

Incident ID	NRM2012859198
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 32.442001Longitude -103.548690

(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Merchant State Unit 551H 03302020	Site Type: Production Pad
Date Release Discovered: 03/30/2020	API# 30-025-46363

Unit Letter	Section	Township	Range	County
D	35	21S	33E	Lea

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☒ Private

### Nature and Volume of Release

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

<input checked="" type="checkbox"/> Crude Oil	Volume Released (bbls) : 4.4	Volume Recovered (bbls): 3
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls) 17.7	Volume Recovered (bbls): 12
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release: Failure of flowline at wellhead at 90 deg. elbow. The well was shut down and vacuum truck dispatch to location to recover free liquid. The flowline from wellhead was repaired.

Attached are release volume calculations.

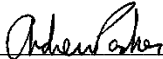
State of New Mexico  
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Was this a major release as defined by 19.15.29.7(A) NMAC?  <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

**Initial Response**

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

<input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input checked="" type="checkbox"/> 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:
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> (R.T. Hicks Consultants) Title: <u>Sr. Env. Specialist</u>
Signature: <u></u> Date: <u>April 1, 2020</u>
email: <u>andrew@rthicksconsult.com</u> Telephone: <u>970-570-9535</u>
<b><u>OCD Only</u></b> Received by: <u>Ramona Marcus</u> Date: <u>5/7/2020</u>

NRM2012859198

Spill Dimensions to Volume of Release Spray Area			
<b>Input</b>	<b>volume of affected soil</b>	<b>[feet^3]</b>	<b>1522.50</b>
<b>Input</b>	Porosity: typically is .35 to .40 for most soils	[ - ]	0.35
<b>Input</b>	Proportion of porosity filled with release fluid [0,1]	[ - ]	0.15
<b>Output</b>	volume of fluid	[feet^3]	<b>79.9</b>
		[gal]	<b>597.9</b>
		Barrels	14.2

Spill Dimensions to Volume of Release Area of Saturation			
<b>Input</b>	<b>volume of affected soil</b>	<b>[feet^3]</b>	<b>842.50</b>
<b>Input</b>	Porosity: typically is .35 to .40 for most soils	[ - ]	0.35
<b>Input</b>	Proportion of porosity filled with release fluid [0,1]	[ - ]	0.15
<b>Output</b>	volume of fluid	[feet^3]	<b>44.2</b>
		[gal]	<b>330.9</b>
		Barrels	7.9

<b>Total Release Volume</b>	<b>Barrels</b>	<b>22.1</b>
Produced Water	Barrels	17.7
Crude Oil	Barrels	4.4

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## 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? <b><u>Plate 2</u></b>	<u>148</u> (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse? <b><u>Plate 4</u></b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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)? <b><u>Plate 3 &amp; 4</u></b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church? <b><u>Plate 5</u></b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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? <b><u>Plate 3 &amp; 4</u></b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring? <b><u>Plate 3 &amp; 4</u></b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field? <b><u>Plate 6</u></b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland? <b><u>Plate 7</u></b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine? <b><u>Plate 8</u></b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology? <b><u>Plate 9</u></b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain? <b><u>Plate 10</u></b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site? <b><u>Initial release did not</u></b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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
- ☒ Depth to water determination
- ☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☒ Boring or excavation logs
- ☒ Photographs including date and GIS information
- ☒ Topographic/Aerial maps
- ☒ 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.

State of New Mexico  
Oil Conservation Division

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Printed Name: Andrew Parker Title: Env. ScientistSignature:  Date: April 4, 2021email: aparker@advanceenergypartners.com Telephone: 970-570-9535**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

Incident ID	NRM2012859198
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## Remediation Plan

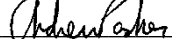
**Remediation Plan Checklist:** *Each of the following items must be included in the plan.*

- ☒ Detailed description of proposed remediation technique
- ☒ Scaled sitemap with GPS coordinates showing delineation points
- ☒ 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: Env. ScientistSignature:  Date: April 4, 2021email: aparker@advacneenergypartners.com Telephone: 970-570-9535**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Incident ID	NRM2012859198
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## Closure

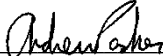
The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled 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.

**Closure Report Attachment Checklist:** *Each of the following items must 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 District 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 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. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Andrew Parker Title: Env. Scientist

Signature:  Date: April 4, 2021

email: aparker@advanceenergypartners.com Telephone: 970-570-9535

**OCD Only**

Received by: Chad Hensley Date: 07/27/201

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: 07/27/201

Printed Name: Chad Hensley Title: Environmental Specialist Advanced

**From:** [Eads, Cristina, EMNRD](#)  
**To:** [Andrew.rthicksconsult](#)  
**Subject:** RE: [EXT] RE: Merchant State Unit 551H Proposed Sample Base Sample Grid Size  
**Date:** Friday, May 15, 2020 9:46:47 AM  
**Attachments:** [image001.png](#)

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Andrew,

As we discussed over the phone, during a conversation with OCD staff regarding the base sample frequency, it was decided composite base samples shall not represent an area of more than 1200 square feet. All other requirements remain as stated in my previous email to you, included in this email string.

Please let me know if you have any questions.

Thanks,

*Cristina Eads | 505-670-5601*

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**From:** andrew@rthicksconsult.com <andrew@rthicksconsult.com>  
**Sent:** Monday, May 11, 2020 10:18 AM  
**To:** Eads, Cristina, EMNRD <Cristina.Eads@state.nm.us>  
**Cc:** 'David Harwell' <DHarwell@advanceenergypartners.com>; Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>; Venegas, Victoria, EMNRD <Victoria.Venegas@state.nm.us>  
**Subject:** RE: [EXT] RE: Merchant State Unit 551H Proposed Sample Base Sample Grid Size

Cristina:

Thanks for the confirmation.

Andrew Parker  
R.T. Hicks Consultants  
Durango Field Office  
970-570-9535

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**From:** Eads, Cristina, EMNRD <[Cristina.Eads@state.nm.us](mailto:Cristina.Eads@state.nm.us)>  
**Sent:** Monday, May 11, 2020 9:47 AM  
**To:** [andrew@rthicksconsult.com](mailto:andrew@rthicksconsult.com)  
**Cc:** 'David Harwell' <[DHarwell@advanceenergypartners.com](mailto:DHarwell@advanceenergypartners.com)>; Bratcher, Mike, EMNRD <[mike.bratcher@state.nm.us](mailto:mike.bratcher@state.nm.us)>; Hamlet, Robert, EMNRD <[Robert.Hamlet@state.nm.us](mailto:Robert.Hamlet@state.nm.us)>; Venegas, Victoria, EMNRD <[Victoria.Venegas@state.nm.us](mailto:Victoria.Venegas@state.nm.us)>  
**Subject:** RE: [EXT] RE: Merchant State Unit 551H Proposed Sample Base Sample Grid Size

Andrew, thanks for the photos.

The confirmation composite base samples shall not represent an area greater than 500 square feet. Confirmation composite sidewall samples shall not represent an area greater than 200 square feet. The OCD will allow for 75% of samples to be analyze for Benzene and TPH, and 100% to be analyzed for Chloride.

As for a deferral request, any areas where contamination is expected to be left in place must be completely delineated before OCD will consider granting approval of the request.

Please let me know if you have any questions, or if you need to discuss this incident in further detail.

Thanks,  
Cristina

Cristina Eads | 505-670-5601

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**From:** [andrew@rthicksconsult.com](mailto:andrew@rthicksconsult.com) <[andrew@rthicksconsult.com](mailto:andrew@rthicksconsult.com)>  
**Sent:** Friday, May 8, 2020 9:27 AM  
**To:** Eads, Cristina, EMNRD <[Cristina.Eads@state.nm.us](mailto:Cristina.Eads@state.nm.us)>  
**Cc:** 'David Harwell' <[DHarwell@advanceenergypartners.com](mailto:DHarwell@advanceenergypartners.com)>  
**Subject:** [EXT] RE: Merchant State Unit 551H Proposed Sample Base Sample Grid Size

Cristina:

Attached are a few photos of the excavation. More photos at

<https://rthicks.egnyte.com/fl/Fw9JiBLP7z>

Accessible until May 22, 2020

Thanks for evaluating a larger sample grid size for the base.

Andrew Parker  
R.T. Hicks Consultants  
Durango Field Office  
970-570-9535

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**From:** [andrew@rthicksconsult.com](mailto:andrew@rthicksconsult.com) <[andrew@rthicksconsult.com](mailto:andrew@rthicksconsult.com)>  
**Sent:** Thursday, May 7, 2020 12:17 PM  
**To:** 'Eads, Cristina, EMNRD' <[Cristina.Eads@state.nm.us](mailto:Cristina.Eads@state.nm.us)>  
**Cc:** 'David Harwell' <[DHarwell@advanceenergypartners.com](mailto:DHarwell@advanceenergypartners.com)>  
**Subject:** Merchant State Unit 551H Proposed Sample Base Sample Grid Size  
**Importance:** High

Cristina:

Per our phone conversation:

- Attached is the C-141. Advance Energy Partners may not have filed this at the beginning of April. In any event, AEP re-submitted today via the fee portal. Attached is the PO #.
- Attached is a map of the release extent relative to
  - Release Extent
  - EM Survey
  - Current Excavation Extent
  - Proposed Sample Grid Size Comparison.

As shown on the map, the EM Survey shows areas of concern (yellow to red shading) at depths down to 4.5 feet beyond the release extent. These areas of concern correlate with areas of elevated chloride concentrations relative to background concentrations. Some areas identified are caused by metal interference that will be described in the closure report. As shown, the current excavation extent is well beyond the initial release extent reported on the C-141. The observed impact beyond the release extent was likely caused from drilling and completion operations that occurred within the past last year.

Excavation depth is to 4.3 ft below production pad surface unless otherwise noted. The north edge of the pad is cut 4-feet below ground surface. Therefore, two areas north of the production pad that required remediation is noted as 0 to +4 ft, where +4ft is the level of the natural ground surface north of the production pad.

To date, approximately 9,000 cu. Yrds of material has been excavated. The cost to the remediation is likely to exceed \$1M.

Considering the large excavation extent and associated costs, we ask the NMOCD to approve a confirmation base sampling grid not to exceed 1200 sq. ft (34.5 x 34.5 ft). See attached map for base grid size comparison. Each base sample will be comprised of a 5-point composite. The constituent of concern is chloride (produced water). Therefore we ask NMOCD to allow for seventy-five percent (75%) of the samples to be analyzed for TPH and Benzene. All samples will be analyzed for chloride.

Additionally, we have been field screening for electrical conductivity during excavation activities. Excavation continued until EC < 0.2 dS/m in the upper 4-feet, which correlates with a chloride concentration of < 600 mg/kg. The area north of the three west wellheads may require deferment. The central southeast area may require additional characterization.

Please call me with any questions or interpretation of the map.

We will begin sampling on Monday May 11<sup>th</sup>.

Thank you for your consideration.

Andrew Parker  
R.T. Hicks Consultants  
Durango Field Office

**From:** [Eads, Cristina, EMNRD](#)  
**To:** [Andrew.rthicksconsult](#); [Enviro, OCD, EMNRD](#)  
**Cc:** [Randy Black](#); [David Harwell](#); [Jacob.rthickconsult](#); [joel@rthicksconsult.com](#); "Kristin Pope"  
**Subject:** RE: [EXT] NRM2012859198 - Extension Request MSU 551H Advance Energy  
**Date:** Friday, June 12, 2020 9:42:52 AM  
**Attachments:** [image003.png](#)

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Andrew,

Thank you for the status update at this incident site. The request for a 90 day extension added to the current remediation due date is granted for the reasons stated in the memo.

At this time, a deferral will not be considered. The OCD will evaluate the deferral request when the C-141 and remediation report is reviewed.

Please let me know if you have any questions.

Thanks,

**Cristina Eads**

*Environmental Bureau*

*EMNRD – Oil Conservation Division*

5200 Oakland Avenue NE, Suite 100

Albuquerque, New Mexico 87113

505.670-5601

email: [Cristina.Eads@state.nm.us](mailto:Cristina.Eads@state.nm.us)



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

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**From:** andrew@rthicksconsult.com <andrew@rthicksconsult.com>  
**Sent:** Friday, June 12, 2020 6:56 AM  
**To:** Enviro, OCD, EMNRD <OCD.Enviro@state.nm.us>  
**Cc:** 'Randy Black' <RBlack@advanceenergypartners.com>; 'David Harwell' <DHarwell@advanceenergypartners.com>; 'Jacob Saenz' <jacob@rthicksconsult.com>; joel@rthicksconsult.com; 'Kristin Pope' <kristin@rthicksconsult.com>  
**Subject:** [EXT] NRM2012859198 - Extension Request MSU 551H Advance Energy

Ms. Eads:

Per our phone conversation, attached is an extension request to complete remedial activities at the above referenced Advance Energy Partners location.

Please contact me with any questions. Please note I will be out of the office from June 14<sup>th</sup> through

July 4<sup>th</sup>. I will have limited email and cell phone coverage.

Thank you.

Andrew Parker  
R.T. Hicks Consultants  
Durango Field Office  
970-570-9535

**From:** [Eads, Cristina, EMNRD](#)  
**To:** [Andrew Parker](#); [Enviro, OCD, EMNRD](#)  
**Cc:** [David Harwell](#); [Randy Black](#)  
**Subject:** RE: [EXT] NRM2012859198 - Extension Request MSU 551H Advance Energy  
**Date:** Friday, September 18, 2020 7:18:23 AM  
**Attachments:** [image003.png](#)

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Andrew,

Thank you for the additional information. Your extension request is approved. Remediation will be due 90 days from today, December 17<sup>th</sup>, 2020.

Please let me know if you have any questions.

Thanks,

*Cristina Eads* | 505-670-5601

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**From:** Andrew Parker <AParker@advanceenergypartners.com>  
**Sent:** Thursday, September 17, 2020 5:46 PM  
**To:** Eads, Cristina, EMNRD <Cristina.Eads@state.nm.us>; Enviro, OCD, EMNRD <OCD.Enviro@state.nm.us>  
**Cc:** David Harwell <DHarwell@advanceenergypartners.com>; Randy Black <RBlack@advanceenergypartners.com>  
**Subject:** RE: [EXT] NRM2012859198 - Extension Request MSU 551H Advance Energy

Ms. Eads:

Attached is a request for extension of remedial activities at the above referenced location. Fracking and flowback operations are expected to begin in October and equipment is mobilizing to the location where additional remedial activities is necessary.

Please let me know if you have any questions.

Thank you.

Andrew Parker  
Env. Scientist  
M: (970) 570-9535



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**From:** Eads, Cristina, EMNRD <[Cristina.Eads@state.nm.us](mailto:Cristina.Eads@state.nm.us)>  
**Sent:** Friday, June 12, 2020 9:43 AM  
**To:** [andrew@rthicksconsult.com](mailto:andrew@rthicksconsult.com); Enviro, OCD, EMNRD <[OCD.Enviro@state.nm.us](mailto:OCD.Enviro@state.nm.us)>

**Cc:** 'Randy Black' <[RBlack@advanceenergypartners.com](mailto:RBlack@advanceenergypartners.com)>; 'David Harwell' <[DHarwell@advanceenergypartners.com](mailto:DHarwell@advanceenergypartners.com)>; 'Jacob Saenz' <[jacob@rthicksconsult.com](mailto:jacob@rthicksconsult.com)>; [joel@rthicksconsult.com](mailto:joel@rthicksconsult.com); 'Kristin Pope' <[kristin@rthicksconsult.com](mailto:kristin@rthicksconsult.com)>  
**Subject:** RE: [EXT] NRM2012859198 - Extension Request MSU 551H Advance Energy

Andrew,

Thank you for the status update at this incident site. The request for a 90 day extension added to the current remediation due date is granted for the reasons stated in the memo. At this time, a deferral will not be considered. The OCD will evaluate the deferral request when the C-141 and remediation report is reviewed.

Please let me know if you have any questions.

Thanks,

**Cristina Eads**

*Environmental Bureau*

*EMNRD – Oil Conservation Division*

5200 Oakland Avenue NE, Suite 100

Albuquerque, New Mexico 87113

505.670-5601

email: [Cristina.Eads@state.nm.us](mailto:Cristina.Eads@state.nm.us)



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**From:** [andrew@rthicksconsult.com](mailto:andrew@rthicksconsult.com) <[andrew@rthicksconsult.com](mailto:andrew@rthicksconsult.com)>

**Sent:** Friday, June 12, 2020 6:56 AM

**To:** Enviro, OCD, EMNRD <[OCD.Enviro@state.nm.us](mailto:OCD.Enviro@state.nm.us)>

**Cc:** 'Randy Black' <[RBlack@advanceenergypartners.com](mailto:RBlack@advanceenergypartners.com)>; 'David Harwell' <[DHarwell@advanceenergypartners.com](mailto:DHarwell@advanceenergypartners.com)>; 'Jacob Saenz' <[jacob@rthicksconsult.com](mailto:jacob@rthicksconsult.com)>; [joel@rthicksconsult.com](mailto:joel@rthicksconsult.com); 'Kristin Pope' <[kristin@rthicksconsult.com](mailto:kristin@rthicksconsult.com)>

**Subject:** [EXT] NRM2012859198 - Extension Request MSU 551H Advance Energy

Ms. Eads:

Per our phone conversation, attached is an extension request to complete remedial activities at the above referenced Advance Energy Partners location.

Please contact me with any questions. Please note I will be out of the office from June 14<sup>th</sup> through

July 4 . I will have limited email and cell phone coverage.

Thank you.

Andrew Parker  
R.T. Hicks Consultants  
Durango Field Office  
970-570-9535

**From:** [Eads, Cristina, EMNRD](#) on behalf of [Enviro, OCD, EMNRD](#)  
**To:** [Andrew Parker; Enviro, OCD, EMNRD](#)  
**Cc:** [Randy Black](#)  
**Subject:** RE: [EXT] NRM2012859198 - Extension Request MSU 551H Advance Energy  
**Date:** Tuesday, December 22, 2020 9:45:53 AM  
**Attachments:** [image003.png](#)

---

Andrew,

This extension request is approved. A remediation plan or closure report will be due on March 17, 2021.

Thanks,

**Cristina Eads** • Environmental Specialist - A  
Environmental Bureau  
EMNRD - Oil Conservation Division  
5200 Oakland Ave, Suite100 | Albuquerque, NM 87113  
505.670.5601 | [Cristina.Eads@state.nm.us](mailto:Cristina.Eads@state.nm.us)  
<http://www.emnrd.state.nm.us/OCD/>

---

**From:** Andrew Parker <AParker@advanceenergypartners.com>  
**Sent:** Tuesday, December 15, 2020 2:07 PM  
**To:** Eads, Cristina, EMNRD <Cristina.Eads@state.nm.us>; Enviro, OCD, EMNRD <OCD.Enviro@state.nm.us>  
**Cc:** Randy Black <RBlack@advanceenergypartners.com>  
**Subject:** RE: [EXT] NRM2012859198 - Extension Request MSU 551H Advance Energy

Ms. Eads,

Completion operations at the three adjacent wells completed this week. Flowback operations are scheduled for next week. Flowback operations will take about 90 to 120-days for the three wells.

Therefore, Advance Energy Partners respectfully asks NMOCD for a 90-day extension to complete remedial actions at the MSU 551H (Incident #NRM2012859198).

Please contact me with any questions.

Thank you,

Andrew Parker  
Environmental Scientist  
970-570-9535



---

**From:** Eads, Cristina, EMNRD <[Cristina.Eads@state.nm.us](mailto:Cristina.Eads@state.nm.us)>

**Sent:** Friday, September 18, 2020 7:18 AM

**To:** Andrew Parker <[AParker@advanceenergypartners.com](mailto:AParker@advanceenergypartners.com)>; Enviro, OCD, EMNRD <[OCD.Enviro@state.nm.us](mailto:OCD.Enviro@state.nm.us)>

**Cc:** David Harwell <[DHarwell@advanceenergypartners.com](mailto:DHarwell@advanceenergypartners.com)>; Randy Black <[RBlack@advanceenergypartners.com](mailto:RBlack@advanceenergypartners.com)>

**Subject:** RE: [EXT] NRM2012859198 - Extension Request MSU 551H Advance Energy

Andrew,

Thank you for the additional information. Your extension request is approved. Remediation will be due 90 days from today, December 17<sup>th</sup>, 2020.

Please let me know if you have any questions.

Thanks,

*Cristina Eads* | 505-670-5601

---

**From:** Andrew Parker <[AParker@advanceenergypartners.com](mailto:AParker@advanceenergypartners.com)>

**Sent:** Thursday, September 17, 2020 5:46 PM

**To:** Eads, Cristina, EMNRD <[Cristina.Eads@state.nm.us](mailto:Cristina.Eads@state.nm.us)>; Enviro, OCD, EMNRD <[OCD.Enviro@state.nm.us](mailto:OCD.Enviro@state.nm.us)>

**Cc:** David Harwell <[DHarwell@advanceenergypartners.com](mailto:DHarwell@advanceenergypartners.com)>; Randy Black <[RBlack@advanceenergypartners.com](mailto:RBlack@advanceenergypartners.com)>

**Subject:** RE: [EXT] NRM2012859198 - Extension Request MSU 551H Advance Energy

Ms. Eads:

Attached is a request for extension of remedial activities at the above referenced location. Fracking and flowback operations are expected to begin in October and equipment is mobilizing to the location where additional remedial activities is necessary.

Please let me know if you have any questions.

Thank you.

Andrew Parker  
Env. Scientist  
M: (970) 570-9535



---

**From:** Eads, Cristina, EMNRD <[Cristina.Eads@state.nm.us](mailto:Cristina.Eads@state.nm.us)>

**Sent:** Friday, June 12, 2020 9:43 AM

**To:** [andrew@rthicksconsult.com](mailto:andrew@rthicksconsult.com); Enviro, OCD, EMNRD <[OCD.Enviro@state.nm.us](mailto:OCD.Enviro@state.nm.us)>  
**Cc:** 'Randy Black' <[RBlack@advanceenergypartners.com](mailto:RBlack@advanceenergypartners.com)>; 'David Harwell' <[DHarwell@advanceenergypartners.com](mailto:DHarwell@advanceenergypartners.com)>; 'Jacob Saenz' <[jacob@rthicksconsult.com](mailto:jacob@rthicksconsult.com)>; [joel@rthicksconsult.com](mailto:joel@rthicksconsult.com); 'Kristin Pope' <[kristin@rthicksconsult.com](mailto:kristin@rthicksconsult.com)>  
**Subject:** RE: [EXT] NRM2012859198 - Extension Request MSU 551H Advance Energy

Andrew,

Thank you for the status update at this incident site. The request for a 90 day extension added to the current remediation due date is granted for the reasons stated in the memo.

At this time, a deferral will not be considered. The OCD will evaluate the deferral request when the C-141 and remediation report is reviewed.

Please let me know if you have any questions.

Thanks,

**Cristina Eads**

*Environmental Bureau*

*EMNRD – Oil Conservation Division*

5200 Oakland Avenue NE, Suite 100

Albuquerque, New Mexico 87113

505.670-5601

email: [Cristina.Eads@state.nm.us](mailto:Cristina.Eads@state.nm.us)



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

---

**From:** [andrew@rthicksconsult.com](mailto:andrew@rthicksconsult.com) <[andrew@rthicksconsult.com](mailto:andrew@rthicksconsult.com)>  
**Sent:** Friday, June 12, 2020 6:56 AM  
**To:** Enviro, OCD, EMNRD <[OCD.Enviro@state.nm.us](mailto:OCD.Enviro@state.nm.us)>  
**Cc:** 'Randy Black' <[RBlack@advanceenergypartners.com](mailto:RBlack@advanceenergypartners.com)>; 'David Harwell' <[DHarwell@advanceenergypartners.com](mailto:DHarwell@advanceenergypartners.com)>; 'Jacob Saenz' <[jacob@rthicksconsult.com](mailto:jacob@rthicksconsult.com)>; [joel@rthicksconsult.com](mailto:joel@rthicksconsult.com); 'Kristin Pope' <[kristin@rthicksconsult.com](mailto:kristin@rthicksconsult.com)>  
**Subject:** [EXT] NRM2012859198 - Extension Request MSU 551H Advance Energy

Ms. Eads:

Per our phone conversation, attached is an extension request to complete remedial activities at the above referenced Advance Energy Partners location.

th

Please contact me with any questions. Please note I will be out of the office from June 14 through July 4<sup>th</sup>. I will have limited email and cell phone coverage.

Thank you.

Andrew Parker  
R.T. Hicks Consultants  
Durango Field Office  
970-570-9535

**From:** [Eads, Cristina, EMNRD](#)  
**To:** [Andrew Parker](#)  
**Cc:** [Randy Black](#); [Braden Harris](#); [Enviro, OCD, EMNRD](#); [Baron Chandler](#); [Jacob Saenz](#)  
**Subject:** RE: [EXT] NRM2012859198 - Extension Request MSU 551H Advance Energy  
**Date:** Friday, March 12, 2021 2:44:49 PM  
**Attachments:** [image004.png](#)

---

Andrew,

Your extension request is approved. A remediation plan will be due on April 16, 2021.

Thank you,

**Cristina Eads** • Environmental Specialist - A  
Environmental Bureau  
EMNRD - Oil Conservation Division  
5200 Oakland Ave, Suite100 | Albuquerque, NM 87113  
505.670.5601 | [Cristina.Eads@state.nm.us](mailto:Cristina.Eads@state.nm.us)  
<http://www.emnrd.state.nm.us/OCD/>

---

**From:** Andrew Parker <AParker@advanceenergypartners.com>  
**Sent:** Friday, March 12, 2021 2:10 PM  
**To:** Eads, Cristina, EMNRD <Cristina.Eads@state.nm.us>  
**Cc:** Randy Black <RBlack@advanceenergypartners.com>; Braden Harris <BHarris@advanceenergypartners.com>; Enviro, OCD, EMNRD <OCD.Enviro@state.nm.us>; Baron Chandler <BChandler@advanceenergypartners.com>; Jacob Saenz <JSaenz@advanceenergypartners.com>  
**Subject:** RE: [EXT] NRM2012859198 - Extension Request MSU 551H Advance Energy

Cristina,

We are finalizing the characterization of incident NRM2012859198. We have additional horizontal and vertical delineation to perform along a 60-ft segment along the southern extent and along the southeast extent, see attached map. After additional characterization, we will submit a remediation and restoration plan to NMOCD. Our current deadline is March 17, 2021. Therefore, Advance Energy respectfully asks NMOCD for a 30-day extension to complete additional characterization and submit the remediation and restoration plan.

Please contact me with any questions.

Thank you,

Andrew Parker  
Environmental Scientist  
Mobile: 970-570-9535



---

**From:** Eads, Cristina, EMNRD <[Cristina.Eads@state.nm.us](mailto:Cristina.Eads@state.nm.us)> **On Behalf Of** Enviro, OCD, EMNRD  
**Sent:** Tuesday, December 22, 2020 9:46 AM  
**To:** Andrew Parker <[AParker@advanceenergypartners.com](mailto:AParker@advanceenergypartners.com)>; Enviro, OCD, EMNRD <[OCD.Enviro@state.nm.us](mailto:OCD.Enviro@state.nm.us)>  
**Cc:** Randy Black <[RBlack@advanceenergypartners.com](mailto:RBlack@advanceenergypartners.com)>  
**Subject:** RE: [EXT] NRM2012859198 - Extension Request MSU 551H Advance Energy

Andrew,

This extension request is approved. A remediation plan or closure report will be due on March 17, 2021.

Thanks,

**Cristina Eads** • Environmental Specialist - A  
Environmental Bureau  
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5200 Oakland Ave, Suite100 | Albuquerque, NM 87113  
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**Subject:** RE: [EXT] NRM2012859198 - Extension Request MSU 551H Advance Energy

Ms. Eads,

Completion operations at the three adjacent wells completed this week. Flowback operations are scheduled for next week. Flowback operations will take about 90 to 120-days for the three wells.

Therefore, Advance Energy Partners respectfully asks NMOCD for a 90-day extension to complete remedial actions at the MSU 551H (Incident #NRM2012859198).

Please contact me with any questions.

Thank you,

Andrew Parker  
Environmental Scientist  
970-570-9535



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**Subject:** RE: [EXT] NRM2012859198 - Extension Request MSU 551H Advance Energy

Andrew,

Thank you for the additional information. Your extension request is approved. Remediation will be due 90 days from today, December 17<sup>th</sup>, 2020.

Please let me know if you have any questions.

Thanks,

*Cristina Eads* | 505-670-5601

---

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**Sent:** Thursday, September 17, 2020 5:46 PM  
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**Subject:** RE: [EXT] NRM2012859198 - Extension Request MSU 551H Advance Energy

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Please let me know if you have any questions.

Thanks,

**Cristina Eads**

*Environmental Bureau*

*EMNRD – Oil Conservation Division*

5200 Oakland Avenue NE, Suite 100

Albuquerque, New Mexico 87113

505.670-5601

email: [Cristina.Eads@state.nm.us](mailto:Cristina.Eads@state.nm.us)



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**Cc:** 'Randy Black' <[RBlack@advanceenergypartners.com](mailto:RBlack@advanceenergypartners.com)>; 'David Harwell' <[DHarwell@advanceenergypartners.com](mailto:DHarwell@advanceenergypartners.com)>; 'Jacob Saenz' <[jacob@rthicksconsult.com](mailto:jacob@rthicksconsult.com)>; [joel@rthicksconsult.com](mailto:joel@rthicksconsult.com); 'Kristin Pope' <[kristin@rthicksconsult.com](mailto:kristin@rthicksconsult.com)>  
**Subject:** [EXT] NRM2012859198 - Extension Request MSU 551H Advance Energy

Ms. Eads:

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Please contact me with any questions. Please note I will be out of the office from June 14<sup>th</sup> through July 4<sup>th</sup>. I will have limited email and cell phone coverage.

Thank you.

Andrew Parker  
R.T. Hicks Consultants  
Durango Field Office  
970-570-9535



11490 Westheimer Road, Suite 950, Houston, Texas 77077 • Phone 832-672-4700 • Fax 832-672-4609

April 4, 2021

RE:

Closure Report  
Incident ID: NRM2012859198  
AEP #: 03302020-0636-prodops  
Location: Merchant State Unit 551H (API: 30-025-46363)

NM Oil Conservation Division  
Environmental Bureau  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

NMOCD:

Advance Energy Partners Hat Mesa LLC (AEP) submits this remediation and closure report for the above referenced incident. AEP remediated and restored impacted soil on the associated active production pad, to the extent practical, to the more stringent closure criteria concentrations as listed in Table 1 of 19.15.29 NMAC; where depth to water is greater than 100 ft. For areas off-site, AEP remediated, restored, and reclaimed impacted areas. During remedial activities, impact to the active production pad beyond the observed release extent was observed above the more stringent closure criteria concentrations listed in Table 1 of 19.15.29 NMAC.

Remediation of impacted soils occurred in two phases to coincide with well drilling and completion operations. During the remediation lifecycle, three extension requests were submitted and approved

- June 12, 2020
- September 17, 2020
- December 15, 2020 (Remediation/Closure report due March 17, 2021)
- March 12, 2021 (Remediation/Closure report due April 16, 2021)

On May 15, 2020; NMOCD approved a composite base sample frequency not to represent an area of more than 1200 sq. ft.; and a previous approval on May 11, 2020 that allows for only 75% of samples to be analyze for Benzene and TPH, and 100% of samples to be analyzed for Chloride.

## 1. 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 5-10).

### 1.1. Site Map

Horizontal extent of the release was determined by visual observations the day of the release and mapped using GPS technology with sub-meter accuracy.

Plate 1 shows the release extent defined by 1) area of saturation and 2) area of overspray from released fluid; and initial hand auger soil samples obtained the day of the release for initial release characterization.

The source of the release is located at Lat: 32.442001, Long: -103.548690; at the MSU 551H wellhead.

### 1.2. Depth to Ground Water

Plate 2 shows the depth to ground water reproduced from Open File Report -95<sup>1</sup> published by Geohydrology Associates, Inc for the Bureau of Land Management (BLM). As shown on Plate 2, depth to water is approximately 150 feet below ground surface.

Most recent depth to water data was queried from the USGS and New Mexico Office of the State Engineer (OSE) online databases. Spatial analysis shows the nearest water well (OSE Well CP1411 POD 1; mapped as MISC-396) is approximately 0.25 miles west with a depth to water of 800 ft (dated 10/14/2014).

Potentiometric surface calculations indicate that the depth to water is approximately 148 feet below ground surface, where 148 feet = 3688 ft surface elevation – 3540 ft potentiometric surface.

Appendix A are the wells logs for nearby wells.

### 1.3. Wellhead Protection Area

Plate 3 shows that the release extent is not:

- Within incorporated municipal boundaries or within a defined municipal fresh water well field.
- Within ½-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

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<sup>1</sup> Collection of hydrologic data Eastside Roswell Range EIS area, New Mexico.  
<https://geoinfo.nmt.edu/publications/openfile/details.cfm?Volume=95>

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Incident ID: NRM2012859198  
AEP #: 03302020-0636-prodops**1.4. Distance to Nearest Significant Water Course**

Plate 4 shows that the release extent is not:

- Within ½ 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).

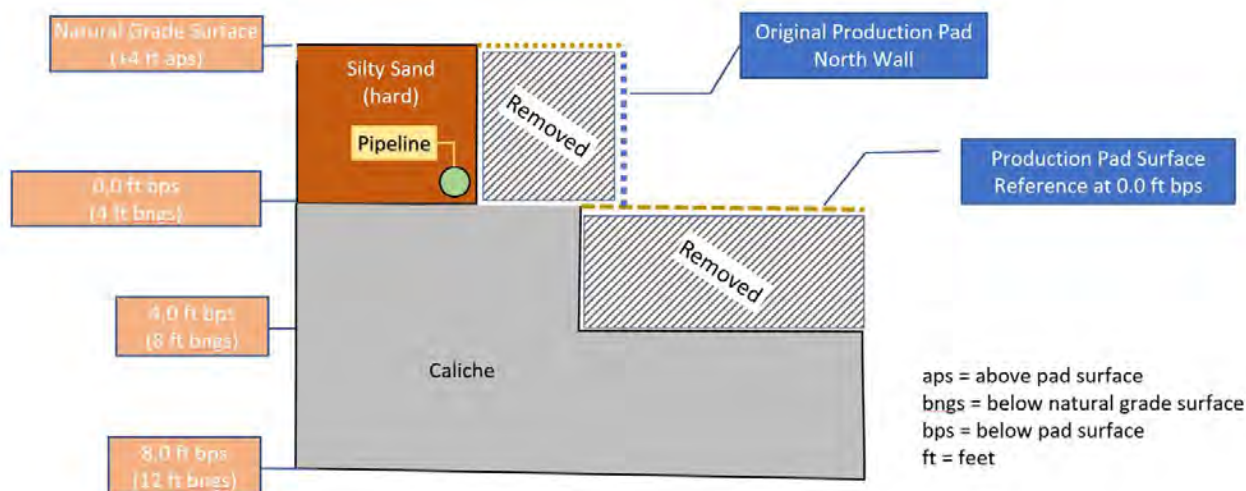
**1.5. Soil/Waste Characteristics**

The release occurred in an area where depth to water is greater than 100 ft below ground surface (bgs) and on an active production pad.

Remediation activities showed the lithology, where production pad surface benchmarked as 0-feet below ground surface, as:

- +4 – 0 ft : Removed during production pad construction (cut material for production pad surface) at northern half of production pad
- 0 - 1 ft : Caliche Pad.
- 1 – 2.5 ft: Caliche, hard, fractured.
- 2.5 - 7 ft: Caliche, medium denisty.

The production pad surface has a reference point of 0 feet below pad surface (0 ft bps) as shown in the below sketch. The northern portion of the production pad was cut into a natural slope; therefore, the northern portion of the production pad is 4-feet below natural grade surface (bngs). For regulatory purposes, closure criteria of areas on the production pad were measured from the production pad surface. Areas north of the production pad (offsite and on an active pipeline right-of-way) and within the natural grade, depths for closure criteria were measured from +4 feet above pad surface (+4 feet aps).



4 April 2021

Pg 4/7

Incident ID: NRM2012859198  
AEP #: 03302020-0636-prodops

Initial characterization soil samples (Plate 1) were obtained from within the area of saturation (HA-02, HA-03) and area of surface spray (HA-01). Soil samples were collected at the surface to a depth of 2-feet using a hand auger. Additional characterization samples were not collected as remediation was anticipated to begin with a couple weeks.

Highest concentrations of hydrocarbons and chloride were detected at the surface, as expected. The soil samples were collected the day of the release. Chloride concentrations were detected above Table 1 of 19.15.29 NMAC most stringent closure criteria at a depth of 2-feet below production pad surface (bps). Elevated chloride concentrations were not expected at depth and suggest the presence of a past release. At 2-feet bps, hydrocarbons were detected but below Table 1 of 19.15.29 NMAC closure criteria where depth to water > 100ft.

Table 1 presents a summary of analytical. Laboratory Certificate of Analysis is located in Appendix B.

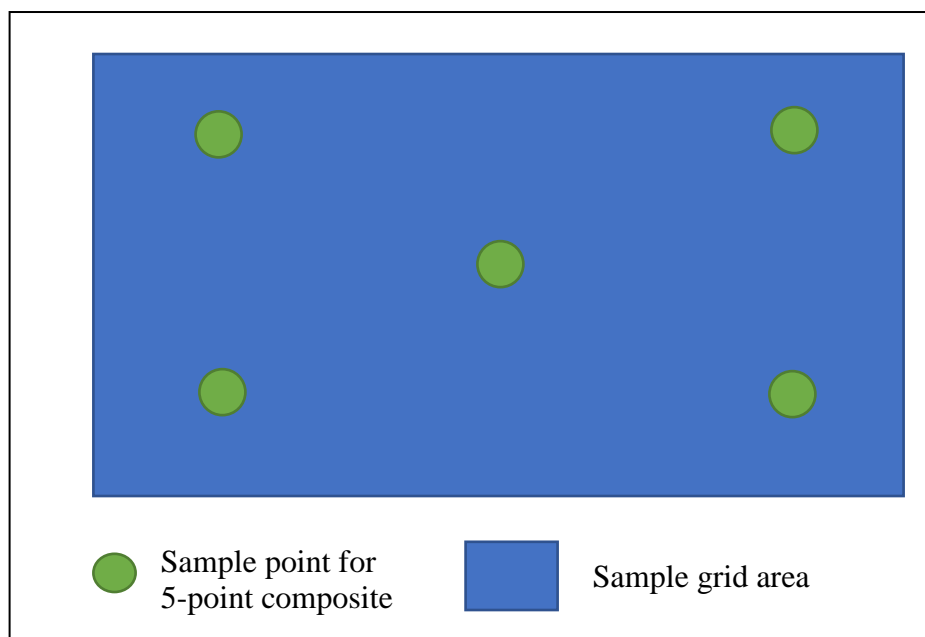
4 April 2021

## 2. Remedial Activities

Characterization sampling identified chloride and hydrocarbons as the constituents of concern. Therefore, we relied on electrical conductivity for field monitoring of chloride concentrations to direct real-time excavation.

Electrical conductivity (EC) was used to direct excavation extents. An EC <0.20 mS/cm correlates with a chloride concentration <600 mg/kg ( $R^2=0.957$ ). If EC <0.20 mS/cm in the upper 4-feet bps, excavation at the location of interest ceased. If EC >0.20 mS/cm excavation continued horizontally or to a vertical depth of approximately 4.1-feet bps.

After EC monitoring during excavation activities, 5-point composite confirmation samples were collected. Composite samples did not represent an area greater than 200 ft<sup>2</sup> for the walls and 1,200 ft<sup>2</sup> for the bases. Five-point composite sample points were evenly spaced within each sample grid to obtain a representative sample of the area (Figure 1, below).



**Figure 1: Example of 5-point sample grid for base composite sampling.**

- Plate 11 shows the base sample grid depths.
- Plate 12 shows base sample grid with chloride concentrations.
- Plate 13 shows the wall sampling diagram.

As shown on Plate 11 and 12, remediation activities extended past the observed March 30, 2020 release extent.

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Incident ID: NRM2012859198  
AEP #: 03302020-0636-prodops

As presented in Table 1, all samples meet the Closure Criteria as defined in Table 1 of 19.15.29 NMAC as follows:

- For remediated areas **off-site (north of the production pad)** where depth to water is >100 ft
  - Upper 4-feet
    - Chloride < 600 mg/kg
    - TPH (GRO + DRO + MRO) < 100 mg/kg
    - BTEX < 50 mg/kg
    - Benzene < 10 mg/kg
  - Below 4-feet
    - Chloride < 20,000 mg/kg
    - TPH (GRO + DRO + MRO) < 2,500 mg/kg
    - TPH (GRO + DRO) < 1,000 mg/kg
    - BTEX < 50 mg/kg
    - Benzene < 10 mg/kg
- For remediated areas **in-use and on the active production pad** where depth to water is >100 ft
  - Chloride < 20,000 mg/kg
  - TPH (GRO + DRO + MRO) < 2,500 mg/kg
  - TPH (GRO + DRO) < 1,000 mg/kg
  - BTEX < 50 mg/kg
  - Benzene < 10 mg/kg

4 April 2021

Released to Imaging: 7/27/2021 1:32:26 PM



Pg 7/7

Incident ID: NRM2012859198  
AEP #: 03302020-0636-prodops

Remediated areas were backfilled with clean non-waste containing material and restored to conditions prior to the release. Approximately 11,200 cubic feet of soil was remediated and hauled offsite for proper disposal.

