

Republic Backhoe Service, LLC
 47 E. Dickens
 Lovington, NM 88260
 (575) 631-0131

March 13, 2020

District II
 811 S. First St.
 Artesia, NM 88210

Subject: Soil Remediation/Closure for the Saragossa 10 State #2, Eddy County, New Mexico

To Whom It May Concern,

On behalf of Read & Stevens, Inc. Republic Backhoe Service, LLC (RBS) has prepared this Soil Remediation/Closure Report associated with Saragossa 10 State #2. The site is located in Unit B, Section 10, Township 23 South, and Range 26 East, NMPM, Eddy County, New Mexico, on NM State land. Attachment #1 and #2 illustrates the vicinity and location of the site. Piedmont alluvial deposits from the Holocene to Pleistocene age make up the subsurface of the area (mrddata.usgs.gov, Attachment #3). The subsurface is comprised of Regan Upton soils which consist of loamy deposits of quaternary age that are moderately dark colored and loamy. Hard caliche is encountered at 3-4 feet below the loamy surface (Soil Survey Eddy Area, NM 1971). The soil is generally dry except in times of rain. The site is not within a 100-year floodplain (FEMA FIRMette Map Attachment #9). The vegetation consists of black grama, blue grama, tobosa, side-oats, bush muhly, tarbush, creosote bush, vine mesquite, and yucca. The state of New Mexico owns the surface and is overseen by the State Land Office and leased out for grazing.

Table 1. below, summarizes information regarding the release. (See Attachments #10, #12, #13)

Release Details			
Type of Release:	Oil/PW	Volume of Release:	17.24-Oil 140.67-Produced Water
		Volume Recovered:	2-Oil
Source of Release:	Well Head	Date of Discovery:	10/27/2018
Was Immediate Notice Given?	No	If, YES, to Whom?	
Was a Watercourse Reached?	No	If YES, Volume Impacting the Watercourse:	NA
Surface Owner:	State	Mineral Owner:	State

Describe Cause of Problem and Remedial Action Taken:

The release was attributed to a 1" connection at the well head. The connection has since been replaced. A backhoe was called out on the day of the discovery which piled saturated soil on the pad.

Regulatory Guidelines

New Mexico Oil Conversation Division (NMOCD) regulates surface impacts from unauthorized releases of crude oil, gases, produced water, condensate or other oil field waste in accordance with 19.15.29 of the New Mexico Administrative Code (NMAC). In accordance to NMAC 19.15.29 the Saragossa 10 State #2 is assessed by the following guidelines:

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>246</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 checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input checked="" type="checkbox"/> Yes <input 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 checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Did the release impact areas not on an exploration, development, production, or storage site?	

The release occurred within the following areas and will treat the release as if it occurred less than 50 feet to ground water.

*Correction to Site Assessment/ Characterization: Saragossa 10 State #2 is not within a 100-year flood plain. Please see Attachment #9.

A search of a groundwater database maintained by The New Mexico Office of the State Engineer (NMOSE) was conducted to determine the average depth to groundwater within 2000 meters and identify registered water wells within 2500 meters of the release site. (Attachments #4, 5). Furthermore, a new NMOSE groundwater search was conducted once the north extent of the spill was found (Attachment #6, 7) and concluded that the horizontal extents of the spill fell within 500 feet of a private domestic fresh water well, and within 1000' of any other fresh water wells. The site will be remediated to the following guidelines:

Minimum depth below any point within the horizontal boundary of the release to ground water less than 10,000 mg/l TDS	Constituent	Method*	Limit**
≤ 50 feet	Chloride***	EPA 300.0 or SM4500 Cl B	600 mg/kg
	TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015M	100 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8260B	10 mg/kg

Site Assessment/Delineation

On November 15, 2018, RBS went to the location to delineate the site. According to the Spill Calculations (See Attachment 13) 89% of the release stayed on the well pad. The additional 11% of the release travelled along a compacted cattle path for approximately 825 feet to the north of the location (See Attachment 10). The release poses no threat to ground water as laboratory results conclude that no contamination was found at or below 2' (bgs). Furthermore, soil samples collected and analyzed at 5' (bgs) show constituents level significantly lower than NMOCD permissible levels. A backhoe was used to dig a total of 16 trenches at the site (See Attachment #8). Samples were collected from the surface, 2 feet (bgs), and 5 feet (bgs). The following table summarizes the laboratory analytical results from the soil samples collected during the site assessment:

Name	Date	Depth	Chlorides	Benezene	BTEX	TPH(DRO,GRO,EXT)	Lithology	Soil Class	Pad/Pasture	Within 1000' FW
Pad1-S	11/15/18	Surface	1180	<0.500	6.73	24,969(309,20600,4060)	Sandy	ML	Pad	No
Pad1-2	11/15/18	2	32		<0.300	<10.0	Loam	CL		
Pad1-5	11/15/18	5	144		<0.300	<10.0	Caliche			
Pad2-S	11/15/18	Surface	1710	<0.500	1.17	13,537(107,11200,2230)	Sandy	ML	Pad	No
Pad2-2	11/15/18	2	16		<0.300	<10.0	Loam	CL		
Pad2-5	11/15/18	5	16		<0.300	12.4(0,12.4,0)	Caliche			
Pad3-S	11/15/18	Surface	30,800	<0.500	3.89	6,680(130,5370,1180)	Sandy	ML	Pad	No
Pad3-2	11/15/18	2	208		<0.300	18.8(0,0,18.8)	Loam	CL		
Pad3-5	11/15/18	5	48.0		<0.300	<10.0	Caliche			
Pad4-S	11/15/18	Surface	4560		<0.300	73.2(0,62.2,11.0)	Sandy	ML	Pad	No
Pad4-2	11/15/18	2	96		<0.300	<10.0	Loam	CL		
Pad4-5	11/15/18	5	64		<0.300	53.3(0,38.4,14.9)	Caliche			
TA1-S	11/15/18	Surface	3200	<0.500	6.09	25,257(227,20900,4230)	Sandy	ML	Pasture	No
TA1-2	11/15/18	2	64		<0.300	<10.0	Loam	CL		
TA1-5	11/15/18	5	80		<0.300	<10.0	Caliche			
TA2-S	11/15/18	Surface	6960	<0.500	2.64	32,924(274,27600,5050)	Sandy	ML	Pasture	Yes
TA2-2	11/15/18	2	48		<0.300	<10.0	Loam	CL		
TA2-5	11/15/18	5	48		<0.300	12.8	Caliche			
TA3-S	11/15/18	Surface	288	<1.00	15.2	34,302(642,28600,5060)	Sandy	ML	Pasture	Yes
TA3-2	11/15/18	2	48		<0.300	<10.0	Loam	CL		
TA3-5	11/15/18	5	32		<0.300	<10.0	Caliche			
TA4-S	11/15/18	Surface	256	<0.500	16.6	32,508(1000,45600,8250)	Sandy	ML	Pasture	Yes
TA4-2	11/15/18	2	48		<300	<10.00	Loam	CL		
TA4-5	11/15/18	5	336		<0.300	11.6	Caliche			
TA5-S	11/15/18	Surface	64		16.0	54,850	Sandy	ML	Pasture	Yes
TA5-2	11/15/18	2	32		<0.300	<10.0	Loam	CL		
TA5-5	11/15/18	5	16		<0.300	<10.0	Caliche			
TA6-S	11/15/18	Surface	32	<0.500	25.9	48,360(1290,40100,6970)	Sandy	ML	Pasture	Yes
TA6-2	11/15/18	2	48		<0.300	<10.0	Loam	CL		
TA6-5	11/15/18	5	80.0		<0.300	<10.00	Caliche			
TA7-S	11/15/18	Surface	16	<0.500	<0.300	4,476(32,3810,634)	Sandy	ML	Pasture	Yes
TA7-2	11/15/18	2	96		<0.300	<10.0	Loam	CL		
TA7-5	11/15/18	5'	80		<.300	12.3	Caliche			
TA8-S	11/15/18	Surface	48		<0.300	14.8	Sandy	ML	Pasture	Yes
TA8-2	11/15/18	2	32		<0.300	72.1	Loam	CL		
TA8-5	11/15/18	5	16		<0.300	48.7	Caliche			
TA9-S	11/15/18	Surface	32		<0.300	110.5	Sandy	ML	Pasture	Yes
TA9-2	11/15/18	2	64		<0.300	<10.0	Loam	CL		
TA9-5	11/15/18	5	96		<0.300	<10.0	Caliche			
TA10-S	11/15/18	Surface	32		<0.300	79.2	Sandy	ML	Pasture	Yes
TA10-2	11/18/18	2	32		<0.300	<10.0	Loam	CL		
TA10-5	11/18/18	5	16		<0.300	<10.0	Caliche			
TB1-S	11/15/18	Surface	160	<0.500	4.51	35,601(491,29800,5310)	Sandy	ML	Pasture	No
TB1-2	11/15/18	2	64		<0.300	<10.0	Loam	CL		
TB1-5	11/15/18	5	48		<0.300	<10.0	Caliche			
TB2-S	11/15/18	Surface	48	<0.500	1.71	43,778(398,36300,7080)	Sandy	ML	Pasture	no
TB2-2	11/15/18	2	64		<0.300	<10.0	Loam	CL		
TB2-5	11/15/18	5	32		<0.300	<10.0	Caliche			

Chlorides-mg/kg, SM4500CI-B

BTEX-mg/kg, 8021B

TPH-mg/kg, 8015M

Name	Date	Depth (feet)	Chloride	BTEX	TPH(GRO, DRO,EXT)	Lithology	Soil Class	Pad/Pasture	Within 1,000' FW
S 1-1	08/07/19	1	<16.0	<0.300	<10.0	Loam	CL	Pad	No
S 1-12	08/07/19	12	32	<0.300	<10.0	Caliche	GM		
S 2-1	08/07/19	1	48	<0.300	<10.0	Loam	CL	Pad	No
S 2-12	08/07/19	12	16	<0.300	<10.0	Caliche	GM		
S 3-1	08/07/19	1	<16.0	<0.300	<10.0	Loam	CL	Pad	No
S 3-12	08/07/19	12	16	<0.300	<10.0	Caliche	GM		
S 4-1	08/07/19	1	16	<0.300	<10.0	Loam	CL	Pasture	No
S 4-12	08/07/19	12	32	<0.300	<10.0	Caliche	GM		
S 5-1	08/06/19	1	16	<0.300	<10.0	Loam	CL	Pasture	Yes
S 5-12	08/06/19	12	16	<0.300	<10.0	Caliche	GM		
S 6-1	08/06/19	1	16	<0.300	121.9(<10.0, 77.8, 44.1)	Loam	CL	Pasture	Yes
S 6-2	08/13/19	2	16	<0.300	<10.0	Loam	CL		
S 6-12	08/06/19	12	16	<0.300	<10.0	Caliche	GM		
S 7-1	08/06/19	1	<16.0	<0.300	223.9(<10.0, 143, 80.9)	Loam	CL	Pasture	Yes
S 7-2	08/13/20	2	16	<0.300	<10.0	Loam	CL		
S 7-12	08/06/19	12	<16.0	<0.300	<10.0	Caliche	GM		
S 8-1	08/06/19	1	<16.0	<0.300	<10.0	Loam	CL	Pasture	Yes
S 8-12	08/06/19	12	<16.0	<0.300	<10.0	Caliche	GM		
S 9-1	08/06/19	1	<16.0	<0.300	<10.0	Loam	CL	Pasture	Yes
S 9-12	08/06/19	12	<16.0	<0.300	<10.0	Caliche	GM		
S 10-1	08/06/19	1	<16.0	<0.300	<10.0	Loam	CL	Pasture	Yes
S 10-12	08/06/19	12	<16.0	<0.300	<10.0	Caliche	GM		
S 11-1	08/06/19	1	<16.0	<0.300	<10.0	Loam	CL	Pasture	Yes
S 11-12	08/06/19	12	<16.0	<0.300	<10.0	Caliche	GM		
S 12-1	08/06/19	1	<16.0	<0.300	<10.0	Loam	CL	Pasture	Yes
S 12-12	08/06/19	12	<16.0	<0.300	<10.0	Caliche	GM		
S 13-1	08/06/19	1	16	<0.300	<10.0	Loam	CL	Pasture	Yes
S 13-12	08/06/19	12	16	<0.300	<10.0	Caliche	GM		
S 14-1	08/06/19	1	<16.0	<0.300	<10.0	Loam	CL	Pasture	Yes
S 14-12	08/06/19	12	<16.0	<0.300	<10.0	Caliche	GM		
S 15-1	08/06/19	1	<16.0	<0.300	<10.0	Loam	CL	Pasture	No
S 15-12	08/06/19	12	<16.0	<0.300	<10.0	Caliche	GM		
S 16-1	08/06/19	1	<16.0	<0.300	<10.0	Loam	CL	Pasture	No
S 16-12	08/06/19	12	<16.0	<0.300	<10.0	Caliche	GM		
S 17-1	08/07/19	1	<16.0	<0.300	<10.0	Loam	CL	Pad	No
S 17-12	08/07/19	12	<16.0	<0.300	<10.0	Caliche	GM		
S 18-1	08/07/19	1	32	<0.300	<10.0	Loam	CL	Pad	No
S 18-12	08/07/19	12	16	<0.300	49.8(<10.0, <10.0, 49.8)	Caliche	GM		

Chlorides-mg/kg, SM4500Cl-B

BTEX-mg/kg, 8021B

TPH-mg/kg, 8015M

Soil Sample GPS

Name	GPS	-	Pad/Pasture
Pad1 & S-17	32.325893°	-104.279635°	Pad
Pad2 & S-3	32.325912°	-104.279899°	Pad
Pad3 & S-1	32.325669°	-104.279886°	Pad
Pad4 & S-2	32.325735°	-104.280027°	Pad
TA1 & S-4	32.326057°	-104.279779°	Pasture
TA2 & S-5	32.326269°	-104.279642°	Pasture
TA3 & S-6	32.326468°	-104.279424°	Pasture
TA4 & S-7	32.326639°	-104.279288°	Pasture
TA5 & S-8	32.326830°	-104.279179°	Pasture
TA6 & S-9	32.327019°	-104.279077°	Pasture
TA7 & S-10	32.327302°	-104.278973°	Pasture
TA8 & S-11	32.327464°	-104.278845°	Pasture
TA9 & S-12	32.327622°	-104.278810°	Pasture
TA10 & S-13	32.327277°	-104.278747°	Pasture
TB1 & S-16	32.326042°	-104.279616°	Pasture
TB2 & S-15	32.326172°	-104.279530°	Pasture
S-14	32.326341°	-104.279446°	Pasture
S-18	32.325780°	-104.279731°	Pasture

Remediation/ Closure

Commencement Date: November 15, 2019

Completion Date: March 13, 2020

The following remedial activities are in accordance with 19.15.29.12 NMAC, remediation of releases on oil well pads. The remedial activities took place on the Saragossa 10 State #2 pad and surrounding pasture near the release. The release poses no threat to ground water.

The preliminary site delineation began on November 15, 2018 and concluded that the vertical extent of the release was less than 2' (bgs). A sample at 5' (bgs) further confirms this result. Further sampling concluded that the vertical extent of the spill did not exceed 1' (bgs) in all areas, except for a 180 Sq. Ft. area at sample locations S-6 and S-7. Samples at S-6 and S-7 meet closure criteria at 2' (bgs). Sample points TA8 and TA10 met closure criteria at the surface and no remedial activities were necessary (See Lab Analysis Tables).

Soil remediation began on May 13, 2019. Approximately 7,740 Sq. Ft. was excavated to a depth of 1 foot, totaling 287 cubic yards. The remaining area of 180 Sq. Ft. was excavated to a depth of 2 feet, totaling 13 yards (See Attachment #10). Approximately 300 cubic yards were excavated from the location and hauled to an NMOCD approved disposal site.

The original location size of Saragossa 10 State #2 was approximately 56,470 Sq. Ft. During remedial activities, the North side off the pad was downsized to reclaim land for New Mexico State Land Office. The reclaimed area of the pad measured approximately 22,275 Sq. feet, leaving the current size of the pad 34,195 Sq. feet (See Attachment #11). The reclaimed area was seeded along with the excavated area in the pasture on March 13, 2020.

Soil Samples S-1 through S-18 were completed on August 07, 2019. The excavated areas on the pad and the surrounding pasture of the location were back filled beginning August 26, 2019. Back filling was completed on August 30, 2019.

Revegetation and Noxious Weed Management

Seed Mixture: Warm Season SSR Grass Seed Mix 350 (See Attachment #15)

Seed Rate: Acre: 50 lbs./ Acre

Method of Dispersal: First, the area was disc. Second, used a no till seeder (rented from Lea County USDA Service Center). The area received $\frac{3}{4}$ " of rain after seeding, and watering was not necessary. Photos were taken of the seed mixture bags, and all seeding activities. A total of 75 lbs. of seed mixture was dispersed at the location.

Follow up Monitoring Plan: The location will be monitored in the late summer (before the fall season). At that time, evaluation of growth in the area will determine if reseeding will be necessary. The area will also be monitored for noxious weeds. The area is small enough to rid the weeds mechanically.

Noxious Weeds Control

Republic Backhoe Service, LLC takes noxious weed control very seriously. All equipment and trucks are inspected before entering the pasture areas. The area will be monitored for the following noxious weeds (but not limited to):

Joint Goat Grass, Hoary Grass, Chest Grass, African Rus, Yellow Starthistle, Malta Starthistle, Purple Starthistle, Common Teasel, Camelthorn, and Russian Knapweed.

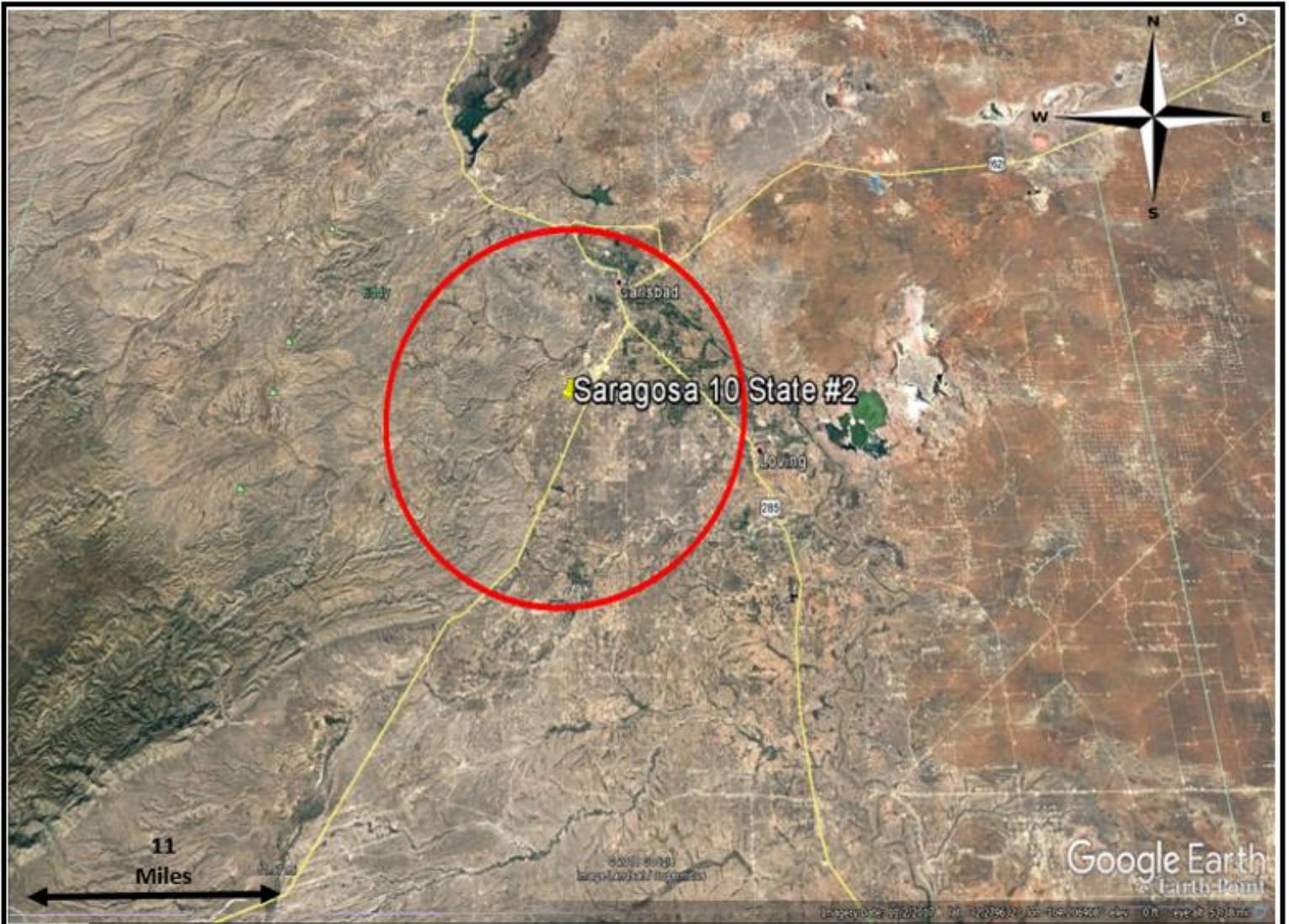
If you have any questions, please email me or call me at (575) 631-0131.

Thank you,

A handwritten signature in black ink, appearing to read "Eric Garcia", is positioned above the typed name.

Eric Garcia
Republic Backhoe Service, LLC

Attachment 1
Vicinity Area Map



Read & Stevens Inc.

