



303 Veterans Airpark Lane Midland, TX 79705

Closure Report

August 4, 2020

Re: Shell GA State # 2

API# 30-025-06131

Case # 1RP-5203

Background:

On September 17, 2018 Apache personal discovered an illegal dumping of produced water at the Shell GA State #2 plug and abandon well. An initial C-141 was submitted to NMOCD and approved on September 25, 2018. The release area is located south of Monument, New Mexico (GPS Coordinates 32.56681 -103.26402) in unit letter M section 16 Township 20S Range 37E. A search radius of 2000 meters for groundwater wells was conducted utilizing data from the NMOSE web page. The average depth to groundwater at the release site is 27 feet below ground surface.

The entire release area was excavated to a depth of one foot and the excavated material was placed on plastic. Field bottom and wall composite samples and field tested for chlorides. The field data suggest that the northern portion of the release were below table one standards for chlorides for releases less than 50 feet to groundwater. The southern portion of the release field data was above the table one standards. Six verticals in the southern portion of the release were conducted utilizing a backhoe collecting samples in one foot intervals. The samples were collected and field tested for chlorides. Those areas were excavated to a total depth of 3 to 5 feet deep were field analysis indicated chloride values below table one standards. The area on the lease road was scraped to depths of six inches to one foot. 924 yards of contaminated soil was hauled to a NMOCD approved disposal facility.

On February 18, 2020 final 5 point bottom and wall composite samples were collected not exceeding 200 square feet. All samples were submitted to a commercial laboratory for analysis of chloride, TPH, and BTEX. Laboratory results were above table one standards for releases less than 50 feet to groundwater at B6@ 1', B12@1', B16@3', B25@1', B36@1', B38@1', and W18. Those sample points were further excavated until laboratory analysis confirmed table one standards were met. All excavated material from those sample points was hauled to a NMOCD approved facility and the excavation was backfilled with clean imported top soil and contoured to the surrounding area. The disturbed area was seeded in accordance with the Revegetation and Noxious Weed Plan.

Apache Corporation has completed the remediation to below table one standards for releases less than 50 feet to groundwater and respectfully request that event # 1RP 5203 be closed.

Enclosed: C-141, Groundwater Data, Maps, Sample Data, Laboratory Results, Revegetation and Noxious Weed Plan, and Photos.

Submitted by;

Bruce Baker

Environmental Technician

larry.baker@apachecorp.com

Cell# 432-631-6982

Off# 575-393-7106

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	NOY1826848178
District RP	1RP-5203
Facility ID	
Application ID	pOY1826827902

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)	NOY1826848178
Contact mailing address	2350 W. Marland BLVD Hobbs, NM 88240		

Location of Release Source

Latitude 32.56681 Longitude -103.26402
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	Shell GA State # 2	Site Type	P&A well
Date Release Discovered	9/17/2018	API# (if applicable)	30-025-06131

Unit Letter	Section	Township	Range	County
M	16	20S	37E	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)

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls) Unknown	Volume Recovered (bbls) 0 recovered
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No Unknown
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release : An unaffiliated third party truck conducted an illegal dump of produced water at the plug and abandoned well site.

State of New Mexico
Oil Conservation Division

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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?

Unknown volume of release

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?

No but once Apache confirmed responsibility Jim Griswold and Olivia Yu were notified by Bruce Baker via email on 9/19/2018.

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:

By the time of discovery there was no standing fluid to be recovered or removed

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: Bruce Baker

Title: Environmental Technician Sr.

Signature: Bruce Baker

Date: 9/25/18

email: larry.baker@apachecorp.com

Telephone: 432-631-6982

OCD Only

Received by:

RECEIVED

By Olivia Yu at 1:27 pm, Sep 25, 2018

Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	
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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>27</u> (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas not on an exploration, development, production, or storage site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

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

<p>Characterization Report Checklist: <i>Each of the following items must be included in the report.</i></p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells. <input checked="" type="checkbox"/> Field data <input checked="" type="checkbox"/> Data table of soil contaminant concentration data <input checked="" type="checkbox"/> Depth to water determination <input checked="" type="checkbox"/> Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release <input checked="" type="checkbox"/> Boring or excavation logs <input checked="" type="checkbox"/> Photographs including date and GIS information <input checked="" type="checkbox"/> Topographic/Aerial maps <input type="checkbox"/> Laboratory data including chain of custody
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If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

State of New Mexico
Oil Conservation Division

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Printed Name: Bruce Baker Title: Environmental Tech SR.
Signature: Bruce Baker Date: 12-17-18
email: larry.baker@apackecorp.com Telephone: 432-631-6982

OCD Only

Received by: _____ Date: _____

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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: Larry Baker Title: Environmental Tech SR.
Signature: Larry Baker Date: 4/5/2020
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: _____



New Mexico Office of the State Engineer Water Column/Average Depth to Water











(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced,
O=orphaned,
C=the file is closed)

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

(quarters are smallest to largest) (NAD83 UTM in meters)

(In feet)

		POD														
		Sub-		Q	Q	Q								Depth	Depth	Water
POD Number	Code	basin	County	64	16	4	Sec	Tws	Rng	X	Y		Distance	Well	Water	Column
L 13490 POD1		L	LE	3	1	3	21	20S	37E	663365	3603321		1399	30		
L 14330 POD2		L	LE	1	1	4	20	20S	37E	662187	3603507		1477	35	24	11
L 14330 POD3		L	LE	1	1	4	20	20S	37E	662205	3603494		1477	35	24	11
L 14330 POD6		L	LE	1	1	4	20	20S	37E	662181	3603504		1482	45	24	21
L 14330 POD7		L	LE	1	1	4	20	20S	37E	662187	3603497		1485	45	24	21
L 14330 POD5		L	LE	1	1	4	20	20S	37E	662173	3603503		1488	35	24	11
L 14330 POD4		L	LE	1	1	4	20	20S	37E	662187	3603492		1489	35	24	11
L 09590		L	LE				4	08	20S	37E	662440	3606491* 	1908	70	35	35
L 09590	R	L	LE				4	08	20S	37E	662440	3606491* 	1908	70	35	35
L 09590 POD2		L	LE				4	08	20S	37E	662440	3606491* 	1908	66	30	36

Average Depth to Water: **27 feet**

Minimum Depth: **24 feet**

Maximum Depth: **35 feet**

Record Count: 10

UTM NAD83 Radius Search (in meters):

Easting (X): 663072

Northing (Y): 3604690

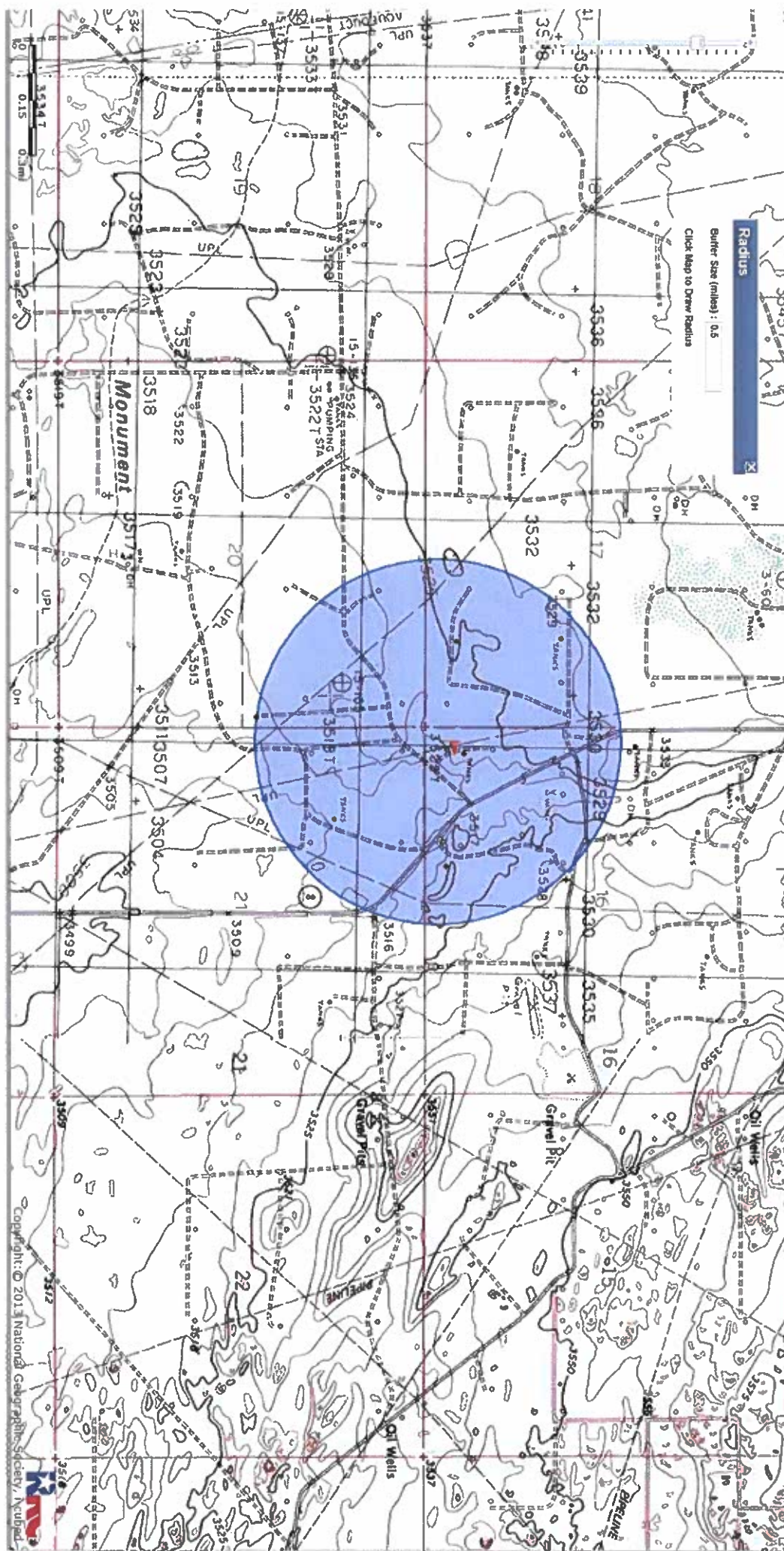
Radius: 2000

*UTM location was derived from PLSS - see Help

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

12/17/18 10:52 AM

WATER COLUMN/ AVERAGE
DEPTH TO WATER





Google earth
37° 10' 10.00" N, 122° 55' 12.00" W, Elev 1527 ft, Area 0.1, 107.8 ft

© 2020 Google

100 m

100 m

100 m

Shell GA State # 2

North Pasture Samples @ 1'		South Pasture Samples @ 1'		SP 1 Vertical		SP 2	
Point	Field CL-	Point	Field CL-	Depth	CL-	Depth	CL-
17	343	15	801	1'	780		
20	105	9	1241	3'	179	3'	428
21	136	7	1241				
23	133						
24	161						
28	215						
29	380						
31	386						
32	104						
34	204						

SP 3 vertical		SP 4 Vertical		SP 5 Vertical		SP 6 Vertical	
Depth	CL-	Depth	CL-	Depth	CL-	Depth	CL-
1'	1382	3'	>1,000	1'	1,169	3'	408
3'	132	4'	3,149	3'	131		
		5'	392				







Map ID	Sample Date	Sample ID	Depth	Chloride	Benzene	Toulene	Ethybenzene	Total Xylenes	Total BTEX	GRO	DRO	EXT DRO	GPS Coordinates
B1	2/18/2020	B1 @ 3'	3'	32	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.5663210 -103.2639842
B2	2/18/2020	B2 @ 3'	3'	<16.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.5663490 -103.2639390
B3	2/18/2020	B3 @ 3'	3'	<16.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.566543 -103.2639011
B4	2/18/2020	B4 @ 1'	1'	192	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.5663558 -103.2638314
B5	2/18/2020	B5 @ 1'	1'	336	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.5663668 -103.2637941
B6	2/18/2020	B6 @ 1'	1'	656	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.5663815 -103.2637576
	2/24/2020	B6 @ 2'	2'	416									
B7	2/18/2020	B7 @ 1'	1'	80	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.5663826 -103.2637194
B8	2/18/2020	B8 @ 3'	3'	64	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.5664007 -103.2639427
B9	2/18/2020	B9	5'	448	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.5664060 -103.2638971
B10	2/18/2020	B10 @ 6'	6'	32	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.5663930 -103.2638736
B11	2/18/2020	B11 @ 1'	1'	192	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.5664032 -103.2637901
B12	2/18/2020	B12 @ 1'	1'	1360	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.5664227 -103.2637516
	2/24/2020	B12 @ 1' 6"	1.5'	240									
B13	2/18/2020	B13 @ 3'	3'	384	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.5664532 -103.2639390
B14	2/18/2020	B14 @ 7'	7'	464	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.5664631 -103.2639034
B15	2/18/2020	B15 @ 3'	3'	112	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.5664693 -103.2638736
B16	2/18/2020	B16 @ 3'	3'	976	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.5664775 -103.2638324
		B16 @ 3' 6"	3.5'	48									
B17	2/18/2020	B17 @ 3'	3'	160	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.5664702 -103.2638025
B18	2/18/2020	B18 @ 1'	1'	208	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.5665386 -103.2638857

B19	2/18/2020	B19 @ 1'	1'	144	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	53.6	21.7	32.5665810 -103.2639792
B20	2/18/2020	B20 @ 1'	1'	80	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	24.9	27.3	32.5665897 -103.2639380
B21	2/18/2020	B21 @ 1'	1'	32	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	28	<10.0	32.5665810 -103.2639792
B22	2/18/2020	B22 @ 1'	1'	80	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	28.6	13.5	32.5665897 -103.2639380
B23	2/18/2020	B23 @ 1'	1'	144	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	19.5	<10.0	32.5665600 -103.2639259
B24	2/18/2020	B24 @ 1'	1'	<16.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.5666197 -103.2639970
B25	2/18/2020	B25 @ 1'	1'	48	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	84	58.2	32.566332 -103.2669356
		B25 @ 1' 6"	1.5'								<10.0	<10.0	
B26	2/18/2020	B26 @ 1'	1'	64	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.5666999 -103.2641519
B27	2/18/2020	B24 @ 1'	1'	64	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.5666787 -103.2640775
B28	2/18/2020	B28 @ 1'	1'	<16.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.5667022 -103.2640332
B29	2/18/2020	B29 @ 1'	1'	32	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.5667095 -103.2640124
B30	2/18/2020	B30 @ 1'	1'	48	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.5667090 -103.2639889
B31	2/18/2020	B31 @ 1'	1'	16	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.5667169 -103.2639581
B32	2/18/2020	B32 @ 1'	1'	96	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.5667550 -103.2641190
B33	2/18/2020	B33 @ 1'	1'	48	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.5667567 -103.2646785
B34	2/18/2020	B34 @ 1'	1'	48	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.5667646 -103.2640359
B35	2/18/2020	B35 @ 1'	1'	32	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.5667622 -103.2639799
B36	2/18/2020	B36 @ 1'	1'	96	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	59.2	52.3	32.5667739 -103.2639484
	2/24/2020	B36 @ 1' 6"	1.5'								<10.0	<10.0	
B37	2/18/2020	B37 @ 1'	1'	32	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.5667915 -103.2640741
B38	2/18/2020	B38 @ 1'	1'	736	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.5668025 -103.2640537

	2/24/2020	B38 @ 1' 6"	1.5'	976									
	3/10/2020	B38@2'	2'	80									
B39	2/18/2020	B39 @ 1'	1'	304	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.5668129 -103.2640245
B40	2/18/2020	B40 @ 1'	1'	48	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	23.6	17.5	32.5668432 -103.2639675
B41	2/18/2020	B41 @ 1'	1'	128	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	10.7	<10.0	32.5663843 -103.2636262
B42	2/18/2020	B42 @ 3"	3"	928	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.5663518 -103.2635259
		B42 @ 1'	1'	<16.0									
B43	2/18/2020	B43 @ 3"	3"	560	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.5663481 -103.2634049
B44	2/18/2020	B44 @ 1'	1'	32	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.5663377 -103.2632979
B45	2/18/2020	B45 @ 1'	1'	<16.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	33.3	19.8	32.5663334 -103.2632191
B46	2/18/2020	B46 @ 1'	1'	<16.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.5663286 -103.2631917



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

February 19, 2020

JEFFREY BROOM

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: SHELL G A ST #2

Enclosed are the results of analyses for samples received by the laboratory on 02/17/20 16:27.

