

Burnett Oil Company Inc.

Jackson B #15

REMEDIATION WORK PLAN

NMNM2747

API No. 30-015-04038

Notice of Written Order: 08/04/2014

Unit L, Section 1, Township 17 South, Range 30 East

September 30th, 2014

Prepared by:

Environmental Department
Diversified Field Service, Inc.
206 W Snyder
Hobbs, NM 88240
Phone: (575)964-8394
Fax: (575)393-8396

Sol Hughes
Bureau of Land Management
Carlsbad Field Office
620 E. Greene Street
Carlsbad, NM 88220

RE: Burnett Oil Company – Jackson B #15
Unit L, Section 1, Township 17 South, Range 30 East
API No. 30-015-04038

Mr. Hughes,

Burnett Oil Company has retained Diversified Field Service, Inc. (DFSI) to address environmental issues for the site detailed herein.

The site is located northeast of Loco Hills NM, in Eddy County. Burnett received a Notice of Written Order dated 8/14/2014 stating that the Reclamation work on the site was not entirely successful. The following issues were found:

- Hydrocarbons and salt contamination was found on the site and also the road, which prevented vegetation growth.
 - The site must be delineated
 - Contaminated topsoil will need to be excavated, removed and backfilled with clean caliche.
 - Install a 20 mil liner if needed
 - Reseed site
- Place a berm along the southern edge running to the new Jackson B #57 to prevent traffic from disturbing the reclaimed area.
- Till and reseed the entire affected area

Site Assessment and Delineation

On September 9, 2014 DFSI personnel obtained surface and delineation samples of the leak area as well as mapping of the site. SP1 was delineated to 7'bgs below ground surface when augur refusal occurred, the 7'bgs sample was taken in to Cardinal Lab for confirmation. SP2 was delineated to 2'bgs and SP3 was delineated to 3'bgs, whereas both samples were confirmed below the regulated

levels for this site. The impacted area on this site was mapped showing a total of 3,506 square feet.

Field samples were taken on seven sample points, each sample was tested for chlorides levels and well as TPH during field testing. The TPH samples were performed using a Mini Rae Photoionization Detector (PID). All of samples except for SP1 were found under the BLM/NMOCD standards, the samples were taken to Cardinal Lab of Hobbs to obtain confirmation samples for chlorides and TPH. The results confirmed that bottom samples of each point were as follows:

SP1: 6'bgs – 1200 mg/kg chlorides, 2840 mg/kg DRO

SP1: 7'bgs – 1330 mg/kg chlorides, 2640 mg/kg DRO

SP2: 2'bgs – 624 mg/kg chlorides

SP3: 3'bgs – 96 mg/kg chlorides

DFSI has conducted a groundwater study of the area and has determined that according to the New Mexico Office of the State Engineer the average depth to groundwater for this area is 240 foot below ground surface. Therefore, no eminent danger of groundwater impact or threat to life is anticipated.

Conclusion

After careful review DFSI on behalf of Burnett Oil Company would like to propose the following:

Excavate the area of SP1 to 4' in total depth, haul the contaminated soil to an approved disposal site, line with a 20 mil liner and backfill with fresh imported topsoil. Rip and contour the areas of SP2 and SP3 then reseed the entire area with a native vegetation mixture as per the BLM's guidelines for returning the site to its natural state.

Side wall samples will be taken during the excavation procedure to ensure that all contaminants have been remediated. These samples will also will be taken to an approved lab for confirmation before backfilling will take place.

Following the approval of this plan and after the remediation has taken place, DFSI will submit all proper closure documentation to the NMOCD and BLM in accordance to the State and Federal Guidelines set forth.

Please feel free to contact me with any questions concerning this remediation plan request.

Sincerely,

A handwritten signature in black ink that reads "Natalie Gladden". The signature is fluid and cursive, with the first name "Natalie" and last name "Gladden" clearly legible.

Natalie Gladden
Environmental Director
Diversified Field Service, Inc.
206 West Snyder
Hobbs, NM 88240
Office: (575)964-8394
Mobile: (575)602-1786
Fax: (575)964-8396
Email: ngladden@diversifiedfsi.com

Attachments: Initial BLM Written Order
Site/Sample Map
Sample Data
Lab Analytical Data

☒ Certified Mail - Return
Receipt Requested
70133020000158907310

**UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
NOTICE OF WRITTEN ORDER**

IDENTIFICATION	
IID	
Lease	NMNM2747
CA	
Unit	
PA	

Bureau of Land Management Office				Operator			
CARLSBAD FIELD OFFICE				BURNETT OIL COMPANY INC			
Address 620 E GREENE STREET CARLSBAD NM 88220				Address 801 CHERRY STREET UNIT 9 FORT WORTH TX 76102-6881			
Telephone 575.234.5972				Attention			
Inspector HUGHES S				Attn Addr			
Site Name JACKSON B	Well/Facility/FMP 15	1/4 1/4 Section NWSW 1	Township 17S	Range 30E	Meridian NMP	County EDDY	State NM
Site Name	Well/Facility/FMP	1/4 1/4 Section	Township	Range	Meridian	County	State
Site Name	Well/Facility/FMP	1/4 1/4 Section	Township	Range	Meridian	County	State

The following condition(s) were found by Bureau of Land Management Inspectors on the date and at the site(s) listed above.

