

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, 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

Form C-144
June 1, 2004

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

For drilling and production facilities, submit to appropriate NMOCD District Office.
For downstream facilities, submit to Santa Fe office

Pit or Below-Grade Tank Registration or Closure

Is pit or below-grade tank covered by a "general plan"? Yes ☒ No ☐

Type of action: Registration of a pit or below-grade tank ☐ Closure of a pit or below-grade tank ☒

Operator: Great Western Drilling Co.

Telephone: 505-327-4892

e-mail address: paul@walsheng.net

Address: 7415 E. Main St. Farmington, NM 87402

Facility or well name: Nordhaus #9 API #: 30-039-27591 U/L or Qtr/Qtr B Sec 19 T 25N R7W

County: Rio Arriba

Latitude

Longitude

NAD: 1927 ☐ 1983 ☐ Surface Owner Federal ☒ State ☐ Private ☐ Indian ☐

Pit

Type: Drilling ☒ Production ☐ Disposal ☐

Workover ☐ Emergency ☐

Lined ☒ Unlined ☐

Liner type: Synthetic ☒ Thickness 12 mil Clay ☐

Pit Volume 500 bbl

Below-grade tank

Volume: _____ bbl Type of fluid: _____

Construction material: _____

Double-walled, with leak detection? Yes ☐ If not, explain why not. _____

Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.)

Less than 50 feet

(20 points)

50 feet or more, but less than 100 feet

(10 points)

100 feet or more X

(0 points) 0

Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)

Yes

(20 points)

No X

(0 points) 0

Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)

Less than 200 feet

(20 points)

200 feet or more, but less than 1000 feet

(10 points)

1000 feet or more X

(0 points) 0

Ranking Score (Total Points)

If this is a pit closure: (1) attach a diagram of the facility showing the pit's relationship to other equipment and tanks. (2) Indicate disposal location: (check the onsite box if you are burying in place) onsite ☒ offsite ☐ If offsite, name of facility _____. (3) Attach a general description of remedial action taken including remediation start date and end date. (4) Groundwater encountered: No ☒ Yes ☐ If yes, show depth below ground surface _____ ft. and attach sample results. (5) Attach soil sample results and a diagram of sample locations and excavations.

Additional Comments:

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☒, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.

Date: 07/07/04

Printed Name/Title Paul C. Thompson, P.E.

Signature

Paul C. Thompson

Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations.

Approval:

Printed Name/Title

DEPUTY OIL & GAS INSPECTOR, DIST. #1

Signature

Denny Reart

Date:

OCT 26 2004

612 E. Murray Drive
Farmington, NM 87499

Off: (505) 327-1072
FAX: (505) 327-1496

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P.O. Box 3788
Shiprock, NM 87420

Off: (505) 368-4065

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Date: 17-Oct-04

CLIENT: Walsh Engineering & Production Company
Project: Landfarm and Reserve Pits
Lab Order: 0406014

CASE NARRATIVE

Samples were analyzed using the methods outlined in the following reference:
Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition.

All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives.

Any quality control and/or data qualifiers associated with this laboratory order will be flagged in the analytical result page(s), the quality control summary report(s) or the sample receipt checklist.

Prep Comments for HG_SP, Sample 0406014-002A: prep HoldTime was exceeded by 5.73 days.

Prep Comments for HG_SP, Sample 0406014-003A: prep HoldTime was exceeded by 5.75 days.

Sample 0406014-003A (Nordhaus Fed #9 Reserve Pit)

Conductivity: 66.66 mmhos/cm (see Note 1)
Sodium Absorption Ratio (SAR): 421 Calculated
Exchangeable Sodium Percentage (ESP): 86.10 Calculated

Sample 0406014-002A (Nordhaus Fed #8 Reserve Pit)

Conductivity: 36.9 mmhos/cm (see Note 1)
Sodium Absorption Ratio (SAR): 73.0 Calculated
Exchangeable Sodium Percentage (ESP): 51.6 Calculated

Note 1: Midwest Laboratories, Inc. reported conductivity units as mS/cm. By definition S = mho.
Therefore, mS/cm = mmhos/cm. The Midwest Laboratories, Inc. results are shown here as mmhos/cm.

