

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



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

Form C-144  
June 1, 2004

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 ☐ Submitted 4/16/04  
Type of action. Registration of a pit or below-grade tank ☒ Closure of a pit or below-grade tank ☐

Operator MCKAY OIL CORPORATION Telephone 505-622-4795 e-mail address: jennifer@mckayoil.com  
Address PO Box 2014 Roswell, NM 88202-2014  
Facility or well name LL&E B Fed #5 API # 30-005-63751 U/I. or Qtr/Qtr Q Sec 1 T 6S R 22E  
County CHAVES Latitude \_\_\_\_\_ Longitude \_\_\_\_\_ NAD: 1927 ☐ 1983 ☐ Surface Owner Federal ☒ State ☐ Private ☐ Indian ☐

DEC 20 2007

OCD-ARTESIA

Pit	Below-grade tank
Type Drilling <input checked="" type="checkbox"/> Production <input type="checkbox"/> Disposal <input type="checkbox"/> Workover <input type="checkbox"/> Emergency <input type="checkbox"/> Lined <input checked="" type="checkbox"/> Unlined <input type="checkbox"/> Liner type Synthetic <input type="checkbox"/> Thickness <u>12</u> mil Clay <input type="checkbox"/> Pit Volume _____ bbl	Volume _____ bbl Type of fluid: _____ Construction material: _____ Double-walled, with leak detection? Yes <input type="checkbox"/> 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) <u>100 feet or more</u> (0 points)
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) <u>No</u> (0 points)
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) <u>1000 feet or more</u> (0 points)
Ranking Score (Total Points) 0	

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 An Amended Plan Pit Remediation is attached

MAY 29 2008

OCD-ARTESIA

Accepted for record

NMOCD

MAY 29 2008 TRENCH BURY @ LL&E C Fed #3

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: 12/19/2007

Printed Name/Title James L. Schultz, Agent

Signature [Signature]

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

Signature Signed By [Signature]

Date

DEC 20 2007

Approval per attached work plan - Notify OCD 24 Hours prior to commencement of operations & 24 Hours prior to obtaining samples



May 15, 2008

Mr. Mike Bratcher  
NMOCD District 2 Office  
1301 W Grand  
Artesia, New Mexico 88210

Re: Reserve Pit Closure – Final Report

AMARILLO  
921 North Bivins  
Amarillo, Texas 79107  
Phone 806.467.0607  
Fax 806.467.0622

Operator: McKay Oil Corporation  
Lease Name: LL & E B Federal 5  
Legal: Unit O Sec 01, T6S, R22E  
API: 30-005-63751

AUSTIN  
3003 Tom Gary Cove  
Building C-100  
Round Rock, Texas 78664  
Phone 512.989.3428  
Fax 512.989.3487

Dear Mr. Bratcher:

Talon/LPE was contracted by TNT Backhoe Services to perform analytical testing at McKay Oil Corporation's LL & E B Federal 5. The pit closure was performed in accordance with New Mexico Oil Conservation Division (NMOCD) rules and guidelines.

MIDLAND  
#9 East Industrial Loop  
Midland, Texas 79701  
Phone 432.522.2133  
Fax 432.522.2180

Due to the inability to excavate a burial trench on site, Mike Bratcher of the NMOCD approved to have all drill cuttings and soil transferred to the LL&E B Federal 3 where excavating an burial trench was more applicable. On December 20, 2007 the pit closure form (Form C-144) was approved by the NMOCD and closure activities were initiated in April 2008. All drill cuttings and soil were stiffened prior to transport and being placed into the Insitu trench which was lined with a 20mil plastic. Once all impacted material was transferred to the Insitu trench, it was sealed with a 20mil cap. This letter documents the final pit closure activities and related information

NEW BRAUNFELS  
707 N. Walnut Ave  
Suite 208  
New Braunfels, Texas 79130  
Phone 210.579.0235  
Fax 210.568.2191

On April 22, 2008, Ms. Shelly J. Tucker (Talon/LPE) collected four composite samples from the bottom of the excavation. Each sample was composed of five aliquots from each quadrant (SE, SW, NE and NW) of the excavation floor. The samples were submitted to Trace Analysis Inc. (Trace) in Midland, Texas for chloride analysis. Laboratory data sheets are attached to this report.

**Table 1: Official Analytical Testing Results**

TULSA  
9906 East 43st Street, Ste. G  
Tulsa, OK 74146  
Phone 918.742.0871  
Fax 918.742.0876

Area Sample Taken	Depth (from surface)	Chloride (mg/kg)	Soil Type
SE	3'	284	Solid rock
SW	3'	650	Solid rock
NE	3'	787	Solid rock
NW	3'	1250	Solid rock

HOBBS  
318 East Taylor Street  
Hobbs, New Mexico 88241  
Phone 505.393.4261  
Fax 505.393.4658

Note: The analytical results are in excess of the NMOCD guidelines for closure; but, due to the fact the floor of the original reserve pit is solid rock one can be fairly confident no further migration should occur to impact ground water.

Upon receipt of the analytical data, verbal permission was granted by Mike Bratcher of the NMOCD to close the aforementioned location. The pit area was backfilled with native material, contoured to the surrounding terrain and reseeded with an approved seed mixture.

At this time Talon/LPE and McKay Oil Corporation are requesting this pit be granted closure.