The remediated area north of the production pad that is off-site and is an active pipeline right-of-way has been remediated, restored, and reclaimed per 19.15.29.13.D NMAC. When the active production site is no longer in use for oil and gas operations, the surface shall be remediated, restored, and reclaimed per 19.15.29.13.D

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

Sincerely,  
Advance Energy Partners Hat Mesa, LLC



Andrew Parker  
Env. Scientist

Copy: Braden Harris; Advance Energy Partners Hat Mesa, LLC  
Surface Owner; Merchant Livestock

4 April 2021

# Photos

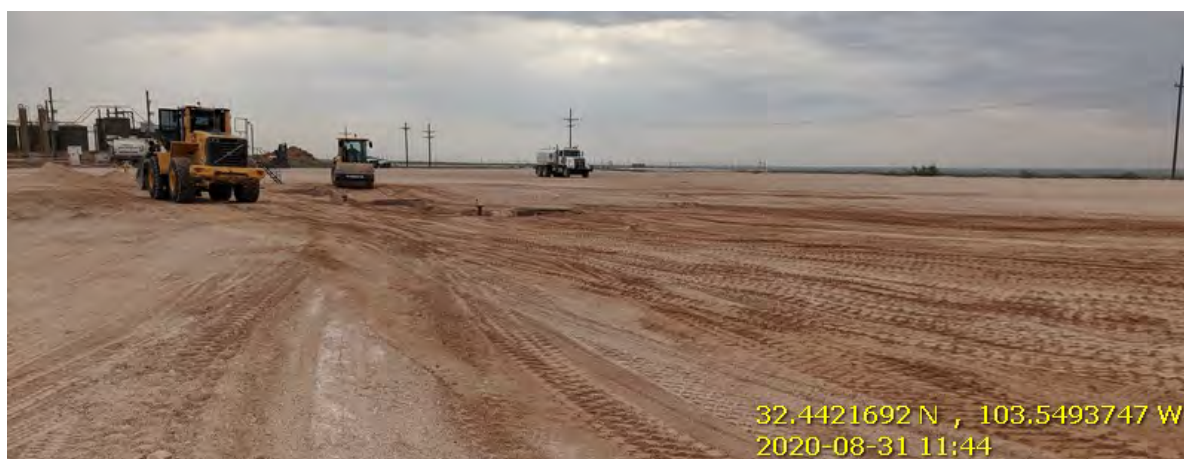




*Photo 1: Photo viewing east along the north production pad wall. Area to the left (north) of the north production pad wall was remediate as off-site use along a pipeline right-of-way. The off-site area was excavated to a depth of 5-feet (or 1-foot below relative production pad surface).*



*Photo 2: Photo viewing southeast from the north production pad wall. Excavation depth is an average 4.2-feet below production pad surface (8.2 feet below natural grade surface).*



*Photo 3: Photo viewing southeast from northwest corner of remediation area. Production pad surface is being restored to conditions prior to the release.*

# Tables



04/04/2021

Table 1  
Summary of Analytical

Advance Energy Partners  
MSU 551H Remediation

Sample ID	Date	Area (Wall/Base)	Discrete Depth (Feet)	Top Depth (Feet)	Bottom Depth (Feet)	EC (field) dS/m	Chloride (PPM)	GRO+DRO (PPM)	TPH Ext. (PPM)	Benzene (PPM)	BTEX (PPM)	Comments
NMOCD Closure Criteria			default = bps	default = bps	default = bps							
0 - 4 feet & "not in-use"							600	--	2,500	10	50	
> 4 ft or "in-use"							20,000	1,000	2,500	10	50	
HA-01	3/30/2020	Discrete	0 bps				2,880	98230	98725	<0.2	16.3	Characterization/Removed
HA-01	3/30/2020	Discrete	1 bps			0.54	554	8568	<8578	<0.05	16.4	Characterization/Removed
HA-01	3/30/2020	Discrete	2 bps			1.14	1,200	<233	<243	<0.05	<0.3	Characterization/Removed
HA-02	3/30/2020	Discrete	0 bps				36,000	27302	31232	<0.05	14.7	Characterization/Removed
HA-02	3/30/2020	Discrete	1 bps			1.01	2,440	<74.6	<84.6	<0.05	<0.3	Characterization/Removed
HA-02	3/30/2020	Discrete	2 bps			0.22	192	<20	<30	<0.05	<0.3	Characterization/Removed
HA-03	3/30/2020	Discrete	0 bps				20,000	33630	38200	2.71	121	Characterization/Removed
HA-03	3/30/2020	Discrete	1 bps			1.47	3,120	<1190	<1214.1	<0.05	0.321	Characterization/Removed
HA-03	3/30/2020	Discrete	2 bps			0.97	1,360	<296	<307.8	<0.05	<0.3	Characterization/Removed
W-01	5/8/2020	Wall		+ 4 aps	0 bps	0.11	16	<20	<30	<0.05	<0.3	Off-Site
W-01	5/8/2020	Wall		0 bps	1 bps (5 bngs)	0.16	64					Off-Site
W-02	5/8/2020	Wall		+ 4 aps	0 bps	0.21	96	<20	<30	<0.05	<0.3	Off-Site
W-03	5/8/2020	Wall		+ 4 aps	0 bps	0.35	256	<20	<30	<0.05	<0.3	Off-Site
W-04	5/8/2020	Wall		+ 4 aps	0 bps	0.34	240	<20	<30	<0.05	<0.3	Off-Site
W-05	5/8/2020	Wall		0 bps (4 bngs)	4 bps (8 bngs)	1.07	912	<20	<30	<0.05	<0.3	Off-Site
W-06	5/8/2020	Wall		0 bps (4 bngs)	4 bps (8 bngs)	13.07	29,200	<20	<30	<0.05	<0.3	Removed
W-06 +2 ft N	6/2/2020	Wall		0 bps (4 bngs)	4 bps (8 bngs)	0.38	304	<20	<30	<0.05	<0.3	Off-Site
W-07	5/8/2020	Wall		+4 aps	0 bps (4 bngs)	0.47	352					Off-Site
W-07	5/8/2020	Wall		0 bps (4 bngs)	4 bps (8 bngs)	14.13	24,400	<20	<30	<0.05	<0.3	Removed
W-07 +2 ft N	6/2/2020	Wall		0 bps (4 bngs)	4 bps (8 bngs)	0.21	160	<20	<30	<0.05	<0.3	Off-Site
W-07	5/20/2020	Wall	4.5 bps (8.5 bngs)			0.11	80					Off-Site
W-08	5/8/2020	Wall		+4 aps	0 bps (4 bngs)	0.07	32	<20	<30	<0.05	<0.3	Off-Site
W-08	5/8/2020	Wall		0 bps (4 bngs)	4 bps (8 bngs)	14.02	26,000	<20	<30	<0.05	<0.3	Removed
W-08 +2 ft N	6/2/2020	Wall		0 bps (4 bngs)	4 bps (8 bngs)	0.10	32	<20	<30	<0.05	<0.3	Off-Site
W-09	5/9/2020	Wall		+4 aps	0 bps (4 bngs)	0.10	32	<20	<30	<0.05	<0.3	Off-Site
W-09	5/9/2020	Wall		0 bps (4 bngs)	4 bps (8 bngs)	7.21	8,000					Removed
W-09	5/20/2020	Wall		0 bps (4 bngs)	4 bps (8 bngs)		2,600					Off-Site
W-09	5/20/2020	Wall	4.5 bps (8.5 bngs)			0.24	176					Off-Site
W-10	5/9/2020	Wall		+4 aps	0 bps (4 bngs)	0.04	<16	<20	<30	<0.05	<0.3	Off-Site
W-10	5/9/2020	Wall		0 bps (4 bngs)	4 bps (8 bngs)	5.80	6,930	<20	<30	<0.05	<0.3	Removed
W-10 +2 ft N	6/2/2020	Wall		0 (4 fbgs)	4 (8 fbgs)	2.01	2,080	<20	<30	<0.05	<0.3	Off-Site
W-10	5/21/2020	Wall	4.5 bps (8.5 bngs)			0.16	144					Off-Site
W-11	5/9/2020	Wall		+4 aps	0 bps (4 bngs)	0.20	96	<20	<30	<0.05	<0.3	Off-Site
W-12	5/9/2020	Wall		+4 aps	0 bps (4 bngs)	0.15	48	<20	<30	<0.05	<0.3	Off-Site
W-13	5/9/2020	Wall		0 bps (4 bngs)	4 bps (8 bngs)	3.86	26,400					Removed
W-13 +2 ft N	6/2/2020	Wall		0.1 bps (4.1 bngs)	4 bps (8 bngs)	0.64	1,180	<20	<30	<0.05	<0.3	Off-Site
W-14	5/9/2020	Wall		0 (4 fbgs)	4 (8 fbgs)	1.08	736	<77.2	<87.2	<0.05	<0.3	Off-Site
W-15	5/11/2020	Wall		+4 aps	0 bps (4 bngs)	0.24	112	<20	<30	<0.05	<0.3	Off-Site
W-15	5/9/2020	Wall		0 bps (4 bngs)	1.5 bps (5.5 bngs)	0.23	160	<20	<30	<0.05	<0.3	Off-Site
W-16	5/11/2020	Wall		+4 aps	0 bps (4 bngs)	0.09	48	<20	<30	<0.05	<0.3	Off-Site
W-16	5/11/2020	Wall		0 bps (4 bngs)	2.5 bps (6.5 bngs)	0.13	400	<20	<30	<0.05	<0.3	Off-Site
W-17	5/11/2020	Wall		+4 aps	0 bps (4 bngs)	0.09	48					Off-Site
W-17	5/11/2020	Wall		0 bps (4 bngs)	4 bps (8 bngs)	0.44	288	<20	<30	<0.05	<0.3	Off-Site
W-18	5/12/2020	Wall		+4 aps	0 bps (4 bngs)	0.09	32					Off-Site
W-18	5/11/2020	Wall		0 bps (4 bngs)	4 bps (8 bngs)	0.51	416	<20	<30	<0.05	<0.3	Off-Site
W-19	5/21/2020	Wall		+4 aps	0 bps (4 bngs)	0.19	32					Off-Site

04/04/2021

Table 1  
Summary of AnalyticalAdvance Energy Partners  
MSU 551H Remediation

Sample ID	Date	Area (Wall/Base)	Discrete Depth (Feet)	Top Depth (Feet)	Bottom Depth (Feet)	EC (field) dS/m	Chloride (PPM)	GRO+DRO (PPM)	TPH Ext. (PPM)	Benzene (PPM)	BTEX (PPM)	Comments
NMOCD Closure Criteria			default = bps	default = bps	default = bps							
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-19	5/12/2020	Wall		0 bps (4 bngs)	4 bps (8 bngs)	0.23	64	<20	<30	<0.05	<0.3	Off-Site
W-20	5/12/2020	Wall		0.0	3.0	0.57	272	<23.8	<33.8	<0.05	<0.3	On-Site
W-21	5/12/2020	Wall		0.0	1.0	1.71	1,470	<20	<30	<0.05	<0.3	Removed
W-21 North	5/22/2020	Wall	1.0			0.99						Removed
W-21 N-S	5/22/2020	Wall	1.0			0.16						Removed
W-21 S-N	5/22/2020	Wall	1.0			9.0/4.3/1.5						Removed
W-21 South	5/22/2020	Wall	1.0			2.46						Removed
W-21 S	5/22/2020	Wall	2.0			2.10						Removed
W-21	6/3/2020	Wall		0.0	2.5	0.39	480	<20	<30	<0.05	<0.3	On-Site
W-22	5/12/2020	Wall		0.0	2.0	1.80	1,380					On-Site
W-23	5/12/2020	Wall		0.0	2.0	1.47	1,040	<43.1	<53.1	<0.05	<0.3	On-Site
W-24	5/12/2020	Wall		0.0	2.5	1.12	688					On-Site
W-24 Caliche pad	5/22/2020	Wall	0.5			1.79						On-Site
W-24 Resample	5/28/2020	Wall		0.0	1.0	2.01	1,600	<20	<30	<0.05	<0.3	On-Site
W-24 Resample	5/28/2020	Wall		1.0	2.0	0.17	96	<20	<30	<0.05	<0.3	On-Site
W-25	5/12/2020	Wall		0.0	4.0	4.11	2,800	<20	<30	<0.05	<0.3	On-Site
W-27	5/25/2020	Wall		0.0	1.0	0.34	304	<33.4	<43.4	<0.05	<0.3	On-Site
W-28	6/4/2020	Wall		2.0	4.0	0.16	64	<20	<30	<0.05	<0.3	On-Site
W-29	6/4/2020	Wall		0.0	4.0	1.46	1,220	<69.4	<79.4	<0.05	<0.3	On-Site
W-30	6/4/2020	Wall		0.0	2.0	2.57	2,240	<528	<670	<0.05	<0.3	Removed
W-30 South	5/25/2020	Wall	1.0			2.06						Removed
W-30 S-N	5/25/2020	Wall	1.0			1.06						Removed
W-30 N-S	5/25/2020	Wall	1.0			0.42						Removed
W-30 North	5/25/2020	Wall	1.0			0.68						Removed
W-31	5/25/2020	Wall		1.0	4.0	0.34	656	<20	<30	<0.05	<0.3	Removed
W-31	6/4/2020	Wall		2.0	4.0	0.10	128	<20	<30	<0.05	<0.3	On-Site
W-32	6/5/2020	Wall		0.0	4.0	0.28	336	<20	<30	<0.05	<0.3	On-Site
W-33	5/25/2020	Wall		0.0	4.0	0.11	48	<20	<30	<0.05	<0.3	On-Site
W-34	5/25/2020	Wall		0.0	1.0	0.23	112					On-Site
W-35	5/25/2020	Wall		1.0	4.0	0.10	32	<20	<30	<0.05	<0.3	On-Site
W-36	5/27/2020	Wall		0.0	2.5	1.98	4,400	<20	<30	<0.05	<0.3	On-Site
W-36	5/27/2020	Wall	3.0			0.09	208					On-Site
W-37	6/4/2020	Wall		0.0	4.0	1.46	1,710	<20.4	<30.4	<0.05	<0.3	On-Site
W-37	5/27/2020	Wall	2.0			0.61	403					On-Site
W-38	5/27/2020	Wall		0.0	2.0	2.67	1,600					On-Site
W-39	5/27/2020	Wall		0.0	3.0		4,000	<20	<30	<0.05	<0.3	On-Site
W-39	5/27/2020	Wall	4.0			0.24	320					On-Site
W-40	5/27/2020	Wall		0.0	1.0	2.12	2,480	<61.2	<71.2	<0.05	<0.3	Removed
W-41	6/3/2020	Wall		0.0	2.0	1.69	1140	<20	<30	<0.05	<0.3	On-Site
W-42	6/4/2020	Wall		0.0	4.0	0.47	192	<94.1	<104.1	<0.05	<0.3	On-Site
W-43	6/4/2020	Wall		0.0	1.5	0.64	544	<20	<30	<0.05	<0.3	On-Site
W-201	7/29/2020	Wall		0.0	4.0	2.57	1,940	<369	<453.4	<0.05	<0.3	On-Site
W-202	7/29/2020	Wall		0.0	4.0	0.23	192	<20	<30	<0.05	<0.3	On-Site
W-203	7/29/2020	Wall		0.0	4.0	2.47	1,180	<63	<73	<0.05	<0.3	On-Site
W-204	7/29/2020	Wall		0.0	1.5	0.51	272	<78.1	<89.9	<0.05	<0.3	On-Site
W-205	7/29/2020	Wall		0.0	1.0	0.39	224	<156	<166	<0.05	<0.3	On-Site

04/04/2021

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Summary of Analytical

Advance Energy Partners  
MSU 551H Remediation

Sample ID	Date	Area (Wall/Base)	Discrete Depth (Feet)	Top Depth (Feet)	Bottom Depth (Feet)	EC (field) dS/m	Chloride (PPM)	GRO+DRO (PPM)	TPH Ext. (PPM)	Benzene (PPM)	BTEX (PPM)	Comments
NMOCD Closure Criteria			default = bps	default = bps	default = bps							
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-206	7/29/2020	Wall		1.0	2.0	1.57	1,280	<20	<30	<0.05	<0.3	Removed
W-206 W.	8/3/2020	Wall		1.0	2.0	0.10	64	<20	<30	<0.05	<0.3	On-Site
W-206 S.	8/3/2020	Wall		1.0	2.0	0.08	16	<20	<30	<0.05	<0.3	On-Site
W-206 E.	8/3/2020	Wall		1.0	2.0	0.97	1,390	<20	<30	<0.05	<0.3	Removed
W-210	7/29/2020	Wall		0.0	2.0	0.84	592	<139	<149	<0.05	<0.3	Removed
W-210 North	9/1/2020	Wall		0.0	4.0		48	<20	<30	<0.05		On-Site
W-210 East	9/1/2020	Wall		0.0	4.0		272	<20	<30	<0.05		On-Site
W-210 South	9/1/2020	Wall		0.0	4.0		576	<20	<30	<0.05		On-Site
W-211	7/30/2020	Wall		2.0	4.0	2.00	1,460	<20	<30	<0.05	<0.3	Removed
W-213	7/30/2020	Wall		0.0	2.0	0.89	688	<20	<30	<0.05	<0.3	On-Site
B-01	5/25/2020	Base	1.0			0.12	80	<20	<30	<0.05	<0.3	On-Site
B-02	5/25/2020	Base	1.0			0.07	16	<20	<30	<0.05	<0.3	On-Site
B-03	5/25/2020	Base	4.2			0.10	32					On-Site
B-04	5/25/2020	Base	4.2			0.10	80	<20	<30	<0.05	<0.3	On-Site
B-05	5/25/2020	Base	4.2			0.15	32					On-Site
B-06	5/25/2020	Base	4.2			0.09	64	<20	<30	<0.05	<0.3	On-Site
B-07	6/4/2020	Base	1 bps (5 bngs)			1.56	1,660	<20	<30	<0.05	<0.3	Off-Site
B-08 E	5/25/2020	Base	0.1 bps (4.1 bngs)			0.38	272					Off-Site
B-08 W	5/25/2020	Base	0.1 bps (4.1 bngs)			1.10	960	<20	<30	<0.05	<0.3	Off-Site
B-09	6/3/2020	Base	2.5				16	<20	<30	<0.05	<0.3	On-Site
B-10	5/25/2020	Base	2.5			0.14	80	<20	<30	<0.05	<0.3	On-Site
B-11	5/26/2020	Base	1.5			0.08	32					On-Site
B-12	5/26/2020	Base	1.5			0.40	624	<20	<30	<0.05	<0.3	Removed
B-12	6/3/2020	Base	3.0			0.09	48	<20	<30	<0.05	<0.3	On-Site
B-13	5/26/2020	Base	1.5			3.25	3,080	<353	<363	<0.05	<0.3	Removed
B-13	6/3/2020	Base	4.2			0.10	64	<20	<30	<0.05	<0.3	On-Site
B-14	5/26/2020	Base	4.3			0.77	448					On-Site
B-15	5/26/2020	Base	4.3			0.16	64	<20	<30	<0.05	<0.3	On-Site
B-16	5/26/2020	Base	4.3			1.21	1,010	<20	<30	<0.05	<0.3	On-Site
B-17	5/26/2020	Base	4.3			0.35	240	<20	<30	<0.05	<0.3	On-Site
B-18 Cl	5/26/2020	Base	4.3			9.11	15,600					Removed
B-18	5/26/2020	Base	4.3			0.29	304*	<20	<30	<0.05	<0.3	Removed
B-18	6/5/2020	Base	5.5			0.20	208	<20	<30	<0.05	<0.3	On-Site
B-19 Cl	5/26/2020	Base	4.3			>20	25800					Removed
B-19	5/26/2020	Base	4.3			7.59	8660*					Removed
B-19	6/5/2020	Base	5.5			0.10	32	<20	<30	<0.05	<0.3	On-Site
B-20	5/26/2020	Base	4.2			0.22	240	<25.3	<35.3	<0.05	<0.3	On-Site

04/04/2021

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Summary of Anayltical

Advance Energy Partners  
MSU 551H Remediation

Sample ID	Date	Area (Wall/Base)	Discrete Depth (Feet)	Top Depth (Feet)	Bottom Depth (Feet)	EC (field) dS/m	Chloride (PPM)	GRO+DRO (PPM)	TPH Ext. (PPM)	Benzene (PPM)	BTEX (PPM)	Comments
NMOCD Closure Criteria			default = bps	default = bps	default = bps							
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-21 Cl	5/26/2020	Base	4.2			13.40	13800					Removed
B-21	5/26/2020	Base	4.2			1.46	1500*					Removed
B-21	6/5/2020	Base	5.5			0.29	176	<20	<30	<0.05	<0.3	On-Site
B-22 Cl	5/26/2020	Base	4.2			6.84	13600					Removed
B-22	5/26/2020		4.2			0.29	160*	<20	<30	<0.05	<0.3	Removed
B-22	6/4/2020	Base	5.5			0.13	112	<20	<30	<0.05	<0.3	On-Site
B-23	5/26/2020	Base	4.2			0.34	240	<20	<30	<0.05	<0.3	On-Site
B-24 E	5/26/2020	Base	0.1 bps (4.1 bngs)			3.06	7,120	<20	<30	<0.05	<0.3	Off-Site
B-24 W	5/26/2020	Base	0.1 bps (4.1 bngs)			0.67	1,310					Off-Site
B-25	5/26/2020	Base	1 bps (5 bngs)			6.51	10,400	<20	<30	<0.05	<0.3	Removed
B-25	6/3/2020	Base	1.5 bps (5.5 bngs)			2.56	2,600	<20	<30	<0.05	<0.3	Off-Site
B-26 Cl	5/26/2020	Base	2.5			0.68	752					Removed
B-26	5/26/2020	Base	2.5			0.11	32					Removed
B-26	6/4/2020	Base	3.0			0.13	224	<23.2	<33.2	<0.05	<0.3	On-Site
B-27	5/26/2020	Base	3.0			0.13	48	<20	<30	<0.05	<0.3	On-Site
B-28	5/26/2020	Base	4.2			0.85	624					On-Site
B-29	5/26/2020	Base	4.2			0.34	144	<91	<101	<0.05	<0.3	On-Site
B-30	5/26/2020	Base	4.2			0.11	112	<20	<30	<0.05	<0.3	On-Site
B-31	5/26/2020	Base	4.2			0.44	256	<52.4	<62.4	<0.05	<0.3	On-Site
B-32	5/26/2020	Base	2.5			0.42	624					Removed
B-32	6/3/2020	Base	3.0			0.12	48	<20	<30	<0.05	<0.3	On-Site
B-33	5/26/2020	Base	3.0			0.08	48	<105.3	<115.3	<0.05	<0.3	On-Site
B-34	5/26/2020	Base	1.5			1.04	688	<53.4	<63.4	<0.05	<0.3	Removed
B-34	6/3/2020	Base	3.0			0.21	176	<20	<30	<0.05	<0.3	On-Site
B-35	5/26/2020	Base	2.0			1.26	1,180	<112	<128.7	<0.05	<0.3	Removed
B-35	6/3/2020	Base	3.0			0.18	144	<20	<30	<0.05	<0.3	On-Site

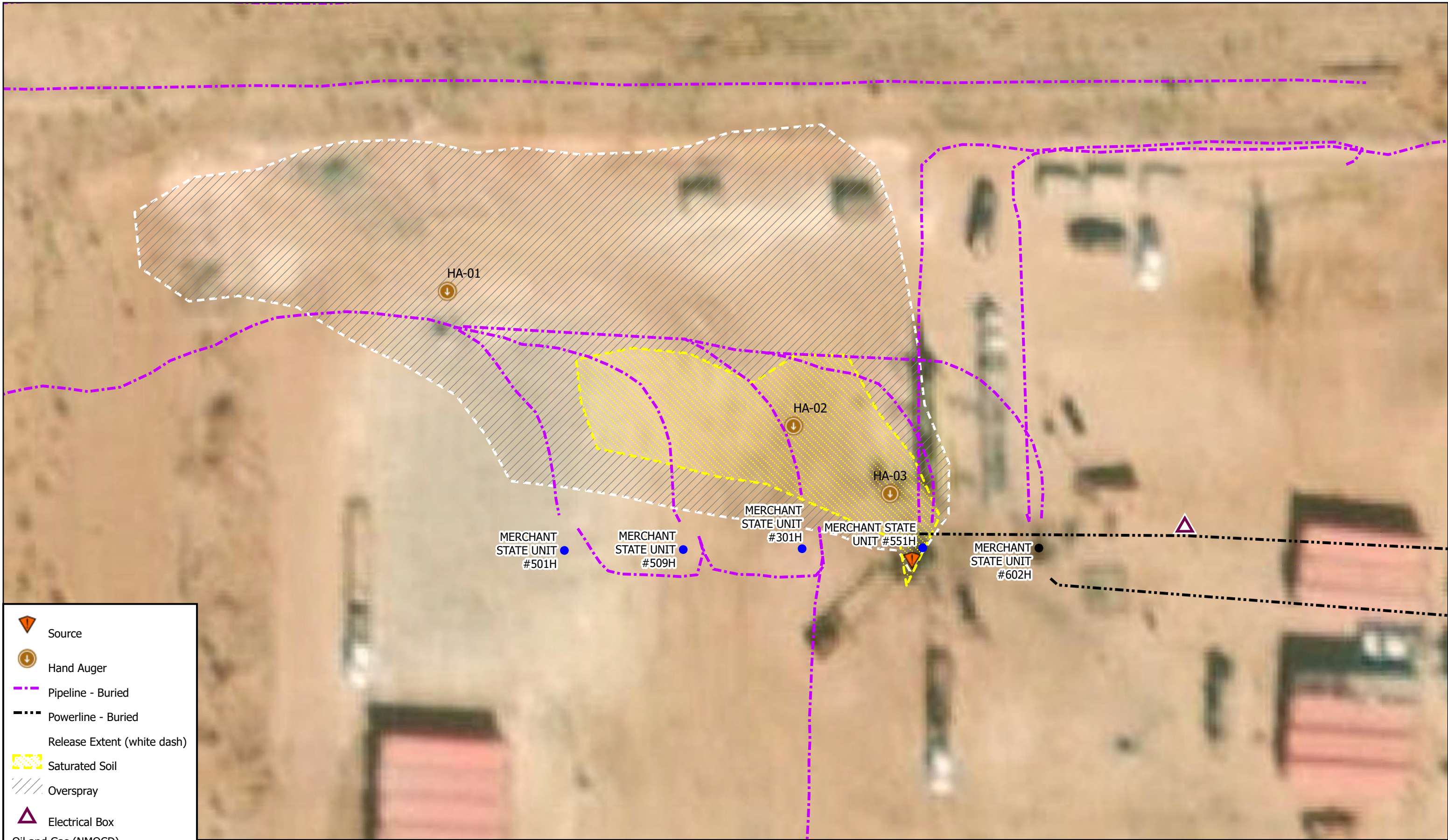
04/04/2021


Table 1  
Summary of AnalyticalAdvance Energy Partners  
MSU 551H Remediation

Sample ID	Date	Area (Wall/Base)	Discrete Depth (Feet)	Top Depth (Feet)	Bottom Depth (Feet)	EC (field) dS/m	Chloride (PPM)	GRO+DRO (PPM)	TPH Ext. (PPM)	Benzene (PPM)	BTEX (PPM)	Comments
NMOCD Closure Criteria			default = bps	default = bps	default = bps							
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-36	5/26/2020	Base	2.0			0.84	576					On-Site
B-37	5/26/2020	Base	2.0			0.98	496	<80.4	<90.4	<0.05	<0.3	On-Site
B-38	5/26/2020	Base	2.0			0.45	288	<43.1	<53.1	<0.05	<0.3	On-Site
B-39	5/27/2020	Base	4.2			0.39	576	<20	<30	<0.05	<0.3	On-Site
B-40	5/27/2020	Base	3.0			0.20	272					On-Site
B-41	5/27/2020	Base	3.0			0.09	80					On-Site
B-42	5/27/2020	Base	2.5			0.33	496	<20	<30	<0.05	<0.3	On-Site
B-43	5/27/2020	Base	2.5			0.34	784					Removed
B-43	6/2/2020	Base	3.0			0.25	272	<20	<30	<0.05	<0.3	On-Site
B-44	5/27/2020	Base	3.0			0.23	240					On-Site
B-45	5/27/2020	Base	4.2			0.42	928	<20	<30	<0.05	<0.3	On-Site
B-46	5/27/2020	Base	4.2			1.05	2,600	<20	<30	<0.05	<0.3	On-Site
B-47	5/27/2020	Base	4.2			0.35	240					On-Site
B-48	5/28/2020	Base	2.0			0.55	960	<20	<30	<0.05	<0.3	On-Site
B-49	5/28/2020	Base	2.0			0.08	32	<20	<30	<0.05	<0.3	On-Site
B-50	5/28/2020	Base	4.1			1.10	1,220	<20	<30	<0.05	<0.3	On-Site
B-51	5/28/2020	Base	3.0			0.10	80	<20	<30	<0.05	<0.3	On-Site
B-52	5/28/2020	Base	4.2			0.19	64					On-Site
B-53	5/28/2020	Base	4.2			0.61	832	<20	<30	<0.05	<0.3	On-Site
B-54	5/28/2020	Base	4.2			3.55	4160*	<20	<30	<0.05	<0.3	Removed
B-54 NW	5/28/2020	Base	4.2			8.07	11,900					Removed
B-54 S .75	5/28/2020	Base	4.2			0.34	272	<20	<30	<0.05	<0.3	Removed
B-54	6/4/2020	Base	5.5			0.17	80	<20	<30	<0.05	<0.3	On-Site
B-56	5/28/2020	Base	1.0			0.74	608	<20	<30	<0.05	<0.3	Removed
B-56 E .75	5/28/2020	Base	1.0			0.74						Removed
B-56 SW	5/28/2020	Base	1.0			0.67						Removed
B-55	5/28/2020	Base	4.2			0.51	592					On-Site
B-56	6/3/2020	Base	2.0			0.12	128	<20	<30	<0.05	<0.3	On-Site
B-57	5/28/2020	Base	1.0			0.80	464					Removed
B-57	6/4/2020	Base	2.0			0.13	80	<20	<30	<0.05	<0.3	On-Site
B-58	6/2/2020	Base	4.2			0.13	128	<20	<30	<0.05	<0.3	On-Site
B-59	6/2/2020	Base	4.2			0.19	144	<20	<30	<0.05	<0.3	On-Site
B-60	6/3/2020	Base	3.0			0.13	64	<20	<30	<0.05	<0.3	On-Site
B-201	7/28/2020	Base	4.2			0.13	96	<20	<30	<0.05	<0.3	On-Site
B-202	7/28/2020	Base	4.2			0.10	32	<20	<30	<0.05	<0.3	On-Site
B-203	7/28/2020	Base	2.0			0.25	256	<20	<30	<0.05	<0.3	On-Site
B-204	7/28/2020	Base	1.5			0.23	240	<20	<30	<0.05	<0.3	On-Site
B-205	7/28/2020	Base	1.5			0.13	64	<20	<30	<0.05	<0.3	On-Site
B-206	7/28/2020	Base	1.0			0.14	48	<20	<30	<0.05	<0.3	On-Site
B-207	7/28/2020	Base	1.0			0.23	208	<41.6	<51.6	<0.05	<0.3	On-Site
B-208	7/30/2020	Base	4.2			0.28	256	<20	<30	<0.05	<0.3	On-Site
B-208 Trench	7/30/2020	Base	7.0			0.14	64	<20	<30	<0.05	<0.3	On-Site
B-209	7/30/2020	Base	2.0			0.42	176	<20	<30	<0.05	<0.3	On-Site
Backfill 1 E	5/28/2020	Composite					64	<20	<30	<0.05	<0.3	Backfill Stockpile
Backfill 1 W	5/28/2020	Compoiste					16	<20	<30	<0.05	<0.3	Backfill Stockpile
* Grab sample from base												


# Plates









Source




Hand Auger




Pipeline - Buried




Powerline - Buried




Release Extent (white dash)




Saturated Soil




Overspray




Electrical Box



Oil and Gas (NMOCD)



Oil, Active



Oil, New



0

15

30

Feet



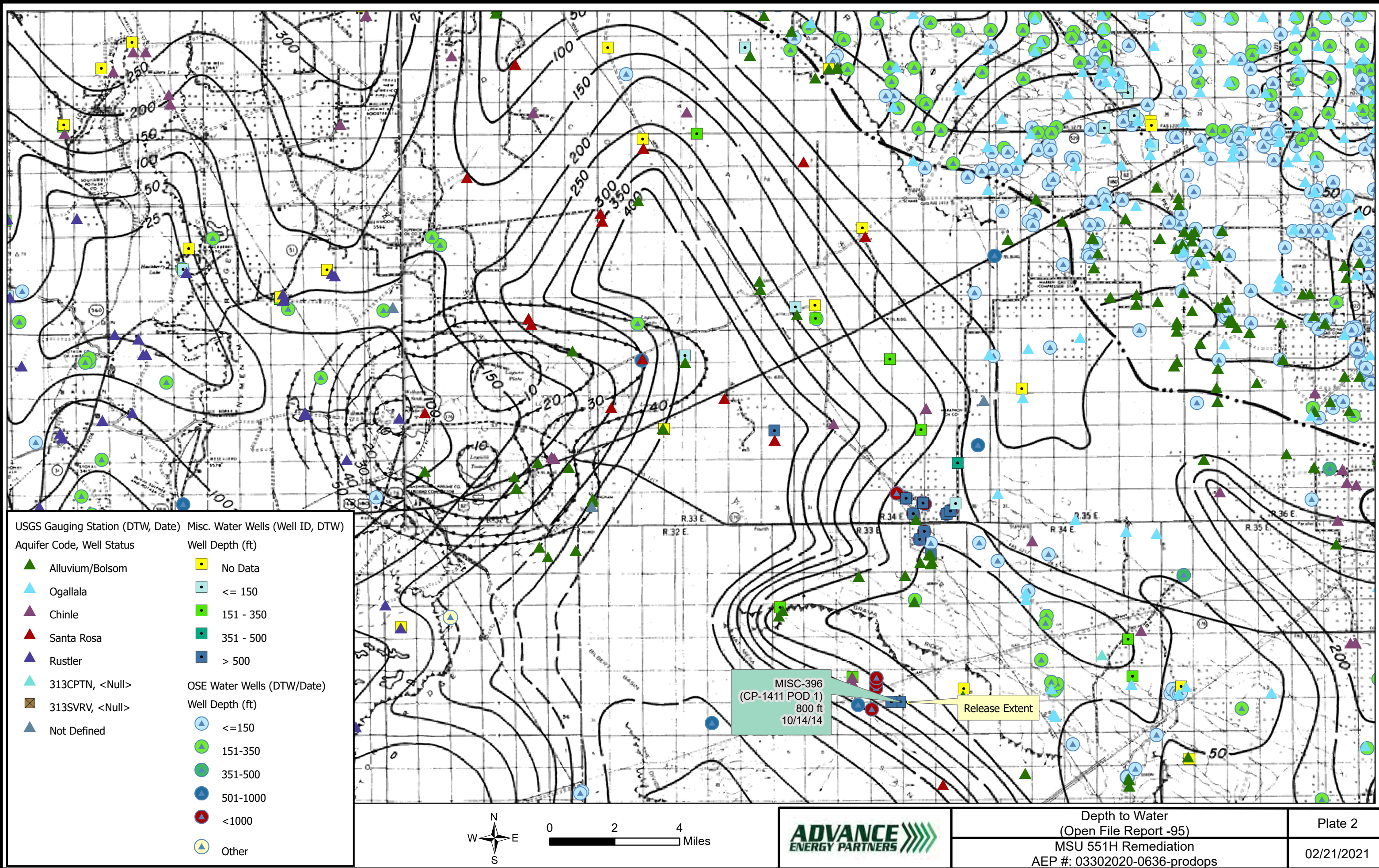
Site Map

MSU 551H Remediation  
AEP #: 03302020-0636-prodops

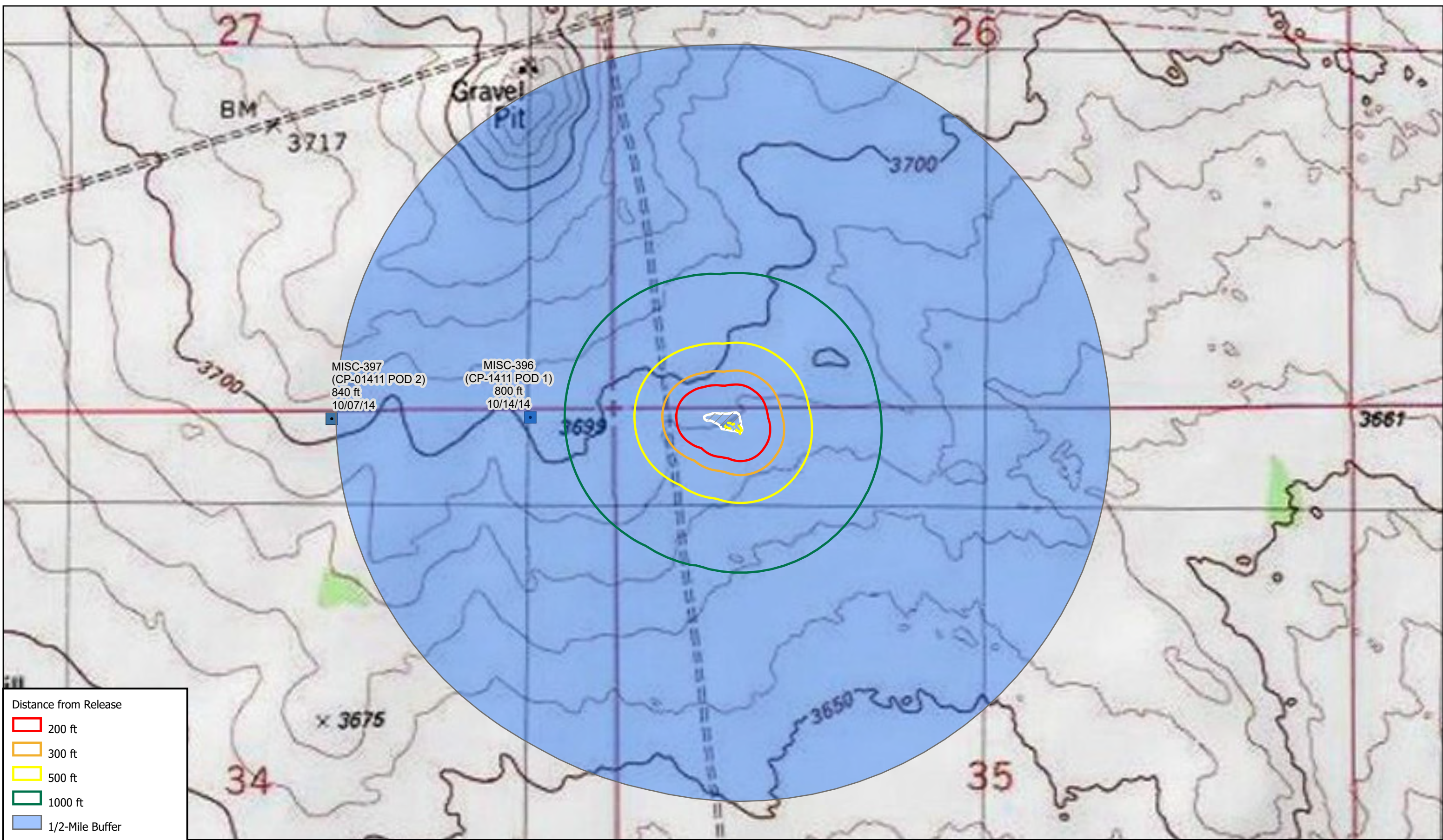
Plate 1

02/21/2021

M:\03302020-0636-prodops MSU 551H\arcGISpro MSU 551H 03302020\arcGISpro MSU 551H 03302020.aprx



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Distance from Release

- 200 ft
- 300 ft
- 500 ft
- 1000 ft
- 1/2-Mile Buffer

Misc. Water Wells (Well ID, DTW)

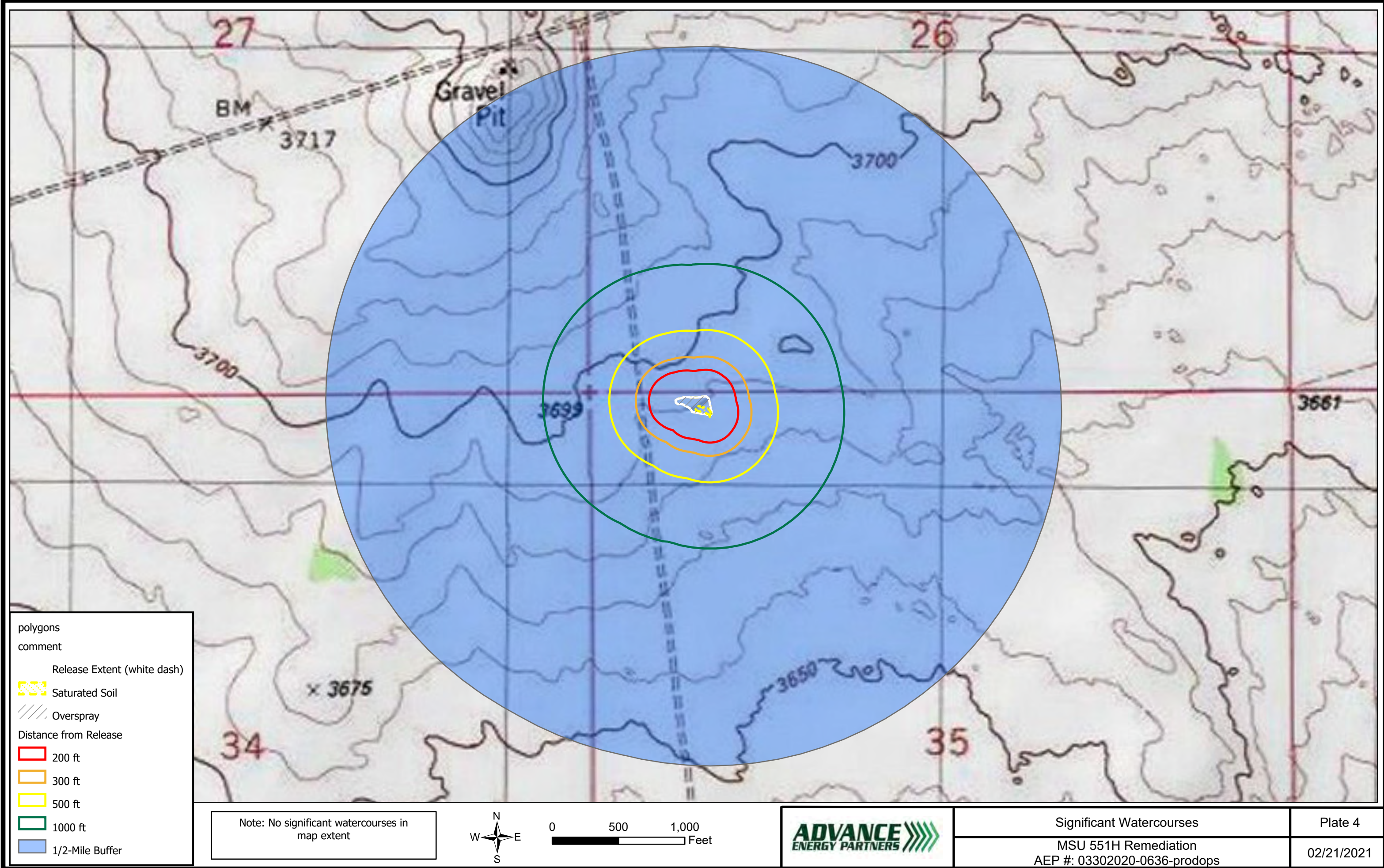
Well Depth (ft)

- > 500

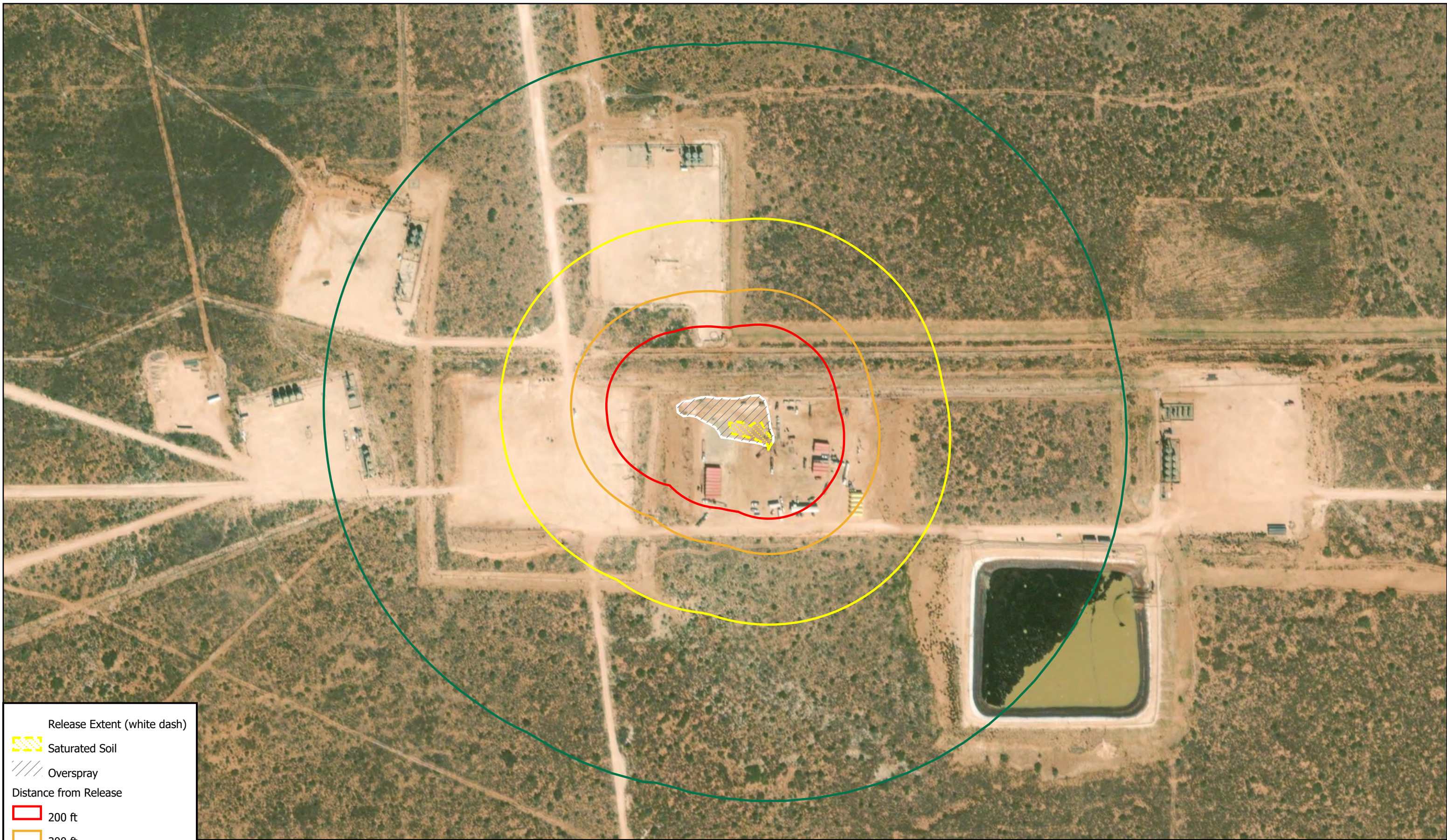
0 500 1,000 Feet

N  
W E  
S


	Wellhead Protection	Plate 3
	MSU 551H Remediation AEP #: 03302020-0636-prodops	02/21/2021




M:\03302020-0636-prodops MSU 551H\arcGISpro MSU 551H 03302020\arcGISpro MSU 551H 03302020.aprx





Release Extent (white dash)