Saragossa 10 State #2

B-10-23S-26E (330FNL & 2310FEL)

GPS Lat: 32.325566 Lon:-104.279915

**Republic Backhoe
Service, LLC**

47 E. Dickens Rd.

Lovington, NM 88260

Aerial Map #1

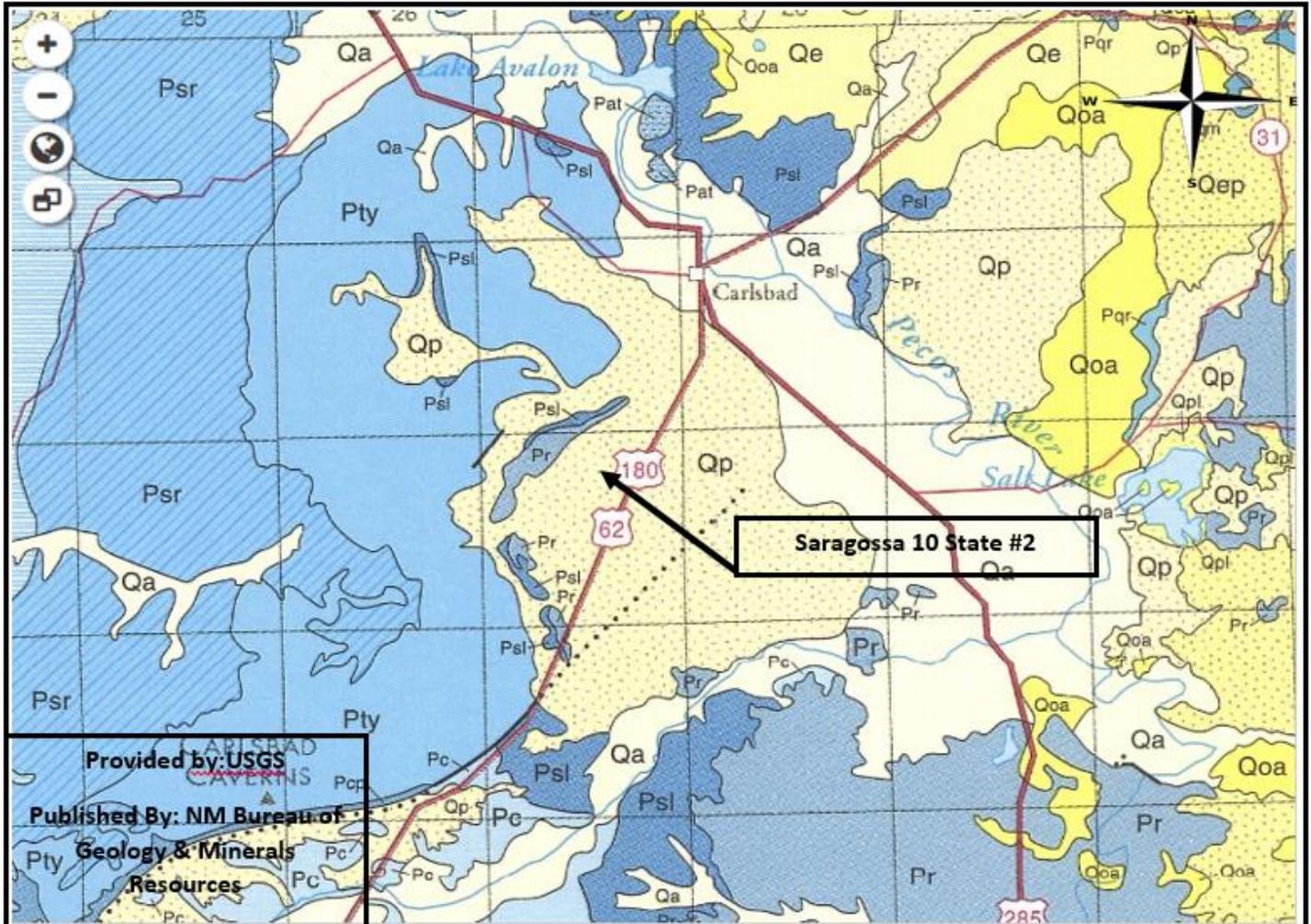
10 Mile Radius

Attachment #2
Vicinity Area Map



<p>Read & Stevens Inc.</p> <p>Saragossa 10 State #2</p> <p>B-10-23S-26E (330FNL & 2310FEL)</p> <p>GPS Lat: 32.325566 Lon:-104.279915</p>	<p>Republic Backhoe Service, LLC</p> <p>47 E. Dickens Rd.</p> <p>Lovington, NM 88260</p>	<p>Aerial Map #2</p> <p>2 Mile Radius</p>
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Attachment #3
Geological Map



<p>Read & Stevens Inc. Saragossa 10 State #2 B-10-23S-26E (330FNL & 2310FEL) GPS Lat: 32.325566 Lon:-104.279915</p>	<p>Republic Backhoe Service, LLC 47 E. Dickens Rd. Lovington, NM 88260</p>	<p>Geological Map Piedmont alluvial deposits Alluvium Rustler Formation Salado Formation</p> <table border="1"><tr><td>Qa</td></tr><tr><td>Qp</td></tr><tr><td>Pr</td></tr><tr><td>Psl</td></tr></table>	Qa	Qp	Pr	Psl
Qa						
Qp						
Pr						
Psl						

Attachment #4

NMOSE Average Depth to Water



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 Number	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	DepthWell	DepthWater	Water Column
C 02264		CUB	ED	4	03	23S	26E			568065	3577254*	579	260		
C 02382		C	ED	4	03	23S	26E			568065	3577254*	579	288	248	40
C 02393		C	ED	4	03	23S	26E			568065	3577254*	579	290	245	45
C 01310		C	ED	1	3	2	11	23S	26E	569409	3576366*	1675	250	220	30
C 01548		C	ED	3	2	11	23S	26E		569510	3576267*	1798	250		
C 01635		C	ED	3	2	11	23S	26E		569510	3576267*	1798	255	205	50
C 01708		C	ED	3	2	11	23S	26E		569510	3576267*	1798	275	236	39
C 01843		C	ED	3	2	11	23S	26E		569510	3576267*	1798	252	217	35

Average Depth to Water: **228 feet**

Minimum Depth: **205 feet**

Maximum Depth: **248 feet**

Record Count: 8

UTMNAD83 Radius Search (in meters):

Easting (X): 567777.68

Northing (Y): 3576750.38

Radius: 2000

*UTM location was derived from PLSS - see Help

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

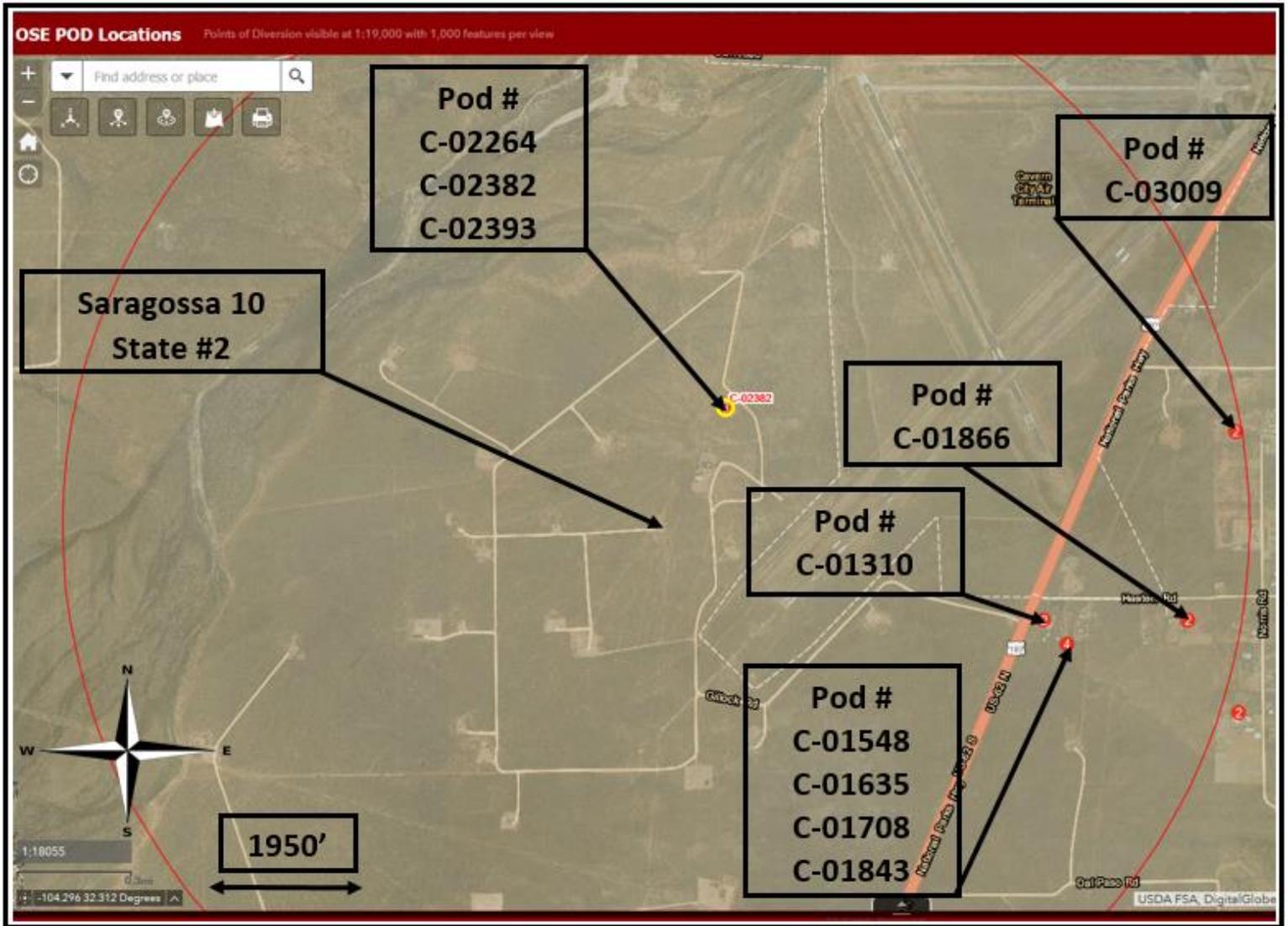
1/9/19 10:46 AM

WATER COLUMN/ AVERAGE DEPTH TO WATER

<p>Read & Stevens Inc.</p> <p>Saragossa 10 State #2</p> <p>B-10-23S-26E (330FNL & 2310FEL)</p> <p>GPS Lat: 32.325566 Lon:-104.279915</p>	<p>Republic Backhoe Service, LLC</p> <p>47 E. Dickens Rd.</p> <p>Lovington, NM 88260</p>	<p>NMOSE</p> <p>Water Column/Average Depth to Water</p> <p>2000 Meter Radius</p>
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Attachment #5

Pod Locations



<p>Read & Stevens Inc. Saragossa 10 State #2 B-10-23S-26E (330FNL & 2310FEL) GPS Lat: 32.325566 Lon:-104.279915</p>	<p>Republic Backhoe Service, LLC 47 E. Dickens Rd. Lovington, NM 88260</p>	<p>NMOSE Nearest Pod Locations 2500 Meter Radius</p>
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Attachment #6

Horizontal Extent of the Spill NMOSE Average Depth to Water



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 Number	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	DepthWell	DepthWater	Water Column
C_02264		CUB	ED	4	03	23S	26E			568065	3577254*	372	260		
C_02382		C	ED	4	03	23S	26E			568065	3577254*	372	288	248	40
C_02393		C	ED	4	03	23S	26E			568065	3577254*	372	290	245	45

Correction* C-02382 distance from Lateral Extent is 157.88 Meters.
C-2393 distance from Lateral Extent is 179.22 Meters.
Revised POD locations after talking with Rancher.

Average Depth to Water: 246 feet
Minimum Depth: 245 feet
Maximum Depth: 248 feet

Record Count: 3

UTMNAD83 Radius Search (in meters):

Easting (X): 567864.77

Northing (Y): 3576940.34

Radius: 1000

*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.

1/10/19 9:03 AM

WATER COLUMN/ AVERAGE DEPTH TO WATER

Read & Stevens Inc.

Saragossa 10 State #2

B-10-23S-26E (330FNL & 2310FEL)

GPS Lat: 32.325566 Lon:-104.279915

Republic Backhoe Service, LLC

47 E. Dickens Rd.

Lovington, NM 88260

NMOSE Water Well Search

At North Extent of Spill

Sample Point TA7

1,000 Meter Radius

C-02382-518'

C-02393-588'

Attachment #7

Pod Locations

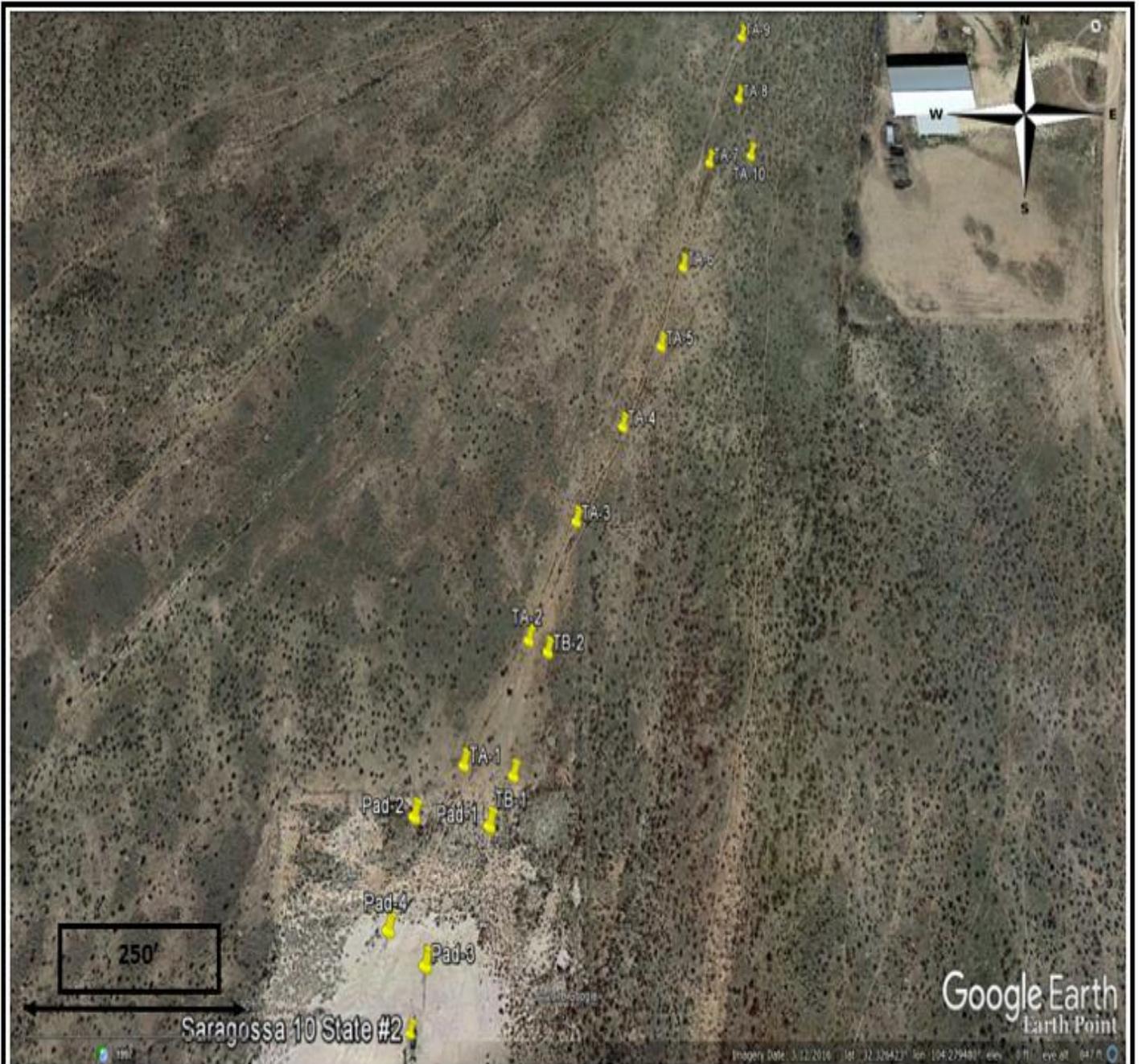


Read & Stevens Inc.
Saragossa 10 State #2
B-10-23S-26E (330FNL & 2310FEL)
GPS Lat: 32.325566 Lon:-104.279915

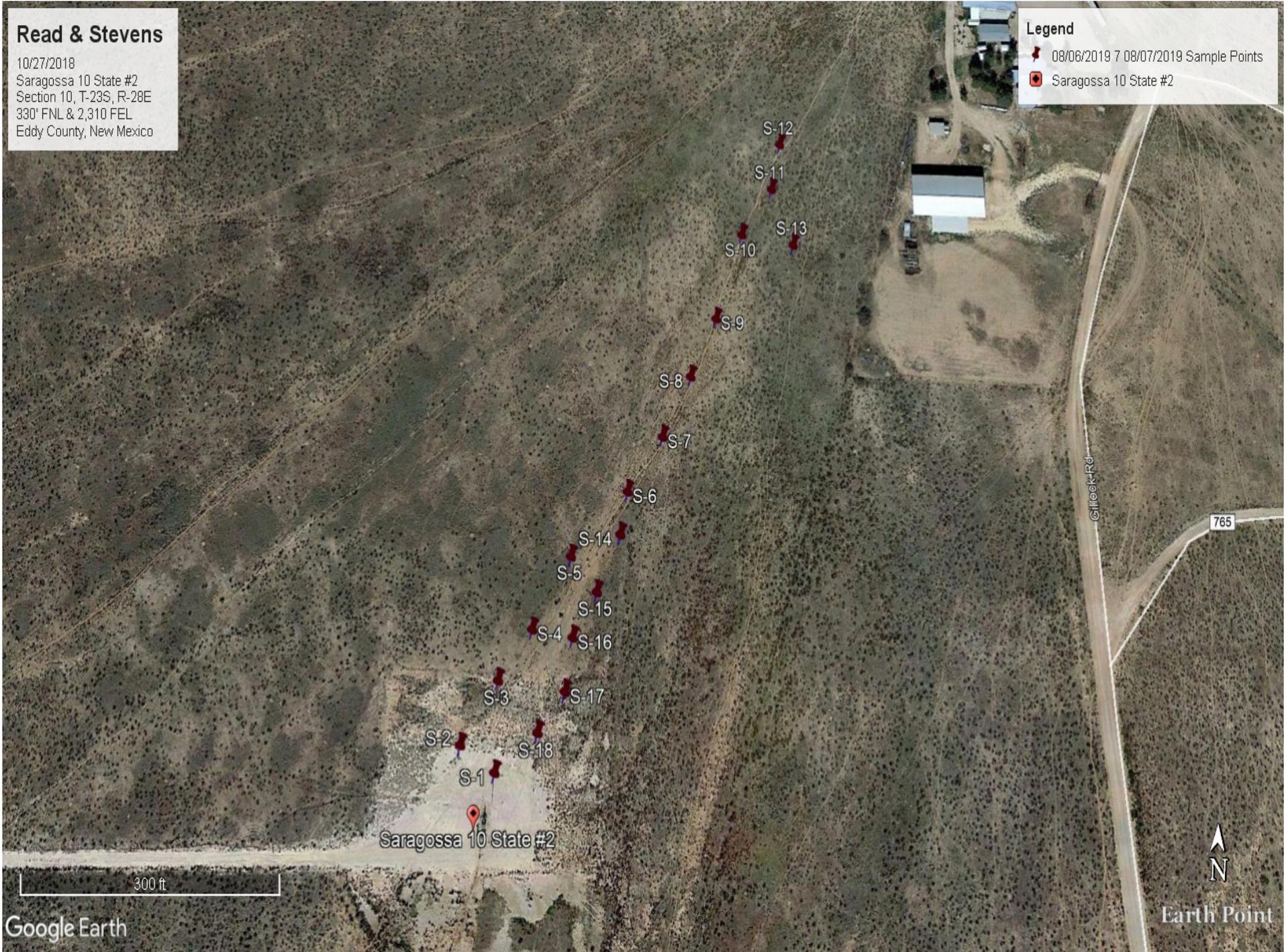
**Republic Backhoe
Service, LLC**
47 E. Dickens Rd.
Lovington, NM 88260

**NMOSE Water Well Search
At North Extent of Spill
Sample Point TA7**
C-02382-518'
C-02393-588'
Permanent Residence-482'

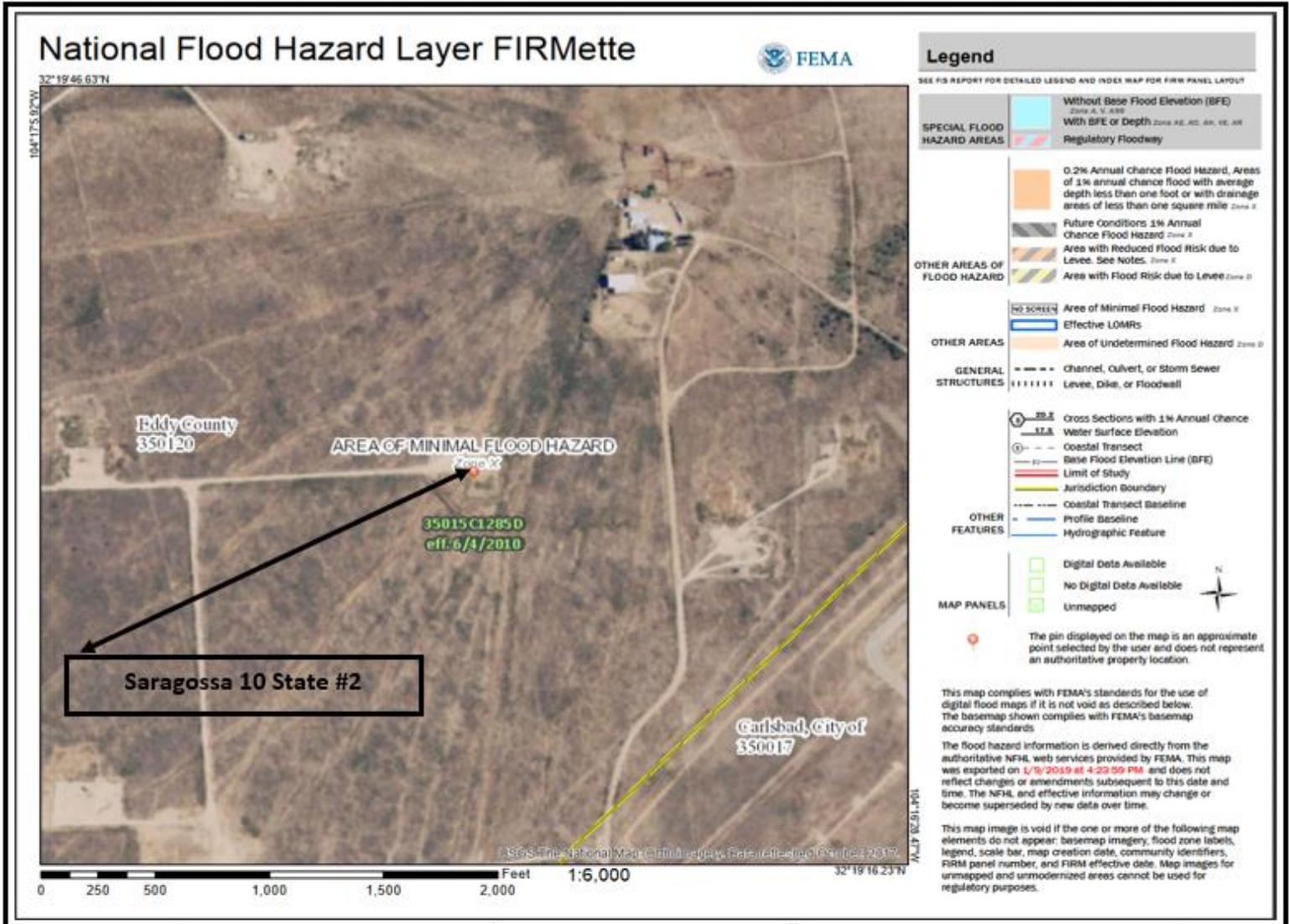
Attachment #8
Sampling Locations



<p>Read & Stevens Inc.</p> <p>Saragossa 10 State #2</p> <p>B-10-23S-26E (330FNL & 2310FEL)</p> <p>GPS Lat: 32.325566 Lon:-104.279915</p>	<p>Republic Backhoe Service, LLC</p> <p>47 E. Dickens Rd.</p> <p>Lovington, NM 88260</p>	<p>Sampling Locations</p>
--	---	----------------------------------



Attachment #9
Floodplain Map



Read & Stevens Inc.

