical conductivity using a Hanna DiST 4 EC Tester. EC readings were measured using a saturated paste in a 1-part soil to 5-parts distilled water solution (EC_{1:5}).

The purpose of the soil sampling was to

- 1) correlate the EMI survey with site specific $EC_{(1:5)}$ and chloride concentrations to a depth of no greater than 4-feet bgs and
- 2) determine chloride impairment relative to depth.

As shown in Figure 3, $EC_{1:5}$ readings <0.20 dS/m correlates with a chloride concentration approximately <600 mg/kg.

Dagger Lake to Merchant Pond Line Test Incident #: NCE2003540506

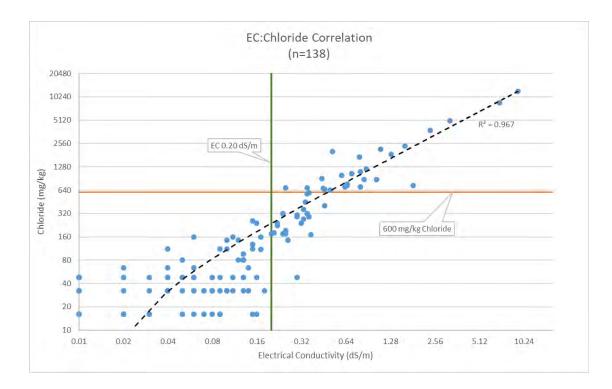


Figure 3: EC_{1:5} vs Chloride. Soil samples with an EC_{1:5} < 0.2 dS/m are likely to exhibit chloride concentrations below 600 mg/kg.

The Quad-phase (QP) readings of the EMI Survey measures apparent electrical conductivity (EC_a) in both the horizontal and vertical dipole modes.

Plate 3 shows the EC_a in the horizontal dipole mode at 1.0 m coil separation with a relative sensitivity range of 0 to 2.5 ft bgs with the greatest sensitivity at the surface.

Within the release extent ECa readings are affected by metal interference at the source (pipeline riser) and along pipelines. The dark-blue purple colors represent areas below 600 mg/kg chloride within the upper 2.5-feet. Soil sample WNH, which is within the dark-blue purple color, confirms that chloride is below 600 mg/kg.

The bright-blue, green, yellow, and red shading represent areas of increasing EC_a, thus higher chloride concentration potential.

- Soil sample SF-01, which is within yellow shading has a surface chloride concentration of 7,200 mg/kg.
- PA-02, which is within the higher EC_a red shading has a chloride concentration of 8,640 mg/kg at the surface.

The EMI survey indicates that remediation in areas with shading of bright-blue, green, and yellow are likely to have an excavation depth of 3 to 4-feet below

April	18,	2020
Page	8	

ground surface (bgs). Red areas indicate that chloride is likely to exceed 600 mg/kg in the upper 4-feet of the soil profile.

Table 1 is a summary of analytical results and EC_{1:5} field readings. Table 1 includes characterization and confirmation sampling results. Appendix A contains the laboratory certificate of analysis.

2.5 Depth to Ground Water

Most recent depth to water data was queried from the USGS and New Mexico Office of the State Engineer (OSE) online databases (Plate 4). Spatial analysis shows:

- The nearest well (CP-00854) is approximately 2.3 miles to the northeast with a depth to water of 600 feet.
- The second nearest well (CP-01356) is approximately 2.5 miles to the eastnortheast with a depth to water of 555 feet.

Ground water flow is to the southeast as demonstrated on the potentiometric surface map (Plate 5). We relied on the USGS water wells to generate the potentiometric surface. Regionally, USGS water wells show that ground water is within the alluvium, Santa Rosa, and Chinle formations.

The potentiometric surface indicates that the depth to water is approximately 370 feet below ground surface, where 370 feet = 3645 ft surface elevation – 3275 ft potentiometric surface.

Table 2 lists nearby water wells from the Office of the State Engineer's (OSE) online database. Appendix B are the wells logs listed in Table 2.

2.6 Wellhead Protection Area

Plate 6 shows that the release extent is not:

- Within incorporated municipal boundaries or within a defined municipal fresh water well field.
- Within ¹/₂-mile private and domestic water sources (wells and springs).
- Within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes
- Within 1000 feet of any other fresh water well or spring

2.7 Distance to Nearest Significant Water Course

Plate 7 shows that the release extent is <u>not</u>:

- Within ¹/₂ mile of any significant water course.
- Within 300 feet of a continuously flowing watercourse or any other significant watercourse.
- Within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).

2.8 Soil/Waste Characteristics

The release occurred in an area where depth to water is greater than 100 ft below ground surface (bgs), in three pipeline right-of-ways, and pasture land.

The release area was remediated (discussed below, Section 3) according to Closure Criteria listed in Table 1 of 19.15.29 NMAC.

Table 1 shows the analytical results of confirmation sampling. The Laboratory Certificate of Analyses are located in Appendix A.

Release excavation showed the lithology as:

0 – 4.5 ft: silty sand 4.5 - 5 ft: hard caliche layer

3 Remediation and Closure

3.1 Excavation Protocol

All surfaces were remediated in accordance with 19.15.29.13 NMAC. Per Table 1 of 19.15.29 NMAC, closure criteria concentrations where depth to water >100 feet are:

Table 1 19.15.29 NMAC		Chloride	GRO+DRO	TPH+Ext	BTEX	Benzene
DTW > 100ft		(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Closure Criteria	0-4 ft (not in-use)	600	1,000	2,500	50	10
Closure Criteria	>4 ft or "in-use"	20,000	1,000	2,500	50	10

Excavation of the base and walls in the upper 4-feet continued until field screening of electrical conductivity (EC_{1:5}) was less than 0.2 to 0.3 dS/m (Figure 4 & 5). As shown previously in Figure 3, EC < 0.2 dS/m correlates with a chloride concentration <600 mg/kg.

Dagger Lake to Merchant Pond Line Test Incident #: NCE2003540506



Figure 4: Excavation of bases and wall until electrical conductivity (EC) <0.2 dS/m. Date 02/13/2020. GPS: 32.4198528 N, 103.6048194 W



Figure 5: Excavation of bases and walls near pipeline riser source area. Date: 03/31/2020. GPS: 32.4200278 N, 103.6044136 W

3.2 Remediation Activities

The excavation extent is irregular in shape and covers a surface area of 1,852 square yards with an excavated volume of 1,080 cu. yards.

Plate 13 shows the sampling diagram for base samples. A 5-point composite sample was collected from each grid for confirmation sampling. Five-point

April 18	3, 2020
Page 1	1

composite sample points were evenly spaced within each sample grid to obtain a representative sample of the area (Figure 6, below example).

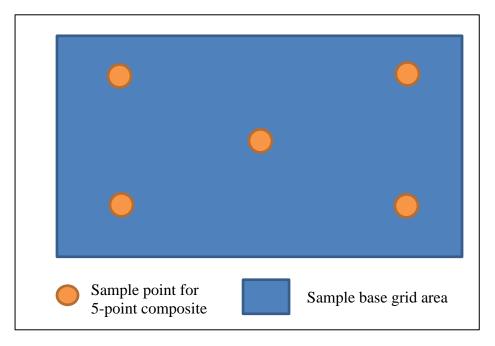


Figure 6: Example of 5-point sample grid for composite sampling.

Five-point composite soil samples were collected along the walls of the excavation as shown on Plate 14. Sample points for the composite wall samples were evenly distributed along the wall to obtain a representative 5-point composite sample. Samples were collected from the surface to 4-feet or excavation base depth, whichever is less.

If soil confirmation sampling exceeded 19.15.29 NMAC Table 1 Closure Criteria concentrations, excavation continued until soil confirmation results were below Closure Criteria.

Table 1 is a summary of analytical from confirmation sampling.

- Base confirmation samples exhibit concentrations below 19.15.29 NMAC Table 1 Closure Criteria.
- Wall confirmation samples exhibit concentrations below 19.15.29 NMAC Table 1 Closure Criteria.

Excavated material was transported to an approved disposal facility. Clean backfill material was purchased from Merchant Livestock under a surface use agreement. Figure 7 & 8 shows the restored surface.

Dagger Lake to Merchant Pond Line Test Incident #: NCE2003540506



Figure 7: Reclaimed release area east side of road near pipeline riser viewing south. Date: 04/03/2020. GPS: 32.4186969 N, 103.5974589 W



Figure 8: Reclaimed release area west of lease road viewing south. Date: 03/05/2020 GPS: 32.4202431 N, 103.6047419 W

Please contact me with any questions at <u>andrew@rthicksconsult.com</u> or 970-570-9535.

Sincerely, R.T. Hicks Consultants, Ltd.

Andrew orker

Andrew Parker Sr. Env. Specialist

Copy: David Harwell (DHarwell@advanceenergypartners.com); Advance Energy Partners Hat Mesa, LLC Ryan Mann (rmann@slo.state.nm.us); State Land Office

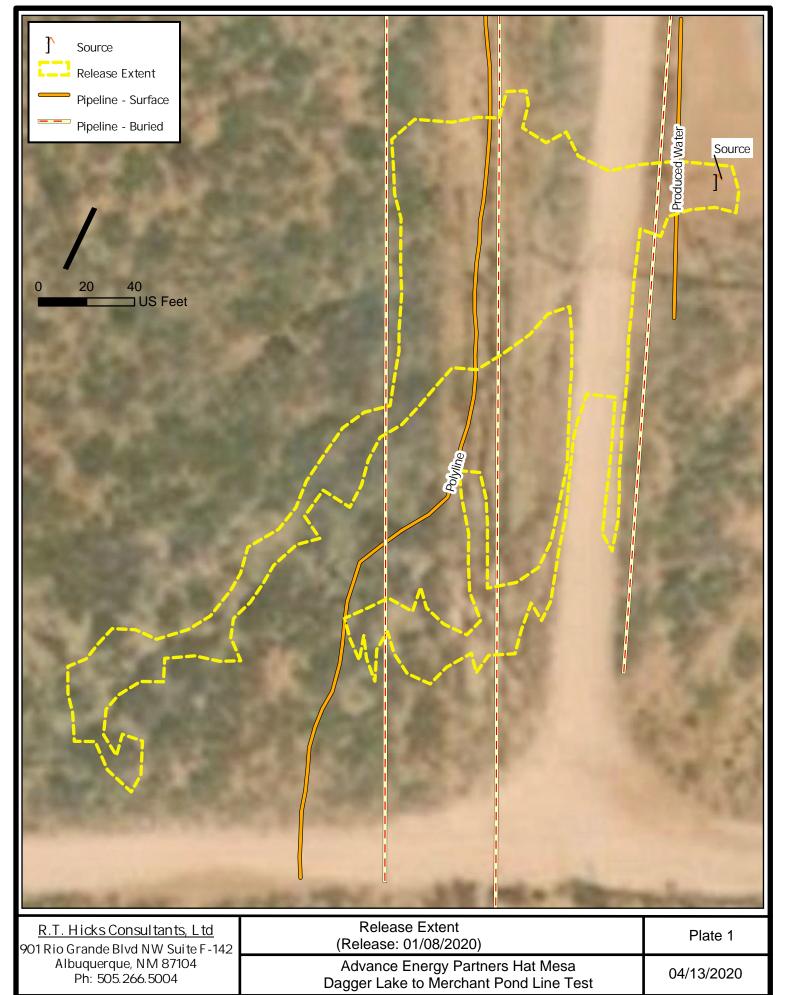
.

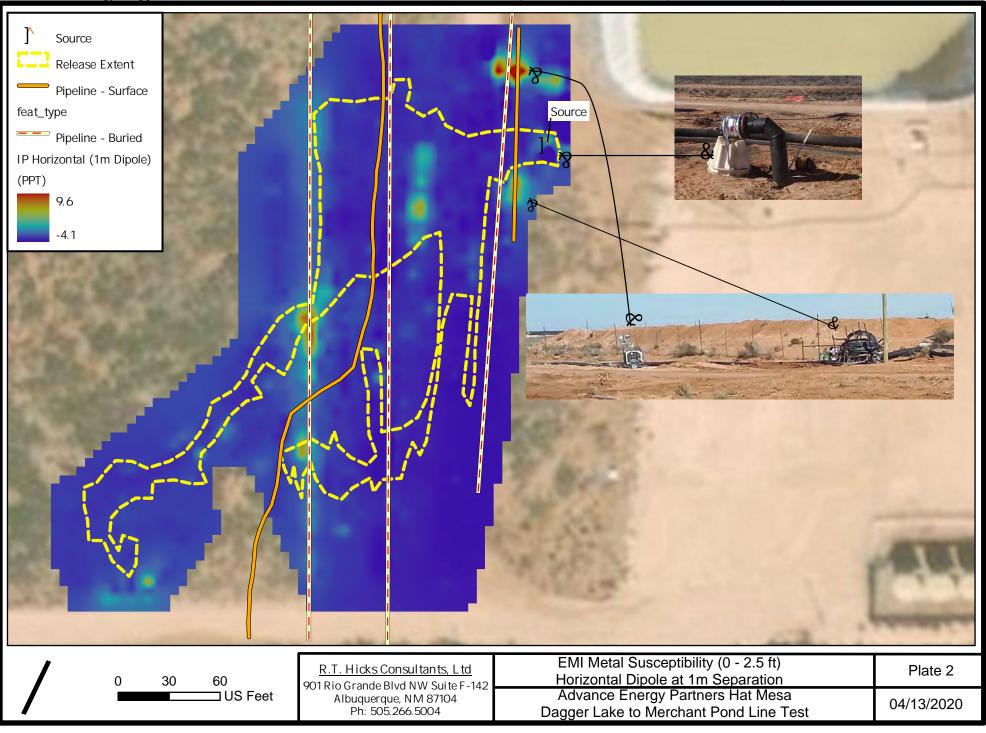
Plates

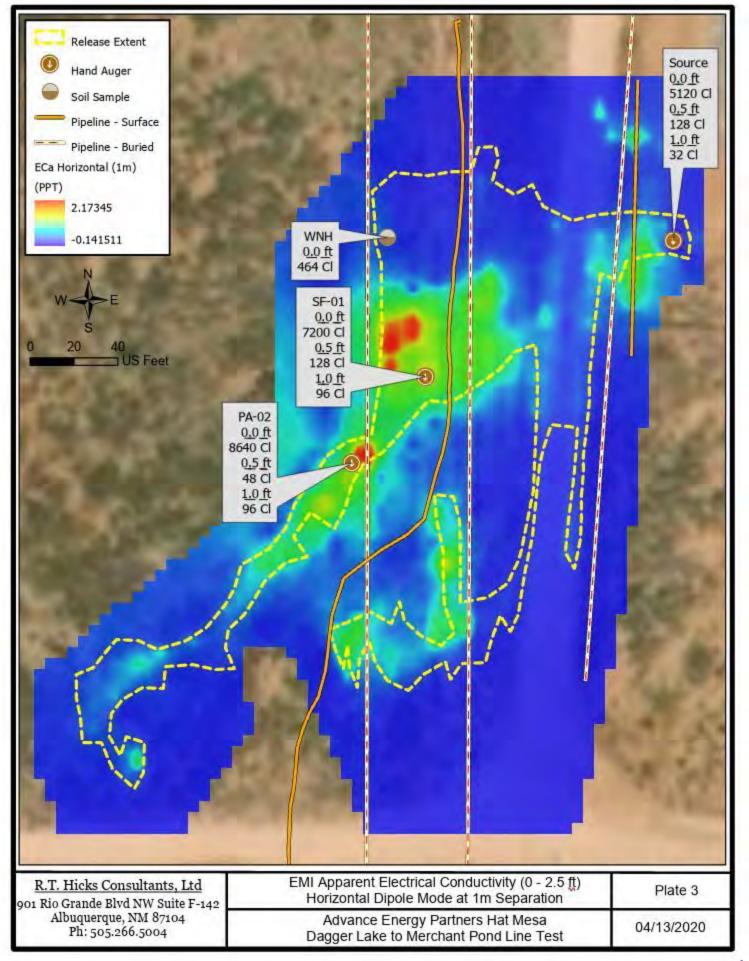
R.T. Hicks Consultants, Ltd. 901 Rio Grande Blvd. NW, Suite F-142 Albuquerque, NM 87104

.