 Saturated Soil


 Overspray

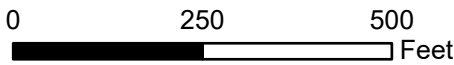
Distance from Release

 200 ft

 300 ft

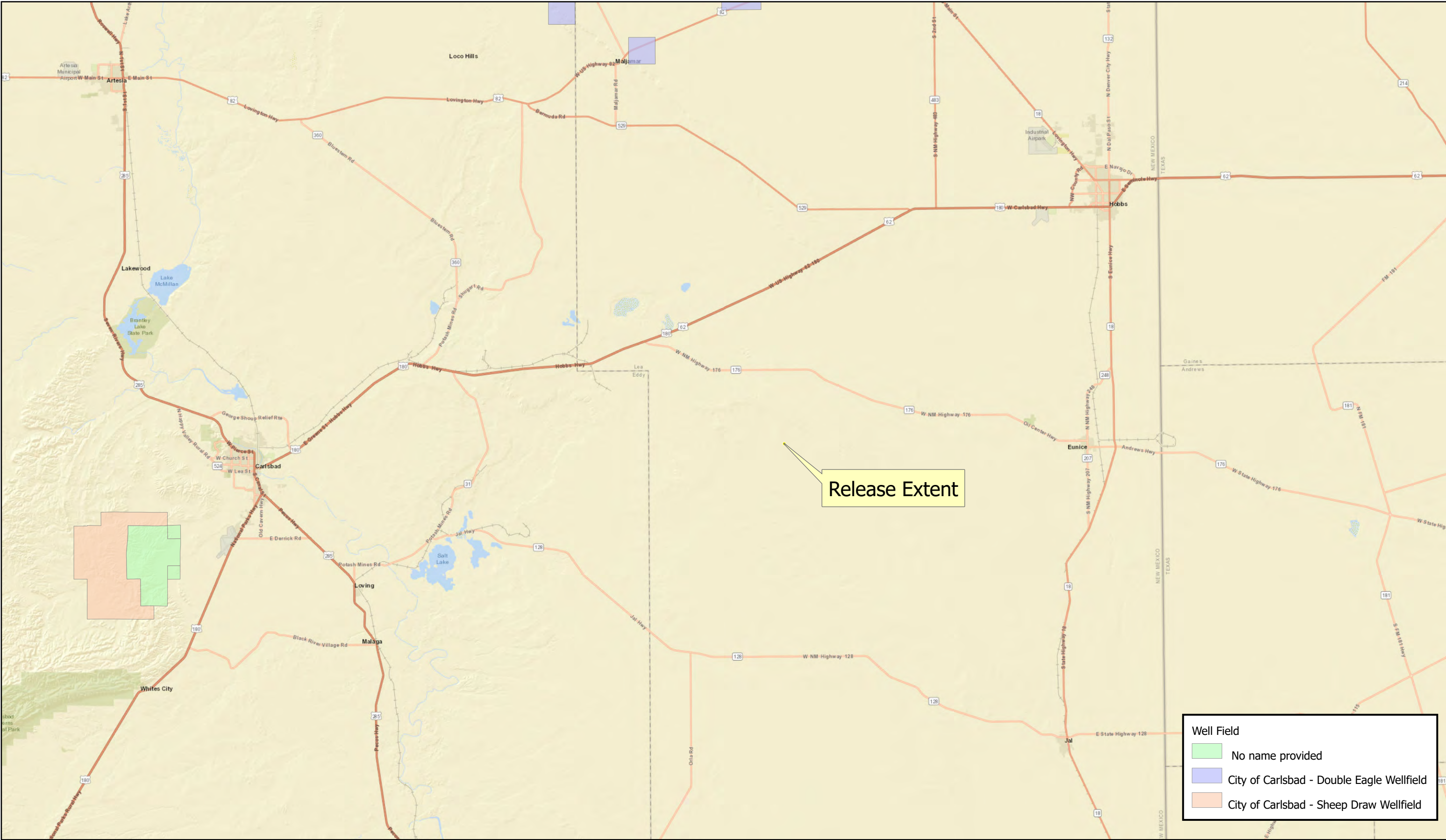
 500 ft

 1000 ft



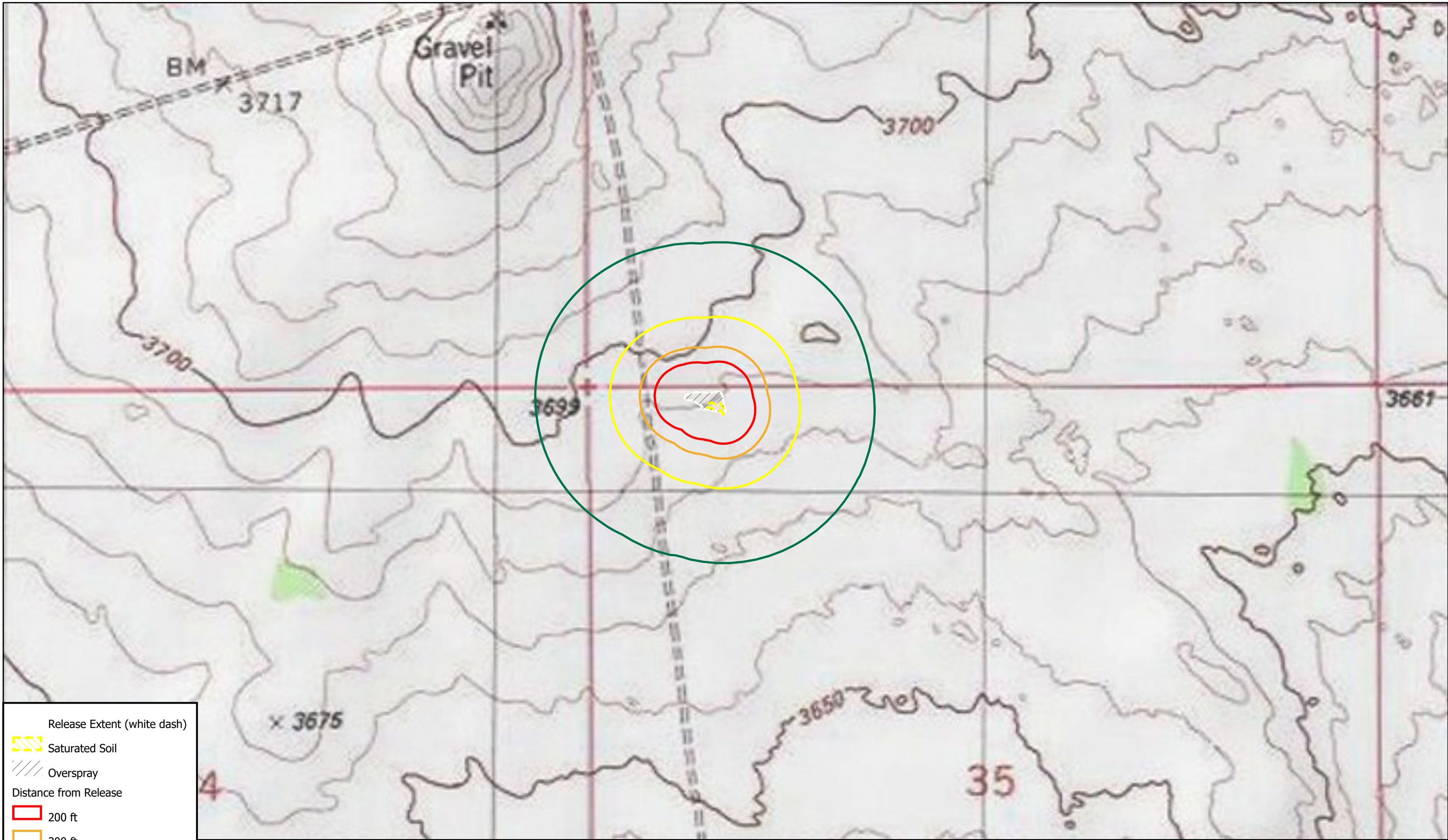
Nearby Structures	
MSU 551H Remediation	
AEP #: 03302020-0636-prodops	

Plate 5
02/21/2021



Well Fields and Municipalities
MSU 551H Remediation AEP #: 03302020-0636-prodops

Plate 6
02/21/2021



Release Extent (white dash)

Saturated Soil

Overspray

Distance from Release

200 ft

300 ft

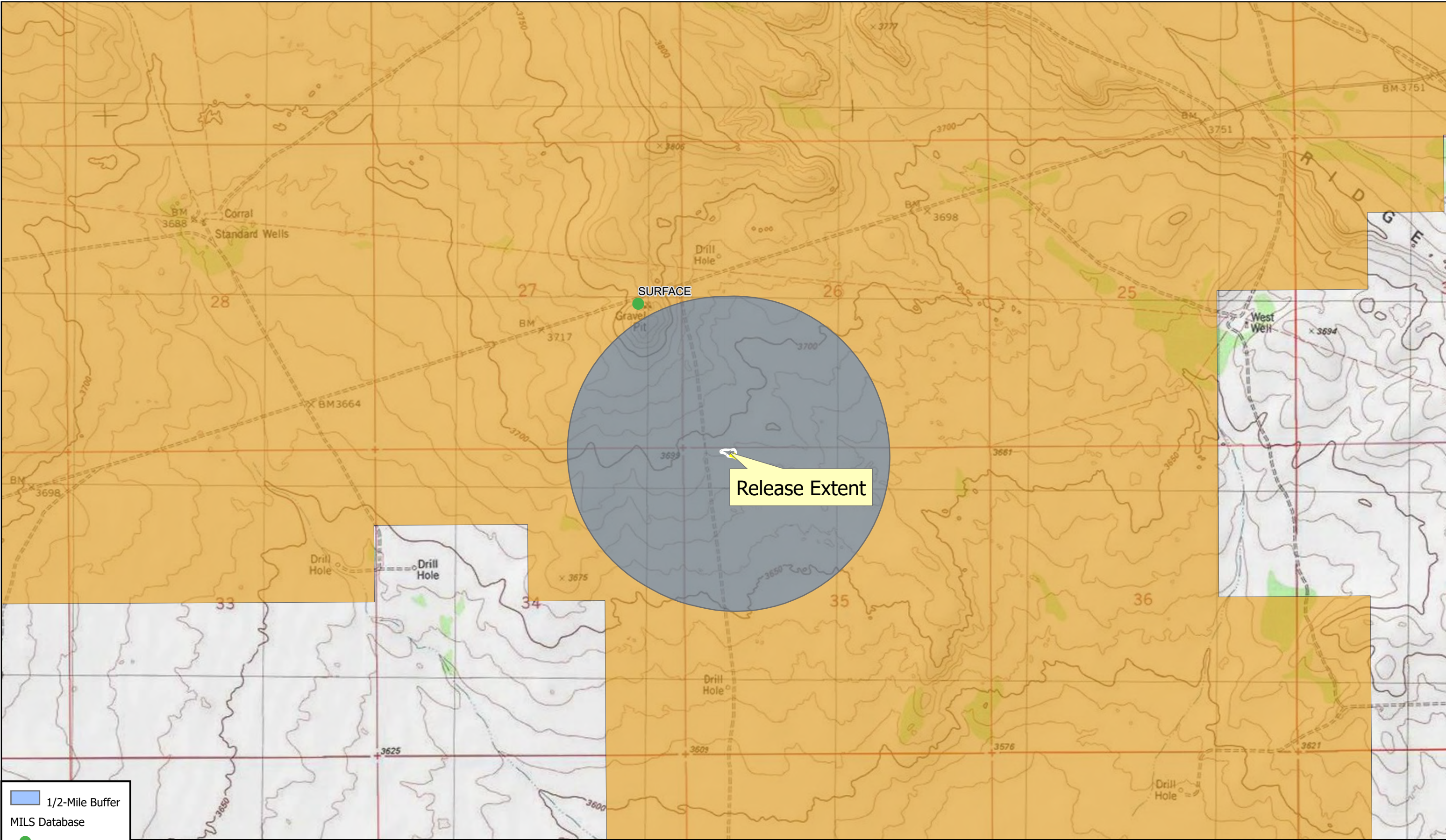
500 ft

1000 ft

Note: No wetlands within map extent



	Wetlands	Plate 7
	MSU 551H Remediation AEP #: 03302020-0636-prodops	02/21/2021



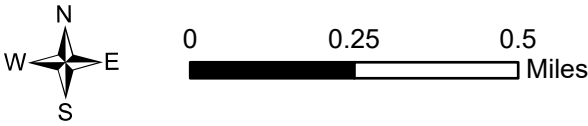
1/2-Mile Buffer


MILS Database

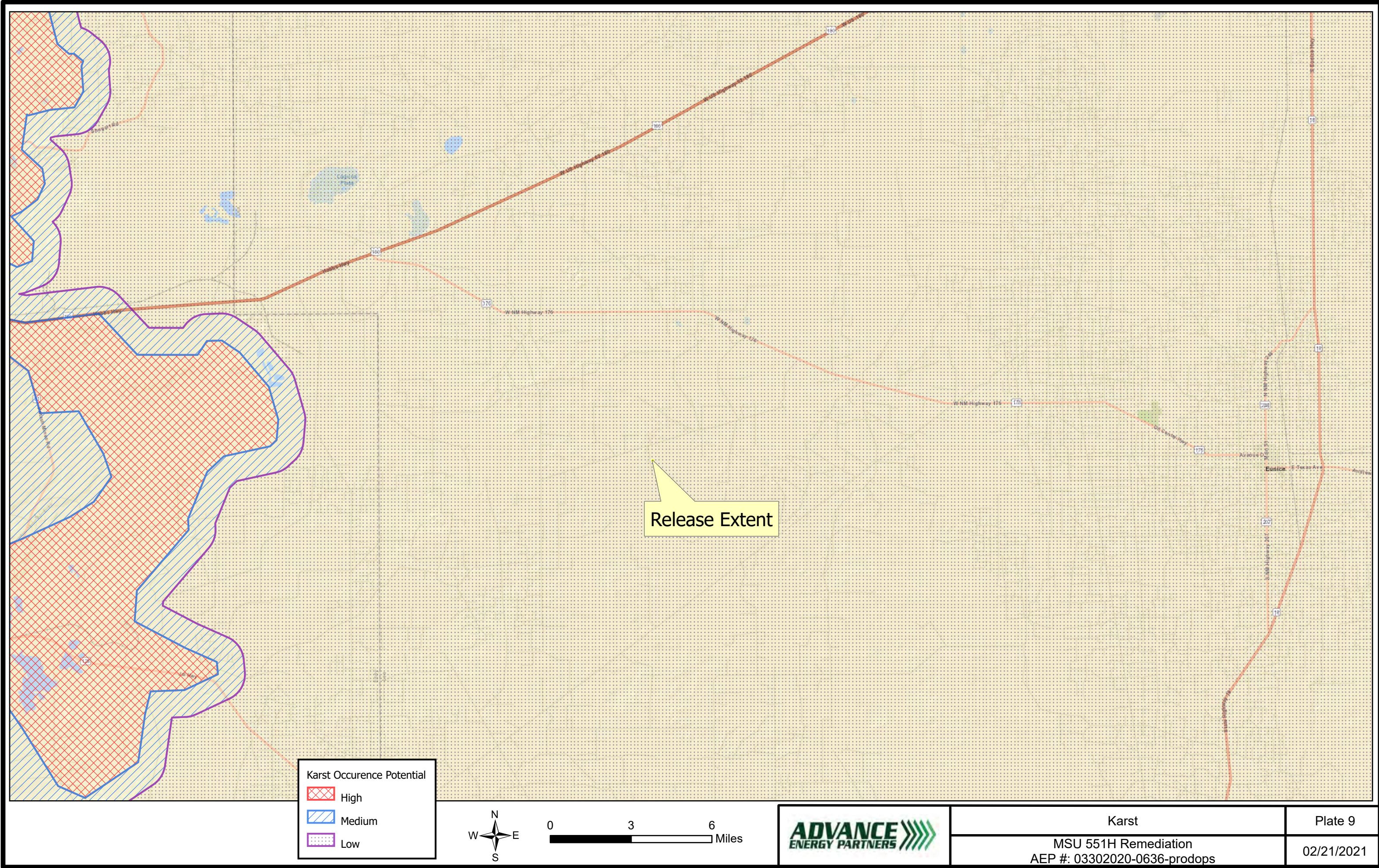
SURFACE

Potash District

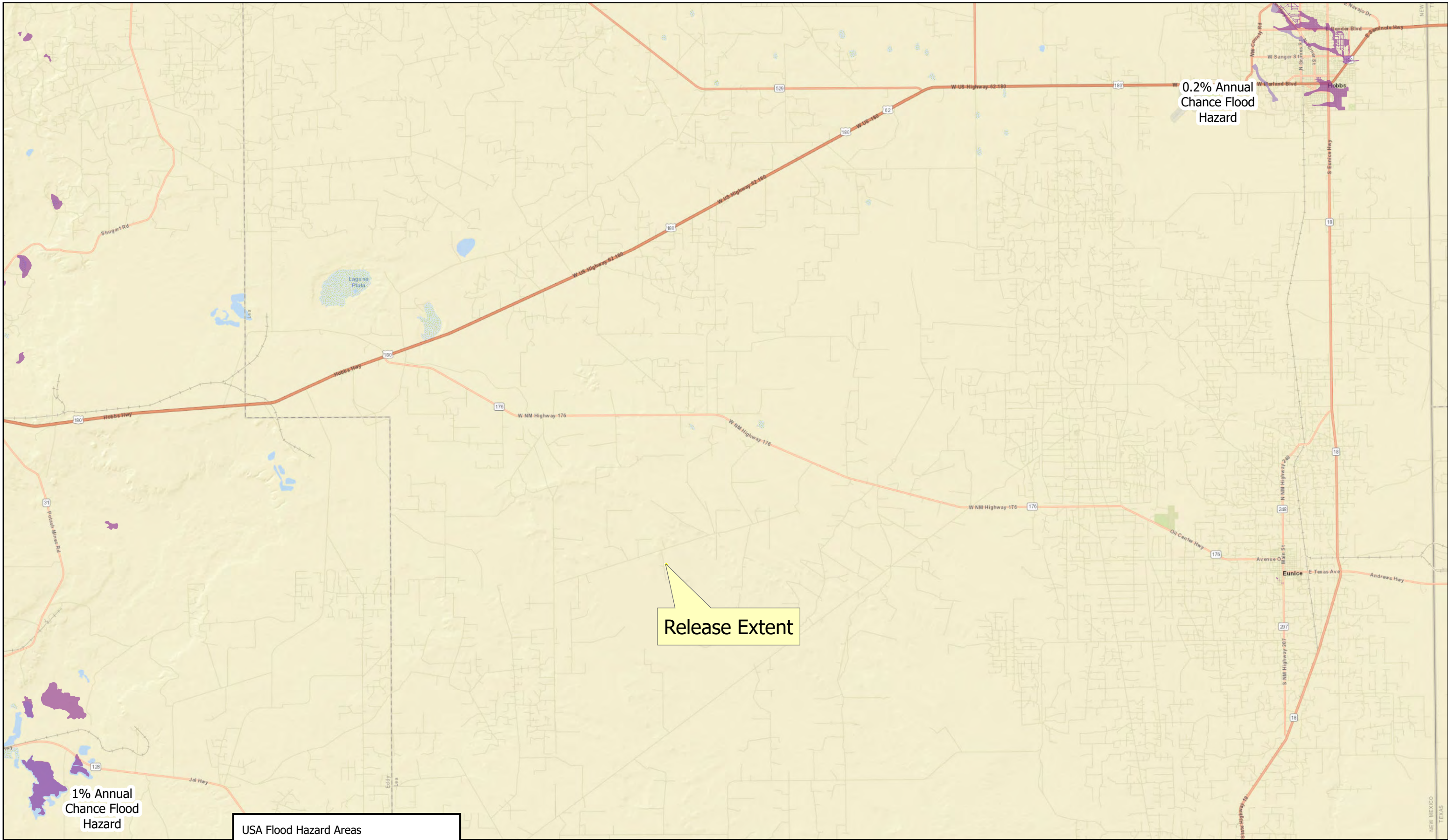
POTASH MAIN



	Mines and Minerals	Plate 8
	MSU 551H Remediation AEP #: 03302020-0636-prodops	02/21/2021



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USA Flood Hazard Areas

- 1% Annual Chance Flood Hazard
- 0.2% Annual Chance Flood Hazard



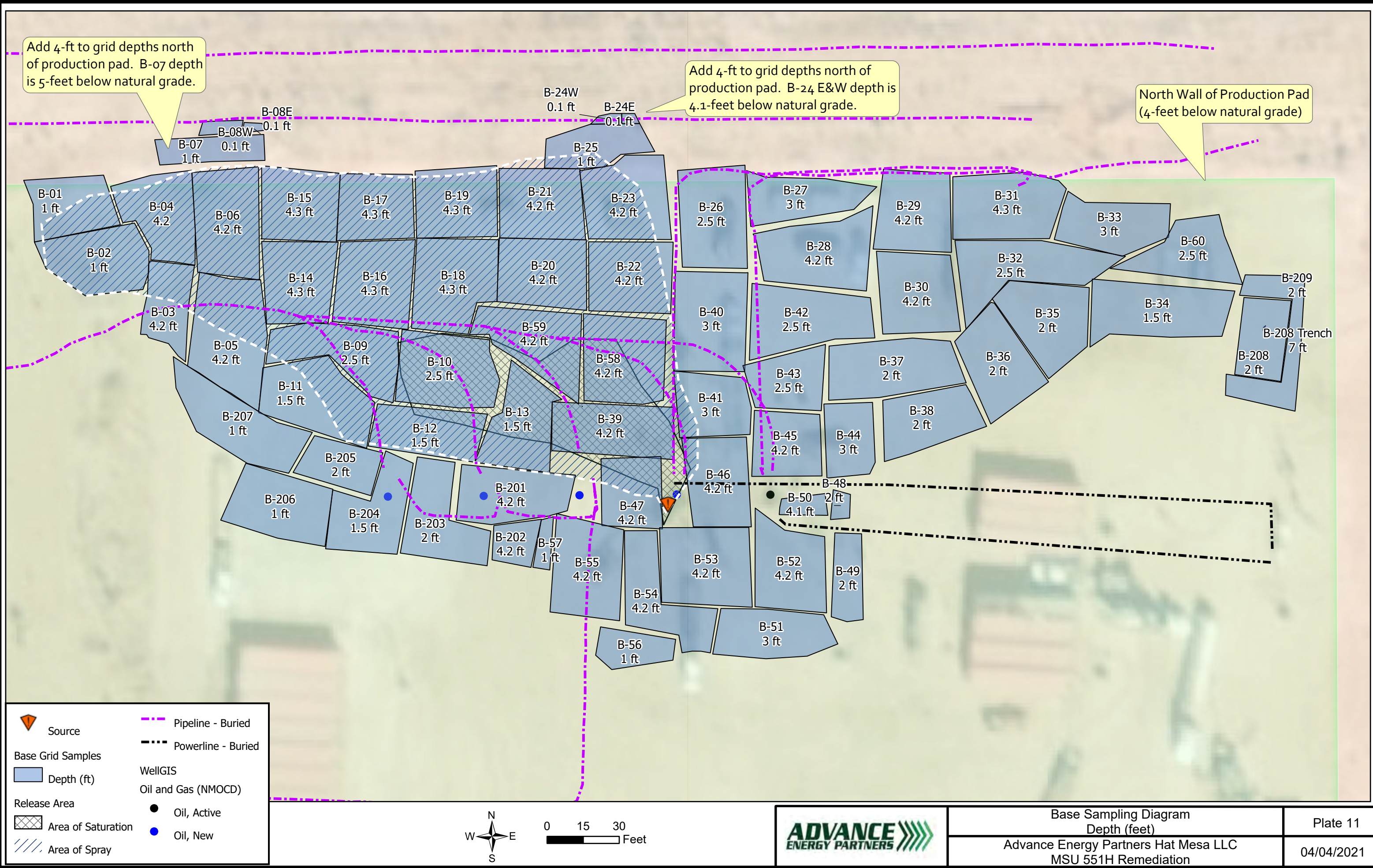
0 3 6 Miles



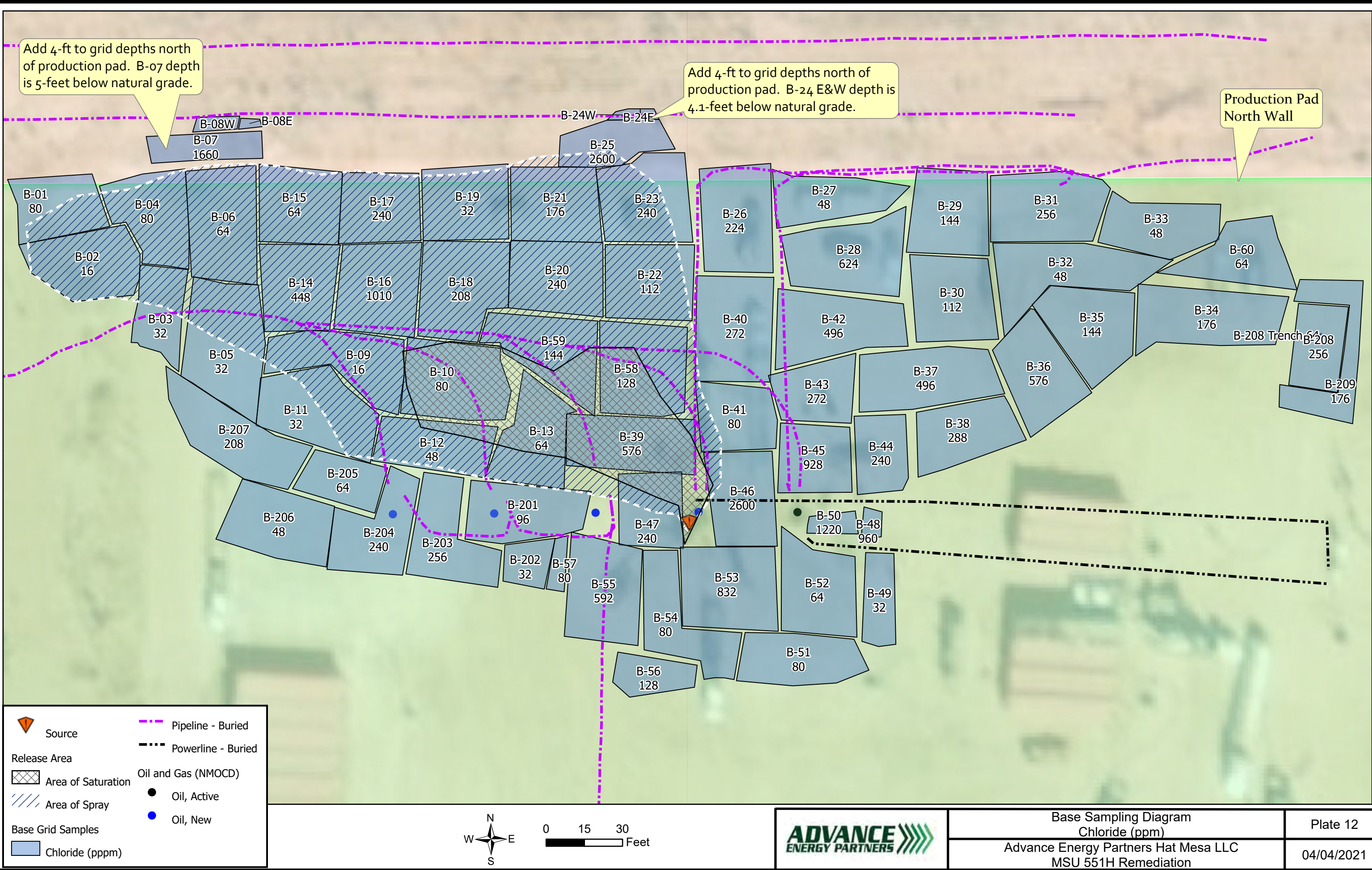
Flood Hazards
MSU 551H Remediation AEP #: 03302020-0636-prodops

Plate 10
02/21/2021

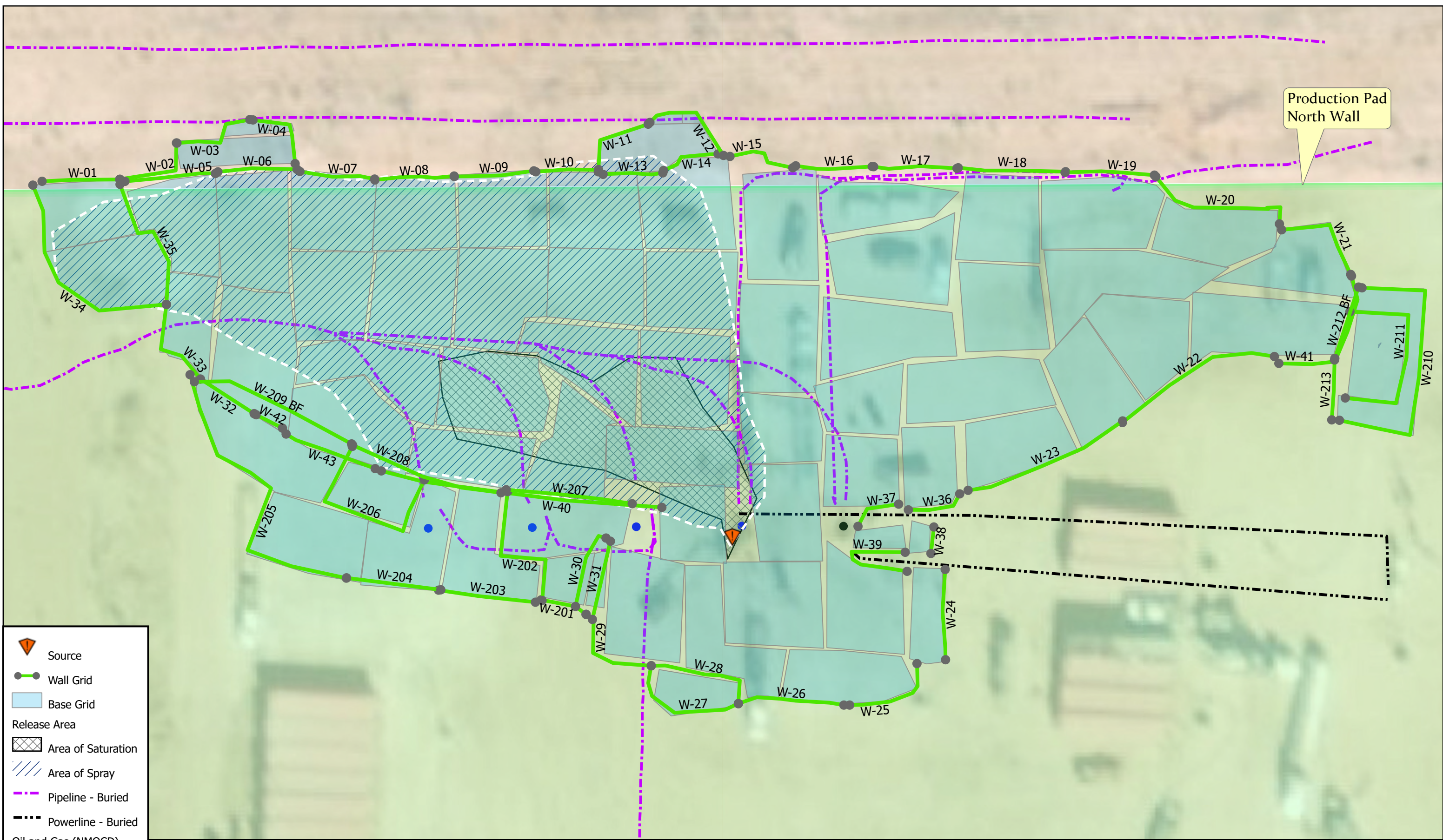
M:\03302020-0636-prodops MSU 551H\arcGISpro MSU 551H 03302020\arcGISpro MSU 551H 03302020.aprx



M:\03302020-0636-prodops MSU 551H\arcGISpro MSU 551H 03302020\arcGISpro MSU 551H 03302020.aprx



W:\03302020-0636-prodops MSU 551H\arcGISpro MSU 551H 03302020\arcGISpro MSU 551H 03302020.aprx



Source

Wall Grid

Base Grid

Release Area

Area of Saturation

Area of Spray

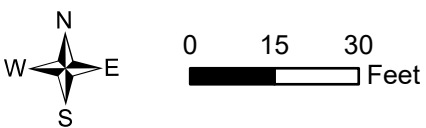
Pipeline - Buried

Powerline - Buried

Oil and Gas (NMOCD)

Oil, Active

Oil, New



Wall Sampling Diagram	Plate 13
Advance Energy Partners Hat Mesa LLC MSU 551H Remediation	04/04/2021

# Appendix A


## Well Logs





# New Mexico Office of the State Engineer

## Point of Diversion Summary

		(quarters are 1=NW 2=NE 3=SW 4=SE)					(NAD83 UTM in meters)		
		(quarters are smallest to largest)							
Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
	C 02096	2	3	14	22S	32E	627204	3584464*	
x									
Driller License:		Driller Company:							
Driller Name:		JOHN H. TRIGG CO.							
Drill Start Date:		Drill Finish Date:		12/31/1963		Plug Date:			
Log File Date:		PCW Rcv Date:				Source:			
Pump Type:		Pipe Discharge Size:				Estimated Yield: 25 GPM			
Casing Size:	7.00	Depth Well:		435 feet		Depth Water:		360 feet	
x									

\*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



# New Mexico Office of the State Engineer

## Point of Diversion Summary

		(quarters are 1=NW 2=NE 3=SW 4=SE)							
		(quarters are smallest to largest)						(NAD83 UTM in meters)	
<b>Well Tag</b>	<b>POD Number</b>	<b>Q64</b>	<b>Q16</b>	<b>Q4</b>	<b>Sec</b>	<b>Tws</b>	<b>Rng</b>	<b>X</b>	<b>Y</b>
C	02821	2	2	3	14	22S	32E	627303	3584563* 

---

x	
<b>Driller License:</b>	1348
<b>Driller Company:</b>	TAYLOR WATER WELL SERVICE
<b>Driller Name:</b>	
<b>Drill Start Date:</b>	06/12/2001
<b>Drill Finish Date:</b>	06/23/2001
<b>Plug Date:</b>	
<b>Log File Date:</b>	10/04/2001
<b>PCW Rcv Date:</b>	
<b>Source:</b>	Shallow
<b>Pump Type:</b>	
<b>Pipe Discharge Size:</b>	
<b>Estimated Yield:</b>	2 GPM
<b>Casing Size:</b>	5.00
<b>Depth Well:</b>	540 feet
<b>Depth Water:</b>	340 feet

---

x	
<b>Water Bearing Stratifications:</b>	<b>Top</b> <b>Bottom</b> <b>Description</b>
	410 540 Sandstone/Gravel/Conglomerate

---

x	
<b>Casing Perforations:</b>	<b>Top</b> <b>Bottom</b>
	410 430
	440 540

---

x  
\*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

Revised December 1975

IMPORTANT — READ INSTRUCTIONS ON BACK BEFORE FILLING OUT THIS FORM.

## Declaration of Owner of Underground Water Right

CAPITAN BASIN  
BASIN NAME

Declaration No. CP-601

Date received April 17, 1979

STATE ENGINEER OFFICE  
SANTA FE, N.M. 87501

## STATEMENT

1. Name of Declarant THE MERCHANT LIVESTOCK COMPANY  
Mailing Address P.O. Box 548 Carlsbad  
County of Eddy, State of New Mexico
2. Source of water supply shallow  
(artesian or shallow water aquifer)
3. Describe well location under one of the following subheadings:  
a.  $\frac{1}{4}$  NE  $\frac{1}{4}$  NW  $\frac{1}{4}$  of Sec. 28 Twp. 21S Rge. 33-E N.M.P.M., in  
Lea County.  
b. Tract No. \_\_\_\_\_ of Map No. \_\_\_\_\_ of the \_\_\_\_\_  
c. X = \_\_\_\_\_ feet, Y = \_\_\_\_\_ feet, N. M. Coordinate System \_\_\_\_\_ Zone  
in the \_\_\_\_\_ Grant.  
On land owned by \_\_\_\_\_
4. Description of well: date drilled 1952 driller \_\_\_\_\_ depth 223 feet.  
outside diameter of casing 6 5/8 inches; original capacity \_\_\_\_\_ gal. per min.; present capacity 3  
gal. per min.; pumping lift \_\_\_\_\_ feet; static water level 178 feet (above) (below) land surface;  
make and type of pump \_\_\_\_\_  
make, type, horsepower, etc., of power plant \_\_\_\_\_  
Fractional or percentage interest claimed in well 100%
5. Quantity of water appropriated and beneficially used up to 3  
(~~acre feet per annum~~) (acre feet per annum)  
for stock water purposes.
6. Acreage actually irrigated \_\_\_\_\_ acres, located and described as follows (describe only lands actually irrigated):

Subdivision	Sec.	Twp.	Range	Acres Irrigated	Owner
			<u>stock only</u>		<u>The Merchant Livestock Co.</u>

(Note: location of well and acreage actually irrigated must be shown on plat on reverse side.)

7. Water was first applied to beneficial use \_\_\_\_\_ 1952 \_\_\_\_\_ and since that time  
month day year  
has been used fully and continuously on all of the above described lands or for the above described purposes except  
as follows: \_\_\_\_\_

8. Additional statements or explanations \_\_\_\_\_

name of well - Standard

I, J. D. Merchant, Jr., President being first duly sworn upon my oath, depose and say that the above is a full and complete statement prepared in accordance with the instructions on the reverse side of this form and submitted in evidence of ownership of a valid underground water right, that I have carefully read each and all of the items contained therein and that the same are true to the best of my knowledge and belief.

THE MERCHANT LIVESTOCK CO. declarant.by: J. D. Merchant, Jr., President  
day of April, A.D. 1979Subscribed and sworn to before me this 12thMy commission expires March 2, 1980

Notary Public

FILED

UNDER NEW MEXICO LAW A DECLARATION IS ONLY A STATEMENT OF DECLARANT'S CLAIM.  
ACCEPTANCE FOR FILING DOES NOT CONSTITUTE APPROVAL OR REJECTION OF THE CLAIM.

Locate well and areas actually irrigated as accurately as possible on following plat:

Section (s) \_\_\_\_\_, Township \_\_\_\_\_, Range \_\_\_\_\_ N. M. P. M.


#### 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.

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.

Sec. 6. Describe only the acreage actually irrigated. When necessary to clearly define irrigated acreages, describe to nearest  $2\frac{1}{2}$  acre subdivision. If located on unsurveyed lands, describe by legal subdivision "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.

SF

EL

\*70 APR 20 PM 3 00

April 17, 1979

STATE ENGINEER OFFICE  
CARLSBAD, N.M. 81501

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




# New Mexico Office of the State Engineer

## Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

<b>Well Tag</b>	<b>POD Number</b>	<b>Q64 Q16 Q4</b>	<b>Sec</b>	<b>Tws</b>	<b>Rng</b>	<b>X</b>	<b>Y</b>
CP 00854	POD1	1 1 2	33	21S	33E	633879	3590223 

<b>Driller License:</b>	421	<b>Driller Company:</b>	GLENN'S WATER WELL SERVICE	
<b>Driller Name:</b>	GLENN, CLARK A."CORKY" (LD)			
<b>Drill Start Date:</b>	06/22/1996	<b>Drill Finish Date:</b>	06/22/1996	<b>Plug Date:</b>
<b>Log File Date:</b>	07/11/1996	<b>PCW Rcv Date:</b>	10/17/2013	<b>Source:</b> Shallow
<b>Pump Type:</b>	SUBMER	<b>Pipe Discharge Size:</b>	2.875	<b>Estimated Yield:</b> 100 GPM
<b>Casing Size:</b>	6.63	<b>Depth Well:</b>	950 feet	<b>Depth Water:</b> 600 feet

<b>Water Bearing Stratifications:</b>	<b>Top</b>	<b>Bottom</b>	<b>Description</b>
	755	805	Sandstone/Gravel/Conglomerate
	860	890	Sandstone/Gravel/Conglomerate

<b>Casing Perforations:</b>	<b>Top</b>	<b>Bottom</b>
	760	950

<b>Meter Number:</b>	8514	<b>Meter Make:</b>	BLANCETT
<b>Meter Serial Number:</b>	040711711	<b>Meter Multiplier:</b>	1.0000
<b>Number of Dials:</b>	7	<b>Meter Type:</b>	Diversion
<b>Unit of Measure:</b>	Barrels 42 gal.	<b>Return Flow Percent:</b>	
<b>Usage Multiplier:</b>		<b>Reading Frequency:</b>	Quarterly

### Meter Readings (in Acre-Feet)

Read Date	Year	Mtr Reading	Flag	Rdr	Comment	Mtr Amount
03/15/2004	2004	121	A	jw		0
03/29/2004	2004	69871	A	jw		0
05/17/2004	2004	8758	A	jw		2.651
06/11/2004	2004	79641	A	jw		2.998
01/27/2012	2012	18062553	A	RPT	Initial reading	0
03/01/2012	2012	19039807	A	RPT		2.999
05/29/2013	2013	179696	A	RPT	initial reading	0
10/07/2013	2013	460774	A	RPT	Qtr IV 2013	36.229
11/11/2013	2013	540326	A	RPT		10.254
01/01/2014	2013	614283	A	RPT		9.533
10/01/2014	2014	1122654	A	RPT		65.526
01/01/2015	2014	1212343	A	RPT		11.560
03/31/2015	2015	1307063	A	RPT		12.209
06/27/2015	2015	1369556	A	RPT		8.055

**Meter Readings (in Acre-Feet)**

Read Date	Year	Mtr Reading	Flag	Rdr Comment	Mtr Amount
09/30/2015	2015	1371471	A	RPT	0.247
10/22/2015	2015	1400502	A	RPT	3.742
11/30/2015	2015	1400502	A	RPT	0
04/28/2016	2016	1464116	A	RPT "JD33 Well"	8.199
06/01/2016	2016	1464116	A	RPT	0
07/27/2016	2016	1496980	A	RPT JD33 Well	4.236
09/01/2016	2016	1510835	A	RPT JD 33 Well	1.786
09/30/2016	2016	1517146	A	RPT	0.813
10/31/2016	2016	1531178	A	RPT JD 33 well	1.809
11/29/2016	2016	1553285	A	RPT JD33 Well	2.849
03/01/2017	2017	1583100	A	RPT	3.843

---

<b>**YTD Meter Amounts:</b>	<b>Year</b>	<b>Amount</b>
	2004	5.649
	2012	2.999
	2013	56.016
	2014	77.086
	2015	24.253
	2016	19.692
	2017	3.843


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# New Mexico Office of the State Engineer

## Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)  
 (quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
CP 01349	POD1	2	3	1	27	21S	33E	635304	3591576 

<b>Driller License:</b> 421	<b>Driller Company:</b> GLENN'S WATER WELL SERVICE
<b>Driller Name:</b> GLENN, CLARK A."CORKY"	
<b>Drill Start Date:</b> 07/12/2014	<b>Drill Finish Date:</b> 07/18/2014
<b>Log File Date:</b> 08/04/2014	<b>PCW Rcv Date:</b>
<b>Pump Type:</b>	<b>Estimated Yield:</b>
<b>Casing Size:</b> 7.00	<b>Depth Well:</b> 1188 feet
	<b>Depth Water:</b> 572 feet

Water Bearing Stratifications:	Top	Bottom	Description
	990	1188	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	721	1188

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.

