



2350 W Marland Blvd Hobbs, NM 88240

Closure Report

February 25, 2020

TWL07-200225-C-1410

Re: Ghost Rider 22-15 Fed Com 202H

API# 30-025-06556

Case # 1RP-5635

On July 14, 2019 a release occurred due to hatch cover on a frac tank holding brine water did not seal correctly. An initial C-141 was submitted to NMOCD and approved on July 26, 2019. The release is located west of Jal, New Mexico (GPS: 32.196918, -103.6563568) in unit letter P, section 22, township 24S range 32E. A remediation plan was submitted to NMOCD and denied on December 5, 2019. Apache Corporation submitted a sampling plan and a 60 day extension request. NMOCD agreed to a sampling plan and the 60 day extension on December 10, 2019.

On January 15, 2020 a soil bore was advanced to 125 feet below ground surface at GPS coordinates 32.201124, -103.660283. The bore hole was left open and after 48 hours a Solinst Water Level Meter was utilized and no water was present to a depth of 123.31 feet below ground surface. The release area is located in an area of low karst and no significant water courses are in the area of the release.

On September 13, 2019 surface and 1 foot samples were collected and submitted to a commercial laboratory for analysis of chloride, TPH, and BTEX. SP 3 at the surface was above table one standards for chlorides for releases occurring greater than 100 feet to ground water. On January 31, 2020 the area around SP 3 was excavated to a depth of 1 foot. Once the excavation was complete final 5 point composite bottom and wall samples were collected not to exceed 500 square feet on the bottom and not to exceed 200 square feet on the walls. All samples were submitted to a commercial laboratory for analysis of chloride, TPH, and BTEX. Laboratory results indicated that all samples were below table one standards for releases greater than 100 feet to groundwater. All excavated soil was disposed of at an NMOCD approved facility. The excavation was backfilled with clean imported caliche.

Apache Corporation has completed remediation activities to below table one standard for releases greater than 100 feet to groundwater and respectfully request that case number 1RP-5635 be closed.

Enclosed: C-141, Groundwater Data, Sample Data, Maps, Laboratory Results, and Photos

Submitted by;

Bruce Baker

Environmental Technician

larry.baker@apachecorp.com

Cell# 432-631-6982

Off# 575-393-7106

Received by OCD 7/26/2019 8:16:29 AM

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural
Resources Department

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

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	NDHR1922134717
District RP	IRP-5635
Facility ID	
Application ID	pDHR1922133109

Release Notification

Responsible Party

Responsible Party: Apache Corporation	OGRID 873
Contact Name: Bruce Baker	Contact Telephone: (432) 631-6982
Contact email: Larry.Baker@apachecorp.com	Incident # (assigned by OCD)
Contact Mailing Address: 2350 W. Marland Blvd, Hobbs, NM 88240	

Location of Release Source

Latitude: W 32.196918 Longitude: N -103.6563568

(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Ghost Rider 22-15 Fed Com 202H	Site Type: Water Injection Well
Date Release Discovered: July 14, 2019	API # 3002506556

Unit Letter	Section	Township	Range	County
P	22	24S	32E	LEA

Surface Owner: ☐ State ☒ Federal ☐ Tribal ☐ Private (Name:)

Nature and Volume of Release

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

☐ Crude Oil	Volume Released (N/A)	Volume Recovered (N/A)
☐ Produced Water	Volume Released (N/A)	Volume Recovered (N/A)
	Is the concentration of dissolved chloride in the produced water > 10,000 mg/l?	☐ Yes ☒ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☒ Other (Brine)	Volume/Weight Released (12 bbls)	Volume/Weight Recovered (0 bbls)

Cause of Release

Hatch cover did not seal correctly.

Form C-141

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State of New Mexico
Oil Conservation Division

Incident ID	NDHR1922134717
District RP	IRP-5635
Facility ID	
Application ID	pDHR1922133109

Was this a major release as defined by 19.15.29.7(A) NMAC?

☐ Yes ☒ 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)?
Via email given to NM OCD by Bruce Baker, Senior Environmental Technician, Apache Corporation

Initial Response

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

- ☒ The source of the release has been stopped.
- ☒ The impacted area has been secured to protect human health and the environment.
- ☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
- ☒ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not 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: Jeff Broom

Title: Environmental Technician

Signature: 

Date: 07/24/2019

Email: Jeffrey.Broom@anachecorp.com

Telephone: (432) 664-4677

OCD Only

Received by: Dylan Rose-Coss

Date: 07/26/2019

Incident ID	
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

- ☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☒ Field data
- ☒ Data table of soil contaminant concentration data
- ☒ Depth to water determination
- ☒ Determination of water sources and significant watercourses within 1/2-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

Incident ID	
District RP	
Facility ID	
Application ID	

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: Bruce Baker Title: Environmental Tech SR.

Signature: Bruce Baker Date: 2-25-20

email: larry.baker@apachecorp.com Telephone: 432-631-6982

OCD Only

Received by: _____ Date: _____

Incident ID	
District RP	
Facility ID	
Application ID	

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: Bruce Baker Title: Environmental Tech SR

Signature: Bruce Baker Date: 2-25-20

email: larry.baker@apachecorp.com Telephone: 432-631-6982

OCD Only

Received by: _____ Date: _____

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____

Baker, Larry

From: Baker, Larry
Sent: Friday, January 24, 2020 9:54 AM
To: Broom, Jeffrey
Subject: FW: 3. (C-141 Denied) 1RP-5635 Remediation Plan Ghost Rider 22-15 Fed Com 202H

From: Eads, Cristina, EMNRD [mailto:Cristina.Eads@state.nm.us]
Sent: Tuesday, December 10, 2019 9:28 AM
To: Baker, Larry <Larry.Baker@apachecorp.com>
Cc: 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: [EXTERNAL] RE: 3. (C-141 Denied) 1RP-5635 Remediation Plan Ghost Rider 22-15 Fed Com 202H

Mr. Baker,

Your request for a 60-day extension is approved.

Your sampling plan is approved for groundwater determinations at 0-50' and 50-100'. However, if groundwater is determined to be over 100' we suggest 5-point bottom composite samples to represent an area no larger than 500 square feet and 5-point wall composite samples not to exceed 200 square feet.

Thank you,
 Cristina

Cristina Eads
Environmental Bureau
EMNRD – Oil Conservation Division
 1220 South St. Francis Drive
 Santa Fe, New Mexico 87505
 505.476.3084
 email: 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: Baker, Larry <Larry.Baker@apachecorp.com>
Sent: Thursday, December 5, 2019 2:55 PM
To: Eads, Cristina, EMNRD <Cristina.Eads@state.nm.us>
Cc: 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: [EXT] RE: 3. (C-141 Denied) 1RP-5635 Remediation Plan Ghost Rider 22-15 Fed Com 202H

Ms. Eads,

Thank you for the clarification. Apache Corporation request a 60 day extension due to the holidays to set up a soil bore to complete the site assessment and remediation of the release.

Apache Corporation would like to propose the following sample plan:

If after the soil bore groundwater is determined to be over 100 feet than 5 point bottom composite samples will be collected not to exceed 1,000 square feet and 5 point wall composite samples not to exceed 200 square feet.

If groundwater is 50-100 feet than 5 point bottom composite samples will be collected not to exceed 500 square feet and 5 point wall composite samples not to exceed 200 square feet.

If groundwater is less than 50 feet to groundwater than both 5 point bottom composite samples will be collected not to exceed 200 square feet.

Please let me know if you have any questions or wish to discuss. Thanks and have a good day.

BRUCE BAKER
ENVIRONMENTAL TECHNICIAN SR
direct 575-393-7106 ext 1523 | Cell 432-631-6982
APACHE CORPORATION
2350 W. MARLAND BLVD
HOBBS , NM 88240
ApacheCorp.com | [LinkedIn](#) | [Facebook](#) | [Twitter](#) | [StockTwits](#) | [YouTube](#)

From: Eads, Cristina, EMNRD [<mailto:Cristina.Eads@state.nm.us>]
Sent: Thursday, December 05, 2019 2:38 PM
To: Baker, Larry <Larry.Baker@apachecorp.com>
Cc: 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: [EXTERNAL] RE: 3. (C-141 Denied) 1RP-5635 Remediation Plan Ghost Rider 22-15 Fed Com 202H

Mr. Baker,

Please see 19.15.29.12 C. NMAC. In order for a remediation plan to be approved, a complete site assessment/characterization must be submitted. The current site assessment is incomplete.

I encourage you to continue with delineation efforts and soil bore installation for ground water determination.

Thank you for your continued efforts at this site. Please let me know if you have any other questions or concerns.

Respectfully,

Cristina Eads
Environmental Bureau
EMNRD – Oil Conservation Division

1220 South St. Francis Drive
 Santa Fe, New Mexico 87505
 505.476.3084
 email: 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: Baker, Larry <Larry.Baker@apachecorp.com>
Sent: Thursday, December 5, 2019 11:05 AM
To: Eads, Cristina, EMNRD <Cristina.Eads@state.nm.us>
Cc: Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Venegas, Victoria, EMNRD <Victoria.Venegas@state.nm.us>; Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>
Subject: [EXT] RE: 3. (C-141 Denied) 1RP-5635 Remediation Plan Ghost Rider 22-15 Fed Com 202H

Ms. Eads,

Thank you for your response and explanation for denial of the plan. However I would like to point out that the report does address those areas of concern. There is only one well in that township and range and it identifies groundwater 380 feet. Due to the lack of data points and distance of the well from the release location Apache Corporation decided to confirm the depth of groundwater in that area. The assumption is that water will be over 100 feet below ground surface. If the assumption is confirmed than the site has been delineated vertically below table one standards for releases over 100 feet to groundwater. The plan also addresses how Apache Corporation would proceed if groundwater is shallower than 100 feet. Since those areas of denial were identified in the remediation plan with a course of action Apache Corporation respectfully ask NMOCD to reconsider the denial of the remediation plan. Please let me know if you have any questions or wish to discuss thanks and have a good day.

BRUCE BAKER
 ENVIRONMENTAL TECHNICIAN SR
 direct 575-393-7106 ext 1523 | Cell 432-631-6982

APACHE CORPORATION
 2350 W. MARLAND BLVD
 HOBBS , NM 88240

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From: Eads, Cristina, EMNRD [<mailto:Cristina.Eads@state.nm.us>]
Sent: Thursday, December 05, 2019 10:24 AM
To: Baker, Larry <Larry.Baker@apachecorp.com>
Cc: Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Venegas, Victoria, EMNRD <Victoria.Venegas@state.nm.us>; Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>
Subject: [EXTERNAL] 3. (C-141 Denied) 1RP-5635 Remediation Plan Ghost Rider 22-15 Fed Com 202H

Mr. Baker,

The OCD has received the Remediation Plan for **1RP-5635 Ghost Rider 22-15 Fed Com 202H**, thank you. This remediation plan is denied for the following:

- The extent of the release's impact has not been fully delineated.
- Depth to ground water at the site has not been identified.

Please let me know if you have any questions.