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, 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
 JEFFREY BROOM
 2350 W. MARLAND BLVD.
 HOBBS NM, 88240
 Fax To: (575) 393-2432

Received:	02/17/2020	Sampling Date:	02/17/2020
Reported:	02/19/2020	Sampling Type:	Soil
Project Name:	SHELL G A ST #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: W 1 @ 1' 32.56685 - 103.26403 (H000487-01)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/18/2020	ND	1.97	98.6	2.00	3.82		
Toluene*	<0.050	0.050	02/18/2020	ND	2.00	99.9	2.00	3.58		
Ethylbenzene*	<0.050	0.050	02/18/2020	ND	2.01	100	2.00	3.62		
Total Xylenes*	<0.150	0.150	02/18/2020	ND	5.83	97.2	6.00	3.39		
Total BTEX	<0.300	0.300	02/18/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.7 % 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	256	16.0	02/19/2020	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	02/19/2020	ND	212	106	200	1.10	
DRO >C10-C28*	<10.0	10.0	02/19/2020	ND	230	115	200	3.71	
EXT DRO >C28-C36	<10.0	10.0	02/19/2020	ND					

Surrogate: 1-Chlorooctane 92.3 % 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
 JEFFREY BROOM
 2350 W. MARLAND BLVD.
 HOBBS NM, 88240
 Fax To: (575) 393-2432

Received:	02/17/2020	Sampling Date:	02/17/2020
Reported:	02/19/2020	Sampling Type:	Soil
Project Name:	SHELL G A ST #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: W 2 @ 1' 32.56657 - 103.26381 (H000487-02)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/18/2020	ND	1.97	98.6	2.00	3.82		
Toluene*	<0.050	0.050	02/18/2020	ND	2.00	99.9	2.00	3.58		
Ethylbenzene*	<0.050	0.050	02/18/2020	ND	2.01	100	2.00	3.62		
Total Xylenes*	<0.150	0.150	02/18/2020	ND	5.83	97.2	6.00	3.39		
Total BTEx	<0.300	0.300	02/18/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.8 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	02/19/2020	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	02/18/2020	ND	212	106	200	1.10	
DRO >C10-C28*	<10.0	10.0	02/18/2020	ND	230	115	200	3.71	
EXT DRO >C28-C36	<10.0	10.0	02/18/2020	ND					

Surrogate: 1-Chlorooctane 96.2 % 41-142

Surrogate: 1-Chlorooctadecane 100 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received:	02/17/2020	Sampling Date:	02/17/2020
Reported:	02/19/2020	Sampling Type:	Soil
Project Name:	SHELL G A ST #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: W 3 @ 1' 32.5663707 - 103.2634103 (H000487-03)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/18/2020	ND	1.97	98.6	2.00	3.82		
Toluene*	<0.050	0.050	02/18/2020	ND	2.00	99.9	2.00	3.58		
Ethylbenzene*	<0.050	0.050	02/18/2020	ND	2.01	100	2.00	3.62		
Total Xylenes*	<0.150	0.150	02/18/2020	ND	5.83	97.2	6.00	3.39		
Total BTEx	<0.300	0.300	02/18/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 100 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	336	16.0	02/19/2020	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	02/18/2020	ND	212	106	200	1.10	
DRO >C10-C28*	<10.0	10.0	02/18/2020	ND	230	115	200	3.71	
EXT DRO >C28-C36	<10.0	10.0	02/18/2020	ND					

Surrogate: 1-Chlorooctane 94.2 % 41-142

Surrogate: 1-Chlorooctadecane 98.8 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received:	02/17/2020	Sampling Date:	02/17/2020
Reported:	02/19/2020	Sampling Type:	Soil
Project Name:	SHELL G A ST #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: W 4 @ 1' 32.5663244 - 103.2631484 (H000487-04)

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	02/18/2020	ND	1.97	98.6	2.00	3.82		
Toluene*	<0.050	0.050	02/18/2020	ND	2.00	99.9	2.00	3.58		
Ethylbenzene*	<0.050	0.050	02/18/2020	ND	2.01	100	2.00	3.62		
Total Xylenes*	<0.150	0.150	02/18/2020	ND	5.83	97.2	6.00	3.39		
Total BTEx	<0.300	0.300	02/18/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.4 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	02/19/2020	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	02/19/2020	ND	212	106	200	1.10	
DRO >C10-C28*	<10.0	10.0	02/19/2020	ND	230	115	200	3.71	
EXT DRO >C28-C36	<10.0	10.0	02/19/2020	ND					

Surrogate: 1-Chlorooctane 83.5 % 41-142

Surrogate: 1-Chlorooctadecane 87.1 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received:	02/17/2020	Sampling Date:	02/17/2020
Reported:	02/19/2020	Sampling Type:	Soil
Project Name:	SHELL G A ST #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: W 5 @ 1' 32.5663761 - 103.2636359 (H000487-05)

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	02/18/2020	ND	1.97	98.6	2.00	3.82		
Toluene*	<0.050	0.050	02/18/2020	ND	2.00	99.9	2.00	3.58		
Ethylbenzene*	<0.050	0.050	02/18/2020	ND	2.01	100	2.00	3.62		
Total Xylenes*	<0.150	0.150	02/18/2020	ND	5.83	97.2	6.00	3.39		
Total BTEx	<0.300	0.300	02/18/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.4 % 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	02/19/2020	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	02/19/2020	ND	212	106	200	1.10	
DRO >C10-C28*	<10.0	10.0	02/19/2020	ND	230	115	200	3.71	
EXT DRO >C28-C36	<10.0	10.0	02/19/2020	ND					

Surrogate: 1-Chlorooctane 90.4 % 41-142

Surrogate: 1-Chlorooctadecane 93.7 % 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
 JEFFREY BROOM
 2350 W. MARLAND BLVD.
 HOBBS NM, 88240
 Fax To: (575) 393-2432

Received:	02/17/2020	Sampling Date:	02/17/2020
Reported:	02/19/2020	Sampling Type:	Soil
Project Name:	SHELL G A ST #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: W 6 @ 3' 32.5663041 - 103.2639692 (H000487-06)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/18/2020	ND	1.97	98.6	2.00	3.82		
Toluene*	<0.050	0.050	02/18/2020	ND	2.00	99.9	2.00	3.58		
Ethylbenzene*	<0.050	0.050	02/18/2020	ND	2.01	100	2.00	3.62		
Total Xylenes*	<0.150	0.150	02/18/2020	ND	5.83	97.2	6.00	3.39		
Total BTEx	<0.300	0.300	02/18/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 100 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	02/19/2020	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	02/19/2020	ND	212	106	200	1.10	
DRO >C10-C28*	<10.0	10.0	02/19/2020	ND	230	115	200	3.71	
EXT DRO >C28-C36	<10.0	10.0	02/19/2020	ND					

Surrogate: 1-Chlorooctane 94.3 % 41-142

Surrogate: 1-Chlorooctadecane 98.3 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received:	02/17/2020	Sampling Date:	02/17/2020
Reported:	02/19/2020	Sampling Type:	Soil
Project Name:	SHELL G A ST #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: W 7 @ 3' 32.5664190 - 103.2639330 (H000487-07)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/18/2020	ND	1.97	98.6	2.00	3.82		
Toluene*	<0.050	0.050	02/18/2020	ND	2.00	99.9	2.00	3.58		
Ethylbenzene*	<0.050	0.050	02/18/2020	ND	2.01	100	2.00	3.62		
Total Xylenes*	<0.150	0.150	02/18/2020	ND	5.83	97.2	6.00	3.39		
Total BTEx	<0.300	0.300	02/18/2020	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	02/19/2020	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	02/19/2020	ND	212	106	200	1.10	
DRO >C10-C28*	<10.0	10.0	02/19/2020	ND	230	115	200	3.71	
EXT DRO >C28-C36	<10.0	10.0	02/19/2020	ND					

Surrogate: 1-Chlorooctane 93.2 % 41-142

Surrogate: 1-Chlorooctadecane 98.2 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received:	02/17/2020	Sampling Date:	02/17/2020
Reported:	02/19/2020	Sampling Type:	Soil
Project Name:	SHELL G A ST #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: W 8 @ 3' 32.5665250 - 103.2638699 (H000487-08)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/18/2020	ND	1.97	98.6	2.00	3.82		
Toluene*	<0.050	0.050	02/18/2020	ND	2.00	99.9	2.00	3.58		
Ethylbenzene*	<0.050	0.050	02/18/2020	ND	2.01	100	2.00	3.62		
Total Xylenes*	<0.150	0.150	02/18/2020	ND	5.83	97.2	6.00	3.39		
Total BTEx	<0.300	0.300	02/18/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.7 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	02/19/2020	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	02/19/2020	ND	212	106	200	1.10	
DRO >C10-C28*	<10.0	10.0	02/19/2020	ND	230	115	200	3.71	
EXT DRO >C28-C36	<10.0	10.0	02/19/2020	ND					

Surrogate: 1-Chlorooctane 92.9 % 41-142

Surrogate: 1-Chlorooctadecane 96.6 % 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
 JEFFREY BROOM
 2350 W. MARLAND BLVD.
 HOBBS NM, 88240
 Fax To: (575) 393-2432

Received:	02/17/2020	Sampling Date:	02/17/2020
Reported:	02/19/2020	Sampling Type:	Soil
Project Name:	SHELL G A ST #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: W 9 @ 3' 32.5664419 - 103.2638180 (H000487-09)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/18/2020	ND	1.97	98.6	2.00	3.82		
Toluene*	<0.050	0.050	02/18/2020	ND	2.00	99.9	2.00	3.58		
Ethylbenzene*	<0.050	0.050	02/18/2020	ND	2.01	100	2.00	3.62		
Total Xylenes*	<0.150	0.150	02/18/2020	ND	5.83	97.2	6.00	3.39		
Total BTEX	<0.300	0.300	02/18/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.2 % 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	96.0	16.0	02/19/2020	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	02/19/2020	ND	212	106	200	1.10	
DRO >C10-C28*	<10.0	10.0	02/19/2020	ND	230	115	200	3.71	
EXT DRO >C28-C36	<10.0	10.0	02/19/2020	ND					

Surrogate: 1-Chlorooctane 90.6 % 41-142

Surrogate: 1-Chlorooctadecane 95.7 % 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
 JEFFREY BROOM
 2350 W. MARLAND BLVD.
 HOBBS NM, 88240
 Fax To: (575) 393-2432

Received:	02/17/2020	Sampling Date:	02/17/2020
Reported:	02/19/2020	Sampling Type:	Soil
Project Name:	SHELL G A ST #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: W 10 @ 6' 32.5664349 - 103.2638361 (H000487-10)

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	02/18/2020	ND	1.97	98.6	2.00	3.82		
Toluene*	<0.050	0.050	02/18/2020	ND	2.00	99.9	2.00	3.58		
Ethylbenzene*	<0.050	0.050	02/18/2020	ND	2.01	100	2.00	3.62		
Total Xylenes*	<0.150	0.150	02/18/2020	ND	5.83	97.2	6.00	3.39		
Total BTEX	<0.300	0.300	02/18/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 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	32.0	16.0	02/19/2020	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	02/19/2020	ND	212	106	200	1.10	
DRO >C10-C28*	<10.0	10.0	02/19/2020	ND	230	115	200	3.71	
EXT DRO >C28-C36	<10.0	10.0	02/19/2020	ND					

Surrogate: 1-Chlorooctane 86.9 % 41-142

Surrogate: 1-Chlorooctadecane 91.9 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received:	02/17/2020	Sampling Date:	02/17/2020
Reported:	02/19/2020	Sampling Type:	Soil
Project Name:	SHELL G A ST #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: W 11 @ 6' 32.5664165 - 103.2638431 (H000487-11)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/18/2020	ND	1.97	98.6	2.00	3.82		
Toluene*	<0.050	0.050	02/18/2020	ND	2.00	99.9	2.00	3.58		
Ethylbenzene*	<0.050	0.050	02/18/2020	ND	2.01	100	2.00	3.62		
Total Xylenes*	<0.150	0.150	02/18/2020	ND	5.83	97.2	6.00	3.39		
Total BTEX	<0.300	0.300	02/18/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.2 % 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	<16.0	16.0	02/19/2020	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	02/19/2020	ND	212	106	200	1.10	
DRO >C10-C28*	<10.0	10.0	02/19/2020	ND	230	115	200	3.71	
EXT DRO >C28-C36	<10.0	10.0	02/19/2020	ND					

Surrogate: 1-Chlorooctane 89.9 % 41-142

Surrogate: 1-Chlorooctadecane 94.5 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received:	02/17/2020	Sampling Date:	02/17/2020
Reported:	02/19/2020	Sampling Type:	Soil
Project Name:	SHELL G A ST #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: W 12 @ 6' 32.5664425 - 103.2638267 (H000487-12)

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	02/18/2020	ND	1.97	98.6	2.00	3.82	
Toluene*	<0.050	0.050	02/18/2020	ND	2.00	99.9	2.00	3.58	
Ethylbenzene*	<0.050	0.050	02/18/2020	ND	2.01	100	2.00	3.62	
Total Xylenes*	<0.150	0.150	02/18/2020	ND	5.83	97.2	6.00	3.39	
Total BTEx	<0.300	0.300	02/18/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.9 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	02/19/2020	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	02/19/2020	ND	212	106	200	1.10	
DRO >C10-C28*	<10.0	10.0	02/19/2020	ND	230	115	200	3.71	
EXT DRO >C28-C36	<10.0	10.0	02/19/2020	ND					

