

NOTE: This proposal is withdrawn by
contractor as of 7/10/15 MB

June 2015

**Staley State 20 Remediation Plan
Section 29, Unit M of T17 S, R28E
Eddy County, New Mexico**

**Prepared For:
LRE Operating LLC.**

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

June 2015

Staley State 20 Remediation Plan

**Prepared For:
LRE Operating LLC.**

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

R. T. HICKS CONSULTANTS, LTD.

Midland, TX ▲ Durango, CO ▲ Carlsbad, NM ▲ Artesia, NM

901 Rio Grande Blvd NW ▲ Suite F-142 ▲ Albuquerque, NM 87104 ▲ 505.266.5004 ▲ Fax: 505.266-0745

June 29, 2015

Mr. Mike Bratcher
NMOCD
811 South 1st Street
Artesia, New Mexico 88210

RE: Staley State 20 Release Site, LRE Operating LLC
T17S R28E Section 29 Unit Letter M, Eddy County NM

Dear Mr. Bratcher:

On behalf of LRE Operating LLC, R.T. Hicks Consultants (Hicks Consultants) is pleased to present the following Remediation Plan for the Staley State No.20 release site. A set of contractor's instructions that provide step by step protocols (the remedy) is attached to this submission.

Incident History

The release, associated with the Staley State No.20 well, occurred on May 5, 2015. Plate 1 shows the release area relative to nearby wells and topography. The release area is located in Unit M Sec. 29, T17S-R28E.

The source of the release was a 10" transfer line moving treated waters from the NW State 19 Recycling containment to the Staley State No.20 well. Service work was being performed on the well at the time of the release. A valve on the transfer line vibrated shut, maximum operating pressure for the 10" line was exceeded, and the line ruptured. As Blue Water Transfer Personnel were at the site monitoring the water transfer; the line was immediately

shut-in, a vacuum truck was brought to the location, standing water in the 10" transfer line was removed, and free fluids were recovered from the impacted area.

The release volume was 65 bbls with an estimated 5-10 bbls being recovered. The release waters coming from the NW State 19 Recycling Containment had been treated to remove hydrocarbons and consisted only of brine water. The impacted area was pasture land next to the transfer line. The impacted area measures 195 feet by 108 feet.

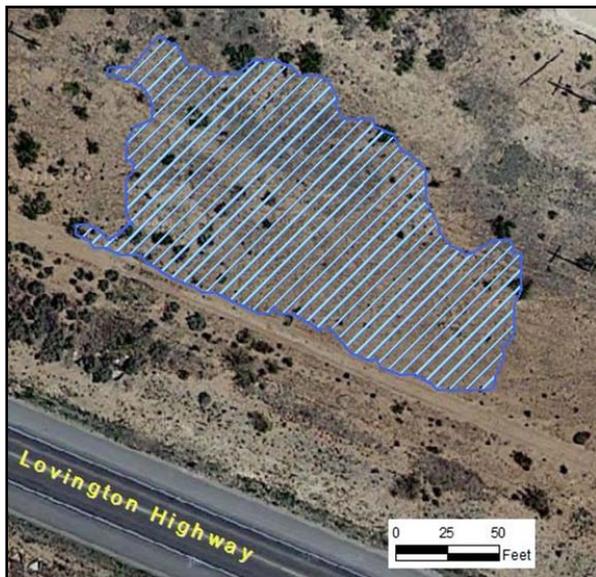
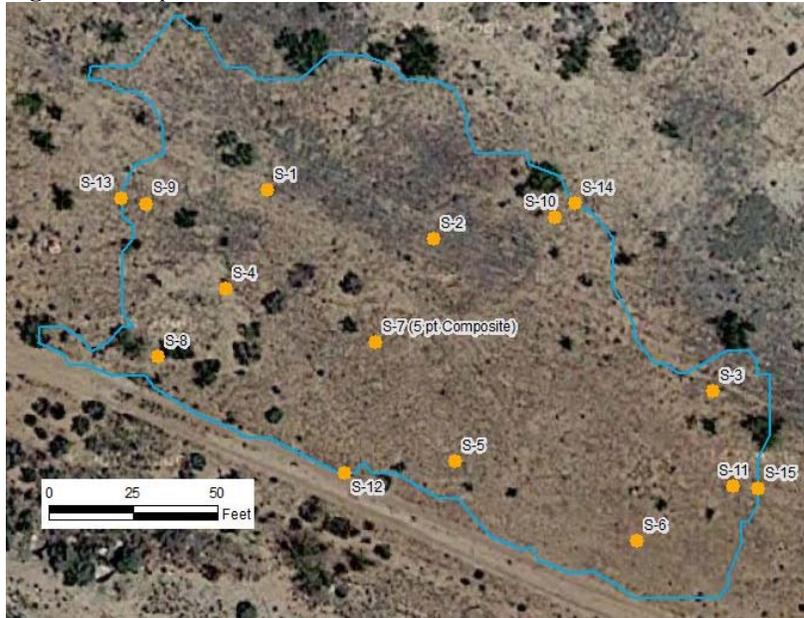


Figure 1: Cross hatched area is the release area. North is up the page.

On May 15, 2015, Hicks Consultants collected soil samples from the release area. Locations are shown on Figure 2. The area was divided into six grid sections with each having dimensions of about 65 feet by 36 feet. Utilizing a backhoe, soil samples were collected from trenches configured in a five (5) spot pattern within each grid section. The samples were collected from the surface to 4-feet below ground surface (bgs). Soil samples were transported to Cardinal Laboratories located in Hobbs, New Mexico for analysis.

Figure 2: *Sample locations*



Laboratory Results

Table 1 presents Lab results for samples collected on May 15, 2015. Analytical results demonstrate that the chloride impact from the release to be less than 1-foot bgs in the majority of the impacted area. Greatest depth of impact was observed at sample location S-2. Soil samples were analyzed for BTEX in sample location S-1 1' and S-2 1', analytical results reported for BTEX were less than 0.300 mg/kg, the method-detection limit. Benzene was reported as ND. Appendix A has the laboratory results.

Table 1: Laboratory results from the six trench sample locations.

Sample Location and Depth	Chloride	BTEX	Sample Location and Depth	Chloride	BTEX	Sample Location and Depth	Chloride
	mg/kg			mg/kg			mg/kg
S-1, 0.0'	12900		S-2, 0.0'	26400		S-3, 0.0'	15200
S-1, 0.5'	4280		S-2, 0.5'	4960		S-3, 0.5'	2200
S-1, 1.0'	496	<0.300	S-2, 1.0'	3920	<0.300	S-3, 1.0'	736
S-1, 2.0'	960		S-2, 2.0'	144		S-3, 2.0'	160
S-1, 3.0'	128		S-2, 3.0'	144		S-3, 3.0'	112
S-1, 4.0'	48		S-2, 4.0'	96		S-3, 4.0'	80
S-4, 0.0'	15600		S-5, 0.0'	18800		S-6, 0.0'	16600
S-4, 0.5'	64		S-5, 0.5'	272		S-6, 0.5'	
S-4, 1.0'	112		S-5, 1.0'	672		S-6, 1.0'	160
S-4, 2.0'	80		S-5, 2.0'	48		S-6, 2.0'	128
S-4, 3.0'	64		S-5, 3.0'	80		S-6, 3.0'	112
S-4, 4.0'	48		S-5, 4.0'	80		S-6, 4.0'	128
Background	<16.0						

Table 2 presents laboratory results from five-point composite samples taken from the walls and floor of the excavated release area. After initial excavation, chloride concentrations of the samples from the west, north, and east walls of the excavated area exceeded 7000 mg/kg (results in Appendix A). The excavation footprint was extended approximately five-feet further in each of these directions. After the additional excavation, no wall concentration exceeded 225 mg/kg.