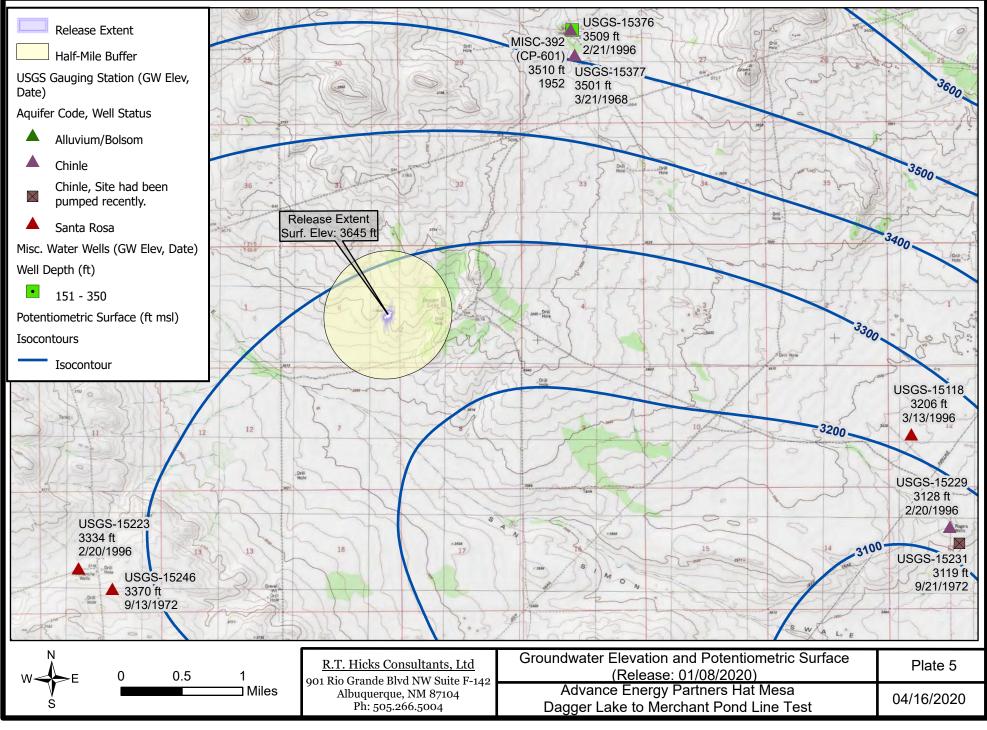
Received by OCD: 4/25/2020 11:18:26 AM

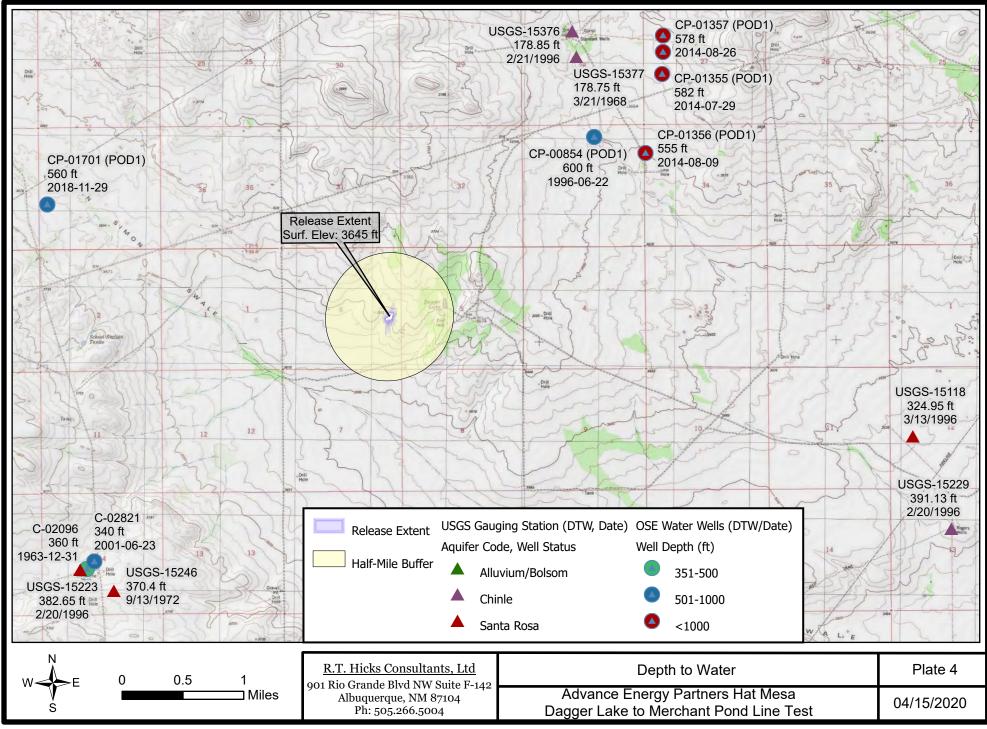


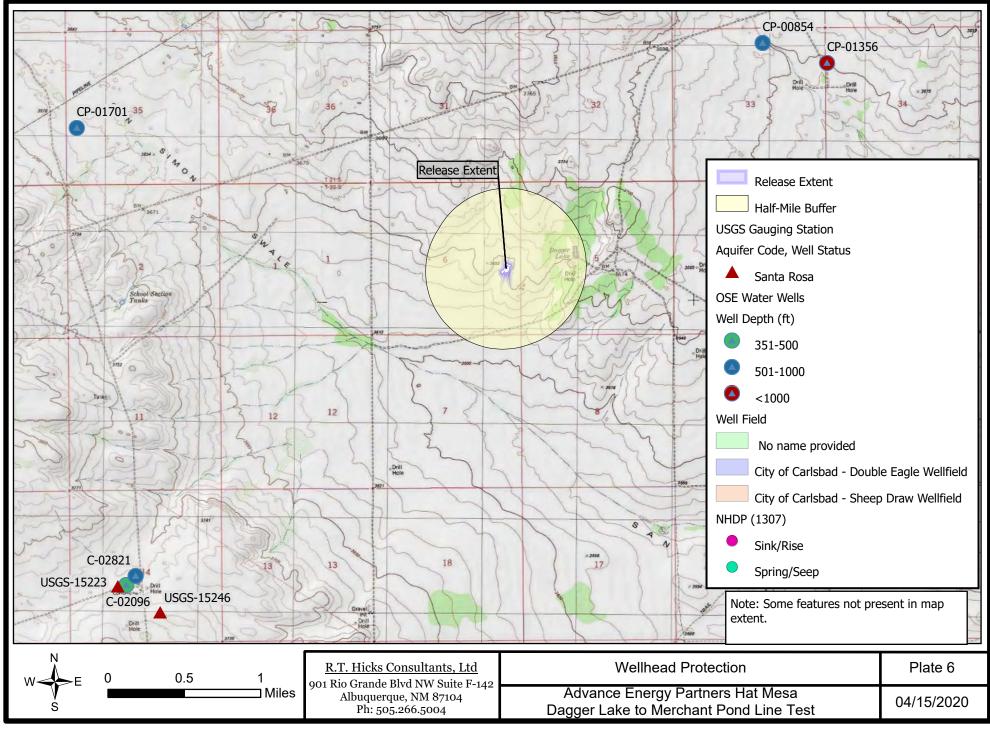


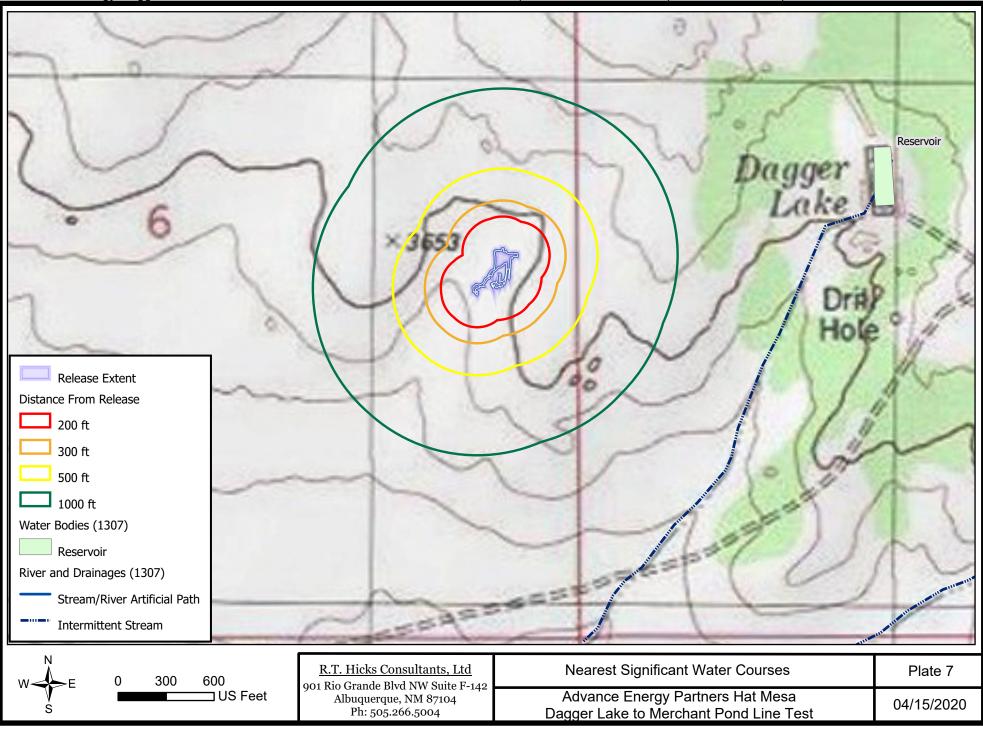


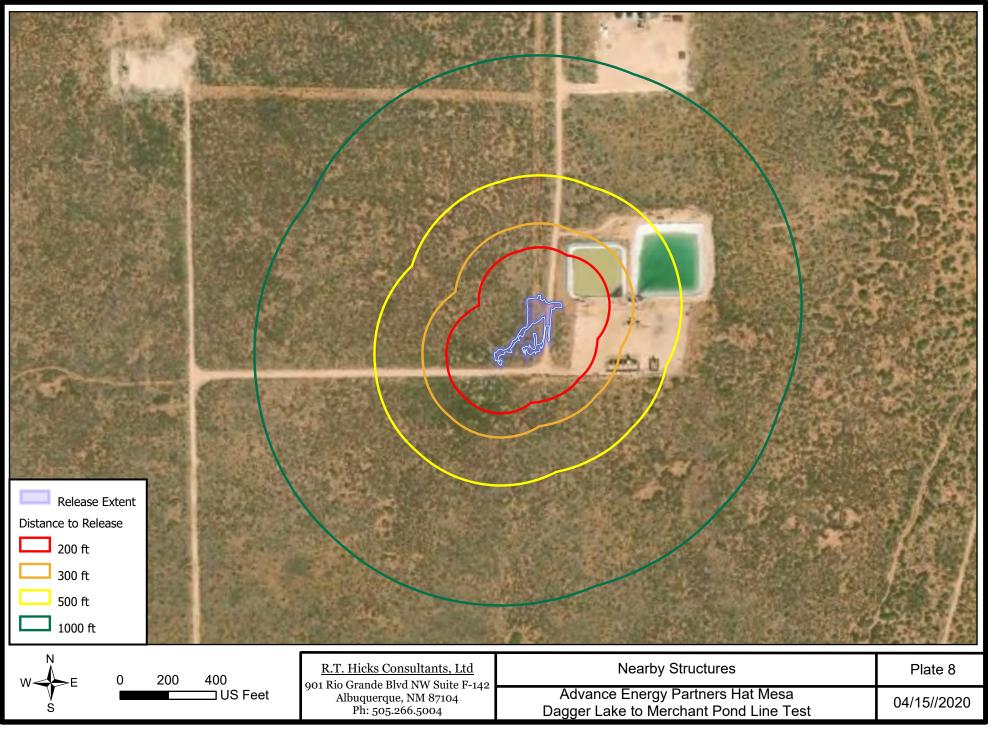
Page 27 of 168

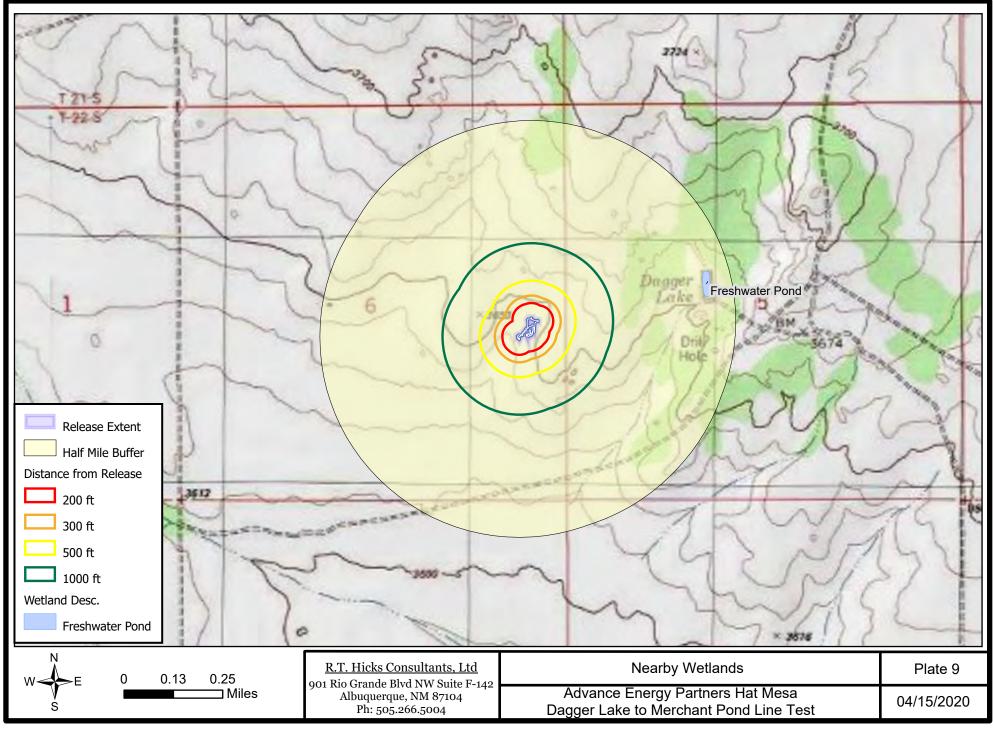


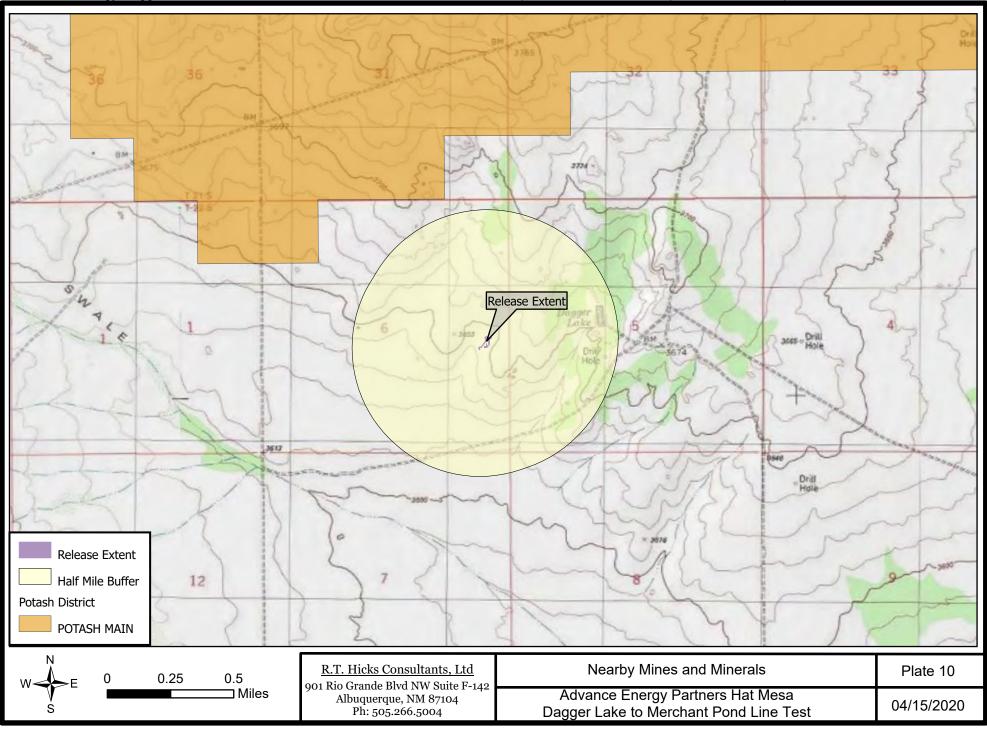


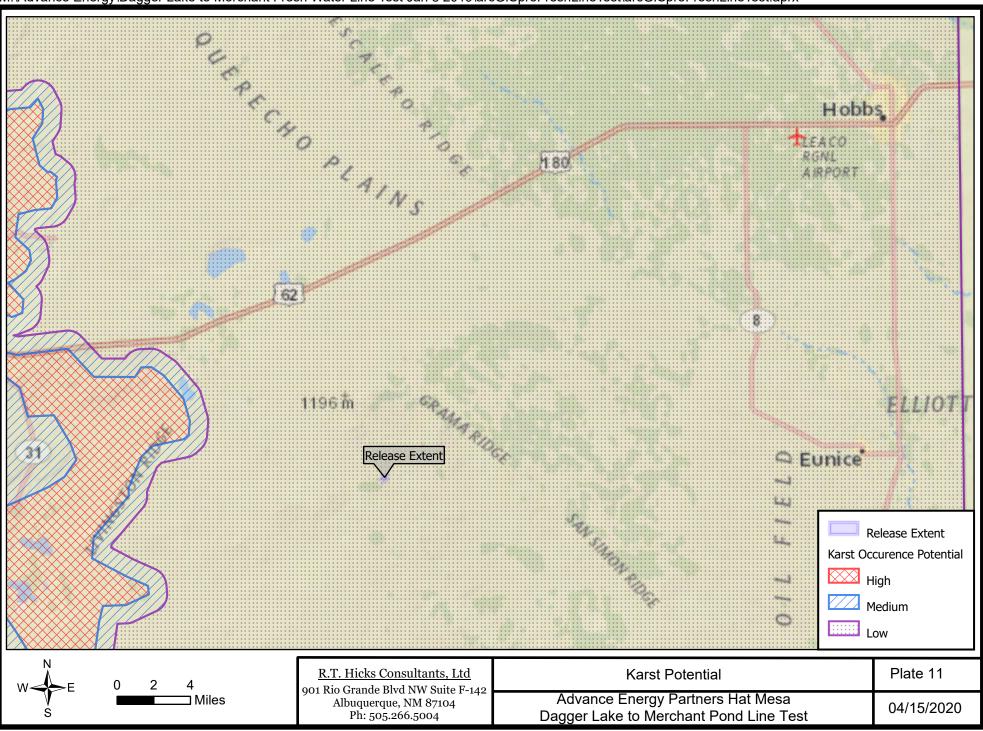


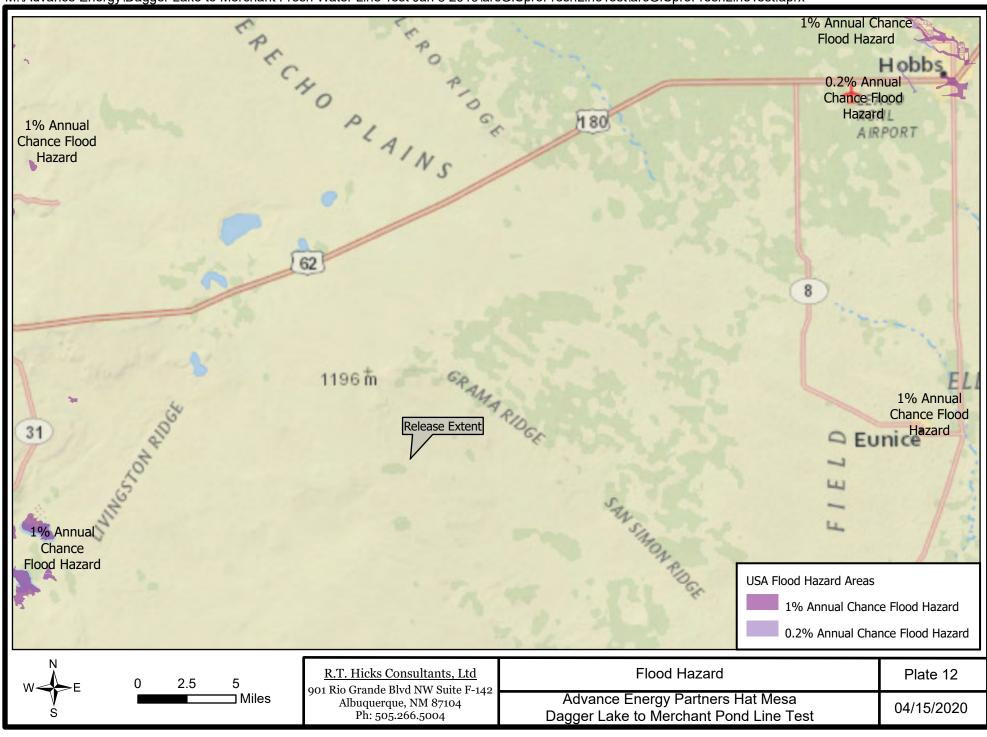




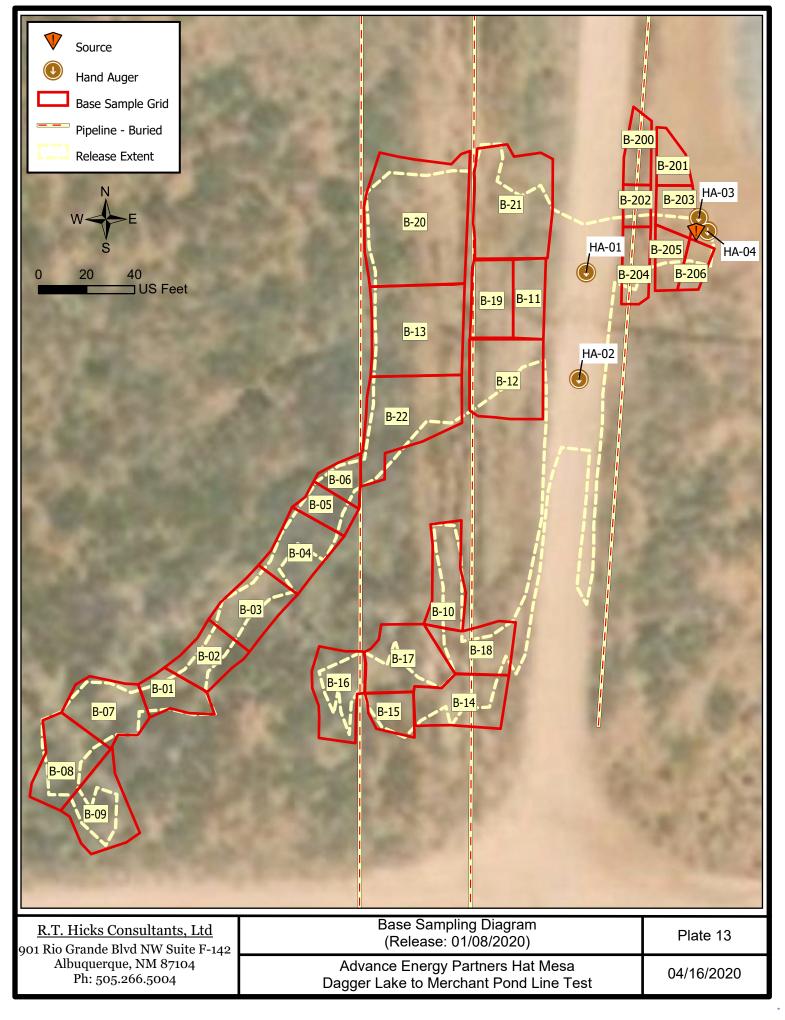


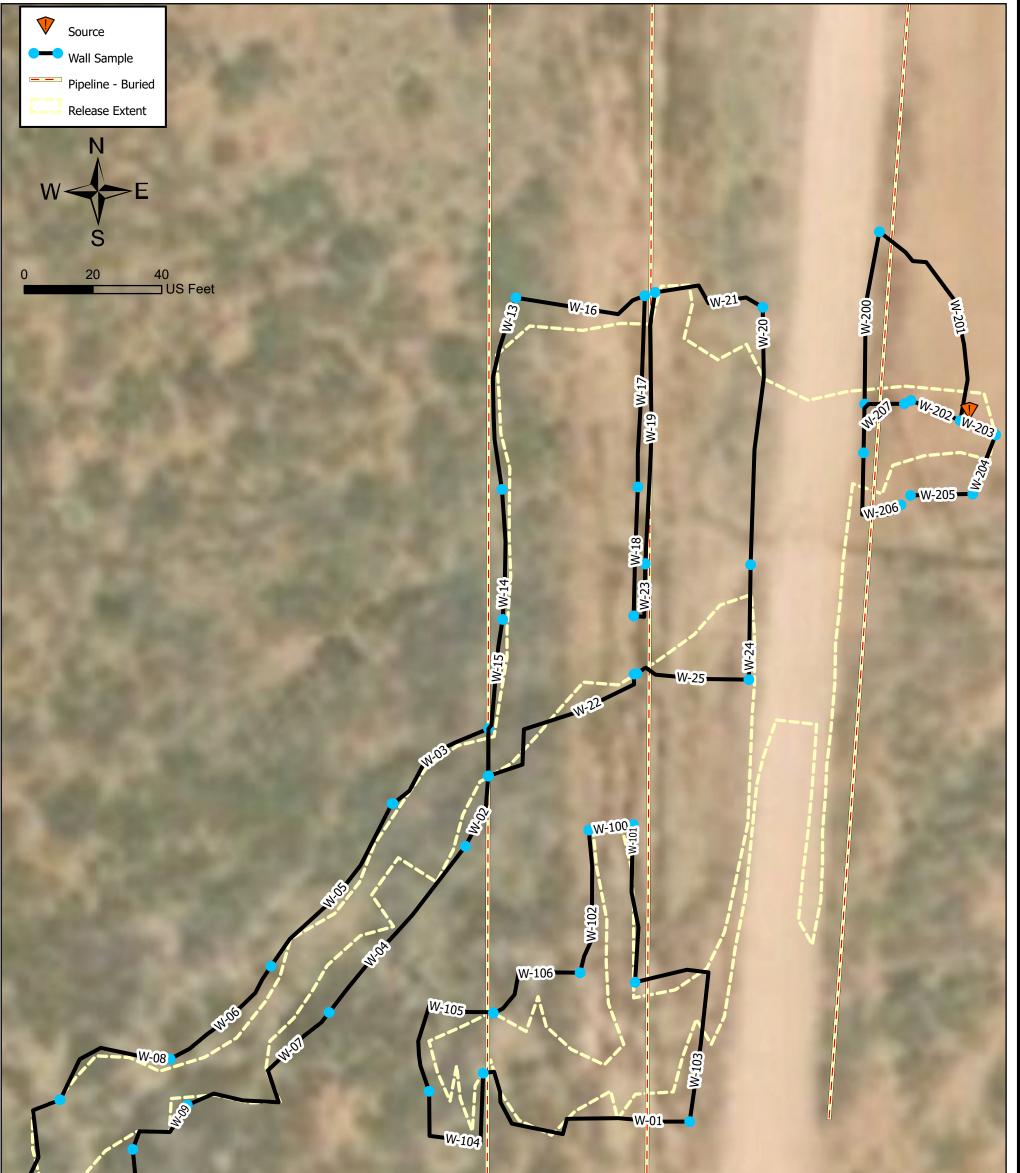






Received by OCD: 4/25/2020 11:18:26 AM





No. 10 Martin		

R.T. Hicks Consultants, Ltd	Wall Sampling Diagram (Release: 01/08/2020)	Plate 14
901 Rio Grande Blvd NW Suite F-142 Albuquerque, NM 87104 Ph: 505.266.5004	Advance Energy Partners Hat Mesa Dagger Lake to Merchant Pond Line Test	04/15/2020

Tables

R.T. Hicks Consultants, Ltd. 901 Rio Grande Blvd. NW, Suite F-142 Albuquerque, NM 87104

Page 39 of 168

Sample ID	Date	Location	Discrete Depth (Feet)	Top Depth (Feet)	Bottom Depth (Feet)	Chloride (PPM)	GRO+DRO (PPM)	TPH Ext. (PPM)	Benzene (PPM)	BTEX (PPM)	Comments
NMOCD Closure Criteria											
0 - 4 feet & "not in-use"						600		2,500	10	50	
> 4 ft or "in-use"						20,000	1,000	2,500	10	50	
Characterization											
PA-02	1/9/2020	Grab	0.0			8640	<1193.1	<1324.1	0.134	4.36	Characterization
PA-02	1/9/2020	Grab	0.5			48	<20	<30	<0.05	<0.3	Characterization
PA-02	1/9/2020	Grab	1.0			96	<20	<30	<0.05	<0.3	Characterization
SF-01	1/9/2020	Grab	0.0			7200	170.2	<180.2	<0.05	<0.3	Characterization
SF-01	1/9/2020	Grab	0.5			128	<20	<30	<0.05	<0.3	Characterization
SF-01	1/9/2020	Grab	1.0			96	<20	<30	<0.05	<0.3	Characterization
Source	1/9/2020	Grab	0.0			5120	<91.3	<101.3	<0.05	<0.3	Characterization
Source	1/9/2020	Grab	0.5			128	<20	<30	<0.05	<0.3	Characterization
Source	1/9/2020	Grab	1.0			32	<20	<30	<0.05	<0.3	Characterization
WNH	1/9/2020	Grab	0.0			464	<20	<30	<0.05	<0.3	Characterization
Confirmation											
B-01	2/14/2020	Base	4.2			320					Confirmation
B-02	2/14/2020	Base	4.2			864	<20	<30	<0.05	<0.30	Confirmation
В-03	2/14/2020	Base	4.2			1380					Confirmation
B-04	2/14/2020	Base	4.2			1940					Confirmation
B-05	2/14/2020	Base	4.2			2100					Confirmation
B-06	2/14/2020	Base	4.2			2260					Confirmation
B-07	2/14/2020	Base	2.5			336					Confirmation
B-08	2/19/2020	Base	4.0			192					Confirmation
B-09	2/19/2020	Base	4.2			448	<20	<30	<0.05	<0.30	Confirmation
B-10	2/19/2020	Base	3.0			192					Confirmation
B-11	2/21/2020	Base	3.0			160					Confirmation
B-12	2/21/2020	Base	4.2			2280					Confirmation

.

.

Sample ID	Date	Location	Discrete Depth (Feet)	Top Depth (Feet)	Bottom Depth (Feet)	Chloride (PPM)	GRO+DRO (PPM)	TPH Ext. (PPM)	Benzene (PPM)	BTEX (PPM)	Comments
NMOCD Closure Criteria											
0 - 4 feet & "not in-use"						600		2,500	10	50	
> 4 ft or "in-use"						20,000	1,000	2,500	10	50	
B-13	2/21/2020	Base	4.5			1680					Confirmation
B-14	1/18/2020	Base	2.0			48	<20	<30	<0.05	<0.3	Confirmation
B-15	1/18/2020	Base	1.0			96	<20	<30	<0.05	<0.3	Confirmation
B-16	2/19/2020	Base	4.2			1250	<20	<30	<0.05	<0.30	Confirmation
B-17	2/19/2020	Base	2.0			80					Confirmation
B-18	2/19/2020	Base	3.0			112					Confirmation
B-19	2/21/2020	Base	4.2			688					Confirmation
B-20	1/18/2020	Base	1.0			32	<20	<30	<0.05	<0.3	Confirmation
B-21	2/21/2020	Base	3.5			480	<20	<30	<0.05	<0.30	Confirmation
B-22	1/18/2020	Base	1.0			256	<20	<30	<0.05	<0.3	Confirmation
B-200	4/1/2020	Base	0.5			96					Confirmation
B-201	4/1/2020	Base	1.0			16					Confirmation
B-202	4/1/2020	Base	0.5			272					Confirmation
B-203	4/1/2020	Base	1.5			128	<20	<30	<0.05	<0.30	Confirmation
B-204	4/1/2020	Base	4.2			656					Confirmation
B-205	4/1/2020	Base	4.2			816					Confirmation
B-206	4/1/2020	Base	4.2			1460	<20	<30	<0.05	<0.30	Confirmation
W-01	2/14/2020	Wall		0.0	2.0	128	<20	<30	<0.05	<0.30	Confirmation
W-02	2/13/2020	Wall		0.0	4.0	96					Confirmation
W-03	2/14/2020	Wall		0.0	4.0	192					Confirmation
W-04	2/14/2020	Wall		0.0	4.0	144					Confirmation
W-05	2/14/2020	Wall		0.0	4.0	160					Confirmation
W-06	2/14/2020	Wall		0.0	4.0	48					Confirmation
W-07	2/14/2020	Wall		0.0	4.0	160					Confirmation
W-08	2/14/2020	Wall		0.0	2.5	64	<20	<30	<0.05	<0.30	Confirmation
W-09	2/14/2020	Wall		0.0	2.5	32					Confirmation
W-10	2/19/2020	Wall		0.0	4.0	112					Confirmation
W-11	2/19/2020	Wall		0.0	4.0	64					Confirmation
W-12	2/19/2020	Wall		0.0	4.0	32	<20	<30	<0.05	<0.30	Confirmation
W-13	2/21/2020	Wall		0.0	1.0	80	<20	<30	<0.05	<0.30	Confirmation
W-14	2/21/2020	Wall		0.0	4.0	208	<20	<30	<0.05	<0.30	Confirmation
W-15	2/21/2020	Wall		0.0	4.0	320	<20	<30	<0.05	<0.30	Confirmation
W-16	2/21/2020	Wall		0.0	1.0	16	<20	<30	<0.05	<0.30	Confirmation
W-17	2/21/2020	Wall		0.0	1.0	<16	<20	<30	<0.05	<0.30	Confirmation
W-18	2/21/2020	Wall		0.0	4.0	144	<20	<30	<0.05	<0.30	Confirmation
W-19	2/21/2020	Wall		0.0	2.0	144					Confirmation

.

-

04/15/2020

Page 41 of 168

Sample ID	Date	Location	Discrete Depth	Top Depth	Bottom Depth	Chloride	GRO+DRO	TPH Ext.	Benzene	BTEX	Comments
			(Feet)	(Feet)	(Feet)	(PPM)	(PPM)	(PPM)	(PPM)	(PPM)	
NMOCD Closure Criteria											
0 - 4 feet & "not in-use"						600		2,500	10	50	
> 4 ft or "in-use"						20,000	1,000	2,500	10	50	
W-20	2/21/2020	Wall		0.0	2.0	192					Confirmation
W-21	2/21/2020	Wall		0.0	3.0	80					Confirmation
W-22	2/21/2020	Wall		0.0	1.0	32	<20	<30	<0.05	<0.30	Confirmation
W-23	2/21/2020	Wall		0.0	2.0	176	<20	<30	<0.05	<0.30	Confirmation
W-24	2/21/2020	Wall		0.0	4.0	128					Confirmation
W-25	2/21/2020	Wall		0.0	4.0	96					Confirmation
W-100	2/14/2020	Wall		0.0	1.5	48					Confirmation
W-101	2/19/2020	Wall		0.0	3.0	240					Confirmation
W-102	2/19/2020	Wall		0.0	3.0	160					Confirmation
W-103	2/19/2020	Wall		0.0	3.0	64					Confirmation
W-104	2/19/2020	Wall		0.0	3.0	48	<20	<30	<0.05	<0.30	Confirmation
W-105	2/19/2020	Wall		0.0	4.0	80					Confirmation
W-106	2/19/2020	Wall		0.0	2.0	272					Confirmation
W-200	4/1/2020	Wall		0.0	0.5	80	<20	<30	<0.05	<0.30	Confirmation
W-201	4/1/2020	Wall		0.0	1.5	80	<20	<30	<0.05	<0.30	Confirmation
W-202	4/1/2020	Wall		1.0	4.0	192	<20	<30	<0.05	<0.30	Confirmation
W-203	4/1/2020	Wall		0.0	4.0	160					Confirmation
W-204	4/1/2020	Wall		0.0	4.0	80	<20	<30.6	<0.05	<0.30	Confirmation
W-205	4/1/2020	Wall		0.0	4.0	144					Confirmation
W-206	4/1/2020	Wall		0.0	4.0	144	<20	<30.8	<0.05	<0.30	Confirmation
W-207	4/1/2020	Wall		0.0	4.0	144					Confirmation
HA-01	3/12/2020	Grab	1.0			96	<20	<30	<0.05	<0.30	Confirmation
HA-02	3/12/2020	Grab	1.0			48	<20	<30	<0.05	<0.30	Confirmation
HA-03	4/2/2020	Grab		0.0	4.0	96	<20	<30	<0.05	<0.30	Confirmation
HA-04	4/2/2020	Grab		0.0	4.0	96					Confirmation

.

-

Table 2 OSE Water Well Log Data Summary

Dagger Lake to Merchant Line Test Advance Energy Partners Hat Mesa, LLC

POD Number	Date	Top of Water Bearing Strata	Bottom of Water Bearing Strata	Depth to Water	Source	Height Above Confining Layer
		Feet	Feet	Feet		Feet
C-02096	12/31/1963		435	360		
C-02821	6/23/2001	410	540	340	Artesian	70
CP 00854	6/22/1996	755	890	600	Artesian	155
CP 01349 POD 1	7/18/2014	990	1188	572	Artesian	418
CP 01355 POD 1	7/29/2014	925	1185	582	Artesian	343
CP 01356 POD 1	8/9/2014	765	1092	555	Artesian	210
CP 01357 POD 1	8/26/2014	945	1286	578	Artesian	367
CP 01701 POD 1	11/29/2018	560	840	457	Artesian	103
CP-00600	4/23/1905		65	37		
CP-00601	1/1/1952		223	178		
CP-1411 POD 1	10/14/2014	800	1149	800	Artesian	
CP-1411 POD 2	10/7/2014	840	1125	840	Artesian	

Average of all

777

835

492

238

.

•

Appendix A

Certificate of Analysis

R.T. Hicks Consultants, Ltd.

901 Rio Grande Blvd. NW, Suite F-142 Albuquerque, NM 87104



January 13, 2020

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 01/10/20 10:20.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-19-12. 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 www.tceq.texas.gov/field/ga/lab_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.