Surrogate: 1-Chlorooctane 87.5 % 41-142

Surrogate: 1-Chlorooctadecane 93.1 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received:	02/17/2020	Sampling Date:	02/17/2020
Reported:	02/19/2020	Sampling Type:	Soil
Project Name:	SHELL G A ST #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: W 13 @ 6' 32.5664419 - 103.2638188 (H000487-13)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/18/2020	ND	1.97	98.6	2.00	3.82		
Toluene*	<0.050	0.050	02/18/2020	ND	2.00	99.9	2.00	3.58		
Ethylbenzene*	<0.050	0.050	02/18/2020	ND	2.01	100	2.00	3.62		
Total Xylenes*	<0.150	0.150	02/18/2020	ND	5.83	97.2	6.00	3.39		
Total BTEx	<0.300	0.300	02/18/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.9 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	02/19/2020	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/19/2020	ND	212	106	200	1.10	
DRO >C10-C28*	<10.0	10.0	02/19/2020	ND	230	115	200	3.71	
EXT DRO >C28-C36	<10.0	10.0	02/19/2020	ND					

Surrogate: 1-Chlorooctane 79.5 % 41-142

Surrogate: 1-Chlorooctadecane 84.3 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received:	02/17/2020	Sampling Date:	02/17/2020
Reported:	02/19/2020	Sampling Type:	Soil
Project Name:	SHELL G A ST #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: W 14 @ 1' 32.5666875 - 103.2640627 (H000487-14)

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	02/18/2020	ND	1.97	98.6	2.00	3.82	
Toluene*	<0.050	0.050	02/18/2020	ND	2.00	99.9	2.00	3.58	
Ethylbenzene*	<0.050	0.050	02/18/2020	ND	2.01	100	2.00	3.62	
Total Xylenes*	<0.150	0.150	02/18/2020	ND	5.83	97.2	6.00	3.39	
Total BTEx	<0.300	0.300	02/18/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.7 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	128	16.0	02/19/2020	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/19/2020	ND	212	106	200	1.10	
DRO >C10-C28*	<10.0	10.0	02/19/2020	ND	230	115	200	3.71	
EXT DRO >C28-C36	<10.0	10.0	02/19/2020	ND					

Surrogate: 1-Chlorooctane 85.1 % 41-142

Surrogate: 1-Chlorooctadecane 88.3 % 37.6-147

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Notes and Definitions

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

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

Celey D. Keene, Lab Director/Quality Manager



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: <u>Apache</u>		P.O. #:		ANALYSIS REQUEST	
Project Manager: <u>Jeff Beem</u>		Company:			
Address:		Attn:			
City: <u>Hobbs</u>		Address:			
State: <u>NM</u> Zip: <u>88240</u>		City:			
Phone #:		State:			
Fax #:		Zip:			
Project #:		Project Owner:			
Project Name:		Phone #:			
Project Location: <u>Sho II GA st #2</u>		Fax #:			
Sample Name: <u>Jose Duran</u>		PRESERV:			
FOR LAB USE ONLY		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>H000487</u>	<u>W101' 32.56685</u>	<u>C</u>	<u>1</u>	<u>2/17</u>	<u>3:02pm</u>
	<u>-103.26403</u>	<u>C</u>	<u>1</u>		<u>3:04pm</u>
	<u>W201' 32.56657</u>	<u>C</u>	<u>1</u>		<u>3:06pm</u>
	<u>-103.26381</u>	<u>C</u>	<u>1</u>		<u>3:08pm</u>
	<u>W301' 32.5663707</u>	<u>C</u>	<u>1</u>		<u>3:10pm</u>
	<u>-103.2634103</u>	<u>C</u>	<u>1</u>		<u>3:12pm</u>
	<u>W401' 32.5663844</u>	<u>C</u>	<u>1</u>		<u>3:14pm</u>
	<u>-103.2631424</u>	<u>C</u>	<u>1</u>		<u>3:16pm</u>
	<u>W501' 32.5663761</u>	<u>C</u>	<u>1</u>		<u>3:18pm</u>
	<u>-103.2636359</u>	<u>C</u>	<u>1</u>		<u>3:20pm</u>

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Relinquished By: <u>Jeff Beem</u>	Date: <u>12-17-20</u>	Received By: <u>JP</u>	Date: <u>12-17-20</u>
Relinquished By: <u>Jeff Beem</u>	Date: <u>12-17-20</u>	Received By: <u>JP</u>	Date: <u>12-17-20</u>

Delivered By: (Circle One) Observed Temp. °C 2.7 Corrected Temp. °C 2.7

Sampler - UPS - Bus - Other: Corrected Temp. °C 2.7

Sample Condition: Cool Intact Yes Yes No No

Checked By: h5

Turnaround Time: Standard Rush 4113

Thermometer ID #97 4113

Correction Factor 0.4°C

Bacteria (only) Sample Condition: Cool Intact Yes Yes No No

Corrected Temp. °C

REMARKS: * Sample type revised as per Joe. 2/17/20 ch

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

All Results are emailed. Please provide Email address:

FORM 0067-R-20

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



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Apache		BILL TO		P.O. #:		ANALYSIS REQUEST	
Project Manager: Jeff Brown		Company:		Company:			
Address:		Attn:		Attn:			
City: Hobbs		State: NM		Zip: 88240			
Phone #:		Fax #:		Address:			
Project #:		Project Owner:		City:			
Project Name:		State:		Zip:			
Project Location: Shell 6A st #2		Phone #:		Phone #:			
Sample Name: Jose L. L. L.		Fax #:		Fax #:			
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 :		ACID/BASE:		ICE / COOL		OTHER :	
DATE		TIME		DATE		TIME	
6/10/03		3:13pm		6/10/03		3:13pm	
-103.2639692		3:14pm		-103.2639692		3:14pm	
7/10/03		3:14pm		7/10/03		3:14pm	
-103.2639330		3:14pm		-103.2639330		3:14pm	
8/10/03		3:14pm		8/10/03		3:14pm	
-103.2638659		3:14pm		-103.2638659		3:14pm	
9/10/03		3:14pm		9/10/03		3:14pm	
-103.2638180		3:14pm		-103.2638180		3:14pm	
10/10/03		3:14pm		10/10/03		3:14pm	
-103.2639361		3:14pm		-103.2639361		3:14pm	

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Relinquished By: Jose L. L. L.	Date: 8/17/00	Received By: Jose L. L. L.	Date: 8/17/00
Relinquished By: Jose L. L. L.	Date: 8/17/00	Received By: Jose L. L. L.	Date: 8/17/00

Delivered By: (Circle One)	Observed Temp. °C	Sample Condition	CHECKED BY: (Initials)	Turnaround Time:	Standard	Bacteria (only)	Sample Condition
Sampler - UPS - Bus - Other:	Corrected Temp. °C	Cool Intact	h5	Thermometer ID #	Rush	Cool Intact	Observed Temp. °C
		No Yes		Correction Factor +0.4°C	#113	No Yes	Corrected Temp. °C

REMARKS:

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

All Results are emailed. Please provide Email address:

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



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Apple		P.O. #:		BILL TO		ANALYSIS REQUEST	
Project Manager: Jeff Brown		Company:					
Address:		Attn:					
City: Hobbs		Address:					
State: NM Zip: 88401		City:					
Phone #:		State:					
Fax #:		Zip:					
Project #:		Project Owner:					
Project Location: Shell Gas St #2		Phone #:					
Sample Name: Jose Quispe		Fax #:					
FOR LAB USE ONLY		(G)RAB OR (C)OMP.					
Lab I.D.		# CONTAINERS					
H000487		GROUNDWATER					
		WASTEWATER					
		SOIL					
		OIL					
		SLUDGE					
		OTHER :					
		ACID/BASE:					
		ICE / COOL					
		OTHER :					
		DATE					
		TIME					
11 W1106' 32.566 4165		2/17		3:22pm		1	
-103.263 8431						1	
12 W1206' 32.566 4425				3:24pm		1	
-103.263 8267						1	
13 W1306' 32.566 4419				3:26pm		1	
-103.263 8188						1	
14 W1401' 32.566 8755				3:28pm		1	
-103.264 0627						1	
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Reinquinished By: [Signature]		Received By: [Signature]		All Results are emailed. Please provide Email address:			
Date: 2/17/10		Time: 10:08		REMARKS:			
Delivered By: (Circle One)		Observed Temp. °C		Turnaround Time:		Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/>	
Sampler - UPS - Bus - Other:		Corrected Temp. °C		Thermometer ID #97		Bacteria (only) Sample Condition	
				Correction Factor +0.4°C		Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/>	
						Observed Temp. °C	
						Corrected Temp. °C	



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

February 21, 2020

JEFFREY BROOM

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: SHELL G A ST #2

Enclosed are the results of analyses for samples received by the laboratory on 02/18/20 15:41.

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
 JEFFREY BROOM
 2350 W. MARLAND BLVD.
 HOBBS NM, 88240
 Fax To: (575) 393-2432

Received:	02/18/2020	Sampling Date:	02/18/2020
Reported:	02/21/2020	Sampling Type:	Soil
Project Name:	SHELL G A ST #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: B 1 @ 3' 32.5663210 - 103.2639842 (H000509-01)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/19/2020	ND	1.99	99.6	2.00	2.34		
Toluene*	<0.050	0.050	02/19/2020	ND	2.01	101	2.00	2.52		
Ethylbenzene*	<0.050	0.050	02/19/2020	ND	2.02	101	2.00	3.11		
Total Xylenes*	<0.150	0.150	02/19/2020	ND	5.87	97.8	6.00	3.08		
Total BTEx	<0.300	0.300	02/19/2020	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	02/20/2020	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/20/2020	ND	194	97.1	200	0.915	
DRO >C10-C28*	<10.0	10.0	02/20/2020	ND	182	90.8	200	3.41	
EXT DRO >C28-C36	<10.0	10.0	02/20/2020	ND					

Surrogate: 1-Chlorooctane 87.6 % 44.3-144

Surrogate: 1-Chlorooctadecane 87.3 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received:	02/18/2020	Sampling Date:	02/18/2020
Reported:	02/21/2020	Sampling Type:	Soil
Project Name:	SHELL G A ST #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: B 2 @ 3' 32.5663490 - 103.2639390 (H000509-02)

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/19/2020	ND	1.99	99.6	2.00	2.34		
Toluene*	<0.050	0.050	02/19/2020	ND	2.01	101	2.00	2.52		
Ethylbenzene*	<0.050	0.050	02/19/2020	ND	2.02	101	2.00	3.11		
Total Xylenes*	<0.150	0.150	02/19/2020	ND	5.87	97.8	6.00	3.08		
Total BTX	<0.300	0.300	02/19/2020	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	02/20/2020	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/20/2020	ND	194	97.1	200	0.915	
DRO >C10-C28*	<10.0	10.0	02/20/2020	ND	182	90.8	200	3.41	
EXT DRO >C28-C36	<10.0	10.0	02/20/2020	ND					

Surrogate: 1-Chlorooctane 91.0 % 44.3-144

Surrogate: 1-Chlorooctadecane 92.5 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received:	02/18/2020	Sampling Date:	02/18/2020
Reported:	02/21/2020	Sampling Type:	Soil
Project Name:	SHELL G A ST #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: B 3 @ 3' 32.566543 - 103.2639011 (H000509-03)

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/19/2020	ND	1.99	99.6	2.00	2.34		
Toluene*	<0.050	0.050	02/19/2020	ND	2.01	101	2.00	2.52		
Ethylbenzene*	<0.050	0.050	02/19/2020	ND	2.02	101	2.00	3.11		
Total Xylenes*	<0.150	0.150	02/19/2020	ND	5.87	97.8	6.00	3.08		
Total BTX	<0.300	0.300	02/19/2020	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	02/20/2020	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/20/2020	ND	194	97.1	200	0.915	
DRO >C10-C28*	<10.0	10.0	02/20/2020	ND	182	90.8	200	3.41	
EXT DRO >C28-C36	<10.0	10.0	02/20/2020	ND					

Surrogate: 1-Chlorooctane 89.2 % 44.3-144

Surrogate: 1-Chlorooctadecane 91.4 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received:	02/18/2020	Sampling Date:	02/18/2020
Reported:	02/21/2020	Sampling Type:	Soil
Project Name:	SHELL G A ST #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: B 4 @ 1' 32.5663558 - 103.2638314 (H000509-04)

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/19/2020	ND	1.99	99.6	2.00	2.34		
Toluene*	<0.050	0.050	02/19/2020	ND	2.01	101	2.00	2.52		
Ethylbenzene*	<0.050	0.050	02/19/2020	ND	2.02	101	2.00	3.11		
Total Xylenes*	<0.150	0.150	02/19/2020	ND	5.87	97.8	6.00	3.08		
Total BTX	<0.300	0.300	02/19/2020	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	192	16.0	02/20/2020	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/19/2020	ND	182	91.0	200	3.52	
DRO >C10-C28*	<10.0	10.0	02/19/2020	ND	196	98.0	200	2.11	
EXT DRO >C28-C36	<10.0	10.0	02/19/2020	ND					

Surrogate: 1-Chlorooctane 93.4 % 44.3-144

Surrogate: 1-Chlorooctadecane 96.5 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received:	02/18/2020	Sampling Date:	02/18/2020
Reported:	02/21/2020	Sampling Type:	Soil
Project Name:	SHELL G A ST #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: B 5 @ 1' 32.5663668 - 103.2637941 (H000509-05)

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	02/19/2020	ND	1.97	98.6	2.00	1.94		
Toluene*	<0.050	0.050	02/19/2020	ND	2.01	101	2.00	1.29		
Ethylbenzene*	<0.050	0.050	02/19/2020	ND	1.99	99.4	2.00	2.41		
Total Xylenes*	<0.150	0.150	02/19/2020	ND	5.78	96.3	6.00	2.20		
Total BTEx	<0.300	0.300	02/19/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.1 % 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	336	16.0	02/20/2020	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/19/2020	ND	182	91.0	200	3.52	
DRO >C10-C28*	<10.0	10.0	02/19/2020	ND	196	98.0	200	2.11	
EXT DRO >C28-C36	<10.0	10.0	02/19/2020	ND					