The laboratory concentration for the composite sample taken from the excavated material (stockpiled soil) was 2720 mg/kg (Table 2).

Table 2: Laboratory results from the wall and floor of the excavation and from the excavated material.

Sample Location (all samples are 5-point composites)	Chloride in mg/kg				
	Sample Location	May 26		May 29	
		Sample Location	Sample Location	Sample Location	Sample Location
West Wall	S-9	11600	S-13	48	
North Wall	S-10	7040	S-14	64	
East Wall	S-11	8800	S-15	224	
South wall	S-12	48			
Excavation Floor	S-8	480			
Stockpiled Material	S-7	2720			

Hydrogeologic Data

A review of the New Mexico Office of the State Engineer waters data base found no water wells located in Township 17S Range 28E. R.T. Hicks Consultants performed extensive research for ground water located in Township 17S Range 28E during the permitting for the NW 19 Fluid Containment pit. The Staley State No.20 release is approximately one mile west of the NW 19 Fluid Containment pit.

Geology

The Staley State 20 release site is located in the Great Plains physiographic province. The Plains are considered a Cenozoic depositional feature composed of erosional materials from the eastern front of the Rocky Mountains and similarly aligned Basin and Range mountain chains further to the south. Cenozoic erosional materials (Quaternary alluvium and piedmont deposits) are unconformably deposited on top of the Permian Salado Formation (Psl on Plate 1) and the Permian Rustler Formation (Pr) near the release location (Plate 1).

Much of the Plains material that comprises the surface was deposited between 40 and 50 million years ago (ma). With some uplift of the Plains, depositional rates slowed or stopped from 30 to 40 ma. Beginning 30 ma, additional deposition spreading from the north to the south and reworking of the earlier materials resulted in the deposition of the Ogallala formation. The later formation of the Pecos Valley by headward erosion due to either uplift to the west or solution/subsidence of the valley resulted in partial stripping of material from the fronts of the mountains (Reeves, 1972). This action has left the Great Plains isolated from the mountain fronts.

The release location is between the Mescalero rim (the western edge of the Ogallala formation) and the Pecos River. The above mentioned development of the Pecos Drainage removed and reworked the remnants of the Ogallala formation between the Mescalero rim and the Pecos River. This surface is called the Mescalero Plain and is composed of relatively thin pediment deposits and alluvium of fluvial and eolian origins deposited on top of the older Triassic and Permian formations.

As shown on Plate 1, the release location is in the eastern edge of an area mapped as Salado Formation. Immediately east is an area mapped as Older Alluvium (Qoa), a relatively thin deposit of newer materials. To the north and northeast this alluvium overlies the Rustler Formation (Pr).

At the release site, our foot survey did not identify any exposed bedrock that would permit a determination if the mapped Older Alluvium to the east overlies the upper Salado or lower Rustler. As the Salado is not considered a potable aquifer, the location of two wells (Misc-60 and Misc-59) about 1.5 miles south of the release location suggests that bedrock in that area is probably lower Rustler Formation.

Site Characteristics

- The release site location is in the southwestern quarter of Section 29 on a relatively flat area that drains to the northwest.
- Plate 2 presents a potentiometric surface based upon USGS and Open File 95¹ well data. Surface elevation of the release site is about 3640 feet (asl). Interpolation from Plate 2 suggests a ground water elevation of about 3390 feet (asl). Hence depth to ground water is about 250 feet.
- The closest “intermittent stream” is more than 0.8 miles to the southwest. The nearest “Lake/Pond” is 1.1 miles to the east- southeast. See Plate 3.
- The nearest surface body of water is an intermittent “Freshwater Pond” about 1.15 miles southeast of the release location. See Plate 4. These “pond” features are playas that have developed within the alluvium overlaying the Permian Salado and Rustler Formations.
- Plate 5 is a map of karst potential for the area around the release site. The surrounding area is mapped as having either “high potential “or “medium” potential”. The boundaries are generalized as is obvious from the straight line character of the contact between the two regions. As chance would have it, the release maps into a corner on the “high potential” side of the contact. Comparison with Plate 1 explains that the area of “high potential” karst is an approximation of the contact between the Permian Salado formation and the Quaternary alluvium.
- There are no water wells located within one-thousand feet of the release area (Plate 1).

Characterization Results and Remediation Plan

- Impacted material in the release area has been excavated and stockpiled.
- On May 26, 2015 a five spot composite soil sample was collected from the stockpiled material and submitted to Cardinal Laboratories. (Appendix A)
- The analytical results are that Chloride in the stockpiled material is 2720 ppm.

The remediation plan is attached as Contractor Instructions. A closure report with a final C-141 form will be submitted for the Staley State 20 release after implementation of the plan to the satisfaction of BLM and OCD. Please contact me or Mike Stubblefield if further information is required.

Sincerely,
R.T. Hicks Consultants, Ltd.



Randall Hicks
Principal

Copy: Mike Barrett, Lime Rock

¹ http://geoinfo.nmt.edu/publications/openfile/downloads/0-99/95/ofr_95.pdf

June 5, 2015

Page 6

References

Reeves, C.C., Jr., 1972, Tertiary-Quaternary Stratigraphy and Geomorphology of West Texas and Southeastern New Mexico, In Guidebook, East-Central New Mexico, ed. V.C. Kelley and F. D. Trauger, 103-17, New Mexico Geological Society 23

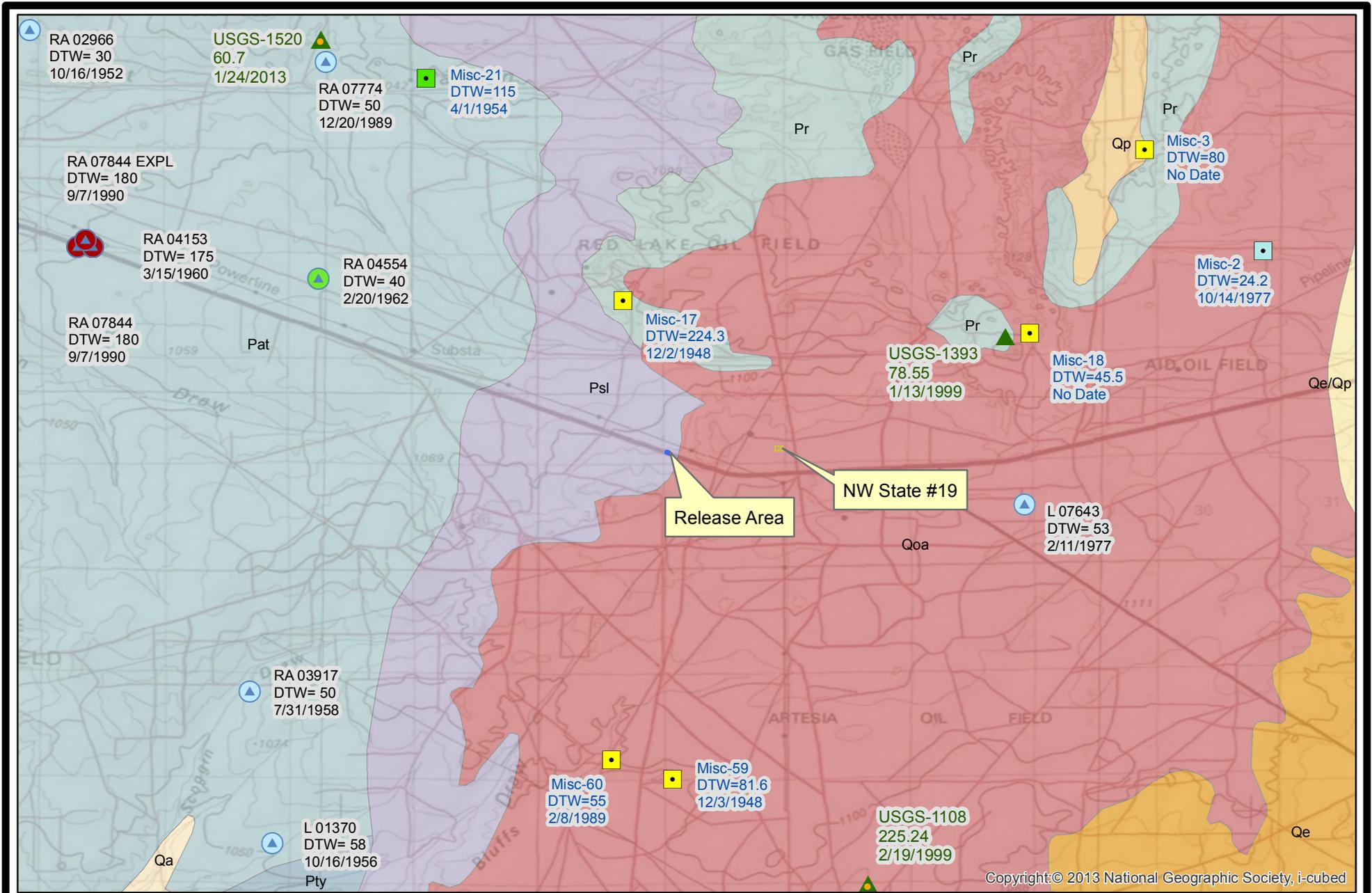
Contractor Instructions – Lime Rock Staley 20 Release

