

ABOVE THIS LINE FOR DIVISION USE ONLY

**NEW MEXICO OIL CONSERVATION DIVISION**  
 - Engineering Bureau -  
 1220 South St. Francis Drive, Santa Fe, NM 87505



**ADMINISTRATIVE APPLICATION CHECKLIST**

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

**Application Acronyms:**

**[NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]**  
**[DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]**  
**[PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]**  
**[WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]**  
**[SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]**  
**[EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]**

**[1] TYPE OF APPLICATION - Check Those Which Apply for [A]**

[A] Location - Spacing Unit - Simultaneous Dedication  
☐ NSL ☐ NSP ☐ SD

Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement  
☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery  
☒ WFX ☒ PMX ☐ SWD ☐ IPI ☐ EOR ☐ PPR

[D] Other: Specify

R-11640-WF

30-025-24143

EOR Operating Co

Crossroads Siluro Davonian #106

2013 JUN 11 A 11:13

RECEIVED OGD

**[2] NOTIFICATION REQUIRED TO: - Check Those Which Apply, or Does Not Apply**

- [A] ☒ Working, Royalty or Overriding Royalty Interest Owners
- [B] ☒ Offset Operators, Leaseholders or Surface Owner
- [C] ☒ Application is One Which Requires Published Legal Notice
- [D] ☐ Notification and/or Concurrent Approval by BLM or SLO  
 U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office
- [E] ☒ For all of the above, Proof of Notification or Publication is Attached, and/or,
- [F] ☐ Waivers are Attached

**[3] SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.**

**[4] CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

**Note: Statement must be completed by an individual with managerial and/or supervisory capacity.**

Jana True  
 Print or Type Name

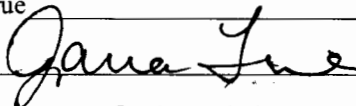
*Jana True*  
 Signature

Production/Regulatory Manager  
 Title

06/07/2013  
 Date

jtrue@enhancedoilres.com  
 e-mail Address

**APPLICATION FOR AUTHORIZATION TO INJECT**

- I. PURPOSE: \_\_\_\_\_ Secondary Recovery ☒ WFX Pressure Maintenance ☐ Disposal ☐ Storage  
Application qualifies for administrative approval? ☒ Yes \_\_\_\_\_ No ACO - 270
- II. OPERATOR: EOR Operating Company **RECEIVED OGD**  
ADDRESS: 200 N. Loraine, STE 1440 Midland, TX 79701  
CONTACT PARTY: Jana True PHONE: 432-242-4544 **2013 JUN 11 A 11:17**
- III. WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection.  
Additional sheets may be attached if necessary.
- IV. Is this an expansion of an existing project? ☒ Yes \_\_\_\_\_ No  
If yes, give the Division order number authorizing the project: Order R-11641 Case No. 12418
- V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.
- VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.
- VII. Attach data on the proposed operation, including:
1. Proposed average and maximum daily rate and volume of fluids to be injected;
  2. Whether the system is open or closed;
  3. Proposed average and maximum injection pressure;
  4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,
  5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).
- \*VIII. Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.
- IX. Describe the proposed stimulation program, if any.
- \*X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).
- \*XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.
- XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.
- XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.
- XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.
- NAME: Jana True TITLE: Production/Regulatory Manager  
SIGNATURE:  DATE: 06/07/2013  
E-MAIL ADDRESS: jtrue@enhancedoilres.com
- \* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal: \_\_\_\_\_

### III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

- (1) Lease name; Well No.; Location by Section, Township and Range; and footage location within the section.
- (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
- (3) A description of the tubing to be used including its size, lining material, and setting depth.
- (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District Offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

- (1) The name of the injection formation and, if applicable, the field or pool name.
- (2) The injection interval and whether it is perforated or open-hole.
- (3) State if the well was drilled for injection or, if not, the original purpose of the well.
- (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
- (5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any.

### XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

- (1) The name, address, phone number, and contact party for the applicant;
- (2) The intended purpose of the injection well; with the exact location of single wells or the Section, Township, and Range location of multiple wells;
- (3) The formation name and depth with expected maximum injection rates and pressures; and,
- (4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.

**NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.**

---

**NOTICE:** Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.



June 7, 2013

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

Notice of Intent,  
EOR Operating Company at 200 N. Loraine, STE 1440 Midland, TX 79701 is submitting the C-108 form with the Oil Conservation Division to re-permit the Crossroads Siluro Devonian Unit #106 as an injection well to increase the injection rate of produced lease water from the Crossroads Siluro Devonian Unit.

Location of Well:  
Crossroads Siluro Devonian Unit #106  
API 30-025-24143  
Unit letter H, 1980 FNL & 990 FEL  
Section 34, Township 9S, Range 36E, Lea County, NM

Proposed average and maximum injection rate:  
Average injection rate – 5000 bbls per day ✓  
Maximum injection rate – 8000 bbls per day ✓

Proposed average and maximum injection pressure:  
Average injection pressure – 1000 psi ✓  
Maximum injection pressure – 1500 psi

Injection facility if a closed loop system ✓

Formation:  
Devonian, Perforations at 12,136'-12,146'

Source water is from the Devonian formation. All water is to be injected into the Devonian formation for water pressure maintenance.

Devonian formation will be acidized with 5000 gal. of 15% HCL as an option.

Tabulation of Crossroads Siluro Devonian Unit #106:  
Spud Date – 6/11/72  
Surface Casing:  
Hole size – 14 ½", Casing size – 11 ¾", 250 sxs cement, circulated to surface  
Intermediate Casing:  
Hole size – 11", Casing Size – 8 5/8", 1220 sxs cement, circulated to surface  
Production Casing:

RECEIVED OCD  
2013 JUN 11 A 11:14



---

Hole Size – 7 7/8", Casing size – 5 1/2", 700 sxs cement, TOC 6000  
PBTD 12,175'  
TD 12,175'

Jana True

Regulatory/Production Manager  
EOR Operating Company  
200 N. Loraine, STE 1440  
Midland, TX 79701  
O: 432-687-0303 #544  
C: 432-352-4912  
[jtrue@enhancedoilres.com](mailto:jtrue@enhancedoilres.com)



---

July 22, 2013

NMEMRD  
Oil Conservation Division, Engineering Bureau  
Attn: Phillip R. Goetze, P.G.  
1220 South St. Francis Drive  
Santa Fe, NM 87505

RE: EOR Operating Company C-108 Package  
Crossroads Siluro Devonian Unit #106 well (API 30-025-24143)

Mr. Goetze;

Pursuant to Part XII of EOR Operating Company's C-108 package for the Crossroads Siluro Devonian #106 well, I have examined available geological and engineering data and find no evidence of open faults or any other hydrologic connection between the injection zone proposed for this well and any underground sources of drinking water.

Sincerely,

A handwritten signature in black ink, appearing to read "Barry D. Lasker", written over a horizontal line.

Barry D. Lasker  
President

## INJECTION WELL DATA SHEET

OPERATOR: EOR Operating CompanyWELL NAME & NUMBER: Crossroads Siluro Devonian Unit #106 API 30-025-24143WELL LOCATION: 1980 FNL & 980 FEL H 34 09S 36E  
FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGEWELLBORE SCHEMATIC

attached

WELL CONSTRUCTION DATASurface CasingHole Size: 14 1/2" Casing Size: 11 3/4" X 42#Cemented with: 250 sx. *or*                      ft<sup>3</sup>Top of Cement: Surface Method Determined: CircIntermediate CasingHole Size: 11" Casing Size: 8 5/8" X 32#Cemented with: 1220 sx. *or*                      ft<sup>3</sup>Top of Cement: Surface Method Determined: CircProduction CasingHole Size: 7 7/8" Casing Size: 5 1/2" X 20/25Cemented with: 700 sx. *or*                      ft<sup>3</sup>Top of Cement: 6000' Method Determined: Temp. logTotal Depth: 12175Injection Interval12136 feet to 12146

(Perforated or Open Hole; indicate which)

**INJECTION WELL DATA SHEET**Tubing Size: 2 7/8" X 6.5# N80 8rd Lining Material: Plastic CoatingType of Packer: 5 1/2" Lok-Set or 5 1/2" Arrow-SetPacker Setting Depth: +/- 12060 (70' above top perf)

Other Type of Tubing/Casing Seal (if applicable): \_\_\_\_\_

**Additional Data**

1. Is this a new well drilled for injection? \_\_\_\_\_ Yes X No ✓  
If no, for what purpose was the well originally drilled? Oil Production ✓

2. Name of the Injection Formation: Devonian3. Name of Field or Pool (if applicable): Crossroads; Siluro Devonian4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. Yes, See attached5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: None



# FIELD SERVICE REPORT WELLBORE SKETCH

30-025-24113

CUSTOMER:	EOR Operating Company	LEASE:	Crossroad Silurio-Devonian Unit
CONTACT:	0	WELL:	No 106
PHONE:	0	COUNTY:	Lea County New Mexico
Tool Man	0	STATE:	Lea County New Mexico
DATE:	6/2/2013	COUNTRY:	0

ITEM	DESCRIPTION	O.D.	I.D.	LENGTH	DEPTH TO	DEPTH
CASING DEPTHS:						
A	11-3/4" x 42 ppf casing cmt w/ 250 sxs			350	0	350
B	8-5/8" x 32 ppf casing cmt w/ 1220 sxs			5000	0	5000
C	5-1/2" x 20 & 23 ppf liner cmt w/ 1100 sxs			7338	4837	12175
D	2-7/8" x 6.5 ppf N80 8rd IPC production tubing			9440		9440
E	Proposed Packer Depth					12060
F	PBTD					12172
G	Active Perforations				12130	12140

TUBING DEPTHS:		O.D.	I.D.	LENGTH	DEPTH TO	DEPTH
Rotary Correction						
1					0.00	0.00
2					0.00	0.00
3					0.00	0.00
4					0.00	0.00
5					0.00	0.00
6					0.00	0.00
7					0.00	0.00
8					0.00	0.00
9					0.00	0.00
10					0.00	0.00
11					0.00	0.00
12					0.00	0.00
13					0.00	0.00
14					0.00	0.00
15					0.00	0.00
						#REF!