Regards,

Cristina Eads
Environmental Bureau
EMNRD – Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505
505.476.3084
email: 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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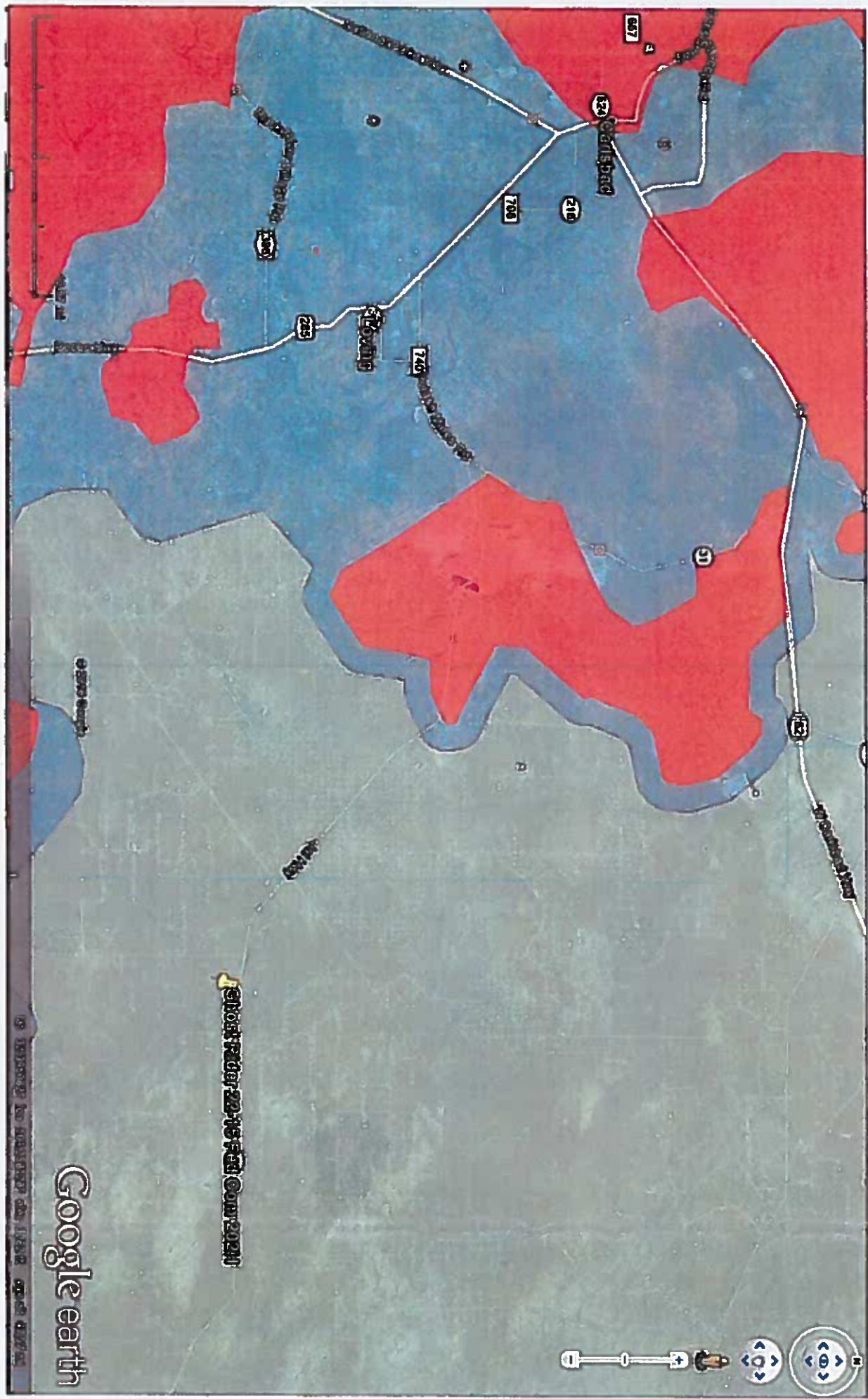
BORING RECORD																		
GEOLOGIC UNIT	DEPTH	Start: 10:40 MST Finish: 11:30 DESCRIPTION LITHOLOGIC	DESCRIPTION USCS	GRAPHIC LOG	PID READING								SAMPLE		REMARKS			
					PPM X 1								NUMBER	PID READING	RECOVERY	DEPTH	BACKGROUND PID READING	
					2	4	6	8	10	12	14	16						18
	0	Clayey Silt w/ Subrounded Clast Inclusions, 0.5-2mm in Diameter, 2.5YR, 4/6, Red, Moderately Sorted	ML															
	5	Caliche, 7.5YR, 8/2, Pinkish White	Caliche															
	10	Sand, 7.5YR, 7/6, Very Fine, Well Sorted, Reddish Yellow																
	15																	
	20	Moderate Sorted, 0.5-4mm in Diameter, Clast Inclusions, Sub-rounded	SW															
	25																	
	30																	
	35	Sand w/ Subrounded Clast Inclusions, 0.5-5mm in Diameter, 2.5YR, 5/4, Medium, Moderately Sorted	SW															
	40	Clayey Silt with Subrounded Clast Inclusion, 1-3mm in Diameter, 5YR, 5/6, Moderately Sorted, Yellowish Red	ML															
	45																	
	50	Sand, 5YR, 4/4, Medium to Coarse, Moderately Sorted w/ Subrounded Clast Inclusions, 1-5mm in Diameter	SW															
	55																	
	60	Sand, Coarse, 5YR, 4/4, Poorly Sorted, Subangular to Well Rounded Clasts, 0.5-8mm in Diameter, Reddish Brown	SW															
	65																	
	-	Clay, 2.5YR, 4/6, Well Sorted, Red	CL															
	120																	
	125	TD After 48hrs = 123.31 ft bgs. No Water Present																

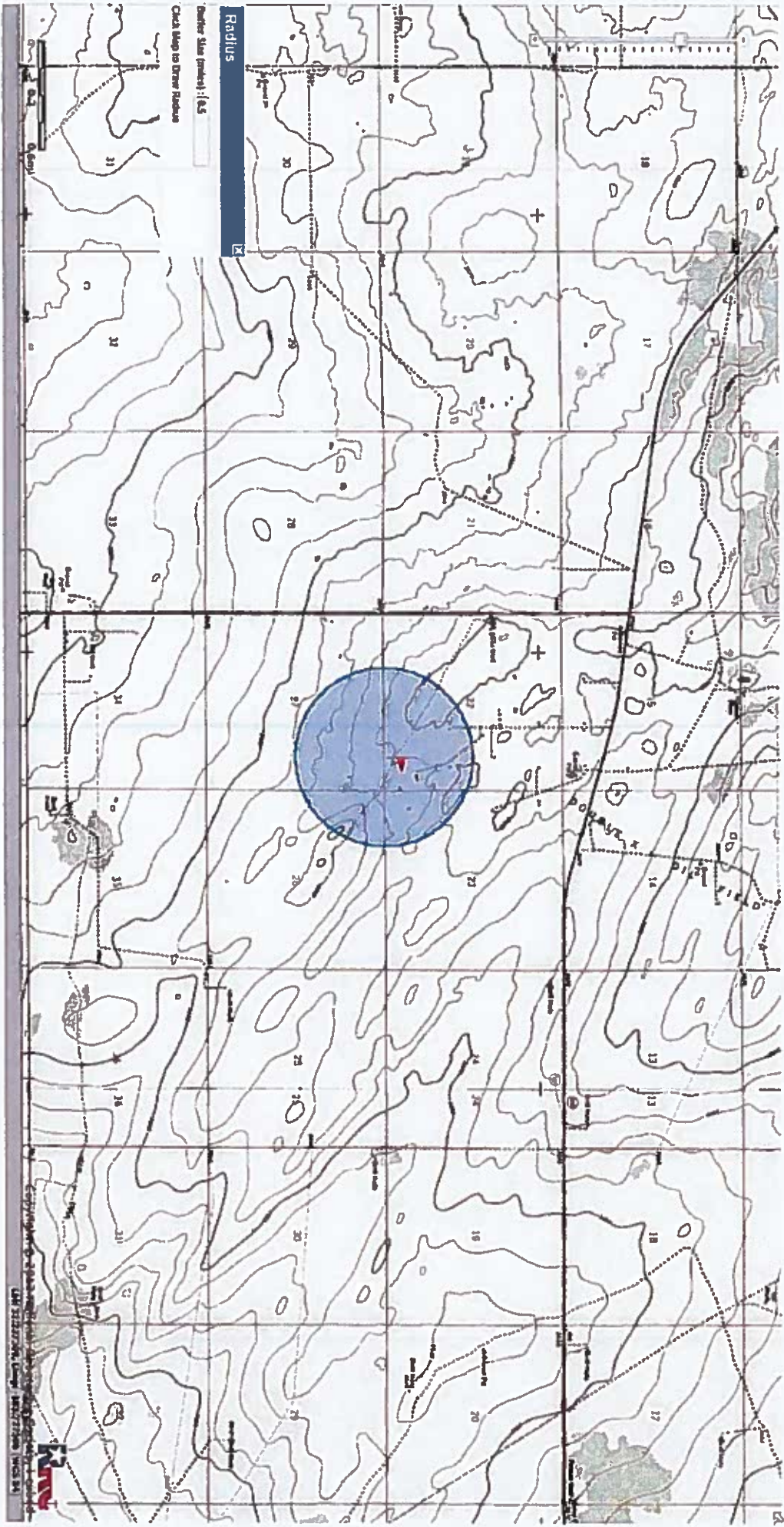
ONE CONTINUOUS AUGER SAMPLER	WATER TABLE (TIME OF BORING)	JOB NUMBER : Apache Corp./20-0101-01
STANDARD PENETRATION TEST	LABORATORY TEST LOCATION	HOLE DIAMETER : 2"
UNDISTURBED SAMPLE	PENETROMETER (TONS/ SQ. FT)	LOCATION : Ghost Rider
WATER TABLE (24 HRS)	NO RECOVERY	LAI GEOLOGIST : R. Owen
		DRILLING CONTRACTOR : SDI
DRILL DATE : 1/15/2020		DRILLING METHOD : Air Rotary
BORING NUMBER : B-1		

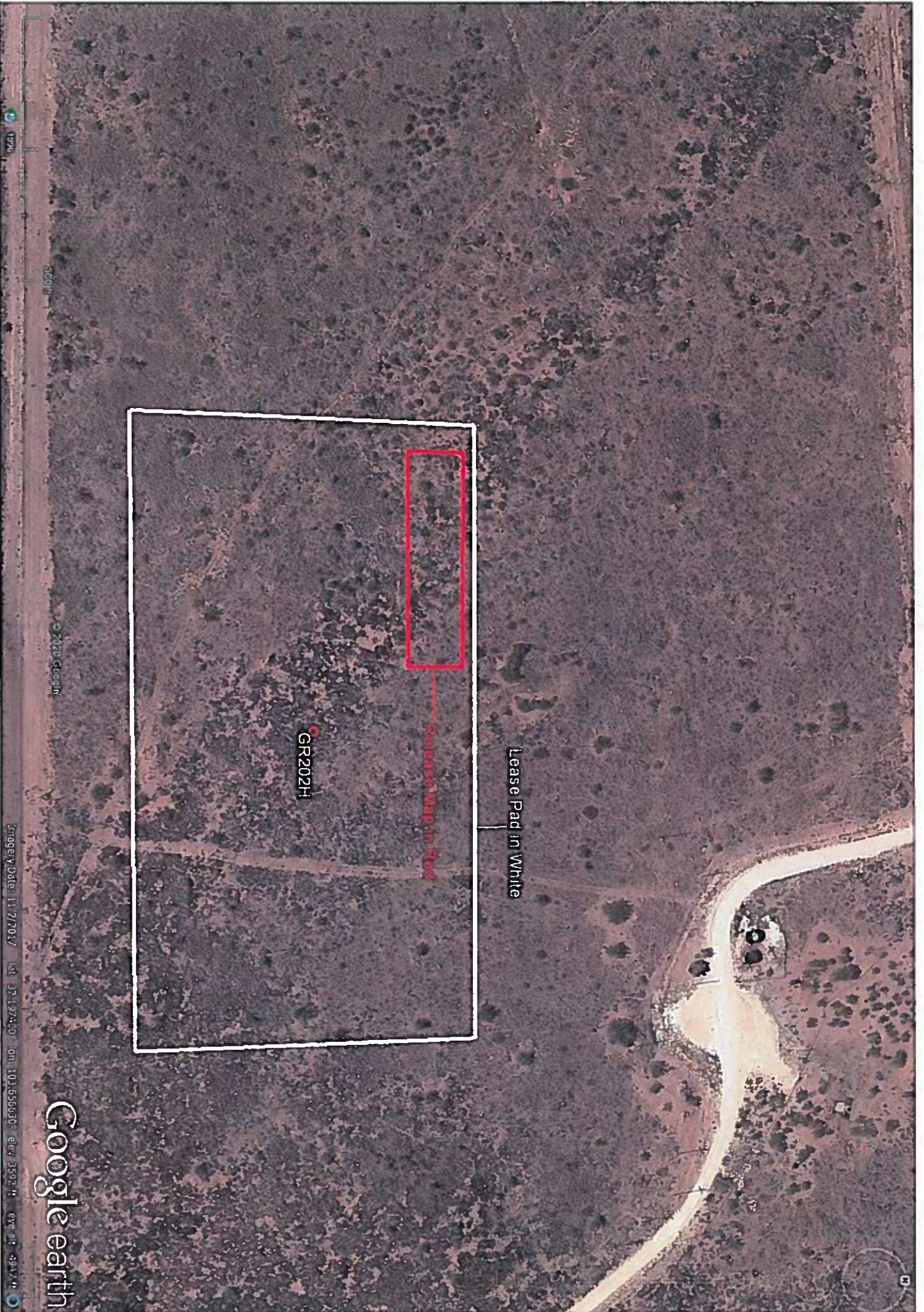


Figure 2 - Aerial Map

Karat Map









GHOST RIDER #202H

Delineation Samples- Surface

Map ID	Sample ID	Depth	Chloride	Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEx	GRO	DRO	EXT DRO	GPS Coordinates
9/13/2019	SP1 @ Surface	5	7,920.00	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	254	<10.0	32.197323, -103.656809
9/13/2019	SP2 @ Surface	5	14,400.00	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.197323, -103.656943
9/13/2019	SP3 @ Surface	5	31,200.00	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.197321, -103.657075

Delineation Samples- 1'