3/5/19 2:09 PM

Page 1 of 1

POD SUMMARY - CP 01349 POD1



# WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

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STATE ENGINEER OFFICE  
SOSWELL, NEW MEXICO

2014 SEP 10 PM 2:15

1. GENERAL AND WELL LOCATION	OSE POD NUMBER (WELL NUMBER) CP-1355 (East Standard South) *** Revised 09/09/14 ***				OSE FILE NUMBER(S)			
	WELL OWNER NAME(S) Merchants/Glenn's Water Well Service, Inc.				PHONE (OPTIONAL) 575-398-2424			
	WELL OWNER MAILING ADDRESS P. O. Box 692				CITY Tatum		STATE NM	ZIP 88267
	WELL LOCATION (FROM GPS)	DEGREES LATITUDE 32	MINUTES 26	SECONDS 54.8 N	* ACCURACY REQUIRED: ONE TENTH OF A SECOND * DATUM REQUIRED: WGS 84			
		LONGITUDE 103	33	58.3 W				
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS - PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE NE1/4NW1/4SW1/4 Section 27, Township 21 South, Range 33 East on Merchants Livestock Land								
2. DRILLING & CASING INFORMATION	LICENSE NUMBER WD 421		NAME OF LICENSED DRILLER Corky Glenn			NAME OF WELL DRILLING COMPANY Glenn's Water Well Service, Inc.		
	DRILLING STARTED 07/22/14	DRILLING ENDED 07/29/14	DEPTH OF COMPLETED WELL (FT) 1,192'	BORE HOLE DEPTH (FT) 1,192'	DEPTH WATER FIRST ENCOUNTERED (FT) 925'			
	COMPLETED WELL IS: <input checked="" type="radio"/> ARTESIAN <input type="radio"/> DRY HOLE <input type="radio"/> SHALLOW (UNCONFINED)					STATIC WATER LEVEL IN COMPLETED WELL (FT) 582'		
	DRILLING FLUID: <input checked="" type="radio"/> AIR <input type="radio"/> MUD ADDITIVES - SPECIFY:							
	DRILLING METHOD: <input checked="" type="radio"/> ROTARY <input type="radio"/> HAMMER <input type="radio"/> CABLE TOOL <input type="radio"/> OTHER - SPECIFY:							
	DEPTH (feet bgl)		BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
	FROM	TO						
	0'	40'	20"	16"	None	15 1/2"	.250	
	0'	757'	14 3/4"	9 5/8"	Thread & Collar	8.921"	36 lbs.	none
	690'	1,192'	8 3/4"	7" (502.14' Total)	Thread & Collar	6.366"	23 lbs.	1/8"
			317.96 perforated					
			on bottom of liner					
3. ANNULAR MATERIAL	DEPTH (feet bgl)		BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT		
	FROM	TO						
	0'	40'	20"	Cemented	2 yds.	Top Pour		
	0	757'	14 3/4"	Float and shoe cemented to surface	962	Circulated		

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 06/08/2012)

FILE NUMBER CP-1355	POD NUMBER 1	TRN NUMBER 549450
LOCATION Expl	215.33E.27.312	

PAGE 1 OF 2

[illegible]

FOR OSE INTERNAL USE		WR-20 WELL RECORD & LOG (Version 06/08/2012)	
FILE NUMBER	CP-1355	POD NUMBER	1
LOCATION	215.33 E 27.312		TRN NUMBER
			549450
			PAGE 2 OF 2



# WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

[www.ose.state.nm.us](http://www.ose.state.nm.us)

1. GENERAL AND WELL LOCATION	OSE POD NUMBER (WELL NUMBER) CP - 1355 East Standard (South)				OSE FILE NUMBER(S)			
	WELL OWNER NAME(S) Merchants Livestock/Glenn's Water Well Service, Inc.				PHONE (OPTIONAL) (575)398-2424			
	WELL OWNER MAILING ADDRESS P.O. Box 692				CITY Tatum		STATE NM	ZIP 88267
	WELL LOCATION (FROM GPS)	DEGREES 32	MINUTES 26	SECONDS 54.8	N	* ACCURACY REQUIRED: ONE TENTH OF A SECOND		
	LONGITUDE	103	33	58.3	W	* DATUM REQUIRED: WGS 84		
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS - PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE NE/NW/SW Sec. 27, T21S, R33E on Merchants Livestock Land								
2. DRILLING & CASING INFORMATION	LICENSE NUMBER WD 421		NAME OF LICENSED DRILLER Corky Glenn			NAME OF WELL DRILLING COMPANY Glenn's Water Well Service, Inc.		
	DRILLING STARTED 7/29/14		DRILLING ENDED 8/2/14		DEPTH OF COMPLETED WELL (FT) 1192'		BORE HOLE DEPTH (FT) 1192'	
					DEPTH WATER FIRST ENCOUNTERED (FT) 925'			
	COMPLETED WELL IS: <input checked="" type="radio"/> ARTESIAN <input type="radio"/> DRY HOLE <input type="radio"/> SHALLOW (UNCONFINED)						STATIC WATER LEVEL IN COMPLETED WELL (FT) 582'	
	DRILLING FLUID: <input type="radio"/> AIR <input type="radio"/> MUD ADDITIVES - SPECIFY:							
	DRILLING METHOD: <input checked="" type="radio"/> ROTARY <input type="radio"/> HAMMER <input type="radio"/> CABLE TOOL <input type="radio"/> OTHER - SPECIFY:							
	DEPTH (feet bgl)		BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
	FROM	TO						
	0'	40'	20"	16"	None	15 1/2"	.250	
	0'	757'	14 3/4"	9 5/8"	Thread and Collar	.352	36 lbs.	none
757'	1192'	8 3/4"	7"	Thread and Collar	6.5"	23 lbs.	1/8"	
3. ANNULAR MATERIAL	DEPTH (feet bgl)		BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT		
	FROM	TO						
	0'	40'	20"	Cemented	2 yds	Top Pour		
	0'	757'	14 3/4"	Float and Shoe Cemented to Surface	1034	Circulated		

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 06/08/2012)


FILE NUMBER	CP-1355	POD NUMBER	1	TRN NUMBER	549450
LOCATION	Exp	21S.33E.27.312			PAGE 1 OF 2

DEPTH (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)	ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm)	
					FROM
0'	4'	4'	Soil	<input type="radio"/> Y <input checked="" type="radio"/> N	
4'	28'	24'	Caleche	<input type="radio"/> Y <input checked="" type="radio"/> N	
28'	120'	92'	Sand and Clay	<input type="radio"/> Y <input checked="" type="radio"/> N	
120'	260'	140'	Red Clay	<input type="radio"/> Y <input checked="" type="radio"/> N	
260'	757'	497'	Red and Brown Shale and Clay(some blue)	<input type="radio"/> Y <input checked="" type="radio"/> N	
757'	815'	58'	Red and Brown Shale	<input type="radio"/> Y <input checked="" type="radio"/> N	
815'	840'	25'	Blue Clay and Shale	<input type="radio"/> Y <input checked="" type="radio"/> N	
840'	925'	85'	Red and Brown Shale(some sandrock)	<input type="radio"/> Y <input checked="" type="radio"/> N	
925'	975'	50'	Watersand and Gravel	<input checked="" type="radio"/> Y <input type="radio"/> N	
975'	1185'	210'	Watersand(brown sandrock)	<input checked="" type="radio"/> Y <input type="radio"/> N	
1185'	1192'	7'	Red Shale	<input type="radio"/> Y <input checked="" type="radio"/> N	
				<input type="radio"/> Y <input type="radio"/> N	
				<input type="radio"/> Y <input type="radio"/> N	
				<input type="radio"/> Y <input type="radio"/> N	
				<input type="radio"/> Y <input type="radio"/> N	
				<input type="radio"/> Y <input type="radio"/> N	
				<input type="radio"/> Y <input type="radio"/> N	
				<input type="radio"/> Y <input type="radio"/> N	
				<input type="radio"/> Y <input type="radio"/> N	
				<input type="radio"/> Y <input type="radio"/> N	
				<input type="radio"/> Y <input type="radio"/> N	
				<input type="radio"/> Y <input type="radio"/> N	
				<input type="radio"/> Y <input type="radio"/> N	
METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA: <input checked="" type="radio"/> PUMP			TOTAL ESTIMATED WELL YIELD (gpm): 50		
<input type="radio"/> AIR LIFT <input type="radio"/> BAILER <input type="radio"/> OTHER - SPECIFY:					

5. TEST; RIG SUPERVISION	WELL TEST	TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.
	MISCELLANEOUS INFORMATION:	
	0' to 757' drilled with mud. 757' to 1192' drilled with air and foam.	
PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE:		

6. SIGNATURE	THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 20 DAYS AFTER COMPLETION OF WELL DRILLING:	
	<div style="display: flex; justify-content: space-between;"> <div>             SIGNATURE OF DRILLER / PRINT SIGNEE NAME         </div> <div>           8/7/14            DATE         </div> </div>	

FOR USE INTERNAL USE

WR-20 WELL RECORD &amp; LOG (Version 06/08/2012)

FILE NUMBER	CP-1355	POD NUMBER	1	TRN NUMBER	549450
LOCATION	Exp1	215.33E.27.312			PAGE 2 OF 2



# New Mexico Office of the State Engineer

## Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)  
 (quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
CP 01356	POD1	4	2	2	33	21S	33E	634560	3590014

<b>Driller License:</b> 421	<b>Driller Company:</b> GLENN'S WATER WELL SERVICE
<b>Driller Name:</b> GLENN, CLARK A."CORKY"	
<b>Drill Start Date:</b> 08/01/2014	<b>Drill Finish Date:</b> 08/09/2014
<b>Log File Date:</b> 08/25/2014	<b>PCW Rcv Date:</b>
<b>Pump Type:</b>	<b>Estimated Yield:</b>
<b>Casing Size:</b> 6.37	<b>Depth Well:</b> 1098 feet
	<b>Depth Water:</b> 555 feet

Water Bearing Stratifications:	Top	Bottom	Description
	765	795	Sandstone/Gravel/Conglomerate
	795	825	Shale/Mudstone/Siltstone
	825	920	Sandstone/Gravel/Conglomerate
	920	935	Shale/Mudstone/Siltstone
	935	968	Sandstone/Gravel/Conglomerate
	968	976	Shale/Mudstone/Siltstone
	976	1005	Sandstone/Gravel/Conglomerate
	1005	1092	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	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.

3/5/19 1:52 PM

Page 1 of 1

POD SUMMARY - CP 01356 POD1



# New Mexico Office of the State Engineer

## Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)  
 (quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
CP 01357	POD1	4	3	1	27	21S	33E	634782	3591347

<b>Driller License:</b> 421	<b>Driller Company:</b> GLENN'S WATER WELL SERVICE
<b>Driller Name:</b> GLENN, CLARK A."CORKY"	
<b>Drill Start Date:</b> 08/16/2014	<b>Drill Finish Date:</b> 08/26/2014
<b>Log File Date:</b> 09/10/2014	<b>PCW Rcv Date:</b>
<b>Pump Type:</b>	<b>Pipe Discharge Size:</b>
<b>Casing Size:</b> 6.37	<b>Depth Well:</b> 1286 feet
	<b>Depth Water:</b> 578 feet

Water Bearing Stratifications:	Top	Bottom	Description
	945	960	Sandstone/Gravel/Conglomerate
	960	1077	Shale/Mudstone/Siltstone
	1077	1215	Sandstone/Gravel/Conglomerate
	1215	1286	Shale/Mudstone/Siltstone

Casing Perforations:	Top	Bottom
	846	1286

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](http://www.ose.state.nm.us)

1. GENERAL AND WELL LOCATION	OSE POD NO. (WELL NO.) CP-1701-POD1		WELL TAG ID NO.		OSE FILE NO(S)		
	WELL OWNER NAME(S) The Jimmy Mills GST and 2005 GST Trusts				PHONE (OPTIONAL)		
	WELL OWNER MAILING ADDRESS c/o Stacey Mills PO Box 1359				CITY Loving	STATE NM	
					ZIP 88256-1358		
2. DRILLING & CASING INFORMATION	WELL LOCATION (FROM GPS)	DEGREES LATITUDE 32	MINUTES 26	SECONDS 0.5	N		
		LONGITUDE 103	39	10.1	W		
	* ACCURACY REQUIRED: ONE TENTH OF A SECOND						
	* DATUM REQUIRED: WGS 84						
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS - PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE							
3. ANNULAR MATERIAL	LICENSE NO. WD1706		NAME OF LICENSED DRILLER Bryce Wallace			NAME OF WELL DRILLING COMPANY Elite Drillers Corporation	
	DRILLING STARTED 10/15/18	DRILLING ENDED 11/29/18	DEPTH OF COMPLETED WELL (FT) 840	BORE HOLE DEPTH (FT) 880	DEPTH WATER FIRST ENCOUNTERED (FT) 560		
	COMPLETED WELL IS: <input checked="" type="checkbox"/> ARTESIAN <input type="checkbox"/> DRY HOLE <input type="checkbox"/> SHALLOW (UNCONFINED)				STATIC WATER LEVEL IN COMPLETED WELL (FT) 457		
	DRILLING FLUID: <input checked="" type="checkbox"/> AIR <input type="checkbox"/> MUD ADDITIVES - SPECIFY:						
	DRILLING METHOD: <input checked="" type="checkbox"/> ROTARY <input type="checkbox"/> HAMMER <input type="checkbox"/> CABLE TOOL <input type="checkbox"/> OTHER - SPECIFY:						
	DEPTH (feet bgl)		BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)
	FROM	TO					
	0	20	12.75	ASTM53 Grade B Steel	N/A	12.57	.188
	+2	460	12.25	ASTM53 Grade B steel	Welded	6.065	.28
	460	840	12.25	SDR17 PVC	Spline	6	SDR17
3. ANNULAR MATERIAL	DEPTH (feet bgl)		BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT	
	FROM	TO					
	0	20	12.75	Portland I/II Cement	17	Pour	
	0	453	12.25	Baroid Benseal Grout	247	Trimmic	
	453	860	12.25	8/16 Silica Sand	285	Pour	

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 06/30/17)

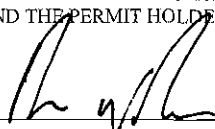
FILE NO.	CP-1701	POD NO.	1	TRN NO.	619305
LOCATION	Expi	215.32E.35.31	WELL TAG ID NO.		PAGE 1 OF 2

4. HYDROGEOLOGIC LOG OF WELL	DEPTH (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)		ESTIMATED YIELD FOR WATER- BEARING ZONES (gpm)
	FROM	TO					
	0	5	5	Topsoil	Y	N	
	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	
	400	560	160	Red siltstone	Y	N	
	560	575	15	Red siltstone/Gyp	✓ Y	N	5.00
	575	750	175	Red siltstone	Y	N	
	750	770	20	Red siltstone/Gyp	✓ Y	N	25.00
	770	840	70	Red siltstone	Y	N	
	840	880	40	Red Shale	Y	N	
					Y	N	
					Y	N	
					Y	N	
					Y	N	
					Y	N	
					Y	N	
					Y	N	
					Y	N	
					Y	N	
					Y	N	
METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:					TOTAL ESTIMATED WELL YIELD (gpm):		
<input checked="" type="checkbox"/> PUMP <input type="checkbox"/> AIR LIFT <input type="checkbox"/> BAILER <input type="checkbox"/> OTHER - SPECIFY:					30.00		

5. TEST; RIG SUPERVISION	WELL TEST	TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.
	MISCELLANEOUS INFORMATION:	
	PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE:	

6. SIGNATURE	THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 20 DAYS AFTER COMPLETION OF WELL DRILLING:	
	 Bryce Wallace	12/10/2018
	SIGNATURE OF DRILLER / PRINT SIGNED NAME	DATE

FOR OSE INTERNAL USE

WR-20 WELL RECORD &amp; LOG (Version 06/30/2017)

FILE NO. CP-1701	POD NO. 1	TRN NO. 419305
LOCATION Expl 215.32E.35.31	WELL TAG ID NO. —	PAGE 2 OF 2

# Appendix B

## Certificate of Analysis





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

---

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/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited 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,

A handwritten signature in black ink that reads "Celey D. Keene".

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:	03/30/2020
Reported:	04/02/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	MSU 551H	Sample Received By:	Kelly Jacobson
Project Location:	NOT GIVEN		

**Sample ID: HA - 01 0' (H000976-01)**

BTEX 8021B		mg/kg	Analyzed By: MS					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.200	0.200	04/02/2020	ND	1.86	93.2	2.00	9.37	
<b>Toluene*</b>	<b>0.433</b>	0.200	04/02/2020	ND	1.85	92.7	2.00	9.75	
<b>Ethylbenzene*</b>	<b>2.17</b>	0.200	04/02/2020	ND	1.86	92.8	2.00	9.95	
<b>Total Xylenes*</b>	<b>13.7</b>	0.600	04/02/2020	ND	5.34	89.0	6.00	10.5	
<b>Total BTEX</b>	<b>16.3</b>	1.20	04/02/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 184 % 73.3-129

Chloride, SM4500Cl-B		mg/kg	Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>2880</b>	16.0	04/02/2020	ND	432	108	400	3.77	

TPH 8015M		mg/kg	Analyzed By: MS					S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>GRO C6-C10*</b>	<b>1730</b>	200	04/02/2020	ND	185	92.7	200	0.00809	
<b>DRO &gt;C10-C28*</b>	<b>96500</b>	200	04/02/2020	ND	178	89.1	200	1.72	
<b>EXT DRO &gt;C28-C36</b>	<b>495</b>	200	04/02/2020	ND					

Surrogate: 1-Chlorooctane 477 % 44.3-144

Surrogate: 1-Chlorooctadecane 3450 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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**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  
 Reported: 04/02/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 03/30/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: HA - 01 1' (H000976-02)**

BTX 8021B		mg/kg	Analyzed By: MS					S-04	
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*	<b>0.190</b>	0.050	04/02/2020	ND	1.85	92.7	2.00	9.75	
Ethylbenzene*	<b>2.14</b>	0.050	04/02/2020	ND	1.86	92.8	2.00	9.95	
Total Xylenes*	<b>14.1</b>	0.150	04/02/2020	ND	5.34	89.0	6.00	10.5	
Total BTX	<b>16.4</b>	0.300	04/02/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 242 % 73.3-129

Chloride, SM4500CI-B		mg/kg	Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<b>544</b>	16.0	04/02/2020	ND	432	108	400	3.77	

TPH 8015M		mg/kg	Analyzed By: MS					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<b>778</b>	10.0	04/02/2020	ND	185	92.7	200	0.00809	
DRO >C10-C28*	<b>7790</b>	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 246 % 44.3-144

Surrogate: 1-Chlorooctadecane 264 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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**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  
 Reported: 04/02/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 03/30/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: HA - 01 2' (H000976-03)**

BTX 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 BTX	<0.300	0.300	04/02/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1200	16.0	04/02/2020	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS				S-04	
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*	223	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 104 % 44.3-144

Surrogate: 1-Chlorooctadecane 111 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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**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  
 Reported: 04/02/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 03/30/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: HA - 02 0' (H000976-04)**

BTX 8021B		mg/kg	Analyzed By: MS					S-04	
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*	<b>0.466</b>	0.050	04/02/2020	ND	1.85	92.7	2.00	9.75	
Ethylbenzene*	<b>2.01</b>	0.050	04/02/2020	ND	1.86	92.8	2.00	9.95	
Total Xylenes*	<b>12.2</b>	0.150	04/02/2020	ND	5.34	89.0	6.00	10.5	
Total BTX	<b>14.7</b>	0.300	04/02/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 230 % 73.3-129

Chloride, SM4500CI-B		mg/kg	Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<b>36000</b>	16.0	04/02/2020	ND	432	108	400	3.77	

TPH 8015M		mg/kg	Analyzed By: MS					S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<b>602</b>	50.0	04/02/2020	ND	185	92.7	200	0.00809	
DRO >C10-C28*	<b>26700</b>	50.0	04/02/2020	ND	178	89.1	200	1.72	
EXT DRO >C28-C36	<b>3930</b>	50.0	04/02/2020	ND					

Surrogate: 1-Chlorooctane 448 % 44.3-144

Surrogate: 1-Chlorooctadecane 1010 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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**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  
 Reported: 04/02/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 03/30/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: HA - 02 1' (H000976-05)**

BTX 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 BTX	<0.300	0.300	04/02/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2440	16.0	04/02/2020	ND	432	108	400	3.77		

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	185	92.7	200	0.00809	
DRO >C10-C28*	64.6	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 87.4 % 44.3-144

Surrogate: 1-Chlorooctadecane 96.1 % 42.2-156

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**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  
 Reported: 04/02/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 03/30/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: HA - 02 2' (H000976-06)**

BTX 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 BTX	<0.300	0.300	04/02/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 109 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed 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		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	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 89.7 % 44.3-144

Surrogate: 1-Chlorooctadecane 94.6 % 42.2-156

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**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  
 Reported: 04/02/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 03/30/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: HA - 03 0' (H000976-07)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	2.71	1.00	04/02/2020	ND	1.86	93.2	2.00	9.37	
Toluene*	21.7	1.00	04/02/2020	ND	1.85	92.7	2.00	9.75	
Ethylbenzene*	19.7	1.00	04/02/2020	ND	1.86	92.8	2.00	9.95	
Total Xylenes*	77.4	3.00	04/02/2020	ND	5.34	89.0	6.00	10.5	
Total BTX	121	6.00	04/02/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 117 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	20000	16.0	04/02/2020	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	2030	200	04/02/2020	ND	185	92.7	200	0.00809	
DRO >C10-C28*	31600	200	04/02/2020	ND	178	89.1	200	1.72	
EXT DRO >C28-C36	4570	200	04/02/2020	ND					

Surrogate: 1-Chlorooctane 360 % 44.3-144

Surrogate: 1-Chlorooctadecane 1020 % 42.2-156

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**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  
 Reported: 04/02/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 03/30/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: HA - 03 1' (H000976-08)**

BTX 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*	0.057	0.050	04/02/2020	ND	1.86	92.8	2.00	9.95	
Total Xylenes*	0.265	0.150	04/02/2020	ND	5.34	89.0	6.00	10.5	
Total BTX	0.321	0.300	04/02/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 109 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3120	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*	1180	10.0	04/02/2020	ND	163	81.7	200	12.0	
EXT DRO >C28-C36	24.1	10.0	04/02/2020	ND					

Surrogate: 1-Chlorooctane 81.4 % 44.3-144

Surrogate: 1-Chlorooctadecane 123 % 42.2-156

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**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  
 Reported: 04/02/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 03/30/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: HA - 03 2' (H000976-09)**

BTX 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 BTX	<0.300	0.300	04/02/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1360	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*	286	10.0	04/02/2020	ND	163	81.7	200	12.0	
EXT DRO >C28-C36	11.8	10.0	04/02/2020	ND					

Surrogate: 1-Chlorooctane 81.5 % 44.3-144

Surrogate: 1-Chlorooctadecane 96.5 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager

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---

### 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.
S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
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

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A handwritten signature in black ink, appearing to read "Celey D. Keene".

---

Celey D. Keene, Lab Director/Quality Manager



## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

[illegible]



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

May 18, 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 05/14/20 9:42.

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](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited 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,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style with a large, stylized 'C' and 'K'.

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: 05/14/2020  
 Reported: 05/18/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/08/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: W - 01 + 4-0' (H001326-01)**

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	05/14/2020	ND	1.91	95.7	2.00	2.44		
Toluene*	<0.050	0.050	05/14/2020	ND	1.89	94.4	2.00	2.03		
Ethylbenzene*	<0.050	0.050	05/14/2020	ND	1.92	95.9	2.00	2.31		
Total Xylenes*	<0.150	0.150	05/14/2020	ND	5.50	91.7	6.00	2.36		
Total BTEX	<0.300	0.300	05/14/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 94.9 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	05/14/2020	ND	432	108	400	3.64		

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	05/14/2020	ND	207	103	200	2.15	
DRO >C10-C28*	<10.0	10.0	05/14/2020	ND	210	105	200	0.781	
EXT DRO >C28-C36	<10.0	10.0	05/14/2020	ND					

Surrogate: 1-Chlorooctane 86.4 % 44.3-144

Surrogate: 1-Chlorooctadecane 87.2 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 05/14/2020  
 Reported: 05/18/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/08/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: W - 01 0-1' (H001326-02)****Chloride, SM4500Cl-B****mg/kg****Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>64.0</b>	16.0	05/14/2020	ND	432	108	400	3.64	

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 05/14/2020  
 Reported: 05/18/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/08/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: W - 02 + 4-0' (H001326-03)**

BTX 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	05/14/2020	ND	1.95	97.7	2.00	3.93	
Toluene*	<0.050	0.050	05/14/2020	ND	1.95	97.5	2.00	3.93	
Ethylbenzene*	<0.050	0.050	05/14/2020	ND	1.96	97.9	2.00	4.00	
Total Xylenes*	<0.150	0.150	05/14/2020	ND	5.65	94.2	6.00	4.34	
Total BTX	<0.300	0.300	05/14/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 93.3 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	96.0	16.0	05/14/2020	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	05/14/2020	ND	207	103	200	2.15	
DRO >C10-C28*	<10.0	10.0	05/14/2020	ND	210	105	200	0.781	
EXT DRO >C28-C36	<10.0	10.0	05/14/2020	ND					

Surrogate: 1-Chlorooctane 100 % 44.3-144

Surrogate: 1-Chlorooctadecane 101 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 05/14/2020  
 Reported: 05/18/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/08/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: W - 03 + 4-0' (H001326-04)**

BTX 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	05/14/2020	ND	1.95	97.7	2.00	3.93		
Toluene*	<0.050	0.050	05/14/2020	ND	1.95	97.5	2.00	3.93		
Ethylbenzene*	<0.050	0.050	05/14/2020	ND	1.96	97.9	2.00	4.00		
Total Xylenes*	<0.150	0.150	05/14/2020	ND	5.65	94.2	6.00	4.34		
Total BTX	<0.300	0.300	05/14/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 93.3 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	256	16.0	05/14/2020	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	05/15/2020	ND	186	92.8	200	2.94	
DRO >C10-C28*	<10.0	10.0	05/15/2020	ND	178	89.1	200	7.88	
EXT DRO >C28-C36	<10.0	10.0	05/15/2020	ND					

Surrogate: 1-Chlorooctane 99.7 % 44.3-144

Surrogate: 1-Chlorooctadecane 101 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 05/14/2020  
 Reported: 05/18/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/08/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: W - 04 + 4-0' (H001326-05)**

BTX 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	05/14/2020	ND	1.91	95.7	2.00	2.44		
Toluene*	<0.050	0.050	05/14/2020	ND	1.89	94.4	2.00	2.03		
Ethylbenzene*	<0.050	0.050	05/14/2020	ND	1.92	95.9	2.00	2.31		
Total Xylenes*	<0.150	0.150	05/14/2020	ND	5.50	91.7	6.00	2.36		
Total BTX	<0.300	0.300	05/14/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 96.0 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	240	16.0	05/14/2020	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	05/14/2020	ND	200	100	200	1.78	
DRO >C10-C28*	<10.0	10.0	05/14/2020	ND	201	100	200	1.40	
EXT DRO >C28-C36	<10.0	10.0	05/14/2020	ND					

Surrogate: 1-Chlorooctane 101 % 44.3-144

Surrogate: 1-Chlorooctadecane 104 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 05/14/2020  
 Reported: 05/18/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/08/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: W - 05 0-4' (H001326-06)**

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	05/14/2020	ND	1.91	95.7	2.00	2.44		
Toluene*	<0.050	0.050	05/14/2020	ND	1.89	94.4	2.00	2.03		
Ethylbenzene*	<0.050	0.050	05/14/2020	ND	1.92	95.9	2.00	2.31		
Total Xylenes*	<0.150	0.150	05/14/2020	ND	5.50	91.7	6.00	2.36		
Total BTEx	<0.300	0.300	05/14/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 93.9 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	912	16.0	05/14/2020	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	05/14/2020	ND	200	100	200	1.78	
DRO >C10-C28*	<10.0	10.0	05/14/2020	ND	201	100	200	1.40	
EXT DRO >C28-C36	<10.0	10.0	05/14/2020	ND					

Surrogate: 1-Chlorooctane 92.7 % 44.3-144

Surrogate: 1-Chlorooctadecane 92.1 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 05/14/2020  
 Reported: 05/18/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/08/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: W - 06 0-4' (H001326-07)**

BTX 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	05/14/2020	ND	1.91	95.7	2.00	2.44	
Toluene*	<0.050	0.050	05/14/2020	ND	1.89	94.4	2.00	2.03	
Ethylbenzene*	<0.050	0.050	05/14/2020	ND	1.92	95.9	2.00	2.31	
Total Xylenes*	<0.150	0.150	05/14/2020	ND	5.50	91.7	6.00	2.36	
Total BTX	<0.300	0.300	05/14/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.3 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	29200	16.0	05/14/2020	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	05/14/2020	ND	200	100	200	1.78	
DRO >C10-C28*	<10.0	10.0	05/14/2020	ND	201	100	200	1.40	
EXT DRO >C28-C36	<10.0	10.0	05/14/2020	ND					

Surrogate: 1-Chlorooctane 99.0 % 44.3-144

Surrogate: 1-Chlorooctadecane 101 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 05/14/2020  
 Reported: 05/18/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/08/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: W - 07 + 4-0' (H001326-08)****Chloride, SM4500Cl-B****mg/kg****Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>352</b>	16.0	05/14/2020	ND	416	104	400	0.00	

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 05/14/2020  
 Reported: 05/18/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/08/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: W - 07 0-4' (H001326-09)**

BTX 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	05/14/2020	ND	1.91	95.7	2.00	2.44		
Toluene*	<0.050	0.050	05/14/2020	ND	1.89	94.4	2.00	2.03		
Ethylbenzene*	<0.050	0.050	05/14/2020	ND	1.92	95.9	2.00	2.31		
Total Xylenes*	<0.150	0.150	05/14/2020	ND	5.50	91.7	6.00	2.36		
Total BTX	<0.300	0.300	05/14/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 93.4 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	24400	16.0	05/14/2020	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	05/15/2020	ND	200	100	200	1.78	
DRO >C10-C28*	<10.0	10.0	05/15/2020	ND	201	100	200	1.40	
EXT DRO >C28-C36	<10.0	10.0	05/15/2020	ND					

Surrogate: 1-Chlorooctane 94.2 % 44.3-144

Surrogate: 1-Chlorooctadecane 94.7 % 42.2-156

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 05/14/2020  
 Reported: 05/18/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/08/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: W - 08 + 4-0' (H001326-10)**

BTX 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	05/14/2020	ND	1.91	95.7	2.00	2.44	
Toluene*	<0.050	0.050	05/14/2020	ND	1.89	94.4	2.00	2.03	
Ethylbenzene*	<0.050	0.050	05/14/2020	ND	1.92	95.9	2.00	2.31	
Total Xylenes*	<0.150	0.150	05/14/2020	ND	5.50	91.7	6.00	2.36	
Total BTX	<0.300	0.300	05/14/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.6 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	05/14/2020	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	05/15/2020	ND	200	100	200	1.78	
DRO >C10-C28*	<10.0	10.0	05/15/2020	ND	201	100	200	1.40	
EXT DRO >C28-C36	<10.0	10.0	05/15/2020	ND					

Surrogate: 1-Chlorooctane 102 % 44.3-144

Surrogate: 1-Chlorooctadecane 103 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 05/14/2020  
 Reported: 05/18/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/08/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: W - 08 0-4' (H001326-11)**

BTX 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	05/14/2020	ND	1.91	95.7	2.00	2.44		
Toluene*	<0.050	0.050	05/14/2020	ND	1.89	94.4	2.00	2.03		
Ethylbenzene*	<0.050	0.050	05/14/2020	ND	1.92	95.9	2.00	2.31		
Total Xylenes*	<0.150	0.150	05/14/2020	ND	5.50	91.7	6.00	2.36		
Total BTX	<0.300	0.300	05/14/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 94.7 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	26000	16.0	05/14/2020	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	05/15/2020	ND	200	100	200	1.78	
DRO >C10-C28*	<10.0	10.0	05/15/2020	ND	201	100	200	1.40	
EXT DRO >C28-C36	<10.0	10.0	05/15/2020	ND					

Surrogate: 1-Chlorooctane 94.8 % 44.3-144

Surrogate: 1-Chlorooctadecane 94.0 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 05/14/2020  
 Reported: 05/18/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/09/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: W - 09 + 4-0' (H001326-12)**

BTX 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	05/14/2020	ND	1.91	95.7	2.00	2.44		
Toluene*	<0.050	0.050	05/14/2020	ND	1.89	94.4	2.00	2.03		
Ethylbenzene*	<0.050	0.050	05/14/2020	ND	1.92	95.9	2.00	2.31		
Total Xylenes*	<0.150	0.150	05/14/2020	ND	5.50	91.7	6.00	2.36		
Total BTX	<0.300	0.300	05/14/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 94.3 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	05/14/2020	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	05/15/2020	ND	200	100	200	1.78	
DRO >C10-C28*	<10.0	10.0	05/15/2020	ND	201	100	200	1.40	
EXT DRO >C28-C36	<10.0	10.0	05/15/2020	ND					

Surrogate: 1-Chlorooctane 94.9 % 44.3-144

Surrogate: 1-Chlorooctadecane 97.5 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 05/14/2020  
 Reported: 05/18/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/09/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: W - 09 0-4' (H001326-13)****Chloride, SM4500Cl-B****mg/kg****Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>8000</b>	16.0	05/14/2020	ND	416	104	400	0.00	

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**Analytical Results For:**

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

Received: 05/14/2020  
 Reported: 05/18/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/09/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: W - 10 + 4-0' (H001326-14)**

BTX 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	05/14/2020	ND	1.91	95.7	2.00	2.44		
Toluene*	<0.050	0.050	05/14/2020	ND	1.89	94.4	2.00	2.03		
Ethylbenzene*	<0.050	0.050	05/14/2020	ND	1.92	95.9	2.00	2.31		
Total Xylenes*	<0.150	0.150	05/14/2020	ND	5.50	91.7	6.00	2.36		
Total BTX	<0.300	0.300	05/14/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 93.7 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	05/14/2020	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	05/15/2020	ND	200	100	200	1.78	
DRO >C10-C28*	<10.0	10.0	05/15/2020	ND	201	100	200	1.40	
EXT DRO >C28-C36	<10.0	10.0	05/15/2020	ND					

Surrogate: 1-Chlorooctane 95.3 % 44.3-144

Surrogate: 1-Chlorooctadecane 94.3 % 42.2-156

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**Analytical Results For:**

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

Received: 05/14/2020  
 Reported: 05/18/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/09/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: W - 10 0-4' (H001326-15)**

BTX 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	05/14/2020	ND	1.91	95.7	2.00	2.44	
Toluene*	<0.050	0.050	05/14/2020	ND	1.89	94.4	2.00	2.03	
Ethylbenzene*	<0.050	0.050	05/14/2020	ND	1.92	95.9	2.00	2.31	
Total Xylenes*	<0.150	0.150	05/14/2020	ND	5.50	91.7	6.00	2.36	
Total BTX	<0.300	0.300	05/14/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 93.5 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	6930	16.0	05/14/2020	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	05/15/2020	ND	200	100	200	1.78	
DRO >C10-C28*	<10.0	10.0	05/15/2020	ND	201	100	200	1.40	
EXT DRO >C28-C36	<10.0	10.0	05/15/2020	ND					

Surrogate: 1-Chlorooctane 93.8 % 44.3-144

Surrogate: 1-Chlorooctadecane 93.1 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 05/14/2020  
 Reported: 05/18/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/09/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: W - 11 + 4-0' (H001326-16)**

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	05/14/2020	ND	1.91	95.7	2.00	2.44	
Toluene*	<0.050	0.050	05/14/2020	ND	1.89	94.4	2.00	2.03	
Ethylbenzene*	<0.050	0.050	05/14/2020	ND	1.92	95.9	2.00	2.31	
Total Xylenes*	<0.150	0.150	05/14/2020	ND	5.50	91.7	6.00	2.36	
Total BTEX	<0.300	0.300	05/14/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 93.7 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	96.0	16.0	05/14/2020	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	05/15/2020	ND	200	100	200	1.78	
DRO >C10-C28*	<10.0	10.0	05/15/2020	ND	201	100	200	1.40	
EXT DRO >C28-C36	<10.0	10.0	05/15/2020	ND					

Surrogate: 1-Chlorooctane 93.6 % 44.3-144

Surrogate: 1-Chlorooctadecane 92.9 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 05/14/2020  
 Reported: 05/18/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/09/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: W - 12 + 4-0' (H001326-17)**

BTX 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	05/14/2020	ND	1.91	95.7	2.00	2.44		
Toluene*	<0.050	0.050	05/14/2020	ND	1.89	94.4	2.00	2.03		
Ethylbenzene*	<0.050	0.050	05/14/2020	ND	1.92	95.9	2.00	2.31		
Total Xylenes*	<0.150	0.150	05/14/2020	ND	5.50	91.7	6.00	2.36		
Total BTX	<0.300	0.300	05/14/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 93.6 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	05/14/2020	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	05/15/2020	ND	200	100	200	1.78	
DRO >C10-C28*	<10.0	10.0	05/15/2020	ND	201	100	200	1.40	
EXT DRO >C28-C36	<10.0	10.0	05/15/2020	ND					

Surrogate: 1-Chlorooctane 94.7 % 44.3-144

Surrogate: 1-Chlorooctadecane 92.6 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 05/14/2020  
 Reported: 05/18/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/09/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: W - 13 0-4' (H001326-18)****Chloride, SM4500Cl-B****mg/kg****Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>26400</b>	16.0	05/14/2020	ND	416	104	400	0.00	

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 05/14/2020  
 Reported: 05/18/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/09/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: W - 14 0-4' (H001326-19)**

BTX 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	05/14/2020	ND	1.91	95.7	2.00	2.44		
Toluene*	<0.050	0.050	05/14/2020	ND	1.89	94.4	2.00	2.03		
Ethylbenzene*	<0.050	0.050	05/14/2020	ND	1.92	95.9	2.00	2.31		
Total Xylenes*	<0.150	0.150	05/14/2020	ND	5.50	91.7	6.00	2.36		
Total BTX	<0.300	0.300	05/14/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 92.3 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	736	16.0	05/14/2020	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	05/15/2020	ND	200	100	200	1.78	
DRO >C10-C28*	67.2	10.0	05/15/2020	ND	201	100	200	1.40	
EXT DRO >C28-C36	<10.0	10.0	05/15/2020	ND					

Surrogate: 1-Chlorooctane 94.1 % 44.3-144

Surrogate: 1-Chlorooctadecane 96.0 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 05/14/2020  
 Reported: 05/18/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/09/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: W - 15 0-1.5' (H001326-20)**

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	05/14/2020	ND	1.91	95.7	2.00	2.44	
Toluene*	<0.050	0.050	05/14/2020	ND	1.89	94.4	2.00	2.03	
Ethylbenzene*	<0.050	0.050	05/14/2020	ND	1.92	95.9	2.00	2.31	
Total Xylenes*	<0.150	0.150	05/14/2020	ND	5.50	91.7	6.00	2.36	
Total BTEX	<0.300	0.300	05/14/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 93.6 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	05/14/2020	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	05/15/2020	ND	200	100	200	1.78	
DRO >C10-C28*	<10.0	10.0	05/15/2020	ND	201	100	200	1.40	
EXT DRO >C28-C36	<10.0	10.0	05/15/2020	ND					

Surrogate: 1-Chlorooctane 92.1 % 44.3-144

Surrogate: 1-Chlorooctadecane 92.2 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 05/14/2020  
 Reported: 05/18/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/11/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: W - 15 + 4-0' (H001326-21)**

BTX 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	05/14/2020	ND	1.91	95.7	2.00	2.44		
Toluene*	<0.050	0.050	05/14/2020	ND	1.89	94.4	2.00	2.03		
Ethylbenzene*	<0.050	0.050	05/14/2020	ND	1.92	95.9	2.00	2.31		
Total Xylenes*	<0.150	0.150	05/14/2020	ND	5.50	91.7	6.00	2.36		
Total BTX	<0.300	0.300	05/14/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 92.6 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	05/14/2020	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	05/15/2020	ND	200	100	200	1.78	
DRO >C10-C28*	<10.0	10.0	05/15/2020	ND	201	100	200	1.40	
EXT DRO >C28-C36	<10.0	10.0	05/15/2020	ND					

Surrogate: 1-Chlorooctane 94.4 % 44.3-144

Surrogate: 1-Chlorooctadecane 90.8 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 05/14/2020  
 Reported: 05/18/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/11/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: W - 16 0-2.5' (H001326-22)**

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	05/14/2020	ND	1.91	95.7	2.00	2.44	
Toluene*	<0.050	0.050	05/14/2020	ND	1.89	94.4	2.00	2.03	
Ethylbenzene*	<0.050	0.050	05/14/2020	ND	1.92	95.9	2.00	2.31	
Total Xylenes*	<0.150	0.150	05/14/2020	ND	5.50	91.7	6.00	2.36	
Total BTEX	<0.300	0.300	05/14/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.0 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	400	16.0	05/14/2020	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	05/15/2020	ND	200	100	200	1.78	
DRO >C10-C28*	<10.0	10.0	05/15/2020	ND	201	100	200	1.40	
EXT DRO >C28-C36	<10.0	10.0	05/15/2020	ND					

Surrogate: 1-Chlorooctane 94.3 % 44.3-144

Surrogate: 1-Chlorooctadecane 95.1 % 42.2-156

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**Analytical Results For:**

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

Received: 05/14/2020  
 Reported: 05/18/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/11/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: W - 16 + 4-0' (H001326-23)**

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	05/14/2020	ND	1.91	95.7	2.00	2.44		
Toluene*	<0.050	0.050	05/14/2020	ND	1.89	94.4	2.00	2.03		
Ethylbenzene*	<0.050	0.050	05/14/2020	ND	1.92	95.9	2.00	2.31		
Total Xylenes*	<0.150	0.150	05/14/2020	ND	5.50	91.7	6.00	2.36		
Total BTEx	<0.300	0.300	05/14/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 94.7 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	05/15/2020	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	05/15/2020	ND	200	100	200	1.78	
DRO >C10-C28*	<10.0	10.0	05/15/2020	ND	201	100	200	1.40	
EXT DRO >C28-C36	<10.0	10.0	05/15/2020	ND					

Surrogate: 1-Chlorooctane 98.6 % 44.3-144

Surrogate: 1-Chlorooctadecane 99.1 % 42.2-156

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**Analytical Results For:**

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

Received: 05/14/2020  
 Reported: 05/18/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/11/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: W - 17 0-4' (H001326-24)**

BTX 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	05/14/2020	ND	1.91	95.7	2.00	2.44		
Toluene*	<0.050	0.050	05/14/2020	ND	1.89	94.4	2.00	2.03		
Ethylbenzene*	<0.050	0.050	05/14/2020	ND	1.92	95.9	2.00	2.31		
Total Xylenes*	<0.150	0.150	05/14/2020	ND	5.50	91.7	6.00	2.36		
Total BTX	<0.300	0.300	05/14/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 94.5 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	288	16.0	05/15/2020	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	05/15/2020	ND	200	100	200	1.78	
DRO >C10-C28*	<10.0	10.0	05/15/2020	ND	201	100	200	1.40	
EXT DRO >C28-C36	<10.0	10.0	05/15/2020	ND					

Surrogate: 1-Chlorooctane 83.5 % 44.3-144

Surrogate: 1-Chlorooctadecane 82.6 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 05/14/2020  
 Reported: 05/18/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/11/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: W - 17 + 4-0' (H001326-25)****Chloride, SM4500Cl-B****mg/kg****Analyzed By: GM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>48.0</b>	16.0	05/15/2020	ND	416	104	400	0.00	

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**Analytical Results For:**

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

Received: 05/14/2020  
 Reported: 05/18/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/11/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: W - 18 0-4' (H001326-26)**

BTX 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	05/14/2020	ND	1.91	95.7	2.00	2.44		
Toluene*	<0.050	0.050	05/14/2020	ND	1.89	94.4	2.00	2.03		
Ethylbenzene*	<0.050	0.050	05/14/2020	ND	1.92	95.9	2.00	2.31		
Total Xylenes*	<0.150	0.150	05/14/2020	ND	5.50	91.7	6.00	2.36		
Total BTX	<0.300	0.300	05/14/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 93.5 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	416	16.0	05/15/2020	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	05/15/2020	ND	200	100	200	1.78	
DRO >C10-C28*	<10.0	10.0	05/15/2020	ND	201	100	200	1.40	
EXT DRO >C28-C36	<10.0	10.0	05/15/2020	ND					

Surrogate: 1-Chlorooctane 94.6 % 44.3-144

Surrogate: 1-Chlorooctadecane 93.8 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 05/14/2020  
 Reported: 05/18/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/12/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: W - 18 + 4-0' (H001326-27)****Chloride, SM4500Cl-B****mg/kg****Analyzed By: GM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>32.0</b>	16.0	05/15/2020	ND	416	104	400	0.00	

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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: 05/14/2020  
 Reported: 05/18/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/12/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: W - 19 0-4' (H001326-28)**

BTX 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	05/14/2020	ND	1.91	95.7	2.00	2.44		
Toluene*	<0.050	0.050	05/14/2020	ND	1.89	94.4	2.00	2.03		
Ethylbenzene*	<0.050	0.050	05/14/2020	ND	1.92	95.9	2.00	2.31		
Total Xylenes*	<0.150	0.150	05/14/2020	ND	5.50	91.7	6.00	2.36		
Total BTX	<0.300	0.300	05/14/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 92.7 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	05/15/2020	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	05/15/2020	ND	200	100	200	1.78	
DRO >C10-C28*	<10.0	10.0	05/15/2020	ND	201	100	200	1.40	
EXT DRO >C28-C36	<10.0	10.0	05/15/2020	ND					

Surrogate: 1-Chlorooctane 92.4 % 44.3-144

Surrogate: 1-Chlorooctadecane 90.6 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 05/14/2020  
 Reported: 05/18/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/12/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: W - 20 0-3' (H001326-29)**

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	05/15/2020	ND	1.89	94.7	2.00	3.58	
Toluene*	<0.050	0.050	05/15/2020	ND	1.93	96.5	2.00	3.97	
Ethylbenzene*	<0.050	0.050	05/15/2020	ND	1.99	99.7	2.00	3.54	
Total Xylenes*	<0.150	0.150	05/15/2020	ND	5.83	97.1	6.00	3.51	
Total BTEX	<0.300	0.300	05/15/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	272	16.0	05/15/2020	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	05/15/2020	ND	200	100	200	1.78	
DRO >C10-C28*	13.8	10.0	05/15/2020	ND	201	100	200	1.40	
EXT DRO >C28-C36	<10.0	10.0	05/15/2020	ND					

Surrogate: 1-Chlorooctane 103 % 44.3-144

Surrogate: 1-Chlorooctadecane 104 % 42.2-156

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**Analytical Results For:**

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

Received: 05/14/2020  
 Reported: 05/18/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/12/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: W - 21 0-1' (H001326-30)**

BTX 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	05/15/2020	ND	1.89	94.7	2.00	3.58	
Toluene*	<0.050	0.050	05/15/2020	ND	1.93	96.5	2.00	3.97	
Ethylbenzene*	<0.050	0.050	05/15/2020	ND	1.99	99.7	2.00	3.54	
Total Xylenes*	<0.150	0.150	05/15/2020	ND	5.83	97.1	6.00	3.51	
Total BTX	<0.300	0.300	05/15/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1470	16.0	05/15/2020	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	05/15/2020	ND	186	92.8	200	2.94	
DRO >C10-C28*	<10.0	10.0	05/15/2020	ND	178	89.1	200	7.88	
EXT DRO >C28-C36	<10.0	10.0	05/15/2020	ND					

Surrogate: 1-Chlorooctane 98.6 % 44.3-144

Surrogate: 1-Chlorooctadecane 99.3 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 05/14/2020  
 Reported: 05/18/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/12/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: W - 22 0-2' (H001326-31)****Chloride, SM4500Cl-B****mg/kg****Analyzed By: GM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>1380</b>	16.0	05/15/2020	ND	416	104	400	0.00	

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**Analytical Results For:**

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

Received: 05/14/2020  
 Reported: 05/18/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/12/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: W - 23 0-2' (H001326-32)**

BTX 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	05/15/2020	ND	1.89	94.7	2.00	3.58	
Toluene*	<0.050	0.050	05/15/2020	ND	1.93	96.5	2.00	3.97	
Ethylbenzene*	<0.050	0.050	05/15/2020	ND	1.99	99.7	2.00	3.54	
Total Xylenes*	<0.150	0.150	05/15/2020	ND	5.83	97.1	6.00	3.51	
Total BTX	<0.300	0.300	05/15/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1040	16.0	05/15/2020	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	05/15/2020	ND	186	92.8	200	2.94	
DRO >C10-C28*	33.1	10.0	05/15/2020	ND	178	89.1	200	7.88	
EXT DRO >C28-C36	<10.0	10.0	05/15/2020	ND					

Surrogate: 1-Chlorooctane 102 % 44.3-144

Surrogate: 1-Chlorooctadecane 103 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 05/14/2020  
 Reported: 05/18/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/12/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: W - 24 0-2.5' (H001326-33)****Chloride, SM4500Cl-B****mg/kg****Analyzed By: GM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>688</b>	16.0	05/15/2020	ND	416	104	400	0.00	

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**Analytical Results For:**

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

Received: 05/14/2020  
 Reported: 05/18/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/12/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: W - 25 0-4' (H001326-34)**

BTX 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	05/15/2020	ND	1.89	94.7	2.00	3.58		
Toluene*	<0.050	0.050	05/15/2020	ND	1.93	96.5	2.00	3.97		
Ethylbenzene*	<0.050	0.050	05/15/2020	ND	1.99	99.7	2.00	3.54		
Total Xylenes*	<0.150	0.150	05/15/2020	ND	5.83	97.1	6.00	3.51		
Total BTX	<0.300	0.300	05/15/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2800	16.0	05/15/2020	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	05/15/2020	ND	186	92.8	200	2.94	
DRO >C10-C28*	<10.0	10.0	05/15/2020	ND	178	89.1	200	7.88	
EXT DRO >C28-C36	<10.0	10.0	05/15/2020	ND					

Surrogate: 1-Chlorooctane 98.5 % 44.3-144

Surrogate: 1-Chlorooctadecane 99.2 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager

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---

### Notes and Definitions

QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

---

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A handwritten signature in black ink, appearing to read "Celey D. Keene".