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,

Celez D. Keine

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:	01/10/2020	Sampling Date:	01/09/2020
Reported:	01/13/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	DAGGER LAKE TO MERCHANT LINE TEST	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: SOURCE 0' (H000089-01)

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	01/10/2020	ND	2.04	102	2.00	2.52	
Toluene*	<0.050	0.050	01/10/2020	ND	2.04	102	2.00	3.01	
Ethylbenzene*	<0.050	0.050	01/10/2020	ND	2.04	102	2.00	2.48	
Total Xylenes*	<0.150	0.150	01/10/2020	ND	6.11	102	6.00	1.58	
Total BTEX	<0.300	0.300	01/10/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	118	% 73.3-12	9						
Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	5120	16.0	01/10/2020	ND	400	100	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	01/10/2020	ND	165	82.5	200	18.4	
DRO >C10-C28*	81.3	10.0	01/10/2020	ND	159	79.4	200	19.4	
EXT DRO >C28-C36	<10.0	10.0	01/10/2020	ND					
Surrogate: 1-Chlorooctane	94.2	% 41-142	,						
Surrogate: 1-Chlorooctadecane	96.8	% 37.6-14	7						

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

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:	01/10/2020	Sampling Date:	01/09/2020
Reported:	01/13/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	DAGGER LAKE TO MERCHANT LINE TEST	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: SOURCE 0.5' (H000089-02)

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	01/10/2020	ND	2.04	102	2.00	2.52	
Toluene*	<0.050	0.050	01/10/2020	ND	2.04	102	2.00	3.01	
Ethylbenzene*	<0.050	0.050	01/10/2020	ND	2.04	102	2.00	2.48	
Total Xylenes*	<0.150	0.150	01/10/2020	ND	6.11	102	6.00	1.58	
Total BTEX	<0.300	0.300	01/10/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	116 9	73.3-12	9						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	01/10/2020	ND	400	100	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	01/10/2020	ND	165	82.5	200	18.4	
DRO >C10-C28*	<10.0	10.0	01/10/2020	ND	159	79.4	200	19.4	
EXT DRO >C28-C36	<10.0	10.0	01/10/2020	ND					
Surrogate: 1-Chlorooctane	93.2	% 41-142	,						
Surrogate: 1-Chlorooctadecane	94.1	% 37.6-14	7						

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

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:	01/10/2020	Sampling Date:	01/09/2020
Reported:	01/13/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	DAGGER LAKE TO MERCHANT LINE TEST	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: SOURCE 1' (H000089-03)

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	01/10/2020	ND	2.04	102	2.00	2.52	
Toluene*	<0.050	0.050	01/10/2020	ND	2.04	102	2.00	3.01	
Ethylbenzene*	<0.050	0.050	01/10/2020	ND	2.04	102	2.00	2.48	
Total Xylenes*	<0.150	0.150	01/10/2020	ND	6.11	102	6.00	1.58	
Total BTEX	<0.300	0.300	01/10/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	118 9	% 73.3-12	9						
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	01/10/2020	ND	400	100	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	01/10/2020	ND	165	82.5	200	18.4	
DRO >C10-C28*	<10.0	10.0	01/10/2020	ND	159	79.4	200	19.4	
EXT DRO >C28-C36	<10.0	10.0	01/10/2020	ND					
Surrogate: 1-Chlorooctane	92.9	% 41-142	2						
Surrogate: 1-Chlorooctadecane	93.6	% 37.6-14	7						

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

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:	01/10/2020	Sampling Date:	01/09/2020
Reported:	01/13/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	DAGGER LAKE TO MERCHANT LINE TEST	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: SF -01 0' (H000089-04)

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	01/10/2020	ND	2.04	102	2.00	2.52	
Toluene*	0.130	0.050	01/10/2020	ND	2.04	102	2.00	3.01	
Ethylbenzene*	0.055	0.050	01/10/2020	ND	2.04	102	2.00	2.48	
Total Xylenes*	<0.150	0.150	01/10/2020	ND	6.11	102	6.00	1.58	
Total BTEX	<0.300	0.300	01/10/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	118 9	73.3-12	9						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	7200	16.0	01/10/2020	ND	400	100	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*	11.2	10.0	01/10/2020	ND	165	82.5	200	18.4	
DRO >C10-C28*	159	10.0	01/10/2020	ND	159	79.4	200	19.4	
EXT DRO >C28-C36	<10.0	10.0	01/10/2020	ND					
Surrogate: 1-Chlorooctane	93.7	% 41-142	,						
Surrogate: 1-Chlorooctadecane	98.8	% 37.6-14	7						

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

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:	01/10/2020	Sampling Date:	01/09/2020
Reported:	01/13/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	DAGGER LAKE TO MERCHANT LINE TEST	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: SF -01 0.5' (H000089-05)

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	01/10/2020	ND	2.04	102	2.00	2.52	
Toluene*	<0.050	0.050	01/10/2020	ND	2.04	102	2.00	3.01	
Ethylbenzene*	<0.050	0.050	01/10/2020	ND	2.04	102	2.00	2.48	
Total Xylenes*	<0.150	0.150	01/10/2020	ND	6.11	102	6.00	1.58	
Total BTEX	<0.300	0.300	01/10/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	115 9	73.3-12	9						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	01/10/2020	ND	400	100	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	01/10/2020	ND	165	82.5	200	18.4	
DRO >C10-C28*	<10.0	10.0	01/10/2020	ND	159	79.4	200	19.4	
EXT DRO >C28-C36	<10.0	10.0	01/10/2020	ND					
Surrogate: 1-Chlorooctane	94.1	% 41-142	,						
Surrogate: 1-Chlorooctadecane	94.8	% 37.6-14	7						

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

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:	01/10/2020	Sampling Date:	01/09/2020
Reported:	01/13/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	DAGGER LAKE TO MERCHANT LINE TEST	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: SF -01 1' (H000089-06)

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	01/10/2020	ND	2.04	102	2.00	2.52	
Toluene*	<0.050	0.050	01/10/2020	ND	2.04	102	2.00	3.01	
Ethylbenzene*	<0.050	0.050	01/10/2020	ND	2.04	102	2.00	2.48	
Total Xylenes*	<0.150	0.150	01/10/2020	ND	6.11	102	6.00	1.58	
Total BTEX	<0.300	0.300	01/10/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	116 9	73.3-12	9						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	01/10/2020	ND	400	100	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	01/10/2020	ND	165	82.5	200	18.4	
DRO >C10-C28*	<10.0	10.0	01/10/2020	ND	159	79.4	200	19.4	
EXT DRO >C28-C36	<10.0	10.0	01/10/2020	ND					
Surrogate: 1-Chlorooctane	97.1	% 41-142	2						
Surrogate: 1-Chlorooctadecane	99.0	% 37.6-14	7						

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

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:	01/10/2020	Sampling Date:	01/09/2020
Reported:	01/13/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	DAGGER LAKE TO MERCHANT LINE TEST	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: PA -02 0' (H000089-07)

BTEX 8021B	mg,	/kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	0.134	0.050	01/10/2020	ND	2.04	102	2.00	2.52	
Toluene*	2.04	0.050	01/10/2020	ND	2.04	102	2.00	3.01	
Ethylbenzene*	0.666	0.050	01/10/2020	ND	2.04	102	2.00	2.48	
Total Xylenes*	1.52	0.150	01/10/2020	ND	6.11	102	6.00	1.58	
Total BTEX	4.36	0.300	01/10/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	118	% 73.3-12	9						
Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	8640	16.0	01/10/2020	ND	416	104	400	0.00	QM-07
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*	53.1	10.0	01/11/2020	ND	165	82.5	200	18.4	
DRO >C10-C28*	1140	10.0	01/11/2020	ND	159	79.4	200	19.4	
EXT DRO >C28-C36	131	10.0	01/11/2020	ND					
Surrogate: 1-Chlorooctane	98.4	% 41-142	2						
Surrogate: 1-Chlorooctadecane	126	% 37.6-14	7						

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

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:	01/10/2020	Sampling Date:	01/09/2020
Reported:	01/13/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	DAGGER LAKE TO MERCHANT LINE TEST	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: PA -02 0.5' (H000089-08)

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	01/10/2020	ND	2.04	102	2.00	2.52	
Toluene*	<0.050	0.050	01/10/2020	ND	2.04	102	2.00	3.01	
Ethylbenzene*	<0.050	0.050	01/10/2020	ND	2.04	102	2.00	2.48	
Total Xylenes*	<0.150	0.150	01/10/2020	ND	6.11	102	6.00	1.58	
Total BTEX	<0.300	0.300	01/10/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	118 9	73.3-12	9						
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	01/10/2020	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	01/11/2020	ND	165	82.5	200	18.4	
DRO >C10-C28*	<10.0	10.0	01/11/2020	ND	159	79.4	200	19.4	
EXT DRO >C28-C36	<10.0	10.0	01/11/2020	ND					
Surrogate: 1-Chlorooctane	93.2	% 41-142							
Surrogate: 1-Chlorooctadecane	93.5	% 37.6-14	7						

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

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:	01/10/2020	Sampling Date:	01/09/2020
Reported:	01/13/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	DAGGER LAKE TO MERCHANT LINE TEST	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: PA -02 1' (H000089-09)

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	01/10/2020	ND	2.04	102	2.00	2.52	
Toluene*	<0.050	0.050	01/10/2020	ND	2.04	102	2.00	3.01	
Ethylbenzene*	<0.050	0.050	01/10/2020	ND	2.04	102	2.00	2.48	
Total Xylenes*	<0.150	0.150	01/10/2020	ND	6.11	102	6.00	1.58	
Total BTEX	<0.300	0.300	01/10/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	117 9	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	01/10/2020	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	01/11/2020	ND	165	82.5	200	18.4	
DRO >C10-C28*	<10.0	10.0	01/11/2020	ND	159	79.4	200	19.4	
EXT DRO >C28-C36	<10.0	10.0	01/11/2020	ND					
Surrogate: 1-Chlorooctane	89.0	% 41-142	,						
Surrogate: 1-Chlorooctadecane	90.1	% 37.6-14	7						

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

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:	01/10/2020	Sampling Date:	01/09/2020
Reported:	01/13/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	DAGGER LAKE TO MERCHANT LINE TEST	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: WNH 0' (H000089-10)

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	01/10/2020	ND	2.04	102	2.00	2.52	
Toluene*	<0.050	0.050	01/10/2020	ND	2.04	102	2.00	3.01	
Ethylbenzene*	<0.050	0.050	01/10/2020	ND	2.04	102	2.00	2.48	
Total Xylenes*	<0.150	0.150	01/10/2020	ND	6.11	102	6.00	1.58	
Total BTEX	<0.300	0.300	01/10/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	115 9	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	464	16.0	01/10/2020	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	01/11/2020	ND	165	82.5	200	18.4	
DRO >C10-C28*	<10.0	10.0	01/11/2020	ND	159	79.4	200	19.4	
EXT DRO >C28-C36	<10.0	10.0	01/11/2020	ND					
Surrogate: 1-Chlorooctane	88.3	% 41-142							
Surrogate: 1-Chlorooctadecane	88.4	% 37.6-14	7						

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Notes and Definitions

QR-02	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
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

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager

Saluatoratories

Page 56 of 168

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Amana Mama	(373) 333-2328 FAX (373) 393-2478	0142-000															
Company Name.	R.T. Hicks Consultants	tants			BIL	BILL TO					ANAI	ANALYSIS		REQUEST			
Project Manager:	Andrew Parker				P.O. #:			_							-		
Address: On-	On-File				Company: R.T.	I. Hicks			_								
City:		State:	Zip:		Attn: Sei	Send to			_								
Phone #:		Fax #:			Address: AE	ABO Office			_								
Project #:		Project Owner:			City:			_								_	
Project Name:	Advance Energy	5				Zip:			(O)						-		
Project Location:	Dayser Lake	to Merchant	ant	Line Test	Phone #:				MI	_							
Sampler Name:	Jacob Saenz				Fax #:					9 /A			_				
FOR LAB USE ONLY				R	PRESERV.	SAMPLING		0.00		, D 1				-			
Lab I.D.	Sample I.D.		(G)RAB OR (C)O # CONTAINERS	GROUNDWATEF WASTEWATER SOIL OIL SLUDGE	OTHER : ACID/BASE: ICE / COOL OTHER :	DATE	TIME	CHLORID	TPH (GRO BENZENE	DENZIGINE							
-	Source	OFT		X	X II	ol/b	ldon	×	R	-				-	-		
2	Source	0.5 PT				1 1	12-30pm	-	_					_			
S	Source	IFT			-	-	pm							-	-		
¢	SF-01	OPT				-	1:3000			-					-		
5	12-01	0.SFT					20-1							_	-		
65	(E-0)	IFT				2	. 3000							_	-		
2	PA -02	'OFT					30-1	~					_	_	-		
2	PA-02	0.SPt				2	1. Juna							_	_		
16	0402	IPT	1		1	11	-lon						_	_	-		
101	HNN	OFT	40	N N	V	V.	4340-	4	0					-	-		
PLEASE NOTE: Liability and analyses. All claims including service. In no event shall Carc affiliates or successors arising	PLEASE NOTE: Libbility and Damages. Cardinal's liability and clients exclusive remedy for any claim arising whether based in contract or fort, shall be limited to the amount paid by the clieft for the analyses. All dariss including those for negligence and any other cause whatoover shall be deemed waved 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 concervential damages, including without limitation, business interruptions, loss of use, or loss of profixs incurred by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or concervential damages, including without limitation, business interruptions, loss of use, or loss of profixs incurred by classifications of the above stated reasons or otherwise arilliates or successors arising out or related to the performance of services hereunder by Cardinal reasoness or whether such claim is based uson any of the above stated reasons or otherwise arilliates or successors arising out or treated to the performance of services hereunder by Cardinal reasones or whether such claim is based uson any of the above stated reasons or otherwise arilliates or successors arising out or the above stated reasons or otherwise arises of the above stated reasons or otherwise arises are above	's exclusive remedy for any use whatsoever shall be de ental damages, including v services hereunder by Cal	/ claim ar emed wa rithout lim	's exclusive remedy for any claim ansing whether based in contract or fort, shall be limited to the amount paid by the cliefk for II see whatsoever shall be deemed waived unless made in writing and neexived by Cardina hufth 30 days after completion of the entral damages, including without limitation, business interruptions, loss of use or loss of profils incurred by client, its subdiaria services hereunder by Cardinal reactives of whether such claim is based upon any of the above stated reasons or otherwise services hereunder by Cardinal reactives of whether such claim is based upon any of the above stated reasons or otherwise services hereunder by Cardinal reactives of whether such claim is based upon any of the above stated reasons or otherwise services hereunder by Cardinal reactives of whether such claim is based upon any of the above stated reasons or otherwise services hereunder by Cardinal reactives of whether such claim is based upon any of the above stated reasons or otherwise services hereunder by the state of t	r or fort, shall be limited to the d received by Cardinal with loss of use, or loss of profit is based upon any of the at	he amount paid by In 30 days after col Is incurred by client bove stated reason	the client for the mpletion of the au , its subsidiaries s or otherwise	pplicable									
Relinquished By:	SAEN2	Date: 10-20 Time: 20	Rece	Received By:	" Mala	R	Phone Result: Fax Result: REMARKS:	7 0	Yes	NO NO	Add'l Phone Add'l Fax #:	Add'l Phone #: Add'l Fax #:	17				
Relinquished By:	h	Date: Time:	Rece	Received By:	the Mart	Jen			1	nsh	2						
Delivered By: (Circle One)					ion CHECKED BY: (Initials)	D BY: (s)											
Sampler - UPS -	Bus - Other: #1/3		3.60	No No	No 8	•											

† Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326



February 26, 2020

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 01/22/20 8:55.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-19-12. 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 www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Cardinal Laboratories is accredited through the State of New Mexico Environment Department for:

Method SM 9223-B	Total Coliform and E. coli (Colilert MMO-MUG)
Method EPA 524.2	Regulated VOCs and Total Trihalomethanes (TTHM)
Method EPA 552.2	Total Haloacetic Acids (HAA-5)

Accreditation applies to public drinking water matrices for State of Colorado and New Mexico.

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. Keine

Celey D. Keene Lab Director/Quality Manager

٦



Analytical Results For:

R T HICKS CONSULTANTS 901 RIO GRANDE BLVD SUITE F-142 ALBUQUERQUE NM, 87104	Project Number:	ADVANCE ENERGY DAGGER LAKE TO MERCHANT LINI ANDREW PARKER NONE	Reported: 26-Feb-20 10:15
---	-----------------	---	------------------------------

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B - 05 4.2'	H000208-01	Soil	18-Jan-20 08:00	22-Jan-20 08:55
B-22 1'	H000208-02	Soil	18-Jan-20 08:30	22-Jan-20 08:55
B - 07 3'	H000208-03	Soil	18-Jan-20 09:00	22-Jan-20 08:55
B-20 1'	H000208-04	Soil	18-Jan-20 09:30	22-Jan-20 08:55
B-09 2'	H000208-05	Soil	18-Jan-20 10:00	22-Jan-20 08:55
B-12 1'	H000208-06	Soil	18-Jan-20 10:30	22-Jan-20 08:55
B-14 2'	H000208-07	Soil	18-Jan-20 11:00	22-Jan-20 08:55
B-15 1'	H000208-08	Soil	18-Jan-20 11:30	22-Jan-20 08:55
B-16 2'	H000208-09	Soil	18-Jan-20 12:00	22-Jan-20 08:55
B-17 1'	H000208-10	Soil	18-Jan-20 12:30	22-Jan-20 08:55

02/24/20 - Client revised sample IDs for -02 and -04 via email.

02/26/20 - This is the revised report and will replace the one sent on 01/23/20.

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



R T HICKS CONSULTANTS 901 RIO GRANDE BLVD SUI ALBUQUERQUE NM, 87104	TE F-142		Project Num Project Mana	, ber: DAC		TO MERCHANT LINI 26-Feb-20 10:15				
				- 05 4.2' 208-01 (Se	oil)					
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	l Laborat	ories					
<u>Inorganic Compounds</u> Chloride	448		16.0	mg/kg	4	0012211	AC	22-Jan-20	4500-Cl-B	
Volatile Organic Compounds b	y EPA Method	8021								
Benzene*	< 0.050		0.050	mg/kg	50	0012210	MS	22-Jan-20	8021B	
Toluene*	< 0.050		0.050	mg/kg	50	0012210	MS	22-Jan-20	8021B	
Ethylbenzene*	< 0.050		0.050	mg/kg	50	0012210	MS	22-Jan-20	8021B	
Total Xylenes*	< 0.150		0.150	mg/kg	50	0012210	MS	22-Jan-20	8021B	
Total BTEX	< 0.300		0.300	mg/kg	50	0012210	MS	22-Jan-20	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			95.7 %	73.3	-129	0012210	MS	22-Jan-20	8021B	
<u>Petroleum Hydrocarbons by G</u>	C FID									
GRO C6-C10*	<10.0		10.0	mg/kg	1	0012113	MS	22-Jan-20	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	0012113	MS	22-Jan-20	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	0012113	MS	22-Jan-20	8015B	
Surrogate: 1-Chlorooctane			101 %	41-	142	0012113	MS	22-Jan-20	8015B	
Surrogate: 1-Chlorooctadecane			104 %	37.6	-147	0012113	MS	22-Jan-20	8015B	

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 ar any other cause whitstoewer 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 damage 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 su claim is based to reproduced except in full with written approval of Cardinal Loaratories.

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

٦

Analytical Results For:

R T HICKS CONSULTANT 901 RIO GRANDE BLVD S ALBUQUERQUE NM, 8710	O GRANDE BLVD SUITE F-142 Project Number: DAGGER LAKE TO MERCHANT LINI 26-Feb-20 10:15							15		
				- 22 1'						
			H000	208-02 (So	oil)					
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	ıl Laborat	ories					
Inorganic Compounds										
Chloride	256		16.0	mg/kg	4	0012211	AC	22-Jan-20	4500-Cl-B	
Volatile Organic Compound	ls by EPA Method 8	8021								
Benzene*	< 0.050		0.050	mg/kg	50	0012210	MS	22-Jan-20	8021B	
Toluene*	< 0.050		0.050	mg/kg	50	0012210	MS	22-Jan-20	8021B	
Ethylbenzene*	< 0.050		0.050	mg/kg	50	0012210	MS	22-Jan-20	8021B	
Total Xylenes*	< 0.150		0.150	mg/kg	50	0012210	MS	22-Jan-20	8021B	
Total BTEX	< 0.300		0.300	mg/kg	50	0012210	MS	22-Jan-20	8021B	
Surrogate: 4-Bromofluorobenzene (P	PID)		95.5 %	73.3	-129	0012210	MS	22-Jan-20	8021B	
Petroleum Hydrocarbons by	y GC FID									
GRO C6-C10*	<10.0		10.0	mg/kg	1	0012113	MS	23-Jan-20	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	0012113	MS	23-Jan-20	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	0012113	MS	23-Jan-20	8015B	
Surrogate: 1-Chlorooctane			106 %	41-	142	0012113	MS	23-Jan-20	8015B	
Surrogate: 1-Chlorooctadecane			112 %	37.6	-147	0012113	MS	23-Jan-20	8015B	

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

	01 RIO GRANDE BLVD SUITE F-142				Project: ADVANCE ENERGY Project Number: DAGGER LAKE TO MERCHANT LINI Project Manager: ANDREW PARKER Fax To: NONE						
				- 07-3' 208-03 (So	,iI)						
			11000.	208-03 (30)11)					1	
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes	
			Cardina	l Laborat	ories						
Inorganic Compounds											
Chloride	704		16.0	mg/kg	4	0012211	AC	22-Jan-20	4500-Cl-B		
Volatile Organic Compound	s by EPA Method	8021									
Benzene*	< 0.050		0.050	mg/kg	50	0012210	MS	22-Jan-20	8021B		
Toluene*	< 0.050		0.050	mg/kg	50	0012210	MS	22-Jan-20	8021B		
Ethylbenzene*	< 0.050		0.050	mg/kg	50	0012210	MS	22-Jan-20	8021B		
Total Xylenes*	< 0.150		0.150	mg/kg	50	0012210	MS	22-Jan-20	8021B		
Total BTEX	< 0.300		0.300	mg/kg	50	0012210	MS	22-Jan-20	8021B		
Surrogate: 4-Bromofluorobenzene (P.	ID)		95.2 %	73.3	-129	0012210	MS	22-Jan-20	8021B		
Petroleum Hydrocarbons by	GC FID										
GRO C6-C10*	<10.0		10.0	mg/kg	1	0012113	MS	23-Jan-20	8015B		
DRO >C10-C28*	<10.0		10.0	mg/kg	1	0012113	MS	23-Jan-20	8015B		
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	0012113	MS	23-Jan-20	8015B		
Surrogate: 1-Chlorooctane			106 %	41-	142	0012113	MS	23-Jan-20	8015B		
Surrogate: 1-Chlorooctadecane			109 %	37.6	-147	0012113	MS	23-Jan-20	8015B		

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

٦

Analytical Results For:

R T HICKS CONSULTANTS 901 RIO GRANDE BLVD S ALBUQUERQUE NM, 8710	UITE F-142		Project Num Project Mana	ber: DAG	REW PAR	TO MERCH	IANT LINI	2	Reported: 26-Feb-20 10		
			В	8 - 20 1'							
			H000	208-04 (So	oil)						
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes	
			Cardina	al Laborat	ories						
Inorganic Compounds											
Chloride	32.0		16.0	mg/kg	4	0012211	AC	22-Jan-20	4500-Cl-B		
Volatile Organic Compound	s by EPA Method 8	021									
Benzene*	< 0.050		0.050	mg/kg	50	0012210	MS	22-Jan-20	8021B		
Toluene*	< 0.050		0.050	mg/kg	50	0012210	MS	22-Jan-20	8021B		
Ethylbenzene*	< 0.050		0.050	mg/kg	50	0012210	MS	22-Jan-20	8021B		
Total Xylenes*	< 0.150		0.150	mg/kg	50	0012210	MS	22-Jan-20	8021B		
Total BTEX	< 0.300		0.300	mg/kg	50	0012210	MS	22-Jan-20	8021B		
Surrogate: 4-Bromofluorobenzene (P.	ID)		95.5 %	73.3	-129	0012210	MS	22-Jan-20	8021B		
Petroleum Hydrocarbons by	GC FID										
GRO C6-C10*	<10.0		10.0	mg/kg	1	0012113	MS	23-Jan-20	8015B		
DRO >C10-C28*	<10.0		10.0	mg/kg	1	0012113	MS	23-Jan-20	8015B		
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	0012113	MS	23-Jan-20	8015B		
Surrogate: 1-Chlorooctane			106 %	41-	142	0012113	MS	23-Jan-20	8015B		
Surrogate: 1-Chlorooctadecane			110 %	37.6	-147	0012113	MS	23-Jan-20	8015B		

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

٦

Analytical Results For:

R T HICKS CONSULTANT 901 RIO GRANDE BLVD S ALBUQUERQUE NM, 8710	SUITE F-142		Project Num Project Mana	ber: DAG	REW PARK	TO MERCH	IANT LINI	2	Reported: 26-Feb-20 10:1		
				- 09 2'							
			H000	208-05 (So	oil)						
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes	
			Cardina	ll Laborat	ories						
Inorganic Compounds											
Chloride	240		16.0	mg/kg	4	0012211	AC	22-Jan-20	4500-Cl-B		
Volatile Organic Compound	s by EPA Method 8	8021									
Benzene*	< 0.050		0.050	mg/kg	50	0012210	MS	22-Jan-20	8021B		
Toluene*	< 0.050		0.050	mg/kg	50	0012210	MS	22-Jan-20	8021B		
Ethylbenzene*	< 0.050		0.050	mg/kg	50	0012210	MS	22-Jan-20	8021B		
Total Xylenes*	< 0.150		0.150	mg/kg	50	0012210	MS	22-Jan-20	8021B		
Total BTEX	< 0.300		0.300	mg/kg	50	0012210	MS	22-Jan-20	8021B		
Surrogate: 4-Bromofluorobenzene (P	PID)		95.3 %	73.3-	-129	0012210	MS	22-Jan-20	8021B		
Petroleum Hydrocarbons by	GC FID										
GRO C6-C10*	<10.0		10.0	mg/kg	1	0012204	MS	22-Jan-20	8015B		
DRO >C10-C28*	<10.0		10.0	mg/kg	1	0012204	MS	22-Jan-20	8015B		
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	0012204	MS	22-Jan-20	8015B		
Surrogate: 1-Chlorooctane			105 %	41-	142	0012204	MS	22-Jan-20	8015B		
Surrogate: 1-Chlorooctadecane			107 %	37.6	-147	0012204	MS	22-Jan-20	8015B		

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

R T HICKS CONSULTANTS 901 RIO GRANDE BLVD S ALBUQUERQUE NM, 8710	UITE F-142		Project Num Project Mana	ber: DAG	REW PAR	TO MERCH	HANT LINI	2	Reported: 26-Feb-20 10:1		
				- 12 1'							
			H000	208-06 (So	oil)						
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes	
			Cardina	ıl Laborat	ories						
Inorganic Compounds											
Chloride	64.0		16.0	mg/kg	4	0012211	AC	22-Jan-20	4500-Cl-B		
Volatile Organic Compound	s by EPA Method	8021									
Benzene*	< 0.050		0.050	mg/kg	50	0012210	MS	22-Jan-20	8021B		
Toluene*	< 0.050		0.050	mg/kg	50	0012210	MS	22-Jan-20	8021B		
Ethylbenzene*	< 0.050		0.050	mg/kg	50	0012210	MS	22-Jan-20	8021B		
Total Xylenes*	< 0.150		0.150	mg/kg	50	0012210	MS	22-Jan-20	8021B		
Total BTEX	< 0.300		0.300	mg/kg	50	0012210	MS	22-Jan-20	8021B		
Surrogate: 4-Bromofluorobenzene (P.	ID)		95.5 %	73.3-	-129	0012210	MS	22-Jan-20	8021B		
Petroleum Hydrocarbons by	GC FID										
GRO C6-C10*	<10.0		10.0	mg/kg	1	0012204	MS	23-Jan-20	8015B		
DRO >C10-C28*	<10.0		10.0	mg/kg	1	0012204	MS	23-Jan-20	8015B		
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	0012204	MS	23-Jan-20	8015B		
Surrogate: 1-Chlorooctane			102 %	41-	142	0012204	MS	23-Jan-20	8015B		
Surrogate: 1-Chlorooctadecane			104 %	37.6	-147	0012204	MS	23-Jan-20	8015B		

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 ar any other cause whitstoewer 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 damage 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 su claim is based to reproduced except in full with written approval of Cardinal Loaratories.