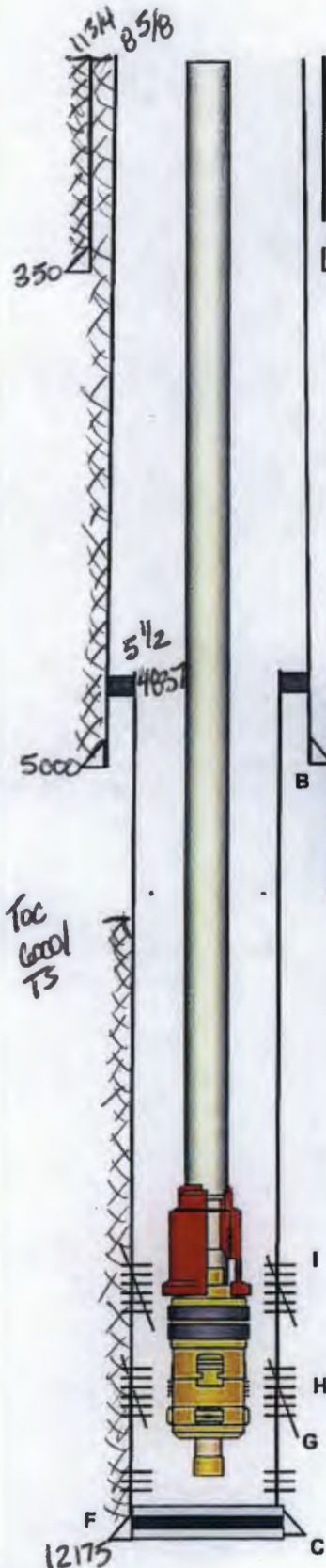
**Preliminary Drawing**

## COMMENTS:

## 5-1/2" Cased Hole Completion

Proposed Perforations	Top	Base	Net	Shots	Active	Remarks
Devonian	12136	12146	10	20		
Bough 'B'	9820	9840	20	40		Sqz'd off 04/2012 ✓
Bough 'C'	9910	9924	14	28		Sqz'd off 04/2012 ✓
Mississippian	11580	11600	20	40		Sqz'd off 04/2012 ✓
Mississippian	11690	11706	16	32		Sqz'd off 04/2012 ✓
Mississippian	11828	11852	24	48		Sqz'd off 04/2012 ✓

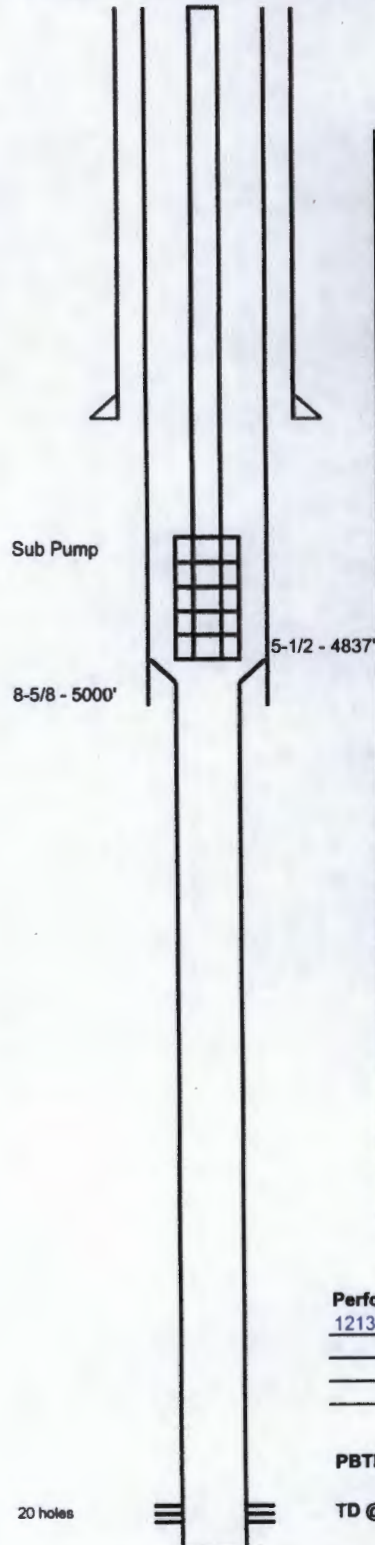
Revised 02/29/2013





Co. Rep	<u>0</u>	
Well Name	<u>Crossroads Sawyer</u>	Well No. <u>106</u>
Field	<u>Siluro Devonian</u>	
County	<u>Lea</u>	
State	<u>NM</u>	
Date	<u>4/19/2012</u>	
Date Comp		
KB	<u>0.00</u>	

Description	O.D.	Grade	Weight	Depth	Cmt Sx	TOC
Surface Csg	11 3/4	0	42#	350	250	Surface
Inter Csg	8 5/8	0	32#	5000	1220	Surface
Prod Csg	0	0	0	0	0	0
Liner O.D.	5 1/2	0	20/23#	4837-12175	1100	Unknown

[illegible]

### Perforations

12136-12146 @ 2 spf - Devonian - 8/6/1972

PBTD @ 12172

ETD @ 0

TD @ 12175

CSU #106  
Crossroads Siluro-Devonian Unit  
Sec 34 – T8S – R34E  
Lea Co. New Mexico  
API No 30-025-24143  
Workover Procedure  
Draft Copy

**Scope of Work:** Re-enter well and convert to an injector. Well is currently on production (AL/ESP). The objective will be to re-enter the well pull the current completion, isolate the active perforation and pressure test the casing (add squeezed off perforations); re-complete set an isolation packer, 2-7/8" x 6.5# N80 8rd IPC tubing and injector head.

**Perforation Intervals**

CSU #106						
Formation	Top	Bottom	Net	Shots	Holes	Status
Bough 'B'	9820	9840	20	4	80	Sqz'd off 3/2012; pressure tested
Bough 'C'	9910	9924	14	4	56	Sqz'd off 3/2012; pressure tested
Devonian	11580	11600	20	4	80	Sqz'd off 3/2012; pressure tested
Devonian	11690	11700	10	4	40	Sqz'd off 3/2012; pressure tested
Devonian	11828	11892	64	4	256	Sqz'd off 3/2012; pressure tested
Siluro-Devonian	12136	12146	10	2	20	Active

**General Procedure**

Visit location prior to start of work and note any casing/wellhead pressure on well, current environment and make recommendations on adjustments to procedure especially and steps necessary to improve Health, Safety and Environment issues.

1. Shut in well at least 24 hrs prior to moving on location.
2. MIRU Pulling Unit
3. Nipple down wellhead and nipple up BOP's. Test BOP's.
4. Pull existing completion. Take extra care when pulling REDA pump through BOP's. Pump intake is set at ±4622 per table below. Inspect and laydown pump. Send pump in to be re-dressed for future use. Visually inspect tubing and send to storage.

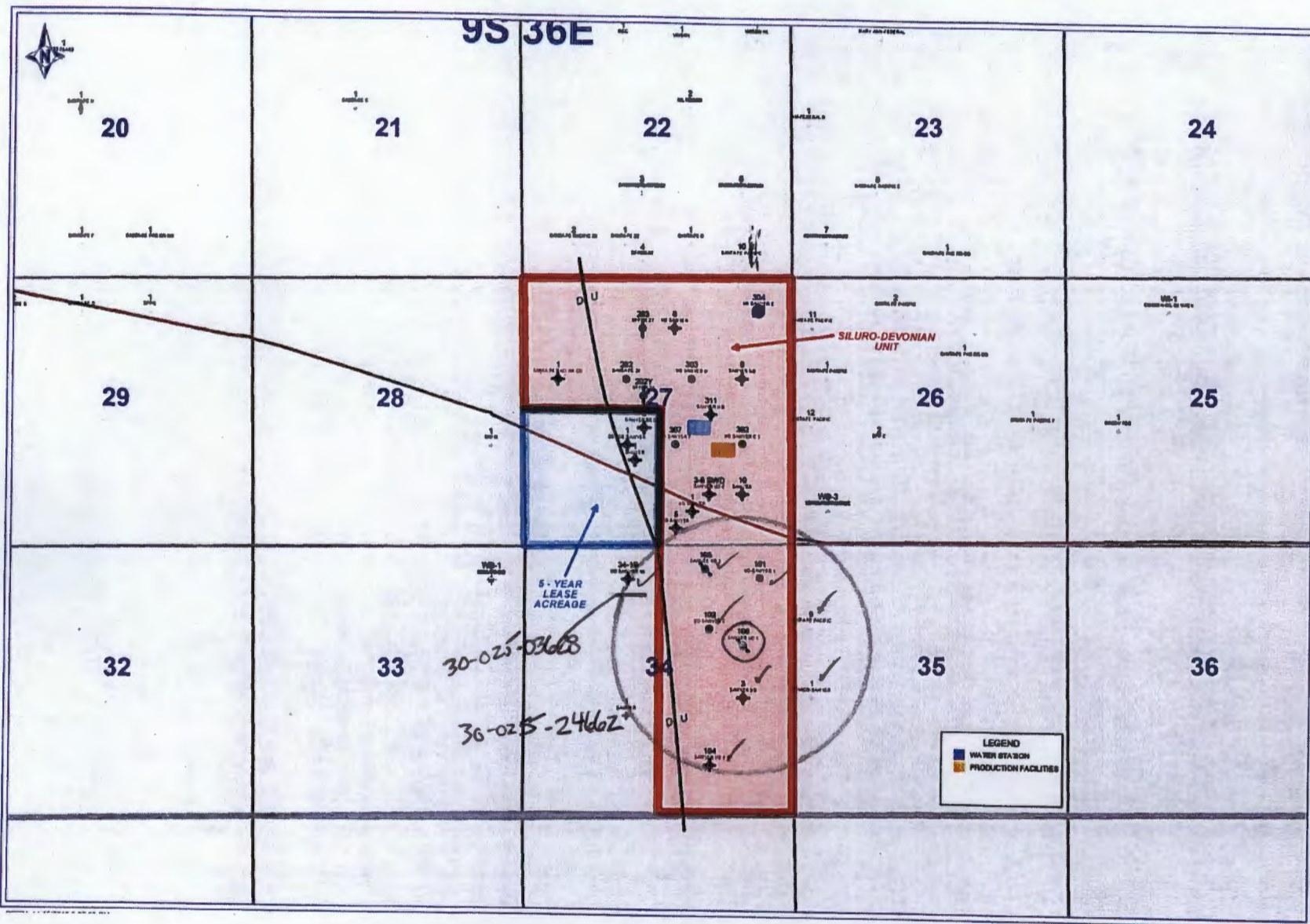
Item	Length (ft)	Top (ft)	Bottom (ft)
2-7/8" x 6.5" production tubing	4437	10	4447
Drain Valve	1.6	4447	4448.6
2-7/8" x 6.5" production tubing	63.91	4448.6	4512.51
Check valve	1.6	4512.51	4514.11
2-7/8" x 6.5" production tubing	63.9	4514.11	4578.01
Pump	22.5	4578.01	4600.51
Pump	21.9	4600.51	4622.41
Intake	1	4622.41	4623.41
Protector	8	4623.41	4631.41
Motor	21.4	4631.41	4652.81
Phoenix	1.8	4652.81	4654.61
Intake Shroud	44		

- 12086
5. Make up 5-1/2" x 15.5# RBP and run in hole to test casing. Set RBP at  $\pm$  \_\_\_\_\_ ft and test casing to 500 psi and hold for 30 minutes. Record test on a chart. If casing passes MIT, notify BLM and request BLM to witness re-test. (BLM to sign chart and send chart to Midland, TX Office). If casing test fails, attempt to locate source of leak off.
  6. Squeeze off holes/old perforations as necessary and re-test casing.
  7. Recover 5-1/2" RBP from  $\pm$  12086
  8. Make up and run in hole with completion assembly as follow
    - 5-1/2" x 15.5# WLREG
    - 2-7/8" x 6.5# N80 8rd IPC x 4 ft pup joint
    - 2-7/8" X/N with pump out plug
    - 2-7/8" x 6.5# N80 8rd IPC x 6 ft pup joint
    - 5-1/2" x 15.5# isolation packer with On/Off tool
    - 2-7/8" x 6.5# N80 8rd IPC production tubing (1 jt)
    - 2-7/8" X nipple
    - 2-7/8" x 6.5# N80 8rd IPC production tubing (o surface)
  9. Land packer and set at  $\pm$  \_\_\_\_\_ (approximately 80 ft above top perforation). Test tubing with 500 psi and monitor casing. Test annulus to 500 psi and confirm packer is set. Unlatch tubing at On/Off tool. Circulate packer fluid (2% KCl + micro-biocide + oxygen scavenger) into annulus and re-latch On/Off tool. Re-test casing to confirm latch/isolation.
 