---

Celey D. Keene, Lab Director/Quality Manager



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## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: R.T. Hicks Consultants		BILL TO		ANALYSIS REQUEST	
Project Manager: Andrew Parker		P.O. #: MS4 551H			
Address: On-File		Company: R.T. Hicks			
City:		Attn: Send to			
Phone #: Fax #:		Address: andrew@rthicks			
Project #: Project Owner:		City: consult.com			
Project Name: Advance Energy		State: Zip:			
Project Location: MS4 551H		Phone #:			
Sample Name: Jacob Saenz		Fax #:			
FOR LAB USE ONLY		MATRIX		PRESERV.	
Lab I.D.		Sample I.D.			
H201326		W-01		+4-0FT	
1		W-01		+4-0FT	
2		W-02		+4-0FT	
3		W-03		+4-0FT	
4		W-04		+4-0FT	
5		W-05		+4-0FT	
6		W-06		+4-0FT	
7		W-07		+4-0FT	
8		W-08		+4-0FT	
9		W-09		+4-0FT	
10		W-10		+4-0FT	
11		W-11		+4-0FT	
12		W-12		+4-0FT	
13		W-13		+4-0FT	
14		W-14		+4-0FT	
15		W-15		+4-0FT	
16		W-16		+4-0FT	
17		W-17		+4-0FT	
18		W-18		+4-0FT	
19		W-19		+4-0FT	
20		W-20		+4-0FT	
21		W-21		+4-0FT	
22		W-22		+4-0FT	
23		W-23		+4-0FT	
24		W-24		+4-0FT	
25		W-25		+4-0FT	
26		W-26		+4-0FT	
27		W-27		+4-0FT	
28		W-28		+4-0FT	
29		W-29		+4-0FT	
30		W-30		+4-0FT	
31		W-31		+4-0FT	
32		W-32		+4-0FT	
33		W-33		+4-0FT	
34		W-34		+4-0FT	
35		W-35		+4-0FT	
36		W-36		+4-0FT	
37		W-37		+4-0FT	
38		W-38		+4-0FT	
39		W-39		+4-0FT	
40		W-40		+4-0FT	
41		W-41		+4-0FT	
42		W-42		+4-0FT	
43		W-43		+4-0FT	
44		W-44		+4-0FT	
45		W-45		+4-0FT	
46		W-46		+4-0FT	
47		W-47		+4-0FT	
48		W-48		+4-0FT	
49		W-49		+4-0FT	
50		W-50		+4-0FT	
51		W-51		+4-0FT	
52		W-52		+4-0FT	
53		W-53		+4-0FT	
54		W-54		+4-0FT	
55		W-55		+4-0FT	
56		W-56		+4-0FT	
57		W-57		+4-0FT	
58		W-58		+4-0FT	
59		W-59		+4-0FT	
60		W-60		+4-0FT	
61		W-61		+4-0FT	
62		W-62		+4-0FT	
63		W-63		+4-0FT	
64		W-64		+4-0FT	
65		W-65		+4-0FT	
66		W-66		+4-0FT	
67		W-67		+4-0FT	
68		W-68		+4-0FT	
69		W-69		+4-0FT	
70		W-70		+4-0FT	
71		W-71		+4-0FT	
72		W-72		+4-0FT	
73		W-73		+4-0FT	
74		W-74		+4-0FT	
75		W-75		+4-0FT	
76		W-76		+4-0FT	
77		W-77		+4-0FT	
78		W-78		+4-0FT	
79		W-79		+4-0FT	
80		W-80		+4-0FT	
81		W-81		+4-0FT	
82		W-82		+4-0FT	
83		W-83		+4-0FT	
84		W-84		+4-0FT	
85		W-85		+4-0FT	
86		W-86		+4-0FT	
87		W-87		+4-0FT	
88		W-88		+4-0FT	
89		W-89		+4-0FT	
90		W-90		+4-0FT	
91		W-91		+4-0FT	
92		W-92		+4-0FT	
93		W-93		+4-0FT	
94		W-94</			



## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: R.T. Hicks Consultants		<b>BILL TO</b>		P.O. #:		ANALYSIS REQUEST	
Project Manager: Andrew Parker		Company: R.T. Hicks		Attn: Send to			
Address: On-File		City: consult.com		State: Zip:			
Phone #: Fax #:		Project Owner:		City: State: Zip:			
Project Name:		Project Location:		Phone #: Fax #:			
Sampler Name: Jacob Saenz		FOR LAB USE ONLY		MATRIX		PRESERV. SAMPLING	
Lab I.D.		Sample I.D.		(G)RAB OR (C)OMP.		# CONTAINERS	
H001326		11 W-08		0-4 FT		GROUNDWATER	
12 W-09		+4-0 FT		WASTEWATER		SOIL	
13 W-09		0-4 FT		OIL		SLUDGE	
14 W-10		+4-0 FT		OTHER :		ACID/BASE:	
15 W-10		0-4 FT		ICE / COOL		OTHER :	
16 W-11		+4-0 FT		DATE		TIME	
17 W-12		+4-0 FT		5/8/00		12:50m	
18 W-13		0-4 FT		5/9/00		9:15m	
19 W-14		0-4 FT		5/9/00		9:30m	
20 W-15		0-1.5 FT		5/9/00		10:30m	
				5/9/00		10:40m	
				5/9/00		10:50m	
				5/9/00		11:00m	
				5/9/00		12:00m	
				5/9/00		12:10m	
				5/9/00		12:20m	
				5/9/00		12:30m	
				5/9/00		12:40m	
				5/9/00		12:50m	
				5/9/00		13:00m	
				5/9/00		13:10m	
				5/9/00		13:20m	
				5/9/00		13:30m	
				5/9/00		13:40m	
				5/9/00		13:50m	
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				5/9/00		14:10m	
				5/9/00		14:20m	
				5/9/00		14:30m	
				5/9/00		14:40m	
				5/9/00		14:50m	
				5/9/00		15:00m	
				5/9/00		15:10m	
				5/9/00		15:20m	
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				5/9/00		15:50m	
				5/9/00		16:00m	
				5/9/00		16:10m	
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				5/9/00		19:00m	
				5/9/00		19:10m	
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				5/9/00		46:00m	



CARDINAL  
Laboratories

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: R.T. Hicks Consultants		<b>BILL TO</b>		P.O. #: 34551H		ANALYSIS REQUEST			
Project Manager: Andrew Parker		Company: R.T. Hicks							
Address: On-File		State: Zip:		Attn: Send to					
Phone #: Fax #:		Address: andrew@rthicks		City: consult.com					
Project #:		Project Owner:		State: Zip:					
Project Location: MS4 551H		Phone #:		Fax #:					
Sample Name: Jacob Saenz		FOR LAB USE ONLY		PRESERV.		SAMPLING			
Lab I.D.		Sample I.D.		(G)RAB OR (C)OMP.		# CONTAINERS			
								GROUNDWATER	
H00326		W-15		+4 - 0 FT		L 1			
								W-16	
								W-17	
								W-18	
								W-19	
								W-20	
H00326		W-15		+4 - 0 FT		L 1			
								W-16	
								W-17	
								W-18	
								W-19	
								W-20	
H00326		W-15		+4 - 0 FT		L 1			
								W-16	
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								W-19	
								W-20	
H00326		W-15		+4 - 0 FT		L 1			
								W-16	
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								W-18	
								W-19	
								W-20	
H00326		W-15		+4 - 0 FT		L 1			
								W-16	
								W-17	
								W-18	
								W-19	
								W-20	
H00326		W-15		+4 - 0 FT		L 1			
								W-16	
								W-17	
								W-18	
								W-19	
								W-20	
H00326		W-15		+4 - 0 FT		L 1			
								W-16	
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								W-20	
H00326		W-15		+4 - 0 FT		L 1			
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								W-20	
H00326		W-15		+4 - 0 FT		L 1			
								W-16	
								W-17	
								W-18	
								W-19	
								W-20	
H00326		W-15		+4 - 0 FT		L 1			
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H00326		W-15		+4 - 0 FT		L 1			
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H00326		W-15		+4 - 0 FT		L 1			
								W-16	
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H00326		W-15		+4 - 0 FT		L 1			
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H00326		W-15		+4 - 0 FT		L 1			
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H00326		W-15		+4 - 0 FT		L 1			
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H00326		W-15		+4 - 0 FT		L 1			
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H00326		W-15		+4 - 0 FT		L 1			
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H00326		W-15		+4 - 0 FT		L 1			
								W-16	
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								W-20	
H00326		W-15		+4 - 0 FT		L 1			
								W-16	
								W-17	
								W-18	
								W-19	
								W-20	
H00326		W-15		+4 - 0 FT		L 1			
								W-16	
								W-17	
								W-18	
								W-19	



## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: R.T. Hicks Consultants		<b>BILL TO</b>		ANALYSIS REQUEST																		
Project Manager: Andrew Parker		P.O. #: M54 55114																				
Address: On-File		Company: R.T. Hicks																				
City: State: Zip:		Attn: Send to																				
Phone #: Fax #:		Address: andrew@rthicks																				
Project #: Project Owner:		City: consult.com																				
Project Name: M54 55114 Advance Energy		State: Zip:																				
Project Location: M54 55114		Phone #:																				
Sampler Name: Jacob Saenz		Fax #:																				
FOR LAB USE ONLY																						
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX				PRESERV.	SAMPLING													
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	CHLORIDE	TPH (GRO+DRO+MRO)	BENZENE, BTEX					
H001326	30 W-21	0-1 FT	1										5/19/20	11am	X	X						
	31 W-22	0-2 FT	1										11:30am		X	X						
	32 W-23	0-2 FT	1										12pm		X	X						
	33 W-24	0-2.5 FT	1										1:30pm		X	X						
	34 W-25	0-4 FT	1										1pm		X	X						

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 analysis. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of data, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: <i>SAENZ</i>	Date: 5-14-20	Time: 0942	Received By: <i>JP</i>	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Add'l Phone #:
Relinquished By: <i>SAENZ</i>	Date: 0942	Time:	Received By:	Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Add'l Fax #:
Delivered By: (Circle One) -3.7e	Sample Condition: Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	CHECKED BY: (Initials) <i>HS</i>	REMARKS:	
Sampler - UPS - Bus - Other: #113				

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



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

---

May 21, 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 05/20/20 14:15.

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](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited 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,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is fluid and cursive, with the first name "Celey" and last name "Keene" clearly distinguishable.

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: 05/20/2020  
 Reported: 05/21/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551 H  
 Project Location: NOT GIVEN

Sampling Date: 05/20/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: W - 07 4.5' (H001386-01)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	05/21/2020	ND	384	96.0	400	8.00	

**Sample ID: W - 09 0-4.5' (H001386-02)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2600	16.0	05/21/2020	ND	384	96.0	400	8.00	

**Sample ID: W - 09 4.5' (H001386-03)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	05/21/2020	ND	384	96.0	400	8.00	

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

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

---

### Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

---

Cardinal Laboratories

\*=Accredited Analyte

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A handwritten signature in black ink, appearing to read "Celey D. Keene".

---

Celey D. Keene, Lab Director/Quality Manager



## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

[illegible]

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



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

---

May 28, 2020

ANDREW PARKER

R T HICKS CONSULTANTS

901 RIO GRANDE BLVD SUITE F-142

ALBUQUERQUE, NM 87104

RE: MSU 551H

Enclosed are the results of analyses for samples received by the laboratory on 05/22/20 16:45.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-20-13. 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](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited 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,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style with a large, stylized 'C' and 'K'.

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: 05/22/2020  
 Reported: 05/28/2020  
 Project Name: MSU 551H  
 Project Number: NONE GIVEN  
 Project Location: ADVANCE ENERGY

Sampling Date: 05/21/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: W - 10 4.5 FT (H001422-01)**

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	05/26/2020	ND	400	100	400	3.92	

**Sample ID: W - 19 +4 - 0 FT (H001422-02)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	05/26/2020	ND	400	100	400	3.92	

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



---

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---

### Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

---

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\*=Accredited Analyte

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A handwritten signature in black ink, appearing to read "Celey D. Keene".

---

Celey D. Keene, Lab Director/Quality Manager



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

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May 28, 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 05/27/20 8:25.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-20-13. 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](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited 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,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style with a large, stylized 'C' and 'K'.

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: 05/27/2020  
 Reported: 05/28/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/26/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: B - 18 C1 4.3' (H001427-01)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	15600	16.0	05/27/2020	ND	416	104	400	3.77	

**Sample ID: B - 19 C1 4.3' (H001427-02)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	25800	16.0	05/27/2020	ND	416	104	400	3.77	

**Sample ID: B - 21 C1 4.2' (H001427-03)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	13800	16.0	05/27/2020	ND	416	104	400	0.00	QM-07

**Sample ID: B - 22 C1 4.2' (H001427-04)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	13600	16.0	05/27/2020	ND	416	104	400	0.00	

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 05/27/2020  
 Reported: 05/28/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/26/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: B - 26 C1 2.5' (H001427-05)****Chloride, SM4500Cl-B****mg/kg****Analyzed By: GM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>752</b>	16.0	05/27/2020	ND	416	104	400	0.00	

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Celey D. Keene, Lab Director/Quality Manager



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---

### Notes and Definitions

QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

---

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\*=Accredited Analyte

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A handwritten signature in black ink, appearing to read "Celey D. Keene".

---

Celey D. Keene, Lab Director/Quality Manager



# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: R.T. Hicks Consultants		<b>BILL TO</b>		ANALYSIS REQUEST				
Project Manager: Andrew Parker		P.O. #: MSU 551 H						
Address: On-File		Company: R.T. Hicks						
City:		Attn: Send to						
Phone #:		Address: andrew@rthicks						
Project #:		City: consult.com						
Project Name: MSU 551 H		State: Zip:						
Project Location: Averse Energy		Phone #:						
Sampler Name: Jacob Saenz		Fax #:						

[illegible]

**PLEASE NOTE:** Liability and Damages. Cardinal's liability and exclusive remedy for any claim arising hereunder based in contract or tort, shall be limited to the amount paid by the client for the services. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of profits or loss of records incurred by client. Its subsidiaries, affiliates or subsidiaries acting out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:				
Received By:	18			
Date:	5-7-22			
Time:	8:17			
Phone Result:	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Add'l Phone #:	
Fax Result:	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Add'l Fax #:	
REMARKS:				

Relinquished By:		Date: 8-25	Received By: [Signature]	
Time:				
Delivered By: (Circle One) 5.8c		Sample Condition: Cool <input type="checkbox"/> Intact <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/>		CHECKED BY: (Initials) h3
Sampler - UPS - Bus - Other: #113				

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May 29, 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 05/27/20 8:25.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-20-13. 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](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

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Sincerely,

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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: 05/27/2020  
 Reported: 05/29/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/25/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: W - 27 0-1' (H001428-01)**

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	05/27/2020	ND	2.06	103	2.00	2.82	
Toluene*	<0.050	0.050	05/27/2020	ND	2.00	100	2.00	2.77	
Ethylbenzene*	<0.050	0.050	05/27/2020	ND	2.01	100	2.00	3.06	
Total Xylenes*	<0.150	0.150	05/27/2020	ND	5.71	95.2	6.00	3.21	
Total BTEX	<0.300	0.300	05/27/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	304	16.0	05/28/2020	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	05/27/2020	ND	188	93.9	200	6.40	
DRO >C10-C28*	23.4	10.0	05/27/2020	ND	188	93.8	200	6.08	
EXT DRO >C28-C36	<10.0	10.0	05/27/2020	ND					

Surrogate: 1-Chlorooctane 93.8 % 44.3-144

Surrogate: 1-Chlorooctadecane 98.6 % 42.2-156

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 05/27/2020  
 Reported: 05/29/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/25/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: W - 31 1-4' (H001428-02)**

BTX 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	05/27/2020	ND	2.06	103	2.00	2.82	
Toluene*	<0.050	0.050	05/27/2020	ND	2.00	100	2.00	2.77	
Ethylbenzene*	<0.050	0.050	05/27/2020	ND	2.01	100	2.00	3.06	
Total Xylenes*	<0.150	0.150	05/27/2020	ND	5.71	95.2	6.00	3.21	
Total BTX	<0.300	0.300	05/27/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	656	16.0	05/28/2020	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	05/28/2020	ND	192	96.2	200	8.14	
DRO >C10-C28*	<10.0	10.0	05/28/2020	ND	190	95.2	200	4.27	
EXT DRO >C28-C36	<10.0	10.0	05/28/2020	ND					

Surrogate: 1-Chlorooctane 87.0 % 44.3-144

Surrogate: 1-Chlorooctadecane 88.3 % 42.2-156

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 05/27/2020  
 Reported: 05/29/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/25/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: W - 33 0-4' (H001428-03)**

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	05/27/2020	ND	2.01	100	2.00	4.14		
Toluene*	<0.050	0.050	05/27/2020	ND	1.95	97.3	2.00	3.97		
Ethylbenzene*	<0.050	0.050	05/27/2020	ND	1.96	98.1	2.00	3.87		
Total Xylenes*	<0.150	0.150	05/27/2020	ND	5.62	93.6	6.00	3.75		
Total BTEx	<0.300	0.300	05/27/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	05/28/2020	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	05/28/2020	ND	192	96.2	200	8.14	
DRO >C10-C28*	<10.0	10.0	05/28/2020	ND	190	95.2	200	4.27	
EXT DRO >C28-C36	<10.0	10.0	05/28/2020	ND					

Surrogate: 1-Chlorooctane 86.6 % 44.3-144

Surrogate: 1-Chlorooctadecane 89.6 % 42.2-156

Cardinal Laboratories

\*=Accredited Analyte

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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: 05/27/2020  
 Reported: 05/29/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/25/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: W - 34 0-1' (H001428-04)****Chloride, SM4500Cl-B****mg/kg****Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>112</b>	16.0	05/28/2020	ND	416	104	400	0.00	

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 05/27/2020  
 Reported: 05/29/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/25/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: W - 35 1-4' (H001428-05)**

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	05/27/2020	ND	2.01	100	2.00	4.14	
Toluene*	<0.050	0.050	05/27/2020	ND	1.95	97.3	2.00	3.97	
Ethylbenzene*	<0.050	0.050	05/27/2020	ND	1.96	98.1	2.00	3.87	
Total Xylenes*	<0.150	0.150	05/27/2020	ND	5.62	93.6	6.00	3.75	
Total BTEx	<0.300	0.300	05/27/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	05/28/2020	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	05/28/2020	ND	192	96.2	200	8.14	
DRO >C10-C28*	<10.0	10.0	05/28/2020	ND	190	95.2	200	4.27	
EXT DRO >C28-C36	<10.0	10.0	05/28/2020	ND					

Surrogate: 1-Chlorooctane 91.1 % 44.3-144

Surrogate: 1-Chlorooctadecane 93.6 % 42.2-156

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 05/27/2020  
 Reported: 05/29/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/25/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: B - 01 1' (H001428-06)**

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	05/27/2020	ND	2.01	100	2.00	4.14	
Toluene*	<0.050	0.050	05/27/2020	ND	1.95	97.3	2.00	3.97	
Ethylbenzene*	<0.050	0.050	05/27/2020	ND	1.96	98.1	2.00	3.87	
Total Xylenes*	<0.150	0.150	05/27/2020	ND	5.62	93.6	6.00	3.75	
Total BTEx	<0.300	0.300	05/27/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	05/28/2020	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	05/28/2020	ND	192	96.2	200	8.14	
DRO >C10-C28*	<10.0	10.0	05/28/2020	ND	190	95.2	200	4.27	
EXT DRO >C28-C36	<10.0	10.0	05/28/2020	ND					

Surrogate: 1-Chlorooctane 90.0 % 44.3-144

Surrogate: 1-Chlorooctadecane 91.1 % 42.2-156

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**Analytical Results For:**

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

Received: 05/27/2020  
 Reported: 05/29/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/25/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: B - 02 1' (H001428-07)**

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	05/27/2020	ND	2.01	100	2.00	4.14	
Toluene*	<0.050	0.050	05/27/2020	ND	1.95	97.3	2.00	3.97	
Ethylbenzene*	<0.050	0.050	05/27/2020	ND	1.96	98.1	2.00	3.87	
Total Xylenes*	<0.150	0.150	05/27/2020	ND	5.62	93.6	6.00	3.75	
Total BTEx	<0.300	0.300	05/27/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	05/28/2020	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	05/28/2020	ND	192	96.2	200	8.14	
DRO >C10-C28*	<10.0	10.0	05/28/2020	ND	190	95.2	200	4.27	
EXT DRO >C28-C36	<10.0	10.0	05/28/2020	ND					

Surrogate: 1-Chlorooctane 87.6 % 44.3-144

Surrogate: 1-Chlorooctadecane 90.4 % 42.2-156

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**Analytical Results For:**

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

Received: 05/27/2020  
 Reported: 05/29/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/25/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: B - 03 4.2' (H001428-08)****Chloride, SM4500Cl-B****mg/kg****Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>32.0</b>	16.0	05/28/2020	ND	416	104	400	0.00	

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**Analytical Results For:**

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

Received: 05/27/2020  
 Reported: 05/29/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/25/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: B - 04 4.2' (H001428-09)**

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	05/27/2020	ND	2.01	100	2.00	4.14		
Toluene*	<0.050	0.050	05/27/2020	ND	1.95	97.3	2.00	3.97		
Ethylbenzene*	<0.050	0.050	05/27/2020	ND	1.96	98.1	2.00	3.87		
Total Xylenes*	<0.150	0.150	05/27/2020	ND	5.62	93.6	6.00	3.75		
Total BTEx	<0.300	0.300	05/27/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	05/28/2020	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	05/28/2020	ND	192	96.2	200	8.14	
DRO >C10-C28*	<10.0	10.0	05/28/2020	ND	190	95.2	200	4.27	
EXT DRO >C28-C36	<10.0	10.0	05/28/2020	ND					

Surrogate: 1-Chlorooctane 82.5 % 44.3-144

Surrogate: 1-Chlorooctadecane 84.9 % 42.2-156

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**Analytical Results For:**

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

Received: 05/27/2020  
 Reported: 05/29/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/25/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: B - 05 4.2' (H001428-10)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	05/28/2020	ND	416	104	400	0.00		

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**Analytical Results For:**

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

Received: 05/27/2020  
 Reported: 05/29/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/25/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: B - 06 4.2' (H001428-11)**

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	05/27/2020	ND	2.01	100	2.00	4.14	
Toluene*	<0.050	0.050	05/27/2020	ND	1.95	97.3	2.00	3.97	
Ethylbenzene*	<0.050	0.050	05/27/2020	ND	1.96	98.1	2.00	3.87	
Total Xylenes*	<0.150	0.150	05/27/2020	ND	5.62	93.6	6.00	3.75	
Total BTEX	<0.300	0.300	05/27/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	05/28/2020	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	05/28/2020	ND	192	96.2	200	8.14	
DRO >C10-C28*	<10.0	10.0	05/28/2020	ND	190	95.2	200	4.27	
EXT DRO >C28-C36	<10.0	10.0	05/28/2020	ND					

Surrogate: 1-Chlorooctane 89.3 % 44.3-144

Surrogate: 1-Chlorooctadecane 90.6 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 05/27/2020  
 Reported: 05/29/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/25/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: B - 08 E 0.1' (H001428-12)****Chloride, SM4500Cl-B****mg/kg****Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>272</b>	16.0	05/28/2020	ND	416	104	400	0.00	

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**Analytical Results For:**

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

Received: 05/27/2020  
 Reported: 05/29/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/25/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: B - 08 W 0.1' (H001428-13)**

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	05/27/2020	ND	2.01	100	2.00	4.14	
Toluene*	<0.050	0.050	05/27/2020	ND	1.95	97.3	2.00	3.97	
Ethylbenzene*	<0.050	0.050	05/27/2020	ND	1.96	98.1	2.00	3.87	
Total Xylenes*	<0.150	0.150	05/27/2020	ND	5.62	93.6	6.00	3.75	
Total BTEx	<0.300	0.300	05/27/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	960	16.0	05/28/2020	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	05/28/2020	ND	192	96.2	200	8.14	
DRO >C10-C28*	<10.0	10.0	05/28/2020	ND	190	95.2	200	4.27	
EXT DRO >C28-C36	<10.0	10.0	05/28/2020	ND					

Surrogate: 1-Chlorooctane 93.2 % 44.3-144

Surrogate: 1-Chlorooctadecane 96.1 % 42.2-156

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**Analytical Results For:**

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

Received: 05/27/2020  
 Reported: 05/29/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/25/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: B - 09 2.5' (H001428-14)**

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	05/27/2020	ND	2.01	100	2.00	4.14	
Toluene*	<0.050	0.050	05/27/2020	ND	1.95	97.3	2.00	3.97	
Ethylbenzene*	<0.050	0.050	05/27/2020	ND	1.96	98.1	2.00	3.87	
Total Xylenes*	<0.150	0.150	05/27/2020	ND	5.62	93.6	6.00	3.75	
Total BTEx	<0.300	0.300	05/27/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	05/28/2020	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	05/28/2020	ND	192	96.2	200	8.14	
DRO >C10-C28*	<10.0	10.0	05/28/2020	ND	190	95.2	200	4.27	
EXT DRO >C28-C36	<10.0	10.0	05/28/2020	ND					

Surrogate: 1-Chlorooctane 83.2 % 44.3-144

Surrogate: 1-Chlorooctadecane 85.7 % 42.2-156

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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: 05/27/2020  
 Reported: 05/29/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/25/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: B - 10 2.5' (H001428-15)**

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	05/27/2020	ND	2.01	100	2.00	4.14	
Toluene*	<0.050	0.050	05/27/2020	ND	1.95	97.3	2.00	3.97	
Ethylbenzene*	<0.050	0.050	05/27/2020	ND	1.96	98.1	2.00	3.87	
Total Xylenes*	<0.150	0.150	05/27/2020	ND	5.62	93.6	6.00	3.75	
Total BTEx	<0.300	0.300	05/27/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	05/28/2020	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	05/28/2020	ND	192	96.2	200	8.14	
DRO >C10-C28*	<10.0	10.0	05/28/2020	ND	190	95.2	200	4.27	
EXT DRO >C28-C36	<10.0	10.0	05/28/2020	ND					

Surrogate: 1-Chlorooctane 82.1 % 44.3-144

Surrogate: 1-Chlorooctadecane 83.2 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 05/27/2020  
 Reported: 05/29/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/26/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: B - 11 1.5' (H001428-16)****Chloride, SM4500Cl-B****mg/kg****Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>32.0</b>	16.0	05/28/2020	ND	416	104	400	0.00	

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**Analytical Results For:**

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

Received: 05/27/2020  
 Reported: 05/29/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/26/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: B - 12 1.5' (H001428-17)**

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	05/27/2020	ND	2.01	100	2.00	4.14	
Toluene*	<0.050	0.050	05/27/2020	ND	1.95	97.3	2.00	3.97	
Ethylbenzene*	<0.050	0.050	05/27/2020	ND	1.96	98.1	2.00	3.87	
Total Xylenes*	<0.150	0.150	05/27/2020	ND	5.62	93.6	6.00	3.75	
Total BTEx	<0.300	0.300	05/27/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	624	16.0	05/28/2020	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	05/28/2020	ND	192	96.2	200	8.14	
DRO >C10-C28*	<10.0	10.0	05/28/2020	ND	190	95.2	200	4.27	
EXT DRO >C28-C36	<10.0	10.0	05/28/2020	ND					

Surrogate: 1-Chlorooctane 89.1 % 44.3-144

Surrogate: 1-Chlorooctadecane 91.8 % 42.2-156

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**Analytical Results For:**

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

Received: 05/27/2020  
 Reported: 05/29/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/26/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: B - 13 1.5' (H001428-18)**

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	05/28/2020	ND	2.01	100	2.00	4.14	
Toluene*	<0.050	0.050	05/28/2020	ND	1.95	97.3	2.00	3.97	
Ethylbenzene*	<0.050	0.050	05/28/2020	ND	1.96	98.1	2.00	3.87	
Total Xylenes*	<0.150	0.150	05/28/2020	ND	5.62	93.6	6.00	3.75	
Total BTEx	<0.300	0.300	05/28/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	3080	16.0	05/28/2020	ND	400	100	400	4.08	QM-07	

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	05/28/2020	ND	192	96.2	200	8.14	
DRO >C10-C28*	343	10.0	05/28/2020	ND	190	95.2	200	4.27	
EXT DRO >C28-C36	<10.0	10.0	05/28/2020	ND					

Surrogate: 1-Chlorooctane 88.4 % 44.3-144

Surrogate: 1-Chlorooctadecane 99.7 % 42.2-156

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**Analytical Results For:**

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

Received: 05/27/2020  
 Reported: 05/29/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/26/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: B - 14 4.3' (H001428-19)****Chloride, SM4500Cl-B****mg/kg****Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>448</b>	16.0	05/28/2020	ND	400	100	400	4.08	

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**Analytical Results For:**

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

Received: 05/27/2020  
 Reported: 05/29/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/26/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: B - 15 4.3' (H001428-20)**

BTX 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	05/28/2020	ND	2.01	100	2.00	4.14	
Toluene*	<0.050	0.050	05/28/2020	ND	1.95	97.3	2.00	3.97	
Ethylbenzene*	<0.050	0.050	05/28/2020	ND	1.96	98.1	2.00	3.87	
Total Xylenes*	<0.150	0.150	05/28/2020	ND	5.62	93.6	6.00	3.75	
Total BTX	<0.300	0.300	05/28/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	05/28/2020	ND	400	100	400	4.08	

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	05/28/2020	ND	192	96.2	200	8.14	
DRO >C10-C28*	<10.0	10.0	05/28/2020	ND	190	95.2	200	4.27	
EXT DRO >C28-C36	<10.0	10.0	05/28/2020	ND					

Surrogate: 1-Chlorooctane 91.3 % 44.3-144

Surrogate: 1-Chlorooctadecane 92.6 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 05/27/2020  
 Reported: 05/29/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/26/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: B - 16 4.3' (H001428-21)**

BTX 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	05/28/2020	ND	2.01	100	2.00	4.14	
Toluene*	<0.050	0.050	05/28/2020	ND	1.95	97.3	2.00	3.97	
Ethylbenzene*	<0.050	0.050	05/28/2020	ND	1.96	98.1	2.00	3.87	
Total Xylenes*	<0.150	0.150	05/28/2020	ND	5.62	93.6	6.00	3.75	
Total BTX	<0.300	0.300	05/28/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1010	16.0	05/28/2020	ND	400	100	400	4.08	

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	05/28/2020	ND	192	96.2	200	8.14	
DRO >C10-C28*	<10.0	10.0	05/28/2020	ND	190	95.2	200	4.27	
EXT DRO >C28-C36	<10.0	10.0	05/28/2020	ND					

Surrogate: 1-Chlorooctane 90.6 % 44.3-144

Surrogate: 1-Chlorooctadecane 93.4 % 42.2-156

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**Analytical Results For:**

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

Received: 05/27/2020  
 Reported: 05/29/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/26/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: B - 17 4.3' (H001428-22)**

BTX 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	05/28/2020	ND	2.01	100	2.00	4.14	
Toluene*	<0.050	0.050	05/28/2020	ND	1.95	97.3	2.00	3.97	
Ethylbenzene*	<0.050	0.050	05/28/2020	ND	1.96	98.1	2.00	3.87	
Total Xylenes*	<0.150	0.150	05/28/2020	ND	5.62	93.6	6.00	3.75	
Total BTX	<0.300	0.300	05/28/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	240	16.0	05/28/2020	ND	400	100	400	4.08	

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	05/28/2020	ND	192	96.2	200	8.14	
DRO >C10-C28*	<10.0	10.0	05/28/2020	ND	190	95.2	200	4.27	
EXT DRO >C28-C36	<10.0	10.0	05/28/2020	ND					

Surrogate: 1-Chlorooctane 90.0 % 44.3-144

Surrogate: 1-Chlorooctadecane 91.1 % 42.2-156

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**Analytical Results For:**

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

Received: 05/27/2020  
 Reported: 05/29/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/26/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: B - 18 4.3' (H001428-23)**

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	05/28/2020	ND	2.01	100	2.00	4.14	
Toluene*	<0.050	0.050	05/28/2020	ND	1.95	97.3	2.00	3.97	
Ethylbenzene*	<0.050	0.050	05/28/2020	ND	1.96	98.1	2.00	3.87	
Total Xylenes*	<0.150	0.150	05/28/2020	ND	5.62	93.6	6.00	3.75	
Total BTEx	<0.300	0.300	05/28/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	304	16.0	05/28/2020	ND	400	100	400	4.08	

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	05/28/2020	ND	192	96.2	200	8.14	
DRO >C10-C28*	<10.0	10.0	05/28/2020	ND	190	95.2	200	4.27	
EXT DRO >C28-C36	<10.0	10.0	05/28/2020	ND					

Surrogate: 1-Chlorooctane 96.2 % 44.3-144

Surrogate: 1-Chlorooctadecane 97.4 % 42.2-156

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**Analytical Results For:**

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

Received: 05/27/2020  
 Reported: 05/29/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/26/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: B - 19 4.3' (H001428-24)****Chloride, SM4500Cl-B****mg/kg****Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>8660</b>	16.0	05/28/2020	ND	400	100	400	4.08	

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 05/27/2020  
 Reported: 05/29/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/26/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: B - 20 4.2' (H001428-25)**

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	05/28/2020	ND	2.01	100	2.00	4.14	
Toluene*	<0.050	0.050	05/28/2020	ND	1.95	97.3	2.00	3.97	
Ethylbenzene*	<0.050	0.050	05/28/2020	ND	1.96	98.1	2.00	3.87	
Total Xylenes*	<0.150	0.150	05/28/2020	ND	5.62	93.6	6.00	3.75	
Total BTEX	<0.300	0.300	05/28/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	240	16.0	05/28/2020	ND	400	100	400	4.08	

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	05/28/2020	ND	192	96.2	200	8.14	
DRO >C10-C28*	15.3	10.0	05/28/2020	ND	190	95.2	200	4.27	
EXT DRO >C28-C36	<10.0	10.0	05/28/2020	ND					

Surrogate: 1-Chlorooctane 84.6 % 44.3-144

Surrogate: 1-Chlorooctadecane 88.2 % 42.2-156

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**Analytical Results For:**

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

Received: 05/27/2020  
 Reported: 05/29/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/26/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: B - 21 4.2' (H001428-26)****Chloride, SM4500Cl-B****mg/kg****Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>1500</b>	16.0	05/28/2020	ND	400	100	400	4.08	

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**Analytical Results For:**

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

Received: 05/27/2020  
 Reported: 05/29/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/26/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: B - 22 4.2' (H001428-27)**

BTX 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	05/28/2020	ND	2.01	100	2.00	4.14	
Toluene*	<0.050	0.050	05/28/2020	ND	1.95	97.3	2.00	3.97	
Ethylbenzene*	<0.050	0.050	05/28/2020	ND	1.96	98.1	2.00	3.87	
Total Xylenes*	<0.150	0.150	05/28/2020	ND	5.62	93.6	6.00	3.75	
Total BTX	<0.300	0.300	05/28/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	05/28/2020	ND	400	100	400	4.08	

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	05/28/2020	ND	192	96.2	200	8.14	
DRO >C10-C28*	<10.0	10.0	05/28/2020	ND	190	95.2	200	4.27	
EXT DRO >C28-C36	<10.0	10.0	05/28/2020	ND					

Surrogate: 1-Chlorooctane 92.6 % 44.3-144

Surrogate: 1-Chlorooctadecane 95.5 % 42.2-156

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**Analytical Results For:**

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

Received: 05/27/2020  
 Reported: 05/29/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/26/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: B - 23 4.2' (H001428-28)**

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	05/28/2020	ND	2.01	100	2.00	4.14	
Toluene*	<0.050	0.050	05/28/2020	ND	1.95	97.3	2.00	3.97	
Ethylbenzene*	<0.050	0.050	05/28/2020	ND	1.96	98.1	2.00	3.87	
Total Xylenes*	<0.150	0.150	05/28/2020	ND	5.62	93.6	6.00	3.75	
Total BTEx	<0.300	0.300	05/28/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	240	16.0	05/28/2020	ND	400	100	400	4.08	

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	05/28/2020	ND	192	96.2	200	8.14	
DRO >C10-C28*	<10.0	10.0	05/28/2020	ND	190	95.2	200	4.27	
EXT DRO >C28-C36	<10.0	10.0	05/28/2020	ND					

Surrogate: 1-Chlorooctane 88.6 % 44.3-144

Surrogate: 1-Chlorooctadecane 89.7 % 42.2-156

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**Analytical Results For:**

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

Received: 05/27/2020  
 Reported: 05/29/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/26/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: B - 24 E 0.1' (H001428-29)**

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	05/28/2020	ND	2.01	100	2.00	4.14	
Toluene*	<0.050	0.050	05/28/2020	ND	1.95	97.3	2.00	3.97	
Ethylbenzene*	<0.050	0.050	05/28/2020	ND	1.96	98.1	2.00	3.87	
Total Xylenes*	<0.150	0.150	05/28/2020	ND	5.62	93.6	6.00	3.75	
Total BTEX	<0.300	0.300	05/28/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	7120	16.0	05/28/2020	ND	400	100	400	4.08	

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	05/28/2020	ND	178	88.9	200	3.53	
DRO >C10-C28*	<10.0	10.0	05/28/2020	ND	211	106	200	4.33	
EXT DRO >C28-C36	<10.0	10.0	05/28/2020	ND					

Surrogate: 1-Chlorooctane 83.2 % 44.3-144

Surrogate: 1-Chlorooctadecane 90.2 % 42.2-156

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**Analytical Results For:**

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

Received: 05/27/2020  
 Reported: 05/29/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/26/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: B - 24 W 0.1' (H001428-30)****Chloride, SM4500Cl-B****mg/kg****Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>1310</b>	16.0	05/28/2020	ND	400	100	400	4.08	

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**Analytical Results For:**

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

Received: 05/27/2020  
 Reported: 05/29/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/26/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: B - 25 1' (H001428-31)**

BTX 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	05/28/2020	ND	2.01	100	2.00	4.14	
Toluene*	<0.050	0.050	05/28/2020	ND	1.95	97.3	2.00	3.97	
Ethylbenzene*	<0.050	0.050	05/28/2020	ND	1.96	98.1	2.00	3.87	
Total Xylenes*	<0.150	0.150	05/28/2020	ND	5.62	93.6	6.00	3.75	
Total BTX	<0.300	0.300	05/28/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	10400	16.0	05/28/2020	ND	400	100	400	4.08	

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	05/27/2020	ND	188	93.9	200	6.40	
DRO >C10-C28*	<10.0	10.0	05/27/2020	ND	188	93.8	200	6.08	
EXT DRO >C28-C36	<10.0	10.0	05/27/2020	ND					

Surrogate: 1-Chlorooctane 90.9 % 44.3-144

Surrogate: 1-Chlorooctadecane 93.0 % 42.2-156

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**Analytical Results For:**

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

Received: 05/27/2020  
 Reported: 05/29/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/26/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: B - 26 2.5' (H001428-32)****Chloride, SM4500Cl-B****mg/kg****Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>32.0</b>	16.0	05/28/2020	ND	400	100	400	4.08	

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**Analytical Results For:**

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

Received: 05/27/2020  
 Reported: 05/29/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/26/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: B - 27 3' (H001428-33)**

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	05/28/2020	ND	1.96	98.1	2.00	3.14	
Toluene*	<0.050	0.050	05/28/2020	ND	1.92	96.0	2.00	2.80	
Ethylbenzene*	<0.050	0.050	05/28/2020	ND	1.93	96.5	2.00	3.44	
Total Xylenes*	<0.150	0.150	05/28/2020	ND	5.52	92.0	6.00	3.72	
Total BTEx	<0.300	0.300	05/28/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	05/28/2020	ND	400	100	400	4.08	

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	05/28/2020	ND	178	88.9	200	3.53	
DRO >C10-C28*	<10.0	10.0	05/28/2020	ND	211	106	200	4.33	
EXT DRO >C28-C36	<10.0	10.0	05/28/2020	ND					

Surrogate: 1-Chlorooctane 95.2 % 44.3-144

Surrogate: 1-Chlorooctadecane 101 % 42.2-156

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**Analytical Results For:**

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

Received: 05/27/2020  
 Reported: 05/29/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/26/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: B - 28 4.2' (H001428-34)****Chloride, SM4500Cl-B****mg/kg****Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>624</b>	16.0	05/28/2020	ND	400	100	400	4.08	

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**Analytical Results For:**

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

Received: 05/27/2020  
 Reported: 05/29/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/26/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: B - 29 4.2' (H001428-35)**

BTX 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	05/28/2020	ND	1.96	98.1	2.00	3.14		
Toluene*	<0.050	0.050	05/28/2020	ND	1.92	96.0	2.00	2.80		
Ethylbenzene*	<0.050	0.050	05/28/2020	ND	1.93	96.5	2.00	3.44		
Total Xylenes*	<0.150	0.150	05/28/2020	ND	5.52	92.0	6.00	3.72		
Total BTX	<0.300	0.300	05/28/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	05/28/2020	ND	400	100	400	4.08	

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	05/28/2020	ND	178	88.9	200	3.53	
DRO >C10-C28*	81.0	10.0	05/28/2020	ND	211	106	200	4.33	
EXT DRO >C28-C36	<10.0	10.0	05/28/2020	ND					

Surrogate: 1-Chlorooctane 90.9 % 44.3-144

Surrogate: 1-Chlorooctadecane 101 % 42.2-156

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**Analytical Results For:**

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

Received: 05/27/2020  
 Reported: 05/29/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/26/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: B - 30 4.2' (H001428-36)**

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	05/28/2020	ND	1.96	98.1	2.00	3.14		
Toluene*	<0.050	0.050	05/28/2020	ND	1.92	96.0	2.00	2.80		
Ethylbenzene*	<0.050	0.050	05/28/2020	ND	1.93	96.5	2.00	3.44		
Total Xylenes*	<0.150	0.150	05/28/2020	ND	5.52	92.0	6.00	3.72		
Total BTEx	<0.300	0.300	05/28/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	05/28/2020	ND	400	100	400	4.08	

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	05/28/2020	ND	178	88.9	200	3.53	
DRO >C10-C28*	<10.0	10.0	05/28/2020	ND	211	106	200	4.33	
EXT DRO >C28-C36	<10.0	10.0	05/28/2020	ND					

Surrogate: 1-Chlorooctane 85.3 % 44.3-144

Surrogate: 1-Chlorooctadecane 91.2 % 42.2-156

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**Analytical Results For:**

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

Received: 05/27/2020  
 Reported: 05/29/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/26/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: B - 31 4.2' (H001428-37)**

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	05/28/2020	ND	1.96	98.1	2.00	3.14		
Toluene*	<0.050	0.050	05/28/2020	ND	1.92	96.0	2.00	2.80		
Ethylbenzene*	<0.050	0.050	05/28/2020	ND	1.93	96.5	2.00	3.44		
Total Xylenes*	<0.150	0.150	05/28/2020	ND	5.52	92.0	6.00	3.72		
Total BTEx	<0.300	0.300	05/28/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	256	16.0	05/28/2020	ND	400	100	400	4.08	

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	05/28/2020	ND	178	88.9	200	3.53	
DRO >C10-C28*	42.4	10.0	05/28/2020	ND	211	106	200	4.33	
EXT DRO >C28-C36	<10.0	10.0	05/28/2020	ND					

Surrogate: 1-Chlorooctane 96.0 % 44.3-144

Surrogate: 1-Chlorooctadecane 103 % 42.2-156

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**Analytical Results For:**

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

Received: 05/27/2020  
 Reported: 05/29/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/26/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: B - 32 2.5' (H001428-38)****Chloride, SM4500Cl-B****mg/kg****Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>624</b>	16.0	05/28/2020	ND	384	96.0	400	4.08	QM-07

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**Analytical Results For:**

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

Received: 05/27/2020  
 Reported: 05/29/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/26/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: B - 33 3' (H001428-39)**

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	05/28/2020	ND	1.96	98.1	2.00	3.14	
Toluene*	<0.050	0.050	05/28/2020	ND	1.92	96.0	2.00	2.80	
Ethylbenzene*	<0.050	0.050	05/28/2020	ND	1.93	96.5	2.00	3.44	
Total Xylenes*	<0.150	0.150	05/28/2020	ND	5.52	92.0	6.00	3.72	
Total BTEx	<0.300	0.300	05/28/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	05/28/2020	ND	384	96.0	400	4.08	

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	05/28/2020	ND	178	88.9	200	3.53	
DRO >C10-C28*	95.3	10.0	05/28/2020	ND	211	106	200	4.33	
EXT DRO >C28-C36	<10.0	10.0	05/28/2020	ND					

Surrogate: 1-Chlorooctane 88.6 % 44.3-144

Surrogate: 1-Chlorooctadecane 97.9 % 42.2-156

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**Analytical Results For:**

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

Received: 05/27/2020  
 Reported: 05/29/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/26/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: B - 34 1.5' (H001428-40)**

BTX 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	05/28/2020	ND	1.96	98.1	2.00	3.14		
Toluene*	<0.050	0.050	05/28/2020	ND	1.92	96.0	2.00	2.80		
Ethylbenzene*	<0.050	0.050	05/28/2020	ND	1.93	96.5	2.00	3.44		
Total Xylenes*	<0.150	0.150	05/28/2020	ND	5.52	92.0	6.00	3.72		
Total BTX	<0.300	0.300	05/28/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	688	16.0	05/28/2020	ND	384	96.0	400	4.08	

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	05/28/2020	ND	178	88.9	200	3.53	
DRO >C10-C28*	43.4	10.0	05/28/2020	ND	211	106	200	4.33	
EXT DRO >C28-C36	<10.0	10.0	05/28/2020	ND					

Surrogate: 1-Chlorooctane 96.3 % 44.3-144

Surrogate: 1-Chlorooctadecane 105 % 42.2-156

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**Analytical Results For:**

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

Received: 05/27/2020  
 Reported: 05/29/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/26/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: B - 35 2' (H001428-41)**

BTX 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	05/28/2020	ND	1.96	98.1	2.00	3.14	
Toluene*	<0.050	0.050	05/28/2020	ND	1.92	96.0	2.00	2.80	
Ethylbenzene*	<0.050	0.050	05/28/2020	ND	1.93	96.5	2.00	3.44	
Total Xylenes*	<0.150	0.150	05/28/2020	ND	5.52	92.0	6.00	3.72	
Total BTX	<0.300	0.300	05/28/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1180	16.0	05/28/2020	ND	384	96.0	400	4.08	

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	05/28/2020	ND	178	88.9	200	3.53	
DRO >C10-C28*	102	10.0	05/28/2020	ND	211	106	200	4.33	
EXT DRO >C28-C36	16.7	10.0	05/28/2020	ND					

Surrogate: 1-Chlorooctane 90.7 % 44.3-144

Surrogate: 1-Chlorooctadecane 103 % 42.2-156

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**Analytical Results For:**

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

Received: 05/27/2020  
 Reported: 05/29/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/26/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: B - 36 2' (H001428-42)****Chloride, SM4500Cl-B****mg/kg****Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>576</b>	16.0	05/28/2020	ND	384	96.0	400	4.08	

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**Analytical Results For:**

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

Received: 05/27/2020  
 Reported: 05/29/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/26/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: B - 37 2' (H001428-43)**

BTX 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	05/28/2020	ND	1.96	98.1	2.00	3.14	
Toluene*	<0.050	0.050	05/28/2020	ND	1.92	96.0	2.00	2.80	
Ethylbenzene*	<0.050	0.050	05/28/2020	ND	1.93	96.5	2.00	3.44	
Total Xylenes*	<0.150	0.150	05/28/2020	ND	5.52	92.0	6.00	3.72	
Total BTX	<0.300	0.300	05/28/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	496	16.0	05/28/2020	ND	384	96.0	400	4.08	

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	05/28/2020	ND	178	88.9	200	3.53	
DRO >C10-C28*	70.4	10.0	05/28/2020	ND	211	106	200	4.33	
EXT DRO >C28-C36	<10.0	10.0	05/28/2020	ND					

Surrogate: 1-Chlorooctane 94.5 % 44.3-144

Surrogate: 1-Chlorooctadecane 106 % 42.2-156

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**Analytical Results For:**

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

Received: 05/27/2020  
 Reported: 05/29/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/26/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: B - 38 2' (H001428-44)**

BTX 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	05/28/2020	ND	1.96	98.1	2.00	3.14	
Toluene*	<0.050	0.050	05/28/2020	ND	1.92	96.0	2.00	2.80	
Ethylbenzene*	<0.050	0.050	05/28/2020	ND	1.93	96.5	2.00	3.44	
Total Xylenes*	<0.150	0.150	05/28/2020	ND	5.52	92.0	6.00	3.72	
Total BTX	<0.300	0.300	05/28/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	288	16.0	05/28/2020	ND	384	96.0	400	4.08	

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	05/28/2020	ND	178	88.9	200	3.53	
DRO >C10-C28*	33.1	10.0	05/28/2020	ND	211	106	200	4.33	
EXT DRO >C28-C36	<10.0	10.0	05/28/2020	ND					

Surrogate: 1-Chlorooctane 79.0 % 44.3-144

Surrogate: 1-Chlorooctadecane 87.8 % 42.2-156

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

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---

### Notes and Definitions

QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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A handwritten signature in black ink, appearing to read "Celey D. Keene".