Date	Time (24-hour clock)	Corrective Action to be Completed by	Date Corrected	Authority Reference
08/04/2014		09/20/2014		43 CFR 3162.5-1(c); PSR of OO1

Remarks:

An onsite inspection was conducted at the above referenced location. The issues found, legal orders, and BLM authority references are as follows:

Reclamation work on this site does not appear to have been entirely successful and this site is nearly ready for final abandonment.

1. There is hydrocarbon and perhaps, salt contamination on the site and on the road passing thought (Remarks continued on following page(s).)

When the Written Order is complied with, sign this notice and return to above address.

Company Representative Title	Signature	Date
Company Comments		

Warning

The Authorized Officer has authority to issue a Written Order in accordance with 43 CFR 3161.2. Written Order correction and reporting time frames begin upon receipt of this Notice or 7 business days after the date it is mailed, whichever is earlier. Each stipulation must be corrected within the prescribed time from receipt of this Notice and reported to the Bureau of Land Management Office at the address shown above. If you do not comply as noted above under "Corrective Action to be Completed By", you shall be issued an Incident of Noncompliance (INC) in accordance with 43 CFR 3163.1(a). Failure to comply with the INC may result in assessments as outlined in 43 CFR 3163.1 and may also incur civil penalties (43 CFR 3163.2). All self-certified corrections must be postmarked no later than the next business day after the prescribed time frame for correction.

Section 109(d)(1) of the Federal Oil and Gas Royalty Management Act of 1982, as implemented by the applicable provisions of the operating regulations at Title 43 CFR 3163.2(f)(1), provides that any person who "knowingly or willfully" prepares, maintains, or submits false, inaccurate, or misleading reports, notices, affidavits, records, data, or other written information required by this part shall be liable for a civil penalty of up to \$25,000 per violation for each day such violation continues, not to exceed a maximum of 20 days.

Review and Appeal Rights

A person contesting a decision shall request a State Director review of the Written Order. This request must be filed within 20 working days of receipt of the Notice with the appropriate State Director (see 43 CFR 3165.3). The State Director review decision may be appealed to the Interior Board of Land Appeals, 801 North Quincy Street, Suite 300, Arlington, VA 22203 (see 43 CFR 3165.4). Contact the above listed Bureau of Land Management office for further information.

Signature of Bureau of Land Management Authorized Officer	Date 14 Aug 2014	Time 2:44 PM
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FOR OFFICE USE ONLY

Number 3	Date	Type of Inspection ES
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BLM Remarks, continued

it. This contamination appears to be preventing vegetation.

- a. The zone of the contaminated soil on this site must be delineated by chemical testing.
- b. Contaminated topsoil will need to be excavated, removed, and replaced with clean material.
- c. If excavation is not sufficient to eliminate contaminant, a caliche and/or 20-mm polyliner may be necessary to cap off deeply-penetrating, subsurface contaminant and isolate it from clean topsoil.
- d. After all contaminant has been eliminated and/or isolated from topsoil, reseed with BLM LPC/Shinnery Site Seed Mixture.

~43 CFR 3162.5-1(c)

2. This site needs a berm along the southern edge of road running to the new Jackson B 57 to prevent more contamination and/or vehicle traffic.

~PSR of OO1*

3. Overall, desirable vegetation, on the reclaimed areas, appears to be about 10-20% density with respect to the background, undisturbed vegetation. This vegetation is comprised of mostly grasses, with some annual weeds. Revegetation CANNOT be deemed successful at this time. Please, till and reseed site with BLM LPC/Shinnery Site Seed Mixture.

~PSR of OO1*

*PSR of OO1: Plans for Surface Reclamation Section of Onshore Oil and Gas Order no. 1
<http://www.blm.gov/style/medialib/blm/wo/MINERALS_REALTY_AND_RESOURCE_PROTECTION/_energy/onshore_order_videos.Par.62610.File.dat/Onshore_Order_No_1_The_Order.pdf>

Please, plan to address these issues before the abatement date. If you are unable to have all the issues addressed by the abatement date and/or have any questions about this notice, please, contact me by the information below.