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ANALYTICAL REPORT

Date: 21-Jul-04

CLIENT: Walsh Engineering 7 Production Corp.
Work Order: 0406014
Project: Landfarm and Reserve Pits
Lab ID: 0406014-003A

Client Sample Info: Norhaus Fed #9
Client Sample ID: Reserve Pit
Collection Date: 6/8/2004 4:00:00 PM
Matrix: SOIL

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015B				Analyst: JEM
T/R Hydrocarbons: C10-C28	80.4	75.0		mg/Kg	1	6/15/2004
GASOLINE RANGE ORGANICS		SW8015B				Analyst: JEM
T/R Hydrocarbons: C6-C10	ND	4.50		mg/Kg	25	6/17/2004
AROMATIC VOLATILES BY GC/PID		SW8021B				Analyst: JEM
Benzene	ND	25		µg/Kg	25	6/19/2004
Ethylbenzene	10	25	J	µg/Kg	25	6/19/2004
m,p-Xylene	30	50	J	µg/Kg	25	6/19/2004
Methyl tert-Butyl Ether	ND	250		µg/Kg	25	6/19/2004
o-Xylene	ND	25		µg/Kg	25	6/19/2004
Toluene	20	50	J	µg/Kg	25	6/19/2004
TRACE METALS IN SOIL		SW6010B				Analyst: DWC
Arsenic	2	2.3	J	mg/Kg	1	6/22/2004
Barium	76	0.87		mg/Kg	1	6/21/2004
Cadmium	ND	0.68		mg/Kg	1	6/21/2004
Chromium	7.6	1.2		mg/Kg	1	6/21/2004
Lead	4.3	1.6		mg/Kg	1	6/21/2004
Selenium	ND	2.1		mg/Kg	1	6/21/2004
Silver	ND	0.19		mg/Kg	1	6/21/2004
MERCURY, TOTAL		SW7471				Analyst: JEM
Mercury	0.011	0.018	J	mg/Kg	1	7/12/2004
ANIONS BY ION CHROMATOGRAPHY		E300				Analyst: JEM
Chloride	13900	20.0		ppm	200	6/14/2004

Qualifiers: ND - Not Detected at the Practical Quantitation Limit
J - Analyte detected below Practical Quantitation Limit
B - Analyte detected in the associated Method Blank
H - Parameter exceeded Maximum Allowable Holding Time

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted precision limits
E - Value above Upper Quantitation Limit - UQL

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MAINTAINING HARMONY BETWEEN MAN AND HIS ENVIRONMENT

Report Number
04-191-2111

13611 "B" Street • Omaha, Nebraska 68144-3693 • (402) 334-7770 • FAX (402) 334-9121

www.midwestlabs.com



ina ba, LTD

Judy MOORE

PO BOX 2606

FARMINGTON NM 87499-2606

REPORT OF ANALYSIS

For: (6833) ON SITE TECHNOLOGIES LTD
(505)325-5667

PO/Proj. #: ???
SOIL ANALYSIS

Date Reported: 07/09/04
Date Received: 07/02/04
Date Sampled: 06/08/04

Lab number: 988680 Sample ID: 0406014-003A

NORDHAUS FED #9 RESERVE PIT

Analysis
Sodium Adsorption Ratio
Sodium (water soluble)
Magnesium (water soluble)
Calcium (water soluble)
Conductivity

Level	Found	Units	Detection	Limit	Method	Analyst- Date
	(421)					
21,020		mg/L	1.0	1.0	SATURATED PASTE EXTRACT	jpt-07/02
1.0		mg/L	1.0	1.0	SATURATED PASTE EXTRACT	jpt-07/09
187		mg/L	1.0	1.0	SATURATED PASTE EXTRACT	jpt-07/09
66.6		mS/cm	0.01	0.01	SATURATED PASTE EXTRACT	dmg-07/09

Respectfully Submitted

Heather Ramey/Sue Ann Seitz/Rob Ferris
Client Services

$$ESP = \frac{100(-0.0126 + 0.01435 SAR)}{1 + (-0.0126 + 0.01435 SAR)}$$

$$ESP = \frac{100(-0.0126 + 0.01435 SAR)}{1 + (-0.0126 + 0.01435 SAR)}$$

$$ESP = \frac{619.7150}{7.1972} = 84.6426$$

The above analytical results apply only to the sample(s) submitted.

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Sample Receipt Checklist

Client Name: **WAL1001**

Date and Time Received:

6/9/2004

Work Order Number: **0406014**

Received by: **DWC**

Checklist completed by:

Signature

Date

Reviewed by:

Initials

Date

Matrix:

Carrier name: Vern Andrews

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Water - VOA vials have zero headspace?	No VOA vials submitted <input checked="" type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

Adjusted? _____

Checked by: _____

Any No and/or NA (not applicable) response must be detailed in the comments section below.

Client contacted: WAL1001 Date contacted: 6/9/04 Person contacted: VERN ANDREWS

Contacted by: DWC Regarding: BROKEN CONTAINER 0406014-02A

Comments: BOTH CONTAINERS (1-903/1-403) WERE RECEIVED
WITH BROKEN BOTTOM. VERN STATED THAT THEY HAD BEEN PLACED
IN FREEZER OVERNIGHT. TEMP REC'D -1°-0°C.

Corrective Action: ALLOW SAMPLE TO THAW AND TRANSFER TO
APPROPRIATE CONTAINERS.

CHAIN OF CUSTODY RECORD

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612 E. Murray Dr. • P.O. Box 2606 • Farmington, NM 87499
Phone: (505) 327-1072 • Fax: (505) 327-1496

Date 6/9/04

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