---

Celey D. Keene, Lab Director/Quality Manager



## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: R.T. Hicks Consultants		<b>BILL TO</b>	
Project Manager: Andrew Parker		P.O. #: <i>MSU 551 H</i>	
Address: On-File		Company: R.T. Hicks	
City:	State:	Zip:	Attn: Send to
Phone #:	Fax #:	Address: andrew@rthicks	
Project #:	Project Owner:		
Project Name: <i>Advance Energy</i>	City:	consult.com	
Project Location: <i>MSU 551 H</i>	State:	Zip:	
Phone #:			
Sampler Name: Jacob Saenz	Fax #:		

<b>BILL TO</b>	P.O. #:	MSU 551H
	Company:	R.T. Hicks
	Attn:	Send to
	Address:	andrew@rthicks
	City:	consult.com
	State:	Zip:
	Phone #:	
	Fax #:	
	DESERV/	SAMPLING

Lab I.D.		Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MEDIA							DATE	TIME	CHLORIDE	TPH (GRO+D)	BENZENE, B
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:					
H021428																
1	W-27	0-1 FT	C		X							5/25	9:42	X	X	X
2	W-31	1-4 FT											9:30	X	X	X
3	W-33	0-4 FT											10:42	X	X	X
4	W-34	0-1 FT											10:30			
5	W-35	1-4											11:42	X	X	X
6	B-01	1 FT											11:30	X	X	X
7	B-02	1 FT											12:42	X	X	X
8	B-03	4.2 FT											12:30	X	X	X
9	B-04	4.2 FT											12:45	X	X	X
10	B-05	4.2 FT											1:02			

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Relinquished By: <u>5ACAB SHERZ</u>		Date: <u>5-27-20</u>		Received By: <u>[Signature]</u>		Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Phone #:	
Relinquished By: <u>[Signature]</u>		Time: <u>825</u>		Date:		Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Fax #:	
Relinquished By:		Time:		Date:		REMARKS:			

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



## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: R.T. Hicks Consultants		P.O. #: <u>MS4 SS1H</u>		ANALYSIS REQUEST	
Project Manager: Andrew Parker		Company: R.T. Hicks			
Address: On-File		Attn: Send to			
City: State: Zip:		Address: andrew@rthicks			
Phone #: Fax #:		City: consult.com			
Project #: Project Owner:		State: Zip:			
Project Name: <u>Advantage Energy</u>		Phone #:			
Project Location: <u>MS4 SS1H</u>		Fax #:			
Sampler Name: Jacob Saenz					

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX	PRESERV.	SAMPLING	DATE	TIME	CHLORIDE	TPH (GRO+DRO+MRO)	BENZENE, BTEX
<u>H004128</u>	B-06 4.2 FT	C	1	GROUNDWATER			5/25/00	1:30pm	X	X	
	B-08 0.1 FT			WASTEWATER				2pm	X	X	
	B-08 W 0.1 FT			SOIL				2:30pm	X	X	
	B-09 2.5 FT			OIL				3pm	X	X	
	B-10 2.5 FT			SLUDGE				3:30pm	X	X	
	B-11 6.5 FT			OTHER :				4pm	X	X	
	B-12 6.5 FT			ACID/BASE:				4:30pm	X	X	
	B-13 6.5 FT			ICE / COOL				4:45pm	X	X	
	B-14 4.3 FT			OTHER :				4:51pm	X	X	
	B-15 4.3 FT							4:30pm	X	X	

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Relinquished By: SA-13 SHEN Z Date: 5-27-20 Time: 8:25 Received By: [Signature]

Reinquinished By: [Signature] Date: \_\_\_\_\_ Time: \_\_\_\_\_

Delivered By: (Circle One) 5.8c Sample Condition: ☒ Intact ☐ Yes ☐ No ☐ Yes ☐ No CHECKED BY: h5

Sampler - UPS - Bus - Other: #113 Phone Result: ☐ Yes ☐ No Add'l Phone #: R92

Fax Result: ☐ Yes ☐ No Add'l Fax #: \_\_\_\_\_

REMARKS: \_\_\_\_\_

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



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Laboratories

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[illegible]







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---

June 01, 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 05/27/20 16:40.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-20-13. 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](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited 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,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive, flowing style.

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: 05/27/2020  
 Reported: 06/01/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/27/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B - 39 4.2' (H001442-01)**

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	05/28/2020	ND	1.96	98.1	2.00	3.14		
Toluene*	<0.050	0.050	05/28/2020	ND	1.92	96.0	2.00	2.80		
Ethylbenzene*	<0.050	0.050	05/28/2020	ND	1.93	96.5	2.00	3.44		
Total Xylenes*	<0.150	0.150	05/28/2020	ND	5.52	92.0	6.00	3.72		
Total BTEX	<0.300	0.300	05/28/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	576	16.0	05/29/2020	ND	416	104	400	3.77		

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	05/29/2020	ND	189	94.5	200	6.42	
DRO >C10-C28*	<10.0	10.0	05/29/2020	ND	180	90.2	200	5.48	
EXT DRO >C28-C36	<10.0	10.0	05/29/2020	ND					

Surrogate: 1-Chlorooctane 91.8 % 44.3-144

Surrogate: 1-Chlorooctadecane 104 % 42.2-156

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 05/27/2020  
 Reported: 06/01/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/27/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B - 40 3' (H001442-02)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	272	16.0	05/29/2020	ND	416	104	400	3.77		

**Sample ID: B - 41 3' (H001442-03)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	05/29/2020	ND	416	104	400	3.77	

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 05/27/2020  
 Reported: 06/01/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/27/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B - 42 2.5' (H001442-04)**

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	05/28/2020	ND	1.96	98.1	2.00	3.14	
Toluene*	<0.050	0.050	05/28/2020	ND	1.92	96.0	2.00	2.80	
Ethylbenzene*	<0.050	0.050	05/28/2020	ND	1.93	96.5	2.00	3.44	
Total Xylenes*	<0.150	0.150	05/28/2020	ND	5.52	92.0	6.00	3.72	
Total BTEx	<0.300	0.300	05/28/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	496	16.0	05/29/2020	ND	416	104	400	3.77	

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	05/29/2020	ND	189	94.5	200	6.42	
DRO >C10-C28*	<10.0	10.0	05/29/2020	ND	180	90.2	200	5.48	
EXT DRO >C28-C36	<10.0	10.0	05/29/2020	ND					

Surrogate: 1-Chlorooctane 93.2 % 44.3-144

Surrogate: 1-Chlorooctadecane 103 % 42.2-156

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 05/27/2020  
 Reported: 06/01/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/27/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B - 43 2.5' (H001442-05)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	784	16.0	05/29/2020	ND	416	104	400	3.77	

**Sample ID: B - 44 3' (H001442-06)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	240	16.0	05/29/2020	ND	416	104	400	3.77	

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 05/27/2020  
 Reported: 06/01/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/27/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B - 45 4.2' (H001442-07)**

BTX 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	05/28/2020	ND	1.96	98.1	2.00	3.14	
Toluene*	<0.050	0.050	05/28/2020	ND	1.92	96.0	2.00	2.80	
Ethylbenzene*	<0.050	0.050	05/28/2020	ND	1.93	96.5	2.00	3.44	
Total Xylenes*	<0.150	0.150	05/28/2020	ND	5.52	92.0	6.00	3.72	
Total BTX	<0.300	0.300	05/28/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	928	16.0	05/29/2020	ND	416	104	400	3.77	

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	05/29/2020	ND	189	94.5	200	6.42	
DRO >C10-C28*	<10.0	10.0	05/29/2020	ND	180	90.2	200	5.48	
EXT DRO >C28-C36	<10.0	10.0	05/29/2020	ND					

Surrogate: 1-Chlorooctane 88.6 % 44.3-144

Surrogate: 1-Chlorooctadecane 94.0 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 05/27/2020  
 Reported: 06/01/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/27/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B - 46 4.2' (H001442-08)**

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	05/28/2020	ND	1.96	98.1	2.00	3.14		
Toluene*	<0.050	0.050	05/28/2020	ND	1.92	96.0	2.00	2.80		
Ethylbenzene*	<0.050	0.050	05/28/2020	ND	1.93	96.5	2.00	3.44		
Total Xylenes*	<0.150	0.150	05/28/2020	ND	5.52	92.0	6.00	3.72		
Total BTEx	<0.300	0.300	05/28/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2600	16.0	05/29/2020	ND	416	104	400	3.77	

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	05/29/2020	ND	189	94.5	200	6.42	
DRO >C10-C28*	<10.0	10.0	05/29/2020	ND	180	90.2	200	5.48	
EXT DRO >C28-C36	<10.0	10.0	05/29/2020	ND					

Surrogate: 1-Chlorooctane 87.2 % 44.3-144

Surrogate: 1-Chlorooctadecane 94.6 % 42.2-156

Cardinal Laboratories

\*=Accredited Analyte

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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: 05/27/2020  
 Reported: 06/01/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/27/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B - 47 4.2' (H001442-09)****Chloride, SM4500Cl-B****mg/kg****Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>240</b>	16.0	05/29/2020	ND	416	104	400	3.77	

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**Analytical Results For:**

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

Received: 05/27/2020  
 Reported: 06/01/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/27/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: W - 36 0-2.5' (H001442-10)**

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	05/28/2020	ND	1.96	98.1	2.00	3.14		
Toluene*	<0.050	0.050	05/28/2020	ND	1.92	96.0	2.00	2.80		
Ethylbenzene*	<0.050	0.050	05/28/2020	ND	1.93	96.5	2.00	3.44		
Total Xylenes*	<0.150	0.150	05/28/2020	ND	5.52	92.0	6.00	3.72		
Total BTEX	<0.300	0.300	05/28/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4400	16.0	05/29/2020	ND	416	104	400	3.77	

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	05/29/2020	ND	189	94.5	200	6.42	
DRO >C10-C28*	<10.0	10.0	05/29/2020	ND	180	90.2	200	5.48	
EXT DRO >C28-C36	<10.0	10.0	05/29/2020	ND					

Surrogate: 1-Chlorooctane 94.6 % 44.3-144

Surrogate: 1-Chlorooctadecane 102 % 42.2-156

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 05/27/2020  
 Reported: 06/01/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/27/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: W - 36 3' (H001442-11)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	208	16.0	05/29/2020	ND	416	104	400	3.77		

**Sample ID: W - 37 2' (H001442-12)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	403	16.0	05/29/2020	ND	416	104	400	3.77	

**Sample ID: W - 38 0-2' (H001442-13)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1600	16.0	05/29/2020	ND	416	104	400	3.77		

**Sample ID: W - 39 4' (H001442-14)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	320	16.0	05/29/2020	ND	416	104	400	3.77		

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 05/27/2020  
 Reported: 06/01/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/27/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: W - 39 0-3' (H001442-15)**

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	05/28/2020	ND	1.96	98.1	2.00	3.14	
Toluene*	<0.050	0.050	05/28/2020	ND	1.92	96.0	2.00	2.80	
Ethylbenzene*	<0.050	0.050	05/28/2020	ND	1.93	96.5	2.00	3.44	
Total Xylenes*	<0.150	0.150	05/28/2020	ND	5.52	92.0	6.00	3.72	
Total BTEx	<0.300	0.300	05/28/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4000	16.0	05/29/2020	ND	416	104	400	3.77	

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	05/29/2020	ND	189	94.5	200	6.42	
DRO >C10-C28*	<10.0	10.0	05/29/2020	ND	180	90.2	200	5.48	
EXT DRO >C28-C36	<10.0	10.0	05/29/2020	ND					

Surrogate: 1-Chlorooctane 98.8 % 44.3-144

Surrogate: 1-Chlorooctadecane 105 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager

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---

### Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
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

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A handwritten signature in black ink, appearing to read "Celey D. Keene".

---

Celey D. Keene, Lab Director/Quality Manager

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

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



## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

<b>Company Name:</b> R.T. Hicks Consultants		<b>BILL TO</b>		<b>ANALYSIS REQUEST</b>	
<b>Project Manager:</b> Andrew Parker		<b>P.O. #:</b> MSU SS1H			
<b>Address:</b> On-File	<b>City:</b>	<b>State:</b>	<b>Zip:</b>	<b>Company:</b> R.T. Hicks	
<b>Phone #:</b>	<b>Fax #:</b>			<b>Attn:</b> Send to	
<b>Project #:</b>	<b>Project Owner:</b>			<b>Address:</b> andrew@rthicks.com	
<b>Project Name:</b> Advance Energy	<b>City:</b> consult.com			<b>State:</b> Zip:	
<b>Project Location:</b> MSU SS1H	<b>Phone #:</b>				
<b>Sampler Name:</b> Jacob Saenz	<b>Fax #:</b>				

FOR LAB USE ONLY		LAB I.D.		Sample I.D.		(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX					PRESERV.	SAMPLING		CHLORIDE	TPH (GRO+DRO+MRO)	BENZENE, BTEX
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	CHLORIDE	TPH (GRO+DRO+MRO)	BENZENE, BTEX	
HDD1442	11 W-36	C	1	X									5/2/20	11:30a	X			
	12 W-37													12:30				
	13 W-38													1:00p				
	14 W-39													1:30pm	X	X		
	15 W-39																	

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<b>Relinquished By:</b> SACOB SAENZ	<b>Date:</b> 5-27-20	<b>Received By:</b> [Signature]	<b>Phone Result:</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<b>Add'l Phone #:</b>
<b>Relinquished By:</b> [Signature]	<b>Date:</b> 5/27/20	<b>Received By:</b> [Signature]	<b>Fax Result:</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<b>Add'l Fax #:</b>
<b>Delivered By:</b> (Circle One) Sampler - UPS - Bus - Other:	<b>Time:</b> 1:40	<b>REMARKS:</b>		
<b>Sample Condition:</b> <input checked="" type="checkbox"/> Cool <input type="checkbox"/> Intact <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<b>CHECKED BY:</b> (Initials) [Signature]			



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---

June 01, 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 05/28/20 16:10.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-20-13. 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](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited 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,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive, flowing style.

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: 05/28/2020  
 Reported: 06/01/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/28/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: W - 24 1-2' (H001454-01)**

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	05/29/2020	ND	2.00	99.8	2.00	1.81	
Toluene*	<0.050	0.050	05/29/2020	ND	1.95	97.5	2.00	2.59	
Ethylbenzene*	<0.050	0.050	05/29/2020	ND	1.94	97.1	2.00	2.57	
Total Xylenes*	<0.150	0.150	05/29/2020	ND	5.56	92.6	6.00	2.48	
Total BTEX	<0.300	0.300	05/29/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.0 % 73.3-129

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	06/01/2020	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	05/29/2020	ND	189	94.5	200	6.42	
DRO >C10-C28*	<10.0	10.0	05/29/2020	ND	180	90.2	200	5.48	
EXT DRO >C28-C36	<10.0	10.0	05/29/2020	ND					

Surrogate: 1-Chlorooctane 93.7 % 44.3-144

Surrogate: 1-Chlorooctadecane 100 % 42.2-156

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 05/28/2020  
 Reported: 06/01/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/28/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: W - 24 0-1' (H001454-02)**

BTX 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	05/29/2020	ND	2.00	99.8	2.00	1.81	
Toluene*	<0.050	0.050	05/29/2020	ND	1.95	97.5	2.00	2.59	
Ethylbenzene*	<0.050	0.050	05/29/2020	ND	1.94	97.1	2.00	2.57	
Total Xylenes*	<0.150	0.150	05/29/2020	ND	5.56	92.6	6.00	2.48	
Total BTX	<0.300	0.300	05/29/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1600	16.0	06/01/2020	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	05/29/2020	ND	189	94.5	200	6.42	
DRO >C10-C28*	<10.0	10.0	05/29/2020	ND	180	90.2	200	5.48	
EXT DRO >C28-C36	<10.0	10.0	05/29/2020	ND					

Surrogate: 1-Chlorooctane 81.1 % 44.3-144

Surrogate: 1-Chlorooctadecane 81.6 % 42.2-156

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 05/28/2020  
 Reported: 06/01/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/28/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: W - 40 0-1' (H001454-03)**

BTX 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	05/29/2020	ND	2.00	99.8	2.00	1.81	
Toluene*	<0.050	0.050	05/29/2020	ND	1.95	97.5	2.00	2.59	
Ethylbenzene*	<0.050	0.050	05/29/2020	ND	1.94	97.1	2.00	2.57	
Total Xylenes*	<0.150	0.150	05/29/2020	ND	5.56	92.6	6.00	2.48	
Total BTX	<0.300	0.300	05/29/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2480	16.0	06/01/2020	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	05/29/2020	ND	189	94.5	200	6.42	
DRO >C10-C28*	51.2	10.0	05/29/2020	ND	180	90.2	200	5.48	
EXT DRO >C28-C36	<10.0	10.0	05/29/2020	ND					

Surrogate: 1-Chlorooctane 79.0 % 44.3-144

Surrogate: 1-Chlorooctadecane 86.3 % 42.2-156

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 05/28/2020  
 Reported: 06/01/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/28/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: B - 48 2' (H001454-04)**

BTX 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	05/29/2020	ND	2.00	99.8	2.00	1.81	
Toluene*	<0.050	0.050	05/29/2020	ND	1.95	97.5	2.00	2.59	
Ethylbenzene*	<0.050	0.050	05/29/2020	ND	1.94	97.1	2.00	2.57	
Total Xylenes*	<0.150	0.150	05/29/2020	ND	5.56	92.6	6.00	2.48	
Total BTX	<0.300	0.300	05/29/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	960	16.0	06/01/2020	ND	416	104	400	3.77	

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	05/29/2020	ND	189	94.5	200	6.42	
DRO >C10-C28*	<10.0	10.0	05/29/2020	ND	180	90.2	200	5.48	
EXT DRO >C28-C36	<10.0	10.0	05/29/2020	ND					

Surrogate: 1-Chlorooctane 82.6 % 44.3-144

Surrogate: 1-Chlorooctadecane 85.6 % 42.2-156

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**Analytical Results For:**

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

Received: 05/28/2020  
 Reported: 06/01/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/28/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: B - 49 2' (H001454-05)**

BTX 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	05/29/2020	ND	2.00	99.8	2.00	1.81	
Toluene*	<0.050	0.050	05/29/2020	ND	1.95	97.5	2.00	2.59	
Ethylbenzene*	<0.050	0.050	05/29/2020	ND	1.94	97.1	2.00	2.57	
Total Xylenes*	<0.150	0.150	05/29/2020	ND	5.56	92.6	6.00	2.48	
Total BTX	<0.300	0.300	05/29/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	06/01/2020	ND	416	104	400	3.77		

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	05/29/2020	ND	189	94.5	200	6.42	
DRO >C10-C28*	<10.0	10.0	05/29/2020	ND	180	90.2	200	5.48	
EXT DRO >C28-C36	<10.0	10.0	05/29/2020	ND					

Surrogate: 1-Chlorooctane 78.4 % 44.3-144

Surrogate: 1-Chlorooctadecane 83.2 % 42.2-156

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**Analytical Results For:**

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

Received: 05/28/2020  
 Reported: 06/01/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/28/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: B - 50 4.1' (H001454-06)**

BTX 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	05/29/2020	ND	2.00	99.8	2.00	1.81	
Toluene*	<0.050	0.050	05/29/2020	ND	1.95	97.5	2.00	2.59	
Ethylbenzene*	<0.050	0.050	05/29/2020	ND	1.94	97.1	2.00	2.57	
Total Xylenes*	<0.150	0.150	05/29/2020	ND	5.56	92.6	6.00	2.48	
Total BTX	<0.300	0.300	05/29/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1220	16.0	06/01/2020	ND	416	104	400	3.77	

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	05/29/2020	ND	189	94.5	200	6.42	
DRO >C10-C28*	<10.0	10.0	05/29/2020	ND	180	90.2	200	5.48	
EXT DRO >C28-C36	<10.0	10.0	05/29/2020	ND					

Surrogate: 1-Chlorooctane 91.6 % 44.3-144

Surrogate: 1-Chlorooctadecane 96.7 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 05/28/2020  
 Reported: 06/01/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/28/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: B - 51 3' (H001454-07)**

BTX 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	05/29/2020	ND	2.00	99.8	2.00	1.81	
Toluene*	<0.050	0.050	05/29/2020	ND	1.95	97.5	2.00	2.59	
Ethylbenzene*	<0.050	0.050	05/29/2020	ND	1.94	97.1	2.00	2.57	
Total Xylenes*	<0.150	0.150	05/29/2020	ND	5.56	92.6	6.00	2.48	
Total BTX	<0.300	0.300	05/29/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	06/01/2020	ND	416	104	400	3.77		

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	05/29/2020	ND	189	94.5	200	6.42	
DRO >C10-C28*	<10.0	10.0	05/29/2020	ND	180	90.2	200	5.48	
EXT DRO >C28-C36	<10.0	10.0	05/29/2020	ND					

Surrogate: 1-Chlorooctane 77.0 % 44.3-144

Surrogate: 1-Chlorooctadecane 84.1 % 42.2-156

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**Analytical Results For:**

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

Received: 05/28/2020  
 Reported: 06/01/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/28/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: B - 52 4.2' (H001454-08)****Chloride, SM4500Cl-B****mg/kg****Analyzed By: GM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>64.0</b>	16.0	06/01/2020	ND	416	104	400	3.77	

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**Analytical Results For:**

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

Received: 05/28/2020  
 Reported: 06/01/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/28/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: B - 53 4.2' (H001454-09)**

BTX 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	05/29/2020	ND	2.00	99.8	2.00	1.81	
Toluene*	<0.050	0.050	05/29/2020	ND	1.95	97.5	2.00	2.59	
Ethylbenzene*	<0.050	0.050	05/29/2020	ND	1.94	97.1	2.00	2.57	
Total Xylenes*	<0.150	0.150	05/29/2020	ND	5.56	92.6	6.00	2.48	
Total BTX	<0.300	0.300	05/29/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	832	16.0	06/01/2020	ND	416	104	400	3.77		

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	05/29/2020	ND	189	94.5	200	6.42	
DRO >C10-C28*	<10.0	10.0	05/29/2020	ND	180	90.2	200	5.48	
EXT DRO >C28-C36	<10.0	10.0	05/29/2020	ND					

Surrogate: 1-Chlorooctane 76.6 % 44.3-144

Surrogate: 1-Chlorooctadecane 81.8 % 42.2-156

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**Analytical Results For:**

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

Received: 05/28/2020  
 Reported: 06/01/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/28/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: B - 54 4.2' (H001454-10)**

BTX 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	05/29/2020	ND	2.00	99.8	2.00	1.81	
Toluene*	<0.050	0.050	05/29/2020	ND	1.95	97.5	2.00	2.59	
Ethylbenzene*	<0.050	0.050	05/29/2020	ND	1.94	97.1	2.00	2.57	
Total Xylenes*	<0.150	0.150	05/29/2020	ND	5.56	92.6	6.00	2.48	
Total BTX	<0.300	0.300	05/29/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	4160	16.0	06/01/2020	ND	416	104	400	3.77		

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	05/29/2020	ND	189	94.5	200	6.42	
DRO >C10-C28*	<10.0	10.0	05/29/2020	ND	180	90.2	200	5.48	
EXT DRO >C28-C36	<10.0	10.0	05/29/2020	ND					

Surrogate: 1-Chlorooctane 83.1 % 44.3-144

Surrogate: 1-Chlorooctadecane 91.2 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 05/28/2020  
 Reported: 06/01/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/28/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: B - 54 NW 4.2' (H001454-11)****Chloride, SM4500Cl-B****mg/kg****Analyzed By: GM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>11900</b>	16.0	06/01/2020	ND	416	104	400	3.77	

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**Analytical Results For:**

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

Received: 05/28/2020  
 Reported: 06/01/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/28/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: B - 54 S .75 4.2' (H001454-12)**

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	05/29/2020	ND	2.00	99.8	2.00	1.81		
Toluene*	<0.050	0.050	05/29/2020	ND	1.95	97.5	2.00	2.59		
Ethylbenzene*	<0.050	0.050	05/29/2020	ND	1.94	97.1	2.00	2.57		
Total Xylenes*	<0.150	0.150	05/29/2020	ND	5.56	92.6	6.00	2.48		
Total BTEX	<0.300	0.300	05/29/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	272	16.0	06/01/2020	ND	416	104	400	3.77		

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	05/29/2020	ND	189	94.5	200	6.42	
DRO >C10-C28*	<10.0	10.0	05/29/2020	ND	180	90.2	200	5.48	
EXT DRO >C28-C36	<10.0	10.0	05/29/2020	ND					

Surrogate: 1-Chlorooctane 78.5 % 44.3-144

Surrogate: 1-Chlorooctadecane 83.7 % 42.2-156

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\*=Accredited Analyte

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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: 05/28/2020  
 Reported: 06/01/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/28/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: B - 55 4.2' (H001454-13)****Chloride, SM4500Cl-B****mg/kg****Analyzed By: GM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>592</b>	16.0	06/01/2020	ND	416	104	400	3.77	

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**Analytical Results For:**

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

Received: 05/28/2020  
 Reported: 06/01/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/28/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: B - 56 1' (H001454-14)**

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	05/29/2020	ND	2.00	99.8	2.00	1.81	
Toluene*	<0.050	0.050	05/29/2020	ND	1.95	97.5	2.00	2.59	
Ethylbenzene*	<0.050	0.050	05/29/2020	ND	1.94	97.1	2.00	2.57	
Total Xylenes*	<0.150	0.150	05/29/2020	ND	5.56	92.6	6.00	2.48	
Total BTEx	<0.300	0.300	05/29/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	608	16.0	06/01/2020	ND	416	104	400	3.77	

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	05/29/2020	ND	184	92.1	200	8.33	
DRO >C10-C28*	<10.0	10.0	05/29/2020	ND	180	90.2	200	8.66	
EXT DRO >C28-C36	<10.0	10.0	05/29/2020	ND					

Surrogate: 1-Chlorooctane 94.0 % 44.3-144

Surrogate: 1-Chlorooctadecane 96.7 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 05/28/2020  
 Reported: 06/01/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/28/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: B - 57 1' (H001454-15)****Chloride, SM4500Cl-B****mg/kg****Analyzed By: GM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>464</b>	16.0	06/01/2020	ND	416	104	400	3.77	

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**Analytical Results For:**

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

Received: 05/28/2020  
 Reported: 06/01/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/28/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: BACK FILL 1 E (H001454-16)**

BTX 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	05/29/2020	ND	2.00	99.8	2.00	1.81		
Toluene*	<0.050	0.050	05/29/2020	ND	1.95	97.5	2.00	2.59		
Ethylbenzene*	<0.050	0.050	05/29/2020	ND	1.94	97.1	2.00	2.57		
Total Xylenes*	<0.150	0.150	05/29/2020	ND	5.56	92.6	6.00	2.48		
Total BTX	<0.300	0.300	05/29/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 100 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	06/01/2020	ND	416	104	400	3.77		

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	05/29/2020	ND	184	92.1	200	8.33	
DRO >C10-C28*	<10.0	10.0	05/29/2020	ND	180	90.2	200	8.66	
EXT DRO >C28-C36	<10.0	10.0	05/29/2020	ND					

Surrogate: 1-Chlorooctane 91.7 % 44.3-144

Surrogate: 1-Chlorooctadecane 96.6 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 05/28/2020  
 Reported: 06/01/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 05/28/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: BACK FILL 1 W (H001454-17)**

BTX 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	05/29/2020	ND	2.00	99.8	2.00	1.81		
Toluene*	<0.050	0.050	05/29/2020	ND	1.95	97.5	2.00	2.59		
Ethylbenzene*	<0.050	0.050	05/29/2020	ND	1.94	97.1	2.00	2.57		
Total Xylenes*	<0.150	0.150	05/29/2020	ND	5.56	92.6	6.00	2.48		
Total BTX	<0.300	0.300	05/29/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	06/01/2020	ND	416	104	400	3.77		

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	05/29/2020	ND	184	92.1	200	8.33	
DRO >C10-C28*	<10.0	10.0	05/29/2020	ND	180	90.2	200	8.66	
EXT DRO >C28-C36	<10.0	10.0	05/29/2020	ND					

Surrogate: 1-Chlorooctane 89.6 % 44.3-144

Surrogate: 1-Chlorooctadecane 92.6 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager

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---

### Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
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

---

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A handwritten signature in black ink, appearing to read "Celey D. Keene".

---

Celey D. Keene, Lab Director/Quality Manager



**CARDINAL**  
Laboratories

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

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(575) 393-2326 FAX (575) 393-2476

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---

June 05, 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 06/02/20 16:55.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-20-13. 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](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited 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,

A handwritten signature in black ink that reads "Celey D. Keene".

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: 06/02/2020  
 Reported: 06/05/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 06/02/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: W - 06 + 2' N 0-4' (H001495-01)**

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	06/03/2020	ND	1.90	95.2	2.00	1.94	
Toluene*	<0.050	0.050	06/03/2020	ND	1.95	97.3	2.00	2.38	
Ethylbenzene*	<0.050	0.050	06/03/2020	ND	1.99	99.6	2.00	2.68	
Total Xylenes*	<0.150	0.150	06/03/2020	ND	5.80	96.7	6.00	2.79	
Total BTEX	<0.300	0.300	06/03/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.3 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	304	16.0	06/03/2020	ND	400	100	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	06/03/2020	ND	178	88.9	200	5.71	
DRO >C10-C28*	<10.0	10.0	06/03/2020	ND	178	89.0	200	4.73	
EXT DRO >C28-C36	<10.0	10.0	06/03/2020	ND					

Surrogate: 1-Chlorooctane 94.0 % 44.3-144

Surrogate: 1-Chlorooctadecane 99.4 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received:	06/02/2020	Sampling Date:	06/02/2020
Reported:	06/05/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	MSU 551H	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

**Sample ID: W - 07 + 2' N 0-4' (H001495-02)**

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	06/03/2020	ND	1.90	95.2	2.00	1.94		
Toluene*	<0.050	0.050	06/03/2020	ND	1.95	97.3	2.00	2.38		
Ethylbenzene*	<0.050	0.050	06/03/2020	ND	1.99	99.6	2.00	2.68		
Total Xylenes*	<0.150	0.150	06/03/2020	ND	5.80	96.7	6.00	2.79		
Total BTEX	<0.300	0.300	06/03/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 96.4 % 73.3-129

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	06/03/2020	ND	400	100	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	06/03/2020	ND	178	88.9	200	5.71	
DRO >C10-C28*	<10.0	10.0	06/03/2020	ND	178	89.0	200	4.73	
EXT DRO >C28-C36	<10.0	10.0	06/03/2020	ND					

Surrogate: 1-Chlorooctane 95.9 % 44.3-144

Surrogate: 1-Chlorooctadecane 103 % 42.2-156

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**Analytical Results For:**

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

Received: 06/02/2020  
 Reported: 06/05/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 06/02/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: W - 08 + 2' N 0-4' (H001495-03)**

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	06/03/2020	ND	1.90	95.2	2.00	1.94	
Toluene*	<0.050	0.050	06/03/2020	ND	1.95	97.3	2.00	2.38	
Ethylbenzene*	<0.050	0.050	06/03/2020	ND	1.99	99.6	2.00	2.68	
Total Xylenes*	<0.150	0.150	06/03/2020	ND	5.80	96.7	6.00	2.79	
Total BTEX	<0.300	0.300	06/03/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.4 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	06/03/2020	ND	400	100	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	06/03/2020	ND	178	88.9	200	5.71	
DRO >C10-C28*	<10.0	10.0	06/03/2020	ND	178	89.0	200	4.73	
EXT DRO >C28-C36	<10.0	10.0	06/03/2020	ND					

Surrogate: 1-Chlorooctane 90.5 % 44.3-144

Surrogate: 1-Chlorooctadecane 96.0 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 06/02/2020  
 Reported: 06/05/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 06/02/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: W - 10 + 2' N 0-4' (H001495-04)**

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	06/03/2020	ND	1.90	95.2	2.00	1.94	
Toluene*	<0.050	0.050	06/03/2020	ND	1.95	97.3	2.00	2.38	
Ethylbenzene*	<0.050	0.050	06/03/2020	ND	1.99	99.6	2.00	2.68	
Total Xylenes*	<0.150	0.150	06/03/2020	ND	5.80	96.7	6.00	2.79	
Total BTEX	<0.300	0.300	06/03/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.6 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2080	16.0	06/03/2020	ND	432	108	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	06/03/2020	ND	178	88.9	200	5.71	
DRO >C10-C28*	<10.0	10.0	06/03/2020	ND	178	89.0	200	4.73	
EXT DRO >C28-C36	<10.0	10.0	06/03/2020	ND					

Surrogate: 1-Chlorooctane 94.4 % 44.3-144

Surrogate: 1-Chlorooctadecane 99.6 % 42.2-156

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received:	06/02/2020	Sampling Date:	06/02/2020
Reported:	06/05/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	Cool & Intact
Project Number:	MSU 551H	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

**Sample ID: W - 13 + 2' N 0.1-4' (H001495-05)**

BTX 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	06/03/2020	ND	1.90	95.2	2.00	1.94	
Toluene*	<0.050	0.050	06/03/2020	ND	1.95	97.3	2.00	2.38	
Ethylbenzene*	<0.050	0.050	06/03/2020	ND	1.99	99.6	2.00	2.68	
Total Xylenes*	<0.150	0.150	06/03/2020	ND	5.80	96.7	6.00	2.79	
Total BTX	<0.300	0.300	06/03/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.6 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1180	16.0	06/03/2020	ND	432	108	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	06/04/2020	ND	178	88.9	200	5.71	
DRO >C10-C28*	<10.0	10.0	06/04/2020	ND	178	89.0	200	4.73	
EXT DRO >C28-C36	<10.0	10.0	06/04/2020	ND					

Surrogate: 1-Chlorooctane 87.0 % 44.3-144

Surrogate: 1-Chlorooctadecane 93.4 % 42.2-156

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 06/02/2020  
 Reported: 06/05/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 06/02/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B - 18 CL 5.5' (H001495-06)**

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	06/03/2020	ND	1.90	95.2	2.00	1.94		
Toluene*	<0.050	0.050	06/03/2020	ND	1.95	97.3	2.00	2.38		
Ethylbenzene*	<0.050	0.050	06/03/2020	ND	1.99	99.6	2.00	2.68		
Total Xylenes*	<0.150	0.150	06/03/2020	ND	5.80	96.7	6.00	2.79		
Total BTEx	<0.300	0.300	06/03/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.1 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	06/03/2020	ND	432	108	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	06/04/2020	ND	178	88.9	200	5.71	
DRO >C10-C28*	<10.0	10.0	06/04/2020	ND	178	89.0	200	4.73	
EXT DRO >C28-C36	<10.0	10.0	06/04/2020	ND					

Surrogate: 1-Chlorooctane 93.9 % 44.3-144

Surrogate: 1-Chlorooctadecane 101 % 42.2-156

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**Analytical Results For:**

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

Received: 06/02/2020  
 Reported: 06/05/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 06/02/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B - 19 CL 5.5' (H001495-07)**

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	06/03/2020	ND	1.90	95.2	2.00	1.94	
Toluene*	<0.050	0.050	06/03/2020	ND	1.95	97.3	2.00	2.38	
Ethylbenzene*	<0.050	0.050	06/03/2020	ND	1.99	99.6	2.00	2.68	
Total Xylenes*	<0.150	0.150	06/03/2020	ND	5.80	96.7	6.00	2.79	
Total BTEx	<0.300	0.300	06/03/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.9 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	06/03/2020	ND	432	108	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	06/04/2020	ND	178	88.9	200	5.71	
DRO >C10-C28*	<10.0	10.0	06/04/2020	ND	178	89.0	200	4.73	
EXT DRO >C28-C36	<10.0	10.0	06/04/2020	ND					

Surrogate: 1-Chlorooctane 99.0 % 44.3-144

Surrogate: 1-Chlorooctadecane 101 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 06/02/2020  
 Reported: 06/05/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 06/02/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B - 21 CL 5.5' (H001495-08)**

BTX 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	06/03/2020	ND	1.90	95.2	2.00	1.94		
Toluene*	<0.050	0.050	06/03/2020	ND	1.95	97.3	2.00	2.38		
Ethylbenzene*	<0.050	0.050	06/03/2020	ND	1.99	99.6	2.00	2.68		
Total Xylenes*	<0.150	0.150	06/03/2020	ND	5.80	96.7	6.00	2.79		
Total BTX	<0.300	0.300	06/03/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 96.9 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	5840	16.0	06/03/2020	ND	432	108	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	06/04/2020	ND	178	88.9	200	5.71	
DRO >C10-C28*	<10.0	10.0	06/04/2020	ND	178	89.0	200	4.73	
EXT DRO >C28-C36	<10.0	10.0	06/04/2020	ND					

Surrogate: 1-Chlorooctane 100 % 44.3-144

Surrogate: 1-Chlorooctadecane 106 % 42.2-156

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**Analytical Results For:**

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

Received: 06/02/2020  
 Reported: 06/05/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 06/02/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B - 22 CL 5.5' (H001495-09)**

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	06/03/2020	ND	1.90	95.2	2.00	1.94	
Toluene*	<0.050	0.050	06/03/2020	ND	1.95	97.3	2.00	2.38	
Ethylbenzene*	<0.050	0.050	06/03/2020	ND	1.99	99.6	2.00	2.68	
Total Xylenes*	<0.150	0.150	06/03/2020	ND	5.80	96.7	6.00	2.79	
Total BTEx	<0.300	0.300	06/03/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.9 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	06/03/2020	ND	432	108	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	06/04/2020	ND	178	88.9	200	5.71	
DRO >C10-C28*	<10.0	10.0	06/04/2020	ND	178	89.0	200	4.73	
EXT DRO >C28-C36	<10.0	10.0	06/04/2020	ND					

Surrogate: 1-Chlorooctane 95.3 % 44.3-144

Surrogate: 1-Chlorooctadecane 99.6 % 42.2-156

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**Analytical Results For:**

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

Received: 06/02/2020  
 Reported: 06/05/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 06/02/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B - 43 3' (H001495-10)**

BTX 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	06/03/2020	ND	1.90	95.2	2.00	1.94	
Toluene*	<0.050	0.050	06/03/2020	ND	1.95	97.3	2.00	2.38	
Ethylbenzene*	<0.050	0.050	06/03/2020	ND	1.99	99.6	2.00	2.68	
Total Xylenes*	<0.150	0.150	06/03/2020	ND	5.80	96.7	6.00	2.79	
Total BTX	<0.300	0.300	06/03/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.1 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	272	16.0	06/03/2020	ND	432	108	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	06/04/2020	ND	178	88.9	200	5.71	
DRO >C10-C28*	<10.0	10.0	06/04/2020	ND	178	89.0	200	4.73	
EXT DRO >C28-C36	<10.0	10.0	06/04/2020	ND					

Surrogate: 1-Chlorooctane 83.7 % 44.3-144

Surrogate: 1-Chlorooctadecane 88.5 % 42.2-156

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**Analytical Results For:**

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

Received: 06/02/2020  
 Reported: 06/05/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 06/02/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B - 54 NW 5.5' (H001495-11)**

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	06/03/2020	ND	1.90	95.2	2.00	1.94		
Toluene*	<0.050	0.050	06/03/2020	ND	1.95	97.3	2.00	2.38		
Ethylbenzene*	<0.050	0.050	06/03/2020	ND	1.99	99.6	2.00	2.68		
Total Xylenes*	<0.150	0.150	06/03/2020	ND	5.80	96.7	6.00	2.79		
Total BTEx	<0.300	0.300	06/03/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 96.9 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	06/03/2020	ND	432	108	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	06/04/2020	ND	178	88.9	200	5.71	
DRO >C10-C28*	<10.0	10.0	06/04/2020	ND	178	89.0	200	4.73	
EXT DRO >C28-C36	<10.0	10.0	06/04/2020	ND					

Surrogate: 1-Chlorooctane 104 % 44.3-144

Surrogate: 1-Chlorooctadecane 110 % 42.2-156

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**Analytical Results For:**

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

Received: 06/02/2020  
 Reported: 06/05/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 06/02/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B - 58 4.2' (H001495-12)**

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	06/03/2020	ND	1.90	95.2	2.00	1.94	
Toluene*	<0.050	0.050	06/03/2020	ND	1.95	97.3	2.00	2.38	
Ethylbenzene*	<0.050	0.050	06/03/2020	ND	1.99	99.6	2.00	2.68	
Total Xylenes*	<0.150	0.150	06/03/2020	ND	5.80	96.7	6.00	2.79	
Total BTEx	<0.300	0.300	06/03/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.1 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	06/03/2020	ND	432	108	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	06/04/2020	ND	192	95.9	200	5.15	
DRO >C10-C28*	<10.0	10.0	06/04/2020	ND	187	93.7	200	3.16	
EXT DRO >C28-C36	<10.0	10.0	06/04/2020	ND					

Surrogate: 1-Chlorooctane 105 % 44.3-144

Surrogate: 1-Chlorooctadecane 113 % 42.2-156

Cardinal Laboratories

\*=Accredited Analyte

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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: 06/02/2020  
 Reported: 06/05/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 06/02/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B - 59 4.2' (H001495-13)**

BTX 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	06/03/2020	ND	1.90	95.2	2.00	1.94		
Toluene*	<0.050	0.050	06/03/2020	ND	1.95	97.3	2.00	2.38		
Ethylbenzene*	<0.050	0.050	06/03/2020	ND	1.99	99.6	2.00	2.68		
Total Xylenes*	<0.150	0.150	06/03/2020	ND	5.80	96.7	6.00	2.79		
Total BTX	<0.300	0.300	06/03/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.3 % 73.3-129

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	06/03/2020	ND	432	108	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	06/04/2020	ND	192	95.9	200	5.15	
DRO >C10-C28*	<10.0	10.0	06/04/2020	ND	187	93.7	200	3.16	
EXT DRO >C28-C36	<10.0	10.0	06/04/2020	ND					

Surrogate: 1-Chlorooctane 103 % 44.3-144

Surrogate: 1-Chlorooctadecane 111 % 42.2-156

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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### Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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A handwritten signature in black ink, appearing to read "Celey D. Keene".