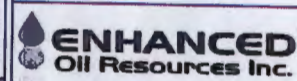
12076 (move to 12066 because of CIPs @ 12075, 12070)
  10. Nipple down BOP's and nipple up Injector head. Test Injector head to 2500 psi. Attach flowline.
  11. Pressure up on pump-out plug with 1000 psi.
  12. Initiate Injectivity Test on CSU #106 per schedule below.

[illegible]





RECEIVED OCD  
2013 JUN 11 A 11:14



#### NEW MEXICO WELL STATUS

CROSSROADS DEVONIAN UNIT

UPDATES AS OF NOVEMBER 16, 2010

#### WELL SYMBOLS

- ◊ Dry Hole
- ⊕ Injection Well
- △ Service Well
- ⊕ Plugged and Abandoned
- ⊕ Temporarily Abandoned
- ⊕ Dry Hole, With Show of Oil
- ⊕ Suspended Producing
- ⊕ Active Injection WW
- ⊕ Shut in Producing
- ⊕ Active Producing

#### REMARKS

NEW MEXICO

By: P. Hayes / A. Chatter



November 16, 2010



Co. Rep	0	
Well Name	U D Sawyer	Well No. 0
Field	CSDU	
County	Lea	
State	NM	
Date	1/0/1900	
Date Comp		
KB	4034.50	

Description	O.D.	Grade	Weight	Depth	Cmt Sx	TOC
Surface Csg	13-3/8	0	40	214	300	Surface
Inter Csg	9 5/8	J-55	36	3706	2000	Surface
Prod Csg	5 1/2	N-80	20	12255	700	8540
Liner O.D.	0	0	0	0	0	0

10 Sx @ Surface

214'

45 Sx @ 2212'

65 Sx @ 3507'

Tag @ 3318'

Cut/Pulled 3400'-5 1/2 Cng.

3706'

2 X 65 Sx @ 3823'

Tag @ 3850'

25 Sx plug @ 4800' - 12/20/89

25 Sx plug @ 7000' - 12/19/89

35' Cmt-12/12/89

Cibp - 11375'

Cibp - 11475'

Per 114'

PB

TD

## Failure Analysis

[illegible]

## Perforations

11412-22, 12100-142, 158, 182

PBTD @ 11475

ETD @ 0

TD @ 12258

Submit 3 Copies  
to Appropriate  
District Office

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-103  
Revised 1-1-89

DISTRICT I  
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II  
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III  
1400 Rio Brazos Rd., Aztec, NM 87410

OIL CONSERVATION DIVISION

P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

WELL API NO.

30-025-03607

5. Indicate Type of Lease

STATE ☐

FEE ☒

6. State Oil & Gas Lease No.

7. Lease Name or Unit Agreement Name

U. D. SAWYER

8. Well No.

1

9. Pool name or Wildcat

Crossroads Siluro Section

SUNDRY NOTICES AND REPORTS ON WELLS  
(DO NOT USE THIS FORM FOR PROPOSAL TO DRILL OR TO DEEPEN OR PLUG BACK TO A  
DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT"  
(FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well:

OIL

WELL ☒

GAS

WELL ☐

OTHER

2. Name of Operator

ORYX ENERGY COMPANY

3. Address of Operator

P.O. BOX 1861, MIDLAND, TX 79702

4. Well Location

Unit Letter 0 : 660 Feet From The SOUTH Line and 1980 Feet From The EAST Line

Section 27

Township 9 S

Range 36 E

NMNM

LEA CO.

County

10. Elevation (Show whether D.F., R.R.B., RT, GR, etc.)

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐

PLUG AND ABANDON ☐

TEMPORARILY ABANDON ☐

CHANGE PLANS ☐

PULL OR ALTER CASING ☐

OTHER: ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐

COMMENCE DRILLING OPNS. ☐ PLUG AND ABANDONMENT ☒

CASING TEST AND CEMENT JOB ☐

OTHER: ☐

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

1. MOVE TO LOCATION. SET 5-1/2" CIBP @ 11,375 W/35' ON TOP (12/12/89)
2. RAN 358 JTS 2-7/8, CIRCULATE HOLE W/ 10#/MUD. PULL TO 7000' MIX AND PUMP 100' (25 SXS) CEMENT. PULL TUBING (12/19/89)
3. RUN TBG TO 4800'. MIX AND PUMP (25 SXS) POH (12/20/89)
4. CUT AND PULL 3400' OF 5-1/2 CSG.
5. RAN TBG TO 3823'. MIX AND PUMP 65 SXS. DID NOT TAG PLUG. (1/2/90)
6. RAN TBG TO 3823'. MIX AND PUMP 65 SXS. TAG PLUG @ 3850'. (1/3/90)
7. RAN TBG TO 3507'. MIX AND PUMP 65 SXS. TAG PLUG @ 3318'. (1/8/90)
8. PULL TBG TO 2212'. MIX AND PUMP 45 SXS. PULL TO SURFACE. 10 SXS.
9. INSTALL DRY HOLE MARKER, LEVEL PIT & CELLAR. (1/9/90)

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Chris Prickett TITLE VICE-PRESIDENT DATE 1/10/90  
TYPE OR PRINT NAME CHRIS PRICKETT KWA, INC. TELEPHONE NO. (915)697-3265

(This space for State Use)

APPROVED BY Jack Griffin TITLE OIL & GAS INSPECTOR DATE MAY 3 1990  
CONDITIONS OF APPROVAL, IF ANY:



## WELL COMPLETION SKETCHES

SLIN- 3-4-A

30-025-03007

WELL

FIELD

DATE

J.D. SAWYER No. 1

CROSSROADS DEKALIAN

JULY 7, 1989

☒ PRESENT COMPLETION☐ SUGGESTED COMPLETION

## PERMANENT WELL BORE DATA

13 7/8", 40#, ARNCO  
 SURFACE CSG. CS ± 214'  
 CUT'D W/ 3000 SXS.  
 CIRC CUT TO SURFACE.

9 7/8", 30#, J-55  
 INTERMEDIATE CSG.  
 CS ± 3706'. CUT'D  
 W/ 2500 SXS. CIRC  
 CUT TO SURFACE.

EC ± 8510 VIA TEMP SURVEY

5 1/2", 20#, N-80 PERFORATION  
 CSG. CS ± 12255'. CUT'D  
 W/ 700 SXS. EC ± 8510  
 VIA TEMP SURVEY.

TD: 12258  
 CS: 12255

## DATA ON THIS COMPLETION

KB - 4034.5'  
 GL - 4022.5'

EC ± 1570 VIA TEMP SURVEY  
 SAN ANTONIO PERFS 4820-50  
 SIZ'D W/ 220 SXS "H", 4/D  
 302 PERFS 4150-51, 4 SFE.

2 7/8", 16.5#, C-75 J-55  
 COND. 1 PERFORATION TAG.

5 1/2", BAKER PERFOR  
 ± 11314

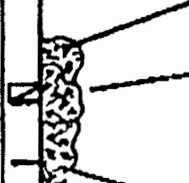
RAW PERFS 11412-22, 1 SFE

CIBP e ± 11475' (5/80)

DEKALIAN 12115-215 SIZ'D  
 DEKALIAN 12100-142, 52-52  
 PERFS.



3000



11475

Co. Rep	0	
Well Name	U D Sawyer	Well No. 5
Field	CSDU	
County	Lea	
State	NM	
Date	1/0/1900	
Date Comp		
KB	4034.50	

Description	O.D.	Grade	Weight	Depth	Cmt Sx	TOC
Surface Csg	13-3/8	H-40	40	235	225	Surface
Inter Csg	8 5/8	H-40	24-32	4196	1035	100'
Prod Csg	5 1/2	N-80	17, 20, 23	12177	225	10970
Liner O.D.	0	0	0	0	0	0

10 Sx @ Surface

235'

35 Sx @ 2212' 1/24/1990

Tag plug @ 4141'

4186'

Cut/Pulled 5.5 @ 4325'

65 Sx @ 4375' 1/23/1990

25 Sx plug @ 4977' - 1/16/90

25 Sx plug @ 5577' - 1/16/90

25 Sx plug @ 7045' - 1/16/90

35' Cmt-1/9/90

Cibp - 11375'

Cibp - 11475'

Pe 1

P

T

[illegible]

**Perforations**  
12168-175

ETD @ 0

TD @ 12180

Submit 3 Copies  
to Appropriate  
District Office

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-103  
Revised 1-1-89

DISTRICT I  
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II  
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III  
1000 Rio Brazos Rd., Aztec, NM 87410

OIL CONSERVATION DIVISION  
P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

WELL API NO. 1

30-025-20017

5. Indicate Type of Lease

STATE ☐

FEE ☒

6. State Oil & Gas Lease No.

SUNDRY NOTICES AND REPORTS ON WELLS  
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A  
DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT"  
(FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well:

OIL  
WELL ☒

GAS  
WELL ☐

OTHER

2. Name of Operator

ORYX ENERGY COMPANY

3. Address of Operator

P.O. BOX 1861, MIDLAND, TX 79702

4. Well Location

Unit Letter 0 : 330 Feet From The S Line and 2310 Feet From The E Line

Section 27 Township 9-S Range 36-E NMMN County

10. Elevation (Show whether DF, RKB, RT, GR, etc.)

4022.5 G.L.

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐

PLUG AND ABANDON ☐

TEMPORARILY ABANDON ☐

CHANGE PLANS ☐

PULL OR ALTER CASING ☐

OTHER: ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐

COMMENCE DRILLING OPER. ☐ PLUG AND ABANDONMENT ☒

CASING TEST AND CEMENT JOB ☐

OTHER: ☐

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

1. MOVE TO LOCATION. SET 5-1/2 CIBP @ 11,375' W/35' ON TOP (1/9/90)
2. RAN 358 JTS. TBT. CIRCULATE W/10#/GAL MUD. POH. WORK PIPE CHECK STRETCH
3. RUN TBG TO 7045'. MIX AND PUMP 25SX(100'). PULL TO 5577' MIX 25SX(100')(1/16/90)
4. RUN TBG TO 4977'. MIX 25SX (100') POH. (1/17/90)
5. CUT PIPE AT 4325'. POH.
6. RUN TBG TO 4375'. MIX AND PUMP 65 SX (237'). (1/23/90)
7. TAG PLUG @ 4141'. PUH TO 2200'. MIX AND PUMP 35SX (100') (1/24/90)
8. PUT TOP PLUG 10 SX. INSTALL DRY HOLE MARKER, RIG DOWN, MOVE OFF LOCATION. (1/25/90)

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE

TITLE VICE-PRESIDENT

DATE 1/29/90

TYPE OR PRINT NAME

CHRIS PRICKETT, KWA, INC.