Attn: Sol Hughes
Bureau of Land Management
CFO Environmental Protection Division
620 E. Greene Street
Carlsbad, NM 88220

Office: 575.234.5951
Fax: 575.885.9264
Email: shughes@blm.gov

Sec. 1, 175-30E

001

Jackson B57

Jackson B
18

Jackson B
64

Google earth

Google earth

feet
meters

2000

700

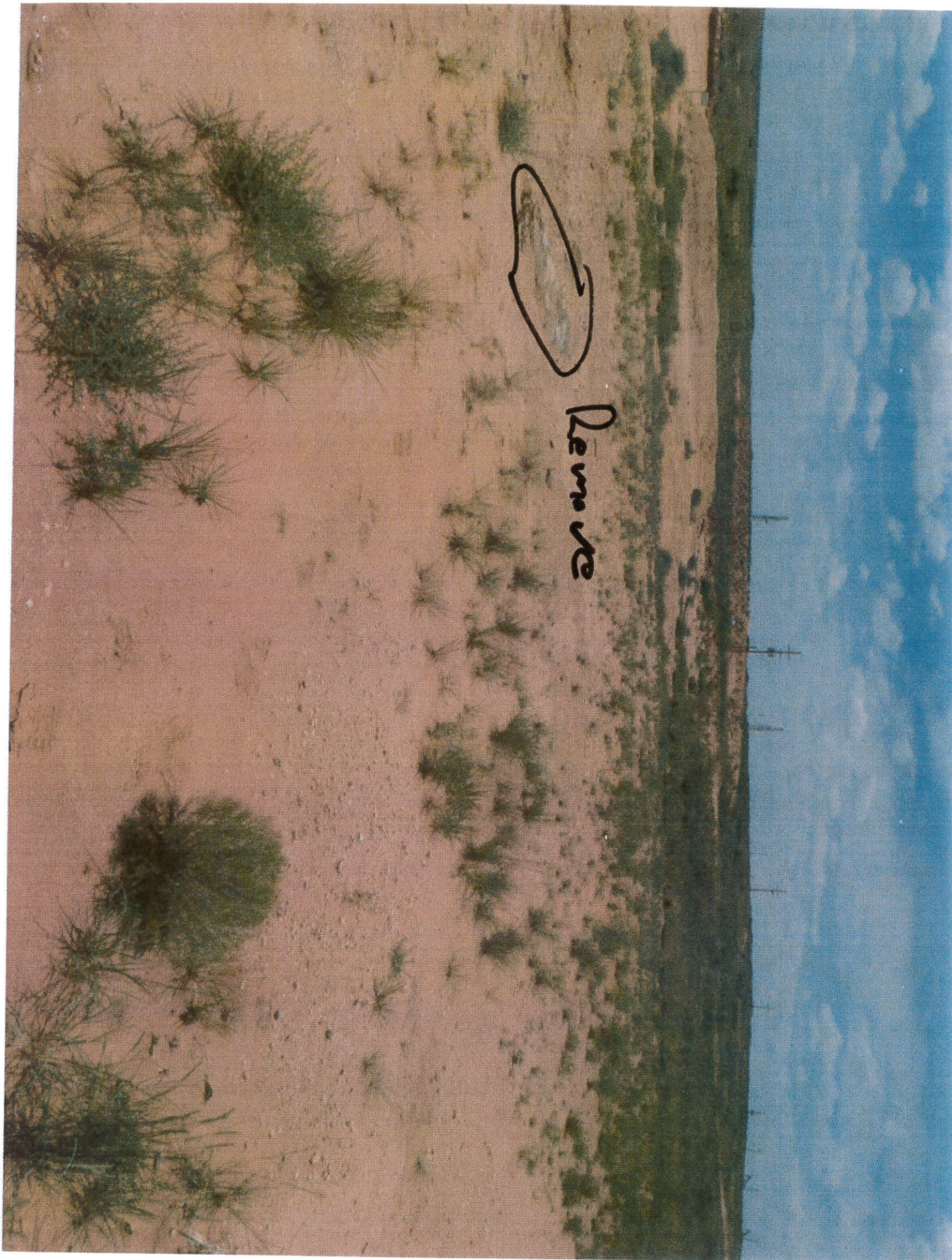


Remove





Remove



Seed Mixture for LPC Sand/Shinnery Sites

The holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)* per acre. There shall be no primary or secondary noxious weeds in the seed mixture. Seed will be tested and the viability testing of seed will be done in accordance with State law(s) and within nine (9) months prior to purchase. Commercial seed will be either certified or registered seed. The seed container will be tagged in accordance with State law(s) and available for inspection by the authorized officer.