Saragossa 10 State #2

B-10-23S-26E (330FNL & 2310FEL)

GPS Lat: 32.325566 Lon:-104.279915

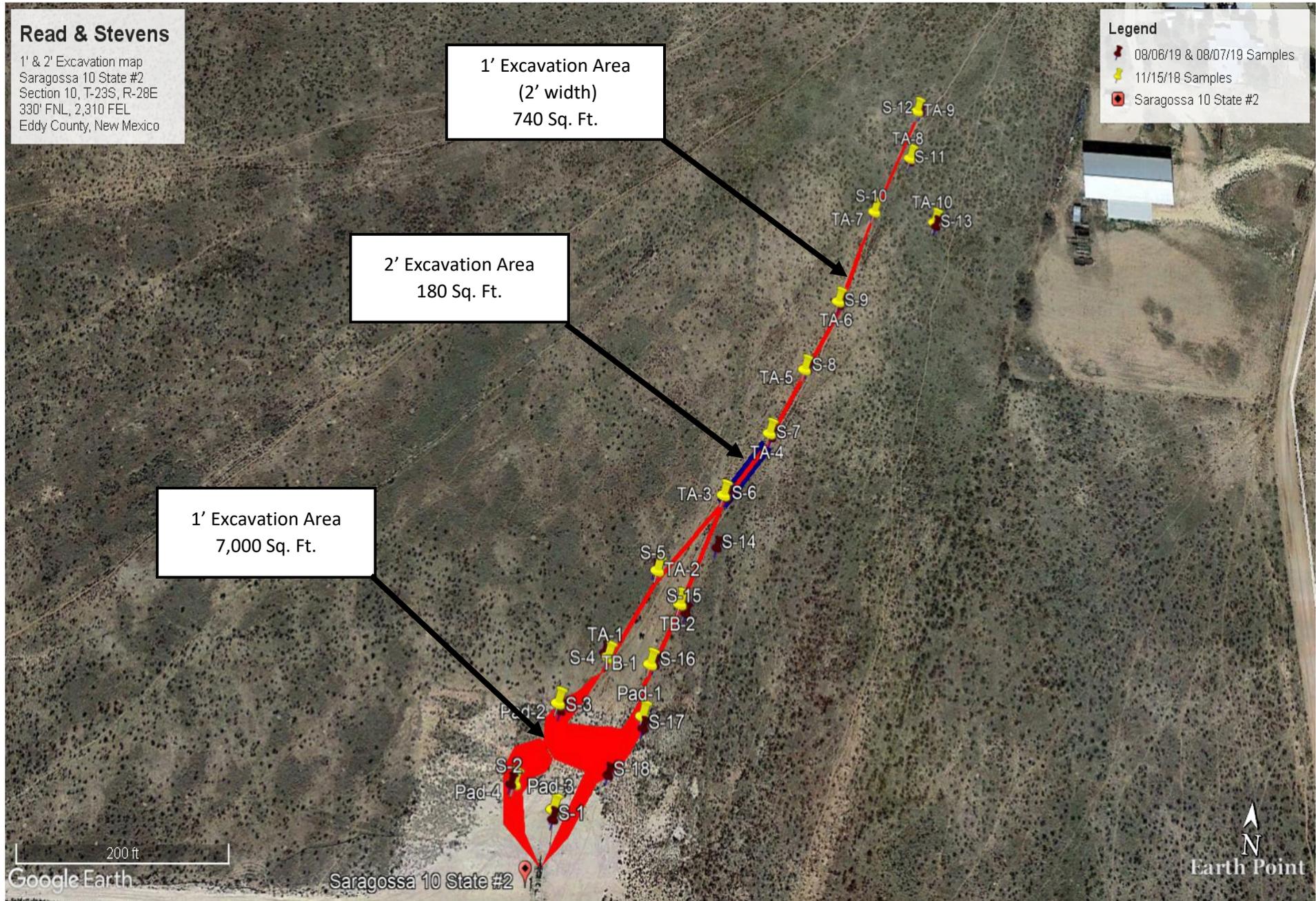
Republic Backhoe Service, LLC

47 E. Dickens Rd.

Lovington, NM 88260

FEMA Flood Hazard Map

Attachment #10
Spill and Excavation Map



Attachment #11
Reclamation Map

Read & Stevens

Reclamation Map
Saragossa 10 State #2
Section 10, T-23S, R-28E
330' FNL, 2,310 FEL
Eddy County, New Mexico

Legend

 Saragossa 10 State #2

**Reclaimed Area:
22,275 Sq. Ft.**

**Original Location Size:
56,470 Sq. Ft.**

**Current Location Size:
34,195 Sq. Ft.**

Saragossa 10 State #2 

Google Earth 200 ft 

Attachment #12

Soil Description

Description	USCS	Porosity [-]			Reference
		min	max	Specific value	
Well graded gravel, sandy gravel, with little or no fines	GW	0.21	0.32		[1].
Poorly graded gravel, sandy gravel, with little or no fines	GP	0.21	0.32		[1].
Silty gravels, silty sandy gravels	GM	0.15	0.22		[1].
Gravel	(GW-GP)	0.23	0.38		[2].
Clayey gravels, clayey sandy gravels	GC	0.17	0.27		[1].
Glacial till, very mixed grained	(GC)	-	-	0.20	[4 cited in 5]
Well graded sands, gravelly sands, with little or no fines	SW	0.22	0.42		[1], [2].
Coarse sand	(SW)	0.26	0.43		[2].
Fine sand	(SW)	0.29	0.46		[2].
Poorly graded sands, gravelly sands, with little or no fines	SP	0.23	0.43		[1], [2].
Silty sands	SM	0.25	0.49		[1], [2].
Clayey sands	SC	0.15	0.37		[1].
Inorganic silts, silty or clayey fine sands, with slight plasticity	ML	0.21	0.56		[1].
Uniform inorganic silt	(ML)	0.29	0.52		[3].
Inorganic clays, silty clays, sandy clays of low plasticity	CL	0.29	0.41		[1].
Organic silts and organic silty clays of low plasticity	OL	0.42	0.68		[1], [3].
Silty or sandy clay	(CL-OL)	0.20	0.64		[3].
Inorganic silts of high plasticity	MH	0.53	0.68		[1].
Inorganic clays of high plasticity	CH	0.39	0.59		[1].
Soft glacial clay	-	-	-	0.55	[4 cited in 5]
Stiff glacial clay	-	-	-	0.38	[4 cited in 5]
Organic clays of high plasticity	OH	0.50	0.75		[1], [3].
Soft slightly organic clay	(OH-OL)	-	-	0.66	[4 cited in 5]
Peat and other highly organic soils	Pt	-	-		[4 cited in 5]
soft very organic clay	(Pt)	-	-	0.75	[4 cited in 5]

REFERENCES

1. Swiss Standard SN 670 010b, Characteristic Coefficients of soils, Association of Swiss Road and Traffic Engineers
2. Das, B., Advanced Soil Mechanics. Taylor & Francis, London & New York, 2008.
3. Hough, B., Basic soil engineering. Ronald Press Company, New York, 1969.
4. Terzaghi, K., Peck, R., and Mesri, G., Soil Mechanics in Engineering Practice. Wiley, New York, 1996.
5. Obrzud R. & Truty, A. THE HARDENING SOIL MODEL - A PRACTICAL GUIDEBOOK Z Soil.PC 100701 report, revised 31.01.2012

Citation :
Geotechdata.info, Soil void ratio, <http://geotechdata.info/parameter/soil-void-ratio.html> (as of November 16, 2013).

Attachment #13
Spill Calculations

***** LIQUID SPILLS - VOLUME CALCULATIONS *****

Location of Spill: Sarasosa 10 State #2

Date of Spill: 10/26/2018

Site Soil Type: Sandy Loam & Caliche

Average Daily Production: 13 BBL Oil 128 BBL Water

Total Area Calculations						
Total Surface Area	Width	Length	Wet Soil Depth	Oil (%)	Soil Class.	Porosity%
Polygon #1	3,755		6"	5	GM	0.15
Polygon #2	3,664		10"	5	GM/ML	0.18
Polygon #3	644		4"	99	ML/CL	0.25
Polygon #4	173		1/16"	99	ML	0.21
Saturated Soil Volume calculations:			H2O	OIL		
Polygon #1	1,877.50		47.60	2.50		
Polygon #2	3,053		92.98	4.89		
Polygon #3	215		0.09	9.45		
Polygon #4	11		0.00	0.40		
Total Solid/ Liquid Volume:						
Estimated Volumes Spilled			H2O	OIL		
			140.67	17.24		
Liquid Recovered:			0	2		
Total Spill Liquid:			155.91			

Please view Attachment 12 for the references in obtaining the Porosity values.

The soil classification was gathered from Soil Survey Eddy Area, New Mexico March 1971.

Polygon #1 is from the caliche pad with Soil Class GM.

Polygon #2 is located on the caliche pad with 6" of caliche (GM) and 4" of top soil (ML). Porosity % is the average of both.

Polygon #3 is located on the pasture where fluids ran down cattle path. Includes ML and CL soil. Porosity % is average of both.

Polygon #4 is located on the northern end of the spill. This was mostly a misty that was carried by the wind. Soil samples did not show any contamination in this area.

Attachment #14
Laboratory Analysis



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

November 27, 2018

ERIC GARCIA
REPUBLIC BACKHOE SERVICES
47 E. DICKENS RD
LOVINGTON, NM 88260

RE: SARAGOSSA 10 ST. #2

Enclosed are the results of analyses for samples received by the laboratory on 11/19/18 15:37.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene
Lab Director/Quality Manager



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

Analytical Results For:

REPUBLIC BACKHOE SERVICES
 ERIC GARCIA
 47 E. DICKENS RD
 LOVINGTON NM, 88260
 Fax To: NONE

Received:	11/19/2018	Sampling Date:	11/15/2018
Reported:	11/27/2018	Sampling Type:	Soil
Project Name:	SARAGOSSA 10 ST. #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	READ & STEVENS		

Sample ID: TA 7-5 (H803384-01)

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	11/24/2018	ND	2.15	108	2.00	2.25		
Toluene*	<0.050	0.050	11/24/2018	ND	2.07	103	2.00	0.874		
Ethylbenzene*	<0.050	0.050	11/24/2018	ND	2.01	100	2.00	1.42		
Total Xylenes*	<0.150	0.150	11/24/2018	ND	5.90	98.4	6.00	1.89		
Total BTEX	<0.300	0.300	11/24/2018	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 96.5 % 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	80.0	16.0	11/24/2018	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	11/21/2018	ND	187	93.5	200	3.29		
DRO >C10-C28*	<10.0	10.0	11/21/2018	ND	204	102	200	0.672		
EXT DRO >C28-C36	12.3	10.0	11/21/2018	ND						

Surrogate: 1-Chlorooctane 83.1 % 41-142

Surrogate: 1-Chlorooctadecane 86.8 % 37.6-147

Cardinal Laboratories

* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

REPUBLIC BACKHOE SERVICES
 ERIC GARCIA
 47 E. DICKENS RD
 LOVINGTON NM, 88260
 Fax To: NONE

Received:	11/19/2018	Sampling Date:	11/15/2018
Reported:	11/27/2018	Sampling Type:	Soil
Project Name:	SARAGOSSA 10 ST. #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	READ & STEVENS		

Sample ID: TA 4-5 (H803384-02)

BTEX 80218		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/24/2018	ND	2.15	108	2.00	2.25		
Toluene*	<0.050	0.050	11/24/2018	ND	2.07	103	2.00	0.874		
Ethylbenzene*	<0.050	0.050	11/24/2018	ND	2.01	100	2.00	1.42		
Total Xylenes*	<0.150	0.150	11/24/2018	ND	5.90	98.4	6.00	1.89		
Total BTEX	<0.300	0.300	11/24/2018	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 95.1 % 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	11/24/2018	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	11/21/2018	ND	187	93.5	200	3.29		
DRO >C10-C28*	<10.0	10.0	11/21/2018	ND	204	102	200	0.672		
EXT DRO >C28-C36	11.6	10.0	11/21/2018	ND						

Surrogate: 1-Chlorooctane 91.8 % 41-142

Surrogate: 1-Chlorooctadecane 94.6 % 37.6-147

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Analytical Results For:

REPUBLIC BACKHOE SERVICES
 ERIC GARCIA
 47 E. DICKENS RD
 LOVINGTON NM, 88260
 Fax To: NONE

Received:	11/19/2018	Sampling Date:	11/15/2018
Reported:	11/27/2018	Sampling Type:	Soil
Project Name:	SARAGOSSA 10 ST. #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	READ & STEVENS		

Sample ID: PAD 2-5 (H803384-03)

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	11/24/2018	ND	2.15	108	2.00	2.25	
Toluene*	<0.050	0.050	11/24/2018	ND	2.07	103	2.00	0.874	
Ethylbenzene*	<0.050	0.050	11/24/2018	ND	2.01	100	2.00	1.42	
Total Xylenes*	<0.150	0.150	11/24/2018	ND	5.90	98.4	6.00	1.89	
Total BTEX	<0.300	0.300	11/24/2018	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 96.4 % 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	16.0	16.0	11/24/2018	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/21/2018	ND	187	93.5	200	3.29	
DRO >C10-C28*	12.4	10.0	11/21/2018	ND	204	102	200	0.672	
EXT DRO >C28-C36	<10.0	10.0	11/21/2018	ND					

Surrogate: 1-Chlorooctane 81.5 % 41-142

Surrogate: 1-Chlorooctadecane 85.3 % 37.6-147

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Analytical Results For:

REPUBLIC BACKHOE SERVICES
 ERIC GARCIA
 47 E. DICKENS RD
 LOVINGTON NM, 88260
 Fax To: NONE

Received:	11/19/2018	Sampling Date:	11/15/2018
Reported:	11/27/2018	Sampling Type:	Soil
Project Name:	SARAGOSSA 10 ST. #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	READ & STEVENS		

Sample ID: TA 6-5 (H803384-04)

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	11/24/2018	ND	2.15	108	2.00	2.25		
Toluene*	<0.050	0.050	11/24/2018	ND	2.07	103	2.00	0.874		
Ethylbenzene*	<0.050	0.050	11/24/2018	ND	2.01	100	2.00	1.42		
Total Xylenes*	<0.150	0.150	11/24/2018	ND	5.90	98.4	6.00	1.89		
Total BTEX	<0.300	0.300	11/24/2018	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 96.9 % 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	80.0	16.0	11/24/2018	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	11/21/2018	ND	187	93.5	200	3.29		
DRO >C10-C28*	<10.0	10.0	11/21/2018	ND	204	102	200	0.672		
EXT DRO >C28-C36	<10.0	10.0	11/21/2018	ND						

Surrogate: 1-Chlorooctane 86.5 % 41-142

Surrogate: 1-Chlorooctadecane 89.3 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

REPUBLIC BACKHOE SERVICES
ERIC GARCIA
47 E. DICKENS RD
LOVINGTON NM, 88260
Fax To: NONE

Received: 11/19/2018
Reported: 11/27/2018
Project Name: SARAGOSSA 10 ST. #2
Project Number: NONE GIVEN
Project Location: READ & STEVENS

Sampling Date: 11/15/2018
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: PAD 3-5 (H803384-05)

BTEX 80218		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/24/2018	ND	2.15	108	2.00	2.25	
Toluene*	<0.050	0.050	11/24/2018	ND	2.07	103	2.00	0.874	
Ethylbenzene*	<0.050	0.050	11/24/2018	ND	2.01	100	2.00	1.42	
Total Xylenes*	<0.150	0.150	11/24/2018	ND	5.90	98.4	6.00	1.89	
Total BTEX	<0.300	0.300	11/24/2018	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 97.5 % 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	11/24/2018	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/21/2018	ND	187	93.5	200	3.29	
DRO >C10-C28*	<10.0	10.0	11/21/2018	ND	204	102	200	0.672	
EXT DRO >C28-C36	<10.0	10.0	11/21/2018	ND					

Surrogate: 1-Chlorooctane 84.6 % 41-142

Surrogate: 1-Chlorooctadecane 84.1 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

REPUBLIC BACKHOE SERVICES
 ERIC GARCIA
 47 E. DICKENS RD
 LOVINGTON NM, 88260
 Fax To: NONE

Received:	11/19/2018	Sampling Date:	11/15/2018
Reported:	11/27/2018	Sampling Type:	Soil
Project Name:	SARAGOSSA 10 ST. #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	READ & STEVENS		

Sample ID: PAD 1-5 (H803384-06)

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	11/24/2018	ND	2.15	108	2.00	2.25	
Toluene*	<0.050	0.050	11/24/2018	ND	2.07	103	2.00	0.874	
Ethylbenzene*	<0.050	0.050	11/24/2018	ND	2.01	100	2.00	1.42	
Total Xylenes*	<0.150	0.150	11/24/2018	ND	5.90	98.4	6.00	1.89	
Total BTEX	<0.300	0.300	11/24/2018	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 96.8 % 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	144	16.0	11/24/2018	ND	432	108	400	0.00	QR-03

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	11/21/2018	ND	187	93.5	200	3.29	
DRO >C10-C28*	<10.0	10.0	11/21/2018	ND	204	102	200	0.672	
EXT DRO >C28-C36	<10.0	10.0	11/21/2018	ND					

Surrogate: 1-Chlorooctane 84.7 % 41-142

Surrogate: 1-Chlorooctadecane 82.5 % 37.6-147

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Analytical Results For:

REPUBLIC BACKHOE SERVICES
 ERIC GARCIA
 47 E. DICKENS RD
 LOVINGTON NM, 88260
 Fax To: NONE

Received:	11/19/2018	Sampling Date:	11/15/2018
Reported:	11/27/2018	Sampling Type:	Soil
Project Name:	SARAGOSSA 10 ST. #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	READ & STEVENS		

Sample ID: PAD 3-2 (H803384-07)

BTEX 80218		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/24/2018	ND	2.15	108	2.00	2.25		
Toluene*	<0.050	0.050	11/24/2018	ND	2.07	103	2.00	0.874		
Ethylbenzene*	<0.050	0.050	11/24/2018	ND	2.01	100	2.00	1.42		
Total Xylenes*	<0.150	0.150	11/24/2018	ND	5.90	98.4	6.00	1.89		
Total BTEX	<0.300	0.300	11/24/2018	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 96.5 % 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	208	16.0	11/24/2018	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	11/21/2018	ND	187	93.5	200	3.29		
DRO >C10-C28*	<10.0	10.0	11/21/2018	ND	204	102	200	0.672		
EXT DRO >C28-C36	18.8	10.0	11/21/2018	ND						

Surrogate: 1-Chlorooctane 89.2 % 41-142

Surrogate: 1-Chlorooctadecane 91.3 % 37.6-147

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Analytical Results For:

REPUBLIC BACKHOE SERVICES
ERIC GARCIA
47 E. DICKENS RD
LOVINGTON NM, 88260
Fax To: NONE

Received: 11/19/2018
Reported: 11/27/2018
Project Name: SARAGOSSA 10 ST. #2
Project Number: NONE GIVEN
Project Location: READ & STEVENS

Sampling Date: 11/15/2018
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: TA 3 - SURFACE (H803384-08)

BTEX 80218		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<1.00	1.00	11/24/2018	ND	2.15	108	2.00	2.25	
Toluene*	<1.00	1.00	11/24/2018	ND	2.07	103	2.00	0.874	
Ethylbenzene*	2.24	1.00	11/24/2018	ND	2.01	100	2.00	1.42	
Total Xylenes*	12.9	3.00	11/24/2018	ND	5.90	98.4	6.00	1.89	
Total BTEX	15.2	6.00	11/24/2018	ND					

Surrogate: 4-Bromofluorobenzene (PII) 105 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	288	16.0	11/24/2018	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS						S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	642	100	11/21/2018	ND	187	93.5	200	3.29		
DRO >C10-C28*	28600	100	11/21/2018	ND	204	102	200	0.672		
EXT DRO >C28-C36	5060	100	11/21/2018	ND						

Surrogate: 1-Chlorooctane 190 % 41-142

Surrogate: 1-Chlorooctadecane 954 % 37.6-147

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Analytical Results For:

REPUBLIC BACKHOE SERVICES
ERIC GARCIA
47 E. DICKENS RD
LOVINGTON NM, 88260
Fax To: NONE

Received:	11/19/2018	Sampling Date:	11/15/2018
Reported:	11/27/2018	Sampling Type:	Soil
Project Name:	SARAGOSSA 10 ST. #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	READ & STEVENS		

Sample ID: TA 7-2 (H803384-09)

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	11/24/2018	ND	2.15	108	2.00	2.25		
Toluene*	<0.050	0.050	11/24/2018	ND	2.07	103	2.00	0.874		
Ethylbenzene*	<0.050	0.050	11/24/2018	ND	2.01	100	2.00	1.42		
Total Xylenes*	<0.150	0.150	11/24/2018	ND	5.90	98.4	6.00	1.89		
Total BTEX	<0.300	0.300	11/24/2018	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 97.0% 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	96.0	16.0	11/24/2018	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	11/21/2018	ND	187	93.5	200	3.29		
DRO >C10-C28*	<10.0	10.0	11/21/2018	ND	204	102	200	0.672		
EXT DRO >C28-C36	<10.0	10.0	11/21/2018	ND						

Surrogate: 1-Chlorooctane 84.4% 41-142

Surrogate: 1-Chlorooctadecane 83.9% 37.6-147

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Analytical Results For:

REPUBLIC BACKHOE SERVICES
 ERIC GARCIA
 47 E. DICKENS RD
 LOVINGTON NM, 88260
 Fax To: NONE

Received:	11/19/2018	Sampling Date:	11/15/2018
Reported:	11/27/2018	Sampling Type:	Soil
Project Name:	SARAGOSSA 10 ST. #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	READ & STEVENS		

Sample ID: PAD 4-2 (H803384-10)

BTEX 80218		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/24/2018	ND	2.15	108	2.00	2.25		
Toluene*	<0.050	0.050	11/24/2018	ND	2.07	103	2.00	0.874		
Ethylbenzene*	<0.050	0.050	11/24/2018	ND	2.01	100	2.00	1.42		
Total Xylenes*	<0.150	0.150	11/24/2018	ND	5.90	98.4	6.00	1.89		
Total BTEX	<0.300	0.300	11/24/2018	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 97.0 % 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	96.0	16.0	11/24/2018	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	11/21/2018	ND	187	93.5	200	3.29		
DRO >C10-C28*	<10.0	10.0	11/21/2018	ND	204	102	200	0.672		
EXT DRO >C28-C36	<10.0	10.0	11/21/2018	ND						

Surrogate: 1-Chlorooctane 85.5 % 41-142

Surrogate: 1-Chlorooctadecane 84.9 % 37.6-147

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Analytical Results For:

REPUBLIC BACKHOE SERVICES
 ERIC GARCIA
 47 E. DICKENS RD
 LOVINGTON NM, 88260
 Fax To: NONE

Received:	11/19/2018	Sampling Date:	11/15/2018
Reported:	11/27/2018	Sampling Type:	Soil
Project Name:	SARAGOSSA 10 ST. #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	READ & STEVENS		

Sample ID: TA 2 - SURFACE (H803384-11)

BTEX 80218		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.500	0.500	11/24/2018	ND	2.15	108	2.00	2.25		
Toluene*	<0.500	0.500	11/24/2018	ND	2.07	103	2.00	0.874		
Ethylbenzene*	<0.500	0.500	11/24/2018	ND	2.01	100	2.00	1.42		
Total Xylenes*	2.64	1.50	11/24/2018	ND	5.90	98.4	6.00	1.89		
Total BTEX	<3.00	3.00	11/24/2018	ND						

Surrogate: 4-Bromofluorobenzene (PII) 104 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	6960	16.0	11/24/2018	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS							5-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
GRO C6-C10*	274	100	11/21/2018	ND	187	93.5	200	3.29			
DRO >C10-C28*	27600	100	11/21/2018	ND	204	102	200	0.672			
EXT DRO >C28-C36	5050	100	11/21/2018	ND							

Surrogate: 1-Chlorooctane 147 % 41-142

Surrogate: 1-Chlorooctadecane 593 % 37.6-147

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Analytical Results For:

REPUBLIC BACKHOE SERVICES
 ERIC GARCIA
 47 E. DICKENS RD
 LOVINGTON NM, 88260
 Fax To: NONE

Received:	11/19/2018	Sampling Date:	11/15/2018
Reported:	11/27/2018	Sampling Type:	Soil
Project Name:	SARAGOSSA 10 ST. #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	READ & STEVENS		

Sample ID: TA 10 - SURFACE (H803384-12)

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	11/25/2018	ND	2.15	108	2.00	2.25	
Toluene*	<0.050	0.050	11/25/2018	ND	2.07	103	2.00	0.874	
Ethylbenzene*	<0.050	0.050	11/25/2018	ND	2.01	100	2.00	1.42	
Total Xylenes*	<0.150	0.150	11/25/2018	ND	5.90	98.4	6.00	1.89	
Total BTEX	<0.300	0.300	11/25/2018	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 96.7 % 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	32.0	16.0	11/24/2018	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	11/21/2018	ND	187	93.5	200	3.29	
DRO >C10-C28*	56.3	10.0	11/21/2018	ND	204	102	200	0.672	
EXT DRO >C28-C36	24.9	10.0	11/21/2018	ND					

Surrogate: 1-Chlorooctane 82.8 % 41-142

Surrogate: 1-Chlorooctadecane 84.2 % 37.6-147

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Analytical Results For:

REPUBLIC BACKHOE SERVICES
 ERIC GARCIA
 47 E. DICKENS RD
 LOVINGTON NM, 88260
 Fax To: NONE

Received:	11/19/2018	Sampling Date:	11/15/2018
Reported:	11/27/2018	Sampling Type:	Soil
Project Name:	SARAGOSSA 10 ST. #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	READ & STEVENS		

Sample ID: TA 4-2 (H803384-13)

BTEX 80218		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/25/2018	ND	2.15	108	2.00	2.25		
Toluene*	<0.050	0.050	11/25/2018	ND	2.07	103	2.00	0.874		
Ethylbenzene*	<0.050	0.050	11/25/2018	ND	2.01	100	2.00	1.42		
Total Xylenes*	<0.150	0.150	11/25/2018	ND	5.90	98.4	6.00	1.89		
Total BTEX	<0.300	0.300	11/25/2018	ND						

Surrogate: 4-Bromofluorobenzene (PII) 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	48.0	16.0	11/24/2018	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	
GRD C6-C10*	<10.0	10.0	11/22/2018	ND	193	96.7	200	3.55		
DRD >C10-C28*	<10.0	10.0	11/22/2018	ND	209	104	200	4.42		
EXT DRD >C28-C36	<10.0	10.0	11/22/2018	ND						