Sample Date	Sample ID	Depth	Chloride	Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEx	GRO	DRO	EXT DRO	GPS Coordinates
9/13/2019	SP1 @ 1'	1'	2,360.00	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	217	<10.0	"
9/13/2019	SP2 @ 1'	1'	8,480.00	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	"
9/13/2019	SP3 @ 1'	1'	10,000.00	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	"

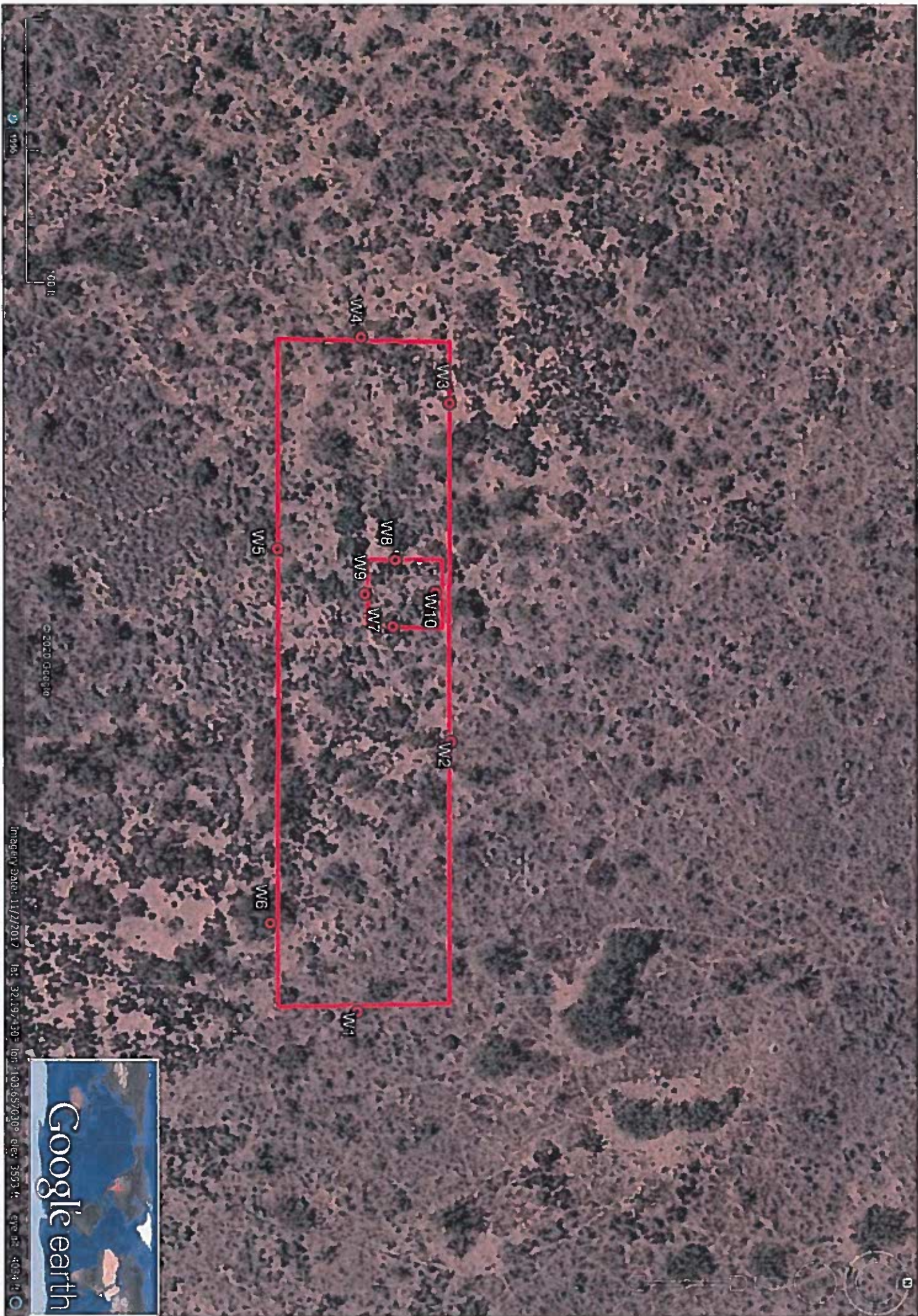


Final Bottom Samples

Map ID	Sample ID	Depth	Chloride	Benzene	Toulene	Ethylbenzene	Total Xylenes	Total BTEX	GRO	DRO	EXT DRO	GPS Coordinates
1/31/2020	B1 @ Surface	S	288	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.1973035 -103.6566539
1/31/2020	B2 @ Surface	S	416	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.1973126 -103.6565427
1/31/2020	B3 @ Surface	S	368	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.1973219 -103.6566751
1/31/2020	B4 @ Surface	S	160	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.1973100 -103.6567388
1/31/2020	B5 @ Surface	S	352	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.1973140 -103.6567753
1/31/2020	B6 @ Surface	S	1220	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.1973123 -103.6567995
1/31/2020	B7 @ Surface	S	528	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.1973254 -103.6568357
1/31/2020	B8 @ Surface	S	448	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.1973248 -103.6568705
1/31/2020	B9 @ Surface	S	1600	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.1973234 -103.6569091
1/31/2020	B10 @ Surface	S	320	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.1973222 -103.6569366
1/31/2020	B11 @ Surface	S	592	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.1973262 -103.6569330
1/31/2020	B12 @ Surface	S	784	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.1973330 -103.6569889
1/31/2020	B13 @ Surface	S	2480	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.1973339 -103.6570177
1/31/2020	B14 @ Surface	S	6960	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.1972760 -103.6570439
1/31/2020	B15 @ Surface	S	2480	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.1972805 -103.6571495
1/31/2020	B16 @ Surface	S	912	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	17.5	10.6	32.1973237 -103.6572009
1/31/2020	B17 @ Surface	S	704	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.1973313 -103.6572507
1/31/2020	B18 @ Surface	S	1550	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	

1/31/2020	B19 @ Surface	S	928	<0.050	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.1973429
1/31/2020	B20 @ Surface	S	272	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	32.1973381
1/31/2020	B21 @ Surface	S	1680	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	32.1973293
1/31/2020	B22 @ Surface	S	1920	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	32.1973256
1/31/2020	B23 @ Surface	S	416	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	32.1973336
1/31/2020	B24 @ Surface	S	656	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	32.1973410
1/31/2020	B25 @ Surface	S	2040	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	32.1973996
1/31/2020	B26 @ 6"	6"	192	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	32.1973815
													-103.6571981

Wall Samples



Final Wall Samples

Sample Date	Map ID	Sample ID	Depth	Chloride	Benzene	Toulene	Ethylbenzene	Total Xylenes	Total BTEX	GRO	DRO	EXT DRO	GPS Coordinates
1/31/2020	W1	W1 @ S	S	160	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.1973673 -103.6565956
1/31/2020	W2	W2 @ S	S	272	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.1974199 -103.6569316
1/31/2020	W3	W3 @ S	S	224	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.1974193 -103.6573540
1/31/2020	W4	W4 @ S	S	400	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.1973316 -103.6574355
1/31/2020	W5	W5 @ S	S	448	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.1972346 -103.6571545
1/31/2020	W6	W6 @ S	S	528	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.1972520 -103.6567022
1/31/2020	W7	W1 @ 6"	6"	4800	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.1973438 -103.6570744
1/31/2020	W8	W2 @ 6"	6"	624	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.1973350 -103.6571817
1/31/2020	W9	W3 @ 6"	6"	3920	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.1972675 -103.6571106
1/31/2020	W10	W4 @ 6"	6"	1550	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.1973827 -103.6571163



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

September 16, 2019

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: GHOST RIDER #202 H

Enclosed are the results of analyses for samples received by the laboratory on 09/13/19 16:40.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at 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	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:

APACHE CORP - HOBBS
 BRUCE BAKER
 2350 W. MARLAND BLVD.
 HOBBS NM, 88240
 Fax To: (575) 393-2432

Received: 09/13/2019
 Reported: 09/16/2019
 Project Name: GHOST RIDER #202 H
 Project Number: NONE GIVEN
 Project Location: NONE GIVEN

Sampling Date: 09/13/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Angela Cabrera

Sample ID: SP 1 @ SURFACE (H903173-01)

BTEX 80218		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/16/2019	ND	2.14	107	2.00	2.36	
Toluene*	<0.050	0.050	09/16/2019	ND	1.96	98.0	2.00	4.79	
Ethylbenzene*	<0.050	0.050	09/16/2019	ND	2.42	121	2.00	17.2	
Total Xylenes*	<0.150	0.150	09/16/2019	ND	6.01	100	6.00	1.48	
Total BTEX	<0.300	0.300	09/16/2019	ND					

Surrogate 4-Bromofluorobenzene (PIC) 97.1 % 73.3-139

Chloride, 5M4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	7920	16.0	09/16/2019	ND	432	108	400	0.00		

TPH 8013M		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	09/14/2019	ND	198	98.8	200	5.98	
DRO >C10-C28*	254	10.0	09/14/2019	ND	201	100	200	7.76	
EXT DRO >C28-C36	<10.0	10.0	09/14/2019	ND					

Surrogate 1-Chlorooctane 82.3 % 41-142

Surrogate 1-Chlorodecane 98.9 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

APACHE CORP - HOBBS
 BRUCE BAKER
 2350 W. MARLAND BLVD.
 HOBBS NM, 88240
 Fax To: (575) 393-2432

Received: 09/13/2019
 Reported: 09/16/2019
 Project Name: GHOST RIDER #202 H
 Project Number: NONE GIVEN
 Project Location: NONE GIVEN

Sampling Date: 09/13/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Angela Cabrera

Sample ID: SP 1 @ 1' (H903173-02)

BTEX 8021B

mg/kg

Analyzed By: CK

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/16/2019	ND	2.14	107	2.00	2.36	
Toluene*	<0.050	0.050	09/16/2019	ND	1.96	98.0	2.00	4.79	
Ethylbenzene*	<0.050	0.050	09/16/2019	ND	2.42	121	2.00	17.2	
Total Xylenes*	<0.150	0.150	09/16/2019	ND	6.01	100	6.00	1.48	
Total BTEX	<0.300	0.300	09/16/2019	ND					

Surrogate 4-Bromofluorobenzene (PIC) 96.2 % 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	2360	16.0	09/16/2019	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	09/14/2019	ND	198	98.8	200	5.98	
DRO >C10-C28*	217	10.0	09/14/2019	ND	201	100	200	7.76	
EXT DRO >C28-C36	<10.0	10.0	09/14/2019	ND					

Surrogate 1-Chlorooctane 84.3 % 41-142

Surrogate 1-Chlorooctadecane 96.7 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

APACHE CORP - HOBBS
 BRUCE BAKER
 2350 W. MARLAND BLVD.
 HOBBS NM, 88240
 Fax To: (575) 393-2432

Received: 09/13/2019
 Reported: 09/16/2019
 Project Name: GHOST RIDER #202 H
 Project Number: NONE GIVEN
 Project Location: NONE GIVEN

Sampling Date: 09/13/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Angela Cabrera

Sample ID: SP 2 @ SURFACE (H903173-03)**BTEX 8021B**

mg/kg

Analyzed By: CK

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/16/2019	ND	2.14	107	2.00	2.36	
Toluene*	<0.050	0.050	09/16/2019	ND	1.96	98.0	2.00	4.79	
Ethylbenzene*	<0.050	0.050	09/16/2019	ND	2.42	121	2.00	17.2	
Total Xylenes*	<0.150	0.150	09/16/2019	ND	6.01	100	6.00	1.48	
Total BTEX	<0.300	0.300	09/16/2019	ND					

Surrogate 4-Bromofluorobenzene (PIL) 95.3% 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	14400	16.0	09/16/2019	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	09/14/2019	ND	198	98.8	200	5.98	
DRO >C10-C28*	<10.0	10.0	09/14/2019	ND	201	100	200	7.76	
EXT DRO >C28-C36	<10.0	10.0	09/14/2019	ND					

Surrogate 1-Chlorooctane 76.7% 41-142

Surrogate 1-Chlorooctadecane 83.3% 37.6-147

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Analytical Results For:

APACHE CORP - HOBBS
 BRUCE BAKER
 2350 W. MARLAND BLVD.
 HOBBS NM, 88240
 Fax To: (575) 393-2432

Received: 09/13/2019
 Reported: 09/16/2019
 Project Name: GHOST RIDER #202 H
 Project Number: NONE GIVEN
 Project Location: NONE GIVEN

Sampling Date: 09/13/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Angela Cabrera

Sample ID: SP 2 @ 1' (H903173-04)