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

R T HICKS CONSULTANTS 901 RIO GRANDE BLVD S ALBUQUERQUE NM, 8710	SUITE F-142		Project Num Project Mana	, ber: DAC		TO MERCH	IANT LINI	2	15	
				- 14 2' 208-07 (Se	oil)					
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	l Laborat	ories					
<u>Inorganic Compounds</u> Chloride	48.0		16.0	mg/kg	4	0012211	AC	22-Jan-20	4500-Cl-B	
Volatile Organic Compound	s by EPA Method	8021								
Benzene*	< 0.050		0.050	mg/kg	50	0012210	MS	22-Jan-20	8021B	
Toluene*	< 0.050		0.050	mg/kg	50	0012210	MS	22-Jan-20	8021B	
Ethylbenzene*	< 0.050		0.050	mg/kg	50	0012210	MS	22-Jan-20	8021B	
Total Xylenes*	< 0.150		0.150	mg/kg	50	0012210	MS	22-Jan-20	8021B	
Total BTEX	< 0.300		0.300	mg/kg	50	0012210	MS	22-Jan-20	8021B	
Surrogate: 4-Bromofluorobenzene (P.	ID)		94.7 %	73.3	-129	0012210	MS	22-Jan-20	8021B	
Petroleum Hydrocarbons by	GC FID									
GRO C6-C10*	<10.0		10.0	mg/kg	1	0012204	MS	23-Jan-20	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	0012204	MS	23-Jan-20	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	0012204	MS	23-Jan-20	8015B	
Surrogate: 1-Chlorooctane			99.9 %	41-	142	0012204	MS	23-Jan-20	8015B	
Surrogate: 1-Chlorooctadecane			98.6 %	37.6	-147	0012204	MS	23-Jan-20	8015B	

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

R T HICKS CONSULTANTS 901 RIO GRANDE BLVD S ALBUQUERQUE NM, 8710	UITE F-142		Project Num Project Mana	ber: DAC		TO MERCH	IANT LINI	2	Reported: 26-Feb-20 10:15		
			-	- 15-1' 208-08 (Se	oil)						
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes	
			Cardina	l Laborat	tories						
<u>Inorganic Compounds</u> Chloride	96.0		16.0	mg/kg	4	0012211	AC	22-Jan-20	4500-Cl-B		
Volatile Organic Compound	s by EPA Method	8021									
Benzene*	< 0.050		0.050	mg/kg	50	0012210	MS	22-Jan-20	8021B		
Toluene*	< 0.050		0.050	mg/kg	50	0012210	MS	22-Jan-20	8021B		
Ethylbenzene*	< 0.050		0.050	mg/kg	50	0012210	MS	22-Jan-20	8021B		
Total Xylenes*	< 0.150		0.150	mg/kg	50	0012210	MS	22-Jan-20	8021B		
Total BTEX	< 0.300		0.300	mg/kg	50	0012210	MS	22-Jan-20	8021B		
Surrogate: 4-Bromofluorobenzene (P.	ID)		96.4 %	73.3	-129	0012210	MS	22-Jan-20	8021B		
Petroleum Hydrocarbons by	GC FID										
GRO C6-C10*	<10.0		10.0	mg/kg	1	0012204	MS	23-Jan-20	8015B		
DRO >C10-C28*	<10.0		10.0	mg/kg	1	0012204	MS	23-Jan-20	8015B		
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	0012204	MS	23-Jan-20	8015B		
Surrogate: 1-Chlorooctane			106 %	41-	142	0012204	MS	23-Jan-20	8015B		
Surrogate: 1-Chlorooctadecane			107 %	37.6	-147	0012204	MS	23-Jan-20	8015B		

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

٦

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

R T HICKS CONSULTANT 901 RIO GRANDE BLVD S ALBUQUERQUE NM, 8710	SUITE F-142		Project Num Project Mana	ber: DAG	REW PARK	TO MERCH	IANT LINI	2	Reported: 26-Feb-20 10:		
				- 16 2'	•1)						
			HUUU	208-09 (So	b 11)						
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes	
			Cardina	ıl Laborat	ories						
Inorganic Compounds											
Chloride	144		16.0	mg/kg	4	0012211	AC	22-Jan-20	4500-Cl-B		
Volatile Organic Compound	s by EPA Method	8021									
Benzene*	< 0.050		0.050	mg/kg	50	0012210	MS	22-Jan-20	8021B		
Toluene*	< 0.050		0.050	mg/kg	50	0012210	MS	22-Jan-20	8021B		
Ethylbenzene*	< 0.050		0.050	mg/kg	50	0012210	MS	22-Jan-20	8021B		
Total Xylenes*	< 0.150		0.150	mg/kg	50	0012210	MS	22-Jan-20	8021B		
Total BTEX	< 0.300		0.300	mg/kg	50	0012210	MS	22-Jan-20	8021B		
Surrogate: 4-Bromofluorobenzene (P	PID)		95.9 %	73.3	-129	0012210	MS	22-Jan-20	8021B		
Petroleum Hydrocarbons by	GC FID										
GRO C6-C10*	<10.0		10.0	mg/kg	1	0012204	MS	23-Jan-20	8015B		
DRO >C10-C28*	<10.0		10.0	mg/kg	1	0012204	MS	23-Jan-20	8015B		
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	0012204	MS	23-Jan-20	8015B		
Surrogate: 1-Chlorooctane			103 %	41-	142	0012204	MS	23-Jan-20	8015B		
Surrogate: 1-Chlorooctadecane			101 %	37.6	-147	0012204	MS	23-Jan-20	8015B		

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

R T HICKS CONSULTANTS 901 RIO GRANDE BLVD S ALBUQUERQUE NM, 8710	UITE F-142		Project Num Project Mana	ber: DAC		TO MERCH	HANT LINI	2	Reported: 26-Feb-20 10:15			
			-	- 17-1' 208-10 (So	,i)							
			11000.	200-10 (50)II)					1		
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes		
			Cardina	l Laborat	ories							
Inorganic Compounds												
Chloride	160		16.0	mg/kg	4	0012211	AC	22-Jan-20	4500-Cl-B			
Volatile Organic Compound	s by EPA Method	8021										
Benzene*	< 0.050		0.050	mg/kg	50	0012210	MS	22-Jan-20	8021B			
Toluene*	< 0.050		0.050	mg/kg	50	0012210	MS	22-Jan-20	8021B			
Ethylbenzene*	< 0.050		0.050	mg/kg	50	0012210	MS	22-Jan-20	8021B			
Total Xylenes*	< 0.150		0.150	mg/kg	50	0012210	MS	22-Jan-20	8021B			
Total BTEX	< 0.300		0.300	mg/kg	50	0012210	MS	22-Jan-20	8021B			
Surrogate: 4-Bromofluorobenzene (PL	ID)		95.5 %	73.3	-129	0012210	MS	22-Jan-20	8021B			
Petroleum Hydrocarbons by	GC FID											
GRO C6-C10*	<10.0		10.0	mg/kg	1	0012204	MS	23-Jan-20	8015B			
DRO >C10-C28*	<10.0		10.0	mg/kg	1	0012204	MS	23-Jan-20	8015B			
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	0012204	MS	23-Jan-20	8015B			
Surrogate: 1-Chlorooctane			103 %	41-	142	0012204	MS	23-Jan-20	8015B			
Surrogate: 1-Chlorooctadecane			101 %	37.6	-147	0012204	MS	23-Jan-20	8015B			

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



R T HICKS CONSULTANTS 901 RIO GRANDE BLVD SUITE F-142 ALBUQUERQUE NM, 87104	Project Number:	Advance Energy Dagger lake to merchant lini Andrew Parker None	Reported: 26-Feb-20 10:15
---	-----------------	---	------------------------------

Inorganic Compounds - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0012211 - 1:4 DI Water										
Blank (0012211-BLK1)				Prepared &	Analyzed:	22-Jan-20				
Chloride	ND	16.0	mg/kg							
LCS (0012211-BS1)				Prepared &	Analyzed:	22-Jan-20				
Chloride	416	16.0	mg/kg	400		104	80-120			
LCS Dup (0012211-BSD1)				Prepared &	Analyzed:	22-Jan-20				
Chloride	400	16.0	mg/kg	400		100	80-120	3.92	20	

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager



R T HICKS CONSULTANTS 901 RIO GRANDE BLVD SUITE F-142 ALBUQUERQUE NM, 87104	Project Number:	ADVANCE ENERGY DAGGER LAKE TO MERCHANT LINI ANDREW PARKER NONE	Reported: 26-Feb-20 10:15
---	-----------------	---	------------------------------

Volatile Organic Compounds by EPA Method 8021 - Quality Control

Cardinal	Laboratories
----------	--------------

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes		
Batch 0012210 - Volatiles	result	Emin	0.110	20101	result	, title	Linits	10.0	Linit	1.0005		
Blank (0012210-BLK1)				Prepared &	Analyzed:	22-Jan-20						
Benzene	ND	0.050	mg/kg	-	•							
Toluene	ND	0.050	mg/kg									
Ethylbenzene	ND	0.050	mg/kg									
Total Xylenes	ND	0.150	mg/kg									
Total BTEX	ND	0.300	mg/kg									
Surrogate: 4-Bromofluorobenzene (PID)	ND		mg/kg	0.0500		94.4	73.3-129					
LCS (0012210-BS1)		Prepared & Analyzed: 22-Jan-20										
Benzene	1.95	0.050	mg/kg	2.00		97.3	72.2-131					
Toluene	1.94	0.050	mg/kg	2.00		97.0	71.7-126					
Ethylbenzene	1.96	0.050	mg/kg	2.00		98.2	68.9-126					
Total Xylenes	5.73	0.150	mg/kg	6.00		95.4	71.4-125					
Surrogate: 4-Bromofluorobenzene (PID)	0.0471		mg/kg	0.0500		94.1	73.3-129					
LCS Dup (0012210-BSD1)				Prepared &	Analyzed:	22-Jan-20						
Benzene	2.06	0.050	mg/kg	2.00		103	72.2-131	5.89	14.6			
Toluene	2.06	0.050	mg/kg	2.00		103	71.7-126	6.20	17.4			
Ethylbenzene	2.09	0.050	mg/kg	2.00		105	68.9-126	6.41	18.9			
Total Xylenes	6.13	0.150	mg/kg	6.00		102	71.4-125	6.75	18.5			
Surrogate: 4-Bromofluorobenzene (PID)	0.0472		mg/kg	0.0500		94.5	73.3-129					

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



R T HICKS CONSULTANTS 901 RIO GRANDE BLVD SUITE F-142 ALBUQUERQUE NM, 87104	Project Number:	ADVANCE ENERGY DAGGER LAKE TO MERCHANT LINI ANDREW PARKER NONE	Reported: 26-Feb-20 10:15
---	-----------------	---	------------------------------

Petroleum Hydrocarbons by GC FID - Quality Control

Cardinal	Laboratories
----------	--------------

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
	Result	Linit	Onto	Level	Result	JURLE	Linits	NI D	Linin	110105
Batch 0012113 - General Prep - Organics										
Blank (0012113-BLK1)				Prepared: 2	21-Jan-20 A	nalyzed: 22	2-Jan-20			
GRO C6-C10	ND	10.0	mg/kg							
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C36	ND	10.0	mg/kg							
Surrogate: 1-Chlorooctane	51.2		mg/kg	50.0		102	41-142			
Surrogate: 1-Chlorooctadecane	52.6		mg/kg	50.0		105	37.6-147			
LCS (0012113-BS1)				Prepared: 2	21-Jan-20 A	nalyzed: 2	2-Jan-20			
GRO C6-C10	206	10.0	mg/kg	200		103	76.5-133			
DRO >C10-C28	218	10.0	mg/kg	200		109	72.9-138			
Total TPH C6-C28	424	10.0	mg/kg	400		106	78-132			
Surrogate: 1-Chlorooctane	56.0		mg/kg	50.0		112	41-142			
Surrogate: 1-Chlorooctadecane	56.8		mg/kg	50.0		114	37.6-147			
LCS Dup (0012113-BSD1)				Prepared: 2	21-Jan-20 A	nalyzed: 2	2-Jan-20			
GRO C6-C10	209	10.0	mg/kg	200		104	76.5-133	1.03	20.6	
DRO >C10-C28	220	10.0	mg/kg	200		110	72.9-138	1.06	20.6	
Total TPH C6-C28	428	10.0	mg/kg	400		107	78-132	1.05	18	
Surrogate: 1-Chlorooctane	56.5		mg/kg	50.0		113	41-142			
Surrogate: 1-Chlorooctadecane	58.0		mg/kg	50.0		116	37.6-147			
Batch 0012204 - General Prep - Organics										
				-						

Blank (0012204-BLK1)	Prepared & Analyzed: 22-Jan-20							
GRO C6-C10	ND	10.0	mg/kg					
DRO >C10-C28	ND	10.0	mg/kg					
EXT DRO >C28-C36	ND	10.0	mg/kg					
Surrogate: 1-Chlorooctane	51.4		mg/kg	50.0	103	41-142		
Surrogate: 1-Chlorooctadecane	49.8		mg/kg	50.0	99.7	37.6-147		

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any daim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence ar any other cause whitstoewer 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 damage 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 su 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 Lobaratories.

Celey D. Keene, Lab Director/Quality Manager



R T HICKS CONSULTANTS 901 RIO GRANDE BLVD SUITE F-142 ALBUQUERQUE NM, 87104			Reported: 26-Feb-20 10:15
---	--	--	------------------------------

Petroleum Hydrocarbons by GC FID - Quality Control

Cardinal Laboratories

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 0012204 - General Prep - Organics										
LCS (0012204-BS1)				Prepared &	Analyzed:	22-Jan-20				
GRO C6-C10	196	10.0	mg/kg	200		97.9	76.5-133			
DRO >C10-C28	183	10.0	mg/kg	200		91.6	72.9-138			
Total TPH C6-C28	379	10.0	mg/kg	400		94.7	78-132			
Surrogate: 1-Chlorooctane	52.1		mg/kg	50.0		104	41-142			
Surrogate: 1-Chlorooctadecane	51.1		mg/kg	50.0		102	37.6-147			
LCS Dup (0012204-BSD1)				Prepared &	Analyzed:	22-Jan-20				
GRO C6-C10	202	10.0	mg/kg	200		101	76.5-133	3.17	20.6	
DRO >C10-C28	183	10.0	mg/kg	200		91.5	72.9-138	0.0634	20.6	
Total TPH C6-C28	385	10.0	mg/kg	400		96.3	78-132	1.62	18	
Surrogate: 1-Chlorooctane	54.9		mg/kg	50.0		110	41-142			
Surrogate: 1-Chlorooctadecane	53.8		mg/kg	50.0		108	37.6-147			

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



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

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

N Laboratories

Page 74 of 168

Page 18 of 18

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

	575) 393-2326 FAX (5/5) 393-24/0	X (5/5) 393-2410									ANAIY	ANALYSIS REQUEST	DUEST			Ļ
Company Name:	R.T. Hicks Consultants	sultants				BILL IU				+				-		
Project Manager:	: Andrew Parker	7			P.O. #:			_		_				-	_	
Address: On	On-File				Compan	Company: R.T. Hicks	cks	_		-	_			_	_	_
		State:	Zip:		Attn:	Send to		_		_	_			-		_
Phone #:		Fax #:			Address:	: ABQ Office	fice	_		_				-		
Project #:		Project Owner:			City:))		_			2		_
Project Name:	Advance En	Energy			State:	Zip:			RC	_				-	_	_
	M. D	5	reh	Marchan & Line 1	Test Phone #				M			-	_	-		_
Project Location	Project Location: arr U&52E/	relation to the	100		0.000				0+	EX	_	2		-		_
Sampler Manie.	anada anana			MATRIX		SERV SAMPLING	LING		DR	BT				-		_
Lab I.D.	Sample I.D.	I.D.	G)RAB OR (C)OMP.	CONTAINERS BROUNDWATER NASTEWATER SOIL	DIL SLUDGE DTHER : ACID/BASE:	OTHER :	TIME	CHLORIDE	TPH (GRO+	BENZENE,			2.2			
arpant	Risor	4.2FT	2	N S	0	2	20 Sim	×	X	X				1		
2		171	-	1 1			8.30m	-	F	F		+		+		
וע	12-07	3 =7	-				g an m	-	-			-		+		
FX	-	171					hyperb	+	-	+						
3-		JFT	-				lonn	F	F		1	1				
e	2-12	IFT	-				10.30-1	T	T			T		-	1	
1		シーフ	-				11.3	-	-					+		
00	0-15	IFT					11:340	F	T	-	+	+		+		
2	13-16	2 FT	13				udpi		E	4		-	1			
PLEASE NOTE: Liability	10 13 17 17 15 15 15 15 15 15 15 15 15 15 15 15 15	I J 7	any ctair	m arising whether based	in contract or tort, shall	be limited to the amou Cardinal within 30 day	nt paid by the client fo s after completion of t	r the he applic	able	F	ł					
analyses, All ctaims inclu service. In no event shall	snaytes. All calms including under or including under our our construction of the structure	consequental damages, including the services hereunder by	ng withou Cardinal	ranta danages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiary rearries hereunder by Cardinal, regardless of whether such claim is based upon any of the above statied reasons or otherwise.	struptions, loss of use, o uch claim is based upo	n any of the above stal	d by client, its subsidia ed reasons or otherwi	bries,				hone #				
Relinquished By:		Date: 1-22-20	D Re	Received By:	1	11/10	Fax Result:	S: It:	U Yes	es 🗆 No	11	Add'l Fax #:				
Saub	Seen 2	TIMOSSIS		male	NO CH	Malda	REIMANAS	9		D			F	32	5	
Relinquished By:	By:	Date:	Re	sceived By:		1	_		_	Juan	ent				9	
2	M	Time:			-	SUPPLYED BY)		-						
Delivered B	Delivered By: (Circle One)				Sample Condition	(Initials)		U	en	Pa			5	-	2	
Sampler - UP		4/13 -	3.90		I Ves	Y.O.	*	1	an	ie cha	mal	10	y C	nour	ew 1	
		- A COLUMN AND A		and the second se	Į		11.42		0							

+ Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326

See enail.



February 17, 2020

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 02/14/20 15:25.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-19-12. 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 www.tceq.texas.gov/field/ga/lab_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.

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,

Celez D. Keine

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:	02/14/2020	Sampling Date:	02/14/2020
Reported:	02/17/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	D2MLT	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: B - 01 4.2' (H000465-01)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	320	16.0	02/17/2020	ND	432	108	400	0.00	

Sample ID: B - 02 4.2' (H000465-02)

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	02/14/2020	ND	1.76	87.9	2.00	2.96	
Toluene*	<0.050	0.050	02/14/2020	ND	1.80	89.9	2.00	3.92	
Ethylbenzene*	<0.050	0.050	02/14/2020	ND	1.85	92.4	2.00	3.06	
Total Xylenes*	<0.150	0.150	02/14/2020	ND	5.36	89.4	6.00	3.00	
Total BTEX	<0.300	0.300	02/14/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	99.3	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/	'kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	864	16.0	02/17/2020	ND	432	108	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	02/15/2020	ND	209	105	200	0.101	
DRO >C10-C28*	<10.0	10.0	02/15/2020	ND	198	99.1	200	0.678	

Surrogate: 1-Chlorooctane

EXT DRO >C28-C36

97.1 % 41-142

10.0

<10.0

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 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 relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Loadarotaries.

ND

02/15/2020

Celez D. Keene

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:	02/14/2020	Sampling Date:	02/14/2020
Reported:	02/17/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	D2MLT	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: B - 02 4.2' (H000465-02)

TPH 8015M	mg,	/kg	Analyz	ed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Surrogate: 1-Chlorooctadecane	100	% 37.6-147							

Sample ID: B - 03 4.25' (H000465-03)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1380	16.0	02/17/2020	ND	432	108	400	0.00	

Sample ID: B - 04 4.2' (H000465-04)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1940	16.0	02/17/2020	ND	432	108	400	0.00	

Sample ID: B - 05 4.25' (H000465-05)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2100	16.0	02/17/2020	ND	432	108	400	0.00	

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keine

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:	02/14/2020	Sampling Date:	02/14/2020
Reported:	02/17/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	D2MLT	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: B - 06 4.25' (H000465-06)

Chloride, SM4500Cl-B	mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2260	16.0	02/17/2020	ND	432	108	400	0.00	

Sample ID: B - 07 2.5' (H000465-07)

Chloride, SM4500CI-B	mg	′kg	Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	336	16.0	02/17/2020	ND	432	108	400	0.00	

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

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:	02/14/2020	Sampling Date:	02/14/2020
Reported:	02/17/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	D2MLT	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: W - 01 0-2' (H000465-08)

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	02/14/2020	ND	1.76	87.9	2.00	2.96	
Toluene*	<0.050	0.050	02/14/2020	ND	1.80	89.9	2.00	3.92	
Ethylbenzene*	<0.050	0.050	02/14/2020	ND	1.85	92.4	2.00	3.06	
Total Xylenes*	<0.150	0.150	02/14/2020	ND	5.36	89.4	6.00	3.00	
Total BTEX	<0.300	0.300	02/14/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	100 9	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	02/17/2020	ND	432	108	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	02/15/2020	ND	209	105	200	0.101	
DRO >C10-C28*	<10.0	10.0	02/15/2020	ND	198	99.1	200	0.678	
EXT DRO >C28-C36	<10.0	10.0	02/15/2020	ND					
Surrogate: 1-Chlorooctane	94.2	% 41-142	,						
Surrogate: 1-Chlorooctadecane	98.2	% 37.6-14	7						

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

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

Received:	02/14/2020	Sampling Date:	02/13/2020
Reported:	02/17/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	D2MLT	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: W - 02 0-4' (H000465-09)

Chloride, SM4500Cl-B	mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	02/17/2020	ND	432	108	400	0.00	

Sample ID: W - 03 0-4' (H000465-10)

Chloride, SM4500Cl-B	mg,	mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	02/17/2020	ND	432	108	400	0.00	

Sample ID: W - 04 0-4' (H000465-11)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	02/17/2020	ND	432	108	400	0.00	

Sample ID: W - 05 0-4' (H000465-12)

Chloride, SM4500CI-B	mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	02/17/2020	ND	432	108	400	0.00	

Sample ID: W - 06 0-4' (H000465-13)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	02/17/2020	ND	432	108	400	0.00	

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 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 relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celez D. Keene

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:	02/14/2020	Sampling Date:	02/14/2020
Reported:	02/17/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	D2MLT	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: W - 07 0-4' (H000465-14)

Chloride, SM4500Cl-B	mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	02/17/2020	ND	432	108	400	0.00	

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

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:	02/14/2020	Sampling Date:	02/14/2020
Reported:	02/17/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	D2MLT	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: W - 08 0-2.5' (H000465-15)

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	02/14/2020	ND	1.76	87.9	2.00	2.96	
Toluene*	<0.050	0.050	02/14/2020	ND	1.80	89.9	2.00	3.92	
Ethylbenzene*	<0.050	0.050	02/14/2020	ND	1.85	92.4	2.00	3.06	
Total Xylenes*	<0.150	0.150	02/14/2020	ND	5.36	89.4	6.00	3.00	
Total BTEX	<0.300	0.300	02/14/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	99.6	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	02/17/2020	ND	432	108	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	02/15/2020	ND	209	105	200	0.101	
DRO >C10-C28*	<10.0	10.0	02/15/2020	ND	198	99.1	200	0.678	
EXT DRO >C28-C36	<10.0	10.0	02/15/2020	ND					
Surrogate: 1-Chlorooctane	95.4	% 41-142							
Surrogate: 1-Chlorooctadecane	99.7	% 37.6-14	7						

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

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:	02/14/2020	Sampling Date:	02/14/2020
Reported:	02/17/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	D2MLT	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: W - 09 0-2.5' (H000465-16)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	02/17/2020	ND	432	108	400	0.00	

Sample ID: W - 100 0-1.5' (H000465-17)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	02/17/2020	ND	432	108	400	0.00	

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Notes and Definitions

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
QR-03	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
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

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 whatscever 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 whose 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 whose share there applied by the services arise 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.

Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager

Page 11 of 12 aboratories

Page 85 of 168

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: XI, Hic	k innsultant	B.	BILL TO		ANA	ANALYSIS REQUEST
Project Manager: Andrew 1	arter		P.O. # D2 MLT			
Address: ON AU		0	Company:			
City:	State:	Zip:	Attn: Pinail And rew	RW		
Phone #:	Fax #:	4	Address:			
Project #:	Project Owner:		City:			
Project Name: advance	ENERY	(0)	State: Zip:			
Project Location: D2MLT	8	9	01	70-01535		
Sampler Name: Lawra Pa	Parker	71	Fax #:			
FOR LAB USE ONLY			PRESERV. SAM	SAMPLING	кТ	
Lab I.D. Sample I.D.	le I.D.	(G)RAB OR (C)OI # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL SLUDGE	OTHER : ACID/BASE: CE / COOL OTHER :	Chlori	BIEX TPH EX	
1 B-01 - 4.2	+	V	Y	1 0380 m	_	
2 B-02- 4.	Port		-	N N 57.80	<	
2 B-03 4.	2517			N 02:30		
1 to-9 1	1207			N 54:80		
5 B-05 4.	2561			A 00:80		
6 B-06 4.2	1.256+			09:15 V		
7 807 2,5	24		<	V 05:10		
0	10th			N 1 54: 60	<	
-	0-40		2/13/20	_		
10 N-03 0-	197-0	144 4	V 2114/20	N 51:01 6		
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 analyses. All claims including those for negligence and any other cause whatswere 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 incidential or consequental damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, artifiates or successors arising out of or related to the performance of services be reunder by Cardinal. receating ess in the rubust of the service at the anomy set the services are reserved.	and client's exclusive remedy for y other cause whatsoever shall b r consequental damages, includi rmance of services hereunder by	e any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for th e deemed waived unless made in writing and received by Cardinal within 30 days after completion of the ng without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiar Cardinal repardless of whether such claims is based unon any of the above estated researce or otherwise.	tort, shall be limited to the amount pai sceived by Cardinal within 30 days after s of use, or loss of profils incurred by c	d by the client for the r completion of the applicable blient, its subsidiaries, across or otherwise		
Relinguished By:	Date: SIM ZUZ	Received By:	Mathe	Verbal Result: Yes No Add'I Phone #: All Results are emailed. Please provide Email address:	íes □ No Add'I d. Please provide Επ	Add'I Phone #: ide Email address:
Relinquished By:	Date: Time:	Received By:		REMARKS: RFN		
Delivered By: (Circle One)	Observed Temp. °C	4.2 Sample	сн	Turnaround Time:	Standard	0
Sampler - UPS - Bus - Other:	Corrected Temp. °C	3		Thermometer ID #97 Correction Factor + 0.4 °C	R.	Cool Infact Observed Temp. °C

Received by OCD: 4/25/2020 11:18:26 AM

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com

Laboratories

Page 86 of 168

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

.

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

P.O. #: D.Y.L.T Company: Address: City: Zip: Phone #: OIL State: Zip: PRESERV SAMPLING REX PRESERV No.TE TIME CHECKD BIT: TIME Condition CHECKED BIT: Tumaround Time: Standard REMARKS: REMARKS: REMARKS: Condition Condition CHECKED BIT: Tumaround Time: Standard Condition CHECKED BIT: Tumaround Time: Standard Condition CHECKED BIT: Tumaround Time: Standard Condition Mathematic Instruments of the standard medices: Unitials Tumaround Time: Standard Conditinatrest of the standard		0 + 0.4 C	CONSCION FAC		ON TON T			FOR
Project Manager: On Arbou Ranker Zip: State: Zip: Atm: @ Company: Project Atm : Project Owne: Project Owne: Project Owne: Project Atm : Project Owne: Project Atm : Project Owne: Project Atm : Project Owne: State: Zip: Project Atm : State: Zip: Project Atm : State: Zip: Project Atm : Project Owne: State: Zip: Project Atm : P	Bacteria (only) S Cool Intact	2 M	Turnaround T Thermometer II	(Initials)	Cool Intact	Corrected Temp. °C	PS - Bus - Other:	Sampler - U
Project Manager: On Kit/C POINT POINT Address: On Kit/C State: Zip: Project Man: For # For # Project Man: C/U/C Address: Project Man: C/U/C For # Lab LD. Sample Lob For # Lab LD<			RF			Time:		
Project Manager: On A Ir 4w RANKEr E0.#: D2.H_T Address: On My State: Tp: Project Man CUV Project Owner: State: Project Mane: CUV A RANE Project Mane: City: Project Mane: CUV A RANE Proster Proster Project Mane: CUV A RANE Proster Proster Project Mane: CUV A RANE Proster Proster Proster MANEX Proster Pros			REMARKS:	1	eceived By:		ed By:	Relinquish
TPHEXT	vide Email address:	e emailed. Please prov	All Results ar	aller	Janora Ma	0 10	nalitan	Sal
< BTEX	Add'l Phone #:	□ Yes □ No	Verbal Resul	upon any of the above stated	eceived By:	rmance of services hereunder by Cardin	ed By:	Relinquish
Imatew Ranker P.O. #: D2.MLT State:: Zip: Attn: @Mail (Indrew) Fax #: Project Owner: City: Project Owner: City: Address: D2.MLT Project Owner: City: CAUral Parker State: Zip: Project Owner: City: State: D2.MLT Project Owner: City: CAUral Parker Proseervy Sample I.D. Sample I.D. GROUNDWATER PRESERV W-04 0-444 GROUNDWATER W-07 0-444 GROUNDWATER W-09 0-2.554 GI # @CONTHER: W-09 0-2.554 GI # GROUNDWATER GI # GROUNDWATER		plicable	fer completion of the ap client, its subsidiaries,	 by Cardinal within 30 days a or loss of profits incurred b 	ed waived unless made in writing and received ut limitation, business interruptions, loss of us	y other cause whatsoever shall be deem r consequental damages, including with	s including those for negligence and an stability those for negligence and an it shall Cardinal be fiable for incidental o	analyses. All claims service. In no even
$\begin{array}{c c c c c c c c c c c c c c c c c c c $			aid by the client for the	all he limited to the amount of	marising whether based in contract or fort sh	and client's exclusive remedy for any cla	ability and Damages. Cardinal's liability	PLEASE NOTE: L
And Hew Ranker P.O. #: D2 MLT State: Zip: Fax #: Project Owner: Project Owner: Project Owner: Churra Panker State: D2 HLT Address: D2 HLT Address: D2 HLT State: D2 HLT Address: Project Owner: State: D2 HLT Address: D2 HLT Bhone #: 970-570-71535 Cautra Panker Fax #: D2 HLT Fax #: D2 HLT Fax #: D2 HLT State: State: State: State: State: State: State: State: State:								
$\begin{array}{c c c c c c c c c c c c c c c c c c c $			1200 6	4	F	rist a	-0 001 M CI	
$\begin{array}{c c c c c c c c c c c c c c c c c c c $			il:us I	*	×	2.54	-	
Quarter Project Owner: P.O. #: D2 MLT State: Zip: Fax #: Fax #: Project Owner: City: OD2-MLT Project Owner: CUTA PARE Phone #: 970-570-71535 Cutra Parter Fax #: Sample I.D. G(G)RAB OR (C)OMP. W-04 0-444 W-04 0-444 W-04 0-444 W-04 0-444 Ground			11:30 1			54	1	
$\begin{array}{c c c c c c c c c c c c c c c c c c c $			11:15			\$ +		
An Arew Panker P.O. #: D2 MLT Nu State: Zip: Fax #: Project Owner: Company: Project Owner: Fax #: Address: D2-HLT Phone #: 970-570-9535 D2-HLT Fax #: Fax #: D2-HLT Fax #: Fax #: D2-HLT Fax Phone #: 970-570-9535 D2-HLT Fax #: Fax #: D2-HLT Fax #: Fax #: D2-HLT GROUNDWATER Fax #: Value 0-444 G. I. GROUNDWATER Fax #: W-04 0-444 G. I. GROUNDWATER W-05 0-444 G. I. GROUNDWATER W-04 0-444 G. I. GROUNDWATER W-04 0-444 G. I. GROUNDWATER W-05 0-444 G. I. GROUNDWATER W-04 0-444 G. I. GROUNDWATER W-04 0-444 G. I. GROUNDWATER W-04			-			+	M-06	
Marchew Paaker P.O.#: D2 MLT Nul State: Zip: Fax #: Project Owner: Company: Project Owner: Project Owner: Address: D2-MLT Phone #: 970-570-9535 Phone #: 970-570-9535 D2-MLT Fax #: Fax #: Valural Parter MATRIX Preserv. Sample I.D. GROUNDWATER Phone #: 970-570-9535 Valural Parter Fax #: Fax #: Valural Parter Fax #: Fax #: Valural Parter MATRIX Preserv. Sample I.D. GROUNDWATER Phone #: 970-570-9535 Valural Parter Fax #: Fax #:			1				12 W-05 0-4	
Advance P.O. #: D2 MLT State: Zip: Fax #: Fax #: Project Owner: Project Owner: D2-MLT Address: D2-MLT Address: City: State: Zip: Fax #: Company: City: D2-MLT Phone #: 970-570-47535 GROUNDWATER Fax #: WASTEWATER MATRIX PRESERV SAMPLING OIL SLUDGE OIL SLUDGE OTHER: ACID/BASE: ICE / COOL DATE TIME STEX						4		
An Arrew Panker P.O. #: D2 MLT Nig State: Zip: State: Zip: Attn: @Mail and rew Fax #: Project Owner: Address: D2-MLT Project Owner: City: D2-MLT State: Zip: D2-MLT Phone #: 970-570-9535 Lawra Panker Eax #: Pax #: Preserv		BTEX	TIME	ICE / COOL OTHER :	GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER :			Lab I.I
Andrew Panker Ne State: Zip: Fax #: Project Owner: Odvance Energy D2-MLT Lawra Panker						P.	DNLY	FOR LAB USE O
Andrew Panker Ny State: Zip: Fax #: Idvanue Endroy D2-MLT				#		Ther	LOWINGI	Sampler Na
Andrew Panker Ne State: Zip: Fax #: Project Owner: Advance Energy			2535	ne #: 970-570-	Phor	, C	cation: D2MLT	Project Loo
And Hew Panker NU State: Zip: Fax #: Project Owner:					State	ENERNY	me: Udvanue	Project Nai
And Hiv Panker Ne State: Zip: Fax #:					City:	Project Owner:)	Project #:
Andrew Panker Ny State: Zip:				ess:	Addr	Fax #:		Phone #:
Andrew Panker P.O. #: NU Company			ew-	: email and				City:
and Hew Parker P.O. #				pany:	Com		5	Address:
				12	P.O.	anker		Project Ma

Received by OCD: 4/25/2020 11:18:26 AM



February 20, 2020

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 02/19/20 16:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-19-12. 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 www.tceq.texas.gov/field/ga/lab_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.