TELEPHONE NO. (915) 697-3265

(This space for State Use)

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

OIL & GAS INSPECTOR

MAY 3 1990

30-025-2001-7

## WELL COMPLETION SKETCHES SUN-5036-4-A

WELL U.D. SANYER No. 5 FIELD CROSSROADS PENN DATE JULY 11, 1989

☒ PRESENT COMPLETION

☐ SUGGESTED COMPLETION

## PERMANENT WELL BORE DATA

13 3/8", 48#, H-40

SURFACE CSG. CS ± 235'

CMT'D W/ 225 SXS. CIRC 235'

15 SXS TO SURFACE.

8 7/8", 24 + 32#, H-40

+ T-SS INTERMEDIATE

CSG. CS ± 4126'

CMT'D W/ 1035 SXS.

TDC ± 100' VIA TEMP SURVEY.

5 1/2", 17, 20 + 23#,

N-20, LTC PRODUCTION

CSG. CS ± 12177'

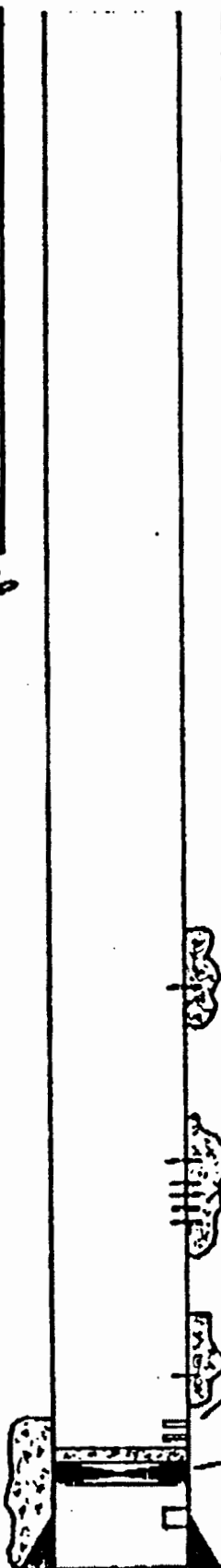
CMT'D W/ 225 SXS. TDC

± 10970 - CALCULATED.

TD: 12180



4126



12177

## DATA ON THIS COMPLETION

KB - 4034.5'

GL - 4022.5'

CSG LEAK @ 7672'. SOZ'D  
W/ TOTAL 200 SXS CMT.CSG LEAKS @ 9243, 9311, 9415  
+ 9640 SOZ'D W/ TOTAL 550 SXS.1 WAY SOZ. HOLE @ 11350,  
SOZ'D W/ 150 SXS CMT.

PEW PERFS 11400-14, 11443-53.

PBD: 11480

CIBP ± 11500 + 20' CMT

PERMANENT PERFS 12143-175,  
2 ISFF, SOZ'D W/ 150 SXS.



Co. Rep	0	
Well Name	Santa Fe Pacific	Well No. 9
Field	CSDU	
County	Lea	
State	NM	
Date	1/0/1900	
Date Comp		
KB	GL-4016	

Description	O.D.	Grade	Weight	Depth	Cmt Sx	TOC
Surface Csg	10 3/4	H-40	32	432	225	Surface
Inter Csg	7 5/8	J-55	26	5000	1035	100'
Prod Csg	5 1/2	N-80	20	12190	225	9350
Liner O.D.	0	0	0	0	0	0

Diagram illustrating a wellbore layout with various sections and dimensions:

- Top Section:**
  - 5 Sx @ Surface
  - Sqz 190 SX Class C
  - 5/25/1983
  - Perf @ 482'
  - 350'
  - 432'
  - 482'
- Middle Section:**
  - Cmt-Rtnr @ 2290'
  - 40 SX Class C-4100'
  - 5/24/1983
  - Closed csng 2317-2321'
  - 200 SX Class C Neat 2340-2400'
  - Prd Csg @ 2340-2402'
- Bottom Section:**
  - TOL-4818'
  - Baker-FA-1
  - Perm-Pkr 5000'
  - 4840'

[illegible]

12150-12165 - Sqzd. w/100 Sx. Cmt.

ETD @ 0

TD @ 12525

open hole  
100 10525

30-025-03633

NO. OF COPIES RECEIVED	
DISTRIBUTION	
SANTA FE	
FILE	
U.S.G.S.	
LAND OFFICE	
OPERATOR	

## NEW MEXICO OIL CONSERVATION COMMISSION

Form C-103  
Supersedes Old  
C-102 and C-103  
Effective 1-1-65

## SUNDRY NOTICES AND REPORTS ON WELLS

DO NOT USE THIS FORM FOR PROPOSALS TO ABLE OR TO REENTER OR MOVE BACK TO A DIFFERENT RESERVOIR.  
USE APPLICATION FOR PERMIT TO (PRODUCE) FOR SUCH PROPOSALS.

1. <input type="checkbox"/> OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER- SALT WATER DISPOSAL WELL	5a. Indicate Type of Lease State <input type="checkbox"/> Fee <input checked="" type="checkbox"/>
2. Name of Operator Mobil Producing TX. & N.M. Inc.	5. State Oil & Gas Lease No.
3. Address of Operator Nine Greenway Plaza, Suite 2700, Houston, Texas 77046	7. Unit Agreement Name
4. Location of Well UNIT LETTER E 1650 FEET FROM THE North LINE AND 330 FEET FROM THE West LINE, SECTION 35 TOWNSHIP 9S RANGE 36E N.M.P.M.	6. Farm or Lease Name Santa Fe Pacific
15. Elevation (Show whether DP, RT, GR, etc.) 4016 (GR)	9. Well No. 9
	10. Field and Pool, or Wildcat Crossroads Devonian
	12. County Lea

16.

Check Appropriate Box To Indicate Nature of Notice, Report or Other Data  
NOTICE OF INTENTION TO: SUBSEQUENT REPORT OF:

PERFORM REMEDIAL WORK ☐  
TEMPORARILY ABANDON ☐  
PULL OR ALTER CASING ☐  
OTHER ☐

PLUG AND ABANDON ☐  
CHANGE PLANS ☐  
OTHER ☐

REMEDIATION WORK ☐  
COMMENCE DRILLING OPNS. ☐  
CASING TEST AND CEMENT JOBS ☐  
OTHER ☐

ALTERING CASING ☐  
PLUG AND ABANDONMENT ☒  
OTHER ☐

17. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1703.

TD 12525; Casing Record 10-3/4 @ 432, 7-5/8 @ 5000, 5-1/2L @ 4818-12190, Collapsed Casing @ 2317-2321, Bad Casing 2330-2340, Parted Casing 2340-2402.

05/23/83 MIRU Baber Well P&A Ut, unload & rack 98 jts 2-7/8, rented tbg.

05/24/83 NU BOP, WIH w/7-5/8, Howco cmt ret on 2-7/8 tbg, set ret @ 2290, displaced 7-5/8 csg w/100 bbls 10# BW, set into ret Baber Serv estb inj rate down tbg 3-1/2 BPM @ 300, into parted csg @ 2340-2402, cmt sqz parted csg w/200x Class C Neat, sqz press 1000 psi, pulled out of ret & cap ret w/40x Class C Neat, cal top cmt @ 2100, Job Compl @ 4 pm 5/24/83, POH w/ret stinger laying down 2-7/8 work tbg.

05/25/83 Baber Wire Line Serv perf 7-5/8 csg @ 482 - 4 holes, pmpd 15 BBW estb full circ @ 3 BPM, 100 psi, ND BOP inst 7-5/8 swage cmt down 7-5/8 csg thru perfs @ 482 & out annulus w/150x Class C Neat, circ good cmt closed 10-3/8 csg valve & sqzd away 40x cmt, sqz press 300, displ cmt in 7-5/8 csg to 350, Job Comp @ 11 am 5/25/83.

05/26/83 Set surface plug 25-surface w/5x Class C cmt, P&A complete.

FINAL REPORT

18. I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNED Paula A. Collins

TITLE Authorized Agent

DATE 06/07/83

APPROVED BY David C. ...

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

OIL & GAS INSPECTOR

11 11 1983

LEASE SANTA FE PACIFIC WELL NO. 9-SWA  
ANNULAR FLUID PRIOR TO WORKOVER WELLBORE FLUIDS  
W/O FLUID TO BE USED MUD LAGEN FLUID WT.(LBS/GAL.) 9.5 HYD. PRESS NA RES. PRESS NA

- ① MIRU PULLING UNIT, NO TREE, NU BOP AND TEST
- ② GIH W/ MECHANICAL SET CEMENT RETAINER ON  $2\frac{3}{8}$ " TBG, SET @  $\pm 2300'$ , PUMP 300 SX CLASS 'C' CEMENT.
- ③ PULL OUT OF CEMENT RETAINER AND CAP RETAINER W/ 200' OF CLASS 'C' CEMENT (40 SX) TOC @  $\pm 2100'$ .
- ④ SPOT 9.5 PPG MUD FROM  $\pm 2100'$  TO  $\pm 500'$  POH W/  $2\frac{3}{8}$ " TBG (75 BBLs)
- ⑤ MIRU PERFORATING EQUIPMENT, GIH AND PERFORATE  $7\frac{5}{8}$ " CSG @  $\pm 482'$ , POH W/ GUN.
- ⑥ GIH W/ RETRIEVABLE CEMENTER, SET @  $\pm 382'$ , PUMP CLASS 'C' CEMENT UNTIL CIRCULATION IS ACHIEVED THROUGH ANNULUS OF  $7\frac{5}{8}$ " AND  $10\frac{3}{4}$ " CASING. ( $\approx 120$  SX TOC @  $\pm 382'$ )
- ⑦ RELEASE CEMENTER, PULL UP HOLE AND SPOT 9.5 PPG MUD FROM 382'-25' (17 BBLs)
- ⑧ SPOT 25' (5 SX) CLASS 'C' CEMENT FROM 25' TO SURFACE.
- ⑨ INSTALL P&A MARKER & CLEAN LOCATION
- ⑩ RO&R PULLING UNIT