Surrogate: 1-Chlorooctane 88.6 % 44.3-144

Surrogate: 1-Chlorooctadecane 91.6 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received:	02/18/2020	Sampling Date:	02/18/2020
Reported:	02/21/2020	Sampling Type:	Soil
Project Name:	SHELL G A ST #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: B 6 @ 1' 32.5663815 - 103.2637576 (H000509-06)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/19/2020	ND	1.97	98.6	2.00	1.94		
Toluene*	<0.050	0.050	02/19/2020	ND	2.01	101	2.00	1.29		
Ethylbenzene*	<0.050	0.050	02/19/2020	ND	1.99	99.4	2.00	2.41		
Total Xylenes*	<0.150	0.150	02/19/2020	ND	5.78	96.3	6.00	2.20		
Total BTEx	<0.300	0.300	02/19/2020	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	656	16.0	02/20/2020	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/19/2020	ND	182	91.0	200	3.52	
DRO >C10-C28*	<10.0	10.0	02/19/2020	ND	196	98.0	200	2.11	
EXT DRO >C28-C36	<10.0	10.0	02/19/2020	ND					

Surrogate: 1-Chlorooctane 89.9 % 44.3-144

Surrogate: 1-Chlorooctadecane 93.6 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received:	02/18/2020	Sampling Date:	02/18/2020
Reported:	02/21/2020	Sampling Type:	Soil
Project Name:	SHELL G A ST #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: B 7 @ 1' 32.5663826 - 103.2637194 (H000509-07)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/19/2020	ND	1.97	98.6	2.00	1.94		
Toluene*	<0.050	0.050	02/19/2020	ND	2.01	101	2.00	1.29		
Ethylbenzene*	<0.050	0.050	02/19/2020	ND	1.99	99.4	2.00	2.41		
Total Xylenes*	<0.150	0.150	02/19/2020	ND	5.78	96.3	6.00	2.20		
Total BTEx	<0.300	0.300	02/19/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 100 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	02/20/2020	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/19/2020	ND	182	91.0	200	3.52	
DRO >C10-C28*	<10.0	10.0	02/19/2020	ND	196	98.0	200	2.11	
EXT DRO >C28-C36	<10.0	10.0	02/19/2020	ND					

Surrogate: 1-Chlorooctane 84.0 % 44.3-144

Surrogate: 1-Chlorooctadecane 86.9 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	02/18/2020	Sampling Date:	02/18/2020
Reported:	02/21/2020	Sampling Type:	Soil
Project Name:	SHELL G A ST #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: B 8 @ 3' 32.5664007 - 103.2639427 (H000509-08)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/19/2020	ND	1.97	98.6	2.00	1.94		
Toluene*	<0.050	0.050	02/19/2020	ND	2.01	101	2.00	1.29		
Ethylbenzene*	<0.050	0.050	02/19/2020	ND	1.99	99.4	2.00	2.41		
Total Xylenes*	<0.150	0.150	02/19/2020	ND	5.78	96.3	6.00	2.20		
Total BTEx	<0.300	0.300	02/19/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.5 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	02/20/2020	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/19/2020	ND	182	91.0	200	3.52	
DRO >C10-C28*	<10.0	10.0	02/19/2020	ND	196	98.0	200	2.11	
EXT DRO >C28-C36	<10.0	10.0	02/19/2020	ND					

Surrogate: 1-Chlorooctane 90.1 % 44.3-144

Surrogate: 1-Chlorooctadecane 93.2 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received:	02/18/2020	Sampling Date:	02/18/2020
Reported:	02/21/2020	Sampling Type:	Soil
Project Name:	SHELL G A ST #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: B 10 @ 6' 32.5663930 - 103.2638736 (H000509-09)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/19/2020	ND	1.97	98.6	2.00	1.94		
Toluene*	<0.050	0.050	02/19/2020	ND	2.01	101	2.00	1.29		
Ethylbenzene*	<0.050	0.050	02/19/2020	ND	1.99	99.4	2.00	2.41		
Total Xylenes*	<0.150	0.150	02/19/2020	ND	5.78	96.3	6.00	2.20		
Total BTEX	<0.300	0.300	02/19/2020	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	02/20/2020	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/19/2020	ND	182	91.0	200	3.52	
DRO >C10-C28*	<10.0	10.0	02/19/2020	ND	196	98.0	200	2.11	
EXT DRO >C28-C36	<10.0	10.0	02/19/2020	ND					

Surrogate: 1-Chlorooctane 94.4 % 44.3-144

Surrogate: 1-Chlorooctadecane 96.7 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received:	02/18/2020	Sampling Date:	02/18/2020
Reported:	02/21/2020	Sampling Type:	Soil
Project Name:	SHELL G A ST #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: B 11 @ 1' 32.5664032 - 103.2637901 (H000509-10)

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	02/19/2020	ND	1.97	98.6	2.00	1.94		
Toluene*	<0.050	0.050	02/19/2020	ND	2.01	101	2.00	1.29		
Ethylbenzene*	<0.050	0.050	02/19/2020	ND	1.99	99.4	2.00	2.41		
Total Xylenes*	<0.150	0.150	02/19/2020	ND	5.78	96.3	6.00	2.20		
Total BTEX	<0.300	0.300	02/19/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 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	192	16.0	02/20/2020	ND	432	108	400	0.00		

TPH 8015M		mg/kg	Analyzed By: MS							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/19/2020	ND	182	91.0	200	3.52		
DRO >C10-C28*	<10.0	10.0	02/19/2020	ND	196	98.0	200	2.11		
EXT DRO >C28-C36	<10.0	10.0	02/19/2020	ND						

Surrogate: 1-Chlorooctane 96.5 % 44.3-144

Surrogate: 1-Chlorooctadecane 99.0 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received:	02/18/2020	Sampling Date:	02/18/2020
Reported:	02/21/2020	Sampling Type:	Soil
Project Name:	SHELL G A ST #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: B 12 @ 1' 32.5664227 - 103.2637516 (H000509-11)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/19/2020	ND	1.97	98.6	2.00	1.94		
Toluene*	<0.050	0.050	02/19/2020	ND	2.01	101	2.00	1.29		
Ethylbenzene*	<0.050	0.050	02/19/2020	ND	1.99	99.4	2.00	2.41		
Total Xylenes*	<0.150	0.150	02/19/2020	ND	5.78	96.3	6.00	2.20		
Total BTEX	<0.300	0.300	02/19/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 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	1360	16.0	02/20/2020	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/19/2020	ND	182	91.0	200	3.52	
DRO >C10-C28*	<10.0	10.0	02/19/2020	ND	196	98.0	200	2.11	
EXT DRO >C28-C36	<10.0	10.0	02/19/2020	ND					

Surrogate: 1-Chlorooctane 93.0 % 44.3-144

Surrogate: 1-Chlorooctadecane 96.6 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received:	02/18/2020	Sampling Date:	02/18/2020
Reported:	02/21/2020	Sampling Type:	Soil
Project Name:	SHELL G A ST #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: B 13 @ 3' 32.5664532 - 103.2639390 (H000509-12)

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	02/19/2020	ND	1.97	98.6	2.00	1.94		
Toluene*	<0.050	0.050	02/19/2020	ND	2.01	101	2.00	1.29		
Ethylbenzene*	<0.050	0.050	02/19/2020	ND	1.99	99.4	2.00	2.41		
Total Xylenes*	<0.150	0.150	02/19/2020	ND	5.78	96.3	6.00	2.20		
Total BTEX	<0.300	0.300	02/19/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 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	384	16.0	02/20/2020	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/19/2020	ND	182	91.0	200	3.52	
DRO >C10-C28*	<10.0	10.0	02/19/2020	ND	196	98.0	200	2.11	
EXT DRO >C28-C36	<10.0	10.0	02/19/2020	ND					

Surrogate: 1-Chlorooctane 95.3 % 44.3-144

Surrogate: 1-Chlorooctadecane 98.4 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	02/18/2020	Sampling Date:	02/18/2020
Reported:	02/21/2020	Sampling Type:	Soil
Project Name:	SHELL G A ST #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: B 15 @ 3' 32.5664693 - 103.2638736 (H000509-13)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/19/2020	ND	1.97	98.6	2.00	1.94		
Toluene*	<0.050	0.050	02/19/2020	ND	2.01	101	2.00	1.29		
Ethylbenzene*	<0.050	0.050	02/19/2020	ND	1.99	99.4	2.00	2.41		
Total Xylenes*	<0.150	0.150	02/19/2020	ND	5.78	96.3	6.00	2.20		
Total BTEX	<0.300	0.300	02/19/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 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	112	16.0	02/20/2020	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/19/2020	ND	182	91.0	200	3.52		
DRO >C10-C28*	<10.0	10.0	02/19/2020	ND	196	98.0	200	2.11		
EXT DRO >C28-C36	<10.0	10.0	02/19/2020	ND						

Surrogate: 1-Chlorooctane 91.9 % 44.3-144

Surrogate: 1-Chlorooctadecane 96.8 % 42.2-156

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Analytical Results For:

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

Received:	02/18/2020	Sampling Date:	02/18/2020
Reported:	02/21/2020	Sampling Type:	Soil
Project Name:	SHELL G A ST #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: B 16 @ 3' 32.5664775 - 103.2638324 (H000509-14)

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	02/19/2020	ND	1.97	98.6	2.00	1.94		
Toluene*	<0.050	0.050	02/19/2020	ND	2.01	101	2.00	1.29		
Ethylbenzene*	<0.050	0.050	02/19/2020	ND	1.99	99.4	2.00	2.41		
Total Xylenes*	<0.150	0.150	02/19/2020	ND	5.78	96.3	6.00	2.20		
Total BTEx	<0.300	0.300	02/19/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 100 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	976	16.0	02/20/2020	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/19/2020	ND	182	91.0	200	3.52	
DRO >C10-C28*	<10.0	10.0	02/19/2020	ND	196	98.0	200	2.11	
EXT DRO >C28-C36	<10.0	10.0	02/19/2020	ND					

Surrogate: 1-Chlorooctane 91.1 % 44.3-144

Surrogate: 1-Chlorooctadecane 95.1 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	02/18/2020	Sampling Date:	02/18/2020
Reported:	02/21/2020	Sampling Type:	Soil
Project Name:	SHELL G A ST #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: B 17 @ 3' 32.5664702 - 103.2638025 (H000509-15)

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	02/19/2020	ND	1.97	98.6	2.00	1.94		
Toluene*	<0.050	0.050	02/19/2020	ND	2.01	101	2.00	1.29		
Ethylbenzene*	<0.050	0.050	02/19/2020	ND	1.99	99.4	2.00	2.41		
Total Xylenes*	<0.150	0.150	02/19/2020	ND	5.78	96.3	6.00	2.20		
Total BTEX	<0.300	0.300	02/19/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.7 % 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	160	16.0	02/20/2020	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/19/2020	ND	182	91.0	200	3.52	
DRO >C10-C28*	<10.0	10.0	02/19/2020	ND	196	98.0	200	2.11	
EXT DRO >C28-C36	<10.0	10.0	02/19/2020	ND					

Surrogate: 1-Chlorooctane 93.6 % 44.3-144

Surrogate: 1-Chlorooctadecane 97.3 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	02/18/2020	Sampling Date:	02/18/2020
Reported:	02/21/2020	Sampling Type:	Soil
Project Name:	SHELL G A ST #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: B 18 @ 1' 32.5665191 - 103.2639688 (H000509-16)

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	02/19/2020	ND	1.97	98.6	2.00	1.94		
Toluene*	<0.050	0.050	02/19/2020	ND	2.01	101	2.00	1.29		
Ethylbenzene*	<0.050	0.050	02/19/2020	ND	1.99	99.4	2.00	2.41		
Total Xylenes*	<0.150	0.150	02/19/2020	ND	5.78	96.3	6.00	2.20		
Total BTEX	<0.300	0.300	02/19/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 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	208	16.0	02/20/2020	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/19/2020	ND	182	91.0	200	3.52	
DRO >C10-C28*	<10.0	10.0	02/19/2020	ND	196	98.0	200	2.11	
EXT DRO >C28-C36	<10.0	10.0	02/19/2020	ND					

Surrogate: 1-Chlorooctane 88.6 % 44.3-144

Surrogate: 1-Chlorooctadecane 94.7 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received:	02/18/2020	Sampling Date:	02/18/2020
Reported:	02/21/2020	Sampling Type:	Soil
Project Name:	SHELL G A ST #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: B 19 @ 1' 32.5665304 - 103.2639423 (H000509-17)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/19/2020	ND	1.97	98.6	2.00	1.94		
Toluene*	<0.050	0.050	02/19/2020	ND	2.01	101	2.00	1.29		
Ethylbenzene*	<0.050	0.050	02/19/2020	ND	1.99	99.4	2.00	2.41		
Total Xylenes*	<0.150	0.150	02/19/2020	ND	5.78	96.3	6.00	2.20		
Total BTEX	<0.300	0.300	02/19/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 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	144	16.0	02/20/2020	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/19/2020	ND	182	91.0	200	3.52	
DRO >C10-C28*	53.6	10.0	02/19/2020	ND	196	98.0	200	2.11	
EXT DRO >C28-C36	21.7	10.0	02/19/2020	ND					

Surrogate: 1-Chlorooctane 90.5 % 44.3-144

Surrogate: 1-Chlorooctadecane 98.9 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received:	02/18/2020	Sampling Date:	02/18/2020
Reported:	02/21/2020	Sampling Type:	Soil
Project Name:	SHELL G A ST #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: B 20 @ 1' 32.5665386 - 103.2638857 (H000509-18)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/19/2020	ND	1.97	98.6	2.00	1.94		
Toluene*	<0.050	0.050	02/19/2020	ND	2.01	101	2.00	1.29		
Ethylbenzene*	<0.050	0.050	02/19/2020	ND	1.99	99.4	2.00	2.41		
Total Xylenes*	<0.150	0.150	02/19/2020	ND	5.78	96.3	6.00	2.20		
Total BTEX	<0.300	0.300	02/19/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.6 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	02/20/2020	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/19/2020	ND	182	91.0	200	3.52	
DRO >C10-C28*	24.9	10.0	02/19/2020	ND	196	98.0	200	2.11	
EXT DRO >C28-C36	<10.0	10.0	02/19/2020	ND					

Surrogate: 1-Chlorooctane 89.0 % 44.3-144

Surrogate: 1-Chlorooctadecane 94.7 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received:	02/18/2020	Sampling Date:	02/18/2020
Reported:	02/21/2020	Sampling Type:	Soil
Project Name:	SHELL G A ST #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: B 21 @ 1' 32.5665810 - 103.2639792 (H000509-19)

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	02/19/2020	ND	1.97	98.6	2.00	1.94		
Toluene*	<0.050	0.050	02/19/2020	ND	2.01	101	2.00	1.29		
Ethylbenzene*	<0.050	0.050	02/19/2020	ND	1.99	99.4	2.00	2.41		
Total Xylenes*	<0.150	0.150	02/19/2020	ND	5.78	96.3	6.00	2.20		
Total BTEX	<0.300	0.300	02/19/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.6 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	02/20/2020	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/19/2020	ND	182	91.0	200	3.52	
DRO >C10-C28*	<10.0	10.0	02/19/2020	ND	196	98.0	200	2.11	
EXT DRO >C28-C36	<10.0	10.0	02/19/2020	ND					