1. Excavate a trench on the northside of the impacted area with dimensions of 30 feet wide by 80 feet long by 11 feet deep. Topsoil will be reserved separately from the material at greater depth. This trench area will be staked by Lime Rock or their representatives with the selected contractor on site.
2. Lime Rock or their representative will inspect the bottom and walls of the trench for subsidence features or evidence of instability. Any features that suggest unstable ground will be reported to BLM and, if necessary, the project will halt to enable the design and implementation of appropriate measures.
3. The impacted (stockpiled) material will be placed into the trench such that all material will be at least 4-feet below ground surface. The materials will be shaped so as to have a slightly domed shape in order to direct downwards moving vadose zone water away from the trench footprint.
4. A 20 mil string reinforced LLDPE liner will be placed over the materials in the trench.
5. Clean fill material will be used to backfill the trench.
6. The greater of either one foot of topsoil or the original thickness will be used to complete the filling of the trench to surface, thereby creating a soil cover of at least 4-feet in thickness.
7. The excavated area will be graded to match with the surrounding terrain using clean material excavated from the trench for fill as required.
8. The impacted area will be reseeded using the BLM approved seed mixture for the area.

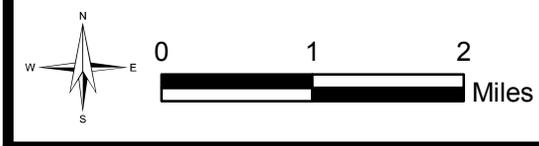
Plates

R.T. Hicks Consultants, Ltd.

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



Copyright © 2013 National Geographic Society, i-cubed



R.T. Hicks Consultants, Ltd
 901 Rio Grande Blvd NW Suite F-142
 Albuquerque, NM 87104
 Ph: 505.266.5004

Depth To Water and Geology
Lime Rock Resources
Staley State 20

Plate 1
June 2015

Legend	
USGS Gauging Station (DTW, Date)	NM Geology
Aquifer Code, Well Status	Map Unit, Description
Alluvium/Bolsom	Pat, Permian-Artesia Group; shelf facies forming south-southeast trending outcrop
Artesia Group	Pr, Paleozoic-Ruster Formation; siltstone, gypsum, sandstone, and dolomite; Upper Permian
Misc. Water Wells (Well ID, DTW)	Psl, Paleozoic-Salado Formation; evaporite sequence; Upper Permian
Well Depth (ft)	Pty, Paleozoic-Yates and Tansill Formations; sandstones, siltstones, limestone, dolomite, and anhydrite
No Data	Qa, Quaternary Alluvium
<=150	Qe, Quaternary-Eolian Deposits
151 - 350	Qe/Qp, Quaternary-Eolian Piedmont Deposits
OSE Water Wells	Qoa, Quaternary-Older Alluvial Deposits
Well Depth (ft)	Qp, Quaternary-Piedmont Alluvial Deposits
<= 150	
151 - 350	
501 - 1000	
> 1000	

R.T. Hicks Consultants, Ltd
 901 Rio Grande Blvd NW Suite F-142
 Albuquerque, NM 87104
 Ph: 505.266.5004

Legend - Depth To Water and Geology
 Lime Rock Resources
 Stately State 20

Plate 1
 Legend
 June 2015

Legend

USGS Gauging Station (GW Elev, Date)

Aquifer Code, Well Status

-  Alluvium/Bolsom
-  Artesia Group

Misc. Water Wells (Well ID, GW Elev)

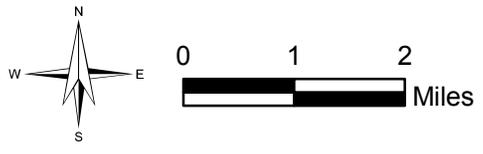
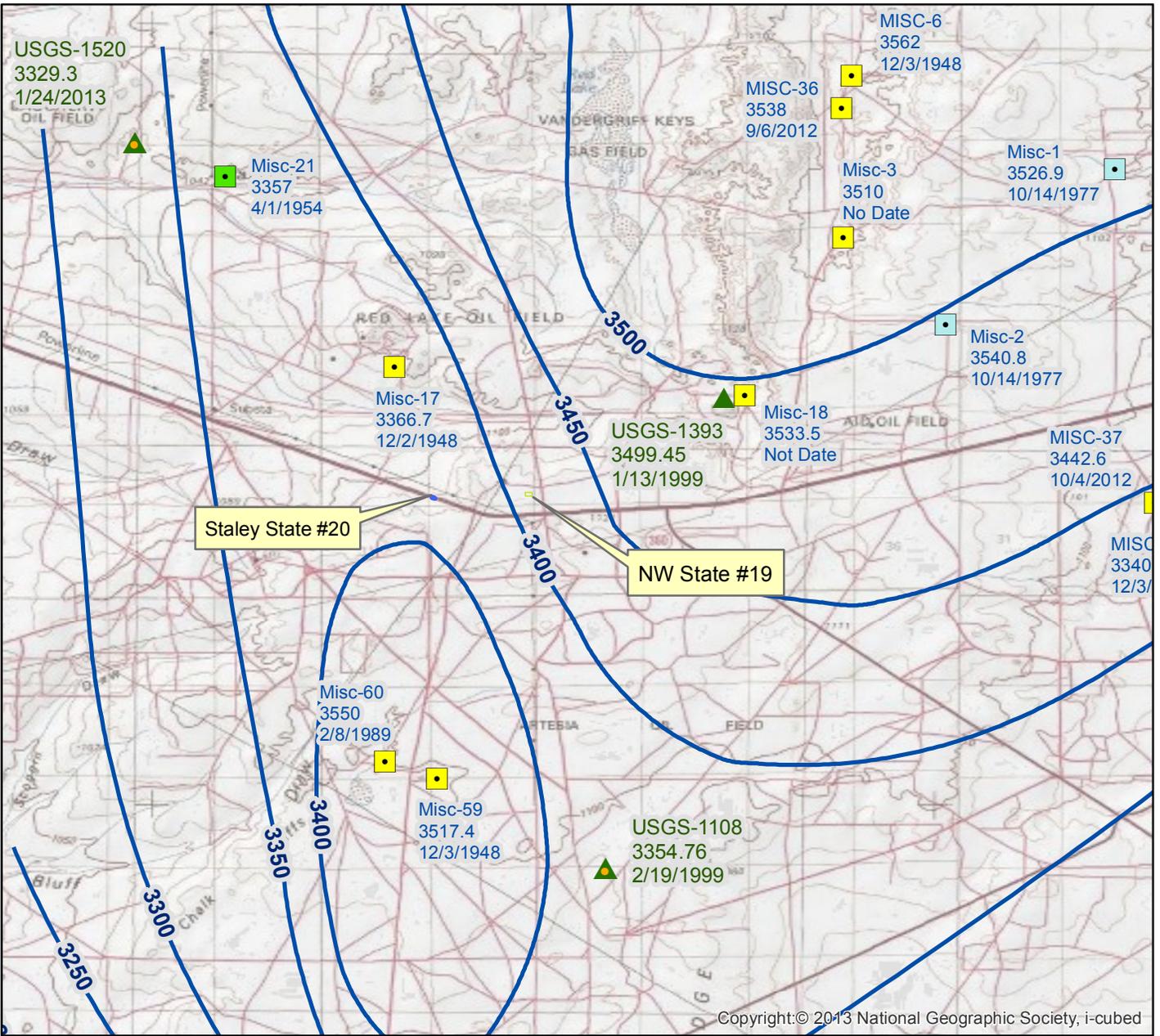
Well Depth (ft)