Surrogate: 1-Chlorooctane 89.2 % 41-142

Surrogate: 1-Chlorooctadecane 99.5 % 37.6-147

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Analytical Results For:

REPUBLIC BACKHOE SERVICES
 ERIC GARCIA
 47 E. DICKENS RD
 LOVINGTON NM, 88260
 Fax To: NONE

Received:	11/19/2018	Sampling Date:	11/15/2018
Reported:	11/27/2018	Sampling Type:	Soil
Project Name:	SARAGOSSA 10 ST. #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	READ & STEVENS		

Sample ID: TB 1 - SURFACE (H803384-14)

BTEX 80218		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.500	0.500	11/25/2018	ND	2.15	108	2.00	2.25		
Toluene*	<0.500	0.500	11/25/2018	ND	2.07	103	2.00	0.874		
Ethylbenzene*	<0.500	0.500	11/25/2018	ND	2.01	100	2.00	1.42		
Total Xylenes*	4.51	1.50	11/25/2018	ND	5.90	98.4	6.00	1.89		
Total BTEX	4.51	3.00	11/25/2018	ND						

Surrogate: 4-Bromofluorobenzene (PII) 109 % 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	11/24/2018	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS							5-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
GRO C6-C10*	491	100	11/22/2018	ND	193	96.7	200	3.55			
DRO >C10-C28*	29800	100	11/22/2018	ND	209	104	200	4.42			
EXT DRO >C28-C36	5310	100	11/22/2018	ND							

Surrogate: 1-Chlorooctane 123 % 41-142

Surrogate: 1-Chlorooctadecane 885 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

REPUBLIC BACKHOE SERVICES
 ERIC GARCIA
 47 E. DICKENS RD
 LOVINGTON NM, 88260
 Fax To: NONE

Received:	11/19/2018	Sampling Date:	11/15/2018
Reported:	11/27/2018	Sampling Type:	Soil
Project Name:	SARAGOSSA 10 ST. #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	READ & STEVENS		

Sample ID: PAD 1 - SURFACE (H803384-15)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.500	0.500	11/25/2018	ND	2.15	108	2.00	2.25		
Toluene*	<0.500	0.500	11/25/2018	ND	2.07	103	2.00	0.874		
Ethylbenzene*	1.02	0.500	11/25/2018	ND	2.01	100	2.00	1.42		
Total Xylenes*	5.71	1.50	11/25/2018	ND	5.90	98.4	6.00	1.89		
Total BTEX	6.73	3.00	11/25/2018	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 107 % 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	1180	16.0	11/24/2018	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS							S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
GRO C6-C10*	309	100	11/22/2018	ND	193	96.7	200	3.55			
DRO >C10-C28*	20600	100	11/22/2018	ND	209	104	200	4.42			
EXT DRO >C28-C36	4060	100	11/22/2018	ND							

Surrogate: 1-Chlorooctane 132 % 41-142

Surrogate: 1-Chlorooctadecane 668 % 37.6-147

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Analytical Results For:

REPUBLIC BACKHOE SERVICES
 ERIC GARCIA
 47 E. DICKENS RD
 LOVINGTON NM, 88260
 Fax To: NONE

Received:	11/19/2018	Sampling Date:	11/15/2018
Reported:	11/27/2018	Sampling Type:	Soil
Project Name:	SARAGOSSA 10 ST. #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	READ & STEVENS		

Sample ID: TB 2 - SURFACE (H803384-16)

BTEX 8021B		mg/kg		Analyzed By: MS				S-04		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/25/2018	ND	2.15	108	2.00	2.25		
Toluene*	<0.050	0.050	11/25/2018	ND	2.07	103	2.00	0.874		
Ethylbenzene*	<0.050	0.050	11/25/2018	ND	2.01	100	2.00	1.42		
Total Xylenes*	1.71	0.150	11/25/2018	ND	5.90	98.4	6.00	1.89		
Total BTEX	1.71	0.300	11/25/2018	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 153 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC				S-04		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	11/24/2018	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS				S-06		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	398	100	11/22/2018	ND	193	96.7	200	3.55		
DRO >C10-C28*	36300	100	11/22/2018	ND	209	104	200	4.42		
EXT DRO >C28-C36	7080	100	11/22/2018	ND						

Surrogate: 1-Chlorooctane 126 % 41-142

Surrogate: 1-Chlorooctadecane 1120 % 37.6-147

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Analytical Results For:

REPUBLIC BACKHOE SERVICES
ERIC GARCIA
47 E. DICKENS RD
LOVINGTON NM, 88260
Fax To: NONE

Received:	11/19/2018	Sampling Date:	11/15/2018
Reported:	11/27/2018	Sampling Type:	Soil
Project Name:	SARAGOSSA 10 ST. #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	READ & STEVENS		

Sample ID: PAD 2 - SURFACE (H803384-17)

BTEX 80218		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/25/2018	ND	2.15	108	2.00	2.25	
Toluene*	<0.050	0.050	11/25/2018	ND	2.07	103	2.00	0.874	
Ethylbenzene*	<0.050	0.050	11/25/2018	ND	2.01	100	2.00	1.42	
Total Xylenes*	1.17	0.150	11/25/2018	ND	5.90	98.4	6.00	1.69	
Total BTEX	1.17	0.300	11/25/2018	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 133 % 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	1710	16.0	11/24/2018	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	107	50.0	11/22/2018	ND	193	96.7	200	3.55	
DRO >C10-C28*	11200	50.0	11/22/2018	ND	209	104	200	4.42	
EXT DRO >C28-C36	2230	50.0	11/22/2018	ND					

Surrogate: 1-Chlorooctane 107 % 41-142

Surrogate: 1-Chlorooctadecane 406 % 37.6-147

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Coley D. Keene, Lab Director/Quality Manager



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Analytical Results For:

REPUBLIC BACKHOE SERVICES
ERIC GARCIA
47 E. DICKENS RD
LOVINGTON NM, 88260
Fax To: NONE

Received: 11/19/2018
Reported: 11/27/2018
Project Name: SARAGOSSA 10 ST. #2
Project Number: NONE GIVEN
Project Location: READ & STEVENS

Sampling Date: 11/15/2018
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: TA 9 - SURFACE (H803384-18)

BTEX 80218		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/25/2018	ND	2.15	108	2.00	2.25		
Toluene*	<0.050	0.050	11/25/2018	ND	2.07	103	2.00	0.874		
Ethylbenzene*	<0.050	0.050	11/25/2018	ND	2.01	100	2.00	1.42		
Total Xylenes*	<0.150	0.150	11/25/2018	ND	5.90	98.4	6.00	1.89		
Total BTEX	<0.300	0.300	11/25/2018	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 96.9 % 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	32.0	16.0	11/24/2018	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	11/22/2018	ND	193	96.7	200	3.55		
DRO >C10-C28*	72.9	10.0	11/22/2018	ND	209	104	200	4.42		
EXT DRO >C28-C36	37.6	10.0	11/22/2018	ND						

Surrogate: 1-Chlorooctane 70.6 % 41-142

Surrogate: 1-Chlorooctadecane 81.1 % 37.6-147

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Analytical Results For:

REPUBLIC BACKHOE SERVICES
ERIC GARCIA
47 E. DICKENS RD
LOVINGTON NM, 88260
Fax To: NONE

Received:	11/19/2018	Sampling Date:	11/15/2018
Reported:	11/27/2018	Sampling Type:	Soil
Project Name:	SARAGOSSA 10 ST. #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	READ & STEVENS		

Sample ID: TA 5-2 (H803384-19)

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	11/25/2018	ND	2.15	108	2.00	2.25		
Toluene*	<0.050	0.050	11/25/2018	ND	2.07	103	2.00	0.874		
Ethylbenzene*	<0.050	0.050	11/25/2018	ND	2.01	100	2.00	1.42		
Total Xylenes*	<0.150	0.150	11/25/2018	ND	5.90	98.4	6.00	1.89		
Total BTEX	<0.300	0.300	11/25/2018	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 96.8 % 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	32.0	16.0	11/24/2018	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	
GRD C6-C10*	<10.0	10.0	11/22/2018	ND	193	96.7	200	3.55		
DRO >C10-C28*	<10.0	10.0	11/22/2018	ND	209	104	200	4.42		
EXT DRO >C28-C36	<10.0	10.0	11/22/2018	ND						

Surrogate: 1-Chlorooctane 89.7 % 41-142

Surrogate: 1-Chlorooctadecane 98.1 % 37.6-147

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Analytical Results For:

REPUBLIC BACKHOE SERVICES
ERIC GARCIA
47 E. DICKENS RD
LOVINGTON NM, 88260
Fax To: NONE

Received:	11/19/2018	Sampling Date:	11/15/2018
Reported:	11/27/2018	Sampling Type:	Soil
Project Name:	SARAGOSSA 10 ST. #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	READ & STEVENS		

Sample ID: PAD 2-2 (H803384-20)

BTEX 80218		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/25/2018	ND	2.19	109	2.00	1.08		
Toluene*	<0.050	0.050	11/25/2018	ND	2.19	109	2.00	0.189		
Ethylbenzene*	<0.050	0.050	11/25/2018	ND	2.11	106	2.00	0.0513		
Total Xylenes*	<0.150	0.150	11/25/2018	ND	6.34	106	6.00	0.516		
Total BTEX	<0.300	0.300	11/25/2018	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 95.2% 73.3-129

Chloride, SM4500C-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	11/24/2018	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	11/22/2018	ND	193	96.7	200	3.55		
DRO >C10-C28*	<10.0	10.0	11/22/2018	ND	209	104	200	4.42		
EXT DRO >C28-C36	<10.0	10.0	11/22/2018	ND						

Surrogate: 1-Chlorooctane 79.4% 41-142

Surrogate: 1-Chlorooctadecane 85.7% 37.6-147

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Analytical Results For:

REPUBLIC BACKHOE SERVICES
 ERIC GARCIA
 47 E. DICKENS RD
 LOVINGTON NM, 88260
 Fax To: NONE

Received:	11/19/2018	Sampling Date:	11/15/2018
Reported:	11/27/2018	Sampling Type:	Soil
Project Name:	SARAGOSSA 10 ST. #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	READ & STEVENS		

Sample ID: TA 1-2 (H803384-21)

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	11/25/2018	ND	2.19	109	2.00	1.08		
Toluene*	<0.050	0.050	11/25/2018	ND	2.19	109	2.00	0.189		
Ethylbenzene*	<0.050	0.050	11/25/2018	ND	2.11	106	2.00	0.0513		
Total Xylenes*	<0.150	0.150	11/25/2018	ND	6.34	106	6.00	0.516		
Total BTEX	<0.300	0.300	11/25/2018	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 96.4 % 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	64.0	16.0	11/24/2018	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	11/22/2018	ND	193	96.7	200	3.55		
DRO >C10-C28*	<10.0	10.0	11/22/2018	ND	209	104	200	4.42		
EXT DRO >C28-C36	<10.0	10.0	11/22/2018	ND						

Surrogate: 1-Chlorooctane 87.4 % 41-142

Surrogate: 1-Chlorooctadecane 95.8 % 37.6-147

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Analytical Results For:

REPUBLIC BACKHOE SERVICES
 ERIC GARCIA
 47 E. DICKENS RD
 LOVINGTON NM, 88260
 Fax To: NONE

Received:	11/19/2018	Sampling Date:	11/15/2018
Reported:	11/27/2018	Sampling Type:	Soil
Project Name:	SARAGOSSA 10 ST. #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	READ & STEVENS		

Sample ID: TA 5 - SURFACE (H803384-22)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.500	0.500	11/25/2018	ND	2.19	109	2.00	1.08		
Toluene*	<0.500	0.500	11/25/2018	ND	2.19	109	2.00	0.189		
Ethylbenzene*	2.42	0.500	11/25/2018	ND	2.11	106	2.00	0.0513		
Total Xylenes*	13.6	1.50	11/25/2018	ND	6.34	106	6.00	0.516		
Total BTEX	16.0	3.00	11/25/2018	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 115 % 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	11/24/2018	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS							S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
GRO C6-C10*	1000	100	11/22/2018	ND	193	96.7	200	3.55			
DRO >C10-C28*	45600	100	11/22/2018	ND	209	104	200	4.42			
EXT DRO >C28-C36	8250	100	11/22/2018	ND							

Surrogate: 1-Chlorooctane 144 % 41-142

Surrogate: 1-Chlorooctadecane 1330 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

REPUBLIC BACKHOE SERVICES
ERIC GARCIA
47 E. DICKENS RD
LOVINGTON NM, 88260
Fax To: NONE

Received: 11/19/2018
Reported: 11/27/2018
Project Name: SARAGOSSA 10 ST. #2
Project Number: NONE GIVEN
Project Location: READ & STEVENS

Sampling Date: 11/15/2018
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: PAD 3- SURFACE (H803384-23)

BTEX 80218		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.500	0.500	11/25/2018	ND	2.19	109	2.00	1.08		
Toluene*	<0.500	0.500	11/25/2018	ND	2.19	109	2.00	0.189		
Ethylbenzene*	<0.500	0.500	11/25/2018	ND	2.11	106	2.00	0.0513		
Total Xylenes*	3.89	1.50	11/25/2018	ND	6.34	106	6.00	0.516		
Total BTEX	3.89	3.00	11/25/2018	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 103 % 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	30800	16.0	11/24/2018	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS							S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
GRO C6-C10*	130	50.0	11/22/2018	ND	193	96.7	200	3.55			
DRO >C10-C28*	5370	50.0	11/22/2018	ND	209	104	200	4.42			
EXT DRO >C28-C36	1180	50.0	11/22/2018	ND							

Surrogate: 1-Chlorooctane 104 % 41-142

Surrogate: 1-Chlorooctadecane 272 % 37.6-147

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Caley D. Keene, Lab Director/Quality Manager



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Analytical Results For:

REPUBLIC BACKHOE SERVICES
 ERIC GARCIA
 47 E. DICKENS RD
 LOVINGTON NM, 88260
 Fax To: NONE

Received:	11/19/2018	Sampling Date:	11/15/2018
Reported:	11/27/2018	Sampling Type:	Soil
Project Name:	SARAGOSSA 10 ST. #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	READ & STEVENS		

Sample ID: TA 2-5 (H803384-24)

BTEX 80218		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/25/2018	ND	2.19	109	2.00	1.08		
Toluene*	<0.050	0.050	11/25/2018	ND	2.19	109	2.00	0.189		
Ethylbenzene*	<0.050	0.050	11/25/2018	ND	2.11	106	2.00	0.0513		
Total Xylenes*	<0.150	0.150	11/25/2018	ND	6.34	106	6.00	0.516		
Total BTEX	<0.300	0.300	11/25/2018	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 97.6% 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	48.0	16.0	11/24/2018	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	11/22/2018	ND	193	96.7	200	3.55		
DRO >C10-C28*	12.8	10.0	11/22/2018	ND	209	104	200	4.42		
EXT DRO >C28-C36	<10.0	10.0	11/22/2018	ND						

Surrogate: 1-Chlorooctane 77.9% 41-142

Surrogate: 1-Chlorooctadecane 86.9% 37.6-147

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Analytical Results For:

REPUBLIC BACKHOE SERVICES
 ERIC GARCIA
 47 E. DICKENS RD
 LOVINGTON NM, 88260
 Fax To: NONE

Received:	11/19/2018	Sampling Date:	11/15/2018
Reported:	11/27/2018	Sampling Type:	Soil
Project Name:	SARAGOSSA 10 ST, #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	READ & STEVENS		

Sample ID: TA 4 - SURFACE (H803384-25)

BTEX 80218		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.500	0.500	11/25/2018	ND	2.19	109	2.00	1.08		
Toluene*	1.14	0.500	11/25/2018	ND	2.19	109	2.00	0.189		
Ethylbenzene*	2.46	0.500	11/25/2018	ND	2.11	106	2.00	0.0513		
Total Xylenes*	13.0	1.50	11/25/2018	ND	6.34	106	6.00	0.516		
Total BTEX	16.6	3.00	11/25/2018	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 116 % 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	11/24/2018	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS							S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
GRO C6-C10*	608	100	11/22/2018	ND	193	96.7	200	3.55			
DRO >C10-C28*	27000	100	11/22/2018	ND	209	104	200	4.42			
EXT DRO >C28-C36	4900	100	11/22/2018	ND							

Surrogate: 1-Chlorooctane 125 % 41-142

Surrogate: 1-Chlorooctadecane 808 % 37.6-147

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Celely D. Keene, Lab Director/Quality Manager



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Analytical Results For:

REPUBLIC BACKHOE SERVICES
ERIC GARCIA
47 E. DICKENS RD
LOVINGTON NM, 88260
Fax To: NONE

Received:	11/19/2018	Sampling Date:	11/15/2018
Reported:	11/27/2018	Sampling Type:	Soil
Project Name:	SARAGOSSA 10 ST. #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	READ & STEVENS		

Sample ID: TA 6 - SURFACE (H803384-26)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.500	0.500	11/25/2018	ND	2.19	109	2.00	1.08		
Toluene*	0.615	0.500	11/25/2018	ND	2.19	109	2.00	0.189		
Ethylbenzene*	3.77	0.500	11/25/2018	ND	2.11	106	2.00	0.0513		
Total Xylenes*	21.5	1.50	11/25/2018	ND	6.34	106	6.00	0.516		
Total BTEX	25.9	3.00	11/25/2018	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 124 % 73.3-129

Chloride, SM4500C1-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	11/24/2018	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS							S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
GRO C6-C10*	1290	100	11/22/2018	ND	193	96.7	200	3.55			
DRO >C10-C28*	40100	100	11/22/2018	ND	209	104	200	4.42			
EXT DRO >C28-C36	6970	100	11/22/2018	ND							

Surrogate: 1-Chlorooctane 160 % 41-142

Surrogate: 1-Chlorooctadecane 1110 % 37.6-147

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Analytical Results For:

REPUBLIC BACKHOE SERVICES
 ERIC GARCIA
 47 E. DICKENS RD
 LOVINGTON NM, 88260
 Fax To: NONE

Received: 11/19/2018
 Reported: 11/27/2018
 Project Name: SARAGOSSA 10 ST. #2
 Project Number: NONE GIVEN
 Project Location: READ & STEVENS

Sampling Date: 11/15/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: TA 8-2 (H803384-27)

BTEX 80218		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/25/2018	ND	2.19	109	2.00	1.08		
Toluene*	<0.050	0.050	11/25/2018	ND	2.19	109	2.00	0.189		
Ethylbenzene*	<0.050	0.050	11/25/2018	ND	2.11	106	2.00	0.0513		
Total Xylenes*	<0.150	0.150	11/25/2018	ND	6.34	106	6.00	0.516		
Total BTEX	<0.300	0.300	11/25/2018	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 97.8 % 73.3-129

Chloride, SM4500C1-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	11/24/2018	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	
GRD C6-C10*	<10.0	10.0	11/22/2018	ND	193	96.7	200	3.55		
DRO >C10-C28*	49.8	10.0	11/22/2018	ND	209	104	200	4.42		
EXT DRO >C28-C36	22.3	10.0	11/22/2018	ND						

Surrogate: 1-Chlorooctane 92.7 % 41-142

Surrogate: 1-Chlorooctadecane 107 % 37.6-147

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Analytical Results For:

REPUBLIC BACKHOE SERVICES
 ERIC GARCIA
 47 E. DICKENS RD
 LOVINGTON NM, 88260
 Fax To: NONE

Received:	11/19/2018	Sampling Date:	11/15/2018
Reported:	11/27/2018	Sampling Type:	Soil
Project Name:	SARAGOSSA 10 ST, #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	READ & STEVENS		

Sample ID: TA 2-2 (H803384-28)

BTEX 80218		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/25/2018	ND	2.19	109	2.00	1.08		
Toluene*	<0.050	0.050	11/25/2018	ND	2.19	109	2.00	0.189		
Ethylbenzene*	<0.050	0.050	11/25/2018	ND	2.11	106	2.00	0.0513		
Total Xylenes*	<0.150	0.150	11/25/2018	ND	6.34	106	6.00	0.516		
Total BTEX	<0.300	0.300	11/25/2018	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 97.9 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	11/24/2018	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	11/22/2018	ND	193	96.7	200	3.55		
DRO >C10-C28*	<10.0	10.0	11/22/2018	ND	209	104	200	4.42		
EXT DRO >C28-C36	<10.0	10.0	11/22/2018	ND						

Surrogate: 1-Chlorooctane 92.2 % 41-142

Surrogate: 1-Chlorooctadecane 102 % 37.6-147

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Analytical Results For:

REPUBLIC BACKHOE SERVICES
 ERIC GARCIA
 47 E. DICKENS RD
 LOVINGTON NM, 88260
 Fax To: NONE

Received:	11/19/2018	Sampling Date:	11/15/2018
Reported:	11/27/2018	Sampling Type:	Soil
Project Name:	SARAGOSSA 10 ST. #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	READ & STEVENS		

Sample ID: TA 5-5 (H803384-29)

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	11/25/2018	ND	2.19	109	2.00	1.08		
Toluene*	<0.050	0.050	11/25/2018	ND	2.19	109	2.00	0.189		
Ethylbenzene*	<0.050	0.050	11/25/2018	ND	2.11	106	2.00	0.0513		
Total Xylenes*	<0.150	0.150	11/25/2018	ND	6.34	106	6.00	0.516		
Total BTEX	<0.300	0.300	11/25/2018	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 96.2 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	11/24/2018	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	11/22/2018	ND	193	96.7	200	3.55		
DRO >C10-C28*	<10.0	10.0	11/22/2018	ND	209	104	200	4.42		
EXT DRO >C28-C36	<10.0	10.0	11/22/2018	ND						

Surrogate: 1-Chlorooctane 94.8 % 41-142

Surrogate: 1-Chlorooctadecane 104 % 37.6-147

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Analytical Results For:

REPUBLIC BACKHOE SERVICES
 ERIC GARCIA
 47 E. DICKENS RD
 LOVINGTON NM, 88260
 Fax To: NONE

Received:	11/19/2018	Sampling Date:	11/15/2018
Reported:	11/27/2018	Sampling Type:	Soil
Project Name:	SARAGOSSA 10 ST. #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	READ & STEVENS		

Sample ID: TB 1-2 (H803384-30)

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	11/25/2018	ND	2.19	109	2.00	1.08		
Toluene*	<0.050	0.050	11/25/2018	ND	2.19	109	2.00	0.189		
Ethylbenzene*	<0.050	0.050	11/25/2018	ND	2.11	106	2.00	0.0513		
Total Xylenes*	<0.150	0.150	11/25/2018	ND	6.34	106	6.00	0.516		
Total BTEX	<0.300	0.300	11/25/2018	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 96.7 % 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	112	16.0	11/24/2018	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	11/22/2018	ND	193	96.7	200	3.55		
DRO >C10-C28*	<10.0	10.0	11/22/2018	ND	209	104	200	4.42		
EXT DRO >C28-C36	<10.0	10.0	11/22/2018	ND						

Surrogate: 1-Chlorooctane 89.7 % 41-142

Surrogate: 1-Chlorooctadecane 98.1 % 37.6-147

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Analytical Results For:

REPUBLIC BACKHOE SERVICES
 ERIC GARCIA
 47 E. DICKENS RD
 LOVINGTON NM, 88260
 Fax To: NONE

Received: 11/19/2018
 Reported: 11/27/2018
 Project Name: SARAGOSSA 10 ST. #2
 Project Number: NONE GIVEN
 Project Location: READ & STEVENS

Sampling Date: 11/15/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: TA 3-2 (H803384-31)

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	11/25/2018	ND	2.19	109	2.00	1.08	
Toluene*	<0.050	0.050	11/25/2018	ND	2.19	109	2.00	0.189	
Ethylbenzene*	<0.050	0.050	11/25/2018	ND	2.11	106	2.00	0.0513	
Total Xylenes*	<0.150	0.150	11/25/2018	ND	6.34	106	6.00	0.516	
Total BTEX	<0.300	0.300	11/25/2018	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 97.0 % 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	48.0	16.0	11/24/2018	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	11/22/2018	ND	193	96.7	200	3.55	
DRO >C10-C28*	<10.0	10.0	11/22/2018	ND	209	104	200	4.42	
EXT DRO >C28-C36	<10.0	10.0	11/22/2018	ND					