Surrogate: 1-Chlorooctane 89.9 % 44.3-144

Surrogate: 1-Chlorooctadecane 93.9 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received:	02/18/2020	Sampling Date:	02/18/2020
Reported:	02/21/2020	Sampling Type:	Soil
Project Name:	SHELL G A ST #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: B 22 @ 1' 32.5665897 - 103.2639380 (H000509-20)

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	02/19/2020	ND	1.97	98.6	2.00	1.94		
Toluene*	<0.050	0.050	02/19/2020	ND	2.01	101	2.00	1.29		
Ethylbenzene*	<0.050	0.050	02/19/2020	ND	1.99	99.4	2.00	2.41		
Total Xylenes*	<0.150	0.150	02/19/2020	ND	5.78	96.3	6.00	2.20		
Total BTEx	<0.300	0.300	02/19/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 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	80.0	16.0	02/20/2020	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/19/2020	ND	182	91.0	200	3.52	
DRO >C10-C28*	28.6	10.0	02/19/2020	ND	196	98.0	200	2.11	
EXT DRO >C28-C36	13.5	10.0	02/19/2020	ND					

Surrogate: 1-Chlorooctane 90.6 % 44.3-144

Surrogate: 1-Chlorooctadecane 97.6 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	02/18/2020	Sampling Date:	02/18/2020
Reported:	02/21/2020	Sampling Type:	Soil
Project Name:	SHELL G A ST #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: B 23 @ 1' 32.5665600 - 103.2639259 (H000509-21)

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	02/19/2020	ND	1.97	98.6	2.00	1.94		
Toluene*	<0.050	0.050	02/19/2020	ND	2.01	101	2.00	1.29		
Ethylbenzene*	<0.050	0.050	02/19/2020	ND	1.99	99.4	2.00	2.41		
Total Xylenes*	<0.150	0.150	02/19/2020	ND	5.78	96.3	6.00	2.20		
Total BTEx	<0.300	0.300	02/19/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.3 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	144	16.0	02/20/2020	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/19/2020	ND	182	91.0	200	3.52	
DRO >C10-C28*	19.5	10.0	02/19/2020	ND	196	98.0	200	2.11	
EXT DRO >C28-C36	<10.0	10.0	02/19/2020	ND					

Surrogate: 1-Chlorooctane 95.6 % 44.3-144

Surrogate: 1-Chlorooctadecane 99.3 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received:	02/18/2020	Sampling Date:	02/18/2020
Reported:	02/21/2020	Sampling Type:	Soil
Project Name:	SHELL G A ST #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: B 24 @ 1' 32.5666197 - 103.2639970 (H000509-22)

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	02/19/2020	ND	1.97	98.6	2.00	1.94		
Toluene*	<0.050	0.050	02/19/2020	ND	2.01	101	2.00	1.29		
Ethylbenzene*	<0.050	0.050	02/19/2020	ND	1.99	99.4	2.00	2.41		
Total Xylenes*	<0.150	0.150	02/19/2020	ND	5.78	96.3	6.00	2.20		
Total BTEX	<0.300	0.300	02/19/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.1 % 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	<16.0	16.0	02/20/2020	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/20/2020	ND	182	91.0	200	3.52	
DRO >C10-C28*	<10.0	10.0	02/20/2020	ND	196	98.0	200	2.11	
EXT DRO >C28-C36	<10.0	10.0	02/20/2020	ND					

Surrogate: 1-Chlorooctane 93.9 % 44.3-144

Surrogate: 1-Chlorooctadecane 97.2 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received:	02/18/2020	Sampling Date:	02/18/2020
Reported:	02/21/2020	Sampling Type:	Soil
Project Name:	SHELL G A ST #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: B 25 @ 1' 32.5666332 - 103.2569356 (H000509-23)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/19/2020	ND	1.97	98.6	2.00	1.94		
Toluene*	<0.050	0.050	02/19/2020	ND	2.01	101	2.00	1.29		
Ethylbenzene*	<0.050	0.050	02/19/2020	ND	1.99	99.4	2.00	2.41		
Total Xylenes*	<0.150	0.150	02/19/2020	ND	5.78	96.3	6.00	2.20		
Total BTEx	<0.300	0.300	02/19/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 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	48.0	16.0	02/20/2020	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/20/2020	ND	182	91.0	200	3.52	
DRO >C10-C28*	84.0	10.0	02/20/2020	ND	196	98.0	200	2.11	
EXT DRO >C28-C36	58.2	10.0	02/20/2020	ND					

Surrogate: 1-Chlorooctane 93.1 % 44.3-144

Surrogate: 1-Chlorooctadecane 99.6 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	02/18/2020	Sampling Date:	02/18/2020
Reported:	02/21/2020	Sampling Type:	Soil
Project Name:	SHELL G A ST #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: B 26 @ 1' 32.5666999 - 103.2641519 (H000509-24)

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	02/19/2020	ND	1.97	98.6	2.00	1.94		
Toluene*	<0.050	0.050	02/19/2020	ND	2.01	101	2.00	1.29		
Ethylbenzene*	<0.050	0.050	02/19/2020	ND	1.99	99.4	2.00	2.41		
Total Xylenes*	<0.150	0.150	02/19/2020	ND	5.78	96.3	6.00	2.20		
Total BTEX	<0.300	0.300	02/19/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 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	64.0	16.0	02/20/2020	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/20/2020	ND	200	99.9	200	0.654	
DRO >C10-C28*	<10.0	10.0	02/20/2020	ND	215	107	200	1.77	
EXT DRO >C28-C36	<10.0	10.0	02/20/2020	ND					

Surrogate: 1-Chlorooctane 87.7 % 44.3-144

Surrogate: 1-Chlorooctadecane 91.3 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	02/18/2020	Sampling Date:	02/18/2020
Reported:	02/21/2020	Sampling Type:	Soil
Project Name:	SHELL G A ST #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: B 27 @ 1' 32.5666787 - 103.2640775 (H000509-25)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/19/2020	ND	2.02	101	2.00	0.963		
Toluene*	<0.050	0.050	02/19/2020	ND	2.03	101	2.00	1.67		
Ethylbenzene*	<0.050	0.050	02/19/2020	ND	2.03	101	2.00	1.65		
Total Xylenes*	<0.150	0.150	02/19/2020	ND	5.88	97.9	6.00	1.61		
Total BTEx	<0.300	0.300	02/19/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.4 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	02/20/2020	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/20/2020	ND	200	99.9	200	0.654	
DRO >C10-C28*	<10.0	10.0	02/20/2020	ND	215	107	200	1.77	
EXT DRO >C28-C36	<10.0	10.0	02/20/2020	ND					

Surrogate: 1-Chlorooctane 86.8 % 44.3-144

Surrogate: 1-Chlorooctadecane 91.6 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	02/18/2020	Sampling Date:	02/18/2020
Reported:	02/21/2020	Sampling Type:	Soil
Project Name:	SHELL G A ST #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: B 28 @ 1' 32.5667022 - 103.2640332 (H000509-26)

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	02/19/2020	ND	2.02	101	2.00	0.963		
Toluene*	<0.050	0.050	02/19/2020	ND	2.03	101	2.00	1.67		
Ethylbenzene*	<0.050	0.050	02/19/2020	ND	2.03	101	2.00	1.65		
Total Xylenes*	<0.150	0.150	02/19/2020	ND	5.88	97.9	6.00	1.61		
Total BTEX	<0.300	0.300	02/19/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.0 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	02/20/2020	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/20/2020	ND	200	99.9	200	0.654	
DRO >C10-C28*	<10.0	10.0	02/20/2020	ND	215	107	200	1.77	
EXT DRO >C28-C36	<10.0	10.0	02/20/2020	ND					

Surrogate: 1-Chlorooctane 89.5 % 44.3-144

Surrogate: 1-Chlorooctadecane 94.4 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	02/18/2020	Sampling Date:	02/18/2020
Reported:	02/21/2020	Sampling Type:	Soil
Project Name:	SHELL G A ST #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: B 29 @ 1' 32.5667095 - 103.2640124 (H000509-27)

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	02/19/2020	ND	2.02	101	2.00	0.963		
Toluene*	<0.050	0.050	02/19/2020	ND	2.03	101	2.00	1.67		
Ethylbenzene*	<0.050	0.050	02/19/2020	ND	2.03	101	2.00	1.65		
Total Xylenes*	<0.150	0.150	02/19/2020	ND	5.88	97.9	6.00	1.61		
Total BTEX	<0.300	0.300	02/19/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 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	32.0	16.0	02/20/2020	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/20/2020	ND	192	96.0	200	1.37	
DRO >C10-C28*	<10.0	10.0	02/20/2020	ND	177	88.5	200	2.30	
EXT DRO >C28-C36	<10.0	10.0	02/20/2020	ND					

Surrogate: 1-Chlorooctane 96.5 % 44.3-144

Surrogate: 1-Chlorooctadecane 98.8 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	02/18/2020	Sampling Date:	02/18/2020
Reported:	02/21/2020	Sampling Type:	Soil
Project Name:	SHELL G A ST #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: B 30 @ 1' 32.5667090 - 103.2639889 (H000509-28)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/19/2020	ND	2.02	101	2.00	0.963		
Toluene*	<0.050	0.050	02/19/2020	ND	2.03	101	2.00	1.67		
Ethylbenzene*	<0.050	0.050	02/19/2020	ND	2.03	101	2.00	1.65		
Total Xylenes*	<0.150	0.150	02/19/2020	ND	5.88	97.9	6.00	1.61		
Total BTEX	<0.300	0.300	02/19/2020	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	02/20/2020	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/20/2020	ND	192	96.0	200	1.37	
DRO >C10-C28*	<10.0	10.0	02/20/2020	ND	177	88.5	200	2.30	
EXT DRO >C28-C36	<10.0	10.0	02/20/2020	ND					

Surrogate: 1-Chlorooctane 93.2 % 44.3-144

Surrogate: 1-Chlorooctadecane 96.1 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	02/18/2020	Sampling Date:	02/18/2020
Reported:	02/21/2020	Sampling Type:	Soil
Project Name:	SHELL G A ST #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: B 31 @ 1' 32.5667169 - 103.2639581 (H000509-29)

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	02/19/2020	ND	2.02	101	2.00	0.963		
Toluene*	<0.050	0.050	02/19/2020	ND	2.03	101	2.00	1.67		
Ethylbenzene*	<0.050	0.050	02/19/2020	ND	2.03	101	2.00	1.65		
Total Xylenes*	<0.150	0.150	02/19/2020	ND	5.88	97.9	6.00	1.61		
Total BTEX	<0.300	0.300	02/19/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 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	16.0	16.0	02/20/2020	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/20/2020	ND	192	96.0	200	1.37	
DRO >C10-C28*	<10.0	10.0	02/20/2020	ND	177	88.5	200	2.30	
EXT DRO >C28-C36	<10.0	10.0	02/20/2020	ND					

Surrogate: 1-Chlorooctane 92.5 % 44.3-144

Surrogate: 1-Chlorooctadecane 97.0 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	02/18/2020	Sampling Date:	02/18/2020
Reported:	02/21/2020	Sampling Type:	Soil
Project Name:	SHELL G A ST #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: B 32 @ 1' 32.5667550 - 103.2641190 (H000509-30)

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	02/19/2020	ND	2.02	101	2.00	0.963		
Toluene*	<0.050	0.050	02/19/2020	ND	2.03	101	2.00	1.67		
Ethylbenzene*	<0.050	0.050	02/19/2020	ND	2.03	101	2.00	1.65		
Total Xylenes*	<0.150	0.150	02/19/2020	ND	5.88	97.9	6.00	1.61		
Total BTEx	<0.300	0.300	02/19/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 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	96.0	16.0	02/20/2020	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/20/2020	ND	192	96.0	200	1.37	
DRO >C10-C28*	<10.0	10.0	02/20/2020	ND	177	88.5	200	2.30	
EXT DRO >C28-C36	<10.0	10.0	02/20/2020	ND					

Surrogate: 1-Chlorooctane 83.4 % 44.3-144

Surrogate: 1-Chlorooctadecane 86.6 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	02/18/2020	Sampling Date:	02/18/2020
Reported:	02/21/2020	Sampling Type:	Soil
Project Name:	SHELL G A ST #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: B 33 @ 1' 32.5667567 - 103.2646785 (H000509-31)

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	02/20/2020	ND	2.02	101	2.00	0.963	
Toluene*	<0.050	0.050	02/20/2020	ND	2.03	101	2.00	1.67	
Ethylbenzene*	<0.050	0.050	02/20/2020	ND	2.03	101	2.00	1.65	
Total Xylenes*	<0.150	0.150	02/20/2020	ND	5.88	97.9	6.00	1.61	
Total BTEX	<0.300	0.300	02/20/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.2 % 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	48.0	16.0	02/20/2020	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/20/2020	ND	192	96.0	200	1.37	
DRO >C10-C28*	<10.0	10.0	02/20/2020	ND	177	88.5	200	2.30	
EXT DRO >C28-C36	<10.0	10.0	02/20/2020	ND					

Surrogate: 1-Chlorooctane 93.4 % 44.3-144

Surrogate: 1-Chlorooctadecane 94.6 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 02/18/2020
 Reported: 02/21/2020
 Project Name: SHELL G A ST #2
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

Sampling Date: 02/18/2020
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: B 34 @ 1' 32.5667646 - 103.2640359 (H000509-32)

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	02/20/2020	ND	2.02	101	2.00	0.963		
Toluene*	<0.050	0.050	02/20/2020	ND	2.03	101	2.00	1.67		
Ethylbenzene*	<0.050	0.050	02/20/2020	ND	2.03	101	2.00	1.65		
Total Xylenes*	<0.150	0.150	02/20/2020	ND	5.88	97.9	6.00	1.61		
Total BTEX	<0.300	0.300	02/20/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.5 % 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	48.0	16.0	02/20/2020	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/20/2020	ND	192	96.0	200	1.37	
DRO >C10-C28*	<10.0	10.0	02/20/2020	ND	177	88.5	200	2.30	
EXT DRO >C28-C36	<10.0	10.0	02/20/2020	ND					

Surrogate: 1-Chlorooctane 92.9 % 44.3-144

Surrogate: 1-Chlorooctadecane 94.6 % 42.2-156

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Analytical Results For:

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

Received:	02/18/2020	Sampling Date:	02/18/2020
Reported:	02/21/2020	Sampling Type:	Soil
Project Name:	SHELL G A ST #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: B 35 @ 1' 32.5667622 - 103.2639799 (H000509-33)