-  No Data
-  ≤150
-  151 - 350

Potentiometric Surface (ft msl)

Type

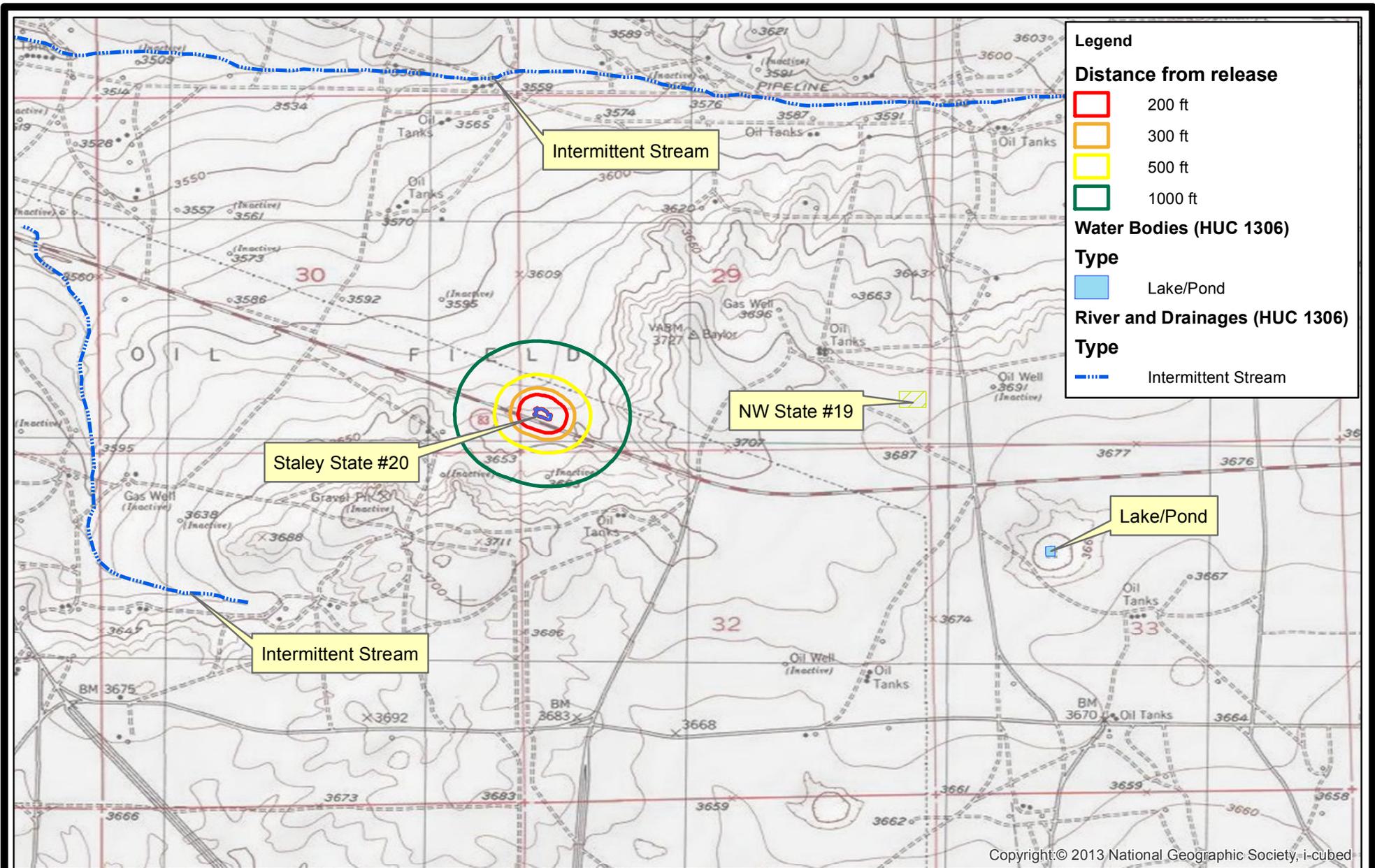
-  Isocontour



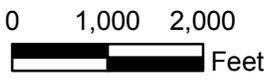
R.T. Hicks Consultants, Ltd
 901 Rio Grande Blvd NW Suite F-142
 Albuquerque, NM 87104
 Ph: 505.266.5004

Potentiometric Surface and Groundwater Elevation
 at Nearby Water Wells
 Lime Rock Resources
 Staley State 20