BTEX 8021B			mg/kg							
			Analyzed By: CK							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/16/2019	ND	2.14	107	2.00	2.36		
Toluene*	<0.050	0.050	09/16/2019	ND	1.96	98.0	2.00	4.79		
Ethylbenzene*	<0.050	0.050	09/16/2019	ND	2.42	121	2.00	17.2		
Total Xylenes*	<0.150	0.150	09/16/2019	ND	6.01	100	6.00	1.48		
Total BTEX	<0.300	0.300	09/16/2019	ND						

Surrogate 4-Bromofluorobenzene (PIE) 97.4% 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	8480	16.0	09/16/2019	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	09/15/2019	ND	198	98.8	200	5.98	
DRO >C10-C28*	<10.0	10.0	09/15/2019	ND	201	100	200	7.76	
EXT DRO >C28-C36	<10.0	10.0	09/15/2019	ND					

Surrogate 1-Chlorooctane 83.5% 41-142

Surrogate 1-Chlorooctadecane 91.0% 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

APACHE CORP - HOBBS
 BRUCE BAKER
 2350 W. MARLAND BLVD.
 HOBBS NM, 88240
 Fax To: (575) 393-2432

Received: 09/13/2019
 Reported: 09/16/2019
 Project Name: GHOST RIDER #202 H
 Project Number: NONE GIVEN
 Project Location: NONE GIVEN

Sampling Date: 09/13/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Angela Cabrera

Sample ID: SP 3 @ SURFACE (H903173-05)

BTEX #0218		mg/kg	Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/16/2019	ND	2.14	107	2.00	2.36	
Toluene*	<0.050	0.050	09/16/2019	ND	1.96	98.0	2.00	4.79	
Ethylbenzene*	<0.050	0.050	09/16/2019	ND	2.42	121	2.00	17.2	
Total Xylenes*	<0.150	0.150	09/16/2019	ND	6.01	100	6.00	1.48	
Total BTEX	<0.300	0.300	09/16/2019	ND					

Surrogate 4-Bromofluorobenzene (PIE) 96.2 % 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	31200	16.0	09/16/2019	ND	432	108	400	0.00	

TPH #015M		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	09/15/2019	ND	198	98.8	200	5.98	
DRO >C10-C28*	<10.0	10.0	09/15/2019	ND	201	100	200	7.76	
EXT DRO >C28-C36	<10.0	10.0	09/15/2019	ND					

Surrogate 1-Chlorooctane 86.5 % 41-142

Surrogate 1-Chlorooctadecane 93.5 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

APACHE CORP - HOBBS
 BRUCE BAKER
 2350 W. MARLAND BLVD.
 HOBBS NM, 88240
 Fax To: (575) 393-2432

Received: 09/13/2019
 Reported: 09/16/2019
 Project Name: GHOST RIDER #202 H
 Project Number: NONE GIVEN
 Project Location: NONE GIVEN

Sampling Date: 09/13/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Angela Cabrera

Sample ID: SP 3 @ 1' (H903173-06)

BTX 8021B

mg/kg

Analyzed By: CK

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/16/2019	ND	2.14	107	2.00	2.36	
Toluene*	<0.050	0.050	09/16/2019	ND	1.95	98.0	2.00	4.79	
Ethylbenzene*	<0.050	0.050	09/16/2019	ND	2.42	121	2.00	17.2	
Total Xylenes*	<0.150	0.150	09/16/2019	ND	6.01	100	6.00	1.48	
Total BTX	<0.300	0.300	09/16/2019	ND					

Surrogate 4-Bromofluorobenzene (PIC) 96.3 % 73.3-139

Chloride, SM4580CI-B

mg/kg

Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	10000	16.0	09/16/2019	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	09/15/2019	ND	198	98.8	200	5.98	
DRO >C10-C28*	<10.0	10.0	09/15/2019	ND	201	100	200	7.76	
EXT DRO >C28-C36	<10.0	10.0	09/15/2019	ND					

Surrogate 1-Chlorooctane 84.1 % 41-142

Surrogate 1-Chlorooctadecane 92.0 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

- QR 02** The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
- ND** Analyte NOT DETECTED at or above the reporting limit
- RPD** Relative Percent Difference
- **** Samples not received at proper temperature of 6°C or below
- ***** Insufficient time to reach temperature.
- *** Chloride by SM4500Cl-B does not require samples be received at or below 6°C
Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

***=Accredited Analyte**

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C. Keene

Celey D. Keene, Lab Director/Quality Manager



CARDINAL
Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: **Apple Corporation**

Project Manager: **Alvin Baker**

Address:

C :

Phone #:

Project #:

Project Name: **Glacier Ridge 2nd**

Project Location: **Glacier Ridge 2nd**

Sample Name: **Left from**

For Lab Use Only

State:

Zip:

Project Owner:

City:

State:

Zip:

Phone #:

Fax #:

P.O. #:

Company:

Address:

City:

State:

Zip:

Phone #:

Fax #:

Lab I.D.

Sample I.D.

HPD873

-1

-2

-3

-4

-5

-6

SP1 @ Surface

SP1 @ 1'

SP2 @ Surface

SP2 @ 1'

SP3 @ Surface

SP3 @ 1'

(G)RAB OR (C)OMP

CONTAINERS

GROUNDWATER

WASTEWATER

SOIL

OIL

SLUDGE

OTHER

ACID/BASE

ICE / COOL

OTHER

DATE

TIME

CL

BTEX

EXT. TPH

Delivered By: (Circle One)

Sample - UPS - Bus - Other:

3.46

3.88

Current

Sample Condition

Good

Pres

Brns

No

Checked By:

(Initials)

BA

#9

Refiniquished By:

for from

Date:

4/13/15

Time:

4:40

Received By:

Brandi Ordak

Refiniquished By:

for from

Date:

4/13/15

Time:

4:40

Received By:

Brandi Ordak

REMARKS:

PLEASE Rush.

Thank you, Jeff



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

February 05, 2020

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: GHOST RIDER #202 H

Enclosed are the results of analyses for samples received by the laboratory on 01/31/20 16:22.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-19-12. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is 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:

APACHE CORP - HOBBS
 BRUCE BAKER
 2350 W. MARLAND BLVD.
 HOBBS NM, 88240
 Fax To: (575) 393-2432

Received: 01/31/2020
 Reported: 02/05/2020
 Project Name: GHOST RIDER #202 H
 Project Number: GHOST RIDER 22-15 FED COM 202H
 Project Location: NONE GIVEN

Sampling Date: 01/31/2020
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: B 1 @ SURFACE 32.1973035 - 103.6566539 (H000308-01)

BTEX 80218		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/03/2020	ND	1.67	83.3	2.00	5.75	
Toluene*	<0.050	0.050	02/03/2020	ND	1.70	85.2	2.00	5.45	
Ethylbenzene*	<0.050	0.050	02/03/2020	ND	1.64	82.1	2.00	5.11	
Total Xylenes*	<0.150	0.150	02/03/2020	ND	4.92	82.1	6.00	5.02	
Total BTEX	<0.300	0.300	02/03/2020	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 100 % 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	288	16.0	02/04/2020	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	02/03/2020	ND	213	107	200	4.85	
DRO >C10-C28*	<10.0	10.0	02/03/2020	ND	205	102	200	4.99	
EXT DRO >C28-C36	<10.0	10.0	02/03/2020	ND					

Surrogate: 1-Chlorooctane 97.2 % 41-142

Surrogate: 1-Chlorooctadecane 99.1 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

APACHE CORP - HOBBS
 BRUCE BAKER
 2350 W. MARLAND BLVD.
 HOBBS NM, 88240
 Fax To: (575) 393-2432

Received:	01/31/2020	Sampling Date:	01/31/2020
Reported:	02/05/2020	Sampling Type:	Soil
Project Name:	GHOST RIDER #202 H	Sampling Condition:	Cool & Intact
Project Number:	GHOST RIDER 22-15 FED COM 202H	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: B 2 @ SURFACE 32.1973126 - 103.6565427 (H000308-02)

BTEX 80218		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/03/2020	ND	1.67	83.3	2.00	5.75	
Toluene*	<0.050	0.050	02/03/2020	ND	1.70	85.2	2.00	5.45	
Ethylbenzene*	<0.050	0.050	02/03/2020	ND	1.64	82.1	2.00	5.11	
Total Xylenes*	<0.150	0.150	02/03/2020	ND	4.92	82.1	6.00	5.02	
Total BTEX	<0.300	0.300	02/03/2020	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 97.3 % 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	416	16.0	02/04/2020	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	02/03/2020	ND	213	107	200	4.85	
DRO >C10-C28*	<10.0	10.0	02/03/2020	ND	205	102	200	4.99	
EXT DRO >C28-C36	<10.0	10.0	02/03/2020	ND					

Surrogate: 1-Chlorooctane 93.4 % 41-142

Surrogate: 1-Chlorooctadecane 95.6 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

APACHE CORP - HOBBS
 BRUCE BAKER
 2350 W. MARLAND BLVD.
 HOBBS NM, 88240
 Fax To: (575) 393-2432

Received: 01/31/2020
 Reported: 02/05/2020
 Project Name: GHOST RIDER #202 H
 Project Number: GHOST RIDER 22-15 FED COM 202H
 Project Location: NONE GIVEN

Sampling Date: 01/31/2020
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: B 3 @ SURFACE 32.1973219 - 103.6566751 (H000308-03)

BTEX 80218		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/03/2020	ND	1.67	83.3	2.00	5.75	
Toluene*	<0.050	0.050	02/03/2020	ND	1.70	85.2	2.00	5.45	
Ethylbenzene*	<0.050	0.050	02/03/2020	ND	1.64	82.1	2.00	5.11	
Total Xylenes*	<0.150	0.150	02/03/2020	ND	4.92	82.1	6.00	5.02	
Total BTEX	<0.300	0.300	02/03/2020	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 96.0 % 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	368	16.0	02/04/2020	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	02/03/2020	ND	213	107	200	4.85	
DRO >C10-C28*	<10.0	10.0	02/03/2020	ND	205	102	200	4.99	
EXT DRO >C28-C36	<10.0	10.0	02/03/2020	ND					

Surrogate: 1-Chlorooctane 95.3 % 41-142

Surrogate: 1-Chlorooctadecane 97.7 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

APACHE CORP - HOBBS
 BRUCE BAKER
 2350 W. MARLAND BLVD.
 HOBBS NM, 88240
 Fax To: (575) 393-2432

Received:	01/31/2020	Sampling Date:	01/31/2020
Reported:	02/05/2020	Sampling Type:	Soil
Project Name:	GHOST RIDER #202 H	Sampling Condition:	Cool & Intact
Project Number:	GHOST RIDER 22-15 FED COM 202H	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: B 4 @ SURFACE 32.1973100 - 103.6567388 (H000308-04)

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	02/03/2020	ND	1.67	83.3	2.00	5.75	
Toluene*	<0.050	0.050	02/03/2020	ND	1.70	85.2	2.00	5.45	
Ethylbenzene*	<0.050	0.050	02/03/2020	ND	1.64	82.1	2.00	5.11	
Total Xylenes*	<0.150	0.150	02/03/2020	ND	4.92	82.1	6.00	5.02	
Total BTEX	<0.300	0.300	02/03/2020	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 97.8 % 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	160	16.0	02/04/2020	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	02/03/2020	ND	213	107	200	4.85	
DRO >C10-C28*	<10.0	10.0	02/03/2020	ND	205	102	200	4.99	
EXT DRO >C28-C36	<10.0	10.0	02/03/2020	ND					

Surrogate: 1-Chlorooctane 94.6 % 41-142

Surrogate: 1-Chlorooctadecane 97.3 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

APACHE CORP - HOBBS
 BRUCE BAKER
 2350 W. MARLAND BLVD.
 HOBBS NM, 88240
 Fax To: (575) 393-2432

Received: 01/31/2020
 Reported: 02/05/2020
 Project Name: GHOST RIDER #202 H
 Project Number: GHOST RIDER 22-15 FED COM 202H
 Project Location: NONE GIVEN

Sampling Date: 01/31/2020
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: B 5 @ SURFACE 32.1973140 - 103.6567753 (H000308-05)

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	02/03/2020	ND	1.67	83.3	2.00	5.75	
Toluene*	<0.050	0.050	02/03/2020	ND	1.70	85.2	2.00	5.45	
Ethylbenzene*	<0.050	0.050	02/03/2020	ND	1.64	82.1	2.00	5.11	
Total Xylenes*	<0.150	0.150	02/03/2020	ND	4.92	82.1	6.00	5.02	
Total BTEX	<0.300	0.300	02/03/2020	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 98.3 % 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	352	16.0	02/04/2020	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	02/03/2020	ND	213	107	200	4.85	
DRO >C10-C28*	<10.0	10.0	02/03/2020	ND	205	102	200	4.99	
EXT DRO >C28-C36	<10.0	10.0	02/03/2020	ND					

Surrogate: 1-Chlorooctane 92.7 % 41-142

Surrogate: 1-Chlorooctadecane 95.2 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