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	02/20/2020	ND	2.02	101	2.00	0.963		
Toluene*	<0.050	0.050	02/20/2020	ND	2.03	101	2.00	1.67		
Ethylbenzene*	<0.050	0.050	02/20/2020	ND	2.03	101	2.00	1.65		
Total Xylenes*	<0.150	0.150	02/20/2020	ND	5.88	97.9	6.00	1.61		
Total BTEX	<0.300	0.300	02/20/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.5 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	02/20/2020	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	02/20/2020	ND	192	96.0	200	1.37	
DRO >C10-C28*	<10.0	10.0	02/20/2020	ND	177	88.5	200	2.30	
EXT DRO >C28-C36	<10.0	10.0	02/20/2020	ND					

Surrogate: 1-Chlorooctane 93.0 % 44.3-144

Surrogate: 1-Chlorooctadecane 97.0 % 42.2-156

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Analytical Results For:

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

Received:	02/18/2020	Sampling Date:	02/18/2020
Reported:	02/21/2020	Sampling Type:	Soil
Project Name:	SHELL G A ST #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: B 36 @ 1' 32.5667739 - 103.2639484 (H000509-34)

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	02/20/2020	ND	2.02	101	2.00	0.963		
Toluene*	<0.050	0.050	02/20/2020	ND	2.03	101	2.00	1.67		
Ethylbenzene*	<0.050	0.050	02/20/2020	ND	2.03	101	2.00	1.65		
Total Xylenes*	<0.150	0.150	02/20/2020	ND	5.88	97.9	6.00	1.61		
Total BTEX	<0.300	0.300	02/20/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 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	96.0	16.0	02/20/2020	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	02/20/2020	ND	192	96.0	200	1.37	
DRO >C10-C28*	59.2	10.0	02/20/2020	ND	177	88.5	200	2.30	
EXT DRO >C28-C36	52.3	10.0	02/20/2020	ND					

Surrogate: 1-Chlorooctane 89.1 % 44.3-144

Surrogate: 1-Chlorooctadecane 98.5 % 42.2-156

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Analytical Results For:

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

Received:	02/18/2020	Sampling Date:	02/18/2020
Reported:	02/21/2020	Sampling Type:	Soil
Project Name:	SHELL G A ST #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: B 37 @ 1' 32.5667915 - 103.2640741 (H000509-35)

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	02/20/2020	ND	2.02	101	2.00	0.963		
Toluene*	<0.050	0.050	02/20/2020	ND	2.03	101	2.00	1.67		
Ethylbenzene*	<0.050	0.050	02/20/2020	ND	2.03	101	2.00	1.65		
Total Xylenes*	<0.150	0.150	02/20/2020	ND	5.88	97.9	6.00	1.61		
Total BTEx	<0.300	0.300	02/20/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.9 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	02/20/2020	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	02/20/2020	ND	192	96.0	200	1.37	
DRO >C10-C28*	<10.0	10.0	02/20/2020	ND	177	88.5	200	2.30	
EXT DRO >C28-C36	<10.0	10.0	02/20/2020	ND					

Surrogate: 1-Chlorooctane 87.9 % 44.3-144

Surrogate: 1-Chlorooctadecane 90.9 % 42.2-156

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Analytical Results For:

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

Received:	02/18/2020	Sampling Date:	02/18/2020
Reported:	02/21/2020	Sampling Type:	Soil
Project Name:	SHELL G A ST #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: B 38 @ 1' 32.5668025 - 103.2640537 (H000509-36)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/20/2020	ND	2.02	101	2.00	0.963		
Toluene*	<0.050	0.050	02/20/2020	ND	2.03	101	2.00	1.67		
Ethylbenzene*	<0.050	0.050	02/20/2020	ND	2.03	101	2.00	1.65		
Total Xylenes*	<0.150	0.150	02/20/2020	ND	5.88	97.9	6.00	1.61		
Total BTEX	<0.300	0.300	02/20/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.8 % 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	736	16.0	02/20/2020	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	02/20/2020	ND	192	96.0	200	1.37	
DRO >C10-C28*	<10.0	10.0	02/20/2020	ND	177	88.5	200	2.30	
EXT DRO >C28-C36	<10.0	10.0	02/20/2020	ND					

Surrogate: 1-Chlorooctane 95.0 % 44.3-144

Surrogate: 1-Chlorooctadecane 97.6 % 42.2-156

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Analytical Results For:

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

Received:	02/18/2020	Sampling Date:	02/18/2020
Reported:	02/21/2020	Sampling Type:	Soil
Project Name:	SHELL G A ST #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: B 39 @ 1' 32.5668129 - 103.2640245 (H000509-37)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/20/2020	ND	2.02	101	2.00	0.963	
Toluene*	<0.050	0.050	02/20/2020	ND	2.03	101	2.00	1.67	
Ethylbenzene*	<0.050	0.050	02/20/2020	ND	2.03	101	2.00	1.65	
Total Xylenes*	<0.150	0.150	02/20/2020	ND	5.88	97.9	6.00	1.61	
Total BTEX	<0.300	0.300	02/20/2020	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	304	16.0	02/20/2020	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	02/20/2020	ND	192	96.0	200	1.37	
DRO >C10-C28*	<10.0	10.0	02/20/2020	ND	177	88.5	200	2.30	
EXT DRO >C28-C36	<10.0	10.0	02/20/2020	ND					

Surrogate: 1-Chlorooctane 94.9 % 44.3-144

Surrogate: 1-Chlorooctadecane 98.3 % 42.2-156

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Analytical Results For:

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

Received: 02/18/2020
 Reported: 02/21/2020
 Project Name: SHELL G A ST #2
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

Sampling Date: 02/18/2020
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: B 40 @ 1' 32.5668432 - 103.2639675 (H000509-38)

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	02/20/2020	ND	2.02	101	2.00	0.963		
Toluene*	<0.050	0.050	02/20/2020	ND	2.03	101	2.00	1.67		
Ethylbenzene*	<0.050	0.050	02/20/2020	ND	2.03	101	2.00	1.65		
Total Xylenes*	<0.150	0.150	02/20/2020	ND	5.88	97.9	6.00	1.61		
Total BTEx	<0.300	0.300	02/20/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.7 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	02/20/2020	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	02/20/2020	ND	192	96.0	200	1.37	
DRO >C10-C28*	23.6	10.0	02/20/2020	ND	177	88.5	200	2.30	
EXT DRO >C28-C36	17.5	10.0	02/20/2020	ND					

Surrogate: 1-Chlorooctane 96.0 % 44.3-144

Surrogate: 1-Chlorooctadecane 100 % 42.2-156

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Analytical Results For:

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

Received:	02/18/2020	Sampling Date:	02/18/2020
Reported:	02/21/2020	Sampling Type:	Soil
Project Name:	SHELL G A ST #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: B 41 @ 1' 32.5663843 - 103.2636262 (H000509-39)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/20/2020	ND	2.02	101	2.00	0.963	
Toluene*	<0.050	0.050	02/20/2020	ND	2.03	101	2.00	1.67	
Ethylbenzene*	<0.050	0.050	02/20/2020	ND	2.03	101	2.00	1.65	
Total Xylenes*	<0.150	0.150	02/20/2020	ND	5.88	97.9	6.00	1.61	
Total BTEX	<0.300	0.300	02/20/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.6 % 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	128	16.0	02/20/2020	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	02/20/2020	ND	192	96.0	200	1.37	
DRO >C10-C28*	10.7	10.0	02/20/2020	ND	177	88.5	200	2.30	
EXT DRO >C28-C36	<10.0	10.0	02/20/2020	ND					

Surrogate: 1-Chlorooctane 96.6 % 44.3-144

Surrogate: 1-Chlorooctadecane 99.5 % 42.2-156

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Analytical Results For:

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

Received:	02/18/2020	Sampling Date:	02/18/2020
Reported:	02/21/2020	Sampling Type:	Soil
Project Name:	SHELL G A ST #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: B 42 @ 3" 32.5663518 - 103.2635259 (H000509-40)

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	02/20/2020	ND	2.02	101	2.00	0.963		
Toluene*	<0.050	0.050	02/20/2020	ND	2.03	101	2.00	1.67		
Ethylbenzene*	<0.050	0.050	02/20/2020	ND	2.03	101	2.00	1.65		
Total Xylenes*	<0.150	0.150	02/20/2020	ND	5.88	97.9	6.00	1.61		
Total BTEX	<0.300	0.300	02/20/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.7 % 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	928	16.0	02/20/2020	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	02/20/2020	ND	192	96.0	200	1.37	
DRO >C10-C28*	<10.0	10.0	02/20/2020	ND	177	88.5	200	2.30	
EXT DRO >C28-C36	<10.0	10.0	02/20/2020	ND					

Surrogate: 1-Chlorooctane 87.9 % 44.3-144

Surrogate: 1-Chlorooctadecane 89.2 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	02/18/2020	Sampling Date:	02/18/2020
Reported:	02/21/2020	Sampling Type:	Soil
Project Name:	SHELL G A ST #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: B 43 @ 3" 32.5663481 - 103.2634049 (H000509-41)

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	02/20/2020	ND	2.02	101	2.00	0.963		
Toluene*	<0.050	0.050	02/20/2020	ND	2.03	101	2.00	1.67		
Ethylbenzene*	<0.050	0.050	02/20/2020	ND	2.03	101	2.00	1.65		
Total Xylenes*	<0.150	0.150	02/20/2020	ND	5.88	97.9	6.00	1.61		
Total BTEX	<0.300	0.300	02/20/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 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	560	16.0	02/20/2020	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	02/20/2020	ND	192	96.0	200	1.37	
DRO >C10-C28*	<10.0	10.0	02/20/2020	ND	177	88.5	200	2.30	
EXT DRO >C28-C36	<10.0	10.0	02/20/2020	ND					

Surrogate: 1-Chlorooctane 71.6 % 44.3-144

Surrogate: 1-Chlorooctadecane 72.4 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received:	02/18/2020	Sampling Date:	02/18/2020
Reported:	02/21/2020	Sampling Type:	Soil
Project Name:	SHELL G A ST #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: B 44 @ 1' 32.5663377 - 103.2632979 (H000509-42)

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	02/20/2020	ND	2.02	101	2.00	0.963	
Toluene*	<0.050	0.050	02/20/2020	ND	2.03	101	2.00	1.67	
Ethylbenzene*	<0.050	0.050	02/20/2020	ND	2.03	101	2.00	1.65	
Total Xylenes*	<0.150	0.150	02/20/2020	ND	5.88	97.9	6.00	1.61	
Total BTEX	<0.300	0.300	02/20/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 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	32.0	16.0	02/20/2020	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	02/20/2020	ND	192	96.0	200	1.37	
DRO >C10-C28*	<10.0	10.0	02/20/2020	ND	177	88.5	200	2.30	
EXT DRO >C28-C36	<10.0	10.0	02/20/2020	ND					

Surrogate: 1-Chlorooctane 90.3 % 44.3-144

Surrogate: 1-Chlorooctadecane 93.1 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received:	02/18/2020	Sampling Date:	02/18/2020
Reported:	02/21/2020	Sampling Type:	Soil
Project Name:	SHELL G A ST #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: B 45 @ 1' 32.5663334 - 103.2632191 (H000509-43)

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/20/2020	ND	1.97	98.5	2.00	6.41		
Toluene*	<0.050	0.050	02/20/2020	ND	1.99	99.5	2.00	6.97		
Ethylbenzene*	<0.050	0.050	02/20/2020	ND	2.01	100	2.00	6.77		
Total Xylenes*	<0.150	0.150	02/20/2020	ND	5.85	97.5	6.00	6.93		
Total BTX	<0.300	0.300	02/20/2020	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	02/20/2020	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	02/20/2020	ND	192	96.0	200	1.37	
DRO >C10-C28*	33.3	10.0	02/20/2020	ND	177	88.5	200	2.30	
EXT DRO >C28-C36	19.8	10.0	02/20/2020	ND					

Surrogate: 1-Chlorooctane 92.7 % 44.3-144

Surrogate: 1-Chlorooctadecane 97.2 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 02/18/2020
 Reported: 02/21/2020
 Project Name: SHELL G A ST #2
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

Sampling Date: 02/18/2020
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: B 46 @ 1' 32.5663286 - 103.2631917 (H000509-44)

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	02/20/2020	ND	1.97	98.5	2.00	6.41		
Toluene*	<0.050	0.050	02/20/2020	ND	1.99	99.5	2.00	6.97		
Ethylbenzene*	<0.050	0.050	02/20/2020	ND	2.01	100	2.00	6.77		
Total Xylenes*	<0.150	0.150	02/20/2020	ND	5.85	97.5	6.00	6.93		
Total BTEX	<0.300	0.300	02/20/2020	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	02/20/2020	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	02/20/2020	ND	192	96.0	200	1.37	
DRO >C10-C28*	<10.0	10.0	02/20/2020	ND	177	88.5	200	2.30	
EXT DRO >C28-C36	<10.0	10.0	02/20/2020	ND					

Surrogate: 1-Chlorooctane 97.9 % 44.3-144

Surrogate: 1-Chlorooctadecane 99.8 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

QR-03	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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A handwritten signature in cursive script, appearing to read "Celey D. Keene".