Plate 2
 June 2015



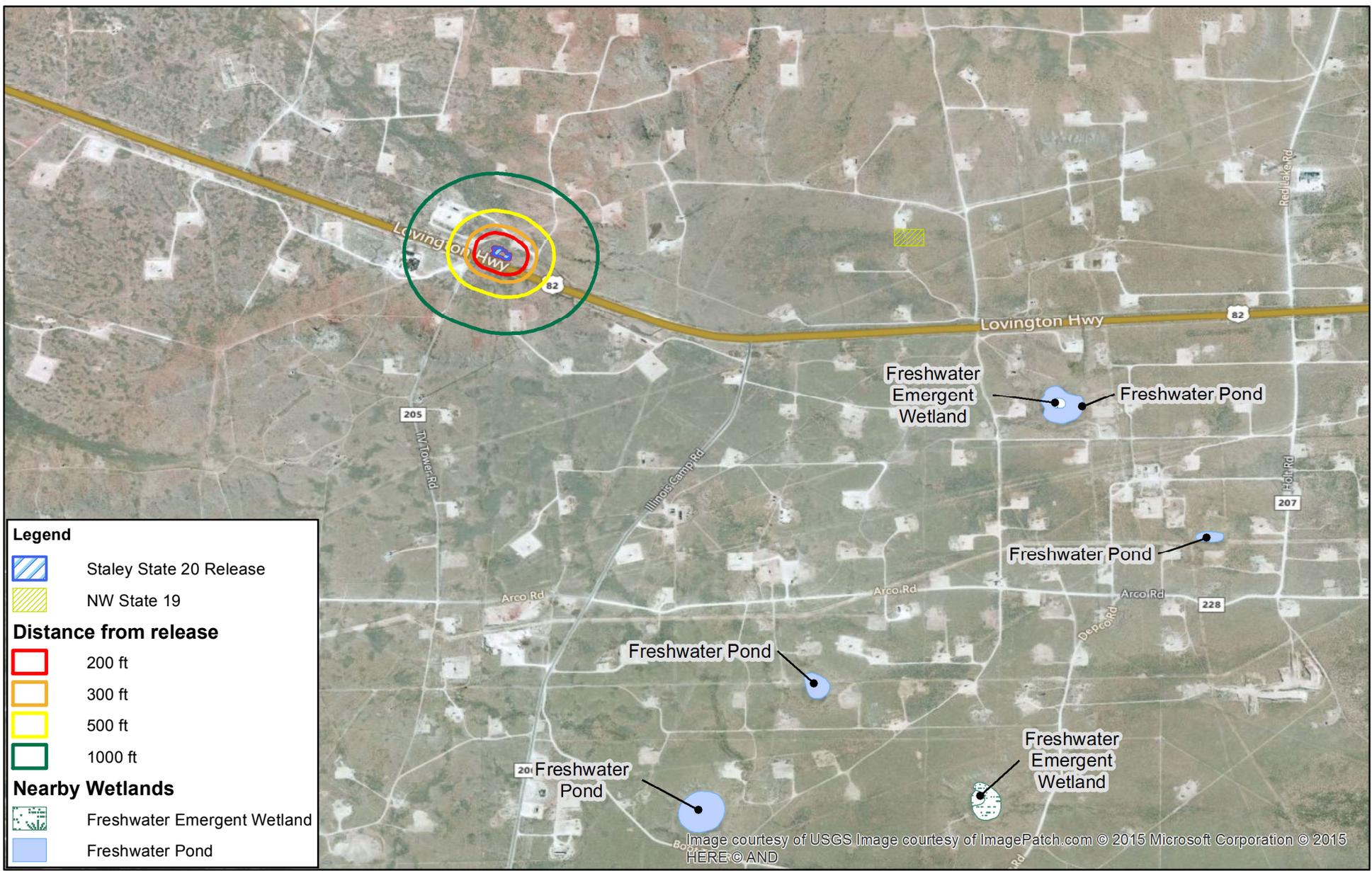
Copyright: © 2013 National Geographic Society, i-cubed



R.T. Hicks Consultants, Ltd
 901 Rio Grande Blvd NW Suite F-142
 Albuquerque, NM 87104
 Ph: 505.266.5004

Surface Water and Topography
 Lime Rock Resources
 Staley State 20

Plate 3
 June 2015



Legend

-  Staley State 20 Release
-  NW State 19

Distance from release

-  200 ft
-  300 ft
-  500 ft
-  1000 ft

Nearby Wetlands

-  Freshwater Emergent Wetland
-  Freshwater Pond

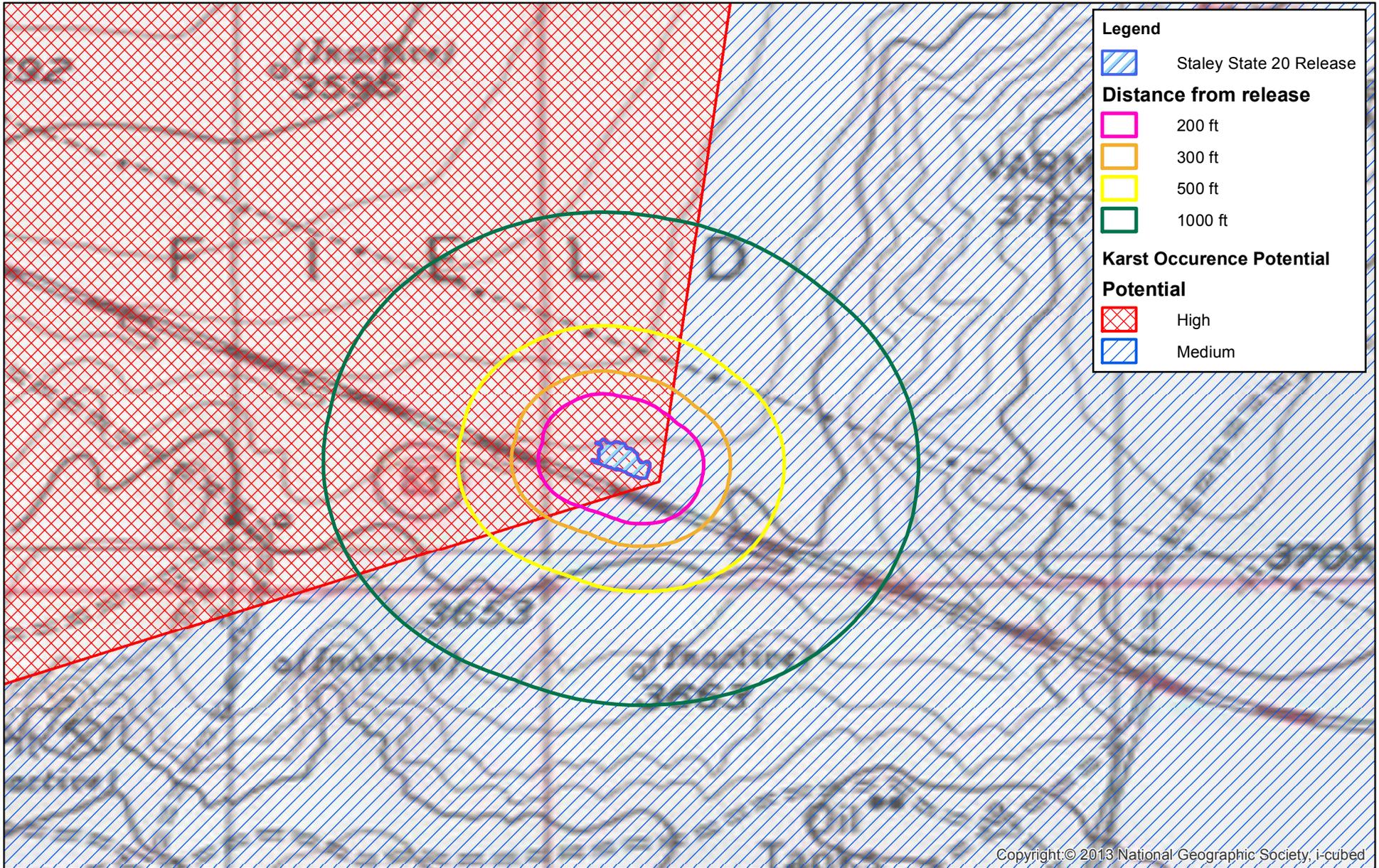
Image courtesy of USGS Image courtesy of ImagePatch.com © 2015 Microsoft Corporation © 2015 HERE © AND



R.T. Hicks Consultants, Ltd
 901 Rio Grande Blvd NW Suite F-142
 Albuquerque, NM 87104
 Ph: 505.266.5004

Nearby Wetlands
 Lime Rock Resources
 Staley State 20

Plate 4
 June 2015



Legend

-  Staley State 20 Release

Distance from release

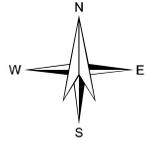
-  200 ft
-  300 ft
-  500 ft
-  1000 ft

Karst Occurrence Potential

Potential

-  High
-  Medium

Copyright © 2013 National Geographic Society, i-cubed



R.T. Hicks Consultants, Ltd
 901 Rio Grande Blvd NW Suite F-142
 Albuquerque, NM 87104
 Ph: 505.266.5004

Karst Potential
 Lime Rock Resources
 Staley State 20

Plate 5
 June 2015



June 01, 2015

MIKE STUBBLEFIELD

R T HICKS CONSULTANTS

901 RIO GRANDE BLVD SUITE F-142

ALBUQUERQUE, NM 87104

RE: STALEY STATE NO. 20

Enclosed are the results of analyses for samples received by the laboratory on 05/29/15 16:35.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. 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".

Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

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

Received:	05/29/2015	Sampling Date:	05/29/2015
Reported:	06/01/2015	Sampling Type:	Soil
Project Name:	STALEY STATE NO. 20	Sampling Condition:	** (See Notes)
Project Number:	30-015-40983	Sample Received By:	Celey D. Keene
Project Location:	UT M SEC. 29 -T17S- R28E		

Sample ID: S-13 WESTSIDE WALL (H501386-01)

Chloride, SM4500CI-B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	06/01/2015	ND	416	104	400	0.00	

Sample ID: S-14 NORTHSIDE WALL (H501386-02)

Chloride, SM4500CI-B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	06/01/2015	ND	416	104	400	0.00	

Sample ID: S-15 EASTSIDE WALL (H501386-03)

Chloride, SM4500CI-B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	224	16.0	06/01/2015	ND	416	104	400	0.00	

Cardinal Laboratories

*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

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



Celey D. Keene, Lab Director/Quality Manager

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: R.T. Hicks Consulting Project Manager: Mike Stussfeld Address: 2411 South 13th Street City: Albia State: NM Zip: 88210 Phone #: 505-365-5034 Fax #: 505-365-5034 Project #: 30-01540983 Project Owner: LRE Operating LLC Project Name: Stacey State 20 Project Location: U1 Hwy sec 29-T195-R28E Sampler Name: Mike Stussfeld		BILL TO P.O. #: _____ Company: LRE Operating LLC Attn: Mike Burnett Address: _____ City: _____ State: _____ Zip: _____ Phone #: _____ Fax #: _____	
FOR LAB USE ONLY Lab I.D. _____ Sample I.D. _____ H501386		(G)RAB OR (C)OMP. _____ # CONTAINERS _____ GROUNDWATER _____ WASTEWATER _____ MATRIX SOIL _____ OIL _____ SLUDGE _____ OTHER : _____ ACID/BASE: _____ ICE / COOL _____ OTHER : _____ PRESERV _____ SAMPLING _____	
Date: 5/29/15 Time: 4:35 Relinquished By: Mike Stussfeld Date: _____ Time: _____ Relinquished By: _____		Received By: Mike Burnett Date: _____ Time: _____ Received By: _____	
Delivered By: (Circle One) Sampler - UPS - Bus <input checked="" type="radio"/> Other <input type="radio"/> 2648		Sample Condition Cool <input type="checkbox"/> Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Checked By: cb	
Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Add'l Phone #: _____ Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Add'l Fax #: _____ REMARKS: Rush !!		DATE TIME 5/29/15 11:19A 5/29/15 11:23A 5/29/15 11:31A Total Chlorides	

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



May 28, 2015

MIKE STUBBLEFIELD

R T HICKS CONSULTANTS

901 RIO GRANDE BLVD SUITE F-142

ALBUQUERQUE, NM 87104

RE: STALEY STATE NO. 20

Enclosed are the results of analyses for samples received by the laboratory on 05/27/15 16:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. 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".

Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

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

Received:	05/27/2015	Sampling Date:	05/27/2015
Reported:	05/28/2015	Sampling Type:	Soil
Project Name:	STALEY STATE NO. 20	Sampling Condition:	** (See Notes)
Project Number:	30-015-40983	Sample Received By:	Jodi Henson
Project Location:	UT M SEC. 29 -T17S- R30E		

Sample ID: S-8 BOTTOM (H501329-01)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	480	16.0	05/28/2015	ND	416	104	400	0.00	

Sample ID: S-9 WESTSIDE WALL (H501329-02)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	11600	16.0	05/28/2015	ND	416	104	400	0.00	

Sample ID: S-10 NORTH SIDEWALL (H501329-03)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	7040	16.0	05/28/2015	ND	416	104	400	0.00	

Sample ID: S-11 EAST SIDEWALL (H501329-04)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	8800	16.0	05/28/2015	ND	416	104	400	0.00	

Cardinal Laboratories

*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	05/27/2015	Sampling Date:	05/27/2015
Reported:	05/28/2015	Sampling Type:	Soil
Project Name:	STALEY STATE NO. 20	Sampling Condition:	** (See Notes)
Project Number:	30-015-40983	Sample Received By:	Jodi Henson
Project Location:	UT M SEC. 29 -T17S- R30E		

Sample ID: S-12 SOUTH SIDEWALL (H501329-05)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	05/28/2015	ND	416	104	400	0.00	

Cardinal Laboratories

*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

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



Celey D. Keene, Lab Director/Quality Manager



CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

BILL TO

ANALYSIS REQUEST

Company Name: R.T. Hicks Consultants
 Project Manager: Mike Stubbelfield
 Address: 2411 South 13th Street
 City: Artesia State: NM, Zip: 88218
 Phone #: 505-365-5034 Fax #: _____
 Project #: 30-015-40983 Project Owner: LRP operating
 Project Name: Stacy State No. 20
 Project Location: VT M sec 29. T19S R30E
 Sampler Name: Mike Stubbelfield
 P.O. #: _____
 Company: LRP operating, LLC
 Attn: Mike Barrett
 Address: _____
 City: _____ State: _____ Zip: _____
 Phone #: _____ Fax #: _____

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX							DATE	TIME	ANALYSIS
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:			
<u>H501329</u>	<u>1-5-8 bottom</u>	<u>C</u>	<u>1</u>								<u>11/21/15</u>	<u>11:06A</u>	<u>Total chloride</u>
	<u>2-5-9 west side wall</u>	<u>C</u>	<u>1</u>								<u>11/21/15</u>	<u>11:15A</u>	
	<u>3-5-10 north side wall</u>	<u>C</u>	<u>1</u>								<u>11/21/15</u>	<u>11:21A</u>	
	<u>4-5-11 east side wall</u>	<u>C</u>	<u>1</u>								<u>11/22/15</u>	<u>11:32A</u>	
	<u>5-12 south side wall</u>	<u>C</u>	<u>1</u>								<u>11/22/15</u>	<u>11:40A</u>	

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. Cardinal's responsibility of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: Mike Stubbelfield
 Date: 11/21/15
 Time: _____
 Received By: [Signature]
 Date: 11/21/15
 Time: 10:00
 REMARKS: RUSH...

Delivered By: (Circle One)
 Sampler - UPS - Bus - Other: Other
 Sample Condition
 Cool Intact
 Yes Yes
 No No
 CHECKED BY: [Signature]
 Add'l Phone #: _____
 Add'l Fax #: _____

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



May 27, 2015

MIKE STUBBLEFIELD

R T HICKS CONSULTANTS

901 RIO GRANDE BLVD SUITE F-142

ALBUQUERQUE, NM 87104

RE: STALEY STATE NO. 20

Enclosed are the results of analyses for samples received by the laboratory on 05/26/15 16:20.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. 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.

Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

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

Received:	05/26/2015	Sampling Date:	05/26/2015
Reported:	05/27/2015	Sampling Type:	Soil
Project Name:	STALEY STATE NO. 20	Sampling Condition:	** (See Notes)
Project Number:	30-015-40983	Sample Received By:	Jodi Henson
Project Location:	UT M SEC. 29 -T17S- R30E		

Sample ID: S-7 STOCKPILED MATERIAL (H501309-01)

Chloride, SM4500Cl-B	mg/kg	Analyzed By: AP							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2720	16.0	05/27/2015	ND	416	104	400	3.92	

Cardinal Laboratories

*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

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



Celey D. Keene, Lab Director/Quality Manager



May 19, 2015

MIKE STUBBLEFIELD

R T HICKS CONSULTANTS

901 RIO GRANDE BLVD SUITE F-142

ALBUQUERQUE, NM 87104

RE: STALEY STATE NO. 20

Enclosed are the results of analyses for samples received by the laboratory on 05/18/15 13:03.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. 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".

Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

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

Received:	05/18/2015	Sampling Date:	05/15/2015
Reported:	05/19/2015	Sampling Type:	Soil
Project Name:	STALEY STATE NO. 20	Sampling Condition:	** (See Notes)
Project Number:	30-015-40983	Sample Received By:	Jodi Henson
Project Location:	UT M SEC. 29 -T175- R30E		

Sample ID: S- 1 1' (H501260-03)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/19/2015	ND	1.81	90.7	2.00	1.58	
Toluene*	<0.050	0.050	05/19/2015	ND	1.97	98.4	2.00	3.91	
Ethylbenzene*	<0.050	0.050	05/19/2015	ND	1.86	93.0	2.00	3.46	
Total Xylenes*	<0.150	0.150	05/19/2015	ND	5.54	92.3	6.00	4.12	
Total BTEX	<0.300	0.300	05/19/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 110 % 61-154

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	496	16.0	05/18/2015	ND	400	100	400	0.00	

Sample ID: S - 1 2' (H501260-04)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	960	16.0	05/18/2015	ND	400	100	400	0.00	

Sample ID: S - 1 3' (H501260-05)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	05/18/2015	ND	400	100	400	0.00	

Cardinal Laboratories

*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	05/18/2015	Sampling Date:	05/15/2015
Reported:	05/19/2015	Sampling Type:	Soil
Project Name:	STALEY STATE NO. 20	Sampling Condition:	** (See Notes)
Project Number:	30-015-40983	Sample Received By:	Jodi Henson
Project Location:	UT M SEC. 29 -T175- R30E		

Sample ID: S - 1 4 ' (H501260-06)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	05/18/2015	ND	400	100	400	0.00	

Sample ID: S - 2 1 ' (H501260-10)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/19/2015	ND	1.81	90.7	2.00	1.58	
Toluene*	<0.050	0.050	05/19/2015	ND	1.97	98.4	2.00	3.91	
Ethylbenzene*	<0.050	0.050	05/19/2015	ND	1.86	93.0	2.00	3.46	
Total Xylenes*	<0.150	0.150	05/19/2015	ND	5.54	92.3	6.00	4.12	
Total BTEX	<0.300	0.300	05/19/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 110 % 61-154

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3920	16.0	05/18/2015	ND	400	100	400	0.00	

Sample ID: S - 2 2 ' (H501260-11)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	05/18/2015	ND	400	100	400	0.00	

Cardinal Laboratories

*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Received: 05/18/2015
 Reported: 05/19/2015
 Project Name: STALEY STATE NO. 20
 Project Number: 30-015-40983
 Project Location: UT M SEC. 29 -T175- R30E

 Sampling Date: 05/15/2015
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Jodi Henson

Sample ID: S - 2 3 ' (H501260-12)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	05/18/2015	ND	400	100	400	0.00	

Sample ID: S - 2 4 ' (H501260-13)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	05/18/2015	ND	400	100	400	3.92	

Sample ID: S - 3 1 ' (H501260-16)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	736	16.0	05/18/2015	ND	400	100	400	3.92	

Sample ID: S - 3 2 ' (H501260-17)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	05/18/2015	ND	400	100	400	3.92	

Sample ID: S - 3 3 ' (H501260-18)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	05/18/2015	ND	400	100	400	3.92	

Cardinal Laboratories

*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Received: 05/18/2015
 Reported: 05/19/2015
 Project Name: STALEY STATE NO. 20
 Project Number: 30-015-40983
 Project Location: UT M SEC. 29 -T175- R30E

 Sampling Date: 05/15/2015
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Jodi Henson

Sample ID: S - 3 4 ' (H501260-19)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	05/18/2015	ND	400	100	400	3.92	

Sample ID: S - 4 1 ' (H501260-22)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	05/18/2015	ND	400	100	400	3.92	

Sample ID: S - 4 2 ' (H501260-23)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	05/18/2015	ND	400	100	400	3.92	

Sample ID: S - 4 3 ' (H501260-24)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	05/18/2015	ND	400	100	400	3.92	

Sample ID: S - 4 4 ' (H501260-25)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	05/18/2015	ND	400	100	400	3.92	

Cardinal Laboratories

*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Received: 05/18/2015
 Reported: 05/19/2015
 Project Name: STALEY STATE NO. 20
 Project Number: 30-015-40983
 Project Location: UT M SEC. 29 -T175- R30E

 Sampling Date: 05/15/2015
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Jodi Henson

Sample ID: S - 5 1 ' (H501260-28)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	672	16.0	05/18/2015	ND	400	100	400	3.92	

Sample ID: S - 5 2 ' (H501260-29)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	05/18/2015	ND	400	100	400	3.92	

Sample ID: S - 5 3 ' (H501260-30)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	05/18/2015	ND	400	100	400	3.92	

Sample ID: S - 5 4 ' (H501260-31)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	05/18/2015	ND	400	100	400	3.92	

Sample ID: S - 6 1 ' (H501260-33)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	05/18/2015	ND	400	100	400	3.92	

Cardinal Laboratories

*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Received: 05/18/2015
 Reported: 05/19/2015
 Project Name: STALEY STATE NO. 20
 Project Number: 30-015-40983
 Project Location: UT M SEC. 29 -T175- R30E

 Sampling Date: 05/15/2015
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Jodi Henson

Sample ID: S - 6 2 ' (H501260-34)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	05/18/2015	ND	400	100	400	3.92	

Sample ID: S - 6 3 ' (H501260-35)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	05/18/2015	ND	400	100	400	3.92	

Sample ID: S - 6 4 ' (H501260-36)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	05/18/2015	ND	400	100	400	3.92	

Sample ID: BACKGROUND (H501260-37)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	05/18/2015	ND	400	100	400	3.92	

Cardinal Laboratories

*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

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

Cardinal Laboratories

*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager



CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

BILL TO

ANALYSIS REQUEST

Company Name: **RT Hicks Consultants**
 Project Manager: **Mike Grubbe/field**
 Address: **2411 South 13th Street**
 City: **Artesia** State: **N.M.** Zip: **88210**
 Phone #: **505-365-5634** Fax #:
 Project #: **30-015-40983** Project Owner: **LRE Operating, LLC**
 Project Name: **Staley State No. 20** City: State: Zip:
 Project Location: **URM sec 29 T19S R30E** Phone #: Fax #:
 Sampler Name: **Mike Grubbe/field**