---

Celey D. Keene, Lab Director/Quality Manager



## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: R.T. Hicks Consultants		<b>BILL TO</b>		ANALYSIS REQUEST			
Project Manager: Andrew Parker		P.O. #: m3u 5514					
Address: On-File		Company: R.T. Hicks					
City:		State:		Zip:			
Phone #:		Fax #:		Address: andrew@rthicks			
Project #:		Project Owner:		City: consult.com			
Project Name: Advanced Energy		State:		Zip:			
Project Location: m3u 5514		Phone #:					
Sampler Name: Jacob Saenz		Fax #:					

[illegible]

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<small>Activities of successors arising out of or related to the performance of services rendered by California registered engineers and architects are not covered by this license. The license is not valid for the performance of services rendered by successors of California registered engineers and architects who claim to be successors of any of the above named persons or otherwise.</small>									
Requisitioned By: <i>SA 1015 S.H.S.W.</i>		Date: <i>6-2-20</i>		Received By: <i>Jamesa Delgado</i>		Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No    Add'l Phone #: _____ Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No    Add'l Fax #: _____			
Relinquished By: <i>[Signature]</i>		Date: _____ Time: _____		Received By: _____		REMARKS: <i>Rush CL only</i>			
Delivered By: (Circle One)		Sample Condition Cool <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No    Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		CHECKED BY: (Initials) <i>VD</i>		<i>By 4</i>			
Sampler - UPS - Bus - Other: <i>5.9c #113</i>									

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



## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: R.T. Hicks Consultants		P.O. #: MS4 SS1H		BILL TO		ANALYSIS REQUEST	
Project Manager: Andrew Parker		Company: R.T. Hicks					
Address: On-File		Attn: Send to					
City:		State:		Zip:			
Phone #:		Fax #:		Address: andrew@rthicks.com			
Project #:		Project Owner:		City: consult.com			
Project Name: Advance Energy		State:		Zip:			
Project Location: MS4 SS1H		Phone #:					
Sampler Name: Jacob Saenz		Fax #:					

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX							DATE	TIME	CHLORIDE	TPH (GRO+DRO+MRO)	BENZENE, BTEX	
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:						ICE / COOL
MS4/445	11 B-54 NW	53 FT	G			X						6/2/20	1:30 PM	X	X	X
	12 B-58	4.2 FT	C									1:45 PM	21	X	X	X
	13 B-59	4.2 FT	C											X	X	X

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Relinquished By: Jacob Saenz	Date: 6-2-20	Received By: J. Saenz	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
Relinquished By: J. Saenz	Date: 10-25	Received By: J. Saenz	Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:

Delivered By: (Circle One) ☒ UPS ☐ Bus ☐ Other: 5:30 #113

Sample Condition: ☐ Cool ☐ Intact ☐ Yes ☐ No

CHECKED BY: (Initials) JS

REMARKS: JS 2 Push CL only

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



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---

June 09, 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 06/03/20 16:57.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-20-13. 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](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited 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,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style with a large, stylized 'C' and 'K'.

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:	06/03/2020	Sampling Date:	06/03/2020
Reported:	06/09/2020	Sampling Type:	Soil
Project Name:	ADVANCE ENERGY	Sampling Condition:	** (See Notes)
Project Number:	MSU 551H	Sample Received By:	Kelly Jacobson
Project Location:	NOT GIVEN		

**Sample ID: B - 09 2.5' (H001510-01)**

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	06/05/2020	ND	2.02	101	2.00	2.79	
Toluene*	<0.050	0.050	06/05/2020	ND	2.18	109	2.00	2.24	
Ethylbenzene*	<0.050	0.050	06/05/2020	ND	2.08	104	2.00	2.19	
Total Xylenes*	<0.150	0.150	06/05/2020	ND	6.06	101	6.00	1.18	
Total BTEX	<0.300	0.300	06/05/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 115 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	06/04/2020	ND	400	100	400	3.92	

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	06/04/2020	ND	192	95.9	200	5.15	
DRO >C10-C28*	<10.0	10.0	06/04/2020	ND	187	93.7	200	3.16	
EXT DRO >C28-C36	<10.0	10.0	06/04/2020	ND					

Surrogate: 1-Chlorooctane 104 % 44.3-144

Surrogate: 1-Chlorooctadecane 108 % 42.2-156

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 06/03/2020  
 Reported: 06/09/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 06/03/2020  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Kelly Jacobson

**Sample ID: B - 12 3' (H001510-02)**

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	06/05/2020	ND	2.02	101	2.00	2.79	
Toluene*	<0.050	0.050	06/05/2020	ND	2.18	109	2.00	2.24	
Ethylbenzene*	<0.050	0.050	06/05/2020	ND	2.08	104	2.00	2.19	
Total Xylenes*	<0.150	0.150	06/05/2020	ND	6.06	101	6.00	1.18	
Total BTEx	<0.300	0.300	06/05/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 115 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	06/04/2020	ND	400	100	400	3.92	

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	06/04/2020	ND	192	95.9	200	5.15	
DRO >C10-C28*	<10.0	10.0	06/04/2020	ND	187	93.7	200	3.16	
EXT DRO >C28-C36	<10.0	10.0	06/04/2020	ND					

Surrogate: 1-Chlorooctane 96.8 % 44.3-144

Surrogate: 1-Chlorooctadecane 100 % 42.2-156

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 06/03/2020  
 Reported: 06/09/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 06/03/2020  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Kelly Jacobson

**Sample ID: B - 13 4.2' (H001510-03)**

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	06/05/2020	ND	2.02	101	2.00	2.79	
Toluene*	<0.050	0.050	06/05/2020	ND	2.18	109	2.00	2.24	
Ethylbenzene*	<0.050	0.050	06/05/2020	ND	2.08	104	2.00	2.19	
Total Xylenes*	<0.150	0.150	06/05/2020	ND	6.06	101	6.00	1.18	
Total BTEx	<0.300	0.300	06/05/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 116 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	06/04/2020	ND	400	100	400	3.92		

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	06/04/2020	ND	192	95.9	200	5.15	
DRO >C10-C28*	<10.0	10.0	06/04/2020	ND	187	93.7	200	3.16	
EXT DRO >C28-C36	<10.0	10.0	06/04/2020	ND					

Surrogate: 1-Chlorooctane 95.0 % 44.3-144

Surrogate: 1-Chlorooctadecane 98.2 % 42.2-156

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\*=Accredited Analyte

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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: 06/03/2020  
 Reported: 06/09/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 06/03/2020  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Kelly Jacobson

**Sample ID: B - 25 1.5' (H001510-04)**

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	06/05/2020	ND	2.02	101	2.00	2.79	
Toluene*	<0.050	0.050	06/05/2020	ND	2.18	109	2.00	2.24	
Ethylbenzene*	<0.050	0.050	06/05/2020	ND	2.08	104	2.00	2.19	
Total Xylenes*	<0.150	0.150	06/05/2020	ND	6.06	101	6.00	1.18	
Total BTEX	<0.300	0.300	06/05/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 118 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2640	16.0	06/04/2020	ND	400	100	400	3.92		

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	06/04/2020	ND	192	95.9	200	5.15	
DRO >C10-C28*	<10.0	10.0	06/04/2020	ND	187	93.7	200	3.16	
EXT DRO >C28-C36	<10.0	10.0	06/04/2020	ND					

Surrogate: 1-Chlorooctane 98.3 % 44.3-144

Surrogate: 1-Chlorooctadecane 103 % 42.2-156

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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: 06/03/2020  
 Reported: 06/09/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 06/03/2020  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Kelly Jacobson

**Sample ID: B - 32 3' (H001510-05)**

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	06/05/2020	ND	2.02	101	2.00	2.79	
Toluene*	<0.050	0.050	06/05/2020	ND	2.18	109	2.00	2.24	
Ethylbenzene*	<0.050	0.050	06/05/2020	ND	2.08	104	2.00	2.19	
Total Xylenes*	<0.150	0.150	06/05/2020	ND	6.06	101	6.00	1.18	
Total BTEx	<0.300	0.300	06/05/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 116 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	06/04/2020	ND	400	100	400	3.92	

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	06/04/2020	ND	192	95.9	200	5.15	
DRO >C10-C28*	<10.0	10.0	06/04/2020	ND	187	93.7	200	3.16	
EXT DRO >C28-C36	<10.0	10.0	06/04/2020	ND					

Surrogate: 1-Chlorooctane 99.1 % 44.3-144

Surrogate: 1-Chlorooctadecane 103 % 42.2-156

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\*=Accredited Analyte

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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: 06/03/2020  
 Reported: 06/09/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 06/03/2020  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Kelly Jacobson

**Sample ID: B - 34 3' (H001510-06)**

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	06/05/2020	ND	2.02	101	2.00	2.79	
Toluene*	<0.050	0.050	06/05/2020	ND	2.18	109	2.00	2.24	
Ethylbenzene*	<0.050	0.050	06/05/2020	ND	2.08	104	2.00	2.19	
Total Xylenes*	<0.150	0.150	06/05/2020	ND	6.06	101	6.00	1.18	
Total BTEx	<0.300	0.300	06/05/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 118 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	06/04/2020	ND	400	100	400	3.92	

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	06/04/2020	ND	192	95.9	200	5.15	
DRO >C10-C28*	<10.0	10.0	06/04/2020	ND	187	93.7	200	3.16	
EXT DRO >C28-C36	<10.0	10.0	06/04/2020	ND					

Surrogate: 1-Chlorooctane 101 % 44.3-144

Surrogate: 1-Chlorooctadecane 103 % 42.2-156

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 06/03/2020  
 Reported: 06/09/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 06/03/2020  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Kelly Jacobson

**Sample ID: B - 35 3' (H001510-07)**

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	06/05/2020	ND	2.02	101	2.00	2.79	
Toluene*	<0.050	0.050	06/05/2020	ND	2.18	109	2.00	2.24	
Ethylbenzene*	<0.050	0.050	06/05/2020	ND	2.08	104	2.00	2.19	
Total Xylenes*	<0.150	0.150	06/05/2020	ND	6.06	101	6.00	1.18	
Total BTEx	<0.300	0.300	06/05/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 117 % 73.3-129

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	06/04/2020	ND	400	100	400	3.92	

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	06/04/2020	ND	192	95.9	200	5.15	
DRO >C10-C28*	<10.0	10.0	06/04/2020	ND	187	93.7	200	3.16	
EXT DRO >C28-C36	<10.0	10.0	06/04/2020	ND					

Surrogate: 1-Chlorooctane 102 % 44.3-144

Surrogate: 1-Chlorooctadecane 104 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 06/03/2020  
 Reported: 06/09/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 06/03/2020  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Kelly Jacobson

**Sample ID: B - 56 2' (H001510-08)**

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	06/05/2020	ND	2.02	101	2.00	2.79	
Toluene*	<0.050	0.050	06/05/2020	ND	2.18	109	2.00	2.24	
Ethylbenzene*	<0.050	0.050	06/05/2020	ND	2.08	104	2.00	2.19	
Total Xylenes*	<0.150	0.150	06/05/2020	ND	6.06	101	6.00	1.18	
Total BTEX	<0.300	0.300	06/05/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 115 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	06/04/2020	ND	400	100	400	3.92	

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	06/04/2020	ND	192	95.9	200	5.15	
DRO >C10-C28*	<10.0	10.0	06/04/2020	ND	187	93.7	200	3.16	
EXT DRO >C28-C36	<10.0	10.0	06/04/2020	ND					

Surrogate: 1-Chlorooctane 105 % 44.3-144

Surrogate: 1-Chlorooctadecane 108 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 06/03/2020  
 Reported: 06/09/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 06/03/2020  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Kelly Jacobson

**Sample ID: B - 60 3' (H001510-09)**

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	06/05/2020	ND	2.02	101	2.00	2.79	
Toluene*	<0.050	0.050	06/05/2020	ND	2.18	109	2.00	2.24	
Ethylbenzene*	<0.050	0.050	06/05/2020	ND	2.08	104	2.00	2.19	
Total Xylenes*	<0.150	0.150	06/05/2020	ND	6.06	101	6.00	1.18	
Total BTEx	<0.300	0.300	06/05/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 117 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	06/04/2020	ND	400	100	400	3.92	

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	06/04/2020	ND	192	95.9	200	5.15	
DRO >C10-C28*	<10.0	10.0	06/04/2020	ND	187	93.7	200	3.16	
EXT DRO >C28-C36	<10.0	10.0	06/04/2020	ND					

Surrogate: 1-Chlorooctane 98.9 % 44.3-144

Surrogate: 1-Chlorooctadecane 104 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 06/03/2020  
 Reported: 06/09/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 06/03/2020  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Kelly Jacobson

**Sample ID: W - 21 0-2.5' (H001510-10)**

BTX 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	06/05/2020	ND	2.02	101	2.00	2.79	
Toluene*	<0.050	0.050	06/05/2020	ND	2.18	109	2.00	2.24	
Ethylbenzene*	<0.050	0.050	06/05/2020	ND	2.08	104	2.00	2.19	
Total Xylenes*	<0.150	0.150	06/05/2020	ND	6.06	101	6.00	1.18	
Total BTX	<0.300	0.300	06/05/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 117 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	480	16.0	06/04/2020	ND	400	100	400	3.92		

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	06/04/2020	ND	192	95.9	200	5.15	
DRO >C10-C28*	<10.0	10.0	06/04/2020	ND	187	93.7	200	3.16	
EXT DRO >C28-C36	<10.0	10.0	06/04/2020	ND					

Surrogate: 1-Chlorooctane 96.8 % 44.3-144

Surrogate: 1-Chlorooctadecane 102 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 06/03/2020  
 Reported: 06/09/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 06/03/2020  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Kelly Jacobson

**Sample ID: W - 41 0-2' (H001510-11)**

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	06/05/2020	ND	2.02	101	2.00	2.79	
Toluene*	<0.050	0.050	06/05/2020	ND	2.18	109	2.00	2.24	
Ethylbenzene*	<0.050	0.050	06/05/2020	ND	2.08	104	2.00	2.19	
Total Xylenes*	<0.150	0.150	06/05/2020	ND	6.06	101	6.00	1.18	
Total BTEx	<0.300	0.300	06/05/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 116 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1140	16.0	06/04/2020	ND	400	100	400	3.92	

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	06/05/2020	ND	192	95.9	200	5.15	
DRO >C10-C28*	<10.0	10.0	06/05/2020	ND	187	93.7	200	3.16	
EXT DRO >C28-C36	<10.0	10.0	06/05/2020	ND					

Surrogate: 1-Chlorooctane 107 % 44.3-144

Surrogate: 1-Chlorooctadecane 114 % 42.2-156

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### Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

---

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A handwritten signature in black ink, appearing to read "Celey D. Keene".

---

Celey D. Keene, Lab Director/Quality Manager



**CHAIN-OF-CUSTODY AND ANALYSIS REQUEST**

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

<b>Company Name:</b> R.T. Hicks Consultants <b>Project Manager:</b> Andrew Parker <b>Address:</b> On-File <b>City:</b> <b>State:</b> <b>Zip:</b> <b>Phone #:</b> <b>Fax #:</b> <b>Project #:</b> <b>Project Owner:</b> <b>Project Name:</b> <i>Adventure</i> <b>Project Location:</b> <i>M 54 551H</i> <b>Sampler Name:</b> Jacob Saenz		<b>BILL TO</b> <b>P.O. #:</b> <i>M 54 551H</i> <b>Company:</b> R.T. Hicks <b>Attn:</b> Send to <b>Address:</b> <i>andrew@rthicks</i> <b>City:</b> <i>consult.com</i> <b>State:</b> <b>Zip:</b> <b>Phone #:</b> <b>Fax #:</b>		<b>ANALYSIS REQUEST</b>			
<b>FOR LAB USE ONLY</b>		<b>MATRIX</b>		<b>PRESERV.</b>		<b>SAMPLING</b>	
<b>Lab I.D.</b>		<b>Sample I.D.</b>		<b>DATE</b>		<b>TIME</b>	
(G)RAB OR (C)OMP. # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER : ACID/BASE: ICE / COOL OTHER :		DATE TIME		CHLORIDE TPH (GRO+DRO+MRO) BENZENE, BTEX			
1001510 B-04 2.5FT B-12 3FT B-13 4.2FT B-25 1.5FT B-32 3FT B-34 3FT B-35 3FT B-56 2FT B-60 3FT B-21 0-2.5FT		C 1 1 1 1 1 1 1 1 1 1		X X X X X X X X X X		8/3/20 8:15am 8:30am 8:45am 9:00am 9:15am 9:30am 10:00am 11:00am 12:00pm	
PLEASE NOTE: Liability and damages, Cardinal's liability and clients exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or 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 services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.		<b>Relinquished By:</b> <i>ASB</i> <b>Date:</b> <i>8-3-20</i> <b>Time:</b> <i>1657</i>		<b>Received By:</b> <i>[Signature]</i> <b>Date:</b> <i>8-3-20</i> <b>Time:</b>		<b>Phone Result:</b> <input type="checkbox"/> Yes <input type="checkbox"/> No <b>Add'l Phone #:</b> <b>Fax Result:</b> <input type="checkbox"/> Yes <input type="checkbox"/> No <b>Add'l Fax #:</b> <b>REMARKS:</b> <i>OK! Only CL only</i>	
<b>Relinquished By:</b> <i>[Signature]</i> <b>Date:</b> <i>8-3-20</i> <b>Time:</b>		<b>Received By:</b> <i>[Signature]</i> <b>Date:</b> <i>8-3-20</i> <b>Time:</b>		<b>Sample Condition</b> Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> <b>CHECKED BY:</b> <i>[Signature]</i>		<b>Delivered By:</b> <i>[Signature]</i> <b>Sampler - UPS - Bus - Other:</b> <i>6.9c</i> <i>#113</i>	

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



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## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

[illegible]

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



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

---

June 10, 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 06/04/20 16:45.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-20-13. 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](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited 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,

A handwritten signature in black ink that reads "Celey D. Keene".

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: 06/04/2020  
 Reported: 06/10/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 06/04/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: B - 07 1' (H001523-01)**

BTX 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	06/06/2020	ND	1.99	99.6	2.00	0.880	
Toluene*	<0.050	0.050	06/06/2020	ND	1.94	96.9	2.00	0.901	
Ethylbenzene*	<0.050	0.050	06/06/2020	ND	1.96	98.1	2.00	0.890	
Total Xylenes*	<0.150	0.150	06/06/2020	ND	5.65	94.2	6.00	1.12	
Total BTX	<0.300	0.300	06/06/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.8 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1660	16.0	06/05/2020	ND	400	100	400	3.92		

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	06/06/2020	ND	190	94.8	200	7.81	
DRO >C10-C28*	<10.0	10.0	06/06/2020	ND	174	87.0	200	13.4	
EXT DRO >C28-C36	<10.0	10.0	06/06/2020	ND					

Surrogate: 1-Chlorooctane 95.1 % 44.3-144

Surrogate: 1-Chlorooctadecane 108 % 42.2-156

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 06/04/2020  
 Reported: 06/10/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 06/04/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: B - 22 5.5' (H001523-02)**

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	06/06/2020	ND	1.99	99.6	2.00	0.880	
Toluene*	<0.050	0.050	06/06/2020	ND	1.94	96.9	2.00	0.901	
Ethylbenzene*	<0.050	0.050	06/06/2020	ND	1.96	98.1	2.00	0.890	
Total Xylenes*	<0.150	0.150	06/06/2020	ND	5.65	94.2	6.00	1.12	
Total BTEx	<0.300	0.300	06/06/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.9 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	06/05/2020	ND	416	104	400	3.77	

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	06/06/2020	ND	190	94.8	200	7.81	
DRO >C10-C28*	<10.0	10.0	06/06/2020	ND	174	87.0	200	13.4	
EXT DRO >C28-C36	<10.0	10.0	06/06/2020	ND					

Surrogate: 1-Chlorooctane 105 % 44.3-144

Surrogate: 1-Chlorooctadecane 116 % 42.2-156

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 06/04/2020  
 Reported: 06/10/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 06/04/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: B - 26 3' (H001523-03)**

BTX 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	06/06/2020	ND	1.99	99.6	2.00	0.880		
Toluene*	<0.050	0.050	06/06/2020	ND	1.94	96.9	2.00	0.901		
Ethylbenzene*	<0.050	0.050	06/06/2020	ND	1.96	98.1	2.00	0.890		
Total Xylenes*	<0.150	0.150	06/06/2020	ND	5.65	94.2	6.00	1.12		
Total BTX	<0.300	0.300	06/06/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 96.8 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	224	16.0	06/05/2020	ND	416	104	400	3.77	

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	06/05/2020	ND	183	91.5	200	5.94	
DRO >C10-C28*	13.2	10.0	06/05/2020	ND	170	85.0	200	8.33	
EXT DRO >C28-C36	<10.0	10.0	06/05/2020	ND					

Surrogate: 1-Chlorooctane 97.4 % 44.3-144

Surrogate: 1-Chlorooctadecane 106 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 06/04/2020  
 Reported: 06/10/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 06/04/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: B - 54 5.5' (H001523-04)**

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	06/06/2020	ND	1.99	99.6	2.00	0.880	
Toluene*	<0.050	0.050	06/06/2020	ND	1.94	96.9	2.00	0.901	
Ethylbenzene*	<0.050	0.050	06/06/2020	ND	1.96	98.1	2.00	0.890	
Total Xylenes*	<0.150	0.150	06/06/2020	ND	5.65	94.2	6.00	1.12	
Total BTEx	<0.300	0.300	06/06/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.1 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	06/05/2020	ND	416	104	400	3.77		

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	06/05/2020	ND	183	91.5	200	5.94	
DRO >C10-C28*	<10.0	10.0	06/05/2020	ND	170	85.0	200	8.33	
EXT DRO >C28-C36	<10.0	10.0	06/05/2020	ND					

Surrogate: 1-Chlorooctane 105 % 44.3-144

Surrogate: 1-Chlorooctadecane 114 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 06/04/2020  
 Reported: 06/10/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 06/04/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: B - 57 2' (H001523-05)**

BTX 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	06/06/2020	ND	1.99	99.6	2.00	0.880	
Toluene*	<0.050	0.050	06/06/2020	ND	1.94	96.9	2.00	0.901	
Ethylbenzene*	<0.050	0.050	06/06/2020	ND	1.96	98.1	2.00	0.890	
Total Xylenes*	<0.150	0.150	06/06/2020	ND	5.65	94.2	6.00	1.12	
Total BTX	<0.300	0.300	06/06/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.9 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	06/05/2020	ND	416	104	400	3.77		

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	06/05/2020	ND	183	91.5	200	5.94	
DRO >C10-C28*	<10.0	10.0	06/05/2020	ND	170	85.0	200	8.33	
EXT DRO >C28-C36	<10.0	10.0	06/05/2020	ND					

Surrogate: 1-Chlorooctane 99.3 % 44.3-144

Surrogate: 1-Chlorooctadecane 110 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 06/04/2020  
 Reported: 06/10/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 06/04/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: W - 28 2-4' (H001523-06)**

BTX 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	06/06/2020	ND	1.99	99.6	2.00	0.880	
Toluene*	<0.050	0.050	06/06/2020	ND	1.94	96.9	2.00	0.901	
Ethylbenzene*	<0.050	0.050	06/06/2020	ND	1.96	98.1	2.00	0.890	
Total Xylenes*	<0.150	0.150	06/06/2020	ND	5.65	94.2	6.00	1.12	
Total BTX	<0.300	0.300	06/06/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.3 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	06/05/2020	ND	416	104	400	3.77	

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	06/05/2020	ND	183	91.5	200	5.94	
DRO >C10-C28*	<10.0	10.0	06/05/2020	ND	170	85.0	200	8.33	
EXT DRO >C28-C36	<10.0	10.0	06/05/2020	ND					

Surrogate: 1-Chlorooctane 103 % 44.3-144

Surrogate: 1-Chlorooctadecane 111 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 06/04/2020  
 Reported: 06/10/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 06/04/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: W - 29 0-4' (H001523-07)**

BTX 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	06/06/2020	ND	1.99	99.6	2.00	0.880	
Toluene*	<0.050	0.050	06/06/2020	ND	1.94	96.9	2.00	0.901	
Ethylbenzene*	<0.050	0.050	06/06/2020	ND	1.96	98.1	2.00	0.890	
Total Xylenes*	<0.150	0.150	06/06/2020	ND	5.65	94.2	6.00	1.12	
Total BTX	<0.300	0.300	06/06/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.6 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1220	16.0	06/05/2020	ND	416	104	400	3.77	

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	06/05/2020	ND	183	91.5	200	5.94	
DRO >C10-C28*	59.4	10.0	06/05/2020	ND	170	85.0	200	8.33	
EXT DRO >C28-C36	<10.0	10.0	06/05/2020	ND					

Surrogate: 1-Chlorooctane 99.6 % 44.3-144

Surrogate: 1-Chlorooctadecane 112 % 42.2-156

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 06/04/2020  
 Reported: 06/10/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 06/04/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: W - 30 0-2' (H001523-08)**

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	06/06/2020	ND	1.99	99.6	2.00	0.880	
Toluene*	<0.050	0.050	06/06/2020	ND	1.94	96.9	2.00	0.901	
Ethylbenzene*	<0.050	0.050	06/06/2020	ND	1.96	98.1	2.00	0.890	
Total Xylenes*	<0.150	0.150	06/06/2020	ND	5.65	94.2	6.00	1.12	
Total BTEx	<0.300	0.300	06/06/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.6 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2240	16.0	06/05/2020	ND	416	104	400	3.77		

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	06/05/2020	ND	183	91.5	200	5.94	
DRO >C10-C28*	518	10.0	06/05/2020	ND	170	85.0	200	8.33	
EXT DRO >C28-C36	142	10.0	06/05/2020	ND					

Surrogate: 1-Chlorooctane 84.2 % 44.3-144

Surrogate: 1-Chlorooctadecane 103 % 42.2-156

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\*=Accredited Analyte

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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: 06/04/2020  
 Reported: 06/10/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 06/04/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: W - 31 2-4' (H001523-09)**

BTX 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	06/08/2020	ND	1.70	84.8	2.00	12.8	
Toluene*	<0.050	0.050	06/08/2020	ND	1.72	86.2	2.00	12.7	
Ethylbenzene*	<0.050	0.050	06/08/2020	ND	1.75	87.4	2.00	12.8	
Total Xylenes*	<0.150	0.150	06/08/2020	ND	5.08	84.7	6.00	12.6	
Total BTX	<0.300	0.300	06/08/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.0 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	06/05/2020	ND	416	104	400	3.77	

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	06/05/2020	ND	183	91.5	200	5.94	
DRO >C10-C28*	<10.0	10.0	06/05/2020	ND	170	85.0	200	8.33	
EXT DRO >C28-C36	<10.0	10.0	06/05/2020	ND					

Surrogate: 1-Chlorooctane 105 % 44.3-144

Surrogate: 1-Chlorooctadecane 115 % 42.2-156

Cardinal Laboratories

\*=Accredited Analyte

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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: 06/04/2020  
 Reported: 06/10/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 06/04/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: W - 37 0-4' (H001523-10)**

BTX 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	06/08/2020	ND	1.70	84.8	2.00	12.8		
Toluene*	<0.050	0.050	06/08/2020	ND	1.72	86.2	2.00	12.7		
Ethylbenzene*	<0.050	0.050	06/08/2020	ND	1.75	87.4	2.00	12.8		
Total Xylenes*	<0.150	0.150	06/08/2020	ND	5.08	84.7	6.00	12.6		
Total BTX	<0.300	0.300	06/08/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.1 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1710	16.0	06/05/2020	ND	416	104	400	3.77	

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	06/05/2020	ND	183	91.5	200	5.94	
DRO >C10-C28*	10.4	10.0	06/05/2020	ND	170	85.0	200	8.33	
EXT DRO >C28-C36	<10.0	10.0	06/05/2020	ND					

Surrogate: 1-Chlorooctane 99.4 % 44.3-144

Surrogate: 1-Chlorooctadecane 113 % 42.2-156

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\*=Accredited Analyte

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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: 06/04/2020  
 Reported: 06/10/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 06/04/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: W - 42 0-4' (H001523-11)**

BTX 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	06/08/2020	ND	1.70	84.8	2.00	12.8	
Toluene*	<0.050	0.050	06/08/2020	ND	1.72	86.2	2.00	12.7	
Ethylbenzene*	<0.050	0.050	06/08/2020	ND	1.75	87.4	2.00	12.8	
Total Xylenes*	<0.150	0.150	06/08/2020	ND	5.08	84.7	6.00	12.6	
Total BTX	<0.300	0.300	06/08/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.4 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	06/05/2020	ND	416	104	400	3.77	

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	06/06/2020	ND	186	92.9	200	5.64	
DRO >C10-C28*	84.1	10.0	06/06/2020	ND	185	92.4	200	4.74	
EXT DRO >C28-C36	<10.0	10.0	06/06/2020	ND					

Surrogate: 1-Chlorooctane 96.3 % 44.3-144

Surrogate: 1-Chlorooctadecane 107 % 42.2-156

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 06/04/2020  
 Reported: 06/10/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 06/04/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: W - 43 0 - 1.5' (H001523-12)**

BTX 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	06/08/2020	ND	1.70	84.8	2.00	12.8	
Toluene*	<0.050	0.050	06/08/2020	ND	1.72	86.2	2.00	12.7	
Ethylbenzene*	<0.050	0.050	06/08/2020	ND	1.75	87.4	2.00	12.8	
Total Xylenes*	<0.150	0.150	06/08/2020	ND	5.08	84.7	6.00	12.6	
Total BTX	<0.300	0.300	06/08/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.4 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	544	16.0	06/05/2020	ND	416	104	400	3.77	

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	06/06/2020	ND	186	92.9	200	5.64	
DRO >C10-C28*	<10.0	10.0	06/06/2020	ND	185	92.4	200	4.74	
EXT DRO >C28-C36	<10.0	10.0	06/06/2020	ND					

Surrogate: 1-Chlorooctane 86.1 % 44.3-144

Surrogate: 1-Chlorooctadecane 93.5 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager

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---

### 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.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

---

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A handwritten signature in black ink, appearing to read "Celey D. Keene".

---

Celey D. Keene, Lab Director/Quality Manager



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## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: R.T. Hicks Consultants		<b>BILL TO</b>		ANALYSIS REQUEST																																																																
Project Manager: Andrew Parker		P.O. #: MS4 551H																																																																		
Address: On-File		Company: R.T. Hicks																																																																		
City:	State:	Zip:	Attn: Send to																																																																	
Phone #:	Fax #:	Address: andrew@rthicks.com																																																																		
Project #:	Project Owner:		City: consult.com																																																																	
Project Name: Advance Energy		State:	Zip:																																																																	
Project Location: MS4 551H		Phone #:																																																																		
Sample Name: Jacob Saenz		Fax #:																																																																		
FOR LAB USE ONLY																																																																				
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.		DATE	TIME																																																															
		# CONTAINERS																																																																		
H001523	B-07	1 FT		6/4/00	7:20a																																																															
	B-22	5.5 FT			8:00a																																																															
	B-26	3 FT			8:30am																																																															
	B-34	5.5 FT			9am																																																															
	B-57	2 FT			9:30am																																																															
	B-28	2-4 FT			10am																																																															
	B-29	0-4 FT			10:30am																																																															
	B-30	0-2 FT			11am																																																															
	B-31	2-4 FT			11:30am																																																															
	B-37	0-4 FT			12pm																																																															
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th rowspan="2">MATRIX</th> <th rowspan="2">PRESERV.</th> <th rowspan="2">SAMPLING</th> <th>CHLORIDE</th> <th>TPH (GRO+DRO+MRO)</th> <th>BENZENE, BTEX</th> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table>						MATRIX	PRESERV.	SAMPLING	CHLORIDE	TPH (GRO+DRO+MRO)	BENZENE, BTEX																																																									
MATRIX	PRESERV.	SAMPLING	CHLORIDE	TPH (GRO+DRO+MRO)	BENZENE, BTEX																																																															

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Relinquished By:	Date: 6-4-20	Received By:	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
Time: 1645			Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:
REMARKS: Rush CL ONLY				

Relinquished By: *[Signature]*  
 Date: *6-4-20*  
 Time: *1645*

Received By: *[Signature]*  
 Date: *6-4-20*  
 Time: *1645*

Delivered By: (Circle One) *5.6c*  
 Sampler - UPS - Bus - Other:

Sample Condition: ☒ Cool ☐ Intact  
☐ Yes ☐ No

CHECKED BY: (Initials) *h3*



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## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

[illegible]



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

---

June 11, 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 06/05/20 14:15.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-20-13. 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](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited 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,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive, flowing style.

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: 06/05/2020  
 Reported: 06/11/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 06/05/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: B - 18 5.5 FT (H001532-01)**

BTX 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	06/08/2020	ND	1.70	84.8	2.00	12.8		
Toluene*	<0.050	0.050	06/08/2020	ND	1.72	86.2	2.00	12.7		
Ethylbenzene*	<0.050	0.050	06/08/2020	ND	1.75	87.4	2.00	12.8		
Total Xylenes*	<0.150	0.150	06/08/2020	ND	5.08	84.7	6.00	12.6		
Total BTX	<0.300	0.300	06/08/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 96.9 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	208	16.0	06/05/2020	ND	400	100	400	7.69		

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	06/08/2020	ND	187	93.7	200	7.84	
DRO >C10-C28*	<10.0	10.0	06/08/2020	ND	188	93.9	200	4.40	
EXT DRO >C28-C36	<10.0	10.0	06/08/2020	ND					

Surrogate: 1-Chlorooctane 103 % 44.3-144

Surrogate: 1-Chlorooctadecane 117 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 06/05/2020  
 Reported: 06/11/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 06/05/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: B - 19 5.5 FT (H001532-02)**

BTX 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	06/08/2020	ND	1.70	84.8	2.00	12.8	
Toluene*	<0.050	0.050	06/08/2020	ND	1.72	86.2	2.00	12.7	
Ethylbenzene*	<0.050	0.050	06/08/2020	ND	1.75	87.4	2.00	12.8	
Total Xylenes*	<0.150	0.150	06/08/2020	ND	5.08	84.7	6.00	12.6	
Total BTX	<0.300	0.300	06/08/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.8 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	06/05/2020	ND	400	100	400	7.69	

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	06/08/2020	ND	187	93.7	200	7.84	
DRO >C10-C28*	<10.0	10.0	06/08/2020	ND	188	93.9	200	4.40	
EXT DRO >C28-C36	<10.0	10.0	06/08/2020	ND					

Surrogate: 1-Chlorooctane 102 % 44.3-144

Surrogate: 1-Chlorooctadecane 112 % 42.2-156

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\*=Accredited Analyte

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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: 06/05/2020  
 Reported: 06/11/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 06/05/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: B - 21 5.5 FT (H001532-03)**

BTX 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	06/08/2020	ND	1.70	84.8	2.00	12.8		
Toluene*	<0.050	0.050	06/08/2020	ND	1.72	86.2	2.00	12.7		
Ethylbenzene*	<0.050	0.050	06/08/2020	ND	1.75	87.4	2.00	12.8		
Total Xylenes*	<0.150	0.150	06/08/2020	ND	5.08	84.7	6.00	12.6		
Total BTX	<0.300	0.300	06/08/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.1 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	176	16.0	06/05/2020	ND	400	100	400	7.69		

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	06/08/2020	ND	187	93.7	200	7.84	
DRO >C10-C28*	<10.0	10.0	06/08/2020	ND	188	93.9	200	4.40	
EXT DRO >C28-C36	<10.0	10.0	06/08/2020	ND					

Surrogate: 1-Chlorooctane 101 % 44.3-144

Surrogate: 1-Chlorooctadecane 113 % 42.2-156

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 06/05/2020  
 Reported: 06/11/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 06/05/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: B - 21 CL 7.5 FT (H001532-04)**

BTX 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	06/08/2020	ND	1.70	84.8	2.00	12.8		
Toluene*	<0.050	0.050	06/08/2020	ND	1.72	86.2	2.00	12.7		
Ethylbenzene*	<0.050	0.050	06/08/2020	ND	1.75	87.4	2.00	12.8		
Total Xylenes*	<0.150	0.150	06/08/2020	ND	5.08	84.7	6.00	12.6		
Total BTX	<0.300	0.300	06/08/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.0 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1300	16.0	06/05/2020	ND	400	100	400	7.69		

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	06/08/2020	ND	187	93.7	200	7.84	
DRO >C10-C28*	<10.0	10.0	06/08/2020	ND	188	93.9	200	4.40	
EXT DRO >C28-C36	<10.0	10.0	06/08/2020	ND					

Surrogate: 1-Chlorooctane 101 % 44.3-144

Surrogate: 1-Chlorooctadecane 110 % 42.2-156

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 06/05/2020  
 Reported: 06/11/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 06/05/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kelly Jacobson

**Sample ID: W - 32 0 - 4 FT (H001532-05)**

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	06/08/2020	ND	1.70	84.8	2.00	12.8		
Toluene*	<0.050	0.050	06/08/2020	ND	1.72	86.2	2.00	12.7		
Ethylbenzene*	<0.050	0.050	06/08/2020	ND	1.75	87.4	2.00	12.8		
Total Xylenes*	<0.150	0.150	06/08/2020	ND	5.08	84.7	6.00	12.6		
Total BTEX	<0.300	0.300	06/08/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.8 % 73.3-129

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	06/05/2020	ND	400	100	400	7.69		

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	06/08/2020	ND	187	93.7	200	7.84	
DRO >C10-C28*	<10.0	10.0	06/08/2020	ND	188	93.9	200	4.40	
EXT DRO >C28-C36	<10.0	10.0	06/08/2020	ND					

Surrogate: 1-Chlorooctane 102 % 44.3-144

Surrogate: 1-Chlorooctadecane 112 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



---

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---

### Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

---

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A handwritten signature in cursive script, appearing to read "Celey D. Keene".

---

Celey D. Keene, Lab Director/Quality Manager

Page 8 of 8



CARDINAL  
Laboratories

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

[illegible]



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---

July 31, 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 07/30/20 16:50.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-20-13. 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](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited 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,

A handwritten signature in black ink that reads "Celey D. Keene".

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: 07/30/2020  
 Reported: 07/31/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 07/29/2020  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Tamara Oldaker

**Sample ID: W - 209 BF 0-1' (H001973-01)**

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	07/31/2020	ND	2.02	101	2.00	9.31	
Toluene*	<0.050	0.050	07/31/2020	ND	2.02	101	2.00	9.09	
Ethylbenzene*	<0.050	0.050	07/31/2020	ND	2.04	102	2.00	8.86	
Total Xylenes*	<0.150	0.150	07/31/2020	ND	5.91	98.5	6.00	9.06	
Total BTEX	<0.300	0.300	07/31/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 93.1 % 73.3-129

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	07/31/2020	ND	416	104	400	3.77		

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	07/31/2020	ND	195	97.5	200	7.70	
DRO >C10-C28*	17.1	10.0	07/31/2020	ND	195	97.5	200	11.3	
EXT DRO >C28-C36	<10.0	10.0	07/31/2020	ND					

Surrogate: 1-Chlorooctane 87.4 % 44.3-144

Surrogate: 1-Chlorooctadecane 89.3 % 42.2-156

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 07/30/2020  
 Reported: 07/31/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 07/29/2020  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Tamara Oldaker

**Sample ID: W - 208 BF 0-2' (H001973-02)**

BTX 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	07/31/2020	ND	2.02	101	2.00	9.31	
Toluene*	<0.050	0.050	07/31/2020	ND	2.02	101	2.00	9.09	
Ethylbenzene*	<0.050	0.050	07/31/2020	ND	2.04	102	2.00	8.86	
Total Xylenes*	<0.150	0.150	07/31/2020	ND	5.91	98.5	6.00	9.06	
Total BTX	<0.300	0.300	07/31/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.3 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	256	16.0	07/31/2020	ND	416	104	400	3.77		

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	07/31/2020	ND	195	97.5	200	7.70	
DRO >C10-C28*	21.1	10.0	07/31/2020	ND	195	97.5	200	11.3	
EXT DRO >C28-C36	<10.0	10.0	07/31/2020	ND					

Surrogate: 1-Chlorooctane 79.5 % 44.3-144

Surrogate: 1-Chlorooctadecane 82.3 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 07/30/2020  
 Reported: 07/31/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 07/29/2020  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Tamara Oldaker

**Sample ID: W - 207 BF 0-3' (H001973-03)**

BTX 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	07/31/2020	ND	2.02	101	2.00	9.31	
Toluene*	<0.050	0.050	07/31/2020	ND	2.02	101	2.00	9.09	
Ethylbenzene*	<0.050	0.050	07/31/2020	ND	2.04	102	2.00	8.86	
Total Xylenes*	<0.150	0.150	07/31/2020	ND	5.91	98.5	6.00	9.06	
Total BTX	<0.300	0.300	07/31/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 93.7 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	464	16.0	07/31/2020	ND	416	104	400	3.77		

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	07/31/2020	ND	195	97.5	200	7.70	
DRO >C10-C28*	45.7	10.0	07/31/2020	ND	195	97.5	200	11.3	
EXT DRO >C28-C36	<10.0	10.0	07/31/2020	ND					

Surrogate: 1-Chlorooctane 76.8 % 44.3-144

Surrogate: 1-Chlorooctadecane 79.8 % 42.2-156

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 07/30/2020  
 Reported: 07/31/2020  
 Project Name: ADVANCE ENERGY  
 Project Number: MSU 551H  
 Project Location: NOT GIVEN

Sampling Date: 07/29/2020  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Tamara Oldaker

**Sample ID: W - 212 BF 0-2' (H001973-04)**

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	07/31/2020	ND	2.02	101	2.00	9.31	
Toluene*	<0.050	0.050	07/31/2020	ND	2.02	101	2.00	9.09	
Ethylbenzene*	<0.050	0.050	07/31/2020	ND	2.04	102	2.00	8.86	
Total Xylenes*	<0.150	0.150	07/31/2020	ND	5.91	98.5	6.00	9.06	
Total BTEX	<0.300	0.300	07/31/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.1 % 73.3-129

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	07/31/2020	ND	416	104	400	3.77		

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	07/31/2020	ND	195	97.5	200	7.70	
DRO >C10-C28*	13.9	10.0	07/31/2020	ND	195	97.5	200	11.3	
EXT DRO >C28-C36	<10.0	10.0	07/31/2020	ND					

Surrogate: 1-Chlorooctane 75.5 % 44.3-144

Surrogate: 1-Chlorooctadecane 76.2 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



---

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---

### Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

---

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A handwritten signature in black ink, appearing to read "Celey D. Keene".

---

Celey D. Keene, Lab Director/Quality Manager



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

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: <b>R.T. Hicks Const/HS</b>				<b>BILL TO</b>				<b>ANALYSIS REQUEST</b>			
Project Manager: <b>Andrew Parker</b>				P.O. #:				Company: <b>RT Hicks</b>			
Address: <b>On-File</b>				State:				Attn: <b>Send to</b>			
City:				Zip:				Address: <b>Andrew @ RT Hicks</b>			
Phone #:				Project Owner:				City: <b>Consult-cen</b>			
Project #:				State:				Zip:			
Project Name: <b>Advance Ferry</b>				Phone #:				Fax #:			
Project Location: <b>MSn 5514</b>				Sample Name: <b>SAE08 SAE02</b>				FOR LAB USE ONLY			
Lab I.D.				Sample I.D.				(G)RAB OR (C)OMP.			
H001973				1 W-209 BF 0-1 FT C				# CONTAINERS			
2 W-208 BF 0-2 FT				2 W-207 BF 0-3 FT				GROUNDWATER			
3 W-207 BF 0-3 FT				4 W-212 BF 0-2 FT				WASTEWATER			
4 W-212 BF 0-2 FT				DATE				TIME			
DATE				TIME				MATRIX			
DATE				TIME				PRESERV.			
DATE				TIME				SAMPLING			
DATE				TIME				OTHER:			
DATE				TIME				ACID/BASE:			
DATE				TIME				ICE / COOL			
DATE				TIME				OTHER:			
DATE				TIME				Chloride			
DATE				TIME				TPH (GRO + DRO + MRO)			
DATE				TIME				Benzene, BTEX			
DATE				TIME				Bacteria (only)			
DATE				TIME				Sample Condition			
DATE				TIME				Observed Temp. °C			
DATE				TIME				Corrected Temp. °C			

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

---

August 04, 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 07/30/20 16:50.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-20-13. 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](http://www.tceq.texas.gov/field/ga/lab_accred_certif.html).

Cardinal Laboratories is accredited 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. 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 SUITE F-142  
ALBUQUERQUE NM, 87104

Project: ADVANCE ENERGY  
Project Number: MSU 551H  
Project Manager: ANDREW PARKER  
Fax To: NONE

Reported:  
04-Aug-20 11:19

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B - 201 4.2'	H001974-01	Soil	28-Jul-20 08:00	30-Jul-20 16:50
B - 202 4.2'	H001974-02	Soil	28-Jul-20 08:30	30-Jul-20 16:50
B - 203 2'	H001974-03	Soil	28-Jul-20 09:00	30-Jul-20 16:50
B - 204 1.5'	H001974-04	Soil	28-Jul-20 10:00	30-Jul-20 16:50
B - 205 2'	H001974-05	Soil	28-Jul-20 11:00	30-Jul-20 16:50
B - 206 1'	H001974-06	Soil	28-Jul-20 12:00	30-Jul-20 16:50
B - 207 1'	H001974-07	Soil	28-Jul-20 12:30	30-Jul-20 16:50
W - 201 0-4'	H001974-08	Soil	29-Jul-20 08:00	30-Jul-20 16:50
W - 202 0-4'	H001974-09	Soil	29-Jul-20 08:15	30-Jul-20 16:50
W - 203 0-4'	H001974-10	Soil	29-Jul-20 08:30	30-Jul-20 16:50
W - 204 0-1.5'	H001974-11	Soil	29-Jul-20 09:00	30-Jul-20 16:50
W - 205 0-1'	H001974-12	Soil	29-Jul-20 09:30	30-Jul-20 16:50
W - 206 1-2'	H001974-13	Soil	29-Jul-20 10:00	30-Jul-20 16:50
W - 210 0-2'	H001974-14	Soil	29-Jul-20 10:30	30-Jul-20 16:50
W - 211 2-4'	H001974-15	Soil	30-Jul-20 08:00	30-Jul-20 16:50
W - 213 0-2'	H001974-16	Soil	30-Jul-20 09:00	30-Jul-20 16:50
B - 208 TRENCH 7'	H001974-17	Soil	30-Jul-20 10:15	30-Jul-20 16:50
B - 209 2'	H001974-18	Soil	30-Jul-20 10:30	30-Jul-20 16:50

08/04/20 - A login mistake was made on the sample ID for sample -18. This is the revised report with the correct Sample ID and this report will replace the one sent on 07/31/20.