Seed will be planted using a drill equipped with a depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (smaller/heavier seeds have a tendency to drop the bottom of the drill and are planted first). The holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. The seeding will be repeated until a satisfactory stand is established as determined by the authorized officer. Evaluation of growth will not be made before completion of at least one full growing season after seeding.

Species to be planted in pounds of pure live seed* per acre:

<u>Species</u>	<u>lb/acre</u>
Plains Bristlegrass	5lbs/A
Sand Bluestem	5lbs/A
Little Bluestem	3lbs/A
Big Bluestem	6lbs/A
Plains Coreopsis	2lbs/A
Sand Dropseed	1lbs/A

**Four-winged Saltbush 5lbs/A

* This can be used around well pads and other areas where caliche cannot be removed.

*Pounds of pure live seed:

Pounds of seed x percent purity x percent germination = pounds pure live seed

Site Diagram








Burnett, Jackson B 15
NWSW 1, T17S R30E
Eddy County, NM
Drafted By: Lance Crenshaw, 9-9-14

0 0.004 0.008 0.016 Miles

Legend



Misc_points

Types


-  Electrical Box
-  Power Pole
-  Headers
-  Injection
-  Pumpjacks
-  Tanks
-  Valves
-  Other
-  sample_pts

Pipeline





Type

-  Above Ground Line
-  Buried Line

Spill

-  <all other values>

Spill_Media

-  Oil and Produced H2O
-  Oil
-  Other
-  Produced Water

Plugged Well

SP1

SP2

SP3

Contaminated Area:
3506 sq. ft.

Lance Crenshaw
GIS Technician

Soil Remediation and Ground Water Remediation
Environmental Assessments
Regulatory Compliance



Environmental

DFS

Services

Office: 575-964-8394

Fax: 575-964-8396

Cell: 575-441-2359

Email: lcrenshaw@diversifiedfsi.com

Source: Esri, DigitalGlobe, GeoEye, IGN, swisstopo, and the GIS User

9/8/14

SP Date: 9/8/14
Rel Date:

	Lab Confirmation Sample
	Field Sampling
	Needs Delineation and confirmation samples

Diversified Environmental Services

[illegible]

	Lab Confirmation Sample
	Field Sampling
	Needs Delineation and confirmation samples

Diversified Environmental Services

[illegible]

	Lab Confirmation Sample
	Field Sampling
	Needs Delineation and confirmation samples

Diversified Environmental Services

[illegible]

	Lab Confirmation Sample
	Field Sampling
	Needs Delineation and confirmation samples

September 15, 2014

NATALIE GLADDEN

DIVERSIFIED FIELD SERVICES, INC.

P. O. BOX 5966

HOBBS, NM 88241

RE: JACKSON B #15

Enclosed are the results of analyses for samples received by the laboratory on 09/12/14 8:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,



Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

DIVERSIFIED FIELD SERVICES, INC.
NATALIE GLADDEN
P. O. BOX 5966
HOBBS NM, 88241
Fax To: (575) 393-2981

Received: 09/12/2014
Reported: 09/15/2014
Project Name: JACKSON B #15
Project Number: PO#16466
Project Location: BURNETT OIL & GAS

Sampling Date: 09/10/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 1 @ 6' (H402844-01)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1200	16.0	09/12/2014	ND	400	100	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	<100	100	09/12/2014	ND	179	89.5	200	4.85		
DRO >C10-C28	2840	100	09/12/2014	ND	179	89.6	200	8.57		
Surrogate: 1-Chlorooctane		103 %	65.2-140							
Surrogate: 1-Chlorooctadecane		236 %	63.6-154							

Sample ID: SP 1 @ 7' (H402844-02)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1330	16.0	09/12/2014	ND	400	100	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	<100	100	09/12/2014	ND	179	89.5	200	4.85		
DRO >C10-C28	2680	100	09/12/2014	ND	179	89.6	200	8.57		
Surrogate: 1-Chlorooctane		103 %	65.2-140							
Surrogate: 1-Chlorooctadecane		208 %	63.6-154							

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

DIVERSIFIED FIELD SERVICES, INC.
NATALIE GLADDEN
P. O. BOX 5966
HOBBS NM, 88241
Fax To: (575) 393-2981

Received: 09/12/2014
Reported: 09/15/2014
Project Name: JACKSON B #15
Project Number: PO#16466
Project Location: BURNETT OIL & GAS

Sampling Date: 09/10/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 2 @ 2' (H402844-03)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	624	16.0	09/12/2014	ND	400	100	400	0.00	

Sample ID: SP 3 @ 3' (H402844-04)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	09/12/2014	ND	400	100	400	0.00	

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

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.
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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Celey D. Keene, Lab Director/Quality Manager