MATERIAL NEEDED

465 SX CLASS 'C' CEMENT  
92 BBLs 9.5 PPG MUD

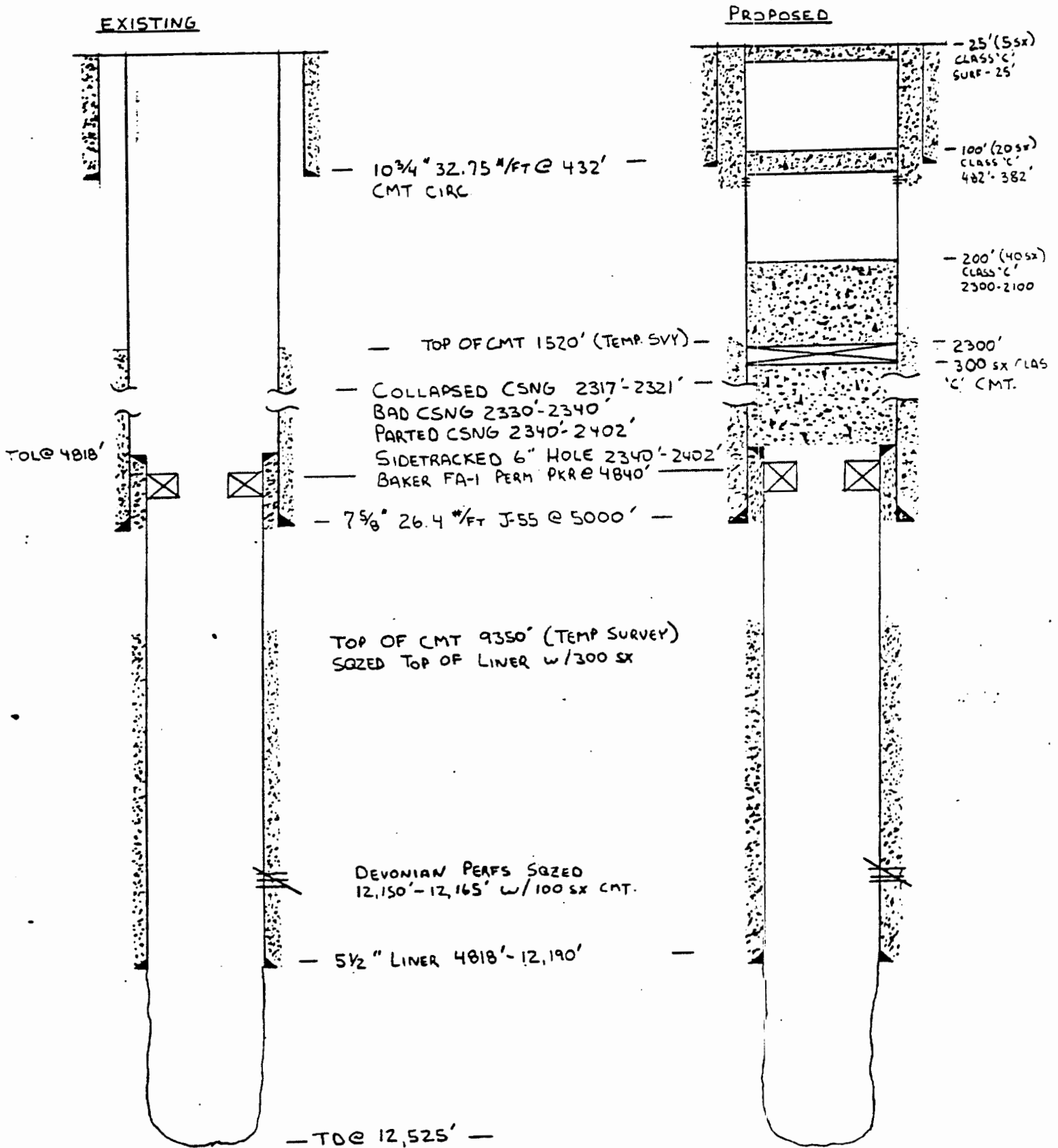
VERBAL APPROVAL FROM NMCLA - HOBBS (JERRY SEXTON 3-9-83)

SL MUNSELL

3-10-83

DISTRIBUTION:

DATE 03-08-83 LL NO. 9 SWD LEASE SANTA F. XIFK FIELD CROSSROADS  
 LOCATION E-35-T95-R36E SIGNED S L MUNSSELL DEVONIAN  
 G.L. 4016  
 D.F. NA  
 K.B. NA  
 ZERO NA





Co. Rep 0  
Well Name Texaco Sawyer Well No. 1 35  
Field CSDU  
County Lea  
State NM  
Date 1/0/1900  
Date Comp \_\_\_\_\_  
KB \_\_\_\_\_

Description	O.D.	Grade	Weight	Depth	Cmt Sx	TOC
Surface Csg	13-3/8	0	40	250	300	Surface
Inter Csg	8 5/8	J-55	36	4175	2000	Surface
Prod Csg	5 1/2	N-80	20	12375	700	8540
Liner O.D.	0	0	0	0	0	0

10 Sx @  
Surface

## Failure Analysis

[illegible]

### Perforations

PBTD @ \_\_\_\_\_

ETD @ 0

TD @ 12375

## NEW MEXICO OIL CONSERVATION COMMISSION

## MISCELLANEOUS REPORTS ON WELLS

(Submit to appropriate District Office as per Commission Rule 1106)

COMPANY Texas Crude Oil Company, 1201 V & J Tower, Midland, Texas

(Address)

LEASE Texaco-Smyer WELL NO. 1-35 UNIT L S 35 T 9-S R 36-EDATE WORK PERFORMED 6-29-61 POOL CrossroadsThis is a Report of: (Check appropriate block) ☐ Results of Test of Casing Shut-off☐ Beginning Drilling Operations☐ Remedial Work☒ Plugging☐ Other \_\_\_\_\_

Detailed account of work done, nature and quantity of materials used and results obtained.

## Well plugged in following manner:

25 sx cement plug 12,357-12,284'

20 sx cement plug 10,005-10,111'

20 sx cement plug 9,200- 9,111'

20 sx cement plug 5,100- 4,941'

20 sx cement plug 4,200- 4,142'

Pulled 1225' 8-5/8" casing.

10 sx cement plug top of surface.

155XS 370-350

Location will be leveled and pits filled as soon as weather permits.

## FILL IN BELOW FOR REMEDIAL WORK REPORTS ONLY

Original Well Data:

DF Elev. \_\_\_\_\_ TD \_\_\_\_\_ PBD \_\_\_\_\_ Prod. Int. \_\_\_\_\_ Compl Date \_\_\_\_\_

Tbng. Dia \_\_\_\_\_ Tbng Depth \_\_\_\_\_ Oil String Dia \_\_\_\_\_ Oil String Depth \_\_\_\_\_

Perf Interval (s) \_\_\_\_\_

Open Hole Interval \_\_\_\_\_ Producing Formation (s) \_\_\_\_\_

## RESULTS OF WORKOVER:

BEFORE

AFTER

Date of Test

Oil Production, bbls. per day

Gas Production, Mcf per day

Water Production, bbls. per day

Gas-Oil Ratio, cu. ft. per bbl.

Gas Well Potential, Mcf per day

Witnessed by \_\_\_\_\_

(Company)

OIL CONSERVATION COMMISSION

I hereby certify that the information given above is true and complete to the best of my knowledge.

Name \_\_\_\_\_

Name \_\_\_\_\_

Title \_\_\_\_\_

Position \_\_\_\_\_

# B. L. McFARLAND, INC.

DRILLING CONTRACTORS

3812 WEST WALL STREET

MIDLAND, TEXAS

B. L. McFARLAND  
PRESIDENT

August 2, 1961

Texas Crude Oil Company  
1201 V & J Tower  
Midland, Texas

Attention: Mr. Joe R. Howard

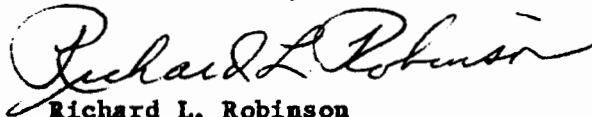
Gentlemen:

Following is a summary of the cement plugs that were spotted during the plugging of the Texas Crude Texaco-Sawyer 1-35, Lea County, New Mexico:

25 sack plug	12,357' - 12,284'
20 sack plug	10,005' - 10,441'
20 sack plug	9,200' - 9,141'
20 sack plug	5,100' - 4,941'
20 sack plug	4,200' - 4,142'
15 sack plug	370' - 350'
10 sack plug	Surface

Yours very truly,

B. L. McFARLAND, INC.



Richard L. Robinson  
Production Superintendent

RRL:jh



Co. Rep	0
Well Name	Mid Continent Petroleum Well No. B 1
Field	CSDU
County	Lea
State	NM
Date	1/0/1900
Date Comp	
KB	

Description	O.D.	Grade	Weight	Depth	Cmt Sx	TOC
Surface Csg	0	0	0	0	0	0
Inter Csg	9 5/8					
Prod Csg	5 1/2					
Liner O.D.	0	0	0	0	0	0

5.5 csng pulled  
amount  
unknown

[illegible]

**Perforations**  
12380-12410  
9695-9724'

PBTD @ \_\_\_\_\_

ETD @ 0

TD @ 12410

## NEW MEXICO OIL CONSERVATION COMMISSION

SANTA FE, NEW MEXICO

## MISCELLANEOUS NOTICES

Submit this notice in triplicate to the Oil Conservation Commission or its proper agent before the work specified is to begin. A copy will be returned to the sender on which will be given the approval, with any modifications considered advisable, or the rejection by the Commission or agent, of the plan submitted. The plan as approved should be followed, and work should not begin until approval is obtained. See additional instructions in the Rules and Regulations of the Commission.

Indicate nature of notice by checking below:

NOTICE OF INTENTION TO TEST CASING SHUT-OFF		NOTICE OF INTENTION TO SHOOT OR CHEMICALLY TREAT WELL	
NOTICE OF INTENTION TO CHANGE PLANS		NOTICE OF INTENTION TO PULL OR OTHERWISE ALTER CASING	
NOTICE OF INTENTION TO REPAIR WELL		NOTICE OF INTENTION TO PLUG WELL	<input checked="" type="checkbox"/>
NOTICE OF INTENTION TO DEEPEN WELL			

Midland, Texas

November 21, 1949

Place

Date

OIL CONSERVATION COMMISSION,  
Santa Fe, New Mexico.

Gentlemen:

Following is a notice of intention to do certain work as described below at the

~~Mid-Continent Petroleum Corporation~~ - H. D. Sawyer "B" Well No. One in C NE NW  
Company or Operator Lease  
of Sec. 34, T. 9S, R. 36E, N. M. P. M., Crossroads Field.  
IEA County.