APACHE CORP - HOBBS
 BRUCE BAKER
 2350 W. MARLAND BLVD.
 HOBBS NM, 88240
 Fax To: (575) 393-2432

Received:	01/31/2020	Sampling Date:	01/31/2020
Reported:	02/05/2020	Sampling Type:	Soil
Project Name:	GHOST RIDER #202 H	Sampling Condition:	Cool & Intact
Project Number:	GHOST RIDER 22-15 FED COM 202H	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: B 6 @ SURFACE 32.1973123 - 103.6567995 (H000308-06)

BTEX 80218		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/03/2020	ND	1.67	83.3	2.00	5.75	
Toluene*	<0.050	0.050	02/03/2020	ND	1.70	85.2	2.00	5.45	
Ethylbenzene*	<0.050	0.050	02/03/2020	ND	1.64	82.1	2.00	5.11	
Total Xylenes*	<0.150	0.150	02/03/2020	ND	4.92	82.1	6.00	5.02	
Total BTEX	<0.300	0.300	02/03/2020	ND					

Surrogate: 4-Bromofluorobenzene (PIB) 97.9 % 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	1220	16.0	02/04/2020	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	02/03/2020	ND	213	107	200	4.85	
DRO >C10-C28*	<10.0	10.0	02/03/2020	ND	205	102	200	4.99	
EXT DRO >C28-C36	<10.0	10.0	02/03/2020	ND					

Surrogate: 1-Chlorooctane 81.9 % 41-142

Surrogate: 1-Chlorooctadecane 84.5 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

APACHE CORP - HOBBS
 BRUCE BAKER
 2350 W. MARLAND BLVD.
 HOBBS NM, 88240
 Fax To: (575) 393-2432

Received:	01/31/2020	Sampling Date:	01/31/2020
Reported:	02/05/2020	Sampling Type:	Soil
Project Name:	GHOST RIDER #202 H	Sampling Condition:	Cool & Intact
Project Number:	GHOST RIDER 22-15 FED COM 202H	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: B 7 @ SURFACE 32.1973254 - 103.6568357 (H000308-07)

BTEX 80218		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/03/2020	ND	1.67	83.3	2.00	5.75	
Toluene*	<0.050	0.050	02/03/2020	ND	1.70	85.2	2.00	5.45	
Ethylbenzene*	<0.050	0.050	02/03/2020	ND	1.64	82.1	2.00	5.11	
Total Xylenes*	<0.150	0.150	02/03/2020	ND	4.92	82.1	6.00	5.02	
Total BTEX	<0.300	0.300	02/03/2020	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 98.7 % 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	528	16.0	02/04/2020	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	02/04/2020	ND	213	107	200	4.85	
DRO >C10-C28*	<10.0	10.0	02/04/2020	ND	205	102	200	4.99	
EXT DRO >C28-C36	<10.0	10.0	02/04/2020	ND					

Surrogate: 1-Chlorooctane 93.6 % 41-142

Surrogate: 1-Chlorooctadecane 96.0 % 37.6-147

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:

APACHE CORP - HOBBS
 BRUCE BAKER
 2350 W. MARLAND BLVD.
 HOBBS NM, 88240
 Fax To: (575) 393-2432

Received:	01/31/2020	Sampling Date:	01/31/2020
Reported:	02/05/2020	Sampling Type:	Soil
Project Name:	GHOST RIDER #202 H	Sampling Condition:	Cool & Intact
Project Number:	GHOST RIDER 22-15 FED COM 202H	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: B 8 @ SURFACE 32.1973248 - 103.6568705 (H000308-08)

BTEX 80218		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/03/2020	ND	1.67	83.3	2.00	5.75	
Toluene*	<0.050	0.050	02/03/2020	ND	1.70	85.2	2.00	5.45	
Ethylbenzene*	<0.050	0.050	02/03/2020	ND	1.64	82.1	2.00	5.11	
Total Xylenes*	<0.150	0.150	02/03/2020	ND	4.92	82.1	6.00	5.02	
Total BTEX	<0.300	0.300	02/03/2020	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 98.9 % 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	448	16.0	02/04/2020	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	02/04/2020	ND	213	107	200	4.85	
DRO >C10-C28*	<10.0	10.0	02/04/2020	ND	205	102	200	4.99	
EXT DRO >C28-C36	<10.0	10.0	02/04/2020	ND					

Surrogate: 1-Chlorooctane 87.5 % 41-142

Surrogate: 1-Chlorooctadecane 90.2 % 37.6-147

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Analytical Results For:

APACHE CORP - HOBBS
 BRUCE BAKER
 2350 W. MARLAND BLVD.
 HOBBS NM, 88240
 Fax To: (575) 393-2432

Received:	01/31/2020	Sampling Date:	01/31/2020
Reported:	02/05/2020	Sampling Type:	Soil
Project Name:	GHOST RIDER #202 H	Sampling Condition:	Cool & Intact
Project Number:	GHOST RIDER 22-15 FED COM 202H	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: B 9 @ SURFACE 32.1973234 - 103.6569091 (H000308-09)

BTEX 80218		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/03/2020	ND	1.67	83.3	2.00	5.75	
Toluene*	<0.050	0.050	02/03/2020	ND	1.70	85.2	2.00	5.45	
Ethylbenzene*	<0.050	0.050	02/03/2020	ND	1.64	82.1	2.00	5.11	
Total Xylenes*	<0.150	0.150	02/03/2020	ND	4.92	82.1	6.00	5.02	
Total BTEX	<0.300	0.300	02/03/2020	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 98.0 % 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	1600	16.0	02/04/2020	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	02/04/2020	ND	213	107	200	4.85	
DRO >C10-C28*	<10.0	10.0	02/04/2020	ND	205	102	200	4.99	
EXT DRO >C28-C36	<10.0	10.0	02/04/2020	ND					

Surrogate: 1-Chlorooctane 89.4 % 41-142

Surrogate: 1-Chlorooctadecane 91.6 % 37.6-147

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Analytical Results For:

APACHE CORP - HOBBS
 BRUCE BAKER
 2350 W. MARLAND BLVD.
 HOBBS NM, 88240
 Fax To: (575) 393-2432

Received: 01/31/2020
 Reported: 02/05/2020
 Project Name: GHOST RIDER #202 H
 Project Number: GHOST RIDER 22-15 FED COM 202H
 Project Location: NONE GIVEN

Sampling Date: 01/31/2020
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: B 10 @ SURFACE 32.1973222 - 103.6569366 (H000308-10)

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	02/03/2020	ND	1.67	83.3	2.00	5.75	
Toluene*	<0.050	0.050	02/03/2020	ND	1.70	85.2	2.00	5.45	
Ethylbenzene*	<0.050	0.050	02/03/2020	ND	1.64	82.1	2.00	5.11	
Total Xylenes*	<0.150	0.150	02/03/2020	ND	4.92	82.1	6.00	5.02	
Total BTEX	<0.300	0.300	02/03/2020	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 97.4 % 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	320	16.0	02/04/2020	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	02/04/2020	ND	213	107	200	4.85	
DRO >C10-C28*	<10.0	10.0	02/04/2020	ND	205	102	200	4.99	
EXT DRO >C28-C36	<10.0	10.0	02/04/2020	ND					

Surrogate: 1-Chlorooctane 81.3 % 41-142

Surrogate: 1-Chlorooctadecane 82.9 % 37.6-147

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Analytical Results For:

APACHE CORP - HOBBS
 BRUCE BAKER
 2350 W. MARLAND BLVD.
 HOBBS NM, 88240
 Fax To: (575) 393-2432

Received:	01/31/2020	Sampling Date:	01/31/2020
Reported:	02/05/2020	Sampling Type:	Soil
Project Name:	GHOST RIDER #202 H	Sampling Condition:	Cool & Intact
Project Number:	GHOST RIDER 22-15 FED COM 202H	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: B 11 @ SURFACE 32.1973214 - 103.6569330 (H000308-11)

BTEX 80218		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/03/2020	ND	1.67	83.3	2.00	5.75	
Toluene*	<0.050	0.050	02/03/2020	ND	1.70	85.2	2.00	5.45	
Ethylbenzene*	<0.050	0.050	02/03/2020	ND	1.64	82.1	2.00	5.11	
Total Xylenes*	<0.150	0.150	02/03/2020	ND	4.92	82.1	6.00	5.02	
Total BTEX	<0.300	0.300	02/03/2020	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 98.1 % 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	592	16.0	02/04/2020	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	02/04/2020	ND	213	107	200	4.85	
DRO >C10-C28*	<10.0	10.0	02/04/2020	ND	205	102	200	4.99	
EXT DRO >C28-C36	<10.0	10.0	02/04/2020	ND					

Surrogate: 1-Chlorooctane 89.6 % 41-142

Surrogate: 1-Chlorooctadecane 91.3 % 37.6-147

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Analytical Results For:

APACHE CORP - HOBBS
 BRUCE BAKER
 2350 W. MARLAND BLVD.
 HOBBS NM, 88240
 Fax To: (575) 393-2432

Received:	01/31/2020	Sampling Date:	01/31/2020
Reported:	02/05/2020	Sampling Type:	Soil
Project Name:	GHOST RIDER #202 H	Sampling Condition:	Cool & Intact
Project Number:	GHOST RIDER 22-15 FED COM 202H	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: B 12 @ SURFACE 32.1973262 - 103.6569889 (H000308-12)

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	02/03/2020	ND	1.67	83.3	2.00	5.75	
Toluene*	<0.050	0.050	02/03/2020	ND	1.70	85.2	2.00	5.45	
Ethylbenzene*	<0.050	0.050	02/03/2020	ND	1.64	82.1	2.00	5.11	
Total Xylenes*	<0.150	0.150	02/03/2020	ND	4.92	82.1	6.00	5.02	
Total BTEX	<0.300	0.300	02/03/2020	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 98.0 % 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	784	16.0	02/04/2020	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	02/04/2020	ND	213	107	200	4.85	
DRO >C10-C28*	<10.0	10.0	02/04/2020	ND	205	102	200	4.99	
EXT DRO >C28-C36	<10.0	10.0	02/04/2020	ND					

Surrogate: 1-Chlorooctane 92.7 % 41-142

Surrogate: 1-Chlorooctadecane 94.6 % 37.6-147

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Analytical Results For:

APACHE CORP - HOBBS
 BRUCE BAKER
 2350 W. MARLAND BLVD.
 HOBBS NM, 88240
 Fax To: (575) 393-2432

Received: 01/31/2020
 Reported: 02/05/2020
 Project Name: GHOST RIDER #202 H
 Project Number: GHOST RIDER 22-15 FED COM 202H
 Project Location: NONE GIVEN

Sampling Date: 01/31/2020
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: B 13 @ SURFACE 32.1973330 - 103.6570177 (H000308-13)

BTEX 80218		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/03/2020	ND	1.67	83.3	2.00	5.75	
Toluene*	<0.050	0.050	02/03/2020	ND	1.70	85.2	2.00	5.45	
Ethylbenzene*	<0.050	0.050	02/03/2020	ND	1.64	82.1	2.00	5.11	
Total Xylenes*	<0.150	0.150	02/03/2020	ND	4.92	82.1	6.00	5.02	
Total BTEX	<0.300	0.300	02/03/2020	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 96.2 % 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	2480	16.0	02/04/2020	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	02/04/2020	ND	213	107	200	4.85	
DRO >C10-C28*	<10.0	10.0	02/04/2020	ND	205	102	200	4.99	
EXT DRO >C28-C36	<10.0	10.0	02/04/2020	ND					

Surrogate: 1-Chlorooctane 78.8 % 41-142

Surrogate: 1-Chlorooctadecane 78.3 % 37.6-147

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Analytical Results For:

APACHE CORP - HOBBS
 BRUCE BAKER
 2350 W. MARLAND BLVD.
 HOBBS NM, 88240
 Fax To: (575) 393-2432

Received:	01/31/2020	Sampling Date:	01/31/2020
Reported:	02/05/2020	Sampling Type:	Soil
Project Name:	GHOST RIDER #202 H	Sampling Condition:	Cool & Intact
Project Number:	GHOST RIDER 22-15 FED COM 202H	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: B 14 @ SURFACE 32.1973339 - 103.6570439 (H000308-14)

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	02/03/2020	ND	1.67	83.3	2.00	5.75	
Toluene*	<0.050	0.050	02/03/2020	ND	1.70	85.2	2.00	5.45	
Ethylbenzene*	<0.050	0.050	02/03/2020	ND	1.64	82.1	2.00	5.11	
Total Xylenes*	<0.150	0.150	02/03/2020	ND	4.92	82.1	6.00	5.02	
Total BTEX	<0.300	0.300	02/03/2020	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 100 % 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	6960	16.0	02/04/2020	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	02/04/2020	ND	213	107	200	4.85	
DRO >C10-C28*	<10.0	10.0	02/04/2020	ND	205	102	200	4.99	
EXT DRO >C28-C36	<10.0	10.0	02/04/2020	ND					