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Project: ADVANCE ENERGY  
Project Number: MSU 551H  
Project Manager: ANDREW PARKER  
Fax To: NONE

Reported:  
04-Aug-20 11:19

**B - 201 4.2'**  
**H001974-01 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

Chloride	96.0		16.0	mg/kg	4	0073004	GM	31-Jul-20	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	0073107	MS	31-Jul-20	8021B	
Toluene*	<0.050		0.050	mg/kg	50	0073107	MS	31-Jul-20	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	0073107	MS	31-Jul-20	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	0073107	MS	31-Jul-20	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	0073107	MS	31-Jul-20	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			94.8 %	73.3-129		0073107	MS	31-Jul-20	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	0073103	MS	31-Jul-20	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	0073103	MS	31-Jul-20	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	0073103	MS	31-Jul-20	8015B	

Surrogate: 1-Chlorooctane			78.5 %	44.3-144		0073103	MS	31-Jul-20	8015B	
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Surrogate: 1-Chlorooctadecane			80.9 %	42.2-156		0073103	MS	31-Jul-20	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Project: ADVANCE ENERGY  
Project Number: MSU 551H  
Project Manager: ANDREW PARKER  
Fax To: NONE

Reported:  
04-Aug-20 11:19

**B - 202 4.2'**  
**H001974-02 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

Chloride	32.0		16.0	mg/kg	4	0073004	GM	31-Jul-20	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	0073107	MS	31-Jul-20	8021B	
Toluene*	<0.050		0.050	mg/kg	50	0073107	MS	31-Jul-20	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	0073107	MS	31-Jul-20	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	0073107	MS	31-Jul-20	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	0073107	MS	31-Jul-20	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			94.3 %		73.3-129	0073107	MS	31-Jul-20	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	0073103	MS	31-Jul-20	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	0073103	MS	31-Jul-20	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	0073103	MS	31-Jul-20	8015B	

Surrogate: 1-Chlorooctane			75.6 %		44.3-144	0073103	MS	31-Jul-20	8015B	
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Surrogate: 1-Chlorooctadecane			76.9 %		42.2-156	0073103	MS	31-Jul-20	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Project: ADVANCE ENERGY  
Project Number: MSU 551H  
Project Manager: ANDREW PARKER  
Fax To: NONE

Reported:  
04-Aug-20 11:19

**B - 203 2'**  
**H001974-03 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

Chloride	256		16.0	mg/kg	4	0073004	GM	31-Jul-20	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	0073107	MS	31-Jul-20	8021B	
Toluene*	<0.050		0.050	mg/kg	50	0073107	MS	31-Jul-20	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	0073107	MS	31-Jul-20	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	0073107	MS	31-Jul-20	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	0073107	MS	31-Jul-20	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			95.1 %		73.3-129	0073107	MS	31-Jul-20	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	0073103	MS	31-Jul-20	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	0073103	MS	31-Jul-20	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	0073103	MS	31-Jul-20	8015B	

Surrogate: 1-Chlorooctane			74.8 %		44.3-144	0073103	MS	31-Jul-20	8015B	
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Surrogate: 1-Chlorooctadecane			75.8 %		42.2-156	0073103	MS	31-Jul-20	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Project: ADVANCE ENERGY  
Project Number: MSU 551H  
Project Manager: ANDREW PARKER  
Fax To: NONE

Reported:  
04-Aug-20 11:19

**B - 204 1.5'**  
**H001974-04 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

Chloride	240		16.0	mg/kg	4	0073004	GM	31-Jul-20	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	0073107	MS	31-Jul-20	8021B	
Toluene*	<0.050		0.050	mg/kg	50	0073107	MS	31-Jul-20	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	0073107	MS	31-Jul-20	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	0073107	MS	31-Jul-20	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	0073107	MS	31-Jul-20	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			93.7 %		73.3-129	0073107	MS	31-Jul-20	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	0073103	MS	31-Jul-20	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	0073103	MS	31-Jul-20	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	0073103	MS	31-Jul-20	8015B	

Surrogate: 1-Chlorooctane			81.4 %		44.3-144	0073103	MS	31-Jul-20	8015B	
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Surrogate: 1-Chlorooctadecane			82.6 %		42.2-156	0073103	MS	31-Jul-20	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Project: ADVANCE ENERGY  
Project Number: MSU 551H  
Project Manager: ANDREW PARKER  
Fax To: NONE

Reported:  
04-Aug-20 11:19

**B - 205 2'**  
**H001974-05 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

<b>Chloride</b>	<b>64.0</b>		16.0	mg/kg	4	0073004	GM	31-Jul-20	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	0073107	MS	31-Jul-20	8021B	
Toluene*	<0.050		0.050	mg/kg	50	0073107	MS	31-Jul-20	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	0073107	MS	31-Jul-20	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	0073107	MS	31-Jul-20	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	0073107	MS	31-Jul-20	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			93.5 %		73.3-129	0073107	MS	31-Jul-20	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	0073103	MS	31-Jul-20	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	0073103	MS	31-Jul-20	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	0073103	MS	31-Jul-20	8015B	

<i>Surrogate: 1-Chlorooctane</i>			82.1 %		44.3-144	0073103	MS	31-Jul-20	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			83.9 %		42.2-156	0073103	MS	31-Jul-20	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Project: ADVANCE ENERGY  
Project Number: MSU 551H  
Project Manager: ANDREW PARKER  
Fax To: NONE

Reported:  
04-Aug-20 11:19

**B - 206 1'**  
**H001974-06 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

Chloride	48.0		16.0	mg/kg	4	0073004	GM	31-Jul-20	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	0073107	MS	31-Jul-20	8021B	
Toluene*	<0.050		0.050	mg/kg	50	0073107	MS	31-Jul-20	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	0073107	MS	31-Jul-20	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	0073107	MS	31-Jul-20	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	0073107	MS	31-Jul-20	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			94.2 %		73.3-129	0073107	MS	31-Jul-20	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	0073103	MS	31-Jul-20	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	0073103	MS	31-Jul-20	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	0073103	MS	31-Jul-20	8015B	

Surrogate: 1-Chlorooctane			74.7 %		44.3-144	0073103	MS	31-Jul-20	8015B	
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Surrogate: 1-Chlorooctadecane			75.6 %		42.2-156	0073103	MS	31-Jul-20	8015B	
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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 SUITE F-142  
ALBUQUERQUE NM, 87104

Project: ADVANCE ENERGY  
Project Number: MSU 551H  
Project Manager: ANDREW PARKER  
Fax To: NONE

Reported:  
04-Aug-20 11:19

**B - 207 1'**  
**H001974-07 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

<b>Chloride</b>	<b>208</b>		16.0	mg/kg	4	0073004	GM	31-Jul-20	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	0073107	MS	31-Jul-20	8021B	
Toluene*	<0.050		0.050	mg/kg	50	0073107	MS	31-Jul-20	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	0073107	MS	31-Jul-20	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	0073107	MS	31-Jul-20	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	0073107	MS	31-Jul-20	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			94.9 %		73.3-129	0073107	MS	31-Jul-20	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	0073103	MS	31-Jul-20	8015B	
<b>DRO &gt;C10-C28*</b>	<b>31.6</b>		10.0	mg/kg	1	0073103	MS	31-Jul-20	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	0073103	MS	31-Jul-20	8015B	

Surrogate: 1-Chlorooctane			76.6 %		44.3-144	0073103	MS	31-Jul-20	8015B	
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Surrogate: 1-Chlorooctadecane			78.8 %		42.2-156	0073103	MS	31-Jul-20	8015B	
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Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Project: ADVANCE ENERGY  
Project Number: MSU 551H  
Project Manager: ANDREW PARKER  
Fax To: NONE

Reported:  
04-Aug-20 11:19

**W - 201 0-4'**  
**H001974-08 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

<b>Chloride</b>	<b>1940</b>		16.0	mg/kg	4	0073004	GM	31-Jul-20	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	0073107	MS	31-Jul-20	8021B	
Toluene*	<0.050		0.050	mg/kg	50	0073107	MS	31-Jul-20	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	0073107	MS	31-Jul-20	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	0073107	MS	31-Jul-20	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	0073107	MS	31-Jul-20	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			93.8 %		73.3-129	0073107	MS	31-Jul-20	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	0073103	MS	31-Jul-20	8015B	
DRO >C10-C28*	<b>359</b>		10.0	mg/kg	1	0073103	MS	31-Jul-20	8015B	
EXT DRO >C28-C36	<b>84.4</b>		10.0	mg/kg	1	0073103	MS	31-Jul-20	8015B	

Surrogate: 1-Chlorooctane			79.0 %		44.3-144	0073103	MS	31-Jul-20	8015B	
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Surrogate: 1-Chlorooctadecane			86.1 %		42.2-156	0073103	MS	31-Jul-20	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Project: ADVANCE ENERGY  
Project Number: MSU 551H  
Project Manager: ANDREW PARKER  
Fax To: NONE

Reported:  
04-Aug-20 11:19

**W - 202 0-4'**  
**H001974-09 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

<b>Chloride</b>	<b>192</b>		16.0	mg/kg	4	0073004	GM	31-Jul-20	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	0073107	MS	31-Jul-20	8021B	
Toluene*	<0.050		0.050	mg/kg	50	0073107	MS	31-Jul-20	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	0073107	MS	31-Jul-20	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	0073107	MS	31-Jul-20	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	0073107	MS	31-Jul-20	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			94.6 %		73.3-129	0073107	MS	31-Jul-20	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	0073104	MS	31-Jul-20	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	0073104	MS	31-Jul-20	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	0073104	MS	31-Jul-20	8015B	

<i>Surrogate: 1-Chlorooctane</i>			78.7 %		44.3-144	0073104	MS	31-Jul-20	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			81.9 %		42.2-156	0073104	MS	31-Jul-20	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Project: ADVANCE ENERGY  
Project Number: MSU 551H  
Project Manager: ANDREW PARKER  
Fax To: NONE

Reported:  
04-Aug-20 11:19

**W - 203 0-4'**  
**H001974-10 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

<b>Chloride</b>	<b>1180</b>		16.0	mg/kg	4	0073004	GM	31-Jul-20	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	0073107	MS	31-Jul-20	8021B	
Toluene*	<0.050		0.050	mg/kg	50	0073107	MS	31-Jul-20	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	0073107	MS	31-Jul-20	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	0073107	MS	31-Jul-20	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	0073107	MS	31-Jul-20	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			94.0 %		73.3-129	0073107	MS	31-Jul-20	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	0073104	MS	31-Jul-20	8015B	
<b>DRO &gt;C10-C28*</b>	<b>53.0</b>		10.0	mg/kg	1	0073104	MS	31-Jul-20	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	0073104	MS	31-Jul-20	8015B	

<i>Surrogate: 1-Chlorooctane</i>			76.5 %		44.3-144	0073104	MS	31-Jul-20	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			73.0 %		42.2-156	0073104	MS	31-Jul-20	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Project: ADVANCE ENERGY  
Project Number: MSU 551H  
Project Manager: ANDREW PARKER  
Fax To: NONE

Reported:  
04-Aug-20 11:19

**W - 204 0-1.5'****H001974-11 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

<b>Chloride</b>	<b>272</b>		16.0	mg/kg	4	0073004	GM	31-Jul-20	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	0073107	MS	31-Jul-20	8021B	
Toluene*	<0.050		0.050	mg/kg	50	0073107	MS	31-Jul-20	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	0073107	MS	31-Jul-20	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	0073107	MS	31-Jul-20	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	0073107	MS	31-Jul-20	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			93.5 %		73.3-129	0073107	MS	31-Jul-20	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	0073104	MS	31-Jul-20	8015B	
DRO >C10-C28*	<b>68.1</b>		10.0	mg/kg	1	0073104	MS	31-Jul-20	8015B	
EXT DRO >C28-C36	<b>11.8</b>		10.0	mg/kg	1	0073104	MS	31-Jul-20	8015B	

Surrogate: 1-Chlorooctane			80.3 %		44.3-144	0073104	MS	31-Jul-20	8015B	
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Surrogate: 1-Chlorooctadecane			85.1 %		42.2-156	0073104	MS	31-Jul-20	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Project: ADVANCE ENERGY  
Project Number: MSU 551H  
Project Manager: ANDREW PARKER  
Fax To: NONE

Reported:  
04-Aug-20 11:19

**W - 205 0-1'**  
**H001974-12 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

<b>Chloride</b>	<b>224</b>		16.0	mg/kg	4	0073004	GM	31-Jul-20	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	0073107	MS	31-Jul-20	8021B	
Toluene*	<0.050		0.050	mg/kg	50	0073107	MS	31-Jul-20	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	0073107	MS	31-Jul-20	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	0073107	MS	31-Jul-20	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	0073107	MS	31-Jul-20	8021B	
<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			94.2 %	73.3-129		0073107	MS	31-Jul-20	8021B	

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	0073104	MS	31-Jul-20	8015B	
<b>DRO &gt;C10-C28*</b>	<b>146</b>		10.0	mg/kg	1	0073104	MS	31-Jul-20	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	0073104	MS	31-Jul-20	8015B	
<i>Surrogate: 1-Chlorooctane</i>			71.9 %	44.3-144		0073104	MS	31-Jul-20	8015B	
<i>Surrogate: 1-Chlorooctadecane</i>			77.9 %	42.2-156		0073104	MS	31-Jul-20	8015B	

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Project: ADVANCE ENERGY  
Project Number: MSU 551H  
Project Manager: ANDREW PARKER  
Fax To: NONE

Reported:  
04-Aug-20 11:19

**W - 206 1-2'**  
**H001974-13 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

<b>Chloride</b>	<b>1280</b>		16.0	mg/kg	4	0073004	GM	31-Jul-20	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	0073107	MS	31-Jul-20	8021B	
Toluene*	<0.050		0.050	mg/kg	50	0073107	MS	31-Jul-20	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	0073107	MS	31-Jul-20	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	0073107	MS	31-Jul-20	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	0073107	MS	31-Jul-20	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			95.8 %		73.3-129	0073107	MS	31-Jul-20	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	0073104	MS	31-Jul-20	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	0073104	MS	31-Jul-20	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	0073104	MS	31-Jul-20	8015B	

<i>Surrogate: 1-Chlorooctane</i>			77.9 %		44.3-144	0073104	MS	31-Jul-20	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			82.8 %		42.2-156	0073104	MS	31-Jul-20	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Project: ADVANCE ENERGY  
Project Number: MSU 551H  
Project Manager: ANDREW PARKER  
Fax To: NONE

Reported:  
04-Aug-20 11:19

**W - 210 0-2'**  
**H001974-14 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

<b>Chloride</b>	<b>592</b>		16.0	mg/kg	4	0073004	GM	31-Jul-20	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	0073107	MS	31-Jul-20	8021B	
Toluene*	<0.050		0.050	mg/kg	50	0073107	MS	31-Jul-20	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	0073107	MS	31-Jul-20	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	0073107	MS	31-Jul-20	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	0073107	MS	31-Jul-20	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			93.9 %		73.3-129	0073107	MS	31-Jul-20	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	0073104	MS	31-Jul-20	8015B	
<b>DRO &gt;C10-C28*</b>	<b>129</b>		10.0	mg/kg	1	0073104	MS	31-Jul-20	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	0073104	MS	31-Jul-20	8015B	

<i>Surrogate: 1-Chlorooctane</i>			83.9 %		44.3-144	0073104	MS	31-Jul-20	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			90.9 %		42.2-156	0073104	MS	31-Jul-20	8015B	
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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Project: ADVANCE ENERGY  
Project Number: MSU 551H  
Project Manager: ANDREW PARKER  
Fax To: NONE

Reported:  
04-Aug-20 11:19

**W - 211 2-4'**  
**H001974-15 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

<b>Chloride</b>	<b>1460</b>		16.0	mg/kg	4	0073004	GM	31-Jul-20	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	0073107	MS	31-Jul-20	8021B	
Toluene*	<0.050		0.050	mg/kg	50	0073107	MS	31-Jul-20	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	0073107	MS	31-Jul-20	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	0073107	MS	31-Jul-20	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	0073107	MS	31-Jul-20	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			94.2 %		73.3-129	0073107	MS	31-Jul-20	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	0073104	MS	31-Jul-20	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	0073104	MS	31-Jul-20	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	0073104	MS	31-Jul-20	8015B	

<i>Surrogate: 1-Chlorooctane</i>			84.2 %		44.3-144	0073104	MS	31-Jul-20	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			89.2 %		42.2-156	0073104	MS	31-Jul-20	8015B	
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**Analytical Results For:**

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

Project: ADVANCE ENERGY  
Project Number: MSU 551H  
Project Manager: ANDREW PARKER  
Fax To: NONE

Reported:  
04-Aug-20 11:19

**W - 213 0-2'**  
**H001974-16 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

<b>Chloride</b>	<b>688</b>		16.0	mg/kg	4	0073110	GM	31-Jul-20	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	0073107	MS	31-Jul-20	8021B	
Toluene*	<0.050		0.050	mg/kg	50	0073107	MS	31-Jul-20	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	0073107	MS	31-Jul-20	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	0073107	MS	31-Jul-20	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	0073107	MS	31-Jul-20	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			94.0 %		73.3-129	0073107	MS	31-Jul-20	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	0073104	MS	31-Jul-20	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	0073104	MS	31-Jul-20	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	0073104	MS	31-Jul-20	8015B	

<i>Surrogate: 1-Chlorooctane</i>			86.6 %		44.3-144	0073104	MS	31-Jul-20	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			92.2 %		42.2-156	0073104	MS	31-Jul-20	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Project: ADVANCE ENERGY  
Project Number: MSU 551H  
Project Manager: ANDREW PARKER  
Fax To: NONE

Reported:  
04-Aug-20 11:19

**B - 208 TRENCH 7'****H001974-17 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

Chloride	64.0		16.0	mg/kg	4	0073110	GM	31-Jul-20	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	0073006	MS	31-Jul-20	8021B	
Toluene*	<0.050		0.050	mg/kg	50	0073006	MS	31-Jul-20	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	0073006	MS	31-Jul-20	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	0073006	MS	31-Jul-20	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	0073006	MS	31-Jul-20	8021B	

Surrogate: 4-Bromofluorobenzene (PID) 90.8 % 73.3-129 0073006 MS 31-Jul-20 8021B

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	0073104	MS	31-Jul-20	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	0073104	MS	31-Jul-20	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	0073104	MS	31-Jul-20	8015B	

Surrogate: 1-Chlorooctane 88.4 % 44.3-144 0073104 MS 31-Jul-20 8015B

Surrogate: 1-Chlorooctadecane 91.6 % 42.2-156 0073104 MS 31-Jul-20 8015B

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Project: ADVANCE ENERGY  
Project Number: MSU 551H  
Project Manager: ANDREW PARKER  
Fax To: NONE

Reported:  
04-Aug-20 11:19

**B - 209 2'**  
**H001974-18 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

<b>Chloride</b>	<b>176</b>		16.0	mg/kg	4	0073110	GM	31-Jul-20	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	0073006	MS	31-Jul-20	8021B	
Toluene*	<0.050		0.050	mg/kg	50	0073006	MS	31-Jul-20	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	0073006	MS	31-Jul-20	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	0073006	MS	31-Jul-20	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	0073006	MS	31-Jul-20	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			91.4 %		73.3-129	0073006	MS	31-Jul-20	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	0073104	MS	31-Jul-20	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	0073104	MS	31-Jul-20	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	0073104	MS	31-Jul-20	8015B	

<i>Surrogate: 1-Chlorooctane</i>			87.4 %		44.3-144	0073104	MS	31-Jul-20	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			91.2 %		42.2-156	0073104	MS	31-Jul-20	8015B	
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**Analytical Results For:**

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

Project: ADVANCE ENERGY  
Project Number: MSU 551H  
Project Manager: ANDREW PARKER  
Fax To: NONE

Reported:  
04-Aug-20 11:19

**Inorganic Compounds - Quality Control****Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 0073004 - 1:4 DI Water****Blank (0073004-BLK1)**

Prepared &amp; Analyzed: 30-Jul-20

Chloride	ND	16.0	mg/kg							
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**LCS (0073004-BS1)**

Prepared &amp; Analyzed: 30-Jul-20

Chloride	416	16.0	mg/kg	400		104	80-120			
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**LCS Dup (0073004-BSD1)**

Prepared &amp; Analyzed: 30-Jul-20

Chloride	432	16.0	mg/kg	400		108	80-120	3.77	20	
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**Batch 0073110 - 1:4 DI Water****Blank (0073110-BLK1)**

Prepared &amp; Analyzed: 31-Jul-20

Chloride	ND	16.0	mg/kg							
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**LCS (0073110-BS1)**

Prepared &amp; Analyzed: 31-Jul-20

Chloride	400	16.0	mg/kg	400		100	80-120			
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**LCS Dup (0073110-BSD1)**

Prepared &amp; Analyzed: 31-Jul-20

Chloride	400	16.0	mg/kg	400		100	80-120	0.00	20	
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**Analytical Results For:**

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

Project: ADVANCE ENERGY  
Project Number: MSU 551H  
Project Manager: ANDREW PARKER  
Fax To: NONE

Reported:  
04-Aug-20 11:19

**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
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**Batch 0073006 - Volatiles****Blank (0073006-BLK1)**

Prepared: 30-Jul-20 Analyzed: 31-Jul-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		92.1	73.3-129			

**LCS (0073006-BS1)**

Prepared: 30-Jul-20 Analyzed: 31-Jul-20

Benzene	1.88	0.050	mg/kg	2.00		93.8	72.2-131			
Toluene	1.98	0.050	mg/kg	2.00		98.8	71.7-126			
Ethylbenzene	1.92	0.050	mg/kg	2.00		96.1	68.9-126			
Total Xylenes	5.96	0.150	mg/kg	6.00		99.4	71.4-125			
Surrogate: 4-Bromofluorobenzene (PID)	0.0449		mg/kg	0.0500		89.8	73.3-129			

**LCS Dup (0073006-BSD1)**

Prepared: 30-Jul-20 Analyzed: 31-Jul-20

Benzene	1.74	0.050	mg/kg	2.00		87.1	72.2-131	7.47	14.6	
Toluene	1.82	0.050	mg/kg	2.00		90.8	71.7-126	8.48	17.4	
Ethylbenzene	1.77	0.050	mg/kg	2.00		88.3	68.9-126	8.48	18.9	
Total Xylenes	5.52	0.150	mg/kg	6.00		92.1	71.4-125	7.65	18.5	
Surrogate: 4-Bromofluorobenzene (PID)	0.0448		mg/kg	0.0500		89.6	73.3-129			

**Batch 0073107 - Volatiles****Blank (0073107-BLK1)**

Prepared &amp; Analyzed: 31-Jul-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		93.1	73.3-129			

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**Analytical Results For:**

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

Project: ADVANCE ENERGY  
Project Number: MSU 551H  
Project Manager: ANDREW PARKER  
Fax To: NONE

Reported:  
04-Aug-20 11:19

**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
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**Batch 0073107 - Volatiles****LCS (0073107-BS1)**

Prepared &amp; Analyzed: 31-Jul-20

Benzene	2.02	0.050	mg/kg	2.00		101	72.2-131			
Toluene	2.02	0.050	mg/kg	2.00		101	71.7-126			
Ethylbenzene	2.04	0.050	mg/kg	2.00		102	68.9-126			
Total Xylenes	5.91	0.150	mg/kg	6.00		98.5	71.4-125			
Surrogate: 4-Bromofluorobenzene (PID)	0.0480		mg/kg	0.0500		95.9	73.3-129			

**LCS Dup (0073107-BSD1)**

Prepared &amp; Analyzed: 31-Jul-20

Benzene	1.84	0.050	mg/kg	2.00		92.0	72.2-131	9.31	14.6	
Toluene	1.84	0.050	mg/kg	2.00		92.1	71.7-126	9.09	17.4	
Ethylbenzene	1.87	0.050	mg/kg	2.00		93.4	68.9-126	8.86	18.9	
Total Xylenes	5.40	0.150	mg/kg	6.00		90.0	71.4-125	9.06	18.5	
Surrogate: 4-Bromofluorobenzene (PID)	0.0477		mg/kg	0.0500		95.3	73.3-129			

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**Analytical Results For:**

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

Project: ADVANCE ENERGY  
Project Number: MSU 551H  
Project Manager: ANDREW PARKER  
Fax To: NONE

Reported:  
04-Aug-20 11:19

**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
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**Batch 0073103 - General Prep - Organics****Blank (0073103-BLK1)**

Prepared &amp; Analyzed: 31-Jul-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	55.8		mg/kg	50.0		112	44.3-144			
Surrogate: 1-Chlorooctadecane	59.8		mg/kg	50.0		120	42.2-156			

**LCS (0073103-BS1)**

Prepared &amp; Analyzed: 31-Jul-20

GRO C6-C10	195	10.0	mg/kg	200		97.5	78.8-127			
DRO >C10-C28	195	10.0	mg/kg	200		97.5	80-132			
Total TPH C6-C28	390	10.0	mg/kg	400		97.5	81.3-128			
Surrogate: 1-Chlorooctane	55.0		mg/kg	50.0		110	44.3-144			
Surrogate: 1-Chlorooctadecane	58.2		mg/kg	50.0		116	42.2-156			

**LCS Dup (0073103-BS1)**

Prepared &amp; Analyzed: 31-Jul-20

GRO C6-C10	211	10.0	mg/kg	200		105	78.8-127	7.70	15.1	
DRO >C10-C28	218	10.0	mg/kg	200		109	80-132	11.3	17.1	
Total TPH C6-C28	429	10.0	mg/kg	400		107	81.3-128	9.53	15	
Surrogate: 1-Chlorooctane	44.8		mg/kg	50.0		89.5	44.3-144			
Surrogate: 1-Chlorooctadecane	44.4		mg/kg	50.0		88.8	42.2-156			

**Batch 0073104 - General Prep - Organics****Blank (0073104-BLK1)**

Prepared &amp; Analyzed: 31-Jul-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	56.4		mg/kg	50.0		113	44.3-144			
Surrogate: 1-Chlorooctadecane	61.5		mg/kg	50.0		123	42.2-156			

Cardinal Laboratories

\*=Accredited Analyte

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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 SUITE F-142  
ALBUQUERQUE NM, 87104

Project: ADVANCE ENERGY  
Project Number: MSU 551H  
Project Manager: ANDREW PARKER  
Fax To: NONE

Reported:  
04-Aug-20 11:19

**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
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**Batch 0073104 - General Prep - Organics****LCS (0073104-BS1)**

Prepared &amp; Analyzed: 31-Jul-20

GRO C6-C10	197	10.0	mg/kg	200		98.4	78.8-127			
DRO >C10-C28	201	10.0	mg/kg	200		101	80-132			
Total TPH C6-C28	398	10.0	mg/kg	400		99.5	81.3-128			
Surrogate: 1-Chlorooctane	56.0		mg/kg	50.0		112	44.3-144			
Surrogate: 1-Chlorooctadecane	61.5		mg/kg	50.0		123	42.2-156			

**LCS Dup (0073104-BS1)**

Prepared &amp; Analyzed: 31-Jul-20

GRO C6-C10	210	10.0	mg/kg	200		105	78.8-127	6.55	15.1	
DRO >C10-C28	217	10.0	mg/kg	200		109	80-132	7.67	17.1	
Total TPH C6-C28	427	10.0	mg/kg	400		107	81.3-128	7.12	15	
Surrogate: 1-Chlorooctane	44.8		mg/kg	50.0		89.5	44.3-144			
Surrogate: 1-Chlorooctadecane	45.6		mg/kg	50.0		91.2	42.2-156			

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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### Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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A handwritten signature in black ink, appearing to read "Celey D. Keene".

---

Celey D. Keene, Lab Director/Quality Manager



## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

[illegible]



82 jo 82 ebgd

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

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: <b>RT Hicks Consultants</b>		P.O. #:		BILL TO		ANALYSIS REQUEST									
Project Manager: <b>Andrew Forber</b>		Company: <b>R.T. Hicks</b>													
Address: <b>On-File</b>		Attn: <b>Send to</b>													
City:		Address: <b>Andrew@rticks.com</b>													
State:		City: <b>Consulhacem</b>													
Zip:		State:		Zip:											
Phone #:		Phone #:													
Fax #:		Fax #:													
Project #:		Project Owner:													
Project Name: <b>Advanced Energy</b>		State:													
Project Location: <b>MSH 55117</b>		Phone #:													
Sample Name: <b>SPAB SPEN2</b>		Fax #:													

FOR LAB USE ONLY		LAB I.D.		Sample I.D.		FOR LAB USE ONLY		LAB I.D.		Sample I.D.		FOR LAB USE ONLY		LAB I.D.		Sample I.D.	
11		W-204		0-1.5 FT		C		1		0-1.5 FT		C		1		0-1.5 FT	
12		W-205		0-1.5 FT		C		1		0-1.5 FT		C		1		0-1.5 FT	
13		W-206		1-2 FT		C		1		1-2 FT		C		1		1-2 FT	
14		W-210		0-2 FT		C		1		0-2 FT		C		1		0-2 FT	
15		W-211		2-4 FT		C		1		2-4 FT		C		1		2-4 FT	
16		W-213		0-2 FT		C		1		0-2 FT		C		1		0-2 FT	
17		W-208		4-5 FT		C		1		4-5 FT		C		1		4-5 FT	
17		W-208		7 FT		C		1		7 FT		C		1		7 FT	
18		W-209		2 FT		C		1		2 FT		C		1		2 FT	

Relinquished By: <b>SPAB SPEN2</b>		Date: <b>7/30/20</b>		Received By: <b>Yusuf Alkhatib</b>		Date: <b>7/30/20</b>	
Relinquished By: <b>SPAB SPEN2</b>		Time: <b>1:50</b>		Received By: <b>Yusuf Alkhatib</b>		Time: <b>1:50</b>	
Delivered By: (Circle One)		Sample Condition		CHECKED BY: (Initials)			
Sampler - UPS - Bus - Other:		Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/>		Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/>			
17.6c #113		Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/>		Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/>			

REMARKS:		Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Phone #:	
17.6c #113		Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Fax #:	
17.6c #113		17.6c #113		17.6c #113	



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

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August 04, 2020

ANDREW PARKER

ADVANCE ENERGY PARTNERS

11490 WESTHEIMER ROAD, STE. 950

HOUSTON, TX 77077

RE: MSU 551H

Enclosed are the results of analyses for samples received by the laboratory on 08/03/20 13:40.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-20-13. 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](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited 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,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive, flowing style.

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

ADVANCE ENERGY PARTNERS  
 ANDREW PARKER  
 11490 WESTHEIMER ROAD, STE. 950  
 HOUSTON TX, 77077  
 Fax To: (832) 672-4609

Received:	08/03/2020	Sampling Date:	08/03/2020
Reported:	08/04/2020	Sampling Type:	Soil
Project Name:	MSU 551H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

**Sample ID: W - 206 S. (H001991-01)**

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	08/03/2020	ND	1.97	98.4	2.00	2.40	
Toluene*	<0.050	0.050	08/03/2020	ND	1.97	98.7	2.00	2.38	
Ethylbenzene*	<0.050	0.050	08/03/2020	ND	2.01	100	2.00	2.53	
Total Xylenes*	<0.150	0.150	08/03/2020	ND	5.80	96.6	6.00	2.47	
Total BTEX	<0.300	0.300	08/03/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.0 % 73.3-129

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AC				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	08/04/2020	ND	400	100	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	08/04/2020	ND	197	98.5	200	6.64	
DRO >C10-C28*	<10.0	10.0	08/04/2020	ND	202	101	200	8.14	
EXT DRO >C28-C36	<10.0	10.0	08/04/2020	ND					

Surrogate: 1-Chlorooctane 84.8 % 44.3-144

Surrogate: 1-Chlorooctadecane 85.4 % 42.2-156

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

ADVANCE ENERGY PARTNERS  
 ANDREW PARKER  
 11490 WESTHEIMER ROAD, STE. 950  
 HOUSTON TX, 77077  
 Fax To: (832) 672-4609

Received: 08/03/2020  
 Reported: 08/04/2020  
 Project Name: MSU 551H  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 08/03/2020  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: W - 206 W. (H001991-02)**

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	08/03/2020	ND	1.97	98.4	2.00	2.40	
Toluene*	<0.050	0.050	08/03/2020	ND	1.97	98.7	2.00	2.38	
Ethylbenzene*	<0.050	0.050	08/03/2020	ND	2.01	100	2.00	2.53	
Total Xylenes*	<0.150	0.150	08/03/2020	ND	5.80	96.6	6.00	2.47	
Total BTEx	<0.300	0.300	08/03/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.9 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	08/04/2020	ND	400	100	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	08/03/2020	ND	197	98.5	200	6.64	
DRO >C10-C28*	<10.0	10.0	08/03/2020	ND	202	101	200	8.14	
EXT DRO >C28-C36	<10.0	10.0	08/03/2020	ND					

Surrogate: 1-Chlorooctane 77.7 % 44.3-144

Surrogate: 1-Chlorooctadecane 77.6 % 42.2-156

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

ADVANCE ENERGY PARTNERS  
 ANDREW PARKER  
 11490 WESTHEIMER ROAD, STE. 950  
 HOUSTON TX, 77077  
 Fax To: (832) 672-4609

Received:	08/03/2020	Sampling Date:	08/03/2020
Reported:	08/04/2020	Sampling Type:	Soil
Project Name:	MSU 551H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

**Sample ID: W - 206 E. (H001991-03)**

BTX 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	08/03/2020	ND	1.97	98.4	2.00	2.40		
Toluene*	<0.050	0.050	08/03/2020	ND	1.97	98.7	2.00	2.38		
Ethylbenzene*	<0.050	0.050	08/03/2020	ND	2.01	100	2.00	2.53		
Total Xylenes*	<0.150	0.150	08/03/2020	ND	5.80	96.6	6.00	2.47		
Total BTX	<0.300	0.300	08/03/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 94.2 % 73.3-129

Chloride, SM4500CI-B			mg/kg							
			Analyzed By: AC							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1390	16.0	08/04/2020	ND	400	100	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	08/03/2020	ND	197	98.5	200	6.64		
DRO >C10-C28*	<10.0	10.0	08/03/2020	ND	202	101	200	8.14		
EXT DRO >C28-C36	<10.0	10.0	08/03/2020	ND						

Surrogate: 1-Chlorooctane 76.5 % 44.3-144

Surrogate: 1-Chlorooctadecane 77.2 % 42.2-156

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

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

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### Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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\*=Accredited Analyte

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A handwritten signature in cursive script, appearing to read "Celey D. Keene".

---

Celey D. Keene, Lab Director/Quality Manager



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

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September 09, 2020

ANDREW PARKER

ADVANCE ENERGY PARTNERS

11490 WESTHEIMER ROAD, STE. 950

HOUSTON, TX 77077

RE: ADVANCE ENERGY

Enclosed are the results of analyses for samples received by the laboratory on 09/02/20 8:35.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-20-13. 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](http://www.tceq.texas.gov/field/ga/lab_accred_certif.html).

Cardinal Laboratories is accredited 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. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

ADVANCE ENERGY PARTNERS  
11490 WESTHEIMER ROAD, STE. 950  
HOUSTON TX, 77077

Project: ADVANCE ENERGY  
Project Number: MSU 551H  
Project Manager: ANDREW PARKER  
Fax To: (832) 672-4609

Reported:  
09-Sep-20 10:51

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
W - 210 EAST 0-4'	H002328-01	Soil	01-Sep-20 12:00	02-Sep-20 08:35
W - 210 NORTH 0-4'	H002328-02	Soil	01-Sep-20 13:00	02-Sep-20 08:35
W - 210 SOUTH 0-4'	H002328-03	Soil	01-Sep-20 14:00	02-Sep-20 08:35

09/09/20 - Client changed the sample ID for -03. This is the revised report and will replace the one sent on 09/03/20.

Cardinal Laboratories

\*=Accredited Analyte

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A handwritten signature in black ink, appearing to read "Celey D. Keene".

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

ADVANCE ENERGY PARTNERS  
11490 WESTHEIMER ROAD, STE. 950  
HOUSTON TX, 77077

Project: ADVANCE ENERGY  
Project Number: MSU 551H  
Project Manager: ANDREW PARKER  
Fax To: (832) 672-4609

Reported:  
09-Sep-20 10:51

**W - 210 EAST 0-4'**  
**H002328-01 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

Chloride	272		16.0	mg/kg	4	0090214	AC	02-Sep-20	4500-Cl-B	
----------	-----	--	------	-------	---	---------	----	-----------	-----------	--

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	0090202	ms	02-Sep-20	8021B	
Toluene*	<0.050		0.050	mg/kg	50	0090202	ms	02-Sep-20	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	0090202	ms	02-Sep-20	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	0090202	ms	02-Sep-20	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	0090202	ms	02-Sep-20	8021B	

Surrogate: 4-Bromofluorobenzene (PID)		110 %		73.3-129		0090202	ms	02-Sep-20	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	0090209	MS	02-Sep-20	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	0090209	MS	02-Sep-20	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	0090209	MS	02-Sep-20	8015B	

Surrogate: 1-Chlorooctane		89.0 %		44.3-144		0090209	MS	02-Sep-20	8015B	
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Surrogate: 1-Chlorooctadecane		91.0 %		42.2-156		0090209	MS	02-Sep-20	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

ADVANCE ENERGY PARTNERS  
11490 WESTHEIMER ROAD, STE. 950  
HOUSTON TX, 77077

Project: ADVANCE ENERGY  
Project Number: MSU 551H  
Project Manager: ANDREW PARKER  
Fax To: (832) 672-4609

Reported:  
09-Sep-20 10:51

**W - 210 NORTH 0-4'****H002328-02 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

Chloride	48.0		16.0	mg/kg	4	0090214	AC	02-Sep-20	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	0090202	ms	02-Sep-20	8021B	
Toluene*	<0.050		0.050	mg/kg	50	0090202	ms	02-Sep-20	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	0090202	ms	02-Sep-20	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	0090202	ms	02-Sep-20	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	0090202	ms	02-Sep-20	8021B	

Surrogate: 4-Bromofluorobenzene (PID)		111 %		73.3-129		0090202	ms	02-Sep-20	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	0090209	MS	02-Sep-20	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	0090209	MS	02-Sep-20	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	0090209	MS	02-Sep-20	8015B	

Surrogate: 1-Chlorooctane		84.9 %		44.3-144		0090209	MS	02-Sep-20	8015B	
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Surrogate: 1-Chlorooctadecane		87.0 %		42.2-156		0090209	MS	02-Sep-20	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ADVANCE ENERGY PARTNERS  
11490 WESTHEIMER ROAD, STE. 950  
HOUSTON TX, 77077

Project: ADVANCE ENERGY  
Project Number: MSU 551H  
Project Manager: ANDREW PARKER  
Fax To: (832) 672-4609

Reported:  
09-Sep-20 10:51

**W - 210 SOUTH 0-4'****H002328-03 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

Chloride	576		16.0	mg/kg	4	0090214	AC	02-Sep-20	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	0090202	ms	02-Sep-20	8021B	
Toluene*	<0.050		0.050	mg/kg	50	0090202	ms	02-Sep-20	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	0090202	ms	02-Sep-20	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	0090202	ms	02-Sep-20	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	0090202	ms	02-Sep-20	8021B	

Surrogate: 4-Bromofluorobenzene (PID)	110 %		73.3-129			0090202	ms	02-Sep-20	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	0090209	MS	02-Sep-20	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	0090209	MS	02-Sep-20	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	0090209	MS	02-Sep-20	8015B	

Surrogate: 1-Chlorooctane	81.4 %		44.3-144			0090209	MS	02-Sep-20	8015B	
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Surrogate: 1-Chlorooctadecane	83.1 %		42.2-156			0090209	MS	02-Sep-20	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ADVANCE ENERGY PARTNERS  
11490 WESTHEIMER ROAD, STE. 950  
HOUSTON TX, 77077

Project: ADVANCE ENERGY  
Project Number: MSU 551H  
Project Manager: ANDREW PARKER  
Fax To: (832) 672-4609

Reported:  
09-Sep-20 10:51

**Inorganic Compounds - Quality Control****Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 0090214 - 1:4 DI Water</b>									
<b>Blank (0090214-BLK1)</b>					Prepared & Analyzed: 02-Sep-20				
Chloride	ND	16.0	mg/kg						
<b>LCS (0090214-BS1)</b>					Prepared & Analyzed: 02-Sep-20				
Chloride	400	16.0	mg/kg	400		100	80-120		
<b>LCS Dup (0090214-BSD1)</b>					Prepared & Analyzed: 02-Sep-20				
Chloride	416	16.0	mg/kg	400		104	80-120	3.92	20

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**Analytical Results For:**

ADVANCE ENERGY PARTNERS  
11490 WESTHEIMER ROAD, STE. 950  
HOUSTON TX, 77077

Project: ADVANCE ENERGY  
Project Number: MSU 551H  
Project Manager: ANDREW PARKER  
Fax To: (832) 672-4609

Reported:  
09-Sep-20 10:51

**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
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**Batch 0090202 - Volatiles****Blank (0090202-BLK1)**

Prepared &amp; Analyzed: 02-Sep-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)	0.0556		mg/kg	0.0500		111	73.3-129			

**LCS (0090202-BS1)**

Prepared &amp; Analyzed: 02-Sep-20

Benzene	1.90	0.050	mg/kg	2.00		94.8	72.2-131			
Toluene	1.92	0.050	mg/kg	2.00		96.0	71.7-126			
Ethylbenzene	1.91	0.050	mg/kg	2.00		95.6	68.9-126			
Total Xylenes	5.87	0.150	mg/kg	6.00		97.9	71.4-125			
Surrogate: 4-Bromofluorobenzene (PID)	0.0516		mg/kg	0.0500		103	73.3-129			

**LCS Dup (0090202-BSD1)**

Prepared &amp; Analyzed: 02-Sep-20

Benzene	2.04	0.050	mg/kg	2.00		102	72.2-131	7.17	14.6	
Toluene	2.05	0.050	mg/kg	2.00		102	71.7-126	6.59	17.4	
Ethylbenzene	2.04	0.050	mg/kg	2.00		102	68.9-126	6.32	18.9	
Total Xylenes	6.25	0.150	mg/kg	6.00		104	71.4-125	6.24	18.5	
Surrogate: 4-Bromofluorobenzene (PID)	0.0516		mg/kg	0.0500		103	73.3-129			

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**Analytical Results For:**

ADVANCE ENERGY PARTNERS  
11490 WESTHEIMER ROAD, STE. 950  
HOUSTON TX, 77077

Project: ADVANCE ENERGY  
Project Number: MSU 551H  
Project Manager: ANDREW PARKER  
Fax To: (832) 672-4609

Reported:  
09-Sep-20 10:51

**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
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**Batch 0090209 - General Prep - Organics****Blank (0090209-BLK1)**

Prepared &amp; Analyzed: 02-Sep-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	40.3		mg/kg	50.0		80.6	44.3-144			
Surrogate: 1-Chlorooctadecane	40.8		mg/kg	50.0		81.7	42.2-156			

**LCS (0090209-BS1)**

Prepared &amp; Analyzed: 02-Sep-20

GRO C6-C10	194	10.0	mg/kg	200		96.8	78.8-127			
DRO >C10-C28	203	10.0	mg/kg	200		101	80-132			
Total TPH C6-C28	397	10.0	mg/kg	400		99.1	81.3-128			
Surrogate: 1-Chlorooctane	45.1		mg/kg	50.0		90.1	44.3-144			
Surrogate: 1-Chlorooctadecane	46.7		mg/kg	50.0		93.4	42.2-156			

**LCS Dup (0090209-BSD1)**

Prepared &amp; Analyzed: 02-Sep-20

GRO C6-C10	196	10.0	mg/kg	200		98.0	78.8-127	1.21	15.1	
DRO >C10-C28	203	10.0	mg/kg	200		101	80-132	0.0513	17.1	
Total TPH C6-C28	399	10.0	mg/kg	400		99.7	81.3-128	0.566	15	
Surrogate: 1-Chlorooctane	42.2		mg/kg	50.0		84.4	44.3-144			
Surrogate: 1-Chlorooctadecane	43.3		mg/kg	50.0		86.5	42.2-156			

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### Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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A handwritten signature in black ink, appearing to read "Celey D. Keene".

---

Celey D. Keene, Lab Director/Quality Manager

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(575) 393-2326 FAX (575) 393-2476

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

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**District IV**  
1220 S. St Francis Dr., Santa Fe, NM 87505  
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**State of New Mexico**  
**Energy, Minerals and Natural Resources**  
**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

CONDITIONS  
  
Action 23576

CONDITIONS

Operator: ADVANCE ENERGY PARTNERS HAT MESA, LLC 11490 Westheimer Rd., Ste 950 Houston, TX 77077	OGRID: 372417
	Action Number: 23576
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
chensley	None	7/27/2021