## FULL DETAILS OF PROPOSED PLAN OF WORK

FOLLOW INSTRUCTIONS IN THE RULES AND REGULATIONS OF THE COMMISSION

Casing perforations 9695' to 9724' will be plugged with cement. Hole will be loaded with heavy mud laden fluid. As much 5 1/2" casing as possible will be recovered. 70 foot cement plug will be placed in top of 9 5/8" intermediate casing. 9 5/8" Bull Plug will be placed in top of 9 5/8" casing. Cellar will be filled and regulation marker placed over well bore.

Place cement plug in top of 5 1/2" casing that is not pulled.

Approved \_\_\_\_\_, 19\_\_\_\_  
except as follows:

OIL CONSERVATION COMMISSION,  
By Ray Garbaccio  
Title \_\_\_\_\_

Mid-Continent Petroleum Corporation  
Company or Operator

By E. J. Riene  
Position Petroleum Engineer  
Send communications regarding well to

Name Harold Smith  
Address Box 830 Midland, Texas

## NEW MEXICO OIL CONSERVATION COMMISSION

SANTA FE, NEW MEXICO

**MISCELLANEOUS NOTICES**

Submit this notice in triplicate to the Oil Conservation Commission or its proper agent before the work specified is to begin. A copy will be returned to the sender on which will be given the approval, with any modifications considered advisable, or the rejection by the Commission or agent, of the plan submitted. The plan as approved should be followed, and work should not begin until approval is obtained. See additional instructions in the Rules and Regulations of the Commission.

Indicate nature of notice by checking below:

NOTICE OF INTENTION TO TEST CASING SHUT-OFF		NOTICE OF INTENTION TO SHOOT OR CHEMICALLY TREAT WELL	
NOTICE OF INTENTION TO CHANGE PLANS		NOTICE OF INTENTION TO PULL OR OTHERWISE ALTER CASING	
NOTICE OF INTENTION TO REPAIR WELL		NOTICE OF INTENTION TO PLUG WELL	
NOTICE OF INTENTION TO DEEPEN WELL		NOTICE OF INTENTION TO PLUG BACK	X

Midland, Texas

November 4, 1949

Place

Date

OIL CONSERVATION COMMISSION,  
Santa Fe, New Mexico.

Gentlemen:

Following is a notice of intention to do certain work as described below at the \_\_\_\_\_

**Mid-Continent Petroleum Corporation - U. D. Sawyer "B"** Well No. One in C NE NW  
Company or Operator Lease

of Sec. 34, T. 9S, R. 36E, N. M. P. M., Crossroads Field.  
IEA County.

## FULL DETAILS OF PROPOSED PLAN OF WORK

FOLLOW INSTRUCTIONS IN THE RULES AND REGULATIONS OF THE COMMISSION

Production from this well went to 100% water. We plan to plug off Casing Perforations from 12380' to 12410' and test for producing zones above.

Approved \_\_\_\_\_, 19\_\_\_\_  
except as follows:

OIL CONSERVATION COMMISSION,

By roy yarbrough  
Title \_\_\_\_\_

**Mid-Continent Petroleum Corporation**  
Company or Operator

By Harold SmithPosition District Superintendent

Send communications regarding well to

Name Harold SmithAddress Box 830, Midland, Texas



Does Not Penetrate Injection Interval

Description	O.D.	Grade	Weight	Depth	Cmt Sx	TOC
Surface Csg	13-3/8	0	0	0	0	0
Inter Csg	8 5/8	0	0	4400(+/-)	0	0
Prod Csg	0	0	0	0	0	0
Liner O.D.	0	0	0	0	0	0

TD @ 4400 ?

Form 1000  
(May 1962)

30-000-011000  
UNITED STATES

DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUBMIT IN TRIPPLICATE-  
(Other instructions on re-  
verse side)

Form approved.  
Budget Bureau No. 42-R140

5. LEASE DESIGNATION AND SERIAL NO.

MM 19680

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.  
Use "APPLICATION FOR PERMIT—" for such proposals.)

1.

OIL WELL ☒ GAS WELL ☐ OTHER ☐

2. NAME OF OPERATOR

Texas International Petroleum Corporation

3. ADDRESS OF OPERATOR

1720 Wilco Building, Midland, Texas 79701

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.\*  
See also space 17 below.)  
At surface

1980 FSL & 1980 FWL of Section

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Sawyer

9. WELL NO.

1

10. FIELD AND POOL, OR WILDCAT

Crossroads (Devonian)

11. SEC., T., R., M., OR E.L. AND  
SURVEY OR AREA

Sec 34, T9S-R36E

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, GR, etc.)

4022 GL

12. COUNTY OR PARISH

Lea

13. STATE  
New Mexico

16.

Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF ☐

FRACTURE TREAT ☐

SHOOT OR ACIDIZE ☐

REPAIR WELL ☐

(Other) ☐

PULL OR ALTER CASING ☐

MULTIPLE COMPLETE ☐

ABANDON\* ☒

CHANGE PLANS ☐

SUBSEQUENT REPORT OF:

WATER SHUT-OFF ☐

FRACTURE TREATMENT ☐

SHOOTING OR ACIDIZING ☐

(Other) ☐

REPAIRING WELL ☐

ALTERING CASING ☐

ABANDONMENT\* ☒

(NOTE: Report results of multiple completion on Well  
Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any  
proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones perti-  
nent to this work.) \*

Production tests of San Andres showed well non-commercial, therefore Texas International Petroleum proposed to P&A well. Mr. C. L. Cashew of USGS was notified and plugs were spotted per his instructions. Set CIBP @ 4218 and dumped 5 sx cmt on plug. Shot 8 5/8" @ 1103 but could not pull csg. Shot @ 972' and recovered 972' 8 5/8" csg. Displaced hole to 1140' with mud laden salt water. Spotted 55 sx. cmt plug 1140-950. 45 sx. plug 428-328 ( in and out of surface pipe) and 10 sx. at surface. Welded plate with dry hole marker on 13 3/8" csg.

Pits will be leveled after drying.

18. I hereby certify that the foregoing is true and correct

SIGNED

*G. L. Murphy*  
G. L. Murphy

TITLE Division Engineer

DATE 5/24/74

(This space for Federal or State office use)

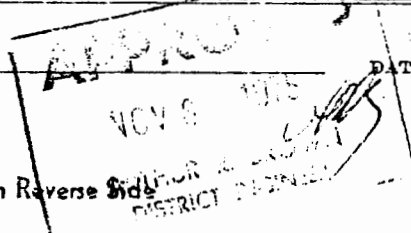
APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

\*See Instructions on Reverse Side





Co. Rep. 0  
Well Name CSDU Well No. 34-104  
Field CSDU  
County Lea  
State NM  
Date 12/3/2007  
Date Comp   
KB

Description	O.D.	Grade	Weight	Depth	Cmt Sx	TOC
Surface Csg	13-3/8	0	40	250	300	Surface
Inter Csg	8 5/8	J-55	36	4175	2000	Surface
Prod Csg	5 1/2	N-80	20	12375	700	8540
Liner O.D.	0	0	0	0	0	0

250'

Sqz cmt to surface

Perf 4 holes @ 400'

Sqz 25 sx @ 2075'

Perf 4 holes @ 2250'

Spot 50 Sx Class H @ 3751'

4175'

Pmp 35 Sx Class H @ 5912'

Spot 25 Sx class H @ 8672'

Spot 25 Sx class H @ 8835'

Tagged up @ 8835' - collapsed Casing

@ 3329'

Tag @ 5285'

Tag @ 6562'

Tag @ 8672'

Perf 120'

PB

## Failure Analysis

[illegible]

**Perforations**  
12050-12100

PBTD @

ETD @ 0

TD @ 12375

Submit 3 Copies To Appropriate District  
Office  
District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Ave., Artesia, NM 88210  
District III  
1000 Rio Brazos Rd., 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-103  
May 27, 2004

OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

WELL API NO. 30-025-03632
5. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input checked="" type="checkbox"/>
6. State Oil & Gas Lease No.
7. Lease Name or Unit Agreement Name Crossroads Siluro Dev Unit
8. Well Number 34-104
9. OGRD Number 8041
10. Pool name or Wildcat Crossroads Siluro Devonian
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 4031' GR

SUNDRY NOTICES AND REPORTS ON WELLS  
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A  
DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH  
PROPOSALS.)

1. Type of Well: Oil Well <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> Other
2. Name of Operator Forest Oil Corporation
3. Address of Operator 707 17 <sup>th</sup> Street, Suite 3600, Denver, Colorado
4. Well Location Unit Letter: <u>O</u> feet from the <u>990</u> line and <u>South</u> feet and <u>1650</u> from the <u>East</u> line Section <u>34</u> Township <u>9S</u> Range <u>36E</u> NMPM County <u>Lea</u>
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 4031' GR

Pit or Below-grade Tank Application <input type="checkbox"/> or Closure <input type="checkbox"/>
Pit type _____ Depth to Groundwater _____ Distance from nearest fresh water well _____ Distance from nearest surface water _____
Pit Liner Thickness: _____ mil Below-Grade Tank: Volume _____ bbls: Construction Material _____

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	MULTIPLE COMPL <input type="checkbox"/>
OTHER: <input type="checkbox"/>	

SUBSEQUENT REPORT OF:

REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
COMMENCE DRILLING OPNS. <input type="checkbox"/>	P AND A <input checked="" type="checkbox"/>
CASING/CEMENT JOB <input type="checkbox"/>	
OTHER: <input type="checkbox"/>	

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

SEE ATTACHED

Approved as to plugging of the Well Bore.  
Liability under bond is retained until  
surface restoration is completed.

RECEIVED  
JAN 22 2008  
HOBBS OCD

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any 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 ☐.

SIGNATURE Cindy Bush TITLE Sr. Regulatory Tech DATE 12-4-2007

Type or print name Cindy Bush E-mail address: cabush@forestoil.com Telephone No. 303-812-1554

For State Use Only

APPROVED BY: Chris Williams TITLE OC DISTRICT SUPERVISOR/GENERAL MANAGER DATE JAN 30 2008

Conditions of Approval (if any): Need to complete C103 form for PA Clean up.