Surrogate: 1-Chlorooctane 77.9 % 41-142

Surrogate: 1-Chlorooctadecane 78.3 % 37.6-147

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Analytical Results For:

APACHE CORP - HOBBS
 BRUCE BAKER
 2350 W. MARLAND BLVD.
 HOBBS NM, 88240
 Fax To: (575) 393-2432

Received: 01/31/2020
 Reported: 02/05/2020
 Project Name: GHOST RIDER #202 H
 Project Number: GHOST RIDER 22-15 FED COM 202H
 Project Location: NONE GIVEN

Sampling Date: 01/31/2020
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: B 15 @ SURFACE 32.1972760 - 103.6570922 (H000308-15)**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	02/04/2020	ND	1.67	83.3	2.00	5.75	
Toluene*	<0.050	0.050	02/04/2020	ND	1.70	85.2	2.00	5.45	
Ethylbenzene*	<0.050	0.050	02/04/2020	ND	1.64	82.1	2.00	5.11	
Total Xylenes*	<0.150	0.150	02/04/2020	ND	4.92	82.1	6.00	5.02	
Total BTEX	<0.300	0.300	02/04/2020	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 100 % 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	2480	16.0	02/04/2020	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	02/03/2020	ND	230	115	200	6.60	
DRO >C10-C28*	<10.0	10.0	02/03/2020	ND	227	114	200	4.96	
EXT DRO >C28-C36	<10.0	10.0	02/03/2020	ND					

Surrogate: 1-Chlorooctane 99.1 % 41-142**Surrogate: 1-Chlorooctadecane 100 % 37.6-147**

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Analytical Results For:

APACHE CORP - HOBBS
 BRUCE BAKER
 2350 W. MARLAND BLVD.
 HOBBS NM, 88240
 Fax To: (575) 393-2432

Received: 01/31/2020
 Reported: 02/05/2020
 Project Name: GHOST RIDER #202 H
 Project Number: GHOST RIDER 22-15 FED COM 202H
 Project Location: NONE GIVEN

Sampling Date: 01/31/2020
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: B 16 @ SURFACE 32.1972805 - 103.6571495 (H000308-16)**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	02/04/2020	ND	1.67	83.3	2.00	5.75	
Toluene*	<0.050	0.050	02/04/2020	ND	1.70	85.2	2.00	5.45	
Ethylbenzene*	<0.050	0.050	02/04/2020	ND	1.64	82.1	2.00	5.11	
Total Xylenes*	<0.150	0.150	02/04/2020	ND	4.92	82.1	6.00	5.02	
Total BTEX	<0.300	0.300	02/04/2020	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 97.3 % 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	912	16.0	02/04/2020	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	02/03/2020	ND	230	115	200	6.60	
DRO >C10-C28*	17.5	10.0	02/03/2020	ND	227	114	200	4.96	
EXT DRO >C28-C36	10.6	10.0	02/03/2020	ND					

Surrogate: 1-Chlorooctane 96.5 % 41-142

Surrogate: 1-Chlorooctadecane 99.1 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

APACHE CORP - HOBBS
 BRUCE BAKER
 2350 W. MARLAND BLVD.
 HOBBS NM, 88240
 Fax To: (575) 393-2432

Received:	01/31/2020	Sampling Date:	01/31/2020
Reported:	02/05/2020	Sampling Type:	Soil
Project Name:	GHOST RIDER #202 H	Sampling Condition:	Cool & Intact
Project Number:	GHOST RIDER 22-15 FED COM 202H	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: B 17 @ SURFACE 32.1973237 - 103.6572009 (H000308-17)

BTEX 80218		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/04/2020	ND	1.67	83.3	2.00	5.75	
Toluene*	<0.050	0.050	02/04/2020	ND	1.70	85.2	2.00	5.45	
Ethylbenzene*	<0.050	0.050	02/04/2020	ND	1.64	82.1	2.00	5.11	
Total Xylenes*	<0.150	0.150	02/04/2020	ND	4.92	82.1	6.00	5.02	
Total BTEX	<0.300	0.300	02/04/2020	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 99.4 % 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	704	16.0	02/04/2020	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	02/03/2020	ND	230	115	200	6.60	
DRO >C10-C28*	<10.0	10.0	02/03/2020	ND	227	114	200	4.96	
EXT DRO >C28-C36	<10.0	10.0	02/03/2020	ND					

Surrogate: 1-Chlorooctane 97.1 % 41-142

Surrogate: 1-Chlorooctadecane 97.8 % 37.6-147

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Analytical Results For:

APACHE CORP - HOBBS
 BRUCE BAKER
 2350 W. MARLAND BLVD.
 HOBBS NM, 88240
 Fax To: (575) 393-2432

Received: 01/31/2020
 Reported: 02/05/2020
 Project Name: GHOST RIDER #202 H
 Project Number: GHOST RIDER 22-15 FED COM 202H
 Project Location: NONE GIVEN

Sampling Date: 01/31/2020
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: B 18 @ SURFACE 32.1973313 - 103.6772507 (H000308-18)

BTX 80218		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/04/2020	ND	2.00	99.8	2.00	0.162	
Toluene*	<0.050	0.050	02/04/2020	ND	1.97	98.7	2.00	0.939	
Ethylbenzene*	<0.050	0.050	02/04/2020	ND	1.97	98.3	2.00	0.363	
Total Xylenes*	<0.150	0.150	02/04/2020	ND	5.79	96.5	6.00	0.185	
Total BTX	<0.300	0.300	02/04/2020	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 100 % 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	1550	16.0	02/04/2020	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	02/03/2020	ND	230	115	200	6.60	
DRO >C10-C28*	<10.0	10.0	02/03/2020	ND	227	114	200	4.96	
EXT DRO >C28-C36	<10.0	10.0	02/03/2020	ND					

Surrogate: 1-Chlorooctane 93.8 % 41-142

Surrogate: 1-Chlorooctadecane 96.2 % 37.6-147

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Analytical Results For:

APACHE CORP - HOBBS
 BRUCE BAKER
 2350 W. MARLAND BLVD.
 HOBBS NM, 88240
 Fax To: (575) 393-2432

Received: 01/31/2020
 Reported: 02/05/2020
 Project Name: GHOST RIDER #202 H
 Project Number: GHOST RIDER 22-15 FED COM 202H
 Project Location: NONE GIVEN

Sampling Date: 01/31/2020
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: B 19 @ SURFACE 32.1973429 - 103.6573077 (H000308-19)

BTEX 80218		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/04/2020	ND	2.00	99.8	2.00	0.162	
Toluene*	<0.050	0.050	02/04/2020	ND	1.97	98.7	2.00	0.939	
Ethylbenzene*	<0.050	0.050	02/04/2020	ND	1.97	98.3	2.00	0.363	
Total Xylenes*	<0.150	0.150	02/04/2020	ND	5.79	96.5	6.00	0.185	
Total BTEX	<0.300	0.300	02/04/2020	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 100 % 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	928	16.0	02/04/2020	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	02/03/2020	ND	230	115	200	6.60	
DRO >C10-C28*	<10.0	10.0	02/03/2020	ND	227	114	200	4.96	
EXT DRO >C28-C36	<10.0	10.0	02/03/2020	ND					

Surrogate: 1-Chlorooctane 87.6 % 41-142

Surrogate: 1-Chlorooctadecane 89.3 % 37.6-147

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Analytical Results For:

APACHE CORP - HOBBS
 BRUCE BAKER
 2350 W. MARLAND BLVD.
 HOBBS NM, 88240
 Fax To: (575) 393-2432

Received: 01/31/2020
 Reported: 02/05/2020
 Project Name: GHOST RIDER #202 H
 Project Number: GHOST RIDER 22-15 FED COM 202H
 Project Location: NONE GIVEN

Sampling Date: 01/31/2020
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: B 20 @ SURFACE 32.1973381 - 103.6573272 (H000308-20)

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	02/04/2020	ND	2.00	99.8	2.00	0.162	
Toluene*	<0.050	0.050	02/04/2020	ND	1.97	98.7	2.00	0.939	
Ethylbenzene*	<0.050	0.050	02/04/2020	ND	1.97	98.3	2.00	0.363	
Total Xylenes*	<0.150	0.150	02/04/2020	ND	5.79	96.5	6.00	0.185	
Total BTEX	<0.300	0.300	02/04/2020	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 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	272	16.0	02/04/2020	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	02/03/2020	ND	230	115	200	6.60	
DRO >C10-C28*	<10.0	10.0	02/03/2020	ND	227	114	200	4.96	
EXT DRO >C28-C36	<10.0	10.0	02/03/2020	ND					

Surrogate: 1-Chlorooctane 88.9 % 41-142

Surrogate: 1-Chlorooctadecane 90.7 % 37.6-147

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Analytical Results For:

APACHE CORP - HOBBS
 BRUCE BAKER
 2350 W. MARLAND BLVD.
 HOBBS NM, 88240
 Fax To: (575) 393-2432

Received: 01/31/2020
 Reported: 02/05/2020
 Project Name: GHOST RIDER #202 H
 Project Number: GHOST RIDER 22-15 FED COM 202H
 Project Location: NONE GIVEN

Sampling Date: 01/31/2020
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: B 26 @ 6" 32.1973815 - 103.6571981 (H000308-21)

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	02/04/2020	ND	2.00	99.8	2.00	0.162	
Toluene*	<0.050	0.050	02/04/2020	ND	1.97	98.7	2.00	0.939	
Ethylbenzene*	<0.050	0.050	02/04/2020	ND	1.97	98.3	2.00	0.363	
Total Xylenes*	<0.150	0.150	02/04/2020	ND	5.79	96.5	6.00	0.185	
Total BTEX	<0.300	0.300	02/04/2020	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 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	192	16.0	02/04/2020	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	02/03/2020	ND	230	115	200	6.60	
DRO >C10-C28*	<10.0	10.0	02/03/2020	ND	227	114	200	4.96	
EXT DRO >C28-C36	<10.0	10.0	02/03/2020	ND					

Surrogate: 1-Chlorooctane 97.0 % 41-142

Surrogate: 1-Chlorooctadecane 98.2 % 37.6-147

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Analytical Results For:

APACHE CORP - HOBBS
 BRUCE BAKER
 2350 W. MARLAND BLVD.
 HOBBS NM, 88240
 Fax To: (575) 393-2432

Received: 01/31/2020
 Reported: 02/05/2020
 Project Name: GHOST RIDER #202 H
 Project Number: GHOST RIDER 22-15 FED COM 202H
 Project Location: NONE GIVEN

Sampling Date: 01/31/2020
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: W 3 @ S 32.1974193 - 103.6573540 (H000308-22)

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	02/04/2020	ND	2.00	99.8	2.00	0.162	
Toluene*	<0.050	0.050	02/04/2020	ND	1.97	98.7	2.00	0.939	
Ethylbenzene*	<0.050	0.050	02/04/2020	ND	1.97	98.3	2.00	0.363	
Total Xylenes*	<0.150	0.150	02/04/2020	ND	5.79	96.5	6.00	0.185	
Total BTEX	<0.300	0.300	02/04/2020	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 100 % 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	224	16.0	02/04/2020	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	02/03/2020	ND	230	115	200	6.60	
DRO >C10-C28*	<10.0	10.0	02/03/2020	ND	227	114	200	4.96	
EXT DRO >C28-C36	<10.0	10.0	02/03/2020	ND					

Surrogate: 1-Chlorooctane 101 % 41-142

Surrogate: 1-Chlorooctadecane 103 % 37.6-147

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Analytical Results For:

APACHE CORP - HOBBS
 BRUCE BAKER
 2350 W. MARLAND BLVD.
 HOBBS NM, 88240
 Fax To: (575) 393-2432

Received: 01/31/2020
 Reported: 02/05/2020
 Project Name: GHOST RIDER #202 H
 Project Number: GHOST RIDER 22-15 FED COM 202H
 Project Location: NONE GIVEN

Sampling Date: 01/31/2020
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: W 2 @ S 32.1974199 - 103.6569316 (H000308-23)

BTEX 80218		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/04/2020	ND	2.00	99.8	2.00	0.162	
Toluene*	<0.050	0.050	02/04/2020	ND	1.97	98.7	2.00	0.939	
Ethylbenzene*	<0.050	0.050	02/04/2020	ND	1.97	98.3	2.00	0.363	
Total Xylenes*	<0.150	0.150	02/04/2020	ND	5.79	96.5	6.00	0.185	
Total BTEX	<0.300	0.300	02/04/2020	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 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	272	16.0	02/04/2020	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	02/03/2020	ND	230	115	200	6.60	
DRO >C10-C28*	<10.0	10.0	02/03/2020	ND	227	114	200	4.96	
EXT DRO >C28-C36	<10.0	10.0	02/03/2020	ND					