Surrogate: 1-Chlorooctane 90.3 % 41-142

Surrogate: 1-Chlorooctadecane 99.2 % 37.6-147

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Analytical Results For:

REPUBLIC BACKHOE SERVICES
ERIC GARCIA
47 E. DICKENS RD
LOVINGTON NM, 88260
Fax To: NONE

Received:	11/19/2018	Sampling Date:	11/15/2018
Reported:	11/27/2018	Sampling Type:	Soil
Project Name:	SARAGOSSA 10 ST. #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	READ & STEVENS		

Sample ID: TA 1-5 (H803384-32)

BTEX 80218		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/25/2018	ND	2.19	109	2.00	1.08		
Toluene*	<0.050	0.050	11/25/2018	ND	2.19	109	2.00	0.189		
Ethylbenzene*	<0.050	0.050	11/25/2018	ND	2.11	106	2.00	0.0513		
Total Xylenes*	<0.150	0.150	11/25/2018	ND	6.34	106	6.00	0.516		
Total BTEX	<0.300	0.300	11/25/2018	ND						

Surrogate: 4-Bromofluorobenzene (PII) 97.5 % 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	80.0	16.0	11/24/2018	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	
GRD C6-C10*	<10.0	10.0	11/22/2018	ND	193	96.7	200	3.55		
DRO >C10-C28*	<10.0	10.0	11/22/2018	ND	209	104	200	4.42		
EXT DRO >C28-C36	<10.0	10.0	11/22/2018	ND						

Surrogate: 1-Chlorooctane 87.5 % 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:

REPUBLIC BACKHOE SERVICES
 ERIC GARCIA
 47 E. DICKENS RD
 LOVINGTON NM, 88260
 Fax To: NONE

Received: 11/19/2018
 Reported: 11/27/2018
 Project Name: SARAGOSSA 10 ST. #2
 Project Number: NONE GIVEN
 Project Location: READ & STEVENS

Sampling Date: 11/15/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: PAD 1-2 (H803384-33)

BTEX 80218		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/25/2018	ND	2.19	109	2.00	1.08		
Toluene*	<0.050	0.050	11/25/2018	ND	2.19	109	2.00	0.189		
Ethylbenzene*	<0.050	0.050	11/25/2018	ND	2.11	106	2.00	0.0513		
Total Xylenes*	<0.150	0.150	11/25/2018	ND	6.34	106	6.00	0.516		
Total BTEX	<0.300	0.300	11/25/2018	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 97.3 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	11/24/2018	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	11/22/2018	ND	188	94.0	200	3.25		
DRO >C10-C28*	<10.0	10.0	11/22/2018	ND	202	101	200	5.04		
EXT DRO >C28-C36	<10.0	10.0	11/22/2018	ND						

Surrogate: 1-Chlorooctane 83.3 % 41-142

Surrogate: 1-Chlorooctadecane 91.5 % 37.6-147

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Analytical Results For:

REPUBLIC BACKHOE SERVICES
ERIC GARCIA
47 E. DICKENS RD
LOVINGTON NM, 88260
Fax To: NONE

Received:	11/19/2018	Sampling Date:	11/15/2018
Reported:	11/27/2018	Sampling Type:	Soil
Project Name:	SARAGOSSA 10 ST. #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	READ & STEVENS		

Sample ID: TA 9-5 (H803384-34)

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	11/25/2018	ND	2.19	109	2.00	1.08		
Toluene*	<0.050	0.050	11/25/2018	ND	2.19	109	2.00	0.189		
Ethylbenzene*	<0.050	0.050	11/25/2018	ND	2.11	106	2.00	0.0513		
Total Xylenes*	<0.150	0.150	11/25/2018	ND	6.34	106	6.00	0.516		
Total BTEX	<0.300	0.300	11/25/2018	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 98.7 % 73.3-129

Chloride, SM4500C1-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	11/24/2018	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	11/22/2018	ND	188	94.0	200	3.25		
DRO >C10-C28*	<10.0	10.0	11/22/2018	ND	202	101	200	5.04		
EXT DRO >C28-C36	<10.0	10.0	11/22/2018	ND						

Surrogate: 1-Chlorooctane 89.3 % 41-142

Surrogate: 1-Chlorooctadecane 97.5 % 37.6-147

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Analytical Results For:

REPUBLIC BACKHOE SERVICES
ERIC GARCIA
47 E. DICKENS RD
LOVINGTON NM, 88260
Fax To: NONE

Received:	11/19/2018	Sampling Date:	11/15/2018
Reported:	11/27/2018	Sampling Type:	Soil
Project Name:	SARAGOSSA 10 ST. #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	READ & STEVENS		

Sample ID: TA 6-2 (H803384-35)

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	11/25/2018	ND	2.19	109	2.00	1.08		
Toluene*	<0.050	0.050	11/25/2018	ND	2.19	109	2.00	0.189		
Ethylbenzene*	<0.050	0.050	11/25/2018	ND	2.11	106	2.00	0.0513		
Total Xylenes*	<0.150	0.150	11/25/2018	ND	6.34	106	6.00	0.516		
Total BTEX	<0.300	0.300	11/25/2018	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 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	48.0	16.0	11/24/2018	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	11/22/2018	ND	188	94.0	200	3.25		
DRO >C10-C28*	<10.0	10.0	11/22/2018	ND	202	101	200	5.04		
EXT DRO >C28-C36	<10.0	10.0	11/22/2018	ND						

Surrogate: 1-Chlorooctane 76.1 % 41-142

Surrogate: 1-Chlorooctadecane 82.8 % 37.6-147

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Analytical Results For:

REPUBLIC BACKHOE SERVICES
 ERIC GARCIA
 47 E. DICKENS RD
 LOVINGTON NM, 88260
 Fax To: NONE

Received:	11/19/2018	Sampling Date:	11/15/2018
Reported:	11/27/2018	Sampling Type:	Soil
Project Name:	SARAGOSSA 10 ST. #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	READ & STEVENS		

Sample ID: TA 1 - SURFACE (H803384-36)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.500	0.500	11/25/2018	ND	2.19	109	2.00	1.08	
Toluene*	<0.500	0.500	11/25/2018	ND	2.19	109	2.00	0.169	
Ethylbenzene*	0.933	0.500	11/25/2018	ND	2.11	106	2.00	0.0513	
Total Xylenes*	5.16	1.50	11/25/2018	ND	6.34	106	6.00	0.516	
Total BTEX	6.09	3.00	11/25/2018	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 104 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3200	16.0	11/24/2018	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS						5-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	227	100	11/22/2018	ND	188	94.0	200	3.25		
DRO >C10-C28*	20900	100	11/22/2018	ND	202	101	200	5.04		
EXT DRO >C28-C36	4130	100	11/22/2018	ND						

Surrogate: 1-Chlorooctane 128 % 41-142

Surrogate: 1-Chlorooctadecane 676 % 37.6-147

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Analytical Results For:

REPUBLIC BACKHOE SERVICES
 ERIC GARCIA
 47 E. DICKENS RD
 LOVINGTON NM, 88260
 Fax To: NONE

Received:	11/19/2018	Sampling Date:	11/15/2018
Reported:	11/27/2018	Sampling Type:	Soil
Project Name:	SARAGOSSA 10 ST. #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	READ & STEVENS		

Sample ID: PAD 4-5 (H803384-37)

BTEX 80218		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/25/2018	ND	2.19	109	2.00	1.08		
Toluene*	<0.050	0.050	11/25/2018	ND	2.19	109	2.00	0.189		
Ethylbenzene*	<0.050	0.050	11/25/2018	ND	2.11	106	2.00	0.0513		
Total Xylenes*	<0.150	0.150	11/25/2018	ND	6.34	106	6.00	0.516		
Total BTEX	<0.300	0.300	11/25/2018	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 97.4% 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	11/24/2018	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	11/22/2018	ND	188	94.0	200	3.25		
DRO >C10-C28*	38.4	10.0	11/22/2018	ND	202	101	200	5.04		
EXT DRO >C28-C36	14.9	10.0	11/22/2018	ND						

Surrogate: 1-Chlorooctane 78.4% 41-142

Surrogate: 1-Chlorooctadecane 87.0% 37.6-147

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Analytical Results For:

REPUBLIC BACKHOE SERVICES
ERIC GARCIA
47 E. DICKENS RD
LOVINGTON NM, 88260
Fax To: NONE

Received: 11/19/2018
Reported: 11/27/2018
Project Name: SARAGOSSA 10 ST. #2
Project Number: NONE GIVEN
Project Location: READ & STEVENS

Sampling Date: 11/15/2018
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: TA 10-2 (H803384-38)

BTEX 80218		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/25/2018	ND	2.19	109	2.00	1.08		
Toluene*	<0.050	0.050	11/25/2018	ND	2.19	109	2.00	0.189		
Ethylbenzene*	<0.050	0.050	11/25/2018	ND	2.11	106	2.00	0.0513		
Total Xylenes*	<0.150	0.150	11/25/2018	ND	6.34	106	6.00	0.516		
Total BTEX	<0.300	0.300	11/25/2018	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 94.4 % 73.3-129

Chloride, SM4500C-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	11/24/2018	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	11/22/2018	ND	188	94.0	200	3.25		
DRO >C10-C28*	<10.0	10.0	11/22/2018	ND	202	101	200	5.04		
EXT DRO >C28-C36	<10.0	10.0	11/22/2018	ND						

Surrogate: 1-Chlorooctane 92.5 % 41-142

Surrogate: 1-Chlorooctadecane 103 % 37.6-147

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Analytical Results For:

REPUBLIC BACKHOE SERVICES
ERIC GARCIA
47 E. DICKENS RD
LOVINGTON NM, 88260
Fax To: NONE

Received:	11/19/2018	Sampling Date:	11/15/2018
Reported:	11/27/2018	Sampling Type:	Soil
Project Name:	SARAGOSSA 10 ST. #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	READ & STEVENS		

Sample ID: TA 3-5 (H803384-39)

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	11/25/2018	ND	2.19	109	2.00	1.08		
Toluene*	<0.050	0.050	11/25/2018	ND	2.19	109	2.00	0.189		
Ethylbenzene*	<0.050	0.050	11/25/2018	ND	2.11	106	2.00	0.0513		
Total Xylenes*	<0.150	0.150	11/25/2018	ND	6.34	106	6.00	0.516		
Total BTEX	<0.300	0.300	11/25/2018	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 96.8 % 73.3-129

Chloride, SM4500C1-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	11/24/2018	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	11/22/2018	ND	188	94.0	200	3.25		
DRO >C10-C28*	<10.0	10.0	11/22/2018	ND	202	101	200	5.04		
EXT DRO >C28-C36	<10.0	10.0	11/22/2018	ND						

Surrogate: 1-Chlorooctane 91.0 % 41-142

Surrogate: 1-Chlorooctadecane 99.8 % 37.6-147

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Analytical Results For:

REPUBLIC BACKHOE SERVICES
 ERIC GARCIA
 47 E. DICKENS RD
 LOVINGTON NM, 88260
 Fax To: NONE

Received:	11/19/2018	Sampling Date:	11/15/2018
Reported:	11/27/2018	Sampling Type:	Soil
Project Name:	SARAGOSSA 10 ST. #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	READ & STEVENS		

Sample ID: TB 2-2 (H803384-40)

BTEX 80218		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/25/2018	ND	2.15	108	2.00	2.25		
Toluene*	<0.050	0.050	11/25/2018	ND	2.07	103	2.00	0.874		
Ethylbenzene*	<0.050	0.050	11/25/2018	ND	2.01	100	2.00	1.42		
Total Xylenes*	<0.150	0.150	11/25/2018	ND	5.90	98.4	6.00	1.89		
Total BTEX	<0.300	0.300	11/25/2018	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 95.9 % 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	64.0	16.0	11/24/2018	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	11/22/2018	ND	188	94.0	200	3.25		
DRO >C10-C28*	<10.0	10.0	11/22/2018	ND	202	101	200	5.04		
EXT DRO >C28-C36	<10.0	10.0	11/22/2018	ND						

Surrogate: 1-Chlorooctane 77.4 % 41-142

Surrogate: 1-Chlorooctadecane 85.3 % 37.6-147

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Analytical Results For:

REPUBLIC BACKHOE SERVICES
 ERIC GARCIA
 47 E. DICKENS RD
 LOVINGTON NM, 88260
 Fax To: NONE

Received:	11/19/2018	Sampling Date:	11/15/2018
Reported:	11/27/2018	Sampling Type:	Soil
Project Name:	SARAGOSSA 10 ST, #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	READ & STEVENS		

Sample ID: TB 2-5 (H803384-41)

BTEX 80218		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/25/2018	ND	2.15	108	2.00	2.25		
Toluene*	<0.050	0.050	11/25/2018	ND	2.07	103	2.00	0.874		
Ethylbenzene*	<0.050	0.050	11/25/2018	ND	2.01	100	2.00	1.42		
Total Xylenes*	<0.150	0.150	11/25/2018	ND	5.90	98.4	6.00	1.89		
Total BTEX	<0.300	0.300	11/25/2018	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 95.9% 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	32.0	16.0	11/24/2018	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	11/22/2018	ND	188	94.0	200	3.25		
DRO >C10-C28*	<10.0	10.0	11/22/2018	ND	202	101	200	5.04		
EXT DRO >C28-C36	<10.0	10.0	11/22/2018	ND						

Surrogate: 1-Chlorooctane 83.4% 41-142

Surrogate: 1-Chlorooctadecane 92.1% 37.6-147

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Analytical Results For:

REPUBLIC BACKHOE SERVICES
ERIC GARCIA
47 E. DICKENS RD
LOVINGTON NM, 88260
Fax To: NONE

Received:	11/19/2018	Sampling Date:	11/15/2018
Reported:	11/27/2018	Sampling Type:	Soil
Project Name:	SARAGOSSA 10 ST. #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	READ & STEVENS		

Sample ID: TA 9-2 (H803384-42)

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	11/25/2018	ND	2.15	108	2.00	2.25		
Toluene*	<0.050	0.050	11/25/2018	ND	2.07	103	2.00	0.874		
Ethylbenzene*	<0.050	0.050	11/25/2018	ND	2.01	100	2.00	1.42		
Total Xylenes*	<0.150	0.150	11/25/2018	ND	5.90	98.4	6.00	1.89		
Total BTEX	<0.300	0.300	11/25/2018	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 98.2 % 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	64.0	16.0	11/24/2018	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	11/22/2018	ND	188	94.0	200	3.25		
DRO >C10-C28*	<10.0	10.0	11/22/2018	ND	202	101	200	5.04		
EXT DRO >C28-C36	<10.0	10.0	11/22/2018	ND						

Surrogate: 1-Chlorooctane 81.1 % 41-142

Surrogate: 1-Chlorooctadecane 89.9 % 37.6-147

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Analytical Results For:

REPUBLIC BACKHOE SERVICES
 ERIC GARCIA
 47 E. DICKENS RD
 LOVINGTON NM, 88260
 Fax To: NONE

Received:	11/19/2018	Sampling Date:	11/15/2018
Reported:	11/27/2018	Sampling Type:	Soil
Project Name:	SARAGOSSA 10 ST. #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	READ & STEVENS		

Sample ID: PAD 4 - SURFACE (H803384-43)

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	11/25/2018	ND	2.15	108	2.00	2.25		
Toluene*	<0.050	0.050	11/25/2018	ND	2.07	103	2.00	0.874		
Ethylbenzene*	<0.050	0.050	11/25/2018	ND	2.01	100	2.00	1.42		
Total Xylenes*	<0.150	0.150	11/25/2018	ND	5.90	98.4	6.00	1.89		
Total BTEX	<0.300	0.300	11/25/2018	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 98.5 % 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	4560	16.0	11/24/2018	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	11/22/2018	ND	188	94.0	200	3.25		
DRO >C10-C28*	62.2	10.0	11/22/2018	ND	202	101	200	5.04		
EXT DRO >C28-C36	11.0	10.0	11/22/2018	ND						

Surrogate: 1-Chlorooctane 82.5 % 41-142

Surrogate: 1-Chlorooctadecane 94.1 % 37.6-147

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Analytical Results For:

REPUBLIC BACKHOE SERVICES
ERIC GARCIA
47 E. DICKENS RD
LOVINGTON NM, 88260
Fax To: NONE

Received: 11/19/2018
Reported: 11/27/2018
Project Name: SARAGOSSA 10 ST. #2
Project Number: NONE GIVEN
Project Location: READ & STEVENS

Sampling Date: 11/15/2018
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: TA 8 - SURFACE (H803384-44)

BTEX 80218		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/25/2018	ND	2.15	108	2.00	2.25	
Toluene*	<0.050	0.050	11/25/2018	ND	2.07	103	2.00	0.874	
Ethylbenzene*	<0.050	0.050	11/25/2018	ND	2.01	100	2.00	1.42	
Total Xylenes*	<0.150	0.150	11/25/2018	ND	5.90	98.4	6.00	1.89	
Total BTEX	<0.300	0.300	11/25/2018	ND					

Surrogate: 4-Bromofluorobenzene (PII) 96.4 % 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	11/24/2018	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	11/22/2018	ND	188	94.0	200	3.25	
DRO >C10-C28*	14.8	10.0	11/22/2018	ND	202	101	200	5.04	
EXT DRO >C28-C36	<10.0	10.0	11/22/2018	ND					

Surrogate: 1-Chlorooctane 84.9 % 41-142

Surrogate: 1-Chlorooctadecane 93.2 % 37.6-147

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Analytical Results For:

REPUBLIC BACKHOE SERVICES
ERIC GARCIA
47 E. DICKENS RD
LOVINGTON NM, 88260
Fax To: NONE

Received:	11/19/2018	Sampling Date:	11/15/2018
Reported:	11/27/2018	Sampling Type:	Soil
Project Name:	SARAGOSSA 10 ST. #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	READ & STEVENS		

Sample ID: TB 1-5 (H803384-45)

BTEX 80218		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/25/2018	ND	2.15	108	2.00	2.25		
Toluene*	<0.050	0.050	11/25/2018	ND	2.07	103	2.00	0.874		
Ethylbenzene*	<0.050	0.050	11/25/2018	ND	2.01	100	2.00	1.42		
Total Xylenes*	<0.150	0.150	11/25/2018	ND	5.90	98.4	6.00	1.89		
Total BTEX	<0.300	0.300	11/25/2018	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 97.3 % 73.3-129

Chloride, SM4500C1-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	11/24/2018	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	11/22/2018	ND	188	94.0	200	3.25		
DRO >C10-C28*	<10.0	10.0	11/22/2018	ND	202	101	200	5.04		
EXT DRO >C28-C36	<10.0	10.0	11/22/2018	ND						

Surrogate: 1-Chlorooctane 87.9 % 41-142

Surrogate: 1-Chlorooctadecane 94.0 % 37.6-147

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Analytical Results For:

REPUBLIC BACKHOE SERVICES
 ERIC GARCIA
 47 E. DICKENS RD
 LOVINGTON NM, 88260
 Fax To: NONE

Received: 11/19/2018
 Reported: 11/27/2018
 Project Name: SARAGOSSA 10 ST. #2
 Project Number: NONE GIVEN
 Project Location: READ & STEVENS

Sampling Date: 11/15/2018
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: TA 10-5 (H803384-46)

BTEX 80218		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/25/2018	ND	2.15	108	2.00	2.25		
Toluene*	<0.050	0.050	11/25/2018	ND	2.07	103	2.00	0.874		
Ethylbenzene*	<0.050	0.050	11/25/2018	ND	2.01	100	2.00	1.42		
Total Xylenes*	<0.150	0.150	11/25/2018	ND	5.90	98.4	6.00	1.89		
Total BTEX	<0.300	0.300	11/25/2018	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	11/24/2018	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	11/22/2018	ND	188	94.0	200	3.25		
DRO >C10-C28*	<10.0	10.0	11/22/2018	ND	202	101	200	5.04		
EXT DRO >C28-C36	<10.0	10.0	11/22/2018	ND						

Surrogate: 1-Chlorooctane 94.3 % 41-142

Surrogate: 1-Chlorooctadecane 104 % 37.6-147

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Analytical Results For:

REPUBLIC BACKHOE SERVICES
ERIC GARCIA
47 E. DICKENS RD
LOVINGTON NM, 88260
Fax To: NONE

Received: 11/19/2018
Reported: 11/27/2018
Project Name: SARAGOSSA 10 ST. #2
Project Number: NONE GIVEN
Project Location: READ & STEVENS

Sampling Date: 11/15/2018
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: TA 7 - SURFACE (H803384-47)

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	11/25/2018	ND	2.15	108	2.00	2.25		
Toluene*	<0.050	0.050	11/25/2018	ND	2.07	103	2.00	0.874		
Ethylbenzene*	<0.050	0.050	11/25/2018	ND	2.01	100	2.00	1.42		
Total Xylenes*	0.173	0.150	11/25/2018	ND	5.90	98.4	6.00	1.69		
Total BTEX	<0.300	0.300	11/25/2018	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 111 % 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	11/24/2018	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS							S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
GRO C6-C10*	31.9	10.0	11/22/2018	ND	188	94.0	200	3.25			
DRO >C10-C28*	3810	10.0	11/22/2018	ND	202	101	200	5.04			
EXT DRO >C28-C36	634	10.0	11/22/2018	ND							

Surrogate: 1-Chlorooctane 96.0 % 41-142

Surrogate: 1-Chlorooctadecane 195 % 37.6-147

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Analytical Results For:

REPUBLIC BACKHOE SERVICES
 ERIC GARCIA
 47 E. DICKENS RD
 LOVINGTON NM, 88260
 Fax To: NONE

Received:	11/19/2018	Sampling Date:	11/15/2018
Reported:	11/27/2018	Sampling Type:	Soil
Project Name:	SARAGOSSA 10 ST. #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	READ & STEVENS		

Sample ID: TA 8-5 (H803384-48)

BTEX 80218		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/25/2018	ND	2.15	108	2.00	2.25		
Toluene*	<0.050	0.050	11/25/2018	ND	2.07	103	2.00	0.874		
Ethylbenzene*	<0.050	0.050	11/25/2018	ND	2.01	100	2.00	1.42		
Total Xylenes*	<0.150	0.150	11/25/2018	ND	5.90	98.4	6.00	1.89		
Total BTEX	<0.300	0.300	11/25/2018	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 96.4 % 73.3-129

Chloride, SM4500C1-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	11/24/2018	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	11/22/2018	ND	188	94.0	200	3.25		
DRO >C10-C28*	35.6	10.0	11/22/2018	ND	202	101	200	5.04		
EXT DRO >C28-C36	13.1	10.0	11/22/2018	ND						

Surrogate: 1-Chlorooctane 91.1 % 41-142

Surrogate: 1-Chlorooctadecane 104 % 37.6-147

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Notes and Definitions

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QR-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 SM4300C-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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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

Page 51 of 55

Company Name: Republic Synthetic Source LLC
Project Manager: Eric Gorenz
Address: 477 E. Wilson Ave
City: Lovington State: NM Zip: 88260
Phone #: 575-631-0181 Fax #:
Project #:
Project Name: Sun pass to st. #2
Project Location: Sun pass to st. #2
Sampler Name: Eric Gorenz

Company: Paul Sperry Inc.
Address: P.O. Box 1518
City: Lovington State: NM Zip: 88260
Phone #: 575-380-9175 Fax #:

Lab I.D.: H803384

Lab I.D.	Sample I.D.	(S)RAB OR (C)OMP.	# CONTAINERS	MATRIX						DATE	TIME	ANALYSIS REQUEST
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:			
	TA 7-5		6						11-18-18	2:50	TPH	
	TA 4-5		1						11-18-18	1:25	BTX	
	DAD 2-5								11-18-18	9:25	Chloride	
	TA 6-5								11-18-18	8:25		
	DAD 3-5								11-18-18	9:35		
	DAD 1-5								11-18-18	6:40		
	TA 3-5								11-18-18	9:45		
	TA 5-5								11-18-18	12:35		
	TA 7-a								11-18-18	2:40		
	DAD 4-8								11-18-18	10:15		

Relinquished By: Dawn Ben Date: 11/19/18
Received By: Heidi Jensen Date: 11/19/18
Time: 8:57

Delivered By: (Circle One) **Sampler - UPS - Bus - Other:** 0.32 / #97

Sample Condition: Cool Yes No
 Intact Yes No
 Sealed Yes No

Checked By: [Signature]

REMARKS: Final: Eric Gorenz 630 Alameda Ave
 with receipt

FLUORIDE NOTE: This form is for use only for the collection, storage, and analysis of samples for fluoride. It is not to be used for the collection, storage, and analysis of other samples. If you are collecting, storing, and analyzing other samples, please use the appropriate form. The use of this form for other samples may result in inaccurate results. The use of this form for fluoride samples is limited to the collection, storage, and analysis of samples for fluoride only. The use of this form for other samples is not recommended. The use of this form for other samples may result in inaccurate results. The use of this form for fluoride samples is limited to the collection, storage, and analysis of samples for fluoride only. The use of this form for other samples is not recommended. The use of this form for other samples may result in inaccurate results.