FOR LAB USE ONLY

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						DATE	TIME	ANALYSIS
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :			
1	5-1 0' 3.25' 19950-104.20561	C	1	<input checked="" type="checkbox"/>	5/15/15	2:00P	8021 BTEX					
2	5-1 0.5'	C	1	<input checked="" type="checkbox"/>	5/15/15	2:03P	Total Chlorides					
3	5-1 1'	C	1	<input checked="" type="checkbox"/>	5/15/15	2:02P	hold					
4	5-1 2'	C	1	<input checked="" type="checkbox"/>	5/15/15	2:15P	hold					
5	5-1 3'	C	1	<input checked="" type="checkbox"/>	5/15/15	2:21P	hold					
6	5-1 4'	C	1	<input checked="" type="checkbox"/>	5/15/15	2:22P	hold					
7	5-1 10'	C	1	<input checked="" type="checkbox"/>	5/15/15	2:35P	hold					
8	5-2 0' 3.2' 19944-104.20541	C	1	<input checked="" type="checkbox"/>	5/15/15	2:36P	hold					
9	5-2 .5'	C	1	<input checked="" type="checkbox"/>	5/15/15	2:40P	hold					
10	5-2 1'	C	1	<input checked="" type="checkbox"/>	5/15/15	2:44P	hold					

PLEASE NOTE: Liability and Damages: Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort shall be limited to the amount paid by the client for the analysis. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of 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.

Relinquished By: **Mike Grubbe/field**
 Date: **5/18/15**
 Time: **13:03**
 Received By: **Mike Grubbe/field**
 Date: **5/18-15**
 Time: **10:40e**

Delivered By: (Circle One)
 UPS Bus Other:
 Sample Condition
 Cool Intact
 Yes No

Checked By: **Mike Grubbe/field**
 Phone Result: Yes No Add'l Phone #:
 Fax Result: Yes No Add'l Fax #:
 REMARKS: **RUSH!!!**

† Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326 #54



CARDINAL LABORATORIES

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

BILL TO

ANALYSIS REQUEST

Company Name: **R.T. Hicks CONSULTANTS**
 Project Manager: **Mike Stubbelfield**
 Address: **2411 South 13th Street**
 City: **Artesia** State: **NM** Zip: **86210**
 Phone #: _____ Fax #: _____
 Project #: **30-015-40903** Project Owner: **LRE Operating LLC**
 Project Name: **Staley State No. 20**
 Project Location: **vt. n sec. 29-T19S-R30 E**
 Sampler Name: **Mike Stubbelfield**
 P.O. #: _____
 Company: **LRE Operating, LLC**
 Attn: **Mike Barnett**
 Address: _____
 City: _____ State: _____ Zip: _____
 Phone #: _____ Fax #: _____

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						PRESERV	SAMPLING	DATE	TIME	REMARKS
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :					
AS01260														
11	S-2 2'	C									5/15/15	2:53P	8015 BTEX	
12	S-2 3'	C									5/15/15	3:03P	Total Chlorides	
13	S-2 4'	C									5/15/15	3:14P		
14	S-3 0-3.2, 19993-104, 20522	C									5/15/15	3:19P		
15	S-3 5'	C									5/15/15	3:33P	no Cd	
16	S-3 1'	C									5/15/15	3:30P		
17	S-3 2'	C									5/15/15	3:35P		
18	S-3 3'	C									5/15/15	3:42P		
19	S-3 4'	C									5/15/15	3:46P		
20	S-3 0-3.2, 19993-104, 20522	C									5/15/15		no Cd	

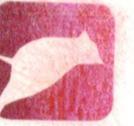
PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analysis. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of 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.

Relinquished By: **Mike Stubbelfield** Date: **5/15/15** Received By: **Shirley**
 Relinquished By: _____ Date: _____ Received By: _____
 Time: **13:03**

Delivered By: (Circle One) **UPS** - Bus - Other **10:40e**
 Sample Condition: Cool Yes No Intact Yes No
 CHECKED BY: **[Signature]**
 Phone Result: Yes No Add'l Phone #: _____
 Fax Result: Yes No Add'l Fax #: _____
 REMARKS: **PUSH!**

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

2-4



CARDINAL Laboratories

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

3-4

Company Name: R.T. Hicks Consulting		P.O. #:	
Project Manager: Mike Stubblefield		Company: LR Operations, LLC	
Address: 2411 South 1st Street		Attn: Mike Barrett	
City: Alameda	State: NM	Zip: 88210	Address:
Phone #: 505-365-5034	Fax #: 505-365-5034	City:	State:
Project #: 30-015-40983	Project Owner:	Zip:	
Project Name: Staley Strat No. 20	Phone #:		
Project Location: VT. M sec. 29 Tms. R36E	Fax #:		
Sampler Name: Mike Stubblefield			

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						DATE	TIME	ANALYSIS REQUEST
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :			
H5D1860												
21	S-4 0.5'	C							5/15/15	4:45P		8021 BTEV
22	S-4 1'	C							5/15/15	4:47P		Total Chlorides
23	S-4 2'	C							5/15/15	4:51P		
24	S-4 3'	C							5/15/15	4:53P		
25	S-4 4'	C							5/15/15	4:59P		
26	S-5 0.32-29931-104-20851	C							5/15/15	5:02P		
27	S-5 0.5'	C							5/15/15	5:18P		
28	S-5 1'	C							5/15/15	5:21P		
29	S-5 2'	C							5/15/15	5:24P		
30	S-5 3'	C							5/15/15	5:28P		

PLEASE NOTE: Liability and Damages: Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analysis. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of 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.

Relinquished By: Mike Stubblefield	Date: 5/18/15	Received By: Justin [Signature]	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
Delivered By: (Circle One) Other	Date: 5/18/15	Time: 10:40a	Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:
Sampler - UPS - Bus - Other	Sample Condition: <input checked="" type="checkbox"/> Cool <input type="checkbox"/> Intact	Checked By: [Signature]	REMARKS:	

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

RUSH



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: RT. HICKY CONSULTANTS
Project Manager: Mike Stubblefield
Address: 2411 South 12th Street
City: Artesia State: NM Zip: 88210
Phone #: 575-365-5034 Fax #: _____
Project #: 30-015-40983 Project Owner: LRE Operating, LLC
Project Name: Staley State No. 20 State: _____ Zip: _____
Project Location: vt: m sec. 29 TMS R302 Phone #: _____ Fax #: _____

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						DATE	TIME	ANALYSIS REQUEST
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :			
ASD1240											802L BTEX	
31	5-5 4'	C							5/15/15	5:30 P	Total Chlorides	
32	5-6 0' 32.15824.104.20530	C							5/15/15	5:45 P	No Id	
33	5-6 1'	C							5/15/15	5:52 P		
34	5-6 2'	C							5/15/15	5:58 P		
35	5-6 3'	C							5/15/15	6:00 P		
36	5-6 4'	C							5/15/15	6:04 P		
37	Brkfl ground	G							5/15/15	6:12 P	ho Id	
38	5-6 as	C										

FOR LAB USE ONLY

Relinquished By: *Mike Stubblefield* Date: 5/15/15 Time: _____
Received By: *[Signature]* Date: 5/18/15 Time: 13:03
Relinquished By: *[Signature]* Date: 5/18/15 Time: 13:03
Received By: *[Signature]* Date: 5/18/15 Time: 13:03

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

Sample Condition:
 Cool Intact
 Yes No

CHECKED BY: *[Signature]*

REMARKS: Phone Result: Yes No Add'l Phone #: _____
 Fax Result: Yes No Add'l Fax #: _____
PUST!

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