Surrogate: 1-Chlorooctane 99.9 % 41-142

Surrogate: 1-Chlorooctadecane 101 % 37.6-147

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Analytical Results For:

APACHE CORP - HOBBS
 BRUCE BAKER
 2350 W. MARLAND BLVD.
 HOBBS NM, 88240
 Fax To: (575) 393-2432

Received: 01/31/2020
 Reported: 02/05/2020
 Project Name: GHOST RIDER #202 H
 Project Number: GHOST RIDER 22-15 FED COM 202H
 Project Location: NONE GIVEN

Sampling Date: 01/31/2020
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: W 1 @ S 32.1973673 - 103.6565956 (H000308-24)

BTEX 80218		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/04/2020	ND	2.00	99.8	2.00	0.162	
Toluene*	<0.050	0.050	02/04/2020	ND	1.97	98.7	2.00	0.939	
Ethylbenzene*	<0.050	0.050	02/04/2020	ND	1.97	98.3	2.00	0.363	
Total Xylenes*	<0.150	0.150	02/04/2020	ND	5.79	96.5	6.00	0.185	
Total BTEX	<0.300	0.300	02/04/2020	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 100 % 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	160	16.0	02/04/2020	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	02/03/2020	ND	230	115	200	6.60	
DRO >C10-C28*	<10.0	10.0	02/03/2020	ND	227	114	200	4.96	
EXT DRO >C28-C36	<10.0	10.0	02/03/2020	ND					

Surrogate: 1-Chlorooctane 94.1 % 41-142

Surrogate: 1-Chlorooctadecane 95.9 % 37.6-147

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

Analytical Results For:

APACHE CORP - HOBBS
 BRUCE BAKER
 2350 W. MARLAND BLVD.
 HOBBS NM, 88240
 Fax To: (575) 393-2432

Received: 01/31/2020
 Reported: 02/05/2020
 Project Name: GHOST RIDER #202 H
 Project Number: GHOST RIDER 22-15 FED COM 202H
 Project Location: NONE GIVEN

Sampling Date: 01/31/2020
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: W 5 @ S 32.1972346 - 103.6571545 (H000308-25)

BTEX 80218		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/04/2020	ND	2.00	99.8	2.00	0.162	
Toluene*	<0.050	0.050	02/04/2020	ND	1.97	98.7	2.00	0.939	
Ethylbenzene*	<0.050	0.050	02/04/2020	ND	1.97	98.3	2.00	0.363	
Total Xylenes*	<0.150	0.150	02/04/2020	ND	5.79	96.5	6.00	0.185	
Total BTEX	<0.300	0.300	02/04/2020	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 99.3 % 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	448	16.0	02/04/2020	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	02/03/2020	ND	230	115	200	6.60	
DRO >C10-C28*	<10.0	10.0	02/03/2020	ND	227	114	200	4.96	
EXT DRO >C28-C36	<10.0	10.0	02/03/2020	ND					

Surrogate: 1-Chlorooctane 98.5 % 41-142

Surrogate: 1-Chlorooctadecane 102 % 37.6-147

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Analytical Results For:

APACHE CORP - HOBBS
 BRUCE BAKER
 2350 W. MARLAND BLVD.
 HOBBS NM, 88240
 Fax To: (575) 393-2432

Received: 01/31/2020
 Reported: 02/05/2020
 Project Name: GHOST RIDER #202 H
 Project Number: GHOST RIDER 22-15 FED COM 202H
 Project Location: NONE GIVEN

Sampling Date: 01/31/2020
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: W 6 @ S 32.1972520 - 103.6567022 (H000308-26)

BTEX 80218		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/04/2020	ND	2.00	99.8	2.00	0.162	
Toluene*	<0.050	0.050	02/04/2020	ND	1.97	98.7	2.00	0.939	
Ethylbenzene*	<0.050	0.050	02/04/2020	ND	1.97	98.3	2.00	0.363	
Total Xylenes*	<0.150	0.150	02/04/2020	ND	5.79	96.5	6.00	0.185	
Total BTEX	<0.300	0.300	02/04/2020	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 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	528	16.0	02/04/2020	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	02/03/2020	ND	230	115	200	6.60	
DRO >C10-C28*	<10.0	10.0	02/03/2020	ND	227	114	200	4.96	
EXT DRO >C28-C36	<10.0	10.0	02/03/2020	ND					

Surrogate: 1-Chlorooctane 101 % 41-142

Surrogate: 1-Chlorooctadecane 104 % 37.6-147

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Analytical Results For:

APACHE CORP - HOBBS
 BRUCE BAKER
 2350 W. MARLAND BLVD.
 HOBBS NM, 88240
 Fax To: (575) 393-2432

Received: 01/31/2020
 Reported: 02/05/2020
 Project Name: GHOST RIDER #202 H
 Project Number: GHOST RIDER 22-15 FED COM 202H
 Project Location: NONE GIVEN

Sampling Date: 01/31/2020
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: W 4 @ 6" 32.1973827 - 103.6571163 (H000308-27)

BTEX 80218		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/04/2020	ND	2.00	99.8	2.00	0.162	
Toluene*	<0.050	0.050	02/04/2020	ND	1.97	98.7	2.00	0.939	
Ethylbenzene*	<0.050	0.050	02/04/2020	ND	1.97	98.3	2.00	0.363	
Total Xylenes*	<0.150	0.150	02/04/2020	ND	5.79	96.5	6.00	0.185	
Total BTEX	<0.300	0.300	02/04/2020	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 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	1550	16.0	02/04/2020	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	02/03/2020	ND	230	115	200	6.60	
DRO >C10-C28*	<10.0	10.0	02/03/2020	ND	227	114	200	4.96	
EXT DRO >C28-C36	<10.0	10.0	02/03/2020	ND					

Surrogate: 1-Chlorooctane 95.7 % 41-142

Surrogate: 1-Chlorooctadecane 97.6 % 37.6-147

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Analytical Results For:

APACHE CORP - HOBBS
 BRUCE BAKER
 2350 W. MARLAND BLVD.
 HOBBS NM, 88240
 Fax To: (575) 393-2432

Received: 01/31/2020
 Reported: 02/05/2020
 Project Name: GHOST RIDER #202 H
 Project Number: GHOST RIDER 22-15 FED COM 202H
 Project Location: NONE GIVEN

Sampling Date: 01/31/2020
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: W 2 @ 6" 32.1973350 - 103.6571817 (H000308-28)

BTEX 80218		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/04/2020	ND	2.00	99.8	2.00	0.162	
Toluene*	<0.050	0.050	02/04/2020	ND	1.97	98.7	2.00	0.939	
Ethylbenzene*	<0.050	0.050	02/04/2020	ND	1.97	98.3	2.00	0.363	
Total Xylenes*	<0.150	0.150	02/04/2020	ND	5.79	96.5	6.00	0.185	
Total BTEX	<0.300	0.300	02/04/2020	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 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	624	16.0	02/04/2020	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	02/03/2020	ND	230	115	200	6.60	
DRO >C10-C28*	<10.0	10.0	02/03/2020	ND	227	114	200	4.96	
EXT DRO >C28-C36	<10.0	10.0	02/03/2020	ND					

Surrogate: 1-Chlorooctane 95.1 % 41-142

Surrogate: 1-Chlorooctadecane 96.3 % 37.6-147

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Analytical Results For:

APACHE CORP - HOBBS
 BRUCE BAKER
 2350 W. MARLAND BLVD.
 HOBBS NM, 88240
 Fax To: (575) 393-2432

Received:	01/31/2020	Sampling Date:	01/31/2020
Reported:	02/05/2020	Sampling Type:	Soil
Project Name:	GHOST RIDER #202 H	Sampling Condition:	Cool & Intact
Project Number:	GHOST RIDER 22-15 FED COM 202H	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: W 1 @ 6" 32.1973438 - 103.6570744 (H000308-29)

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	02/04/2020	ND	2.00	99.8	2.00	0.162	
Toluene*	<0.050	0.050	02/04/2020	ND	1.97	98.7	2.00	0.939	
Ethylbenzene*	<0.050	0.050	02/04/2020	ND	1.97	98.3	2.00	0.363	
Total Xylenes*	<0.150	0.150	02/04/2020	ND	5.79	96.5	6.00	0.185	
Total BTEX	<0.300	0.300	02/04/2020	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 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	4800	16.0	02/04/2020	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	02/04/2020	ND	230	115	200	6.60	
DRO >C10-C28*	<10.0	10.0	02/04/2020	ND	227	114	200	4.96	
EXT DRO >C28-C36	<10.0	10.0	02/04/2020	ND					

Surrogate: 1-Chlorooctane 99.7 % 41-142

Surrogate: 1-Chlorooctadecane 102 % 37.6-147

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Analytical Results For:

APACHE CORP - HOBBS
 BRUCE BAKER
 2350 W. MARLAND BLVD.
 HOBBS NM, 88240
 Fax To: (575) 393-2432

Received: 01/31/2020
 Reported: 02/05/2020
 Project Name: GHOST RIDER #202 H
 Project Number: GHOST RIDER 22-15 FED COM 202H
 Project Location: NONE GIVEN

Sampling Date: 01/31/2020
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: W 3 @ 6" 32.1972675 - 103.6571106 (H000308-30)

BTEX 80218		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/04/2020	ND	2.00	99.8	2.00	0.162	
Toluene*	<0.050	0.050	02/04/2020	ND	1.97	98.7	2.00	0.939	
Ethylbenzene*	<0.050	0.050	02/04/2020	ND	1.97	98.3	2.00	0.363	
Total Xylenes*	<0.150	0.150	02/04/2020	ND	5.79	96.5	6.00	0.185	
Total BTEX	<0.300	0.300	02/04/2020	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 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	3920	16.0	02/04/2020	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	02/04/2020	ND	230	115	200	6.60	
DRO >C10-C28*	<10.0	10.0	02/04/2020	ND	227	114	200	4.96	
EXT DRO >C28-C36	<10.0	10.0	02/04/2020	ND					

Surrogate: 1-Chlorooctane 97.4 % 41-142

Surrogate: 1-Chlorooctadecane 99.7 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

APACHE CORP - HOBBS
 BRUCE BAKER
 2350 W. MARLAND BLVD.
 HOBBS NM, 88240
 Fax To: (575) 393-2432

Received: 01/31/2020
 Reported: 02/05/2020
 Project Name: GHOST RIDER #202 H
 Project Number: GHOST RIDER 22-15 FED COM 202H
 Project Location: NONE GIVEN

Sampling Date: 01/31/2020
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: B 21 @ SURFACE 32.1973293 - 103.6573751 (H000308-31)

BTEX 80218		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/04/2020	ND	2.00	99.8	2.00	0.162	
Toluene*	<0.050	0.050	02/04/2020	ND	1.97	98.7	2.00	0.939	
Ethylbenzene*	<0.050	0.050	02/04/2020	ND	1.97	98.3	2.00	0.363	
Total Xylenes*	<0.150	0.150	02/04/2020	ND	5.79	96.5	6.00	0.185	
Total BTEX	<0.300	0.300	02/04/2020	ND					

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

Chloride, 5M4500Cl-B		mg/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1680	16.0	02/04/2020	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	02/04/2020	ND	230	115	200	6.60	
DRO >C10-C28*	<10.0	10.0	02/04/2020	ND	227	114	200	4.96	
EXT DRO >C28-C36	<10.0	10.0	02/04/2020	ND					

Surrogate: 1-Chlorooctane 100 % 41-142

Surrogate: 1-Chlorooctadecane 104 % 37.6-147

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Analytical Results For:

APACHE CORP - HOBBS
 BRUCE BAKER
 2350 W. MARLAND BLVD.
 HOBBS NM, 88240
 Fax To: (575) 393-2432

Received:	01/31/2020	Sampling Date:	01/31/2020
Reported:	02/05/2020	Sampling Type:	Soil
Project Name:	GHOST RIDER #202 H	Sampling Condition:	Cool & Intact
Project Number:	GHOST RIDER 22-15 FED COM 202H	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: B 22 @ SURFACE 32.1973256 - 103.6573962 (H000308-32)

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	02/04/2020	ND	2.00	99.8	2.00	0.162	
Toluene*	<0.050	0.050	02/04/2020	ND	1.97	98.7	2.00	0.939	
Ethylbenzene*	<0.050	0.050	02/04/2020	ND	1.97	98.3	2.00	0.363	
Total Xylenes*	<0.150	0.150	02/04/2020	ND	5.79	96.5	6.00	0.185	
Total BTEX	<0.300	0.300	02/04/2020	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 99.4 % 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	1920	16.0	02/04/2020	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	02/04/2020	ND	230	115	200	6.60	
DRO >C10-C28*	<10.0	10.0	02/04/2020	ND	227	114	200	4.96	
EXT DRO >C28-C36	<10.0	10.0	02/04/2020	ND					