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: Keble Brk Co. Service LLC Project Manager: Eric Goren Address: 577 E. Dickens Ave City: Carrizosa State: NM Zip: 81060 Phone #: 575-681-0181 Fax #: Project #: Project Owner: Paul Sperry Project Location: Sargossa 10 St. #2 Sampler Name: Eric Goren		P.O. #: Company: Paul Sperry Attn: Tor Tor Address: P.O. Box 1518 City: Lovell State: NM Zip: 88202 Phone #: 575-380-2105 Fax #: 	
Lab I.D.: H803384	Sample I.D.:	MATRIX: <input type="checkbox"/> GROUNDWATER <input type="checkbox"/> WASTEWATER <input type="checkbox"/> SOIL <input type="checkbox"/> OIL <input type="checkbox"/> SLUDGE <input type="checkbox"/> OTHER:	PRESERV: <input type="checkbox"/> ACID/BASE: <input type="checkbox"/> ICE / COOL <input type="checkbox"/> OTHER:
(G/RAB OR (C)OMP. # CONTAINERS:	DATE:	TIME:	ANALYSIS REQUEST:
11 TA 2-Surface 12 TA 10-Surface 13 TA 4-B 14 TA 1-Surface 15 TA 1-Surface 16 TA 2-Surface 17 TA 2-Surface 18 TA 5-Surface 19 TA 5-Surface 20 PHD 2-B	9 11 11 11 11 11 11 11 11 11	11-5-18 11:05 11-5-18 3:50 11-5-18 1:10 11-5-18 11:45 11-5-18 8:30 11-5-18 9:00 11-5-18 3:05 11-5-18 1:45 11-5-18 9:10	TPH BTEX Cholesterol

Requisitioned By: **Darius Bon** Date: **11/5/18** Received By: **Eric Goren**
 Delivered By: (Circle One) **UPS** Sample Condition: **Intact** Checked By: **Eric Goren**
 Sampler - UPS - Bus - Other: **0132/497** Yes No No No
 + Cardinal request amount without clearance. Please fax written clearance to (575) 393-2476
 Page 2 of 5

REMARKS:
 Special: Eric Goren (320) 414-4444
 Eric Goren



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: Republic Banknote Service LLC
 Project Manager: Eric Gordon
 Address: 47 E. Dickens Esau
 City: Las Alamos State: NM Zip: 87126
 Phone #: 575-631-0131 Fax #:
 Project #: _____ Project Owner: Budd Stevens
 Project Name: Sungress 10 St. #2
 Project Location: Sungress 10 St. #2
 Sample Name: Eric Gordon
 P.O. #: _____ Company: Budd Stevens Inc.
 Address: P.O. Box 1518
 City: Las Alamos State: NM Zip: 87126
 Phone #: 575-380-2705 Fax #:

Lab I.D.	Sample I.D.	MATRIX	PRESERV	SAMPLING	DATE	TIME	ANALYSIS REQUEST	
							TPH	BTX
H803384	TA 3-a	(G)RAB OR (C)OMP.			11-15-18	3:45	✓	✓
	TA 1-b	# CONTAINERS			11-15-18	11:00	✓	✓
	TA 1-b	GROUNDWATER			11-15-18	8:35	✓	✓
	TA 9-S	WASTEWATER			11-15-18	3:45	✓	✓
	TA 6-a	SOIL			11-15-18	2:10	✓	✓
	TA 1-Surface	OIL			11-15-18	10:35	✓	✓
	TA 4-S	SLUDGE			11-15-18	10:30	✓	✓
	TA 3-S	OTHER:			11-15-18	3:55	✓	✓
	TA 3-S	ACID/BASE			11-15-18	10:55	✓	✓
	TA 3-S	ICE / COOL			11-15-18	10:15	✓	✓
	TA 3-S	OTHER:						

PLEASE NOTE: Labels and containers should be clearly marked with the name of the sample and the date and time of collection. Containers should be sealed and labeled with the name of the sample and the date and time of collection. Containers should be sealed and labeled with the name of the sample and the date and time of collection. Containers should be sealed and labeled with the name of the sample and the date and time of collection.

Relinquished By: Eric Gordon Date: 11/19/18 Received By: Budd Stevens
 Temp: 3:37
 Date: 3/31
 Time:
 Delivered By: (Circle One) UPS - Bus - Other: 0:30/#97
 Sample Condition: Cool Intact
 Checked By: [Signature]
 Remarks: Final: Sungress 10 St. #2



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Republic Brake Service LLC Project Manager: Eric Goren Address: 577 E. Victor's Lane City: Carlsbad State: NM Zip: 88260 Phone #: 575-631-0181 Fax #: _____ Project #: _____ Project Name: Sanjose to St. #2 Project Owner: Paul Stevens Project Location: Sanjose to St. #2 Sampler Name: Eric Goren		BILL TO P.O. #: _____ Company: Paul Stevens Attn: Jan Taylor Address: P.O. Box 1518 City: Laswell State: NM Zip: 88202 Phone #: 575-350-2105 Fax #: _____		
Lab I.D. H803984 Sample I.D. 41 TB 8-5 42 TB 9-8 43 DAD 4-Surface 44 TP 8-Surface 45 TB 1-5 46 TP 10-5 47 TB 7 Surface 48 TB 8-5	(G)RAB OR (C)OMP. 6 # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER:	MATRIX ACID/BASE: HE / COOL OTHER:	PRESERV. 1 SAMPLING DATE TIME	ANALYSIS REQUEST TPH BTX Chloride
Delivered By: (Circle One) Sampler - UPS - Bus - Other: 0.30 / #97		Sample Condition Cool <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Acid <input type="checkbox"/> Yes <input type="checkbox"/> No Filtered <input type="checkbox"/> Yes <input type="checkbox"/> No Checked By: _____		
Requisitioned By: _____ Date: _____ Time: _____		Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #: _____ Add'l Fax #: _____ REMARKS: Paul Stevens		

Page 5 of 5



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

August 13, 2019

ERIC GARCIA
REPUBLIC BACKHOE SERVICES
47 E. DICKENS RD
LOVINGTON, NM 88260

RE: SARAGOSSA 10 ST. #2

Enclosed are the results of analyses for samples received by the laboratory on 08/08/19 12:55.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/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 "Mike Snyder". The signature is fluid and cursive, with the first name "Mike" and last name "Snyder" clearly distinguishable.

Mike Snyder For Celey D. Keene
Lab Director/Quality Manager



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

Analytical Results For:

REPUBLIC BACKHOE SERVICES
 ERIC GARCIA
 47 E. DICKENS RD
 LOVINGTON NM, 88260
 Fax To: NONE

Received: 08/08/2019
 Reported: 08/13/2019
 Project Name: SARAGOSSA 10 ST. #2
 Project Number: NONE GIVEN
 Project Location: READ & STEVENS

Sampling Date: 08/07/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: S 4-1 (H902729-01)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/10/2019	ND	1.95	97.4	2.00	4.14	
Toluene*	<0.050	0.050	08/10/2019	ND	2.00	99.8	2.00	2.05	
Ethylbenzene*	<0.050	0.050	08/10/2019	ND	2.00	100	2.00	2.05	
Total Xylenes*	<0.150	0.150	08/10/2019	ND	6.14	102	6.00	2.21	
Total BTEX	<0.300	0.300	08/10/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	08/12/2019	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	08/09/2019	ND	198	98.9	200	1.73	
DRO >C10-C28*	<10.0	10.0	08/09/2019	ND	189	94.6	200	4.96	
EXT DRO >C28-C36	<10.0	10.0	08/09/2019	ND					

Surrogate: 1-Chlorooctane 95.0 % 41-142

Surrogate: 1-Chlorooctadecane 98.1 % 37.6-147

Cardinal Laboratories

*=Accredited Analyte

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

REPUBLIC BACKHOE SERVICES
 ERIC GARCIA
 47 E. DICKENS RD
 LOVINGTON NM, 88260
 Fax To: NONE

Received: 08/08/2019
 Reported: 08/13/2019
 Project Name: SARAGOSSA 10 ST. #2
 Project Number: NONE GIVEN
 Project Location: READ & STEVENS

Sampling Date: 08/07/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: S 4-12 (H902729-02)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/10/2019	ND	1.95	97.4	2.00	4.14		
Toluene*	<0.050	0.050	08/10/2019	ND	2.00	99.8	2.00	2.05		
Ethylbenzene*	<0.050	0.050	08/10/2019	ND	2.00	100	2.00	2.05		
Total Xylenes*	<0.150	0.150	08/10/2019	ND	6.14	102	6.00	2.21		
Total BTEX	<0.300	0.300	08/10/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 106 % 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	08/12/2019	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	08/09/2019	ND	198	98.9	200	1.73		
DRO >C10-C28*	<10.0	10.0	08/09/2019	ND	189	94.6	200	4.96		
EXT DRO >C28-C36	<10.0	10.0	08/09/2019	ND						

Surrogate: 1-Chlorooctane 92.4 % 41-142

Surrogate: 1-Chlorooctadecane 96.5 % 37.6-147

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

REPUBLIC BACKHOE SERVICES
 ERIC GARCIA
 47 E. DICKENS RD
 LOVINGTON NM, 88260
 Fax To: NONE

Received: 08/08/2019
 Reported: 08/13/2019
 Project Name: SARAGOSSA 10 ST. #2
 Project Number: NONE GIVEN
 Project Location: READ & STEVENS

Sampling Date: 08/06/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: S 5-1 (H902729-03)

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	08/10/2019	ND	1.95	97.4	2.00	4.14	
Toluene*	<0.050	0.050	08/10/2019	ND	2.00	99.8	2.00	2.05	
Ethylbenzene*	<0.050	0.050	08/10/2019	ND	2.00	100	2.00	2.05	
Total Xylenes*	<0.150	0.150	08/10/2019	ND	6.14	102	6.00	2.21	
Total BTEX	<0.300	0.300	08/10/2019	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	08/12/2019	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	08/09/2019	ND	198	98.9	200	1.73	
DRO >C10-C28*	<10.0	10.0	08/09/2019	ND	189	94.6	200	4.96	
EXT DRO >C28-C36	<10.0	10.0	08/09/2019	ND					

Surrogate: 1-Chlorooctane 92.4 % 41-142

Surrogate: 1-Chlorooctadecane 97.2 % 37.6-147

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

REPUBLIC BACKHOE SERVICES
 ERIC GARCIA
 47 E. DICKENS RD
 LOVINGTON NM, 88260
 Fax To: NONE

Received: 08/08/2019
 Reported: 08/13/2019
 Project Name: SARAGOSSA 10 ST. #2
 Project Number: NONE GIVEN
 Project Location: READ & STEVENS

Sampling Date: 08/06/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: S 5-12 (H902729-04)

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	08/10/2019	ND	1.95	97.4	2.00	4.14		
Toluene*	<0.050	0.050	08/10/2019	ND	2.00	99.8	2.00	2.05		
Ethylbenzene*	<0.050	0.050	08/10/2019	ND	2.00	100	2.00	2.05		
Total Xylenes*	<0.150	0.150	08/10/2019	ND	6.14	102	6.00	2.21		
Total BTEX	<0.300	0.300	08/10/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	08/12/2019	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	08/09/2019	ND	198	98.9	200	1.73		
DRO >C10-C28*	<10.0	10.0	08/09/2019	ND	189	94.6	200	4.96		
EXT DRO >C28-C36	<10.0	10.0	08/09/2019	ND						

Surrogate: 1-Chlorooctane 82.9 % 41-142

Surrogate: 1-Chlorooctadecane 84.2 % 37.6-147

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

REPUBLIC BACKHOE SERVICES
 ERIC GARCIA
 47 E. DICKENS RD
 LOVINGTON NM, 88260
 Fax To: NONE

Received: 08/08/2019
 Reported: 08/13/2019
 Project Name: SARAGOSSA 10 ST. #2
 Project Number: NONE GIVEN
 Project Location: READ & STEVENS

Sampling Date: 08/06/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: S 6-1 (H902729-05)

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	08/10/2019	ND	1.95	97.4	2.00	4.14	
Toluene*	<0.050	0.050	08/10/2019	ND	2.00	99.8	2.00	2.05	
Ethylbenzene*	<0.050	0.050	08/10/2019	ND	2.00	100	2.00	2.05	
Total Xylenes*	<0.150	0.150	08/10/2019	ND	6.14	102	6.00	2.21	
Total BTEX	<0.300	0.300	08/10/2019	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	08/12/2019	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	08/09/2019	ND	198	98.9	200	1.73	
DRO >C10-C28*	77.8	10.0	08/09/2019	ND	189	94.6	200	4.96	
EXT DRO >C28-C36	44.1	10.0	08/09/2019	ND					

Surrogate: 1-Chlorooctane 94.8 % 41-142

Surrogate: 1-Chlorooctadecane 100 % 37.6-147

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

REPUBLIC BACKHOE SERVICES
 ERIC GARCIA
 47 E. DICKENS RD
 LOVINGTON NM, 88260
 Fax To: NONE

Received: 08/08/2019
 Reported: 08/13/2019
 Project Name: SARAGOSSA 10 ST. #2
 Project Number: NONE GIVEN
 Project Location: READ & STEVENS

Sampling Date: 08/06/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: S 6-12 (H902729-06)

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	08/10/2019	ND	1.95	97.4	2.00	4.14		
Toluene*	<0.050	0.050	08/10/2019	ND	2.00	99.8	2.00	2.05		
Ethylbenzene*	<0.050	0.050	08/10/2019	ND	2.00	100	2.00	2.05		
Total Xylenes*	<0.150	0.150	08/10/2019	ND	6.14	102	6.00	2.21		
Total BTEX	<0.300	0.300	08/10/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 106 % 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	08/12/2019	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	08/09/2019	ND	198	98.9	200	1.73		
DRO >C10-C28*	<10.0	10.0	08/09/2019	ND	189	94.6	200	4.96		
EXT DRO >C28-C36	<10.0	10.0	08/09/2019	ND						

Surrogate: 1-Chlorooctane 88.1 % 41-142

Surrogate: 1-Chlorooctadecane 88.9 % 37.6-147

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

REPUBLIC BACKHOE SERVICES
 ERIC GARCIA
 47 E. DICKENS RD
 LOVINGTON NM, 88260
 Fax To: NONE

Received:	08/08/2019	Sampling Date:	08/06/2019
Reported:	08/13/2019	Sampling Type:	Soil
Project Name:	SARAGOSSA 10 ST. #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	READ & STEVENS		

Sample ID: S 7-1 (H902729-07)

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	08/10/2019	ND	1.95	97.4	2.00	4.14		
Toluene*	<0.050	0.050	08/10/2019	ND	2.00	99.8	2.00	2.05		
Ethylbenzene*	<0.050	0.050	08/10/2019	ND	2.00	100	2.00	2.05		
Total Xylenes*	<0.150	0.150	08/10/2019	ND	6.14	102	6.00	2.21		
Total BTEX	<0.300	0.300	08/10/2019	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	08/12/2019	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	08/09/2019	ND	198	98.9	200	1.73		
DRO >C10-C28*	143	10.0	08/09/2019	ND	189	94.6	200	4.96		
EXT DRO >C28-C36	80.9	10.0	08/09/2019	ND						

Surrogate: 1-Chlorooctane 97.2 % 41-142

Surrogate: 1-Chlorooctadecane 98.2 % 37.6-147

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Analytical Results For:

REPUBLIC BACKHOE SERVICES
 ERIC GARCIA
 47 E. DICKENS RD
 LOVINGTON NM, 88260
 Fax To: NONE

Received: 08/08/2019
 Reported: 08/13/2019
 Project Name: SARAGOSSA 10 ST. #2
 Project Number: NONE GIVEN
 Project Location: READ & STEVENS

Sampling Date: 08/06/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: S 7-12 (H902729-08)

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	08/10/2019	ND	1.95	97.4	2.00	4.14	
Toluene*	<0.050	0.050	08/10/2019	ND	2.00	99.8	2.00	2.05	
Ethylbenzene*	<0.050	0.050	08/10/2019	ND	2.00	100	2.00	2.05	
Total Xylenes*	<0.150	0.150	08/10/2019	ND	6.14	102	6.00	2.21	
Total BTEX	<0.300	0.300	08/10/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 107 % 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	08/12/2019	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	08/09/2019	ND	198	98.9	200	1.73	
DRO >C10-C28*	<10.0	10.0	08/09/2019	ND	189	94.6	200	4.96	
EXT DRO >C28-C36	<10.0	10.0	08/09/2019	ND					

Surrogate: 1-Chlorooctane 89.5 % 41-142

Surrogate: 1-Chlorooctadecane 90.3 % 37.6-147

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Analytical Results For:

REPUBLIC BACKHOE SERVICES
 ERIC GARCIA
 47 E. DICKENS RD
 LOVINGTON NM, 88260
 Fax To: NONE

Received: 08/08/2019
 Reported: 08/13/2019
 Project Name: SARAGOSSA 10 ST. #2
 Project Number: NONE GIVEN
 Project Location: READ & STEVENS

Sampling Date: 08/06/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: S 8-1 (H902729-09)

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	08/10/2019	ND	1.95	97.4	2.00	4.14	
Toluene*	<0.050	0.050	08/10/2019	ND	2.00	99.8	2.00	2.05	
Ethylbenzene*	<0.050	0.050	08/10/2019	ND	2.00	100	2.00	2.05	
Total Xylenes*	<0.150	0.150	08/10/2019	ND	6.14	102	6.00	2.21	
Total BTEX	<0.300	0.300	08/10/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 108 % 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	08/12/2019	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	08/09/2019	ND	198	98.9	200	1.73	
DRO >C10-C28*	<10.0	10.0	08/09/2019	ND	189	94.6	200	4.96	
EXT DRO >C28-C36	<10.0	10.0	08/09/2019	ND					

Surrogate: 1-Chlorooctane 89.7 % 41-142

Surrogate: 1-Chlorooctadecane 91.1 % 37.6-147

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Analytical Results For:

REPUBLIC BACKHOE SERVICES
 ERIC GARCIA
 47 E. DICKENS RD
 LOVINGTON NM, 88260
 Fax To: NONE

Received:	08/08/2019	Sampling Date:	08/06/2019
Reported:	08/13/2019	Sampling Type:	Soil
Project Name:	SARAGOSSA 10 ST. #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	READ & STEVENS		

Sample ID: S 8-12 (H902729-10)

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	08/10/2019	ND	1.95	97.4	2.00	4.14		
Toluene*	<0.050	0.050	08/10/2019	ND	2.00	99.8	2.00	2.05		
Ethylbenzene*	<0.050	0.050	08/10/2019	ND	2.00	100	2.00	2.05		
Total Xylenes*	<0.150	0.150	08/10/2019	ND	6.14	102	6.00	2.21		
Total BTEX	<0.300	0.300	08/10/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 108 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	08/12/2019	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	08/09/2019	ND	198	98.9	200	1.73		
DRO >C10-C28*	<10.0	10.0	08/09/2019	ND	189	94.6	200	4.96		
EXT DRO >C28-C36	<10.0	10.0	08/09/2019	ND						

Surrogate: 1-Chlorooctane 90.0 % 41-142

Surrogate: 1-Chlorooctadecane 93.0 % 37.6-147

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Analytical Results For:

REPUBLIC BACKHOE SERVICES
 ERIC GARCIA
 47 E. DICKENS RD
 LOVINGTON NM, 88260
 Fax To: NONE

Received: 08/08/2019
 Reported: 08/13/2019
 Project Name: SARAGOSSA 10 ST. #2
 Project Number: NONE GIVEN
 Project Location: READ & STEVENS

Sampling Date: 08/06/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: S 9-1 (H902729-11)

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	08/10/2019	ND	1.95	97.4	2.00	4.14		
Toluene*	<0.050	0.050	08/10/2019	ND	2.00	99.8	2.00	2.05		
Ethylbenzene*	<0.050	0.050	08/10/2019	ND	2.00	100	2.00	2.05		
Total Xylenes*	<0.150	0.150	08/10/2019	ND	6.14	102	6.00	2.21		
Total BTEX	<0.300	0.300	08/10/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	08/12/2019	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	08/09/2019	ND	198	98.9	200	1.73		
DRO >C10-C28*	<10.0	10.0	08/09/2019	ND	189	94.6	200	4.96		
EXT DRO >C28-C36	<10.0	10.0	08/09/2019	ND						

Surrogate: 1-Chlorooctane 90.0 % 41-142

Surrogate: 1-Chlorooctadecane 89.9 % 37.6-147

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Analytical Results For:

REPUBLIC BACKHOE SERVICES
 ERIC GARCIA
 47 E. DICKENS RD
 LOVINGTON NM, 88260
 Fax To: NONE

Received:	08/08/2019	Sampling Date:	08/06/2019
Reported:	08/13/2019	Sampling Type:	Soil
Project Name:	SARAGOSSA 10 ST. #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	READ & STEVENS		

Sample ID: S 9-12 (H902729-12)

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	08/10/2019	ND	1.95	97.4	2.00	4.14		
Toluene*	<0.050	0.050	08/10/2019	ND	2.00	99.8	2.00	2.05		
Ethylbenzene*	<0.050	0.050	08/10/2019	ND	2.00	100	2.00	2.05		
Total Xylenes*	<0.150	0.150	08/10/2019	ND	6.14	102	6.00	2.21		
Total BTEX	<0.300	0.300	08/10/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 107 % 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	08/12/2019	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	08/09/2019	ND	198	98.9	200	1.73		
DRO >C10-C28*	<10.0	10.0	08/09/2019	ND	189	94.6	200	4.96		
EXT DRO >C28-C36	<10.0	10.0	08/09/2019	ND						

Surrogate: 1-Chlorooctane 89.5 % 41-142

Surrogate: 1-Chlorooctadecane 90.0 % 37.6-147

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Analytical Results For:

REPUBLIC BACKHOE SERVICES
 ERIC GARCIA
 47 E. DICKENS RD
 LOVINGTON NM, 88260
 Fax To: NONE

Received:	08/08/2019	Sampling Date:	08/06/2019
Reported:	08/13/2019	Sampling Type:	Soil
Project Name:	SARAGOSSA 10 ST. #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	READ & STEVENS		

Sample ID: S 10-1 (H902729-13)

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	08/10/2019	ND	2.23	111	2.00	4.82		
Toluene*	<0.050	0.050	08/10/2019	ND	2.27	114	2.00	4.17		
Ethylbenzene*	<0.050	0.050	08/10/2019	ND	2.19	110	2.00	6.42		
Total Xylenes*	<0.150	0.150	08/10/2019	ND	6.58	110	6.00	6.16		
Total BTEX	<0.300	0.300	08/10/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.1 % 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	08/12/2019	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	08/09/2019	ND	198	98.9	200	1.73		
DRO >C10-C28*	<10.0	10.0	08/09/2019	ND	189	94.6	200	4.96		
EXT DRO >C28-C36	<10.0	10.0	08/09/2019	ND						

Surrogate: 1-Chlorooctane 90.7 % 41-142

Surrogate: 1-Chlorooctadecane 91.3 % 37.6-147

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Analytical Results For:

REPUBLIC BACKHOE SERVICES
 ERIC GARCIA
 47 E. DICKENS RD
 LOVINGTON NM, 88260
 Fax To: NONE

Received: 08/08/2019
 Reported: 08/13/2019
 Project Name: SARAGOSSA 10 ST. #2
 Project Number: NONE GIVEN
 Project Location: READ & STEVENS

Sampling Date: 08/06/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: S 10-12 (H902729-14)