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,

Celez D. Keine

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:	02/19/2020	Sampling Date:	02/19/2020
Reported:	02/20/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	D2MLT	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: B - 08 4' (H000529-01)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	02/20/2020	ND	416	104	400	0.00	

Sample ID: B - 09 4.2' (H000529-02)

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	02/20/2020	ND	1.97	98.5	2.00	6.41	
Toluene*	<0.050	0.050	02/20/2020	ND	1.99	99.5	2.00	6.97	
Ethylbenzene*	<0.050	0.050	02/20/2020	ND	2.01	100	2.00	6.77	
Total Xylenes*	<0.150	0.150	02/20/2020	ND	5.85	97.5	6.00	6.93	
Total BTEX	<0.300	0.300	02/20/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	101 9	73.3-12	9						
Chloride, SM4500CI-B	mg/	'kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	448	16.0	02/20/2020	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	02/20/2020	ND	200	99.9	200	0.654	
DRO >C10-C28*	<10.0	10.0	02/20/2020	ND	215	107	200	1.77	

Surrogate: 1-Chlorooctane

EXT DRO >C28-C36

44.3-144

10.0

<10.0

94.4 %

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 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 relate only to the sample identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

ND

02/20/2020

Celecz D. Keine

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:	02/19/2020	Sampling Date:	02/19/2020
Reported:	02/20/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	D2MLT	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: B - 09 4.2' (H000529-02)

TPH 8015M	mg	/kg	Analyz	ed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Surrogate: 1-Chlorooctadecane	98.9	% 42.2-156							

Sample ID: B - 10 3' (H000529-03)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	02/20/2020	ND	416	104	400	0.00	

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

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:	02/19/2020	Sampling Date:	02/19/2020
Reported:	02/20/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	D2MLT	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: B - 16 4.2' (H000529-04)

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	02/20/2020	ND	1.97	98.5	2.00	6.41	
Toluene*	<0.050	0.050	02/20/2020	ND	1.99	99.5	2.00	6.97	
Ethylbenzene*	<0.050	0.050	02/20/2020	ND	2.01	100	2.00	6.77	
Total Xylenes*	<0.150	0.150	02/20/2020	ND	5.85	97.5	6.00	6.93	
Total BTEX	<0.300	0.300	02/20/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	102	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1250	16.0	02/20/2020	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	02/20/2020	ND	200	99.9	200	0.654	
DRO >C10-C28*	<10.0	10.0	02/20/2020	ND	215	107	200	1.77	
EXT DRO >C28-C36	<10.0	10.0	02/20/2020	ND					
Surrogate: 1-Chlorooctane	92.0	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	97.0	% 42.2-15	6						

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

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:	02/19/2020	Sampling Date:	02/19/2020
Reported:	02/20/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	D2MLT	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: B - 17 2' (H000529-05)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	02/20/2020	ND	416	104	400	0.00	

Sample ID: B - 18 3' (H000529-06)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	02/20/2020	ND	416	104	400	0.00	

Sample ID: W - 10 0-4' (H000529-07)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	02/20/2020	ND	416	104	400	0.00	

Sample ID: W - 11 0-4' (H000529-08)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	02/20/2020	ND	416	104	400	0.00	

Cardinal Laboratories

*=Accredited Analyte

Celez D. Keene

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:	02/19/2020	Sampling Date:	02/19/2020
Reported:	02/20/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	D2MLT	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: W - 12 0-4' (H000529-09)

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	02/20/2020	ND	1.97	98.5	2.00	6.41	
Toluene*	<0.050	0.050	02/20/2020	ND	1.99	99.5	2.00	6.97	
Ethylbenzene*	<0.050	0.050	02/20/2020	ND	2.01	100	2.00	6.77	
Total Xylenes*	<0.150	0.150	02/20/2020	ND	5.85	97.5	6.00	6.93	
Total BTEX	<0.300	0.300	02/20/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	103 9	% 73.3-12	9						
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	02/20/2020	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	02/20/2020	ND	200	99.9	200	0.654	
DRO >C10-C28*	<10.0	10.0	02/20/2020	ND	215	107	200	1.77	
EXT DRO >C28-C36	<10.0	10.0	02/20/2020	ND					
Surrogate: 1-Chlorooctane	96.3	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	101 9	% 42.2-15	6						

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

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:	02/19/2020	Sampling Date:	02/19/2020
Reported:	02/20/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	D2MLT	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: W - 101 0-3' (H000529-10)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	240	16.0	02/20/2020	ND	416	104	400	0.00	

Sample ID: W - 102 0-3' (H000529-11)

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	02/20/2020	ND	416	104	400	0.00	

Sample ID: W - 103 0-3' (H000529-12)

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	02/20/2020	ND	416	104	400	0.00	

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

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:	02/19/2020	Sampling Date:	02/19/2020
Reported:	02/20/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	D2MLT	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: W - 104 0-3' (H000529-13)

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	02/20/2020	ND	1.97	98.5	2.00	6.41	
Toluene*	<0.050	0.050	02/20/2020	ND	1.99	99.5	2.00	6.97	
Ethylbenzene*	<0.050	0.050	02/20/2020	ND	2.01	100	2.00	6.77	
Total Xylenes*	<0.150	0.150	02/20/2020	ND	5.85	97.5	6.00	6.93	
Total BTEX	<0.300	0.300	02/20/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	102 9	% 73.3-12	9						
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		02/20/2020	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	02/20/2020	ND	200	99.9	200	0.654	
DRO >C10-C28*	<10.0	10.0	02/20/2020	ND	215	107	200	1.77	
EXT DRO >C28-C36	<10.0	10.0	02/20/2020	ND					
Surrogate: 1-Chlorooctane	92.3	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	97.4	% 42.2-15	6						

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

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:	02/19/2020	Sampling Date:	02/19/2020
Reported:	02/20/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	D2MLT	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: W - 105 0-4' (H000529-14)

Chloride, SM4500Cl-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	02/20/2020	ND	416	104	400	0.00	

Sample ID: W - 106 0-2' (H000529-15)

Chloride, SM4500CI-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	02/20/2020	ND	416	104	400	0.00	

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



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

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

Page 97 of 168 ZI Jo II of Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name:					110	>				- H
Project Manager:	Andrew Parker	anus					and and the states	-		
Address: On-File	file				Company: R.T.	T. Hicks				
City:		State:	Zip:		Attn: Se	Send to				
Phone #:	-	Fax #:			Address: and	andrew@rthicks	hicks			
Project #:		Project Owner:				consult.com				
Project Name: A	Adverte Ennse					Zip:			(0)	
Project Location:	-				Phone #:			MIT		
1.2.	Jacob Saenz				Fax #:			01	-	
FOR LAB USE ONLY			ИP.	MATRIX	PRESERV.	SAMPLING				
Lab I.D.	Sample I.D.	÷	(G)RAB OR (C)OM # CONTAINERS	groundwater Wastewater Soil Dil Sludge	OTHER : ACID/BASE: CE / COOL OTHER :	DATE		CHLORIDE	TPH (GRO+ BENZENE,	
6	80-9	457		×	R	2/19/20	San	×		
2 6	6-09	4.2FT		-	-		8:24.2		× ×	
0 10	0-10	3FT		-	-		gan		_	
-	0-16	4.2FT			-		4:39an		x x	
50	6-17	2FT					10mm			
6 6	818	JET	-			_	10-39-4			
うと	-10	0-487					ling			
2 8	1-11	0-4FT					1:30			
4 6	(-12	0-467	11.		1		1200		XX	
I W	MAN HO	0-3FT		ain whether based in contract	or fort shall be limited in		5-302 V	<		
PLEASE NOTE: Liability and Di analyses: All claims Including th service. In no event shall Cardin affiliates or successors arising ou	PLEASE MULE: Libility and Danages, canonal si lawily and clients exclusive remedy for any sam ansing whether based in contract or fort, shall be limited to the amount paid by the client for the analyses. All claims including those for nogligance and any other cause whatoevore 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 lable for incidental or consequental damages, including without limitation, business interruptions, loss grades, or loss of profils incurred by client, its subsidiaries, atfiliates or successors arising out of or related to the performance of services hereunder by Cardinal incident and the apple service.	a exclusive remedy for a se whatsoever shall be t intal damages, including services hereunder by C	ny claim an leemed wai without limi ardinal, ree	sing whether based in contract lved unless made in writing and ltation, business interruptions, I ltations of whether such claim I	or tort, shall be limited to the amount paid by the client for the 1 received by Cardinal within 30 days after completion of the loss of dise, or loss of profits incurred by client, its subsidiarie s briesed upon any of the above stated reasons or otherwise.	the amount paid I thin 30 days after o fits incurred by clie above stated reas	by the client for the an completion of the an ant, its subsidiaries ons or otherwise.	pplicable		
Relinquished By:	SAKWY	Date: 9-20	Rece	Received By:			Phone Result: Fax Result: REMARKS:	r 00	Yes D	No Add'I Phone #: No Add'I Fax #:
Relinquished By:	12	Date: Time:	Rece	Received By:						1.57
Delivered By://Circle One) Sampler - UPS - Bus - Other:	Circle One) Bus - Other:	2.3° HII3	SIIH HIS	Sample Condition	on CHECKED BY: (Initials)	als)				Kust

Received by OCD: 4/25/2020 11:18:26 AM

† Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326

CARDINAL Page 12 of 12 Page 12 of 12

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Relinquished By: SHCall Relinquished By:	PLEASE NOTE: Liability and analyses, All claims including service. In no event shall Car affiliates or successors arising			15	-	ic.	12 .	1/ 1/ 1/ 1/ 1/	Lab I.D.	Sampler Name:	Project Location:	Project Name:	Project #:	Phone #:	City:	Address: On-File	Project Manager:	Company Name:	
Cifcle One)	Damages, Cardinal's liability ar those for negligence and any o final be llable for incidental or c out of or related to the perform			w- 106	201-11	1-104	2-103	t01-1	Sample I.D.	Jacob Saenz						File	Andrew Parker	R.T. Hicks Consultants	(75) 393-2326 F/
Time:	PLEASE NOTE: Liability and Danages, Cardinal's liability and client's acclusive remedy for sany calm raising 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 wheteover shall be doenned waived unless made in writing and received by Cardinal within 10 days after competition of the explicitable service. In no event shall Cardinal be liable for incidental or consequental damages, including without limitation, busines interruptions, loss of user, 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 lighteed upon any of the above stated reasons or otherwise.			0-287		0-31-	0-3F7	0-317) I.D.				Project Owner:	Fax #:	State:		er	nsultants	(575) 393-2326 FAX (575) 393-2476
Recei	any claim arisi deemed walvi g without limita Cardinal, regat			V V			-	-	(G)RAB OR (C)OMP. # CONTAINERS				a		Zip:				5
Received By: Received By: Received By: Sample Condition Cool Intact Cool Intact	ng whether based in c ad unless made in wri ation, business interru dless of whether suci			A	-		-	-	GROUNDWATER WASTEWATER SOIL OIL										
<u> <u></u></u>	contract or tort, shall be lim ting and received by Cardle ptions, loss of use, or loss n claim is based upon any o			F			-	X	SLUDGE OTHER : ACID/BASE: ICE / COOL	Fay	Phone #:	State:	City:	Address:	Attn:	Company:	P.O. #:		
CHECKED BY:	tort, shall be limited to the amount paid by the client for th ceived by Cardinal within 30 days after completion of the off use, or loss of profits incurred by client, its subsidiarit ased upon any of the above stated reasons or otherwise			4	-		-	2/19/20	OTHER : 22 SAMPLING			Zip:	consult.com	andrew@rthicks	Send to	R.T. Hicks		BILL TO	
Phone Result: Fax Result: REMARKS:	aid by the client for ter completion of the client, its subsidian easons or otherwise		V	30	- WOCR	2 4	1:30-	1 pm	TIME				m	rthicks		ks			
	oplicable	K				×	-	8	CHLORIDE TPH (GRO+DR	0	+M	RU	0	_					
Yes D No					-	<			BENZENE, BT				<u> </u>	_					
AA																		ANALYSIS	
id" Phone #: id" Fax #:																			
Δ																		REQUEST	

Page 98 of 168



February 25, 2020

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 02/21/20 14:35.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-19-12. 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 www.tceq.texas.gov/field/ga/lab_accred_certif.html.

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

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

Cardinal Laboratories is accredited through the State of New Mexico Environment Department for:

Method SM 9223-B	Total Coliform and E. coli (Colilert MMO-MUG)
Method EPA 524.2	Regulated VOCs and Total Trihalomethanes (TTHM)
Method EPA 552.2	Total Haloacetic Acids (HAA-5)

Accreditation applies to public drinking water matrices for State of Colorado and New Mexico.

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. Keine

Celey D. Keene Lab Director/Quality Manager



R T HICKS CONSULTANTS 901 RIO GRANDE BLVD SUITE F-142 ALBUQUERQUE NM, 87104	Project Number:	ANDREW PARKER	Reported: 25-Feb-20 08:23
---	-----------------	---------------	------------------------------

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B - 13 4.5'	H000558-01	Soil	21-Feb-20 08:00	21-Feb-20 14:35
B - 21 3.5'	H000558-02	Soil	21-Feb-20 08:15	21-Feb-20 14:35
B - 11 3'	H000558-03	Soil	21-Feb-20 08:30	21-Feb-20 14:35
B - 12 4.2'	H000558-04	Soil	21-Feb-20 09:00	21-Feb-20 14:35
B - 19 4.2'	H000558-05	Soil	21-Feb-20 09:15	21-Feb-20 14:35
W - 13 0-1'	H000558-06	Soil	21-Feb-20 09:30	21-Feb-20 14:35
W - 14 0-4'	H000558-07	Soil	21-Feb-20 10:00	21-Feb-20 14:35
W - 15 0-4'	H000558-08	Soil	21-Feb-20 10:15	21-Feb-20 14:35
W - 16 0-1'	H000558-09	Soil	21-Feb-20 10:30	21-Feb-20 14:35
W - 17 0-1'	H000558-10	Soil	21-Feb-20 10:45	21-Feb-20 14:35
W - 18 0-4'	H000558-11	Soil	21-Feb-20 11:00	21-Feb-20 14:35
W - 19 0-2'	H000558-12	Soil	21-Feb-20 11:30	21-Feb-20 14:35
W - 20 0-2'	H000558-13	Soil	21-Feb-20 11:45	21-Feb-20 14:35
W - 21 0-3'	H000558-14	Soil	21-Feb-20 12:00	21-Feb-20 14:35
W - 22 0-1'	H000558-15	Soil	21-Feb-20 12:15	21-Feb-20 14:35
W - 23 0-2'	H000558-16	Soil	21-Feb-20 12:30	21-Feb-20 14:35
W - 24 0-4'	H000558-17	Soil	21-Feb-20 13:00	21-Feb-20 14:35
W - 25 0-4'	H000558-18	Soil	21-Feb-20 13:30	21-Feb-20 14:35

02/24/20 - Client revised sample IDs for -01 and -02 via email.

02/25/20 - This is the revised report and will replace the one sent on 02/24/20.

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any daim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence ar any other cause whitstoewer 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 damage 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 su 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 Lobaratories.

Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

R T HICKS CONSULTAN 901 RIO GRANDE BLVD ALBUQUERQUE NM, 871	SUITE F-142		Project Num Project Mana	ber: I	andrew Park			2	Reported: 5-Feb-20 08:	23
			B - H0005	· 13 4						
Analyte	Result	MDL	Reporting Limit	Unit	s Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	l Labo	oratories					
Inorganic Compounds										
Chloride	1680		16.0	mg/k	g 4	0022409	GM	24-Feb-20	4500-Cl-B	

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

R T HICKS CONSULTANTS 901 RIO GRANDE BLVD S ALBUQUERQUE NM, 8710	UITE F-142		Project Num Project Mana		Reported: 25-Feb-20 08:23					
				- 21 3.5' 558-02 (Se	oil)					
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	l Laborat	tories					
Inorganic Compounds										
Chloride	480		16.0	mg/kg	4	0022409	GM	24-Feb-20	4500-Cl-B	
Volatile Organic Compound	s by EPA Method 8	8021								
Benzene*	< 0.050		0.050	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Toluene*	< 0.050		0.050	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Ethylbenzene*	< 0.050		0.050	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Total Xylenes*	< 0.150		0.150	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Total BTEX	< 0.300		0.300	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Surrogate: 4-Bromofluorobenzene (P.	ID)		101 %	73.3	-129	0022114	CK	22-Feb-20	8021B	
Petroleum Hydrocarbons by	GC FID									
GRO C6-C10*	<10.0		10.0	mg/kg	1	0022117	CK	22-Feb-20	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	0022117	CK	22-Feb-20	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	0022117	CK	22-Feb-20	8015B	
Surrogate: 1-Chlorooctane			79.9 %	44.3	-144	0022117	CK	22-Feb-20	8015B	
Surrogate: 1-Chlorooctadecane			84.9 %	42.2	-156	0022117	СК	22-Feb-20	8015B	

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



R T HICKS CONSULTAN 901 RIO GRANDE BLVD ALBUQUERQUE NM, 871	SUITE F-142		Project Nun Project Mana	nber: D	NDREW PAR			2	Reported: 5-Feb-20 08	:23
			_	558-03 (
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	al Labor	atories					
Inorganic Compounds										
Chloride	160		16.0	mg/kg	4	0022409	GM	24-Feb-20	4500-Cl-B	

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

R T HICKS CONSULTAI 901 RIO GRANDE BLVI ALBUQUERQUE NM, 87	D SUITE F-142		Project Num Project Mana	iber: [NDREW PARK			2	Reported: 25-Feb-20 08:	23
			_	- 12 4 558-04	-					
Analyte	Result	MDL	Reporting Limit	Units	s Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	l Labo	oratories					
Inorganic Compounds										
Chloride	2280		16.0	mg/kg	g 4	0022409	GM	24-Feb-20	4500-Cl-B	

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

R T HICKS CONSULTAN 901 RIO GRANDE BLVD ALBUQUERQUE NM, 871	SUITE F-142		Project Numl Project Manag	ber: D	NDREW PARK			2	Reported: 25-Feb-20 08:	23
			B - H0005	19 4. 58-05	-					
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardinal	Labo	ratories					
Inorganic Compounds										
Chloride	688		16.0	mg/kg	4	0022409	GM	24-Feb-20	4500-Cl-B	

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

R T HICKS CONSULTANTS 901 RIO GRANDE BLVD S ALBUQUERQUE NM, 8710	SUITE F-142		Project Num Project Mana		Reported: 25-Feb-20 08:23					
				- 13 0-1 558-06 (Se						
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	l Laborat	tories					
Inorganic Compounds										
Chloride	80.0		16.0	mg/kg	4	0022409	GM	24-Feb-20	4500-Cl-B	
Volatile Organic Compound	s by EPA Method 8	8021								
Benzene*	< 0.050		0.050	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Toluene*	< 0.050		0.050	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Ethylbenzene*	< 0.050		0.050	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Total Xylenes*	< 0.150		0.150	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Total BTEX	< 0.300		0.300	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Surrogate: 4-Bromofluorobenzene (P	PID)		101 %	73.3	-129	0022114	СК	22-Feb-20	8021B	
Petroleum Hydrocarbons by	GC FID									
GRO C6-C10*	<10.0		10.0	mg/kg	1	0022117	CK	22-Feb-20	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	0022117	CK	22-Feb-20	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	0022117	CK	22-Feb-20	8015B	
Surrogate: 1-Chlorooctane			87.1 %	44.3	-144	0022117	CK	22-Feb-20	8015B	
Surrogate: 1-Chlorooctadecane			90.8 %	42.2	-156	0022117	СК	22-Feb-20	8015B	

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



R T HICKS CONSULTANTS 901 RIO GRANDE BLVD S ALBUQUERQUE NM, 8710	UITE F-142		Project Num Project Mana		Reported: 25-Feb-20 08:23					
				- 14 0-4 558-07 (Se						
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	l Laborat	tories					
Inorganic Compounds										
Chloride	208		16.0	mg/kg	4	0022409	GM	24-Feb-20	4500-Cl-B	
Volatile Organic Compound	s by EPA Method 8	8021								
Benzene*	< 0.050		0.050	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Toluene*	< 0.050		0.050	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Ethylbenzene*	< 0.050		0.050	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Total Xylenes*	< 0.150		0.150	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Total BTEX	< 0.300		0.300	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Surrogate: 4-Bromofluorobenzene (P.	ID)		100 %	73.3	-129	0022114	СК	22-Feb-20	8021B	
Petroleum Hydrocarbons by	GC FID									
GRO C6-C10*	<10.0		10.0	mg/kg	1	0022117	CK	22-Feb-20	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	0022117	CK	22-Feb-20	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	0022117	CK	22-Feb-20	8015B	
Surrogate: 1-Chlorooctane			85.8 %	44.3	-144	0022117	CK	22-Feb-20	8015B	
Surrogate: 1-Chlorooctadecane			88.5 %	42.2	-156	0022117	СК	22-Feb-20	8015B	

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 ar any other cause whitstoewer 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 damage 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 su 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.

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



R T HICKS CONSULTANTS 901 RIO GRANDE BLVD SI ALBUQUERQUE NM, 87104	JITE F-142		Project Num Project Mana		Reported: 25-Feb-20 08:23					
				- 15 0-4 558-08 (So						
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	l Laborat	ories					
Inorganic Compounds										
Chloride	320		16.0	mg/kg	4	0022409	GM	24-Feb-20	4500-Cl-B	
Volatile Organic Compounds	s by EPA Method 80	021								
Benzene*	< 0.050		0.050	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Toluene*	< 0.050		0.050	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Ethylbenzene*	< 0.050		0.050	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Total Xylenes*	< 0.150		0.150	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Total BTEX	< 0.300		0.300	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Surrogate: 4-Bromofluorobenzene (PL	D)		101 %	73.3	-129	0022114	СК	22-Feb-20	8021B	
Petroleum Hydrocarbons by	GC FID									
GRO C6-C10*	<10.0		10.0	mg/kg	1	0022117	CK	22-Feb-20	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	0022117	CK	22-Feb-20	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	0022117	CK	22-Feb-20	8015B	
Surrogate: 1-Chlorooctane			88.5 %	44.3	-144	0022117	CK	22-Feb-20	8015B	
Surrogate: 1-Chlorooctadecane			92.2 %	42.2	-156	0022117	СК	22-Feb-20	8015B	

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



R T HICKS CONSULTANTS 901 RIO GRANDE BLVD SI ALBUQUERQUE NM, 8710	UITE F-142		Project Num Project Mana	, ber: D2M	REW PARK	-		2	Reported: 5-Feb-20 08:	23
				- 16 0-1 558-09 (So						
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	l Laborat	ories					
Inorganic Compounds										
Chloride	16.0		16.0	mg/kg	4	0022409	GM	24-Feb-20	4500-Cl-B	
Volatile Organic Compounds	s by EPA Method 80	021								
Benzene*	< 0.050		0.050	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Toluene*	< 0.050		0.050	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Ethylbenzene*	< 0.050		0.050	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Total Xylenes*	< 0.150		0.150	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Total BTEX	< 0.300		0.300	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Surrogate: 4-Bromofluorobenzene (PI	D)		99.6 %	73.3	-129	0022114	СК	22-Feb-20	8021B	
Petroleum Hydrocarbons by	GC FID									
GRO C6-C10*	<10.0		10.0	mg/kg	1	0022117	CK	22-Feb-20	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	0022117	CK	22-Feb-20	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	0022117	CK	22-Feb-20	8015B	
Surrogate: 1-Chlorooctane			87.6%	44.3	-144	0022117	CK	22-Feb-20	8015B	
Surrogate: 1-Chlorooctadecane			91.9 %	42.2	-156	0022117	СК	22-Feb-20	8015B	

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 ar any other cause whitstoewer 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 damage 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 su 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.

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

R T HICKS CONSULTANTS 901 RIO GRANDE BLVD SU ALBUQUERQUE NM, 87104	JITE F-142		Project Num Project Mana	ber: D2N	DREW PARK			2	Reported: 25-Feb-20 08:	23
				- 17 0-1 558-10 (Se						
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	l Laborat	tories					
Inorganic Compounds										
Chloride	<16.0		16.0	mg/kg	4	0022409	GM	24-Feb-20	4500-Cl-B	
Volatile Organic Compounds	by EPA Method 8	021								
Benzene*	< 0.050		0.050	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Toluene*	< 0.050		0.050	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Ethylbenzene*	< 0.050		0.050	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Total Xylenes*	< 0.150		0.150	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Total BTEX	< 0.300		0.300	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Surrogate: 4-Bromofluorobenzene (PL	D)		100 %	73.3	-129	0022114	CK	22-Feb-20	8021B	
Petroleum Hydrocarbons by	GC FID									
GRO C6-C10*	<10.0		10.0	mg/kg	1	0022117	CK	22-Feb-20	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	0022117	CK	22-Feb-20	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	0022117	CK	22-Feb-20	8015B	
Surrogate: 1-Chlorooctane			85.3 %	44.3	-144	0022117	CK	22-Feb-20	8015B	
Surrogate: 1-Chlorooctadecane			86.7 %	42.2	-156	0022117	СК	22-Feb-20	8015B	

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 ar any other cause whitstoewer 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 damage 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 su claim is based to reproduced except in full with written approval of Cardinal Loaratories.