20-05-02622

- 11-16-07 RUPU, DN WH NU BOP tally 1<sup>st</sup> layer of WS.
- 11-19-07 PU & RIH w/ 4 11/16" overshot on 2 7/8" WS. Tagged parted csg. @ 3709', tagged tight place @ 4083 (might be parted csg) tagged fish @ 5815'. Worked over fish & pulled 20,000# over weight & freed up. POH w/overshot. Guide & OD shows marks from parted csg. Grapple was jammed up into body but didn't have any marks on it.
- 11-20-07 PU overshot & tbg. Worked through parted csg @ 3709', 4080', 5815', and 6129' & tagged tight place @ 6516'. Tried to work through. Would pull up to 60,000 to get loose. POH w/overshot. Talked to Gary Wink w/OCD, he wants to get to Perf. RIH w/notched collar, perfs. Sub on tbg to 8666'.
- 11-21-07 Continued RIH, tagged @ 8835'. Worked dn to 8875' Got verbal approval from Gary Wink w/ OCD to P&A well from this point putting plugs at each casing problem. PU 4 jts & SI till Monday.
- 11-26-07 RU Schlumberger, waited on Keys, 2-mud trk-1-w/fresh wtr, 1-vacuum truck, pump 130 bbls of mud ahead, clean lines & pumps batch missing cement to 15.6# start fresh wtr. Spacer 3 bbls. Start mixing tail slurry, end tail slurry fresh wtr spacer 1 bbl start displacement pmp 25 sx "H" cmt w/2% cal. Wash up pumps & lines, SI for 3 hrs. POH 20 stands, start & tag @ 8672' 203' from 8875' start pmp 3 bbls fresh wtr and started pumping 25 sx "H", SI wash pumps & lines, POH 10 stands
- 11-27-07 RBIH 20 jts to tag, no tag run another 20 jts no tag @ 6562' POH 20 jts up to 5912', RU schl, RU key truck w/mud 90 bbls, vacuum trk w/130 bbls F.W. vacuum truck on back on csg. Started pressure, test lines pmp 5 bbls FW spacer pmp 5 bbls cmt 15.6# pmp 2 bbls FW spacer start displacement. 30 bbls "H" cmt w/2% CaCL, mix 3 bbls SI @ 10 disconnect lines and flush lines & pumps, POH 28 jts, SI for 3 hrs cmt to cure, POH 12 jts more & pmp 10 bbls mud. RBIH 34 jts no tag run 6 jts more no tag @ 5881' RU Schl & pmp 10 bbls fw & pmp 50 sx "H" w/3% CaCL & pmp 10 bbls fw
- 11-28-07 RBIH tbg & tag @ 5285[' L.D. 34 jts 2-7/8" tbg RU schl & keys, started to pmp fw caught press to 900# check all lines. All open press to 7000## didn't open, POH tbg 127 jts clear, 11 jts had cmt, LD jts put BP 2 3/8 w/2 3/8 x 4' Perf sub RBIH w/143 jts start plugging procedure.
- 11-29-07 Summary: RU Gray Wireline, shot 4 holes @ 2250', come up hole & shot 4 holes @ 400', release Wireline, RBIH w/ 121.5 jts & tag @ 3762', pull 1 jt. @ 3751' start cement job pmp 10 bbls F.W. 25 sacks C cement w/ 2 % calcium = 6 bbls cement @ 14.8 #, pmp F.W. spacer 4 bbls, displacement w/ mud 15.1 bbls, mix wtr = 3.7 bbls S.I. @ 11:30 a.m. Wait 3 hrs for cement to cure . RBIH to 3536' fill no tag, pmp 10 bbls F.W. & 25 sacks class C w/ 2 % cal. @ 14.8 #, pmp 4 bbls F.W. , displacement 13.5 bbls mud. Flush pumps & lines.
- 11-30-07 Summary: RBIH 2-3/8 x 4' w/ B.P. Perf. sub tag @ 3329' w /107.5 jts POH , L.D. Perf sub, pick up 5-1.2 AD-1 pkr RBIH & set @ 1950' 100' above Perforation 2050', pmp 1 bbl. pres to 1000 # unset pkr POH, L.D. pkr, pick Up 2-3/8 x 4' Perf sub w/ B.P. RBIH to 2079', start cement job pmp 10 bbls F.W. spacer 25 sacks class C cement w/ 2 % calcium = 6 bbls cement @ 14.8 # displacement 4 bbls wtr & 5 bbls of mud & 4 bbls of mix wtr, S.I. 3-hrs Wait for cement to cure, POH tbg & L.D. & left 13 jts in hole @ 411', start Mixing tail slurry to surface, POH 13 jts & L.D. N.D. BOP, top csg w/ cement,

RECEIVED

JAN 22 2008

HOBBS OCD

30-000-02110

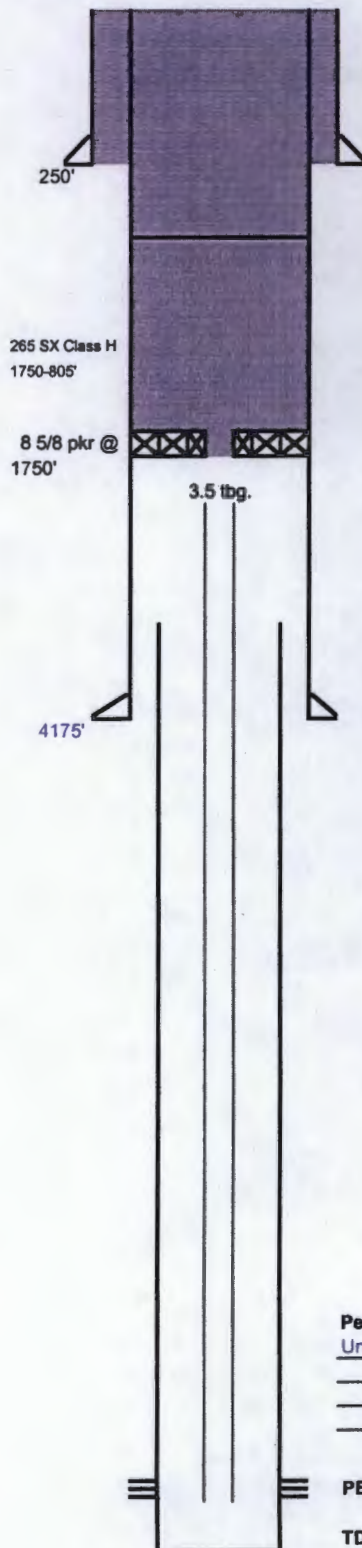
Flush pumps & lines, S.I. cement trk & Key trk , Recco power plant.

12-3-07 Cut off wellhead, Well Plugged and Abandoned



Co. Rep 0  
Well Name UD Sawyer Well No. 3  
Field CSDU  
County Lea  
State NM  
Date 7/18/1986  
Date Comp   
KB

Description	O.D.	Grade	Weight	Depth	Cmt Sx	TOC
Surface Csg	13-3/8	0	40	250	300	Surface
Inter Csg	8 5/8	J-55	36	4175	2000	Surface
Prod Csg	5 1/2	N-80	20	12375	700	8540
Liner O.D.	0	0	0	0	0	0



## Failure Analysis

[illegible]

**Perforations**  
Unknown

PBTD @ \_\_\_\_\_ ETD @ \_\_\_\_\_ 0

TD @ \_\_\_\_\_ 12375

30-02503021

OIL CONSERVATION  
P. O. BOX 2068  
SANTA FE, NEW MEXICO 87501

Form C-100  
Revised 10-1-73


5a. Indicate Type of Lease	
State <input type="checkbox"/>	Fee <input checked="" type="checkbox"/>
5. State Oil & Gas Lease No.	

**SUNDRY NOTICES AND REPORTS ON WELLS**

DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO STOP OR PLUG WELLS TO A DIFFERENT RESERVOIR.  
USE "APPLICATION FOR PERMIT" (FORM C-121) FOR SUCH PROPOSALS.

<input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER	Water Disposal
Operator Texaco Inc.	
Oil Operator P.O. Box 728, Hobbs, NM 88240	
Location of Well ENTER I 2310 FEET FROM THE South LINE AND 990 FEET FROM East LINE, SECTION 34 TOWNSHIP 9S RANGE 36E NMPM.	

7. Unit Agreement Name
8. Firm or Lease Name U.D. Sawyer
9. Well No. 3
10. Field and Pool, or Wildcat Crossroads Devonian
11. County Lea

15. Elevation (Show whether DF, RT, GR, etc.) 4030' DF
---

**Check Appropriate Box To Indicate Nature of Notice, Report or Other Data**

**NOTICE OF INTENTION TO:**

REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>
LY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>
ALTER CASING <input type="checkbox"/>	OTHER <input type="checkbox"/>

**SUBSEQUENT REPORT OF:**

REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
COMMENCE DRILLING OPER.	PLUG AND ABANDONMENT <input checked="" type="checkbox"/>
CASING TEST AND CEMENT JOB <input type="checkbox"/>	OTHER <input type="checkbox"/>

Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed operations.)  
SEE RULE 1103.

1. Rigged up. Installed BOP.
2. Attempted to fish parted 3 1/2" tbg & 5 1/2" csg with 24 hour a day drilling rig. Efforts were unsuccessful & verbal permission to P&A was received from the Hobbs NMOC District Office.
3. Ran 8 5/8" pkr. Spotted w/ 265 sx class "H" cmt 1750-805'. Circ. out 12 sx. cmt.
4. Ran DP to 805' and spotted 265 sx. class "H" cmt. plug 805' to surf. Circ. out 15 sx. cmt. plug and abandoned.

THIS ABOVE IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

Dist. Oper. Man.

September 12, 1985

OIL & GAS INSPECTOR

JUL 18 1986

Jack Griffin



Application Well  
30-005-0143

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

June 06, 2013

MARCELINO GALINDO  
ENHANCED OIL RESOURCES  
200 N. LORAIN, SUITE 1440  
MIDLAND, TX 79701

RE: WATER SAMPLES

Enclosed are the results of analyses for samples received by the laboratory on 05/28/13 11:10.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. 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](http://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,

Caley D. Keene  
Lab Director/Quality Manager

RECEIVED OOD  
2013 JUN 11 A 11:14


**Analytical Results For:**ENHANCED OIL RESOURCES  
200 N. LORAIN, SUITE 1440  
MIDLAND TX, 79701Project: WATER SAMPLES  
Project Number: NONE GIVEN  
Project Manager: MARCELINO GALINDO  
Fax To: (432) 687-0321Reported:  
06-Jun-13 17:49

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
WEST 106	H301253-01	Water	28-May-13 09:00	28-May-13 11:10
WILLIAMS RANCH HOUSE	H301253-02	Water	28-May-13 09:00	28-May-13 11:10

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager



**Analytical Results For:**

 ENHANCED OIL RESOURCES  
 200 N. LORAIN, SUITE 1440  
 MIDLAND TX, 79701

 Project: WATER SAMPLES  
 Project Number: NONE GIVEN  
 Project Manager: MARCELINO GALINDO  
 Fax To: (432) 687-0321

 Reported:  
 06-Jun-13 17:49

**WEST 106**  
**H301253-01 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**
**Inorganic Compounds**

Alkalinity, Bicarbonate	156	5.00	mg/L	1	3040406	DW	28-May-13	310.1	
Alkalinity, Carbonate	ND	0.00	mg/L	1	3040406	DW	28-May-13	310.1	
Chloride*	80.0	4.00	mg/L	1	3052405	DW	28-May-13	4500-Cl-B	
Conductivity*	799	1.00	uS/cm	1	3053107	DW	31-May-13	120.1	
pH*	7.90	0.100	pH Units	1	3053106	DW	31-May-13	150.1	
Sulfate*	212	50.0	mg/L	5	3053103	AP	03-Jun-13	375.4	
TDS*	569	5.00	mg/L	1	3052401	AP	30-May-13	160.1	
Alkalinity, Total*	128	4.00	mg/L	1	3040406	DW	28-May-13	310.1	