Celey D. Keene, Lab Director/Quality Manager

55 of 47 ePage



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: <u>Apex</u>		P.O. #:		BILL TO				ANALYSIS REQUEST			
Project Manager: <u>Self</u>		Company:									
Address:		Attn:									
City: <u>Hobbs</u>		State: <u>NM</u>		Zip: <u>88240</u>							
Phone #:		Fax #:		Address:							
Project #:		City:		State:		Zip:					
Project Name:		Phone #:		Fax #:							
Project Location: <u>Shell Gas #2</u>											
Sampler Name:											
FOR LAB USE ONLY											
Lab I.D.		Sample I.D.		(G)RAB OR (C)OMP.		# CONTAINERS		GROUNDWATER		WASTEWATER	
H000509		Bleed 32.5663210		C 1		1		SOIL		OIL	
1		-103.2639942		C 1		1		SLUDGE		OTHER :	
2		Bleed 32.5663490		C 1		1		ACID/BASE:		ICE / COOL	
3		-103.2639390		C 1		1		OTHER :			
4		Bleed 32.5663543		C 1		1		DATE		TIME	
5		-103.2639011		C 1		1		12:04		12:08	
		Bleed 32.5663558		C 1		1		12:10		12:12	
		-103.2638314		C 1		1		12:14		12:14	
		Bleed 32.5663468		C 1		1					
		-103.2637941		C 1		1					

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Reinquired By:	Date: <u>8/18</u>	Received By:	Date: <u>8/18</u>
Reinquired By:	Date: <u>8/18</u>	Received By:	Date: <u>8/18</u>

Delivered By: (Circle One) Observed Temp. °C 3.80 Corrected Temp. °C 3.80

Sampler - UPS - Bus - Other: Corrected Temp. °C 3.80

Sample Condition: Cool Intact Yes Yes No No

Checked By: (Initials) 165

Turnaround Time: Standard Rush #113

Thermometer ID # 4426 #113

Correction Factor 0.42 #113

Bacteria (only) Cool Intact Yes Yes No No

Sample Condition Observed Temp. °C 3.80 Corrected Temp. °C 3.80

REMARKS:

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

All Results are emailed. Please provide Email address:


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



Company Name:	St. Joseph's
Project Manager:	Self Room
Address:	
City:	Hobbs
State:	NM
Zip:	
Phone #:	
Fax #:	
Project #:	
Project Owner:	
Project Name:	
Project Location:	Shell 13A ST #2
Sample Name:	

P.O. #:	
Company:	
Attn:	
Address:	
City:	
State:	Zip:
Phone #:	
Fax #:	

[illegible][illegible]

6	B3601' 33.504 3815	-103.263 7576	C 1	1	1	418	12:14
7	B3701' 32.504 3826	-103.263 7194	C 1	1	1		12:16
8	B3803' 32.504 4007	-103.263 9427	C 1	1	1		12:18
9	B3906' 32.504 3930	-103.263 8736	C 1	1	1		12:20
10	B4101' 32.504 4032	-103.263 7901	C 1	1	1		12:22

Relinquished By:

Time: 01/18
Date: 15/1/20

Received By:

REMARKS: Email Results

By:

Sampler - UPS - Bus - Other:

Corrected Temp. °C

☒ Yes ☒ Yes

157

Thermometer ID #

三

☐ Yes ☐ Yes

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ANALYSIS REQUEST

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(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name:		BILL TO	ANALYSIS REQUEST									
Project Manager:		P.O. #:										
Address:		Company:										
City:		Attn:										
State:		Zip:										
Phone #:		Address:										
Project #:		City:										
Project Name:		State:	Zip:									
Project Location:		Phone #:										
Sampler Name:		Fax #:										

FOR LAB USE ONLY

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						PRESERV.		DATE	TIME	SAMPLING										
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL													OTHER :
H000509																								
16	13601' 32.564 S191 -103.263 9485	C	1									2/5	10:34	D	Ext TPH	BTEX								
17	131901' 32.564 S304 -103.263 9423	C	1										12:38											
18	132001' 32.564 S384 -103.263 8957	C	1										12:40											
19	132101' 32.564 S440 -103.263 9792	C	1										12:42											
20	132201' 32.564 S899 -103.263 9338	C	1										12:44											

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Relinquished By:	Date:	Received By:	Date:
Jae Rosado	2/18	[Signature]	2/18
Reinquired By:	Date:	Received By:	Date:
Jae Rosado	2/18	[Signature]	2/18

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

Observed Temp. °C
Corrected Temp. °C

Sample Condition
Cool Intact
☒ Yes ☒ No

CHECKED BY: (Initials)

Turnaround Time: Standard Rush Add'l Phone #:
#113 #113 Email

Thermometer ID #97
Correction Factor +0.4°C

Bacteria (only) Sample Condition
Cool Intact Observed Temp. °C Corrected Temp. °C
☐ Yes ☐ No ☐ Yes ☐ No

55 jo 15 ebg



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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Apache		P.O. #:		BILL TO		ANALYSIS REQUEST									
Project Manager: Bruce Baker		Company:													
Address:		Attn:													
City: Hobbs		State: NM		Zip: 88240											
Phone #:		Fax #:		Address:											
Project #:		City:		State:		Zip:									
Project Name:		Phone #:		Fax #:											
Project Location: Shell GHA St #2															
Sampler Name: Joe Chaswick															
FOR LAB USE ONLY															
Lab I.D.		Sample I.D.		(G)RAB OR (C)OMP.		# CONTAINERS		MATRIX		PRESERV.		SAMPLING			
								GROUNDWATER		WASTEWATER		SOIL			
								OIL		SLUDGE		OTHER :			
								ACID/BASE:		ICE / COOL		OTHER :			
								DATE		TIME					
H000509		B2301' 32.5665660		1		1		4/18		12:48		C			
		-103.2639259		1		1						Ext TPA			
		B2401' 32.5664157		1		1						BTEX			
		-103.2635570		1		1									
		B2501' 32.5666332		1		1									
		-103.2569356		1		1									
		B2601' 32.5666999		1		1									
		-103.2641519		1		1									
		B2701' 32.5666787		1		1									
		-103.2640775		1		1									

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Relinquished By: Joe Chaswick	Date: 8/18	Received By: [Signature]	Verbal Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Add'l Phone #:
Relinquished By: [Signature]	Date: 8/18	Received By: [Signature]	All Results are emailed. Please provide Email address:	
Time: 15:46			REMARKS: Email	

Delivered By: (Circle One)	Observed Temp. °C	Sample Condition	CHECKED BY: (Initials)	Turnaround Time:	Standard	Bacteria (only)	Sample Condition
Sampler - UPS - Bus - Other:	Corrected Temp. °C	Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	h3	Thermometer ID #57	Rush <input checked="" type="checkbox"/> Standard <input type="checkbox"/>	Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> No	Observed Temp. °C
				Correction Factor +0.4 °C	#113	Corrected Temp. °C	

FORN000 R30

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55 jo 25 e6d



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(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: <u>Apache</u>		P.O. #:		BILL TO				ANALYSIS REQUEST											
Project Manager: <u>Bruce Baker</u>		Company:																	
Address:		City: <u>Hobbs</u>		State: <u>NM</u>		Zip: <u>88240</u>													
Phone #:		Fax #:		City:		State:		Zip:											
Project #:		Project Owner:		City:		State:		Zip:											
Project Name:		Project Location: <u>Shell GH St #8</u>		Phone #:		Fax #:													
Sampler Name: <u>Joe Quasada Jr.</u>		FOR LAB USE ONLY		PRESERV		SAMPLING													
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMR	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME					
14000509	B2801' 32.566 7622	C 1	1										3/18	1:06	C	Ext TPH			
	-103.264 6332	C 1	1											1:08		BTEX			
	B2901' 32.566 7695	C 1	1											1:10					
	-103.264 0124	C 1	1											1:12					
	B3001' 32.566 7650	C 1	1											1:14					
	-103.263 9889	C 1	1																
	B3101' 32.566 7649	C 1	1																
	-103.263 9581	C 1	1																
	B3201' 32.566 7550	C 1	1																
	-103.264 1190	C 1	1																

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons of otherwise.

Relinquished By: <u>Joe Quasada Jr.</u>	Date: <u>8/18</u>	Time: <u>15:14</u>	Received By: <u>[Signature]</u>	Date: <u>8/18</u>	Time: <u>15:14</u>
REMARKS: <u>Envel</u>					

Delivered By: (Circle One)	Observed Temp. °C	Sample Condition	CHECKED BY: (Initials)	Turnaround Time:	Standard	Bacteria (only)	Sample Condition
Sampler - UPS - Bus - Other:	Corrected Temp. °C	Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> No	Intact <input type="checkbox"/> Yes <input type="checkbox"/> No	15.5	Rush	<input type="checkbox"/> Yes <input type="checkbox"/> No	Observed Temp. °C
					#113		Corrected Temp. °C

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

55 jo 45 ead



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Apache		P.O. #:		BILL TO		ANALYSIS REQUEST																							
Project Manager: Bruce Baker		Company:																											
Address:		Attn:																											
City: Hobbs		State: NM		Zip: 88240																									
Phone #:		Fax #:		Address:																									
Project #:		City:		State:		Zip:																							
Project Name:		State:		Zip:																									
Project Location: Shell GFA St #2		Phone #:																											
Sampler Name: Joe Quispe Jr		Fax #:																											
FOR LAB USE ONLY		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	
H000509		B3801' 32.5668025		C 1		1		1		1		1		1		1		1		1		1		1		2/18		1:24	
36		-103.2640537		C 1		1		1		1		1		1		1		1		1		1		1		1:26		1:28	
37		B3801' 32.5668129		C 1		1		1		1		1		1		1		1		1		1		1		1:30		1:32	
38		-103.2640245		C 1		1		1		1		1		1		1		1		1		1		1		1:30		1:32	
39		B4001' 32.5668438		C 1		1		1		1		1		1		1		1		1		1		1		1:30		1:32	
40		-103.2636822		C 1		1		1		1		1		1		1		1		1		1		1		1:30		1:32	
41		B420 3' 32.5663518		C 1		1		1		1		1		1		1		1		1		1		1		1:32		1:34	
42		-103.2635259		C 1		1		1		1		1		1		1		1		1		1		1		1:32		1:34	

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Relinquished By: Joe Quispe Jr	Date: 2/18	Time: 15:50	Received By: [Signature]	Date: 2/18	Time: 15:50
Relinquished By:	Date:	Time:	Received By:	Date:	Time:

Delivered By: (Circle One)	Observed Temp. °C	Corrected Temp. °C	Sample Condition	CHECKED BY: (Initials)	Turnaround Time:	Standard	Bacteria (only)	Sample Condition
Sampler - UPS - Bus - Other:	3.82	3.82	Cool Intact	h3	4:13	Rush	Cool Intact	Observed Temp. °C
			Yes Yes				Yes Yes	Corrected Temp. °C
			No No				No No	

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

All Results are emailed. Please provide Email address:

REMARKS: Email

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

55 jo 55 ebgd



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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: <u>Apurva</u>		P.O. #:		BILL TO				ANALYSIS REQUEST				
Project Manager: <u>Bruce Baker</u>		Company:										
Address:		Attn:										
City: <u>Hobbs</u>		State: <u>NM</u>		Zip: <u>88240</u>								
Phone #:		Fax #:		Address:								
Project #:		City:		State:		Zip:						
Project Name:		Phone #:										
Project Location: <u>Shell Ctr St #2</u>		Fax #:										
Sampler Name: <u>Xee Quasada</u>												
FOR LAB USE ONLY												
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX			PRESERV.	SAMPLING				
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :
41	B43 @ 3" 32.5663481	C	1									
	-103.2634049											
42	B44 @ 1' 32.5663377	C	1									
	-103.2632979											
43	B45 @ 1' 32.5663334	C	1									
	-103.2632819											
44	B46 @ 1' 32.5663286	C	1									
	-103.2631917											
<p>PLEASE NOTE: Liability and Damages: Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.</p>												
Relinquished By: <u>Xee Quasada</u>		Date: <u>8/18</u>		Received By: <u>[Signature]</u>		Date: <u>8/18</u>		Verbal Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Add'l Phone #:				
Relinquished By: <u>Xee Quasada</u>		Time: <u>15:52</u>		Received By: <u>[Signature]</u>		Time: <u>15:52</u>		All Results are emailed. Please provide Email address:				
Delivered By: (Circle One)		Observed Temp. °C		Sample Condition		CHECKED BY: (Initials)		Turnaround Time:				
Sampler - UPS - Bus - Other:		Corrected Temp. °C		Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/>		15		Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/>				
PORKY-000 R 30		3.80C		Cool <input type="checkbox"/> Intact <input type="checkbox"/>		15		Bacteria (only) <input type="checkbox"/>				
				No <input type="checkbox"/> Yes <input type="checkbox"/>				Cool Intact <input type="checkbox"/>				
				No <input type="checkbox"/> Yes <input type="checkbox"/>				Sample Condition <input type="checkbox"/>				
				No <input type="checkbox"/> Yes <input type="checkbox"/>				Observed Temp. °C <input type="checkbox"/>				
				No <input type="checkbox"/> Yes <input type="checkbox"/>				Corrected Temp. °C <input type="checkbox"/>				
REMARKS: <u>Email</u>												

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



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

February 24, 2020

JEFFREY BROOM

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: SHELL G A ST #2

Enclosed are the results of analyses for samples received by the laboratory on 02/19/20 16:11.

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
 JEFFREY BROOM
 2350 W. MARLAND BLVD.
 HOBBS NM, 88240
 Fax To: (575) 393-2432

Received:	02/19/2020	Sampling Date:	02/19/2020
Reported:	02/24/2020	Sampling Type:	Soil
Project Name:	SHELL G A ST #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: W 16 32.5665120-103.2638890 (H000531-01)

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	02/24/2020	ND	1.77	88.3	2.00	6.87		
Toluene*	<0.050	0.050	02/24/2020	ND	1.75	87.6	2.00	6.95		
Ethylbenzene*	<0.050	0.050	02/24/2020	ND	1.76	88.1	2.00	7.53		
Total Xylenes*	<0.150	0.150	02/24/2020	ND	5.09	84.9	6.00	7.38		
Total BTEX	<0.300	0.300	02/24/2020	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	256	16.0	02/24/2020	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/22/2020	ND	193	96.4	200	2.80	
DRO >C10-C28*	<10.0	10.0	02/22/2020	ND	188	94.0	200	2.59	
EXT DRO >C28-C36	<10.0	10.0	02/22/2020	ND					

Surrogate: 1-Chlorooctane 87.5 % 44.3-144

Surrogate: 1-Chlorooctadecane 90.8 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received: 02/19/2020
 Reported: 02/24/2020
 Project Name: SHELL G A ST #2
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

Sampling Date: 02/19/2020
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: W 18 32.5664419-103.2638917 (H000531-02)

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	02/24/2020	ND	1.77	88.3	2.00	6.87		
Toluene*	<0.050	0.050	02/24/2020	ND	1.75	87.6	2.00	6.95		
Ethylbenzene*	<0.050	0.050	02/24/2020	ND	1.76	88.1	2.00	7.53		
Total Xylenes*	<0.150	0.150	02/24/2020	ND	5.09	84.9	6.00	7.38		
Total BTEx	<0.300	0.300	02/24/2020	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	992	16.0	02/24/2020	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/22/2020	ND	193	96.4	200	2.80	
DRO >C10-C28*	<10.0	10.0	02/22/2020	ND	188	94.0	200	2.59	
EXT DRO >C28-C36	<10.0	10.0	02/22/2020	ND					

Surrogate: 1-Chlorooctane 82.0 % 44.3-144

Surrogate: 1-Chlorooctadecane 85.3 % 42.2-156

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

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

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

Celey D. Keene, Lab Director/Quality Manager



CARDINAL
Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

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

March 10, 2020

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: SHELL G A ST #2

Enclosed are the results of analyses for samples received by the laboratory on 02/24/20 16:24.