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



R T HICKS CONSULTANTS 901 RIO GRANDE BLVD S ALBUQUERQUE NM, 8710	UITE F-142		Project Num Project Mana	ber: D2N	DREW PARK	-		2	Reported: 25-Feb-20 08:	23
				- 18 0-4 558-11 (So						
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	l Laborat	tories					
Inorganic Compounds										
Chloride	144		16.0	mg/kg	4	0022409	GM	24-Feb-20	4500-Cl-B	
Volatile Organic Compound	s by EPA Method 8	021								
Benzene*	< 0.050		0.050	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Toluene*	< 0.050		0.050	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Ethylbenzene*	< 0.050		0.050	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Total Xylenes*	< 0.150		0.150	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Total BTEX	< 0.300		0.300	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Surrogate: 4-Bromofluorobenzene (PL	ID)		101 %	73.3	-129	0022114	СК	22-Feb-20	8021B	
Petroleum Hydrocarbons by	GC FID									
GRO C6-C10*	<10.0		10.0	mg/kg	1	0022117	CK	22-Feb-20	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	0022117	CK	22-Feb-20	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	0022117	CK	22-Feb-20	8015B	
Surrogate: 1-Chlorooctane			86.3 %	44.3	-144	0022117	CK	22-Feb-20	8015B	
Surrogate: 1-Chlorooctadecane			91.1 %	42.2	-156	0022117	CK	22-Feb-20	8015B	

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



R T HICKS CONSULTANTS 901 RIO GRANDE BLVD S ALBUQUERQUE NM, 8710	UITE F-142		Project Nun Project Mana	nber: D2	NDREW PAR			2	Reported: 5-Feb-20 08:	23
				- 19 0- 0558-12 (
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardin	al Labor	atories					
Inorganic Compounds										
Chloride	144		16.0	mg/kg	4	0022409	GM	24-Feb-20	4500-Cl-B	

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



R T HICKS CONSULTANTS 901 RIO GRANDE BLVD SU ALBUQUERQUE NM, 87104	JITE F-142		Project Nun Project Mana	nber: D	NDREW PAR			2	Reported: 25-Feb-20 08	:23
				- 20 0. 558-13 (_					
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardin	al Labor	atories					
Inorganic Compounds										
Chloride	192		16.0	mg/kg	4	0022409	GM	24-Feb-20	4500-Cl-B	

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



R T HICKS CONSULTANTS 901 RIO GRANDE BLVD SU ALBUQUERQUE NM, 87104	JITE F-142		Project Num Project Mana	ber: D	NDREW PARK			2	Reported: 25-Feb-20 08:	23
				- 21 0 558-14 (-					
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	al Laboi	ratories					
Inorganic Compounds										
Chloride	80.0		16.0	mg/kg	4	0022409	GM	24-Feb-20	4500-Cl-B	

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



R T HICKS CONSULTANTS 901 RIO GRANDE BLVD S ALBUQUERQUE NM, 8710	UITE F-142		Project Num Project Mana	ber: D2N	DREW PARK	-		2	Reported: 25-Feb-20 08:	23
				- 22 0-1 558-15 (So						
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	l Laborat	ories					
Inorganic Compounds										
Chloride	32.0		16.0	mg/kg	4	0022412	GM	24-Feb-20	4500-Cl-B	
Volatile Organic Compounds	s by EPA Method 8	021								
Benzene*	< 0.050		0.050	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Toluene*	< 0.050		0.050	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Ethylbenzene*	< 0.050		0.050	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Total Xylenes*	< 0.150		0.150	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Total BTEX	< 0.300		0.300	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Surrogate: 4-Bromofluorobenzene (Pl	ID)		99.7 %	73.3	-129	0022114	CK	22-Feb-20	8021B	
Petroleum Hydrocarbons by	GC FID									
GRO C6-C10*	<10.0		10.0	mg/kg	1	0022117	CK	22-Feb-20	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	0022117	CK	22-Feb-20	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	0022117	CK	22-Feb-20	8015B	
Surrogate: 1-Chlorooctane			87.5 %	44.3	-144	0022117	CK	22-Feb-20	8015B	
Surrogate: 1-Chlorooctadecane			90.8 %	42.2	-156	0022117	СК	22-Feb-20	8015B	

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



R T HICKS CONSULTANTS 901 RIO GRANDE BLVD S ALBUQUERQUE NM, 8710	UITE F-142		Project Num Project Mana	ber: D2N	DREW PARK	-		2	Reported: 25-Feb-20 08:	23
				- 23 0-2 558-16 (So						
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	l Laborat	tories					
Inorganic Compounds										
Chloride	176		16.0	mg/kg	4	0022412	GM	24-Feb-20	4500-Cl-B	
Volatile Organic Compound	s by EPA Method 8	021								
Benzene*	< 0.050		0.050	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Toluene*	< 0.050		0.050	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Ethylbenzene*	< 0.050		0.050	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Total Xylenes*	< 0.150		0.150	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Total BTEX	< 0.300		0.300	mg/kg	50	0022114	CK	22-Feb-20	8021B	
Surrogate: 4-Bromofluorobenzene (P.	ID)		101 %	73.3	-129	0022114	СК	22-Feb-20	8021B	
Petroleum Hydrocarbons by	GC FID									
GRO C6-C10*	<10.0		10.0	mg/kg	1	0022117	CK	22-Feb-20	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	0022117	CK	22-Feb-20	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	0022117	CK	22-Feb-20	8015B	
Surrogate: 1-Chlorooctane			84.6 %	44.3	-144	0022117	CK	22-Feb-20	8015B	
Surrogate: 1-Chlorooctadecane			88.8 %	42.2	-156	0022117	CK	22-Feb-20	8015B	

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 ar any other cause whitstoewer 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 damage 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 su 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.

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



R T HICKS CONSULTANTS 901 RIO GRANDE BLVD S ALBUQUERQUE NM, 8710	UITE F-142		Project Nur Project Man	nber: D2	NDREW PAR			2	Reported: 25-Feb-20 08	:23
				- 24 0- 9558-17 (-					
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardin	al Labor	atories					
Inorganic Compounds										
Chloride	128		16.0	mg/kg	4	0022412	GM	24-Feb-20	4500-Cl-B	

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



R T HICKS CONSULTANTS 901 RIO GRANDE BLVD SU ALBUQUERQUE NM, 87104	JITE F-142		Project Num Project Mana	ber: D	NDREW PAR			2	Reported: 5-Feb-20 08:	23
				- 25 0- 558-18 (-					
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	l Labor	atories					
Inorganic Compounds										
Chloride	96.0		16.0	mg/kg	4	0022412	GM	24-Feb-20	4500-Cl-B	

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 ar any other cause whitstoewer 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 damage 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 su 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 Lobaratories.

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

Page 20 of 26



R T HICKS CONSULTANTS 901 RIO GRANDE BLVD SUITE F-142 ALBUQUERQUE NM, 87104	Project Number:	ANDREW PARKER	Reported: 25-Feb-20 08:23
---	-----------------	---------------	------------------------------

Inorganic Compounds - Quality Control

Cardinal Laboratories

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 0022409 - 1:4 DI Water										
Blank (0022409-BLK1)				Prepared &	Analyzed:	24-Feb-20				
Chloride	ND	16.0	mg/kg							
LCS (0022409-BS1)				Prepared &	Analyzed:	24-Feb-20				
Chloride	432	16.0	mg/kg	400		108	80-120			
LCS Dup (0022409-BSD1)				Prepared &	Analyzed:	24-Feb-20				
Chloride	432	16.0	mg/kg	400		108	80-120	0.00	20	
Batch 0022412 - 1:4 DI Water										
Blank (0022412-BLK1)				Prepared &	Analyzed:	24-Feb-20				
Chloride	ND	16.0	mg/kg							
LCS (0022412-BS1)				Prepared &	Analyzed:	24-Feb-20				
Chloride	416	16.0	mg/kg	400		104	80-120			
LCS Dup (0022412-BSD1)				Prepared &	Analyzed:	24-Feb-20				
Chloride	416	16.0	mg/kg	400		104	80-120	0.00	20	

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager



Volatile Organic Compounds by EPA Method 8021 - Quality Control

Cardinal Laboratories

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 0022114 - Volatiles										
Blank (0022114-BLK1)				Prepared: 2	21-Feb-20 A	analyzed: 2	2-Feb-20			
Benzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Total Xylenes	ND	0.150	mg/kg							
Total BTEX	ND	0.300	mg/kg							
Surrogate: 4-Bromofluorobenzene (PID)	0.0502		mg/kg	0.0500		100	73.3-129			
LCS (0022114-BS1)				Prepared: 2	21-Feb-20 A	analyzed: 2	2-Feb-20			
Benzene	1.86	0.050	mg/kg	2.00		93.2	72.2-131			
Toluene	1.87	0.050	mg/kg	2.00		93.4	71.7-126			
Ethylbenzene	1.87	0.050	mg/kg	2.00		93.6	68.9-126			
Total Xylenes	5.43	0.150	mg/kg	6.00		90.5	71.4-125			
Surrogate: 4-Bromofluorobenzene (PID)	0.0503		mg/kg	0.0500		101	73.3-129			
LCS Dup (0022114-BSD1)				Prepared: 2	21-Feb-20 A	analyzed: 2	2-Feb-20			
Benzene	1.87	0.050	mg/kg	2.00		93.5	72.2-131	0.358	14.6	
Toluene	1.87	0.050	mg/kg	2.00		93.6	71.7-126	0.169	17.4	
Ethylbenzene	1.88	0.050	mg/kg	2.00		94.1	68.9-126	0.568	18.9	
Total Xylenes	5.46	0.150	mg/kg	6.00		91.0	71.4-125	0.559	18.5	
Surrogate: 4-Bromofluorobenzene (PID)	0.0499		mg/kg	0.0500		99.8	73.3-129			

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager



R T HICKS CONSULTANTS 901 RIO GRANDE BLVD SUITE F-142 ALBUQUERQUE NM, 87104	Project Number:	ANDREW PARKER	Reported: 25-Feb-20 08:23	
---	-----------------	---------------	------------------------------	--

Petroleum Hydrocarbons by GC FID - Quality Control

Cardinal Laboratories

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 0022117 - General Prep - Organics										
Blank (0022117-BLK1)				Prepared: 2	21-Feb-20 A	analyzed: 2	2-Feb-20			
GRO C6-C10	ND	10.0	mg/kg							
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C36	ND	10.0	mg/kg							
Surrogate: 1-Chlorooctane	47.7		mg/kg	50.0		95.4	44.3-144			
Surrogate: 1-Chlorooctadecane	48.7		mg/kg	50.0		97.4	42.2-156			
LCS (0022117-BS1)				Prepared: 2	21-Feb-20 A	analyzed: 2	2-Feb-20			
GRO C6-C10	193	10.0	mg/kg	200		96.4	78.8-127			
DRO >C10-C28	188	10.0	mg/kg	200		94.0	80-132			
Total TPH C6-C28	381	10.0	mg/kg	400		95.2	81.3-128			
Surrogate: 1-Chlorooctane	49.0		mg/kg	50.0		98.0	44.3-144			
Surrogate: 1-Chlorooctadecane	49.0		mg/kg	50.0		98.1	42.2-156			
LCS Dup (0022117-BSD1)				Prepared: 2	21-Feb-20 A	analyzed: 2	2-Feb-20			
GRO C6-C10	198	10.0	mg/kg	200		99.1	78.8-127	2.80	15.1	
DRO >C10-C28	193	10.0	mg/kg	200		96.4	80-132	2.59	17.1	
Total TPH C6-C28	391	10.0	mg/kg	400		97.8	81.3-128	2.70	15	
Surrogate: 1-Chlorooctane	50.0		mg/kg	50.0		100	44.3-144			
Surrogate: 1-Chlorooctadecane	50.7		mg/kg	50.0		101	42.2-156			

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



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

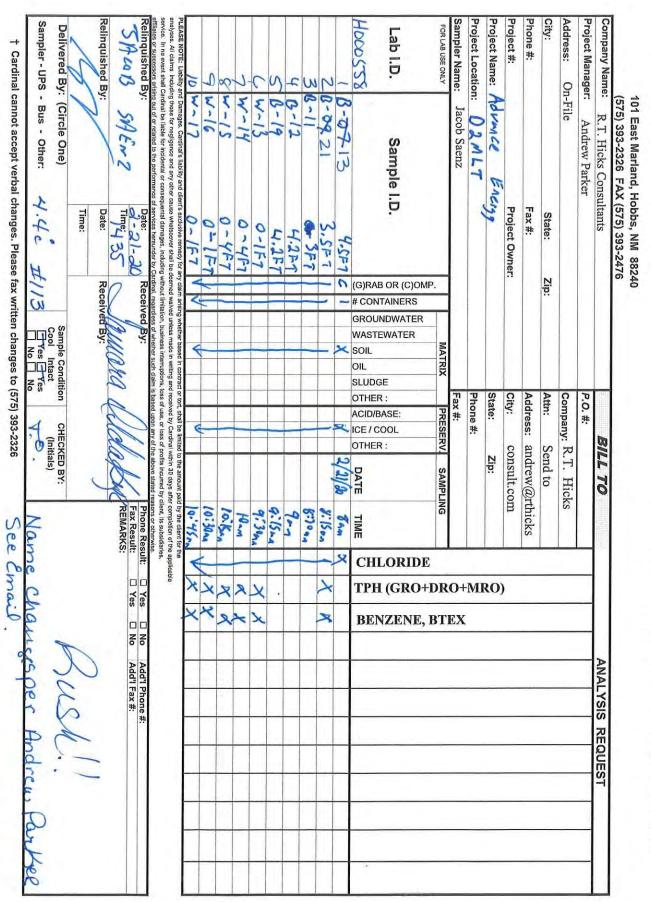
Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

Received by OCD: 4/25/2020 11:18:26 AM

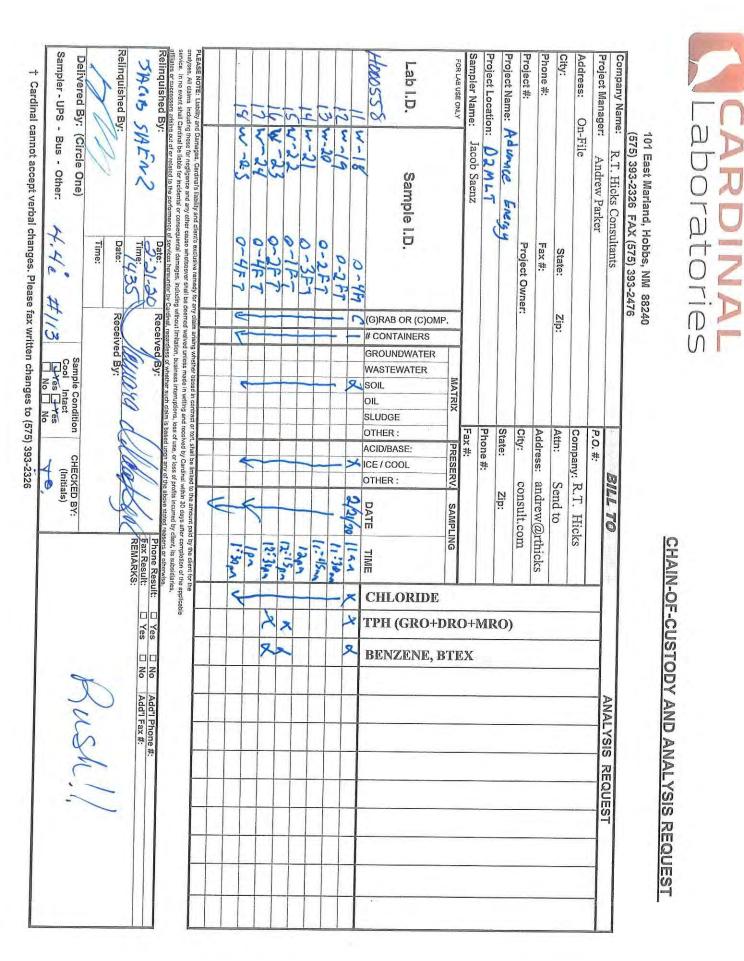


Page 123 of 168

Page 25 of 26

Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST



Page 124 of 168

Page 26 of 26



March 17, 2020

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 03/16/20 14:35.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-19-12. 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 www.tceq.texas.gov/field/ga/lab_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.

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,

Celez D. Keine

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:	03/16/2020	Sampling Date:	03/12/2020
Reported:	03/17/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	D2MLT LINE TEST	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: HA - 01 1' (H000812-01)

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	03/16/2020	ND	1.83	91.4	2.00	8.04	
Toluene*	<0.050	0.050	03/16/2020	ND	1.83	91.6	2.00	8.29	
Ethylbenzene*	<0.050	0.050	03/16/2020	ND	1.85	92.7	2.00	8.49	
Total Xylenes*	<0.150	0.150	03/16/2020	ND	5.43	90.5	6.00	8.72	
Total BTEX	<0.300	0.300	03/16/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	101	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	03/17/2020	ND	432	108	400	3.77	
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	03/17/2020	ND	199	99.3	200	0.846	
DRO >C10-C28*	<10.0	10.0	03/17/2020	ND	189	94.4	200	4.01	
EXT DRO >C28-C36	<10.0	10.0	03/17/2020	ND					
Surrogate: 1-Chlorooctane	103	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	106	% 42.2-15	6						

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

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:	03/16/2020	Sampling Date:	03/12/2020
Reported:	03/17/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	D2MLT LINE TEST	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: HA - 02 1' (H000812-02)

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	03/16/2020	ND	1.83	91.4	2.00	8.04	
Toluene*	<0.050	0.050	03/16/2020	ND	1.83	91.6	2.00	8.29	
Ethylbenzene*	<0.050	0.050	03/16/2020	ND	1.85	92.7	2.00	8.49	
Total Xylenes*	<0.150	0.150	03/16/2020	ND	5.43	90.5	6.00	8.72	
Total BTEX	<0.300	0.300	03/16/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	100	73.3-12	9						
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	03/17/2020	ND	432	108	400	3.77	
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	03/17/2020	ND	199	99.3	200	0.846	
DRO >C10-C28*	<10.0	10.0	03/17/2020	ND	189	94.4	200	4.01	
EXT DRO >C28-C36	<10.0	10.0	03/17/2020	ND					
Surrogate: 1-Chlorooctane	106	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	109	42.2-15	6						

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



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

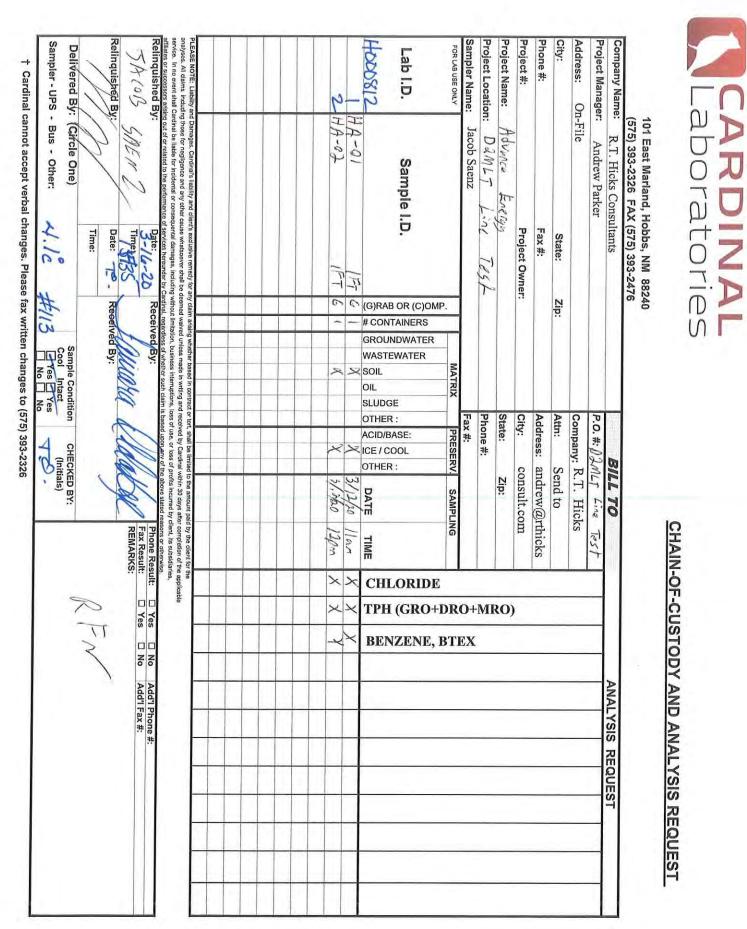
Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

Received by OCD: 4/25/2020 11:18:26 AM



Page 129 of 168

Page 5 of 5



April 02, 2020

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 04/01/20 16:40.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-19-12. 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 www.tceq.texas.gov/field/ga/lab_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.

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,

Celez D. Keine

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:	04/01/2020	Sampling Date:	04/01/2020
Reported:	04/02/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	DAGGER LAKE TO MERCHANT LINE TEST	Sample Received By:	Kelly Jacobson
Project Location:	NOT GIVEN		

Sample ID: B - 200 0.5' (H000975-01)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	04/02/2020	ND	432	108	400	3.77	

Sample ID: B - 201 1' (H000975-02)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	04/02/2020	ND	432	108	400	3.77	

Sample ID: B - 202 0.5' (H000975-03)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	272	16.0	04/02/2020	ND	432	108	400	3.77	

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

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:	04/01/2020	Sampling Date:	04/01/2020
Reported:	04/02/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	DAGGER LAKE TO MERCHANT LINE TEST	Sample Received By:	Kelly Jacobson
Project Location:	NOT GIVEN		

Sample ID: B - 203 1.5' (H000975-04)

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	04/02/2020	ND	1.86	93.2	2.00	9.37	
Toluene*	<0.050	0.050	04/02/2020	ND	1.85	92.7	2.00	9.75	
Ethylbenzene*	<0.050	0.050	04/02/2020	ND	1.86	92.8	2.00	9.95	
Total Xylenes*	<0.150	0.150	04/02/2020	ND	5.34	89.0	6.00	10.5	
Total BTEX	<0.300	0.300	04/02/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	101	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	04/02/2020	ND	432	108	400	3.77	
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	04/02/2020	ND	185	92.7	200	0.00809	
DRO >C10-C28*	<10.0	10.0	04/02/2020	ND	178	89.1	200	1.72	
EXT DRO >C28-C36	<10.0	10.0	04/02/2020	ND					
Surrogate: 1-Chlorooctane	93.9	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	98.4	% 42.2-15	6						

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

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

Received:	04/01/2020	Sampling Date:	04/01/2020
Reported:	04/02/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	DAGGER LAKE TO MERCHANT LINE TEST	Sample Received By:	Kelly Jacobson
Project Location:	NOT GIVEN		

Sample ID: B - 204 4.2' (H000975-05)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	656	16.0	04/02/2020	ND	432	108	400	3.77	

Sample ID: B - 205 4.2' (H000975-06)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	816	16.0	04/02/2020	ND	432	108	400	3.77	

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 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 claims based upon any of the above stated reasons or otherwise. Results relate only to the sample identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celeg D. Keine

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:	04/01/2020	Sampling Date:	04/01/2020
Reported:	04/02/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	DAGGER LAKE TO MERCHANT LINE TEST	Sample Received By:	Kelly Jacobson
Project Location:	NOT GIVEN		

Sample ID: B - 206 4.2' (H000975-07)

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	04/02/2020	ND	1.86	93.2	2.00	9.37	
Toluene*	<0.050	0.050	04/02/2020	ND	1.85	92.7	2.00	9.75	
Ethylbenzene*	<0.050	0.050	04/02/2020	ND	1.86	92.8	2.00	9.95	
Total Xylenes*	<0.150	0.150	04/02/2020	ND	5.34	89.0	6.00	10.5	
Total BTEX	<0.300	0.300	04/02/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	98.9	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1460	16.0	04/02/2020	ND	432	108	400	3.77	
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	04/02/2020	ND	185	92.7	200	0.00809	
DRO >C10-C28*	<10.0	10.0	04/02/2020	ND	178	89.1	200	1.72	
EXT DRO >C28-C36	<10.0	10.0	04/02/2020	ND					
Surrogate: 1-Chlorooctane	93.9	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	99.6	% 42.2-15	6						

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

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:	04/01/2020	Sampling Date:	04/01/2020
Reported:	04/02/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	DAGGER LAKE TO MERCHANT LINE TEST	Sample Received By:	Kelly Jacobson
Project Location:	NOT GIVEN		

Sample ID: W - 200 0-0.5' (H000975-08)

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	04/02/2020	ND	1.86	93.2	2.00	9.37	
Toluene*	<0.050	0.050	04/02/2020	ND	1.85	92.7	2.00	9.75	
Ethylbenzene*	<0.050	0.050	04/02/2020	ND	1.86	92.8	2.00	9.95	
Total Xylenes*	<0.150	0.150	04/02/2020	ND	5.34	89.0	6.00	10.5	
Total BTEX	<0.300	0.300	04/02/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	100 9	73.3-12	9						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	04/02/2020	ND	432	108	400	3.77	
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	04/02/2020	ND	185	92.7	200	0.00809	
DRO >C10-C28*	<10.0	10.0	04/02/2020	ND	178	89.1	200	1.72	
EXT DRO >C28-C36	<10.0	10.0	04/02/2020	ND					
Surrogate: 1-Chlorooctane	99.2	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	104 9	42.2-15	6						

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

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:	04/01/2020	Sampling Date:	04/01/2020
Reported:	04/02/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	DAGGER LAKE TO MERCHANT LINE TEST	Sample Received By:	Kelly Jacobson
Project Location:	NOT GIVEN		

Sample ID: W - 201 0-1.5' (H000975-09)

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	04/02/2020	ND	1.86	93.2	2.00	9.37	
Toluene*	<0.050	0.050	04/02/2020	ND	1.85	92.7	2.00	9.75	
Ethylbenzene*	<0.050	0.050	04/02/2020	ND	1.86	92.8	2.00	9.95	
Total Xylenes*	<0.150	0.150	04/02/2020	ND	5.34	89.0	6.00	10.5	
Total BTEX	<0.300	0.300	04/02/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	101 9	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	04/02/2020	ND	432	108	400	3.77	
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	04/02/2020	ND	185	92.7	200	0.00809	
DRO >C10-C28*	<10.0	10.0	04/02/2020	ND	178	89.1	200	1.72	
EXT DRO >C28-C36	<10.0	10.0	04/02/2020	ND					
Surrogate: 1-Chlorooctane	<i>99.7</i>	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	104 9	42.2-15	6						

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

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:	04/01/2020	Sampling Date:	04/01/2020
Reported:	04/02/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	DAGGER LAKE TO MERCHANT LINE TEST	Sample Received By:	Kelly Jacobson
Project Location:	NOT GIVEN		

Sample ID: W - 202 1-4' (H000975-10)

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	04/02/2020	ND	1.86	93.2	2.00	9.37	
Toluene*	<0.050	0.050	04/02/2020	ND	1.85	92.7	2.00	9.75	
Ethylbenzene*	<0.050	0.050	04/02/2020	ND	1.86	92.8	2.00	9.95	
Total Xylenes*	<0.150	0.150	04/02/2020	ND	5.34	89.0	6.00	10.5	
Total BTEX	<0.300	0.300	04/02/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	99.6	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	04/02/2020	ND	432	108	400	3.77	
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	04/02/2020	ND	185	92.7	200	0.00809	
DRO >C10-C28*	<10.0	10.0	04/02/2020	ND	178	89.1	200	1.72	
EXT DRO >C28-C36	<10.0	10.0	04/02/2020	ND					
Surrogate: 1-Chlorooctane	99.6	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	105 9	% 42.2-15	6						