Surrogate: 1-Chlorooctane 99.8 % 41-142

Surrogate: 1-Chlorooctadecane 104 % 37.6-147

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Analytical Results For:

APACHE CORP - HOBBS
 BRUCE BAKER
 2350 W. MARLAND BLVD.
 HOBBS NM, 88240
 Fax To: (575) 393-2432

Received: 01/31/2020
 Reported: 02/05/2020
 Project Name: GHOST RIDER #202 H
 Project Number: GHOST RIDER 22-15 FED COM 202H
 Project Location: NONE GIVEN

Sampling Date: 01/31/2020
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: B 23 @ SURFACE 32.1973336 - 103.6574345 (H000308-33)**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	02/04/2020	ND	2.00	99.8	2.00	0.162	
Toluene*	<0.050	0.050	02/04/2020	ND	1.97	98.7	2.00	0.939	
Ethylbenzene*	<0.050	0.050	02/04/2020	ND	1.97	98.3	2.00	0.363	
Total Xylenes*	<0.150	0.150	02/04/2020	ND	5.79	96.5	6.00	0.185	
Total BTEX	<0.300	0.300	02/04/2020	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 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	416	16.0	02/04/2020	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	02/04/2020	ND	230	115	200	6.60	
DRO >C10-C28*	<10.0	10.0	02/04/2020	ND	227	114	200	4.96	
EXT DRO >C28-C36	<10.0	10.0	02/04/2020	ND					

Surrogate: 1-Chlorooctane 97.5 % 41-142

Surrogate: 1-Chlorooctadecane 103 % 37.6-147

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Analytical Results For:

APACHE CORP - HOBBS
 BRUCE BAKER
 2350 W. MARLAND BLVD.
 HOBBS NM, 88240
 Fax To: (575) 393-2432

Received:	01/31/2020	Sampling Date:	01/31/2020
Reported:	02/05/2020	Sampling Type:	Soil
Project Name:	GHOST RIDER #202 H	Sampling Condition:	Cool & Intact
Project Number:	GHOST RIDER 22-15 FED COM 202H	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: B 24 @ SURFACE 32.1973410 - 103.6774543 (H000308-34)

BTEX 80218		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/04/2020	ND	2.00	99.8	2.00	0.162	
Toluene*	<0.050	0.050	02/04/2020	ND	1.97	98.7	2.00	0.939	
Ethylbenzene*	<0.050	0.050	02/04/2020	ND	1.97	98.3	2.00	0.363	
Total Xylenes*	<0.150	0.150	02/04/2020	ND	5.79	96.5	6.00	0.185	
Total BTEX	<0.300	0.300	02/04/2020	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 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	656	16.0	02/04/2020	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	02/04/2020	ND	220	110	200	1.06	
DRO >C10-C28*	<10.0	10.0	02/04/2020	ND	217	108	200	5.86	
EXT DRO >C28-C36	<10.0	10.0	02/04/2020	ND					

Surrogate: 1-Chlorooctane 85.1 % 41-142*Surrogate: 1-Chlorooctadecane* 89.1 % 37.6-147

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Analytical Results For:

APACHE CORP - HOBBS
 BRUCE BAKER
 2350 W. MARLAND BLVD.
 HOBBS NM, 88240
 Fax To: (575) 393-2432

Received: 01/31/2020
 Reported: 02/05/2020
 Project Name: GHOST RIDER #202 H
 Project Number: GHOST RIDER 22-15 FED COM 202H
 Project Location: NONE GIVEN

Sampling Date: 01/31/2020
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: B 25 @ S 6" 32.1973996 - 103.6579975 (H000308-35)

BTEX 80218		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/04/2020	ND	2.00	99.8	2.00	0.162	
Toluene*	<0.050	0.050	02/04/2020	ND	1.97	98.7	2.00	0.939	
Ethylbenzene*	<0.050	0.050	02/04/2020	ND	1.97	98.3	2.00	0.363	
Total Xylenes*	<0.150	0.150	02/04/2020	ND	5.79	96.5	6.00	0.185	
Total BTEX	<0.300	0.300	02/04/2020	ND					

Surrogate: 4-Bromofluorobenzene (PIB) 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	2040	16.0	02/04/2020	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	02/04/2020	ND	220	110	200	1.06	
DRO >C10-C28*	<10.0	10.0	02/04/2020	ND	217	108	200	5.86	
EXT DRO >C28-C36	<10.0	10.0	02/04/2020	ND					

Surrogate: 1-Chlorooctane 83.7 % 41-142

Surrogate: 1-Chlorooctadecane 85.8 % 37.6-147

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Analytical Results For:

APACHE CORP - HOBBS
 BRUCE BAKER
 2350 W. MARLAND BLVD.
 HOBBS NM, 88240
 Fax To: (575) 393-2432

Received: 01/31/2020
 Reported: 02/05/2020
 Project Name: GHOST RIDER #202 H
 Project Number: GHOST RIDER 22-15 FED COM 202H
 Project Location: NONE GIVEN

Sampling Date: 01/31/2020
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: W 4 @ S 32.1973316 - 103.6574355 (H000308-36)

BTEX 80218		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/04/2020	ND	2.00	99.8	2.00	0.162	
Toluene*	<0.050	0.050	02/04/2020	ND	1.97	98.7	2.00	0.939	
Ethylbenzene*	<0.050	0.050	02/04/2020	ND	1.97	98.3	2.00	0.363	
Total Xylenes*	<0.150	0.150	02/04/2020	ND	5.79	96.5	6.00	0.185	
Total BTEX	<0.300	0.300	02/04/2020	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 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	400	16.0	02/04/2020	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	02/04/2020	ND	220	110	200	1.06	
DRO >C10-C28*	<10.0	10.0	02/04/2020	ND	217	108	200	5.86	
EXT DRO >C28-C36	<10.0	10.0	02/04/2020	ND					

Surrogate: 1-Chlorooctane 73.6 % 41-142

Surrogate: 1-Chlorooctadecane 74.9 % 37.6-147

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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

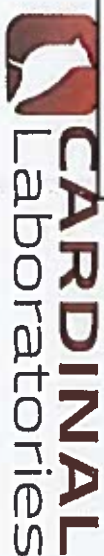
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Received by OCD: 2/25/2020 1:19:32 PM



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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]

**101 East Marland, Hobbs, NM 88240
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W

Company Name: <u>Produce Broom</u>		P.O. #:									
Project Manager: <u>Judith Brown</u>		Company:									
Address:		Attn:									
City: <u>Hobbs</u>		State: <u>NM</u>	Zip: <u>88400</u>								
Phone #:		Fax #:	Address:								
Project #:		Project Owner:	City:	State:	Zip:						
Project Name:		Phone #:									
Project Location: <u>Ghost Rider 2A-15 End Com</u>		Fax #:									
Sampler Name: <u>Joe Quackenbush Jr.</u>		Date: <u>11/21/00</u>									
FOR LAB USE ONLY		Matrix	Preserv	Sampling							
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP # CONTAINERS	GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER :	ACID/BASE: (ICE) COOL OTHER :	DATE	TIME					
<u>H000308 @ Surface (soil)</u>	<u>B11 32.1973B14</u>	C 1	-103. USUQ 330		11/31	2:40	R	OI	Ext TPH	BTEX	
<u>12 B12 32.1973B14</u>	<u>-103. USUQ 330</u>	C 1	-103. USUQ 330			2:42					
<u>13 B13 32.1973B14</u>	<u>-103. USUQ 330</u>	C 1	-103. USUQ 330			2:44					
<u>14 B14 32.1973B14</u>	<u>-103. USUQ 330</u>	C 1	-103. USUQ 330			2:46					
<u>15 B15 32.1973B14</u>	<u>-103. USUQ 330</u>	C 1	-103. USUQ 330			2:48					

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Relinquished By:	Date: <u>11/21/00</u>	Received By:	Time: <u>10:23</u>	REMARKS:
<u>Joe Quackenbush Jr.</u>		<u>Marcus Delaney</u>		
Relinquished By:	Date:	Received By:	Time:	

Delivered By: (Circle One) <u>UPS - Bus - Other:</u>	Observed Temp. °C <u>4.4</u>	Sample Condition Cool Intact ☒ Yes ☐ No	CHECKED BY: (Initials) <u>JD</u>	Turnaround Time: <u>Standard</u> ☐ Standard ☒ Rush	Bacteria (only) Sample Condition Cool Intact ☐ Yes ☐ No	Observed Temp. °C
Thermometer ID # <u>4115</u>	Correction Factor +Delta <u>-0.0</u>	Corrected Temp. °C				

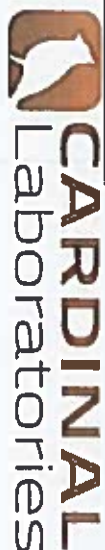
Verbal Result: ☐ Yes ☐ No **Add'l Phone #:**

All Results are emailed. Please provide Email address:

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5

Company Name: Apache		P.O. #:		BILL TO		ANALYSIS REQUEST	
Project Manager: Jeffrey Brown		Company:					
Address:	State: NM	Zip: 88040	Attn:				
City: Hobbs	Fax #:	Address:	City:				
Phone #:	Project Owner:	State:	Zip:				
Project #:	Project Location: Ghost Rider 202H	Phone #:	Fax #:				
Sample Name: Joe Cascardy Jr.							
FOR LAB USE ONLY	Lab I.D.	Sample I.D.	(G)RAB OR (C)PMP. # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER: ACID/BASE: ()CE COOL OTHER:	MATRIX	PRESERV.	SAMPLING	
H00308	21	RSA 6" 32.1473815 -103.4571481	1				
	22	WS 05 22.1474193 -103.4573540	1				
	23	WS 05 32.1474199 -103.4569314	1				
	24	WS 05 32.1473473 -103.4565454	1				
	25	WS 05 38.1018346 -103.4571545	1				
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Relinquished By:	Date: 11/8/20	Received By:					
Relinquished By: Joe Cascardy Jr.	Time: 11:05	Received By: [Signature]					
Delivered By: (Circle One)	Observed Temp. °C 4.4	Sample Condition ☒ Cool ☐ Intact ☐ Yes ☒ No	CHECKED BY: (Initials) V.C.	Turnaround Time: Standard ☒ Rush ☐	Bacteria (only) Sample Condition Cool ☐ Intact ☐ ☐ Yes ☐ No	Observed Temp. °C	Corrected Temp. °C
Sampler - UPS - Bus - Other:	Corrected Temp. °C	REMARKS:					
Verbal Result: ☐ Yes ☐ No Add'l Phone #:			All Results are emailed. Please provide Email address:				



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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

6

Company Name: <u>Hopac</u> Project Manager: <u>Jeffrey Brown</u> Address: City: <u>Hobbs</u> State: <u>NM</u> Zip: <u>88240</u> Phone #: Fax #: Project #: Project Owner: Project Name: Project Location: <u>Ghost Rider 2011</u> Sample Name: <u>2011-01-01</u>		P.O. #: Company: Attn: Address: City: State: Zip: Phone #: Fax #:	
FOR LAB USE ONLY		BILL TO	
Lab I.D. Sample I.D.		ANALYSIS REQUEST	
Lab I.D. <u>H000308</u>		DATE <u>1/31/10</u> TIME <u>1:16</u>	
Sample I.D. <u>24</u> <u>27</u> <u>28</u> <u>29</u> <u>30</u>		DATE <u>1/31/10</u> TIME <u>1:16</u>	
Matrix: ☒ (G) GRAB OR ☐ (S) SAMP ☐ GROUNDWATER ☐ WASTEWATER ☐ SOIL ☐ OIL ☐ SLUDGE ☐ OTHER:		Preserv: ☒ ACID/BASE: ☐ ICE ☐ COOL ☐ OTHER:	
Sample Condition: ☒ Cool ☐ Intact ☐ No ☐ Yes		Checked By: <u>(initials)</u>	
Delivered By: <u>(initials)</u> Observed Temp. °C: <u>4.4</u> Corrected Temp. °C:		Turnaround Time: <u>Standard</u> ☒ Bacteria (only) Sample Condition: ☐ Cool ☐ Intact ☐ Yes ☐ No ☐ Corrected Temp. °C:	
Relinquished By: <u>(initials)</u> Date: <u>1/31/10</u> Time: <u>11:25</u>		Verbal Result: ☐ Yes ☒ No Add'l Phone #:	
Relinquished By: <u>(initials)</u> Date: <u>1/31/10</u> Time: <u>11:25</u>		Remarks: <u>Good Results</u>	

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