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

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

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

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

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

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

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

APACHE CORP - HOBBS
2350 W. MARLAND BLVD.
HOBBS NM, 88240

Project: SHELL G A ST #2
Project Number: NONE GIVEN
Project Manager: BRUCE BAKER
Fax To: (575) 393-2432

Reported:
10-Mar-20 08:58

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B 25 @ 1' 6" 32.5666332-103.2645	H000577-01	Soil	24-Feb-20 11:53	24-Feb-20 16:24
B 16 @ 3' 6" 32.5664775-103.263	H000577-02	Soil	24-Feb-20 12:15	24-Feb-20 16:24
B 12 @ 1' 6" 32.5664227-103.263	H000577-03	Soil	24-Feb-20 13:11	24-Feb-20 16:24
B 36 @ 1' 6" 32.5667739-103.263	H000577-04	Soil	24-Feb-20 15:05	24-Feb-20 16:24
B 38 @ 1' 6" 32.5668025-103.264	H000577-05	Soil	24-Feb-20 15:07	24-Feb-20 16:24
B 42 @ 1' 32.5663518-103.263525	H000577-06	Soil	24-Feb-20 15:30	24-Feb-20 16:24
B 6 @ 2' 32.5663815-103.2637576	H000577-07	Soil	24-Feb-20 15:45	24-Feb-20 16:24

03/10/20 - Client revised the sample ID for -01. This is the revised report and will replace the one sent on 02/25/20.

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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
2350 W. MARLAND BLVD.
HOBBS NM, 88240

Project: SHELL G A ST #2
Project Number: NONE GIVEN
Project Manager: BRUCE BAKER
Fax To: (575) 393-2432

Reported:
10-Mar-20 08:58

B 25 @ 1' 6" 32.5666332-103.2649356
H000577-01 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

Cardinal Laboratories**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050	0.050	mg/kg	50	0022430	CK	25-Feb-20	8021B	
Toluene*	<0.050	0.050	mg/kg	50	0022430	CK	25-Feb-20	8021B	
Ethylbenzene*	<0.050	0.050	mg/kg	50	0022430	CK	25-Feb-20	8021B	
Total Xylenes*	<0.150	0.150	mg/kg	50	0022430	CK	25-Feb-20	8021B	
Total BTEX	<0.300	0.300	mg/kg	50	0022430	CK	25-Feb-20	8021B	
Surrogate: 4-Bromofluorobenzene (PID)		101 %		73.3-129	0022430	CK	25-Feb-20	8021B	

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0	10.0	mg/kg	1	0022426	CK	25-Feb-20	8015B	
DRO >C10-C28*	<10.0	10.0	mg/kg	1	0022426	CK	25-Feb-20	8015B	
EXT DRO >C28-C36	<10.0	10.0	mg/kg	1	0022426	CK	25-Feb-20	8015B	
Surrogate: 1-Chlorooctane		84.9 %		44.3-144	0022426	CK	25-Feb-20	8015B	
Surrogate: 1-Chlorooctadecane		86.8 %		42.2-156	0022426	CK	25-Feb-20	8015B	

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
2350 W. MARLAND BLVD.
HOBBS NM, 88240

Project: SHELL G A ST #2
Project Number: NONE GIVEN
Project Manager: BRUCE BAKER
Fax To: (575) 393-2432

Reported:
10-Mar-20 08:58

B 16 @ 3' 6" 32.5664775-103.2638324**H000577-02 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

Cardinal Laboratories**Inorganic Compounds**

Chloride	48.0		16.0	mg/kg	4	0022508	AC	25-Feb-20	4500-Cl-B	
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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
2350 W. MARLAND BLVD.
HOBBS NM, 88240

Project: SHELL G A ST #2
Project Number: NONE GIVEN
Project Manager: BRUCE BAKER
Fax To: (575) 393-2432

Reported:
10-Mar-20 08:58

B 12 @ 1' 6" 32.5664227-103.2637516**H000577-03 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

Cardinal Laboratories**Inorganic Compounds**

Chloride	240		16.0	mg/kg	4	0022508	AC	25-Feb-20	4500-Cl-B	
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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

APACHE CORP - HOBBS
2350 W. MARLAND BLVD.
HOBBS NM, 88240

Project: SHELL G A ST #2
Project Number: NONE GIVEN
Project Manager: BRUCE BAKER
Fax To: (575) 393-2432

Reported:
10-Mar-20 08:58

B 36 @ 1' 6" 32.5667739-103.2639484**H000577-04 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

Cardinal Laboratories**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	0022430	CK	25-Feb-20	8021B	
Toluene*	<0.050		0.050	mg/kg	50	0022430	CK	25-Feb-20	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	0022430	CK	25-Feb-20	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	0022430	CK	25-Feb-20	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	0022430	CK	25-Feb-20	8021B	
<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			101 %	73.3-129		0022430	CK	25-Feb-20	8021B	

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0		10.0	mg/kg	1	0022426	CK	25-Feb-20	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	0022426	CK	25-Feb-20	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	0022426	CK	25-Feb-20	8015B	
<i>Surrogate: 1-Chlorooctane</i>			91.2 %	44.3-144		0022426	CK	25-Feb-20	8015B	
<i>Surrogate: 1-Chlorooctadecane</i>			91.2 %	42.2-156		0022426	CK	25-Feb-20	8015B	

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

APACHE CORP - HOBBS
2350 W. MARLAND BLVD.
HOBBS NM, 88240

Project: SHELL G A ST #2
Project Number: NONE GIVEN
Project Manager: BRUCE BAKER
Fax To: (575) 393-2432

Reported:
10-Mar-20 08:58

B 38 @ 1' 6" 32.5668025-103.2640537**H000577-05 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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Cardinal Laboratories**Inorganic Compounds**

Chloride	976		16.0	mg/kg	4	0022508	AC	25-Feb-20	4500-Cl-B	
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Cardinal Laboratories

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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
2350 W. MARLAND BLVD.
HOBBS NM, 88240

Project: SHELL G A ST #2
Project Number: NONE GIVEN
Project Manager: BRUCE BAKER
Fax To: (575) 393-2432

Reported:
10-Mar-20 08:58

B 42 @ 1' 32.5663518-103.2635259**H000577-06 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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Cardinal Laboratories**Inorganic Compounds**

Chloride	<16.0		16.0	mg/kg	4	0022509	AC	25-Feb-20	4500-Cl-B	
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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
2350 W. MARLAND BLVD.
HOBBS NM, 88240

Project: SHELL G A ST #2
Project Number: NONE GIVEN
Project Manager: BRUCE BAKER
Fax To: (575) 393-2432

Reported:
10-Mar-20 08:58

B 6 @ 2' 32.5663815-103.2637576**H000577-07 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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Cardinal Laboratories**Inorganic Compounds**

Chloride	416		16.0	mg/kg	4	0022509	AC	25-Feb-20	4500-Cl-B	
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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
2350 W. MARLAND BLVD.
HOBBS NM, 88240

Project: SHELL G A ST #2
Project Number: NONE GIVEN
Project Manager: BRUCE BAKER
Fax To: (575) 393-2432

Reported:
10-Mar-20 08:58

Inorganic Compounds - Quality Control**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
---------	--------	--------------------	-------	----------------	------------------	----------------	-----	--------------	-------

Batch 0022508 - 1:4 DI Water**Blank (0022508-BLK1)**

Prepared & Analyzed: 25-Feb-20

Chloride	ND	16.0	mg/kg						
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LCS (0022508-BS1)

Prepared & Analyzed: 25-Feb-20

Chloride	416	16.0	mg/kg	400	104	80-120			
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LCS Dup (0022508-BSD1)

Prepared & Analyzed: 25-Feb-20

Chloride	416	16.0	mg/kg	400	104	80-120	0.00	20	
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Batch 0022509 - 1:4 DI Water**Blank (0022509-BLK1)**

Prepared & Analyzed: 25-Feb-20

Chloride	ND	16.0	mg/kg						
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LCS (0022509-BS1)

Prepared & Analyzed: 25-Feb-20

Chloride	416	16.0	mg/kg	400	104	80-120			
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LCS Dup (0022509-BSD1)

Prepared & Analyzed: 25-Feb-20

Chloride	416	16.0	mg/kg	400	104	80-120	0.00	20	
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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

APACHE CORP - HOBBS
2350 W. MARLAND BLVD.
HOBBS NM, 88240

Project: SHELL G A ST #2
Project Number: NONE GIVEN
Project Manager: BRUCE BAKER
Fax To: (575) 393-2432

Reported:
10-Mar-20 08:58

Volatile Organic Compounds by EPA Method 8021 - Quality Control**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 0022430 - Volatiles**Blank (0022430-BLK1)**

Prepared: 24-Feb-20 Analyzed: 25-Feb-20

Benzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Total Xylenes	ND	0.150	mg/kg							
Total BTEX	ND	0.300	mg/kg							
Surrogate: 4-Bromofluorobenzene (PID)	0.0505		mg/kg	0.0500		101	73.3-129			

LCS (0022430-BS1)

Prepared: 24-Feb-20 Analyzed: 25-Feb-20

Benzene	1.97	0.050	mg/kg	2.00		98.7	72.2-131			
Toluene	1.99	0.050	mg/kg	2.00		99.3	71.7-126			
Ethylbenzene	1.99	0.050	mg/kg	2.00		99.4	68.9-126			
Total Xylenes	5.83	0.150	mg/kg	6.00		97.2	71.4-125			
Surrogate: 4-Bromofluorobenzene (PID)	0.0514		mg/kg	0.0500		103	73.3-129			

LCS Dup (0022430-BSD1)

Prepared: 24-Feb-20 Analyzed: 25-Feb-20

Benzene	1.98	0.050	mg/kg	2.00		99.2	72.2-131	0.557	14.6	
Toluene	1.99	0.050	mg/kg	2.00		99.7	71.7-126	0.371	17.4	
Ethylbenzene	2.00	0.050	mg/kg	2.00		100	68.9-126	0.646	18.9	
Total Xylenes	5.87	0.150	mg/kg	6.00		97.9	71.4-125	0.680	18.5	
Surrogate: 4-Bromofluorobenzene (PID)	0.0513		mg/kg	0.0500		103	73.3-129			

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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
2350 W. MARLAND BLVD.
HOBBS NM, 88240

Project: SHELL G A ST #2
Project Number: NONE GIVEN
Project Manager: BRUCE BAKER
Fax To: (575) 393-2432

Reported:
10-Mar-20 08:58

Petroleum Hydrocarbons by GC FID - Quality Control**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 0022426 - General Prep - Organics**Blank (0022426-BLK1)**

Prepared: 24-Feb-20 Analyzed: 25-Feb-20

GRO C6-C10	ND	10.0	mg/kg							
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C36	ND	10.0	mg/kg							
Surrogate: 1-Chlorooctane	51.2		mg/kg	50.0		102	44.3-144			
Surrogate: 1-Chlorooctadecane	53.6		mg/kg	50.0		107	42.2-156			

LCS (0022426-BS1)

Prepared: 24-Feb-20 Analyzed: 25-Feb-20

GRO C6-C10	192	10.0	mg/kg	200		96.2	78.8-127			
DRO >C10-C28	211	10.0	mg/kg	200		105	80-132			
Total TPH C6-C28	403	10.0	mg/kg	400		101	81.3-128			
Surrogate: 1-Chlorooctane	55.1		mg/kg	50.0		110	44.3-144			
Surrogate: 1-Chlorooctadecane	57.6		mg/kg	50.0		115	42.2-156			

LCS Dup (0022426-BS1)

Prepared: 24-Feb-20 Analyzed: 25-Feb-20

GRO C6-C10	207	10.0	mg/kg	200		104	78.8-127	7.54	15.1	
DRO >C10-C28	227	10.0	mg/kg	200		114	80-132	7.51	17.1	
Total TPH C6-C28	435	10.0	mg/kg	400		109	81.3-128	7.52	15	
Surrogate: 1-Chlorooctane	59.3		mg/kg	50.0		119	44.3-144			
Surrogate: 1-Chlorooctadecane	60.9		mg/kg	50.0		122	42.2-156			

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Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

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

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

Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 14 of 15



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: <u>Apache</u>		P.O. #:		BILL TO												ANALYSIS REQUEST											
Project Manager: <u>Bruce Baker</u>		Company:																									
Address:		Attn:																									
City: <u>Hobbs</u>		Address:																									
Phone #:		City:																									
Fax #:		State:																									
Project #:		Zip:																									
Project Location: <u>Shell Lgh St 12</u>		Phone #:																									
Sampler Name: <u>Joe Casade</u>		Fax #:																									
FOR LAB USE ONLY																											
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP	# CONTAINERS	MATRIX				PRESERV.	SAMPLING																		
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	(C) COOL	OTHER :	DATE	TIME													
<u>H000577</u>	<u>6 B42 01' 32.5463518</u>	<u>C 1</u>	<u>1</u>										<u>2/24</u>	<u>15:30</u>	<u>1</u>												
	<u>-103.2635254</u>																										
	<u>7 B6021 32.5463815</u>	<u>C 1</u>	<u>1</u>										<u>2/24</u>	<u>15:45</u>	<u>1</u>												
	<u>-103.2637576</u>																										

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Relinquished By: <u>Joe Casade</u>	Date: <u>2/24/20</u>	Received By: <u>Joe Casade</u>	Date: <u>2/24/20</u>
Relinquished By: <u>Joe Casade</u>	Date: <u>2/24/20</u>	Received By: <u>Joe Casade</u>	Date: <u>2/24/20</u>

Delivered By: (Circle One) Observed Temp. °C 3.8 Sample Condition Cool ☒ Intact ☒ Yes ☐ No ☐ No

Sampler - UPS - Bus - Other: Corrected Temp. °C 3.8 Checked BY: (Initials) JD

Turnaround Time: Standard Bacteria (only) Sample Condition ☒ Cool ☐ Intact ☐ Observed Temp. °C 3.8 Thermometer ID #97 Correction Factor +0.4 °C ☐ Yes ☐ No ☐ No ☐ No Corrected Temp. °C 3.8

REMARKS: 2 mil

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

All Results are emailed. Please provide Email address:

FORM-0006 R-3.0

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



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

March 11, 2020

JEFFREY BROOM

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: SHELL G A ST #2

Enclosed are the results of analyses for samples received by the laboratory on 03/10/20 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
 JEFFREY BROOM
 2350 W. MARLAND BLVD.
 HOBBS NM, 88240
 Fax To: (575) 393-2432

Received:	03/10/2020	Sampling Date:	03/10/2020
Reported:	03/11/2020	Sampling Type:	Soil
Project Name:	SHELL G A ST #2	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: W 18 (H000753-01)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	03/11/2020	ND	416	104	400	0.00	

Sample ID: B 38 @ 2' (H000753-02)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	03/11/2020	ND	416	104	400	0.00	

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Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

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

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

Celey D. Keene, Lab Director/Quality Manager



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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]

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



**Shell GA State # 2
1RP-5203
Revegetation
And
Noxious Weed Plan**

Revegetation Plan:

All the disturbed areas in the pasture will be properly prepared and seeded with sandy seed mixture. The disturbed area will be monitored to ensure successful revegetation is achieved. If revegetation is not successful after a couple of growing seasons the site will be reseeded.

Noxious Weed Plan:

Apache Corporation will treat noxious weeds if they become established within the area of remediation. Weed control will be maintained on the disturbed land where noxious weeds exist both prior to remediation and restoration. Apache Corporation will consult with the Authorized Officer for acceptable weed control methods if necessary.

Shell GA State # 2 Photos