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	08/10/2019	ND	2.23	111	2.00	4.82		
Toluene*	<0.050	0.050	08/10/2019	ND	2.27	114	2.00	4.17		
Ethylbenzene*	<0.050	0.050	08/10/2019	ND	2.19	110	2.00	6.42		
Total Xylenes*	<0.150	0.150	08/10/2019	ND	6.58	110	6.00	6.16		
Total BTEX	<0.300	0.300	08/10/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.5 % 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	<16.0	16.0	08/12/2019	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	08/09/2019	ND	198	98.9	200	1.73		
DRO >C10-C28*	<10.0	10.0	08/09/2019	ND	189	94.6	200	4.96		
EXT DRO >C28-C36	<10.0	10.0	08/09/2019	ND						

Surrogate: 1-Chlorooctane 91.5 % 41-142

Surrogate: 1-Chlorooctadecane 93.0 % 37.6-147

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

REPUBLIC BACKHOE SERVICES
 ERIC GARCIA
 47 E. DICKENS RD
 LOVINGTON NM, 88260
 Fax To: NONE

Received: 08/08/2019
 Reported: 08/13/2019
 Project Name: SARAGOSSA 10 ST. #2
 Project Number: NONE GIVEN
 Project Location: READ & STEVENS

Sampling Date: 08/06/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: S 11-1 (H902729-15)

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	08/10/2019	ND	2.23	111	2.00	4.82		
Toluene*	<0.050	0.050	08/10/2019	ND	2.27	114	2.00	4.17		
Ethylbenzene*	<0.050	0.050	08/10/2019	ND	2.19	110	2.00	6.42		
Total Xylenes*	<0.150	0.150	08/10/2019	ND	6.58	110	6.00	6.16		
Total BTEX	<0.300	0.300	08/10/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 95.5 % 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	<16.0	16.0	08/12/2019	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	08/09/2019	ND	198	98.9	200	1.73		
DRO >C10-C28*	<10.0	10.0	08/09/2019	ND	189	94.6	200	4.96		
EXT DRO >C28-C36	<10.0	10.0	08/09/2019	ND						

Surrogate: 1-Chlorooctane 79.2 % 41-142

Surrogate: 1-Chlorooctadecane 79.9 % 37.6-147

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

REPUBLIC BACKHOE SERVICES
 ERIC GARCIA
 47 E. DICKENS RD
 LOVINGTON NM, 88260
 Fax To: NONE

Received: 08/08/2019
 Reported: 08/13/2019
 Project Name: SARAGOSSA 10 ST. #2
 Project Number: NONE GIVEN
 Project Location: READ & STEVENS

Sampling Date: 08/06/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: S 11-12 (H902729-16)

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	08/10/2019	ND	2.23	111	2.00	4.82		
Toluene*	<0.050	0.050	08/10/2019	ND	2.27	114	2.00	4.17		
Ethylbenzene*	<0.050	0.050	08/10/2019	ND	2.19	110	2.00	6.42		
Total Xylenes*	<0.150	0.150	08/10/2019	ND	6.58	110	6.00	6.16		
Total BTEX	<0.300	0.300	08/10/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 96.9 % 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	08/12/2019	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	08/09/2019	ND	198	98.9	200	1.73		
DRO >C10-C28*	<10.0	10.0	08/09/2019	ND	189	94.6	200	4.96		
EXT DRO >C28-C36	<10.0	10.0	08/09/2019	ND						

Surrogate: 1-Chlorooctane 88.3 % 41-142

Surrogate: 1-Chlorooctadecane 90.6 % 37.6-147

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

REPUBLIC BACKHOE SERVICES
 ERIC GARCIA
 47 E. DICKENS RD
 LOVINGTON NM, 88260
 Fax To: NONE

Received: 08/08/2019
 Reported: 08/13/2019
 Project Name: SARAGOSSA 10 ST. #2
 Project Number: NONE GIVEN
 Project Location: READ & STEVENS

Sampling Date: 08/06/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: S 12-1 (H902729-17)

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	08/10/2019	ND	2.23	111	2.00	4.82		
Toluene*	<0.050	0.050	08/10/2019	ND	2.27	114	2.00	4.17		
Ethylbenzene*	<0.050	0.050	08/10/2019	ND	2.19	110	2.00	6.42		
Total Xylenes*	<0.150	0.150	08/10/2019	ND	6.58	110	6.00	6.16		
Total BTEX	<0.300	0.300	08/10/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.6 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	08/12/2019	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	08/09/2019	ND	198	98.9	200	1.73		
DRO >C10-C28*	<10.0	10.0	08/09/2019	ND	189	94.6	200	4.96		
EXT DRO >C28-C36	<10.0	10.0	08/09/2019	ND						

Surrogate: 1-Chlorooctane 82.0 % 41-142

Surrogate: 1-Chlorooctadecane 80.5 % 37.6-147

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

REPUBLIC BACKHOE SERVICES
 ERIC GARCIA
 47 E. DICKENS RD
 LOVINGTON NM, 88260
 Fax To: NONE

Received: 08/08/2019
 Reported: 08/13/2019
 Project Name: SARAGOSSA 10 ST. #2
 Project Number: NONE GIVEN
 Project Location: READ & STEVENS

Sampling Date: 08/06/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: S 12-12 (H902729-18)

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	08/10/2019	ND	2.23	111	2.00	4.82		
Toluene*	<0.050	0.050	08/10/2019	ND	2.27	114	2.00	4.17		
Ethylbenzene*	<0.050	0.050	08/10/2019	ND	2.19	110	2.00	6.42		
Total Xylenes*	<0.150	0.150	08/10/2019	ND	6.58	110	6.00	6.16		
Total BTEX	<0.300	0.300	08/10/2019	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	08/12/2019	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	08/10/2019	ND	198	98.9	200	1.73		
DRO >C10-C28*	<10.0	10.0	08/10/2019	ND	189	94.6	200	4.96		
EXT DRO >C28-C36	<10.0	10.0	08/10/2019	ND						

Surrogate: 1-Chlorooctane 89.6 % 41-142

Surrogate: 1-Chlorooctadecane 89.7 % 37.6-147

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Analytical Results For:

REPUBLIC BACKHOE SERVICES
 ERIC GARCIA
 47 E. DICKENS RD
 LOVINGTON NM, 88260
 Fax To: NONE

Received: 08/08/2019
 Reported: 08/13/2019
 Project Name: SARAGOSSA 10 ST. #2
 Project Number: NONE GIVEN
 Project Location: READ & STEVENS

Sampling Date: 08/06/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: S 13-1 (H902729-19)

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	08/10/2019	ND	2.23	111	2.00	4.82	
Toluene*	<0.050	0.050	08/10/2019	ND	2.27	114	2.00	4.17	
Ethylbenzene*	<0.050	0.050	08/10/2019	ND	2.19	110	2.00	6.42	
Total Xylenes*	<0.150	0.150	08/10/2019	ND	6.58	110	6.00	6.16	
Total BTEX	<0.300	0.300	08/10/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.6 % 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	16.0	16.0	08/12/2019	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/10/2019	ND	198	98.9	200	1.73	
DRO >C10-C28*	<10.0	10.0	08/10/2019	ND	189	94.6	200	4.96	
EXT DRO >C28-C36	<10.0	10.0	08/10/2019	ND					

Surrogate: 1-Chlorooctane 84.1 % 41-142

Surrogate: 1-Chlorooctadecane 83.9 % 37.6-147

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

REPUBLIC BACKHOE SERVICES
 ERIC GARCIA
 47 E. DICKENS RD
 LOVINGTON NM, 88260
 Fax To: NONE

Received:	08/08/2019	Sampling Date:	08/06/2019
Reported:	08/13/2019	Sampling Type:	Soil
Project Name:	SARAGOSSA 10 ST. #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	READ & STEVENS		

Sample ID: S 13-12 (H902729-20)

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	08/10/2019	ND	2.23	111	2.00	4.82	
Toluene*	<0.050	0.050	08/10/2019	ND	2.27	114	2.00	4.17	
Ethylbenzene*	<0.050	0.050	08/10/2019	ND	2.19	110	2.00	6.42	
Total Xylenes*	<0.150	0.150	08/10/2019	ND	6.58	110	6.00	6.16	
Total BTEX	<0.300	0.300	08/10/2019	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	08/12/2019	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/10/2019	ND	212	106	200	2.38	
DRO >C10-C28*	<10.0	10.0	08/10/2019	ND	193	96.7	200	6.07	
EXT DRO >C28-C36	<10.0	10.0	08/10/2019	ND					

Surrogate: 1-Chlorooctane 90.7 % 41-142

Surrogate: 1-Chlorooctadecane 92.1 % 37.6-147

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

REPUBLIC BACKHOE SERVICES
 ERIC GARCIA
 47 E. DICKENS RD
 LOVINGTON NM, 88260
 Fax To: NONE

Received:	08/08/2019	Sampling Date:	08/06/2019
Reported:	08/13/2019	Sampling Type:	Soil
Project Name:	SARAGOSSA 10 ST. #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	READ & STEVENS		

Sample ID: S 14-1 (H902729-21)

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	08/10/2019	ND	2.23	111	2.00	4.82		
Toluene*	<0.050	0.050	08/10/2019	ND	2.27	114	2.00	4.17		
Ethylbenzene*	<0.050	0.050	08/10/2019	ND	2.19	110	2.00	6.42		
Total Xylenes*	<0.150	0.150	08/10/2019	ND	6.58	110	6.00	6.16		
Total BTEX	<0.300	0.300	08/10/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 96.8 % 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	<16.0	16.0	08/12/2019	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	08/10/2019	ND	212	106	200	2.38		
DRO >C10-C28*	<10.0	10.0	08/10/2019	ND	193	96.7	200	6.07		
EXT DRO >C28-C36	<10.0	10.0	08/10/2019	ND						

Surrogate: 1-Chlorooctane 96.1 % 41-142

Surrogate: 1-Chlorooctadecane 98.8 % 37.6-147

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

REPUBLIC BACKHOE SERVICES
 ERIC GARCIA
 47 E. DICKENS RD
 LOVINGTON NM, 88260
 Fax To: NONE

Received:	08/08/2019	Sampling Date:	08/06/2019
Reported:	08/13/2019	Sampling Type:	Soil
Project Name:	SARAGOSSA 10 ST. #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	READ & STEVENS		

Sample ID: S 14-12 (H902729-22)

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	08/10/2019	ND	2.23	111	2.00	4.82		
Toluene*	<0.050	0.050	08/10/2019	ND	2.27	114	2.00	4.17		
Ethylbenzene*	<0.050	0.050	08/10/2019	ND	2.19	110	2.00	6.42		
Total Xylenes*	<0.150	0.150	08/10/2019	ND	6.58	110	6.00	6.16		
Total BTEX	<0.300	0.300	08/10/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.1 % 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	08/12/2019	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	08/10/2019	ND	212	106	200	2.38		
DRO >C10-C28*	<10.0	10.0	08/10/2019	ND	193	96.7	200	6.07		
EXT DRO >C28-C36	<10.0	10.0	08/10/2019	ND						

Surrogate: 1-Chlorooctane 101 % 41-142

Surrogate: 1-Chlorooctadecane 106 % 37.6-147

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

REPUBLIC BACKHOE SERVICES
 ERIC GARCIA
 47 E. DICKENS RD
 LOVINGTON NM, 88260
 Fax To: NONE

Received:	08/08/2019	Sampling Date:	08/06/2019
Reported:	08/13/2019	Sampling Type:	Soil
Project Name:	SARAGOSSA 10 ST. #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	READ & STEVENS		

Sample ID: S 15-1 (H902729-23)

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	08/10/2019	ND	2.23	111	2.00	4.82		
Toluene*	<0.050	0.050	08/10/2019	ND	2.27	114	2.00	4.17		
Ethylbenzene*	<0.050	0.050	08/10/2019	ND	2.19	110	2.00	6.42		
Total Xylenes*	<0.150	0.150	08/10/2019	ND	6.58	110	6.00	6.16		
Total BTEX	<0.300	0.300	08/10/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 96.9 % 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	08/12/2019	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	08/10/2019	ND	212	106	200	2.38		
DRO >C10-C28*	<10.0	10.0	08/10/2019	ND	193	96.7	200	6.07		
EXT DRO >C28-C36	<10.0	10.0	08/10/2019	ND						

Surrogate: 1-Chlorooctane 87.2 % 41-142

Surrogate: 1-Chlorooctadecane 87.2 % 37.6-147

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

REPUBLIC BACKHOE SERVICES
 ERIC GARCIA
 47 E. DICKENS RD
 LOVINGTON NM, 88260
 Fax To: NONE

Received:	08/08/2019	Sampling Date:	08/06/2019
Reported:	08/13/2019	Sampling Type:	Soil
Project Name:	SARAGOSSA 10 ST. #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	READ & STEVENS		

Sample ID: S 15-12 (H902729-24)

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	08/10/2019	ND	2.23	111	2.00	4.82		
Toluene*	<0.050	0.050	08/10/2019	ND	2.27	114	2.00	4.17		
Ethylbenzene*	<0.050	0.050	08/10/2019	ND	2.19	110	2.00	6.42		
Total Xylenes*	<0.150	0.150	08/10/2019	ND	6.58	110	6.00	6.16		
Total BTEX	<0.300	0.300	08/10/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.0 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	08/12/2019	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	08/10/2019	ND	212	106	200	2.38		
DRO >C10-C28*	<10.0	10.0	08/10/2019	ND	193	96.7	200	6.07		
EXT DRO >C28-C36	<10.0	10.0	08/10/2019	ND						

Surrogate: 1-Chlorooctane 90.0 % 41-142

Surrogate: 1-Chlorooctadecane 91.9 % 37.6-147

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Analytical Results For:

REPUBLIC BACKHOE SERVICES
 ERIC GARCIA
 47 E. DICKENS RD
 LOVINGTON NM, 88260
 Fax To: NONE

Received:	08/08/2019	Sampling Date:	08/06/2019
Reported:	08/13/2019	Sampling Type:	Soil
Project Name:	SARAGOSSA 10 ST. #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	READ & STEVENS		

Sample ID: S 16-1 (H902729-25)

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	08/10/2019	ND	2.23	111	2.00	4.82		
Toluene*	<0.050	0.050	08/10/2019	ND	2.27	114	2.00	4.17		
Ethylbenzene*	<0.050	0.050	08/10/2019	ND	2.19	110	2.00	6.42		
Total Xylenes*	<0.150	0.150	08/10/2019	ND	6.58	110	6.00	6.16		
Total BTEX	<0.300	0.300	08/10/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 95.8 % 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	<16.0	16.0	08/12/2019	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	08/10/2019	ND	212	106	200	2.38		
DRO >C10-C28*	<10.0	10.0	08/10/2019	ND	193	96.7	200	6.07		
EXT DRO >C28-C36	<10.0	10.0	08/10/2019	ND						

Surrogate: 1-Chlorooctane 87.2 % 41-142

Surrogate: 1-Chlorooctadecane 88.1 % 37.6-147

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Analytical Results For:

REPUBLIC BACKHOE SERVICES
 ERIC GARCIA
 47 E. DICKENS RD
 LOVINGTON NM, 88260
 Fax To: NONE

Received:	08/08/2019	Sampling Date:	08/06/2019
Reported:	08/13/2019	Sampling Type:	Soil
Project Name:	SARAGOSSA 10 ST. #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	READ & STEVENS		

Sample ID: S 16-12 (H902729-26)

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	08/10/2019	ND	2.23	111	2.00	4.82		
Toluene*	<0.050	0.050	08/10/2019	ND	2.27	114	2.00	4.17		
Ethylbenzene*	<0.050	0.050	08/10/2019	ND	2.19	110	2.00	6.42		
Total Xylenes*	<0.150	0.150	08/10/2019	ND	6.58	110	6.00	6.16		
Total BTEX	<0.300	0.300	08/10/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 96.7 % 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	<16.0	16.0	08/12/2019	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	08/10/2019	ND	212	106	200	2.38		
DRO >C10-C28*	<10.0	10.0	08/10/2019	ND	193	96.7	200	6.07		
EXT DRO >C28-C36	<10.0	10.0	08/10/2019	ND						

Surrogate: 1-Chlorooctane 91.3 % 41-142

Surrogate: 1-Chlorooctadecane 94.8 % 37.6-147

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Analytical Results For:

REPUBLIC BACKHOE SERVICES
 ERIC GARCIA
 47 E. DICKENS RD
 LOVINGTON NM, 88260
 Fax To: NONE

Received: 08/08/2019
 Reported: 08/13/2019
 Project Name: SARAGOSSA 10 ST. #2
 Project Number: NONE GIVEN
 Project Location: READ & STEVENS

Sampling Date: 08/07/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: S 17-1 (H902729-27)

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	08/10/2019	ND	2.23	111	2.00	4.82		
Toluene*	<0.050	0.050	08/10/2019	ND	2.27	114	2.00	4.17		
Ethylbenzene*	<0.050	0.050	08/10/2019	ND	2.19	110	2.00	6.42		
Total Xylenes*	<0.150	0.150	08/10/2019	ND	6.58	110	6.00	6.16		
Total BTEX	<0.300	0.300	08/10/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 96.7 % 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	08/12/2019	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	08/10/2019	ND	212	106	200	2.38		
DRO >C10-C28*	<10.0	10.0	08/10/2019	ND	193	96.7	200	6.07		
EXT DRO >C28-C36	<10.0	10.0	08/10/2019	ND						

Surrogate: 1-Chlorooctane 95.8 % 41-142

Surrogate: 1-Chlorooctadecane 98.8 % 37.6-147

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Analytical Results For:

REPUBLIC BACKHOE SERVICES
 ERIC GARCIA
 47 E. DICKENS RD
 LOVINGTON NM, 88260
 Fax To: NONE

Received: 08/08/2019
 Reported: 08/13/2019
 Project Name: SARAGOSSA 10 ST. #2
 Project Number: NONE GIVEN
 Project Location: READ & STEVENS

Sampling Date: 08/07/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: S 17-12 (H902729-28)

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	08/10/2019	ND	2.23	111	2.00	4.82		
Toluene*	<0.050	0.050	08/10/2019	ND	2.27	114	2.00	4.17		
Ethylbenzene*	<0.050	0.050	08/10/2019	ND	2.19	110	2.00	6.42		
Total Xylenes*	<0.150	0.150	08/10/2019	ND	6.58	110	6.00	6.16		
Total BTEX	<0.300	0.300	08/10/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.0 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	08/12/2019	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	08/10/2019	ND	212	106	200	2.38		
DRO >C10-C28*	<10.0	10.0	08/10/2019	ND	193	96.7	200	6.07		
EXT DRO >C28-C36	<10.0	10.0	08/10/2019	ND						

Surrogate: 1-Chlorooctane 82.8 % 41-142

Surrogate: 1-Chlorooctadecane 84.2 % 37.6-147

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Analytical Results For:

REPUBLIC BACKHOE SERVICES
 ERIC GARCIA
 47 E. DICKENS RD
 LOVINGTON NM, 88260
 Fax To: NONE

Received:	08/08/2019	Sampling Date:	08/07/2019
Reported:	08/13/2019	Sampling Type:	Soil
Project Name:	SARAGOSSA 10 ST. #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	READ & STEVENS		

Sample ID: S 18-1 (H902729-29)

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	08/10/2019	ND	2.23	111	2.00	4.82		
Toluene*	<0.050	0.050	08/10/2019	ND	2.27	114	2.00	4.17		
Ethylbenzene*	<0.050	0.050	08/10/2019	ND	2.19	110	2.00	6.42		
Total Xylenes*	<0.150	0.150	08/10/2019	ND	6.58	110	6.00	6.16		
Total BTEX	<0.300	0.300	08/10/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.2 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	08/12/2019	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	08/10/2019	ND	212	106	200	2.38		
DRO >C10-C28*	<10.0	10.0	08/10/2019	ND	193	96.7	200	6.07		
EXT DRO >C28-C36	<10.0	10.0	08/10/2019	ND						

Surrogate: 1-Chlorooctane 73.4 % 41-142

Surrogate: 1-Chlorooctadecane 75.8 % 37.6-147

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Analytical Results For:

REPUBLIC BACKHOE SERVICES
 ERIC GARCIA
 47 E. DICKENS RD
 LOVINGTON NM, 88260
 Fax To: NONE

Received: 08/08/2019
 Reported: 08/13/2019
 Project Name: SARAGOSSA 10 ST. #2
 Project Number: NONE GIVEN
 Project Location: READ & STEVENS

Sampling Date: 08/07/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: S 18-12 (H902729-30)

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	08/10/2019	ND	2.23	111	2.00	4.82	
Toluene*	<0.050	0.050	08/10/2019	ND	2.27	114	2.00	4.17	
Ethylbenzene*	<0.050	0.050	08/10/2019	ND	2.19	110	2.00	6.42	
Total Xylenes*	<0.150	0.150	08/10/2019	ND	6.58	110	6.00	6.16	
Total BTEX	<0.300	0.300	08/10/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.3 % 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	16.0	16.0	08/12/2019	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/10/2019	ND	212	106	200	2.38	
DRO >C10-C28*	<10.0	10.0	08/10/2019	ND	193	96.7	200	6.07	
EXT DRO >C28-C36	49.8	10.0	08/10/2019	ND					

Surrogate: 1-Chlorooctane 85.1 % 41-142

Surrogate: 1-Chlorooctadecane 87.1 % 37.6-147

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Analytical Results For:

REPUBLIC BACKHOE SERVICES
 ERIC GARCIA
 47 E. DICKENS RD
 LOVINGTON NM, 88260
 Fax To: NONE

Received: 08/08/2019
 Reported: 08/13/2019
 Project Name: SARAGOSSA 10 ST. #2
 Project Number: NONE GIVEN
 Project Location: READ & STEVENS

Sampling Date: 08/07/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: S 1-1 (H902729-31)

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	08/10/2019	ND	2.23	111	2.00	4.82	
Toluene*	<0.050	0.050	08/10/2019	ND	2.27	114	2.00	4.17	
Ethylbenzene*	<0.050	0.050	08/10/2019	ND	2.19	110	2.00	6.42	
Total Xylenes*	<0.150	0.150	08/10/2019	ND	6.58	110	6.00	6.16	
Total BTEX	<0.300	0.300	08/10/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.1 % 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	08/12/2019	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/10/2019	ND	212	106	200	2.38	
DRO >C10-C28*	<10.0	10.0	08/10/2019	ND	193	96.7	200	6.07	
EXT DRO >C28-C36	<10.0	10.0	08/10/2019	ND					

Surrogate: 1-Chlorooctane 92.5 % 41-142

Surrogate: 1-Chlorooctadecane 97.1 % 37.6-147

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* = Accredited Analyte

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

REPUBLIC BACKHOE SERVICES
 ERIC GARCIA
 47 E. DICKENS RD
 LOVINGTON NM, 88260
 Fax To: NONE

Received:	08/08/2019	Sampling Date:	08/07/2019
Reported:	08/13/2019	Sampling Type:	Soil
Project Name:	SARAGOSSA 10 ST. #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	READ & STEVENS		

Sample ID: S 1-12 (H902729-32)

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	08/10/2019	ND	2.23	111	2.00	4.82	
Toluene*	<0.050	0.050	08/10/2019	ND	2.27	114	2.00	4.17	
Ethylbenzene*	<0.050	0.050	08/10/2019	ND	2.19	110	2.00	6.42	
Total Xylenes*	<0.150	0.150	08/10/2019	ND	6.58	110	6.00	6.16	
Total BTEX	<0.300	0.300	08/10/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.1 % 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	08/13/2019	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/10/2019	ND	212	106	200	2.38	
DRO >C10-C28*	<10.0	10.0	08/10/2019	ND	193	96.7	200	6.07	
EXT DRO >C28-C36	<10.0	10.0	08/10/2019	ND					

Surrogate: 1-Chlorooctane 81.4 % 41-142

Surrogate: 1-Chlorooctadecane 84.3 % 37.6-147

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*=Accredited Analyte

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

REPUBLIC BACKHOE SERVICES
 ERIC GARCIA
 47 E. DICKENS RD
 LOVINGTON NM, 88260
 Fax To: NONE

Received:	08/08/2019	Sampling Date:	08/07/2019
Reported:	08/13/2019	Sampling Type:	Soil
Project Name:	SARAGOSSA 10 ST. #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	READ & STEVENS		

Sample ID: S 2-1 (H902729-33)

