Form 3160-5 (April 2004)

UNITED STATES DEPARTMENT OF THE INTERIOCD-HOBBS BUREAU OF LAND MANAGEMENT

FORM APPROVED OM B No. 1004-0137 Expires: March 31, 2007
5. Lease Serial No.

LC063659

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160 - 3 (APD) for such proposals.					6. If Indian, Allottee or Tribe Name		
SUBMIT IN TRIPLICATE- Other instructions on reverse side.					CA/Agreement, Name and/or No.		
1. Type of Well Gas Well Other 2. Name of Operator Manhattan Petroleum, Inc.					8. Well Name and No. Great Western "A" Federal #2		
3a Address		none No. (inclue	la grea code)	9. API We 30-025-			
P.O. Box 35888, Tulsa, OK 74153-	-0888 918	3-621-6533	ie area coae)		d Pool, or Exploratory Area		
4. Location of Well (Footage, Sec., T., I	R, M., or Survey Description)			Sawyer			
Sec 28-T9S-R38E 1980' FSL & 785' FEL				11. County of	11. County or Parish, State Lea		
12. CHECK APPR	ROPRIATE BOX(ES) TO INDIC	ATE NATU	RE OF NOTICE,	REPORT, OR	OTHER DATA		
TYPE OF SUBMISSION		TY	PE OF ACTION				
Notice of Intent Subsequent Report Final Abandonment Notice	Casing Repair Nev	epen cture Treat w Construction g and Abandon g Back	Production (S	Abandon	Water Shut-Off Well Integrity Other		
testing has been completed. Final Adetermined that the site is ready for Request for approval of water Additional information and w	r disposal filed in response to BLM vater analysis attached.	y after all require	ements, including recla	mation, have beer	a Form 3160-4 shall be filed once a completed, and the operator has		
14. I hereby certify that the foregoin Name (Printed/Typed) Connie Swan	ng is true and correct	Title P	egulatory Adminis	trator	TELLIN)		
Signature (15wa		Date		01/29/2007	<u> </u>		
	THIS SPACE FOR FEDE	RAL OR S	TATE OFFICE	USE			
Approved by	equitable title to those rights in the subj	warrant or	itle		ROVED B 5 2007		
Title 18 U.S.C. Section 1001 and Title 43 States any false, fictitious or fraudulent	U.S.C. Section 1212 make it a crime for	or any person ki matter within it	nowingly and willfully s jurisdiction.	1 1	department or agency of the United		
(Instructions on page 2) GWW				FRED PETRO	ERICK WRIGHT LEUM ENGINEER		

Attachment to Sundry Notice 3160-5 Notice of Intention for Water Disposal Approval Great Western A Federal #2

API No. 30-025-36335

1. Formation producing water on the lease: San

San Andres

2. Amount of water produced in barrels per day:

8.1 bbls/day in Nov06

3. Current water analysis attached:

Sep1404.001-2

4. How water is stored on the lease:

Fiberglass tank

5. How water is moved to the disposal facility:

Tank truck

6. Identify disposal facility by

a. Operator's name:

State Line Trucking

b. Well name:

Reed Estate #1

c. Well type and well number:

Commercial Disposal

d. Location:

467' FNL & 2130' FWL

Sec 41 Harrison & Brown Survey

Abstract 46

Cochran County, Texas

RRC Injection Permit No. 10658

Permian Treating Chemicals

WATER ANALYSIS REPORT

SAMPLE

Oil Co.: **Horseshoe Operating**

Federal "A" Lease:

Well No .: #2 Location:

Attention:

Date Sampled:

Date Analyzed:

46,291

0.001 Ohm · meters

14-September-2004

Lab ID Number: Sep1404.001- 2

Salesperson:

File Name: F:\ANALYSES\Sep1404.001

ANALYSIS

18.

19.

6.040 1. Specific Gravity 60/60 F. 1.148 2.