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



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

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Page 10 of 10

Page 139 of 168

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

File State: Zip: Fax #: Froject Owner: Jacob Saenz Image: Jacob Saenz	Company Name: Project Manager:	R.T. Hicks Consultants Andrew Parker	nsultants er				P.O.	<u>#</u>	BILL TO				_	ANALYSIS		REQUEST
City: State: Zip: Project Name: Rax #: Project Owner: Project Name: Rava Ene(gy Project Name: Rava Ene(gy Project Name: Rava Ene(gy Project Location: Dayar Lake to Make Iab I.D. Sample I.D. Sample I.D. MATER Iab I.D. Sample I.D. Sample I.D. Intervention Iab I.D. Sample I.D. Sample I.D. Intervention Iab I.D. Sample I.D. Sample I.D. Intervention Iab I.D. Sample I.D. Intervention	Address: On-F	Ale					00	pany: F	T. Hicks	S						
Phone #: Fax #: Project #: Project Owner: Project Name: Advance Energy Project Location: Dayob Sacruz Image: Advance Test Sampler Name: Sampler Name: Jacob Sacruz Image: Advance Test Sampler Name: Image: Advance Lab I.D. Sampler I.D. Sampler I.D. Image: Advance Image: A	City:		State:	Zip:			Attn:		Send to							
Project !: Project Owner: Project !: End(gy Project !: End(gy Project !: Inc. Sampler Name: Jacob Saerz Forus use own Sample !: Itab !: Sample !: Sampler Name: Sample !: Itab !: Sample !: Itab !: Sample !: Sampler Name: Sample !: Itab !: Sample !: Itab !: Sample !: Sampler Name: Sample !: Itab !: Sample !: Sampler Name: Sample :: Sampler Name: Sample :: Same: Sa	Phone #:		Fax #:				Ad	Address: al	andrew@rthicks	thicks						
Project Name: Advance Ene(gy) Project Location: Dayor Lake to Malobart Line Test Sampler Name: Jacob Saerz Protuation: Dayor Sample I.D. Sample I.D. Marten Lab I.D. Sample I.D. Sample I.D. Sample I.D. Sample I.D. 10009755 S-200 0.5517 C If Marten 2 S-201 1571 C If Marten 3 S-203 1.5517 C If If If 4 S-203 1.5517 If	Project #:		Project Owner	а			City:		consult.com	В						
Project Location: Payor Lake To Muclawit Line Test Sampler Name: Jacob Saenz For Lau USE DNLY Sample I.D. Sample I.D. MATER Lab I.D. Sample I.D. Sample I.D. Sample I.D. MATER 1000915 S-200 S-511 G(G)(RAB OR (C)OMP. Sample I.D. Sample I.D. 1000915 S-203 S-511 G(G)(RAB OR (C)OMP. Sample I.D.	1		(94				State:	te:	Zip:			RO)				
Sampler Name: Jacob Saenz For var user ovir Marten Lab I.D. Sample I.D. Lab I.D. Sample I.D. Sampler Name: Sample I.D. Lab I.D. Sample I.D. Sampler Name: Sampler Name: S		-	to		Lin		Ph	Phone #:				M				
FOR LAB USE ONLY MATER Lab I.D. Sample I.D. H00975 S-200 O.SFT (I) 2 B-201 S.STT (G) (AB OR (C)OMP. 3 B-203 ISTT (I) (G) (AB OR (C)OMP. 4 B-203 ISTT (I) (G) (AB OR (C)OMP. 5 B-204 ISTT (I) (I) (I) 6 B-203 ISTT (I) (I) (I) 7 B-204 ISTT (I) (I) (I) (I) 8 B-203 ISTT III IIII IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	Sampler Name:	Jacob Saenz					Fax #:	¢#				0+	EX			
Lab I.D. Sample I.D. H00975 S-200 S-201 S-201 S-201 S-201 S-203 S-203 S-203 S-217	FOR LAB USE ONLY			ИP.	-	MATRIX		PRESERV.	SAMPLING	NG	E	+DR	, BT			
Image: Second	Lab I.D.	Sample	ī.			WASTEWATER SOIL OIL	SLUDGE OTHER :	ACID/BASE: ICE / COOL OTHER :	DATE	TIME	CHLORIDE	TPH (GRO+	BENZENE,			
2 b-202 0.5 fri 3 b-202 0.5 fri 4 b-203 1.5 fri 5 b-203 1.5 fri 6 b-203 1.5 fri 7 b-203 1.5 fri 8 w-200 00.5 fri 9 w-201 0105 fri 9 w-201 0105 fri 9 w-201 0105 fri 10 w-202 1.05 fri 10 w-202 1.05 fri 10 w-202 1.05 fri 10 w-202 1.05 fri 110 w-202 1.05 fri 110 w-202 1.05 fri 110 w-202 1.05 fri 111 w-202 1.05 fri 11	8		0-SFT	3		×		~	4/1/20	gan	R					
3 & 202 0.5 Fr 4 & 203 15 Fr 5 & 204 1.1 Fr 2 & 204 1.1 Fr 3 & 204 1.1 Fr 4 & 203 1.5 Fr 3 & 206 1.1 Fr 4 & 200 00.5 Fr 8 w-200 00.5 Fr 9 w-201 0105 Fr 10 w-201 0105 Fr 11 w	2 3	0.	IFT	-	-	-		-	-	4:30m	-					
4 0-203 1.5FT 5 0-204 4.1F7 4 0-205 4.2FT 8 w-200 0-0.5FT 9 w-201 0-185FT 9 y-201 y-201 9 y-201 y-201 9 y-201 <td>3 0</td> <td>1</td> <td>0.54</td> <td></td> <td>-</td> <td></td> <td>-</td> <td></td> <td></td> <td>4;4Sun</td> <td>-</td> <td></td> <td></td> <td></td> <td></td> <td></td>	3 0	1	0.54		-		-			4;4Sun	-					
S B-JOG 4.2F7 A B-JOG 4.2F7 A B-JOG 4.2F7 B W-JOP 00.5F7 V V V PLASE NOTE: Liabity and Damagas. Cardina's liability and client's axclusive remany for any claim sinking whether based in radius whether based in radius activation to the contract of the results whether consequential damagas, including whether based in radius or unsequential damagas, including whether bases linearin antilities or successors arising out of research to the performance of services hereunder by Cardinal, regardless of whether success thereund intralion, business linearin attributes or successors arising out of research to the performance of services hereunder by Cardinal, regardless of whether success thereund intralino, business linearin antilities or successors arising out of research to the performance of services hereunder by Cardinal, regardless of whether success thereunder by Cardinal, regardless of the services hereunder by Cardinal, regardless of the service by Cardinal, regardless of the services hereunder by Cardinal, rega	A P		1.5FT	-	-					10on		×	8			
G B - 2.06 H. 2.F.T B W-2.00 0 0.5.F.T W-2.01 0 0.5.F.T W PLEASE NOTE: Liability and Damages. Cardina's liability and client's exclusive remedy for any claim steing whether based in analyzes. All claims becading the incidental or consequential damages, including whether based in analyzes. All claims becading the incidental or consequential damages, including whether based in the analyzes. All claims becading the performance of services herein and therein and the performance and the performance of serv	CT P	1	4.257		_					10:30-	-					
A B 206 U		5-205	4.2FT	-	-		-			10:45						
B W-200 0 - 0.5FT Q W-201 0 - 1.5FT PLEASE NOTE: Liability and Damagas. Cardinal's liability and client's accluative remedy for any claim arising whether based in consequent at damagas. The owner shall be doesnot waived unless made in with service. In no event shall Cardinal to includent or consequent at damagas. The owner waite consequent at damagas. The owner shall be doesnot waived unless made in with service. In no event shall Cardinal to the performance of services how many contract means the unit of an islab for includent or consequent at damagas. The owner waite by Cardinal. regardless to whether such at the cardinal or consequent by Cardinal. regardless to whether such at the cardinal or consequent by Cardinal. regardless to whether such at the cardinal or consequent by Cardinal. Time: Date: Received By: Relinquished By: Date: Received By: Date: Sample Cr. Delivered By: Off Trofe One) U.9'. Sample Cr.	e t	3-206	4.2FT	-						llon		×	4			
PLEASE NOTE: Liability and Damagas. Cardina's liability and client's acclusive remarks for any claim sinking whether based in canalyses. All claims heluking those for negligence and any other cause whatsoever shall be deemed welved unless made in with service. In no event shall Cardinal to indefend and consequence of services hereunder by Cardinal. regardless of whether such and the enformance of services hereunder by Cardinal, regardless of whether such and the enformance of services hereunder by Cardinal. regardless of whether such and the enformance of services hereunder by Cardinal. regardless of whether such and the enformance of services hereunder by Cardinal. regardless of whether such and the enformance of services hereunder by Cardinal. regardless of whether such and the enformance of services hereunder by Cardinal. regardless of whether such and the enformance of services hereunder by Cardinal. regardless of whether such and the enformance of services hereunder by Cardinal. regardless of whether such and the services hereunder by Cardinal. regardless of whether such and the services hereunder by Cardinal. regardless of whether such and the services hereunder by Cardinal. regardless of whether such and the services hereunder by Cardinal. regardless of the services hereunder by Cardinal. regardless of the services here services		002-1	1	-						11-30m		×	9			
ID ID ID ID ID ID FLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim staining whether based in rankyes. All claims including these for negligance and any other cause whatscover staine to deem dwalved unless match in with services. In one event shall Cardinal to lead of the performance of services hereunder by Candinal, regardless of whether such amages. All claims is a consequential damages, including whether such any other cause of services hereunder by Candinal, regardless of whether such any other by Candinal, regardless of whether such any other such as the performance of services hereunder by Candinal, regardless of whether such any other by Candinal, regardless of whether		106-2	1							124500	N	7	4			
PLEASE NOTE: Lubiting and Damagas. Cardina's itability and client's exclusive remedy (or any clian analyses. All clians including those for negligence and any other cause whatsoever shall be decomed walved unless made in with service. In no event shall cardinal be liable for incidental or consequential damagas, including without limitation, business interrunt analyses. In no event shall Cardinal be liable for incidental or consequential damagas, including without limitation, business interrunt analyses or successors arising out of or related to the performance of savices hereworder by Cardinal. repartiess of whether such Relinquished By: <u>ABEN2</u> Time: <u>Relinquished By:</u> <u>Date:</u> Received By: <u>Delivered By:</u> (officite One) U.97. Time: <u>Delivered By:</u> Control one) C.97.	N 01	r 202	1	6	V	V	-	S	V	12pr	V	×	2			
Relinquished By: Date: Received By: Galaxy Time: Date: Received By: Mathematical By: Date: Received By: Delivered By: Officie One U.97.	PLEASE NOTE: Liability and D analyses. All claims including th service. In no event shell Cardi affiliance or successory arking	Damages. Cardinal's liability ar hose for negligence and any o inal be liable for incidental or c out of or related to the perform	d client's exclusive remedy for ther cause whatsoever shall be onsequental damages, includin onse of services hereunder by t	any daim deemed g without Cardinal	n arising walved Ilmitatic	whether based in contr unless made in writing on, business interruption	ract or tor and recei	t, shall be limited ved by Cardinal f use or loss of p	sall be limited to the amount peid by the client for the by Cardinal within 30 days after completion of the your loss of profits incurred by client, its subsidiation on any of the above stated reasons or otherwise.	d by the client for r completion of the lient, its subsidiar	the e applicat ies,	de				
(Officie One) U.92	Relinquished By: JALOO	SAENZ	Date: 1-1-20 Time: 1/240	Ree	ceive	ad By:	N			Phone Result: Fax Result: REMARKS:		□ Yes	S S	Add'l Phone #: Add'l Fax #:	井 井 井	
LI 92	Relinquished By:		Date: Time:	Ree	ceive	ed By:							Ru	Rust!		
	Delivered By:		4.92		م	Sample Condition	act Yes	CHECH	(Initials)							

† Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326



April 02, 2020

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 04/01/20 16:40.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-19-12. 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 www.tceq.texas.gov/field/ga/lab_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.

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,

Celez D. Keine

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:	04/01/2020	Sampling Date:	04/01/2020
Reported:	04/02/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	DAGGER LAKE TO MERCHANT LINE TEST	Sample Received By:	Kelly Jacobson
Project Location:	NOT GIVEN		

Sample ID: W - 203 0-4' (H000977-01)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	04/02/2020	ND	416	104	400	0.00	

Sample ID: W - 204 0-4' (H000977-02)

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	04/02/2020	ND	1.86	93.2	2.00	9.37	
Toluene*	<0.050	0.050	04/02/2020	ND	1.85	92.7	2.00	9.75	
Ethylbenzene*	<0.050	0.050	04/02/2020	ND	1.86	92.8	2.00	9.95	
Total Xylenes*	<0.150	0.150	04/02/2020	ND	5.34	89.0	6.00	10.5	
Total BTEX	<0.300	0.300	04/02/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	101	% 73.3-12	9						
Chloride, SM4500CI-B	mg/	/kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	04/02/2020	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	04/02/2020	ND	167	83.7	200	15.3	
DRO >C10-C28*	<10.0	10.0	04/02/2020	ND	163	81.7	200	12.0	
EXT DRO >C28-C36									

Surrogate: 1-Chlorooctane

89.2 % 44.3-144

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keine

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:	04/01/2020	Sampling Date:	04/01/2020
Reported:	04/02/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	DAGGER LAKE TO MERCHANT LINE TEST	Sample Received By:	Kelly Jacobson
Project Location:	NOT GIVEN		

Sample ID: W - 204 0-4' (H000977-02)

TPH 8015M	mg/kg			ed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Surrogate: 1-Chlorooctadecane	96.5	% 42.2-156							

Sample ID: W - 205 0-4' (H000977-03)

Chloride, SM4500CI-B	mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	04/02/2020	ND	416	104	400	0.00	

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

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:	04/01/2020	Sampling Date:	04/01/2020
Reported:	04/02/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	DAGGER LAKE TO MERCHANT LINE TEST	Sample Received By:	Kelly Jacobson
Project Location:	NOT GIVEN		

Sample ID: W - 206 0-4' (H000977-04)

BTEX 8021B	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/02/2020	ND	1.86	93.2	2.00	9.37	
Toluene*	<0.050	0.050	04/02/2020	ND	1.85	92.7	2.00	9.75	
Ethylbenzene*	<0.050	0.050	04/02/2020	ND	1.86	92.8	2.00	9.95	
Total Xylenes*	<0.150	0.150	04/02/2020	ND	5.34	89.0	6.00	10.5	
Total BTEX	<0.300	0.300	04/02/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	101 9	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/	′kg	Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	04/02/2020	ND	416	104	400	0.00	
TPH 8015M	mg/	′kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/02/2020	ND	167	83.7	200	15.3	
DRO >C10-C28*	<10.0	10.0	04/02/2020	ND	163	81.7	200	12.0	
EXT DRO >C28-C36	10.8	10.0	04/02/2020	ND					
Surrogate: 1-Chlorooctane	86.0	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	92.2	% 42.2-15	6						

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

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

Received:	04/01/2020	Sampling Date:	04/01/2020
Reported:	04/02/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	DAGGER LAKE TO MERCHANT LINE TEST	Sample Received By:	Kelly Jacobson
Project Location:	NOT GIVEN		

Sample ID: W - 207 0-4' (H000977-05)

Chloride, SM4500Cl-B	mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	04/02/2020	ND	416	104	400	0.00	

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Notes and Definitions

QR-02	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
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 whatscever 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 whose 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 whose share there applied by the services arises of profits incurred by client, its subsidiaries, afflicate or successor arising out of or related to 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.

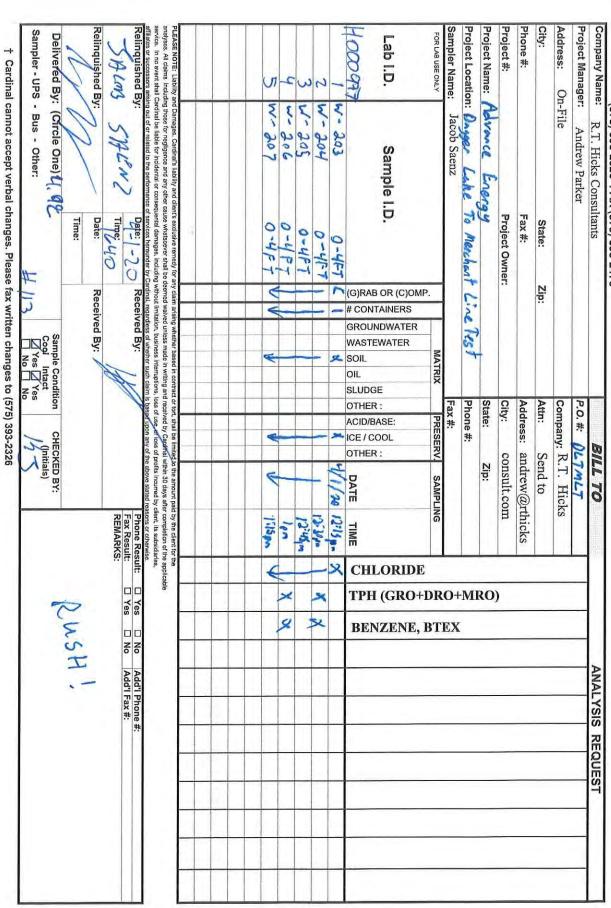
Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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





April 03, 2020

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 04/02/20 16:35.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-19-12. 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 www.tceq.texas.gov/field/ga/lab_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.

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,

Celez D. Keine

Celey D. Keene Lab Director/Quality Manager



Analytical Results For:

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

Received:	04/02/2020	Sampling Date:	04/02/2020
Reported:	04/03/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	DAGGER LAKE TO MERCHANT LINE TEST	Sample Received By:	Kelly Jacobson
Project Location:	NOT GIVEN		

Sample ID: HA - 03 0-4' (H000990-01)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
Benzene*	<0.050	0.050	04/03/2020	ND	2.18	109	2.00	5.62	
Toluene*	<0.050	0.050	04/03/2020	ND	2.18	109	2.00	5.70	
Ethylbenzene*	<0.050	0.050	04/03/2020	ND	2.19	109	2.00	5.74	
Total Xylenes*	<0.150	0.150	04/03/2020	ND	6.32	105	6.00	6.02	
Total BTEX	<0.300	0.300	04/03/2020	ND					
Surrogate: 4-Bromofluorobenzene (PID	98.9	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	04/03/2020	ND	400	100	400	3.92	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
GRO C6-C10*	<10.0	10.0	04/03/2020	ND	187	93.5	200	1.49	
DRO >C10-C28*	<10.0	10.0	04/03/2020	ND	182	90.8	200	0.355	
EXT DRO >C28-C36	<10.0	10.0	04/03/2020	ND					
Surrogate: 1-Chlorooctane	98.6	% 44.3-14	4						
Surrogate: 1-Chlorooctadecane	103	% 42.2-15	6						

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 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 claims based upon any of the above stated reasons or otherwise. Results relate only to the sample identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

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

Received:	04/02/2020	Sampling Date:	04/02/2020
Reported:	04/03/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	DAGGER LAKE TO MERCHANT LINE TEST	Sample Received By:	Kelly Jacobson
Project Location:	NOT GIVEN		

Sample ID: HA - 04 0-4' (H000990-02)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	04/03/2020	ND	400	100	400	3.92	

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 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 claims based upon any of the above stated reasons or otherwise. Results relate only to the sample identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



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

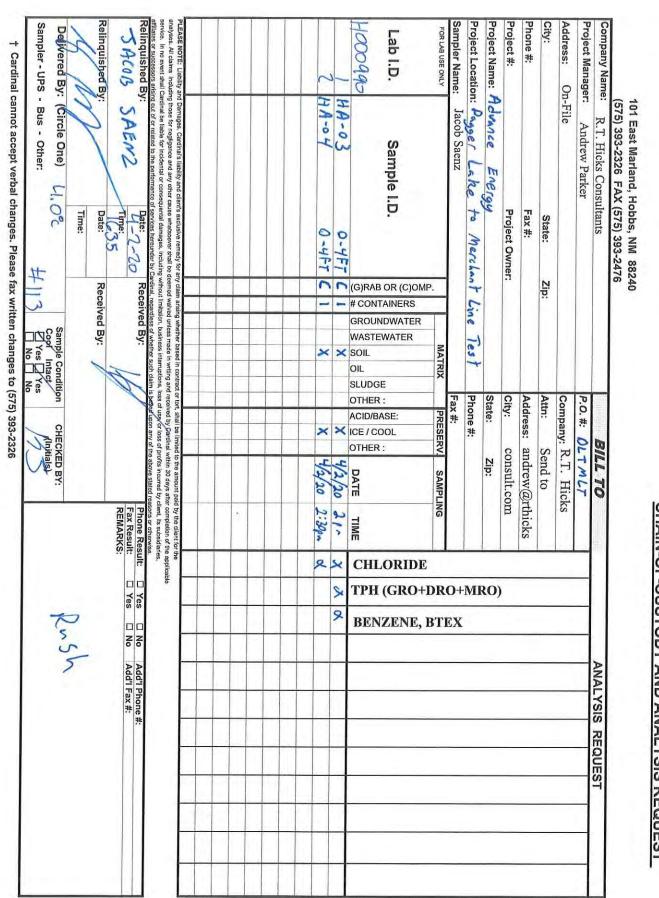
Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and clent'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 whatscever 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 whose of use, or loss of profits incurred by client, its subsidiaries, affiliates or successor 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.

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Page 151 of 168

Page 5 of 5

Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Appendix B OSE Well Logs

R.T. Hicks Consultants, Ltd.

901 Rio Grande Blvd. NW, Suite F-142 Albuquerque, NM 87104



		(quarters are 1=NW 2=NE (quarters are smallest to 1	,	(NAD83 UTM in meters)	
Well Tag	POD Number	Q64 Q16 Q4 Sec	Tws Rng	X Y	
	C 02096	2 3 14	22S 32E	627204 3584464*	
Driller Lice	ense:	Driller Company:			
Driller Nar	me: JOHN H. TRIG	C CO			
	me: JOHN H. IKIG	GCO.			
211101 1 (41		Drill Finish Date:	12/31/1963	Plug Date:	
Drill Start	Date:		12/31/1963	Plug Date: Source:	
Drill Start Log File Da Pump Type	Date: ate:	Drill Finish Date:	12/31/1963	8	: 25 GPM

*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

4/17/20 3:04 PM

POINT OF DIVERSION SUMMARY



Well Tag	-	Number 2821	(quarters a (quarters Q64 Q1 2 2	are sm 6 Q4	allest to	o largest) Tws		(NAD83 U X 627303	TM in meters) Y 3584563* 🌍	
x Driller Lice	nse:	1348	Driller Co	ompai	ny:	TAY	LOR V	WATER WE	LL SERVICE	
Driller Nam Drill Start E Log File Dat Pump Type:	Date: te:	06/12/2001 10/04/2001	Drill Finis PCW Rev Pipe Discl	Date	:		5/23/200	So	ug Date: urce: timated Yield:	Shallow 2 GPM
Casing Size:	:	5.00	Depth We	ell:		54	40 feet	De	pth Water:	340 feet
x	Wate	er Bearing Stratif	ications:	Т	op I	Bottom	Desc	ription		
				4	10	540	Sand	stone/Grave	/Conglomerate	
x		Casing Pert	forations:	Т	op I	Bottom				
				4	10	430				
				44	40	540				

*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

4/17/20 3:09 PM

POINT OF DIVERSION SUMMARY

Declaration of Owner	PITAN BASIN			79 APA	20
	BASIN NAME		ri1 17 1	070	gen ar gin
Declaration No. CP-601	Date re	ceived AP	ril 17, 1	SANTE E	NGINE
		AND A MAT		SANTA	rε, Ν.
1. Name of Declarant <u>THE MERCHANT</u> Mailing Address <u>P.O. Box 548</u>					
	, State (of <u>New</u>	Mexico		
	(artesian or sha	allow water aqu	ifer)		
3. Describe well location under one of the following su a ¼ № ¼ №	¹ / ₄ of Sec. <u>28</u>	Twp	215_ Rge	<u>33-e</u> N	J.M.P.M., i
b. Tract No of Map No	of the				
c. X = feet, Y = in the	feet, N. M	I. Coordinate Sys	tem		Zor
On land owned by					Grant
4. Description of well: date drilled	952driller	·	depth	2231	feet
outside diameter of casing <u>6 5/8</u> inches; or	iginal capacity	gal. per	min.; present c	apacity	3
gal. per min.; pumping liftfeet; stati	c water level <u>17</u>	8 feet (above)	(below) land su	rface;	
make and type of pump					
make, type, horsepower, etc., of power plant				·	a falsen er an skalster a
Fractitional or percentage interest claimed in	n well 100%				
5. Quantity of water appropriated and beneficial	•			to 3	
for <u>stock water</u>	े(ब राहर र	XXXXXXX	(acre fe	et per annun	n) .purposes
6. Acreage actually irrigated acres, lo	ocated and describe	d as follows (d	escribe only lan	ds actually	irrigated
e a companya a series a companya a A companya a		Acres			
Subdivision Sec.		ek only	The Mer	Owner abont T	ivest
					.T + 00-1
1 1 1 1 1 1 1 1	·	• • • • • • • • •		9 FA	- <u>.</u>
· · · · · · · · · · · · · · · · · · ·		· · · · ·	m C		· · · · · ·
			SWE		
(Note: location of well and acreage	actually irrigated mus	t be shown on pl		.) =	<u></u>
7. Water was first applied to beneficial use	month	1 9		and sia ce	that time
has been used fully and continuously on all o				ibed pu ss se	es except
as follows:		······································	[F]	· · · · · · · · · · · · · · · · · · ·	
		· · · · · · · · · · · · · · · · · · ·			
8. Additional statements or explanations					
name of well = Stand					
	······································			<u>.</u>	
	and a second			······································	
I, J. D. Merchant, Jr.	esident		being first duly	sworn upor	n my oath
depose and say that the above is a full and no verse side of this form and submitted in evide	nce of ownership of	a valid underg	round water righ	t, that I hav	e careful
read each and all of the items of there	之心王				
ここ きょう しょう	THE	MERCHAN	T LIVEST	CK CO.	declarant
a 0 5 6 5		112 111-		· · · · · · · · · · · · · · · · · · ·	Contraction and the second second

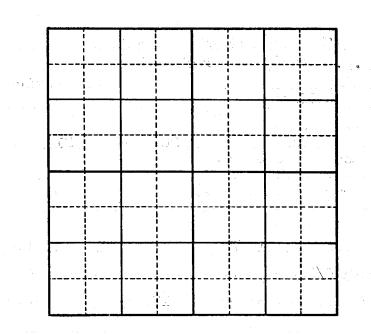
£



1119-13-13-64 (A. 68)

well and encourable indexted on computed on teaching a following plate

Locate w	ell and areas actually irriga	ed as accurately as possible on Iol	lowing plat:
Section (5), Townsh	ip, Range	
	i na na art _{an} i		and the second



INSTRUCTIONS

Declaration shall be executed (preferably typewritten) in triplicate and must be accompanied by a \$1.00 filing fee. Each of triplicate copies must be properly signed and attested.

A separate declaration must be filed for each well in use.

All blanks shall be filled out fully. Required information which cannot be sworn to by declarant shall be supplied by affidavit of person or persons familiar with the facts and shall be submitted herewith.

Secs. 1-3. Complete all blanks.

S - 5

Sec. 4. Fill out all blanks applicable as fully as possible.

Sec. 5. Irrigation use shall be stated in acre feet of water per acre per year applied on the land. If used for domestic, municipal. or other purposes, state total quantity in acre feet used annually.

- () + *i* ()

Sec: 6. Describe only the acreage actually irrigated. When necessary to clearly define irrigated acreages, describe to nearest 2½ acre subdivision. If located on unsurveyed lands. describe by legal supdivision "as projected" from the nearest government survey corners, or describe by metes and bounds and tie survey to some permanent, easily-located natural object.

Sec. 7. Explain and give dates as nearly as possible of any years when all or part of acreage claimed was not irrigated.

Sec. 8. If well irrigates or supplies supplemental water to any other land than that described above, or if land is also irrigated from any other source, explain under this section. Give any other data necessary to fully describe water right.

If additional space is necessary, use a separate sheet or sheets and attach securely hereto.

БC



*/B APR 20 PH 3 00

April 17, 1979

OTATE ENGINEER OFFICE L. J. F.T. N.M. 01501

Files: CP-584; CP-585; CP-586; CP-587; CP-588; CP-589; CP-590; CP-591; CP-592; CP-593; CP-594; CP-595; CP-596; CP-597; CP-598; CP-599; CP-600; CP-601; CP-602

The Merchant Livestock Company P. O. Box 548 Carlsbad, NM 88220

Gentlemen:

Enclosed are your copies of Declarations of Owner of Underground Water Right as numbered above, which have been filed for record in the office of the State Engineer.

Please refer to each individual number in all future correspondence concerning these declarations.

The filing of these declarations does not indicate affirmation or rejection of the statements contained therein.