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	08/10/2019	ND	1.94	97.1	2.00	4.39		
Toluene*	<0.050	0.050	08/10/2019	ND	2.01	101	2.00	4.43		
Ethylbenzene*	<0.050	0.050	08/10/2019	ND	2.00	100	2.00	5.17		
Total Xylenes*	<0.150	0.150	08/10/2019	ND	6.12	102	6.00	5.54		
Total BTEX	<0.300	0.300	08/10/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 106 % 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	08/13/2019	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	08/10/2019	ND	212	106	200	2.38		
DRO >C10-C28*	<10.0	10.0	08/10/2019	ND	193	96.7	200	6.07		
EXT DRO >C28-C36	<10.0	10.0	08/10/2019	ND						

Surrogate: 1-Chlorooctane 76.7 % 41-142

Surrogate: 1-Chlorooctadecane 75.4 % 37.6-147

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

REPUBLIC BACKHOE SERVICES
 ERIC GARCIA
 47 E. DICKENS RD
 LOVINGTON NM, 88260
 Fax To: NONE

Received:	08/08/2019	Sampling Date:	08/07/2019
Reported:	08/13/2019	Sampling Type:	Soil
Project Name:	SARAGOSSA 10 ST. #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	READ & STEVENS		

Sample ID: S 2-12 (H902729-34)

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	08/10/2019	ND	1.94	97.1	2.00	4.39		
Toluene*	<0.050	0.050	08/10/2019	ND	2.01	101	2.00	4.43		
Ethylbenzene*	<0.050	0.050	08/10/2019	ND	2.00	100	2.00	5.17		
Total Xylenes*	<0.150	0.150	08/10/2019	ND	6.12	102	6.00	5.54		
Total BTEX	<0.300	0.300	08/10/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	08/13/2019	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	08/10/2019	ND	212	106	200	2.38		
DRO >C10-C28*	<10.0	10.0	08/10/2019	ND	193	96.7	200	6.07		
EXT DRO >C28-C36	<10.0	10.0	08/10/2019	ND						

Surrogate: 1-Chlorooctane 81.6 % 41-142

Surrogate: 1-Chlorooctadecane 84.1 % 37.6-147

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

REPUBLIC BACKHOE SERVICES
 ERIC GARCIA
 47 E. DICKENS RD
 LOVINGTON NM, 88260
 Fax To: NONE

Received: 08/08/2019
 Reported: 08/13/2019
 Project Name: SARAGOSSA 10 ST. #2
 Project Number: NONE GIVEN
 Project Location: READ & STEVENS

Sampling Date: 08/07/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: S 3-1 (H902729-35)

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	08/10/2019	ND	1.94	97.1	2.00	4.39		
Toluene*	<0.050	0.050	08/10/2019	ND	2.01	101	2.00	4.43		
Ethylbenzene*	<0.050	0.050	08/10/2019	ND	2.00	100	2.00	5.17		
Total Xylenes*	<0.150	0.150	08/10/2019	ND	6.12	102	6.00	5.54		
Total BTEX	<0.300	0.300	08/10/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	08/13/2019	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	08/10/2019	ND	212	106	200	2.38		
DRO >C10-C28*	<10.0	10.0	08/10/2019	ND	193	96.7	200	6.07		
EXT DRO >C28-C36	<10.0	10.0	08/10/2019	ND						

Surrogate: 1-Chlorooctane 92.2 % 41-142

Surrogate: 1-Chlorooctadecane 99.1 % 37.6-147

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

REPUBLIC BACKHOE SERVICES
 ERIC GARCIA
 47 E. DICKENS RD
 LOVINGTON NM, 88260
 Fax To: NONE

Received: 08/08/2019
 Reported: 08/13/2019
 Project Name: SARAGOSSA 10 ST. #2
 Project Number: NONE GIVEN
 Project Location: READ & STEVENS

Sampling Date: 08/07/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: S 3-12 (H902729-36)

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	08/10/2019	ND	1.94	97.1	2.00	4.39		
Toluene*	<0.050	0.050	08/10/2019	ND	2.01	101	2.00	4.43		
Ethylbenzene*	<0.050	0.050	08/10/2019	ND	2.00	100	2.00	5.17		
Total Xylenes*	<0.150	0.150	08/10/2019	ND	6.12	102	6.00	5.54		
Total BTEX	<0.300	0.300	08/10/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	08/13/2019	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	08/10/2019	ND	212	106	200	2.38		
DRO >C10-C28*	<10.0	10.0	08/10/2019	ND	193	96.7	200	6.07		
EXT DRO >C28-C36	<10.0	10.0	08/10/2019	ND						

Surrogate: 1-Chlorooctane 90.0 % 41-142

Surrogate: 1-Chlorooctadecane 92.1 % 37.6-147

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

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

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Mike Snyder For 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

BILL TO

ANALYSIS REQUEST

Company Name: Republic Backhoe Service LLC
 Project Manager: Eric Garcia
 Address: 47 E Dickens Rd
 City: Lovington State: NM zip: 88260
 Phone #: 575-631-0131 Fax #:
 Project #: Project Owner: Reid Stevens
 Project Name: Sarragossa 10 State #2
 Project Location: Eddy County
 Sampler Name: Eric Barcia
 P.O. #: Company: Read and Stevens
 Attn: Joe Tovar
 Address: PO Box 1518
 City: Roswell
 State: NM zip: 88202
 Phone #: 575-390-2425
 Fax #:

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						PRESERV.	SAMPLING	DATE	TIME	TPH	BTEX	Chloride
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :							
H902289	S5-1	X	1								8/6/19	9:30	✓	✓	✓	
	S5-12	X									8/6/19	10:00	✓	✓	✓	
	S6-1	X									8/6/19	10:30	✓	✓	✓	
	S6-12	X									8/6/19	11:00	✓	✓	✓	
	S7-1	X									8/6/19	11:30	✓	✓	✓	
	S7-12	X									8/6/19	12:00	✓	✓	✓	
	S8-1	X									8/6/19	12:30	✓	✓	✓	
	S8-12	X									8/6/19	1:00	✓	✓	✓	
	S9-1	X									8/6/19	1:15	✓	✓	✓	
	S9-12	X									8/6/19	1:30	✓	✓	✓	

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Reinquired By: [Signature]
 Date: 8-8-19
 Time: 12:55
 Received By: [Signature]
 Date: [Blank]
 Time: [Blank]

Delivered By: (Circle One) 2.82 #97
 Sampler - UPS - Bus - Other: Collected 3.22
 Sample Condition: Cool Intact Yes Yes No No
 CHECKED BY: [Initials]

Phone Result: Yes No
 Fax Result: Yes No
 Add'l Phone #: [Blank]
 Add'l Fax #: [Blank]

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



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

BILL TO

ANALYSIS REQUEST

Company Name: Republic Backhoe Service LLC
 Project Manager: Eric Garcia
 Address: 47 E Dickens Rd
 City: Lovington State: NM zip: 88260
 Phone #: 575-631-0131 Fax #:
 Project #: Project Owner: Read Stevens
 Project Name: Sarragossa 10 State #2
 Project Location: Eddy County
 Sampler Name: Eric Barcia
 P.O. #: Company: Read and Stevens
 Attn: Joe Tovar
 Address: PO Box 1518
 City: Roswell
 State: NM zip: 88202
 Phone #: 575-390-2425
 Fax #:

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX							DATE	TIME	JPH	BTEX	Chloride
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:					
H902729	S10-1	X	1								8/10/19	1:45	✓	✓	✓
	S10-12	X	1								8/10/19	2:00	✓	✓	✓
	S11-1	X	1								8/10/19	2:15	✓	✓	✓
	S11-12	X	1								8/10/19	2:30	✓	✓	✓
	S12-1	X	1								8/10/19	2:45	✓	✓	✓
	S12-12	X	1								8/10/19	3:00	✓	✓	✓
	S13-1	X	1								8/10/19	3:15	✓	✓	✓
	S13-12	X	1								8/10/19	3:30	✓	✓	✓
	S14-1	X	1								8/10/19	3:45	✓	✓	✓
	S14-12	X	1								8/10/19	4:00	✓	✓	✓

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Relinquished By: [Signature]
 Date: 8-8-19
 Time: 12:55
 Received By: [Signature]
 Date: [Blank]
 Time: [Blank]

Phone Result: Yes No Add'l Phone #:
 Fax Result: Yes No Add'l Fax #:
 REMARKS:

Delivered By: (Circle One) 3.8°C 497
 Sampler - UPS - Bus - Other: Consulted 32°C
 Sample Condition: Cool Intact
 Yes No
 Checked By: [Signature]

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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: Republic Backhoe Service LLC
 Project Manager: Eric Garcia
 Address: 47 E Dickens Rd
 City: Lovington State: NM zip: 88260
 Phone #: 575-631-0131 Fax #:
 Project #: Project Owner: Reid Stevens
 Project Name: Sarragossa 10 State #2
 Project Location: Eddy County
 Sampler Name: Eric Barcia
 P.O. #: Company: Read and Stevens
 Attn: Joe To var
 Address: PO Box 1518
 City: Roswell
 State: NM zip: 88202
 Phone #: 575-390-2425
 Fax #:

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						PRESERV	SAMPLING	DATE	TIME	TPH	BTEX	Chloride
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :							
H902729	23 S15-1	X	1									8/16/19 4:15	✓	✓	✓	
	24 S15-12	X	1									8/16/19 4:30	✓	✓	✓	
	25 S10-1	X	1									8/16/19 4:45	✓	✓	✓	
	26 S10-12	X	1									8/16/19 5:00	✓	✓	✓	

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Relinquished By: *[Signature]* Date: 8-19
 Received By: *[Signature]* Date: 8-19
 Time: 12:55
 Phone Result: Yes No Add'l Phone #:
 Fax Result: Yes No Add'l Fax #:
 REMARKS:

Delivered By: (Circle One) 2.82
 Sampler - UPS - Bus - Other: *Corrected 3.32*
 Sample Condition: Cool Intact
 Checked By: *YO.*
 Relinquished By: *[Signature]* Date: 8-19
 Received By: *[Signature]* Date: 8-19
 Time: 12:55
 Phone Result: Yes No Add'l Phone #:
 Fax Result: Yes No Add'l Fax #:
 REMARKS:

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



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

ANALYSIS REQUEST

Company Name: Republic Backhoe Service LLC
 Project Manager: Eric Garcia
 Address: 47 E Dickens Rd
 City: Lovington State: NM zip: 88260
 Phone #: 575-631-0131 Fax #:
 Project #: Project Owner: Read Stevens
 Project Name: Sarragossa 10 State #2
 Project Location: Eddy County
 Sampler Name: Eric Garcia
 P.O. #: Company: Read Stevens
 Attn: Joe Tovar
 Address: PO Box 1518
 City: Roswell
 State: NM zip: 88202
 Phone #: 575-390-2425 Fax #:

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						DATE	TIME	TPH	BTEX	Chloride
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:					
A902789	S17-1	X	1						8/7/19	8:00	✓	✓	✓	
27	S17-12	X							8/7/19	8:15	✓	✓	✓	
28	S18-1	X							8/7/19	8:30	✓	✓	✓	
29	S18-12	X							8/7/19	8:45	✓	✓	✓	
30	S1-1	X							8/7/19	9:00	✓	✓	✓	
31	S1-12	X							8/7/19	9:15	✓	✓	✓	
32	S2-1	X							8/7/19	9:30	✓	✓	✓	
33	S2-12	X							8/7/19	9:45	✓	✓	✓	
34	S3-1	X							8/7/19	10:00	✓	✓	✓	
35	S3-12	X							8/7/19	10:15	✓	✓	✓	

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Relinquished By: *[Signature]* Date: 8-8-19
 Received By: *[Signature]* Date: 8-8-19
 Time: 12:55

Delivered By: (Circle One) *2.82* #97
 Sampler - UPS - Bus - Other: *Consolidated 3.22*
 Sample Condition: Cool Intact
 Checked By: *[Signature]* (Initials) *YD*

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



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

August 20, 2019

ERIC GARCIA
REPUBLIC BACKHOE SERVICES
47 E. DICKENS RD
LOVINGTON, NM 88260

RE: SARAGOSSA 10 ST. #2

Enclosed are the results of analyses for samples received by the laboratory on 08/16/19 10:40.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene
Lab Director/Quality Manager



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

Analytical Results For:

REPUBLIC BACKHOE SERVICES
 ERIC GARCIA
 47 E. DICKENS RD
 LOVINGTON NM, 88260
 Fax To: NONE

Received:	08/16/2019	Sampling Date:	08/13/2019
Reported:	08/20/2019	Sampling Type:	Sludge
Project Name:	SARAGOSSA 10 ST. #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	READ & STEVENS-EDDY CO.		

Sample ID: S 6 - 2 (H902817-01)

BTEX 8021B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/16/2019	ND	1.72	86.0	2.00	8.65		
Toluene*	<0.050	0.050	08/16/2019	ND	1.84	92.0	2.00	10.8		
Ethylbenzene*	<0.050	0.050	08/16/2019	ND	1.91	95.3	2.00	12.3		
Total Xylenes*	<0.150	0.150	08/16/2019	ND	5.92	98.7	6.00	10.8		
Total BTEX	<0.300	0.300	08/16/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 96.4 % 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	16.0	16.0	08/19/2019	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	08/16/2019	ND	207	104	200	2.89		
DRO >C10-C28*	<10.0	10.0	08/16/2019	ND	198	98.9	200	6.97		
EXT DRO >C28-C36	<10.0	10.0	08/16/2019	ND						

Surrogate: 1-Chlorooctane 92.0 % 41-142

Surrogate: 1-Chlorooctadecane 95.9 % 37.6-147

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

REPUBLIC BACKHOE SERVICES
 ERIC GARCIA
 47 E. DICKENS RD
 LOVINGTON NM, 88260
 Fax To: NONE

Received:	08/16/2019	Sampling Date:	08/13/2019
Reported:	08/20/2019	Sampling Type:	Sludge
Project Name:	SARAGOSSA 10 ST. #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	READ & STEVENS-EDDY CO.		

Sample ID: S 7 - 2 (H902817-02)

BTEX 8021B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/16/2019	ND	1.72	86.0	2.00	8.65		
Toluene*	<0.050	0.050	08/16/2019	ND	1.84	92.0	2.00	10.8		
Ethylbenzene*	<0.050	0.050	08/16/2019	ND	1.91	95.3	2.00	12.3		
Total Xylenes*	<0.150	0.150	08/16/2019	ND	5.92	98.7	6.00	10.8		
Total BTEX	<0.300	0.300	08/16/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 96.9 % 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	08/19/2019	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	08/16/2019	ND	207	104	200	2.89		
DRO >C10-C28*	<10.0	10.0	08/16/2019	ND	198	98.9	200	6.97		
EXT DRO >C28-C36	<10.0	10.0	08/16/2019	ND						

Surrogate: 1-Chlorooctane 94.7 % 41-142

Surrogate: 1-Chlorooctadecane 98.1 % 37.6-147

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

Notes and Definitions

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

- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

- ND Analyte NOT DETECTED at or above the reporting limit

- RPD Relative Percent Difference

- ** Samples not received at proper temperature of 6°C or below.

- *** Insufficient time to reach temperature.

- Chloride by SM4500Cl-B does not require samples be received at or below 6°C
Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager

Attachment #15

Photos



Sample Location TA1-Looking South towards the source of release.



Sample Location TA2-Looking South towards the source of release.



Sample Location TA3-Looking South towards the source of release.



Sample Location TA4-Looking South towards the source of release.



Sample Location TA5-Looking South towards the source of release.



Sample Location TA6-Looking South towards the source of release.



Sample Location TA7-Looking South towards the source of release.



Sample Location TA8-Looking South towards the source of release.



Sample Location TA9-Looking South towards the source of release.



Sample Location TB1-Looking South towards the source of release.



Sample Location TB2-Looking South towards the source of release.



Sample ID Pad1



Sample ID Pad2



Sample ID Pad3



Sample ID Pad4









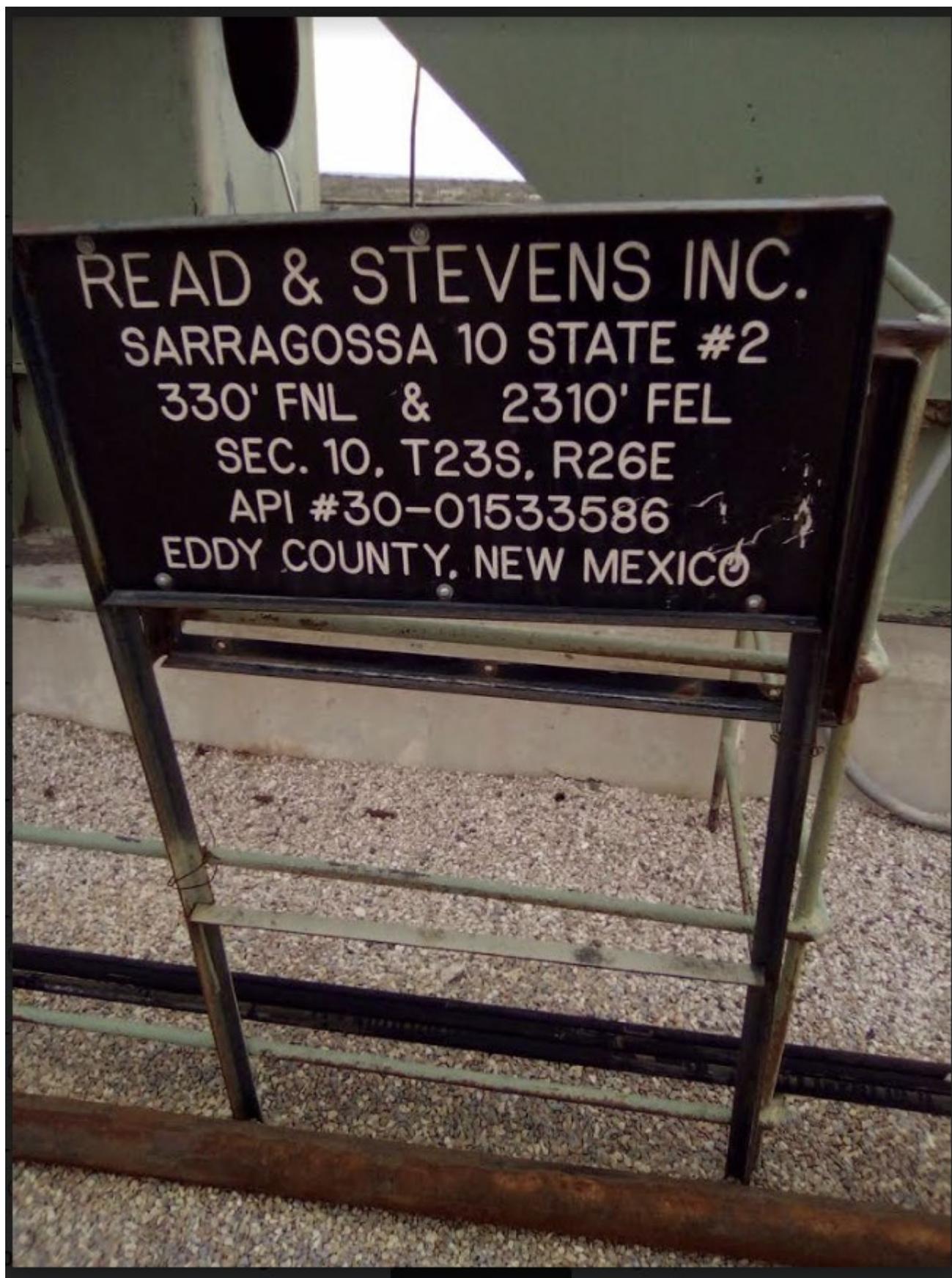












1897 CR 1018 Muleshoe, TX 79347

Bamert Seed Company Inc.

Warm Season SSR seed mix 25# bag

(800) 262-9892

Permit # TX00905

Lot/Sales # SO-68740

Description	Pure Seed	Germ	Dormant	Hard Seed	Origin
Bluestem, Little "Cimarron" (Schizachyrium scoparium)	4.28%	98.00%	3.00%	0.00%	TX
Bluestem, Yellow "WW Spar" (Andropogon ischaemum)	6.85%	98.00%	1.00%	0.00%	OK
Buffalograss, "Texoka" Not Primed (Bouteloua dactyloides)	5.24%	3.00%	94.00%	0.00%	TX
Dropseed, Sand (Sporobolus cryptandrus)	5.30%	21.00%	75.00%	0.00%	TX
Fescue, Tall "KY 31" (Festuca arundinacea Schreb.)	1.69%	98.00%	0.00%	0.00%	OR
Grama, Blue (Bouteloua gracilis)	25.94%	96.00%	2.00%	0.00%	TX
Grama, Sidecats "El Reno" (Bouteloua curtipendula)	24.87%	90.00%	2.00%	0.00%	TX









Attachment #16

Excavation Logs

Site Name: Saragossa Date: 08/06/2019
 10 State #2

Soil Profile

Description	ft. bgs
Top Soil	1
	2
Top Soil / Caliche Mix	3
Caliche	4
	5
	6
	7
	8
	9
	10
	11
	12
	13
	14

32.327464
 -104.278845



Attachment #17

C-141

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	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party Read and Stevens, Inc.	OGRID 18917
Contact Name Joe Tovar	Contact Telephone (575) 390-2425
Contact email Jtovar@read-stevens.com	Incident # <i>(assigned by OCD)</i>
Contact mailing address P.O Box 1518 Roswell, NM 88202	

Location of Release Source

Latitude 32.325566 Longitude -104.279915
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Saragossa 10 State #2	Site Type Oil Well
Date Release Discovered 10/27/2018	API# <i>(if applicable)</i> 30-015-33586

Unit Letter	Section	Township	Range	County
B	10	23 South	26 East	Eddy

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 checked="" type="checkbox"/> Crude Oil	Volume Released (bbls) 17.24	Volume Recovered (bbls) 2
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls) 140.67	Volume Recovered (bbls) 0
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

The cause of the release was a broken 1" connection at the well head. The connection has been replaced. Vacuum truck recovered 2 barrels of oil from the release. A backhoe was called out to pile the saturated material that was on the location and in the pasture.

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release? Spill calculation determined the spill volume to be 157.91 (See Attachment 1)
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? No	

Initial Response

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

<input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have not been undertaken, explain why:	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name: <u>Joe TOVAR</u>	Title: <u>Manager, Production Operations</u>
Signature: <u><i>Joe Tovar</i></u>	Date: <u>1-17-19</u>
email: <u>jtovar@rend-stevens.com</u>	Telephone: <u>575-390-2425</u>
OCD Only	
Received by: _____	Date: _____

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility 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?	246 (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 300 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 checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input checked="" type="checkbox"/> Yes <input 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.

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

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

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

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

Printed Name: Joe Touval Title: Manager, Production & Operations

Signature: [Signature] Date: 1-17-19 email: [Email]

Telephone: 575-390-2425

OCD Only

Received by: _____ Date: _____

*Correction to Site Assessment/ Characterization: Saragossa 10 State #2 is not within a 100-year flood plain. Please see Attachment #9.

Incident ID	
District RP	
Facility ID	
Application ID	

Remediation Plan

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

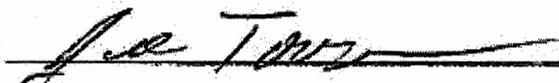
- Detailed description of proposed remediation technique
- Scaled sitemap with GPS coordinates showing delineation points
- Estimated volume of material to be remediated
- Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

Deferral Requests Only: *Each of the following items must be confirmed as part of any request for deferral of remediation.*

- Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- Extents of contamination must be fully delineated.
- Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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

Printed Name: Joe Tovar Title: Manager, Production and Operations

Signature:  Date: 02/27/2020

email: jtovar@rcad-stevens.com Telephone: (575) 390-2425

OCD Only

Received by: _____ Date: _____

- Approved
 Approved with Attached Conditions of Approval
 Denied
 Deferral Approved

Signature: _____ Date: _____

Incident ID	
District RP	
Facility ID	
Application ID	

Closure

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

Closure Report Attachment Checklist: *Each of the following items must be included in the closure report.*

- A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Joe Tovar Title: Manager, Production and Operations
 Signature:  Date: 02/27/2020
 email: jtovar@read-stevens.com Telephone: (575) 390-2425

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: _____