Respectfully Submitted,

Shelly J. Tucker  
New Mexico Project Manager  
Talon/LPE  
/sjt

ENVIRONMENTAL CONSULTING  
ENGINEERING  
DRILLING  
CONSTRUCTION  
EMERGENCY RESPONSE

Toll Free: 866.742.0742  
www.talonlpe.com

LL & EB Federal 05  
Official Results  
Floor 04/22/08



<p>Pit Floor Depth: 3'</p> <p><b>NW Composite</b></p> <p><b>1250mg/kg</b></p>	<p><b>NE Composite</b></p> <p><b>787mg/kg</b></p>
<p><b>SW Composite</b></p> <p><b>650mg/kg</b></p>	<p><b>NW Composite</b></p> <p><b>284mg/kg</b></p>



5401 Abercrombie Avenue, Suite B    Lubbock, Texas 79424    800•375•1256    806•794•1256    FAX 806•794•1248  
209 East, S. Rice, Bldg. Suite 100    Ft. Worth, Texas 76102    817•529•3443    817•529•3443    FAX 817•529•4444  
5002 East 11th Street, Suite A    Midland, Texas 79703    432•684•1361    432•684•1361    FAX 432•684•1361  
5015 Harris Parkway, Suite 100    Ft. Worth, Texas 76137    817•201•5260

E-Mail: lab@traceanalysis.com

## Analytical and Quality Control Report

Shelly Tucker  
Talon LPE-Hobbs  
318 E Taylor  
Hobbs, NM, 88240

Report Date: April 25, 2008

Work Order: 8042337



Project Location: Chaves County, NM  
Project Name: LL&E B Fed #5  
Project Number: TNTBAC002PIT

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
157681	SE	soil	2008-04-22	11:00	2008-04-23
157682	SW	soil	2008-04-22	11:30	2008-04-23
157689	NE	soil	2008-04-22	12:00	2008-04-23
157690	NW	soil	2008-04-22	12:00	2008-04-23

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 5 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Dr. Blair Leftwich, Director

### Standard Flags

**B** - The sample contains less than ten times the concentration found in the method blank.

COPY

## Analytical Report

### Sample: 157681 - SE

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	47763	Date Analyzed:	2008-04-24	Analyzed By:	AR
Prep Batch:	41069	Sample Preparation:	2008-04-24	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		284	mg/Kg	50	2.00

### Sample: 157681 - SE

Analysis:	Conductivity	Analytical Method:	SM 2510B	Prep Method:	N/A
QC Batch:	47781	Date Analyzed:	2008-04-24	Analyzed By:	AR
Prep Batch:	41081	Sample Preparation:	2008-04-24	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Specific Conductance		2510	uMHOS/cm	1	0.00

### Sample: 157682 - SW

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	47763	Date Analyzed:	2008-04-24	Analyzed By:	AR
Prep Batch:	41069	Sample Preparation:	2008-04-24	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		650	mg/Kg	50	2.00

### Sample: 157682 - SW

Analysis:	Conductivity	Analytical Method:	SM 2510B	Prep Method:	N/A
QC Batch:	47781	Date Analyzed:	2008-04-24	Analyzed By:	AR
Prep Batch:	41081	Sample Preparation:	2008-04-24	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Specific Conductance		3710	uMHOS/cm	1	0.00

### Sample: 157689 - NE

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	47763	Date Analyzed:	2008-04-24	Analyzed By:	AR
Prep Batch:	41069	Sample Preparation:	2008-04-24	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		787	mg/Kg	50	2.00

**Sample: 157690 - NW**

Analysis: Chloride (Titration)      Analytical Method: SM 4500-Cl B      Prep Method: N/A  
QC Batch: 47763      Date Analyzed: 2008-04-24      Analyzed By: AR  
Prep Batch: 41069      Sample Preparation: 2008-04-24      Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		1250	mg/Kg	50	2.00

**Method Blank (1)**      QC Batch: 47763

QC Batch: 47763      Date Analyzed: 2008-04-24      Analyzed By: AR  
Prep Batch: 41069      QC Preparation: 2008-04-24      Prepared By: AR

Parameter	Flag	MDL Result	Units	RL
Chloride		<0.500	mg/Kg	2

**Method Blank (1)**      QC Batch: 47781

QC Batch: 47781      Date Analyzed: 2008-04-24      Analyzed By: AR  
Prep Batch: 41081      QC Preparation: 2008-04-24      Prepared By: AR

Parameter	Flag	MDL Result	Units	RL
Specific Conductance		4.88	uMHOS/cm	0

**Duplicates (1)**

QC Batch: 47781      Date Analyzed: 2008-04-24      Analyzed By: AR  
Prep Batch: 41081      QC Preparation: 2008-04-24      Prepared By: AR

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Specific Conductance	3770	3710	uMHOS/cm	1	2	2.5

**Laboratory Control Spike (LCS-1)**

QC Batch: 47763      Date Analyzed: 2008-04-24      Analyzed By: AR  
Prep Batch: 41069      QC Preparation: 2008-04-24      Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	98.8	mg/Kg	1	100	<0.500	99	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	101	mg/Kg	1	100	<0.500	101	85 - 115	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 157694

QC Batch: 47763  
Prep Batch: 41069

Date Analyzed: 2008-04-24  
QC Preparation: 2008-04-24

Analyzed By: AR  
Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	5110	mg/Kg	50	5000	92.91	100	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	5030	mg/Kg	50	5000	92.91	99	85 - 115	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Standard (ICV-1)**

QC Batch: 47763

Date Analyzed: 2008-04-24

Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	100	100	85 - 115	2008-04-24

**Standard (CCV-1)**

QC Batch: 47763

Date Analyzed: 2008-04-24

Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	100	100	85 - 115	2008-04-24

**Standard (ICV-1)**

QC Batch: 47781

Date Analyzed: 2008-04-24

Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Specific Conductance		uMHOS/cm	1410	1400	99	90 - 110	2008-04-24

**Standard (CCV-1)**

QC Batch: 47781

Date Analyzed: 2008-04-24

Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Specific Conductance		uMHOS/cm	1410	1480	105	90 - 110	2008-04-24