Yours very truly,

J. C. Groseclose Basin Supervisor

JCG/fh Encls. cc: Santa Fe

563298

						NW 2=NE 3 mallest to la			83 UTM	in meters)	
Nell Tag	PO	D Numl	ber	Q64 Q [.]	16 Q4	Sec Twa	s Rng		Х	Y	
	СР	00854	POD1	1	12	33 218	S 33E	6338	879	3590223	9
Driller Licen	nse:	421	Drill	er Con	npany	: GLENI	N'S WAT	ER WI	ELL SI	ERVICE	
Driller Name	e:	GLENN	I, CLARK A."CC	ORKY" (LD)						
Drill Start Da	ate:	06/22/1	996 Drill	Finish	Date:	06	/22/1996	F	Plug D	ate:	
Log File Dat	te:	07/11/1	996 PCV	V Rcv [Date:	10	/17/2013		Source	e:	Shallow
Pump Type:	:	SUBME	ER Pipe) Disch	arge S	Size: 2.8	375	E	Estima	ated Yiel	d: 100 GPM
Casing Size	:	6.63	Dep	th Well	:	95	0 feet	[Depth	Water:	600 feet
 \	Water	Bearin	g Stratification	s:	Тор	Bottom	Descrip	otion			
			-		755	805	Sandsto	one/Gr	avel/C	onglome	erate
					860		Sandsto			-	
		Cas	ing Perforation	าร:	Тор	Bottom					
			0		760	950					
N	Meter	Numbe	er: 8514			Meter N	lake:		BLAN	CETT	
1	Meter	Serial I	Number: 04071	1711		Meter N	lultiplier	:	1.000	0	
			Number: 04071 als: 7	1711			lultiplier vpe:		1.000 Divers		
1	Numb	er of Di	als: 7		al.	Meter T	ype:		1.000 Divers		
r L	Numb Unit o		i als: 7 u re: Barrel	1711 Is 42 ga	al.	Meter T Return	-	rcent:	Divers	sion	
1 L -	Numb Unit o Usage	er of Di f Measu Multip	ials: 7 ure: Barrel lier:		al. 	Meter T Return	ype: Flow Pe	rcent:	Divers	sion	
ו נ - Meter Re	Numb Unit o Usage eading	er of Di f Measu Multip gs (in A	ials: 7 ure: Barrel lier: cre-Feet)	ls 42 ga		Meter T Return Reading	ype: Flow Pe g Freque	rcent:	Divers	sion erly	
ו ע - Meter Re Read I	Numb Unit o Usage eading Date	er of Di f Measu Multip gs (in A Year	ials: 7 ure: Barrel lier: cre-Feet) Mtr Reading	ls 42 ga	Rdr	Meter T Return	ype: Flow Pe g Freque	rcent:	Divers	sion erly	 • Amount 0
ו נ - Meter Re	Numb Unit o Usage eading Date 2004	er of Di f Measu e Multip gs (in A Year 2004	ials: 7 ure: Barrel lier: cre-Feet)	ls 42 ga Flag A	Rdr jw	Meter T Return Reading	ype: Flow Pe g Freque	rcent:	Divers	sion erly	• Amount 0 0
ا ر Meter Re Read I 03/15/2	Numb Unit o Usage eading Date 2004 2004	er of Di f Measu e Multip gs (in A Year 2004 2004	ials: 7 ure: Barrel lier: cre-Feet) Mtr Reading 121	ls 42 ga Flag A A	Rdr	Meter T Return Reading	ype: Flow Pe g Freque	rcent:	Divers	sion erly	0
Meter Re Read I 03/15/2	Numb Unit o Usage eading Date 2004 2004	er of Di f Measu e Multip gs (in A Year 2004 2004 2004	ials: 7 ure: Barrel lier: cre-Feet) Mtr Reading 121 69871	ls 42 ga Flag A A	Rdr jw jw	Meter T Return Reading	ype: Flow Pe g Freque	rcent:	Divers	sion erly	0 0
Meter Re Read I 03/15/2 03/29/2 05/17/2	Numb Unit o Usage eading Date 2004 2004 2004	er of Di f Measu e Multip gs (in A Year 2004 2004 2004 2004	ials: 7 ure: Barrel lier: cre-Feet) Mtr Reading 121 69871 8758 79641	ls 42 ga Flag A A A A A	Rdr jw jw jw	Meter T Return Reading	ype: Flow Per g Freque 	rcent:	Divers	sion erly	0 0 2.651
Meter Re Read I 03/15/2 03/29/2 05/17/2 06/11/2	Numb Unit o Usage eading Date 2004 2004 2004 2004 2004	er of Di f Measu e Multip gs (in A Year 2004 2004 2004 2004 2004 2004	ials: 7 ure: Barrel lier: cre-Feet) Mtr Reading 121 69871 8758 79641 18062553	Flag A A A A A A A A A	Rdr jw jw jw	Meter T Return Reading Comme	ype: Flow Per g Freque 	rcent:	Divers	sion erly	0 0 2.651 2.998
Meter Read I 03/15/2 03/29/2 05/17/2 06/11/2 01/27/2	Numb Unit o Usage eading Date 2004 2004 2004 2004 2004 2004 2012 2012	er of Di f Measu e Multip gs (in A Year 2004 2004 2004 2004 2004 2004	ials: 7 ure: Barrel lier: cre-Feet) Mtr Reading 121 69871 8758 79641 18062553	Flag A A A A A A A A A	Rdr jw jw jw jw RPT RPT	Meter T Return Reading Comme	ype: Flow Per g Freque ent	rcent:	Divers	sion erly	0 0 2.651 2.998 0
Meter Re Read I 03/15/2 03/29/2 05/17/2 06/11/2 01/27/2 03/01/2	Numb Unit o Usage eading Date 2004 2004 2004 2004 2012 2012 2012	er of Di f Measu e Multip gs (in A Year 2004 2004 2004 2004 2012 2012 2013	ials: 7 ure: Barrel lier: cre-Feet) Mtr Reading 121 69871 8758 79641 18062553 19039807	Flag A A A A A A A A A A A A	Rdr jw jw jw RPT RPT RPT	Meter T Return Reading Comme	ype: Flow Per g Freque ent ading ading	rcent:	Divers	sion erly	0 0 2.651 2.998 0 2.999
Meter Read I 03/15/2 03/29/2 05/17/2 06/11/2 03/01/2 03/01/2	Numb Unit o Usage eading Date 2004 2004 2004 2004 2004 2012 2012 2013 2013	er of Di f Measu e Multip gs (in A Year 2004 2004 2004 2004 2012 2012 2013	ials: 7 ure: Barrel lier: cre-Feet) Mtr Reading 121 69871 8758 79641 18062553 19039807 179696	Flag A A A A A A A A A A A A	Rdr jw jw jw RPT RPT RPT	Meter T Return Reading Comme	ype: Flow Per g Freque ent ading ading	rcent:	Divers	sion erly	0 0 2.651 2.998 0 2.999 0
Meter Read I 03/15/2 03/29/2 05/17/2 06/11/2 01/27/2 03/01/2 05/29/2 10/07/2	Numb Unit o Usage eading Date 2004 2004 2004 2004 2012 2012 2013 2013 2013	er of Di f Measu e Multip gs (in A Year 2004 2004 2004 2004 2012 2012 2012 2013 2013	ials: 7 ure: Barrel lier: cre-Feet) Mtr Reading 121 69871 8758 79641 18062553 19039807 179696 460774	Flag A A A A A A A A A A A A A	Rdr jw jw jw pw RPT RPT RPT RPT	Meter T Return Reading Comme Initial re initial re Qtr IV 2	ype: Flow Per g Freque ent ading ading	rcent:	Divers	sion erly	0 2.651 2.998 0 2.999 0 36.229
Meter Read I 03/15/2 03/29/2 05/17/2 06/11/2 01/27/2 03/01/2 05/29/2 10/07/2 11/11/2	Numb Unit o Usage eading Date 2004 2004 2004 2004 2012 2012 2013 2013 2013 2013	er of Di f Measu e Multip gs (in A Year 2004 2004 2004 2004 2012 2012 2013 2013 2013 2013	ials: 7 ure: Barrel lier: cre-Feet) Mtr Reading 121 69871 8758 79641 18062553 19039807 179696 460774 540326	Flag A A A A A A A A A A A A A A A A A	Rdr jw jw jw RPT RPT RPT RPT RPT	Meter T Return Reading Comme	ype: Flow Per g Freque ent ading ading	rcent:	Divers	sion erly	0 2.651 2.998 0 2.999 0 36.229 10.254
Meter Read I 03/15/2 03/29/2 05/17/2 06/11/2 03/01/2 03/01/2 10/07/2 11/11/2 01/01/2	Numb Unit o Usage eading Date 2004 2004 2004 2004 2012 2012 2013 2013 2013 2013 2014 2014	er of Di f Measu e Multip gs (in A Year 2004 2004 2004 2004 2012 2012 2013 2013 2013 2013	ials: 7 ure: Barrel lier: cre-Feet) Mtr Reading 121 69871 8758 79641 18062553 19039807 179696 460774 540326 614283 1122654	ls 42 ga Flag A A A A A A A A A A A A A A A A A A A	Rdr jw jw jw RPT RPT RPT RPT RPT	Meter T Return Reading Comme	ype: Flow Per g Freque ent ading ading	rcent:	Divers	sion erly	0 2.651 2.998 0 2.999 0 36.229 10.254 9.533
Meter Read I 03/15/2 03/29/2 05/17/2 05/17/2 03/01/2 03/01/2 10/07/2 11/11/2 01/01/2	Numb Unit o Usage eading Date 2004 2004 2004 2004 2012 2013 2013 2013 2013 2014 2014 2015	er of Di f Measu e Multip gs (in A Year 2004 2004 2004 2004 2012 2012 2013 2013 2013 2013 2013 2013	ials: 7 ure: Barrel lier: cre-Feet) Mtr Reading 121 69871 8758 79641 18062553 19039807 179696 460774 540326 614283 1122654	ls 42 ga Flag A A A A A A A A A A A A A A A A A A A	Rdr jw jw jw RPT RPT RPT RPT RPT RPT	Meter T Return Reading Comme	ype: Flow Per g Freque ent ading ading	rcent:	Divers	sion erly	0 2.651 2.998 0 2.999 0 36.229 10.254 9.533 65.526

Read Date	Year M	Itr Reading	Flag	g Rdr	Comment	Mtr Amount
09/30/2015	2015	1371471	А	RPT		0.247
10/22/2015	2015	1400502	А	RPT		3.742
11/30/2015	2015	1400502	А	RPT		0
04/28/2016	2016	1464116	А	RPT	"JD33 Well"	8.199
06/01/2016	2016	1464116	А	RPT		0
07/27/2016	2016	1496980	А	RPT	JD33 Well	4.236
09/01/2016	2016	1510835	А	RPT	JD 33 Well	1.786
09/30/2016	2016	1517146	А	RPT		0.813
10/31/2016	2016	1531178	А	RPT	JD 33 well	1.809
11/29/2016	2016	1553285	А	RPT	JD33 Well	2.849
03/01/2017	2017	1583100	А	RPT		3.843
**YTD Meter	r Amounts	s: Year		Amount		
		2004		5.649		
		2012		2.999		
		2013		56.016		
		2014		77.086		
		2015		24.253		
		2016		19.692		
		2017		3.843		

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

			· ·	arters are 1= arters are s			,	ITM in meters)	
Well Tag	POI	O Number		4 Q16 Q4		0,	·	,	
	СР	01349 POD1	2	3 1	27 2	1S 33I	E 635304	3591576	9
Driller Licer	nse: 4	421	Driller (Company	: GLE	NN'S W	ATER WELL	SERVICE	
Driller Name	e: (GLENN, CLARK	A."CORK	Y"					
Drill Start D	ate:	07/12/2014	Drill Fir	nish Date	: ()7/18/2	014 Plu	g Date:	
Log File Date:		08/04/2014	PCW R	cv Date:			Sou	irce:	Artesian
Pump Type:	Pump Type:		Pipe Discharge Size:			Est	imated Yiel	d:	
Casing Size	:	7.00	Depth V	Vell:		188 fe	et Dep	oth Water:	572 feet
	Water	Bearing Stratific	cations:	Тор	Bottor	n Des	cription		
				990	118	8 San	dstone/Grave	el/Conglome	erate
	Casing Perfo		orations:	Тор	Bottor	n			
				721	118	8			

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.



WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

STALE ENGINEER OFFICE

2014 SEP 10 PM 2: 15

Z		UMBER (WEL (East Star		* Revised 09/09/14 * * *		OSE FILE NU	MBER(S)					
IIC	1	IER NAME(S)	-	······································	····· · · ·	PHONE (OPT	IONAL)					
CA	1	. ,	s Water Well Serv	vice, Inc.		575-398-2						
<u> </u>		ER MAILING				ĊITY		STATE	ZIP			
GENERAL AND WELL LOCATION	P. O. Box		ADDALSS		-	Tatum		NM 8826				
2	WELL		DEGREES		S							
Γ	LOCATIO	ON LAT	ITUDE 32	26 54.8	Ν	* ACCURACY	* ACCURACY REQUIRED: ONE TENTH OF A SECOND					
NERA	(FROM G	LON	_{IGITUDE} 103	33 58.3	W		QUIRED: WGS 84	· .				
GEI	DESCRIPTIO	N RELATING W	ELL LOCATION TO STREE	T ADDRESS AND COMMON LANDMARKS - PL	SS (SECTION, T	OWNSHJIP, RANG	SE) WHERE AVAILABLE					
	ļ.,			wnship 21 South, Range 33 Eas	t on Merc	hants Lives	stock Land					
	WD 421	UMBER	NAME OF LICENSED	DRILLER		NAME OF WELL DRILLING COMPANY Glenn's Water Well Service, Inc.						
	DRILLING 5 07/22/14		DRILLING ENDED	DEPTH OF COMPLETED WELL (FT) 1,192'	BORE HO 1,192'	LE DEPTH (FT)	DEPTH WATER FIR: 925'	ST ENCOUNTERED (FT))			
z	COMPLETE	D WELL IS:	ARTESIAN	C dry hole C shallow (unc	ONFINED)		STATIC WATER LEV	EL IN COMPLETED WE	ELL (FT)			
OIL	DRILLING F	TUID:	C AIR	C MUD ADDITIVES - SP.		-J	n	4-1-2-3				
BRMA	DRILLING N			C HAMMER C CABLE TOOL	~	R - SPECIFY:						
NFC	DEPTH	(feet bgl)	BORE HOLE	CASING MATERIAL AND/OR		ASING	CASING	CASING WALL	OL OT			
2. DRILLING & CASING INFORMATION	FROM	ТО	DIAM (inches)	GRADE (include each casing string, and note sections of screen)	CONN	VECTION YPE	INSIDE DIAM. (inches)	THICKNESS (inches)	SLOT SIZE (inches)			
¢ C'	.0 ¹	40'	20"	16"	None		15 1/2"	.250				
G	0'	757'	14 3/4"	9 5/8"		& Collar	8.921"	36 lbs.	none			
IIN	690'	1,192'	8 3/4"	7" (502.14' Total)		& Collar	6.366"	23 lbs.	1/8"			
RIL		1/122		317.96 perforated	Inicad		0.500	25 105.	170			
ā				on bottom of liner								
61												
			· · · · · · · · · · · · · · · · · · ·		-			-				
	· · ·					- <u></u>) 				
		(feet bgl)	BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL M.			AMOUNT	METHO				
IVI	FROM	TO		GRAVEL PACK SIZE-RANG	E BY INTE	KVAL	(cubic feet)	PLACEN	AEN I			
LER	0'	40'	20"	Cemented			2 yds.	Top Pour				
ANNULAR MATERIAL	0	757'	14 3/4"	Float and shoe cemented to	surface		962	Circulated				
AR						1.1.1. <u>8</u>						
5												
Z.			· •									
3. /		-				<u> </u>	1					
EOP				L					0.6017			
	OSE INTER	NAL USE	1. 1211	POD NUMBER	,		0 WELL RECORD &	LOG (Version 06/0	8/2012)			
	ATION	$\frac{C}{E}$	- 1355	<u> </u>				+745U	1.05.2			
LUC	ATION	CXDI		<i>215</i> .	ろう	E.Z	1.512	PAGE	TOF 2			

FROM	H (feet bgl)	THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES / NO)	ESTIMATEI YIELD FOR WATER- BEARING ZONES (gpm
0	4'	4'	Sand	CY ON	
4'	28'	24'	Caliche	CY ON	
28'	120'	92'	Sand & Clay		
120'	260'	140'	Red Clay		
260'	757'	497'	Red & Brown Shale, and Clay (some blue)		
757'	815'	58'	Red & Brown Shale		·
815'	840'	25'	Blue Clay & Shale		· · · · · · · · · · · · · · · · · · ·
840'	925'	85'	Red and Brown Shale (some sandrock)		
925'	975'	50'	Watersand and Gravel		
975'	1,185'	210'	Watersand (brown sandrock)		
1,185'	1,192'	7'.	Red Shale		
1,105	1,192				
·			· · · · · · · · · · · · · · · · · · ·		
				$\begin{array}{c c} C & \bullet \\ \hline C & \bullet \\ \hline \end{array}$	
		<u> </u>	· · · · · · · · · · · · · · · · · · ·	$ \cup$ $-$	
			· · ·		
				$C^{Y} C^{N}$	
				$O^{Y} O^{N}$	
				$O^{Y} O^{N}$	
				$O^{Y} O^{N}$	
METHOI	O USED TO E	STIMATE YIELI	100 100 T	TOTAL ESTIMATED	
	JFT C	BAILER C	OTHER – SPECIFY:	WELL YIELD (gpm):	
WELL T	ESI STAF		ACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCI ME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVEI		
1	57' drilled w 1192' drille	ith mud. d with air and	foam.		
PRINT N	AME(S) OF D	DRILL RIG SUPE	RVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONS	TRUCTION OTHER TI	HAN LICENSE
CORREC	T RECORD O	OF THE ABOVE I	FIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RE 20 DAYS AFTER COMPLETION OF WELL DRILLING:		
	✓ SIGNAT	TURE OF DRILL	ER / PRINT SIGNEZ NAME	DATE	
	ERNAL USE			L RECORD & LOG (Ve	arsion 06/08/20
	~ ~				-
LE NUMBE	R/D	1355	POD NUMBER / TRN NUMBE	R 5494	57)

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

	OSE POD N	UMBER (V	VELL	NUMBER)		e en el mar de la compacta de la com	/	OSE FILE NU	MBER(S)			·····	
No	CP - 1355	5 East S	itanc	lard (South)								, T	
II	WELL OWN							PHONE (OPTI			ايرية م محمد محمد البصادات	[T]	
LOCATION	Merchan	its Live	stoc	k/Glenn's Wate	r Well Service, Ind	C.		(575)398-2	2424				
GENERAL AND WELL I	WELL OWN P.O. Box		ING A	DDRESS				CITY Tatum		state NM	C 8820	CO ZIP	
ê	WELL			DEGREES	MINUTES	SECONI)S	· · · · · · · · · · · · · · · · · · ·				77) 77)	
ି ନ ୍ଦି ।	LOCATIO		LATIT	32 JUDE	26	54.8	N	* ACCURACY	CY REQUIRED: ONE TENTH OF A SECOND				
IERAI	(FROM G			TTUDE 103	33	58.3	W	* DATUM RE	QUIRED: WGS 84		S a	ri C	
3	DESCRIPTIO	N RELATIN	ig wel	L LOCATION TO STREE	T ADDRESS AND COMMC	N LANDMARKS - PL	SS (SECTION, T	OWNSHJIP, RANC	E) WHERE AVAILABLE		and a star of the second s		
-	NE/NW/S	SW Sec	. 27,	T21S, R33E on I	Merchants Livest	ock Land							
<u> </u>	LICENSE N	UMBER		NAME OF LICENSED	DRILLER			NAME OF WELL DRILLING COMPANY					
	WD 421			Corky Glenn					Glenn's Water	Well Se	rvice, Inc.		
	DRILLING S 7/29/14	TARTED			DEPTH OF COMPLETE 1192'	ED WELL (FT)	BORE HOI 1192'	LE DEPTH (FT)	DEPTH WATER FIR 925'	ST ENCOU	JNTERED (FI	Γ)	
	COMPLETE	D WELL I	s: (ARTESIAN	C dry hole C	ONFINED)		STATIC WATER LEV	VEL IN CO	MPLETED W	ELL (FT)		
UII0	DRILLING F	LUID:	ζ	AIR	C MUD	ECIFY:							
RMA	DRILLING METHOD: ROTARY HAMMER CABLE TOOL OT												
SAN S	DEPTH (feet bgl) BORE HOLE			BORE HOLE	CASING MATE		C	SING	CASING	CAST	NG WALL	SLOT	
CASING INFORMATION	FROM	TO) · ·	DIAM (inches)	GRA (include each cas note sections	ing string, and	CONNECTION TYPE		INSIDE DIAM. (inches)		CKNESS nches)	SLOI SIZE (inches)	
နိုင်	0'	40'		20"	16"	· · · · ·	None		15 1/2"	.250			
ġ	0'	757'		14 3/4"	9 5/8"			and Collar	.352	36 lb	S.	none	
III	757'	1192'	'	8 3/4'	7"			and Collar	6.5"	23 lb	S.	1/8"	
DRILLING		······											
۲								· .				1	
				-									
					, , ,	 	1.						
	DEPTH	(feet bgl)	BORE HOLE		JULAR SEAL M	ATERIAL A	ND	AMOUNT	l	METHO	DD OF	
ΥΓ	FROM	то		DIAM. (inches)	GRAVEL PA	ACK SIZE-RANG	E BY INTE	RVAL	(cubic feet)		PLACE		
ERI	0'	40'		20"	Cemented				2 yds	T	op Pour		
ANNULAR MATERIAL	0'	757'		14 3/4"	Float and Shoe	Cemented to	Surface		1034	C	irculated		
AR													
In		ļ											
N				·	· · · · · · · · · · · · · · · · · · ·				:				
3				,				. <u>,</u>					
<u> </u>				· · · · · ·								p	
FOR	OSE INTER	NAL US	E					WR_{-2}	0 WELL RECORD	& I OG (Version 06/	08/2012)	

FILE NUMBER	CP	- 1355	POD NUMBER	TRN NUMBER	549450
LOCATION	Exi	1	215.33E.	27.312	PAGE 1 OF 2
		F · · ·	<u> </u>		

	DEPTH (feet bgl) TO	THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES / NO) WATER- BEARING ZONES (gpm)
	0'	4'	4'	Soil	
	4'	28'	24'	Caleche	CYON
	28'	120'	92'	Sand and Clay	C Y O N
	120'	260'	140'	Red Clay	
	260'	757'	497'	Red and Brown Shale and Clay(some blue)	
1	757'	815'	58'	Red and Brown Shale	
OF WELL	815'	840'	25'	Blue Clay and Shale	CY ON
S.	840'	925'	85'	Red and Brown Shale(some sandrock)	CY © N
	925'	975'	50'	Watersand and Gravel	• • • •
E E	975'	1185'	210'	Watersand(brown sandrock)	
Ö	1185'	1192'	7	Red Shale	
HYDROGEOLOGIC LOG					
ő					\bigcirc Y \bigcirc N
ΩŽ					
T T			1 		
					\bigcirc Y \bigcirc N
parts of the second		· ·			
			<u></u>		
	<u></u>		······································		
	METHOD U		i stimate yield bailer C	~~, /	TOTAL ESTIMATED WELL YIELD (gpm): 50
ION	WELL TES			ACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCL ME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVEF	
JISIC	MISCELLA	NEOUS INI	FORMATION:		
TEST: RIG SUPERVIS	1	·		' to 1192' drilled with air and foam.	
S.TES	PRINT NAM	ME(S) OF D	RILL RIG SUPEI	RVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONS	TRUCTION OTHER THAN LICENSEE:
SIGNATURE	CORRECT	RECORD O	F THE ABOVE I	FIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RE 20 DAYS AFTER COMPLETION OF WELL DRILLING:	
6. SI		SIGNAT	URE OF DRILLI	Cor Ky G/e s 19 er / print signee name	DATE
FOI	R OSE INTER	NAL USE		WR-20 WEL	L RECORD & LOG (Version 06/08/2012)
FIL.	E NUMBER	P-	-1355	POD NUMBER / TRN NUMBE	
LO	CATION	EX	pl	215.33E.27.3	/ 2 PAGE 2 OF 2

Well Tag	-	D Number	(qua Q64	rters are s Q16 Q4	mallest to la Sec Tw	s Rng	X	M in meters) Y	
	CF	9 01356 POD1	4	2 2	33 218	5 33E	634560	3590014	—
Driller Licen	se:	421	Driller C	ompany	: GLEN	N'S WATEI	R WELL	SERVICE	
Driller Name	:	GLENN, CLARK	A."CORKY	/11					
Drill Start Da	ate:	08/01/2014	Drill Fini	sh Date	: 08	/09/2014	Plug	Date:	
Log File Date	e:	08/25/2014	PCW Rc	v Date:			Sour	ce:	Artesian
Pump Type:			Pipe Dis	charge	Size:		Estin	nated Yield	d:
Casing Size:	:	6.37	Depth W	ell:	10	98 feet	Dept	h Water:	555 feet
Water Bearing Strati			cations:	Top 765	Bottom 795	•		(Conglome	rate
			765 795 Sandstone/Gravel/Conglor 795 825 Shale/Mudstone/Siltstone			•			
				825	920	Sandston	e/Gravel/	Conglome	rate
				920	935	Shale/Mu		•	
				935	968	Sandston	e/Gravel/	Conglome	rate
				968	976	Shale/Mu	dstone/S	iltstone	
				976	1005	Sandston	e/Gravel/	Conglome	rate
				1005	1092	Sandston	e/Gravel/	Conglome	rate
	Casing Perfor			Тор	Bottom				
				735	1098				

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

			(1	rters are arters a				=SW 4=S	,	UT	M in meters)	
Well Tag	PO	D Number		4 Q16 (0 /	``	X	Y	
-	СР	01357 POD1	4	3	1	27	21S	33E	63478	32	3591347	9
Driller Licens	se:	421	Driller (Compa	ny	: GL	.ENN	I'S WAT	FER WEI	LS	SERVICE	
Driller Name	•	GLENN, CLARK	A."CORK	Y"								
Drill Start Date: 08/16/2014		Drill Fin	nish Da	ate	:	08/	26/2014	4 PI	ug	Date:		
Log File Date: 09/10/2014		PCW Ro	PCW Rcv Date:			Source:			Artesian			
Pump Type:		Pipe Dis	Pipe Discharge Size:					Estimated Yield:			1:	
Casing Size:		6.37	Depth V	Vell:			128	36 feet	De	eptl	n Water:	578 feet
N	/ater	Bearing Stratifi	cations:	Тс	р	Bott	om	Descri	ption			
				94	15	ç	960	Sandst	one/Grav	/el/	Conglomer	ate
				96	60	10)77	Shale/N	Mudstone	e/Si	ltstone	
				107	77	12	215	Sandst	one/Grav	/el/	Conglomer	ate
			12	15	12	286	Shale/N	Mudstone	e/Si	ltstone		
		Casing Perfe	orations:	Тс	р	Bott	om					
				84	16	12	286					

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.



WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

S	OSE POD NC CP-1701-F)	WELL TAG ID NO.	· · · · · · · · · · · · · · · · · · ·	OSE FILE NO(S).	на с 1,200 района и на село на село и на			
OCATI	WELL OWN The Jimmy	. ,	T and 2005 GST T	rusts		PHONE (OPTI	ONAL)				
AND WELL LOCATION	well own c/o Stacey					CITY Loving		state NM 88256-1	ZIP 358		
GENERAL AND	WELL LOCATIO (FROM GI	2S)	DE TTUDE	32 26	0.5 N	* ACCURACY REQUIRED: ONE TENTH OF A SECOND * DATUM REQUIRED: WGS 84					
1. GEN	DESCRIPTIO	ON RELATIN	G WELL LOCATION TO	O STREET ADDRESS AND COMMON LANE	DMARKS – PLS	IS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE					
	LICENSE NC WD1		NAME OF LICENSED	DRILLER Bryce Wallace				ILLING COMPANY			
	DRILLING S 10/15		DRILLING ENDED 11/29/18	DEPTH OF COMPLETED WELL (FT) 840	DEPTH WATER FIR:	ST ENCOUNTERED (FT) 560					
Z	COMPLETE	O WELL IS:	ARTESIAN	DRY HOLE	STATIC WATER LEVEL IN COMPLETED WELL (P 457						
MATIO	DRILLING F		2 AR	MUD ADDITIVES - SI		R – SPECIFY:					
OR	DRILLING N	Note to success to a	T ROTARY			R – SPECIF Y:	1				
CASING INFORMATION	DEPTH FROM	DEPTH (feet bgl) BORE HOLE FROM TO DIAM (inches)		CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CON	ASING NECTION NPE ling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)		
ر م	0	20	12.75	ASTM53 Grade B Steel		N/A	12.57	.188			
	+2	460	12.25	ASTM53 Grade B steel	W	^r elded	6.065	.28			
2. DRILLING	460	840	12.25	SDR17 PVC	S	pline	6	SDR17	.032		
							• • • • • • • • • • • • • • • • • • •				
Ŧ	DEPTH FROM	(feet bgl) TO	BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL M GRAVEL PACK SIZE-RAN			AMOUNT (cubic feet)	METHO PLACEN			
ERI	0	20	12.75	Portland I/II Ce	ement		17	Pou	r		
TAT	0	453	12.25	Baroid Benseal	Grout		247	Trimu	nie		
ANNULAR MATERIAL	453	860	12.25	8/16 Silica Si	and		285	Pou	r		
				· · · · ·	· · ·		· · · · ·				
ri											

FOR OSE INTERNAL USE		WR-20 WELL RECORD & LOG (Versi	ion 06/30/17)
FILE NO. (P-1701	POD NO.	TRN NO. (19305	
LOCATION Expl	215.32E.35.31	WELL TAG ID NO.	PAGE 1 OF 2

1

•

	DEPTH (feet bgl) TO	THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONI (attach supplemental sheets to fully describe all units)	ES BE	/ATER ARING? ES / NO)	ESTIMATED YIELD FOR WATER- BEARING
			ļ				ZONES (gpm)
	0	5	5	Topsoil	Y		
	5	8	3	Caliche	Y	N	
	8	80	72	Tan/Red sandy caliche	Y	N	
	80	190	110	Red clay	Y	N	
• • •	190	400	210	Tan/Red sandstone	Y	N	
ΓΓ	400	560	160	Red siltstone	Y	N	
WEI	560	575	15	Red siltstone/Gyp	✓ Y	N	5.00
OF	575	750	175	Red sillstone	Y	N	
00	750	770	20	Red siltstone/Gyp	✓ Y	N	25.00
ICI	770	840	70	Red silisione	Y	N	
EOC	840	880	40	Red Shale	Y	N	
HYDROGEOLOGIC LOG OF WELL					Y	N	
ROC						Ň	
IYD	 				Y	N	
4.1		~				N	
						N	
	<u> </u>				Y		i
· .]	METHOD I			OF WATER-BEARING STRATA:	TOTAL EST		
	PUMI			BAILER OTHER – SPECIFY:	WELL YIE		30.00
z	WELL TES			CH A COPY OF DATA COLLECTED DURING WELL TESTING, IN E, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OV			METHOD,
SIO		<u> </u>					
TEST; RIG SUPERVISION	MISCELLA	NEOUS INF	ORMATION:				
5. TEST	PRINT NAM	IE(S) OF DI	RILL RIG SUPER	VISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CON	ISTRUCTION	OTHER TH	IAN LICENSEE:
	THE UNDER	RSIGNED P	IEREBY CERTIE	ES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELI	E THE FOR	FGOING	A TRUE AND
SIGNATURE	CORRECT F	ECORD O	F THE ABOVE DI	ESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL R DAYS AFTER COMPLETION OF WELL DRILLING:			
6. SIGN	_lh	n/l	/ 	Bryce Wallace	12	/10/2018	
		SÍGNATI	JRE OF DRILLEF	C / PRINT SIGNEE NAME		DATE	
FOR	OSE INTERI	NAL USE		WR-20 WE	LL RECORD	& LOG (Ver	rsion 06/30/2017)
	eno. C	P-170	21	POD NO. TRN NO.	4193	305	
	CATION F		-	15.32E.35.31 WELL TAG ID NO.			PAGE 2 OF 2