@ 80F 1.008 3. CACO3 Saturation Index

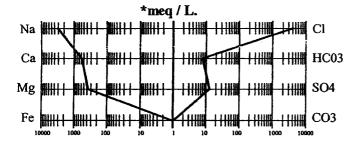
@140F 2.618

I	Dissolved Gasses			<u>MG/L.</u>	<u>EQ. WT.</u>	*MEQ/L
4.	Hydrogen Sulfide			Not Present		
5.	Carbon Dioxide			Not Determined		
6.	Dissolved Oxygen	*		Not Determined		
9	Cations					
7.	Calcium	(Ca++)		11,222	/ 20.1 =	558.31
8.	Magnesium	(Mg++)		4,437	/ 12.2 =	363.69
9.	Sodium	(Na+)	(Calculated)	68,664	/ 23.0 =	2,985.39
10.	Barium	(Ba++)		Not Determined		
A	Anions					
11.	Hydroxyl	(OH+)		0	/ 17.0 =	0.00
12.	Carbonate	(CO3=)		0	/ 30.0 =	0.00
13.	Bicarbonate	(HCO3-)		464	/ 61.1 =	7.59
14.	Sulfate	(SO4=)		600	/ 48.8 =	12.30
15.	Chloride	(Cl-)		137,969	/ 35.5 =	3,886.45
16.	Total Dissolved Sol	ids		223,356		
17.	Total Iron	(Fe)		7	/ 18.2 =	0.36

LOGARITHMIC WATER PATTERN

Total Hardness as CaCO3

Resistivity @ 75 F. (Calculated)



PROBABLE MINERAL COMPOSITION					
COMPOUND	EQ. WT.	X	meg/L =	mg/L.	
Ca(HCO3)2	81.04		7.59	615	
CaSO4	68.07		12.30	837	
0.010			500 10	00.000	

5 37 CaCl2 538.42 29,882 55.50 Mg(HCO3)2 73.17 0.00 0 MgSO4 60.19 0.00 0 MgCl2 47.62 363.69 17,319 NaHCO3 84.00 0.00 0 NaSO4 71.03 0.00 NaCl 58.46 2,984.34 174,465

		Calc	cium	Sulfat	e Solut	oility P	rofile	
	1370 —		1					
	1362		+	_		_		4
EO	1354				-			\vdash
_	1346 —					 	<u> </u>	$-\!\!\!\!+$
g	1338	-	+	-		-/-		
1	1330						-+	
	1322 —		+			-+	-+	-+
L	1314		+		/			
	1306		-				-	+
	1298		+					
	1290	50	70		110	130		170



RICHARD A. VARELA DIRECTOR, OIL AND GAS DIVISION STEVEN J. SENI

ASSISTANT DIRECTOR, ENVIRONMENTAL SERVICES

RAILROAD COMMISSION OF TEXAS

OIL AND GAS DIVISION PERMIT TO DISPOSE OF NON-HAZARDOUS OIL AND GAS WASTE BY INJECTION INTO A POROUS FORMATION NOT PRODUCTIVE OF OIL AND GAS

PERMIT NO. 10658, AMENDED

STATE LINE TRUCKING, INC. P O BOX 520 LEVELLAND TX 79336

Based on information contained in your application (Form W-14) dated April 6, 2006, you are hereby authorized to dispose of oil and gas waste into your well designated as follows:

Reed Estate Lease, (67650), Well No. 1, Levelland Field, Cochran County, RRC District 8A

Authority is granted to inject in accordance with Statewide Rule 9 of the Railroad Commission of Texas and subject to the following special and standard conditions:

SPECIAL CONDITIONS:

- 1. Oil and gas waste shall only be injected into strata in the subsurface depth interval from 5200 feet to 10300 feet.
- 2. The injection volume shall not exceed 3000 barrels per day.
- 3. The maximum operating surface injection pressure shall not exceed 2600 psig.
- 4. The authority to dispose of oil and gas waste is limited to the disposal of salt water.

STANDARD CONDITIONS:

- 1. Injection must be through tubing set on a packer. The packer must be set no higher than 100 feet above the top of the permitted interval.
- 2. The District Office must be notified 48 hours prior to:
 - a. running tubing and setting packer;
 - b. beginning any workover or remedial operation:
 - c. conducting any required pressure tests or surveys.
- 3. The wellhead must be equipped with a pressure observation valve on the tubing and for each annulus.