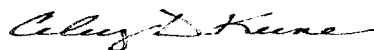
**Green Analytical Laboratories**
**Dissolved Metals by ICP**

Calcium*	91.6	1.00	mg/L	1	B306019	JLM	06-Jun-13	EPA200.7	
Magnesium*	31.2	1.00	mg/L	1	B306019	JLM	06-Jun-13	EPA200.7	
Potassium*	3.92	1.00	mg/L	1	B306019	JLM	06-Jun-13	EPA200.7	
Sodium*	49.1	1.00	mg/L	1	B306019	JLM	06-Jun-13	EPA200.7	

Cardinal Laboratories

\* = Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 ENHANCED OIL RESOURCES  
 200 N. LORAIN, SUITE 1440  
 MIDLAND TX, 79701

 Project: WATER SAMPLES  
 Project Number: NONE GIVEN  
 Project Manager: MARCELINO GALINDO  
 Fax To: (432) 687-0321

 Reported:  
 06-Jun-13 17:49

**WILLIAMS RANCH HOUSE**
**H301253-02 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**
**Inorganic Compounds**

Alkalinity, Bicarbonate	200	5.00	mg/L	1	3040406	DW	28-May-13	310.1	
Alkalinity, Carbonate	ND	0.00	mg/L	1	3040406	DW	28-May-13	310.1	
Chloride*	64.0	4.00	mg/L	1	3052405	DW	28-May-13	4500-Cl-B	
Conductivity*	740	1.00	uS/cm	1	3053107	DW	31-May-13	120.1	
pH*	7.82	0.100	pH Units	1	3053106	DW	31-May-13	150.1	
Sulfate*	176	50.0	mg/L	5	3053103	AP	03-Jun-13	375.4	
TDS*	510	5.00	mg/L	1	3052401	AP	30-May-13	160.1	
Alkalinity, Total*	164	4.00	mg/L	1	3040406	DW	28-May-13	310.1	

**Green Analytical Laboratories**
**Dissolved Metals by ICP**

Calcium*	68.8	1.00	mg/L	1	B306019	JLM	06-Jun-13	EPA200.7	
Magnesium*	23.1	1.00	mg/L	1	B306019	JLM	06-Jun-13	EPA200.7	
Potassium*	4.18	1.00	mg/L	1	B306019	JLM	06-Jun-13	EPA200.7	
Sodium*	74.1	1.00	mg/L	1	B306019	JLM	06-Jun-13	EPA200.7	

Cardinal Laboratories

\* = Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

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

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



---

Celey D. Keene, Lab Director/Quality Manager



## Page 6 of 6

**(575) 393-2326 FAX (575) 393-2476**

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

#54

**CERTIFIED MAIL™ RECEIPT**

(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at [www.usps.com](http://www.usps.com)

NOGAL NM 88341

Postage	\$ 1.12	0708
Certified Fee	\$3.10	05
Return Receipt Fee (Endorsement Required)	\$2.55	
Restricted Delivery Fee (Endorsement Required)	\$0.00	
Total Postage & Fees	\$ 6.77	06/07/2013

Sent To **Thomas J. Good, III**  
Street, Apt. No., or PO Box No. **P.O. Box 130**  
City, State, ZIP+4 **Nogal NM 88341**

PS Form 3800, August 2006

See Reverse for Instructions

**CERTIFIED MAIL™ RECEIPT**

(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at [www.usps.com](http://www.usps.com)

OKLAHOMA CITY OK 73102

Postage	\$ 1.12	0708
Certified Fee	\$3.10	05
Return Receipt Fee (Endorsement Required)	\$2.55	
Restricted Delivery Fee (Endorsement Required)	\$0.00	
Total Postage & Fees	\$ 6.77	06/07/2013

Sent To **Devon Energy Prod. Co. LP**  
Street, Apt. No., or PO Box No. **333 W. Sheridan Ave**  
City, State, ZIP+4 **Oklahoma City OK 73102**

PS Form 3800, August 2006

See Reverse for Instructions

**U.S. Postal Service™****CERTIFIED MAIL™ RECEIPT**

(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at [www.usps.com](http://www.usps.com)

DIVIDE CO 80814

Postage	\$ 1.12	0708
Certified Fee	\$3.10	05
Return Receipt Fee (Endorsement Required)	\$2.55	
Restricted Delivery Fee (Endorsement Required)	\$0.00	
Total Postage & Fees	\$ 6.77	06/07/2013

Sent To **Beja Embury Foley**  
Street, Apt. No., or PO Box No. **PO Box 331**  
City, State, ZIP+4 **Divide, CO 80814**

PS Form 3800, August 2006

See Reverse for Instructions

**U.S. Postal Service™****CERTIFIED MAIL™ RECEIPT**

(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at [www.usps.com](http://www.usps.com)

ROSWELL NM 88202

Postage	\$ 1.12	0708
Certified Fee	\$3.10	05
Return Receipt Fee (Endorsement Required)	\$2.55	
Restricted Delivery Fee (Endorsement Required)	\$0.00	
Total Postage & Fees	\$ 6.77	06/07/2013

Sent To **T. J. M. Good Minerals LLC**  
Street, Apt. No., or PO Box No. **P.O. Box 1098**  
City, State, ZIP+4 **Roswell, NM 88202**

PS Form 3800, August 2006

See Reverse for Instructions

**U.S. Postal Service™****CERTIFIED MAIL™ RECEIPT**

(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at [www.usps.com](http://www.usps.com)

ROSWELL NM 88202

Postage	\$ 1.12	0708
Certified Fee	\$3.10	05
Return Receipt Fee (Endorsement Required)	\$2.55	
Restricted Delivery Fee (Endorsement Required)	\$0.00	
Total Postage & Fees	\$ 6.77	06/07/2013

Sent To **Candace Good Jacobson Rev. Trust**  
Street, Apt. No., or PO Box No. **P.O. Box 1090**  
City, State, ZIP+4 **Roswell, NM 88202**

PS Form 3800, August 2006

See Reverse for Instructions

**U.S. Postal Service™****CERTIFIED MAIL™ RECEIPT**

(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at [www.usps.com](http://www.usps.com)

SEAGRAVES TX 79359

Postage	\$ 1.12	0708
Certified Fee	\$3.10	05
Return Receipt Fee (Endorsement Required)	\$2.55	
Restricted Delivery Fee (Endorsement Required)	\$0.00	
Total Postage & Fees	\$ 6.77	06/07/2013

Sent To **Williams Ranch**  
Street, Apt. No., or PO Box No. **PO Box 1172**  
City, State, ZIP+4 **Seagraves, TX 79359**

PS Form 3800, August 2006

See Reverse for Instructions



## CROSSROADS #106 INJ. APPLICATION

<b>SURFACE OWNER</b> ALL OF SECTIONS 26 & 35 - T9S-R36E, LEA CO., NM - 1280.00 GR. ACRES
Joe Edd Williams and wife Mary Williams, Richard D. Williams and David R. Williams, d/b/a WILLIAMS RANCH (100%) P.O. Box 1172 Seagraves, TX 77056
<b>MINERAL OWNERS</b> ALL SECTION 26 & N2 SECTION 35 - T9S-R36E, LEA CO., NM - 960.00 GR. ACRES
Devon Energy Production Company, L.P. - Santa Fe Gold (100%)
N2S2 SECTION 35 - T9S - R36E, LEA CO., NM - 160.00 GR. ACRES
Candace Good Jacobson Revocable Trust (37.5%) Thomas Jefferson Good, III (37.5%) T J & M Good Minerals, LLC (Formerly Myrl Sawyer Good Revocable Trust) (12.5%) Beja Embry Foky (12.5%)
S2S2 SECTION 35 - T9S - R36E, LEA CO., NM - 160.00 GR. ACRES
U.S.A. Bureau of Land Management (100%) (Unleased)

Prepared By: Tony Krakauskas, CPL - Land Manager for EOR Operating Co.

Dated: August 2, 2012



2012 JUN 11 A 11:14

RECEIVED OGD

REC'D JUN 07 2013

# Advertising Receipt

**Hobbs Daily News-Sun**

 201 N Thorp  
 P. O. Box 936  
 Hobbs, NM 88241

Phone: 575-393-2123

Fax: 575-397-0610

 EOR OPERATING COMPANY  
 KELLY COX  
 200 NORTH LORAIN, STE 1440  
 MIDLAND, TX 79701

**Cust #:** 67109327  
**Ad #:** 00115900  
**Phone:** (432)687-0303  
**Date:** 06/03/2013

**Ad taker:** C2      **Salesperson:**
**Sort Line:** 28187**Classification** 672

Description	Start	Stop	Ins.	Cost/Day	Total
07 07 Daily News-Sun	06/04/2013	06/04/2013	1	29.35	29.35
AFF2 Affidavits (Legals)					6.00
BOLD bold					1.00

**Ad Text:**
 Legal Notice  
 June 4, 2013
**Payment Reference:**

NOTICE is hereby given that on June 4, 2013, EOR Operating Company, Attn: Jana True, 200 N. Loraine, STE 1440, Midland, TX 79701 at 432-687-0303, filed an application for authorization to inject for well Crossroads Siluro Devonian Unit #106 located 1980 feet from the north line and 990 feet from the east line of Section 34, Township 9S, Range 36E to further injection rates of produced lease water from the Crossroads Siluro Devonian Unit. Proposed maximum injection rate is 8000 barrels per day with a maximum injection pressure of 1500 psi. Crossroads Siluro Devonian Unit #106 will be on a

**Total:** 36.35**Tax:** 2.48**Net:** 38.83**Prepaid:** 0.00**Total Due:** 38.83

# Affidavit of Publication

State of New Mexico,  
County of Lea.

I, DANIEL RUSSELL  
PUBLISHER

of the Hobbs News-Sun, a  
newspaper published at Hobbs, New  
Mexico, do solemnly swear that the  
clipping attached hereto was  
published in the regular and entire  
issue of said newspaper, and not a  
supplement thereof for a period

of 1 issue(s).

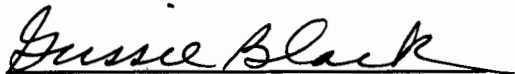
Beginning with the issue dated  
June 04, 2013

and ending with the issue dated  
June 04, 2013



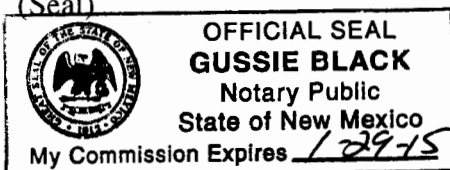
PUBLISHER

Sworn and subscribed to before me  
this 4th day of  
June, 2013



Notary Public

My commission expires  
January 29, 2015  
(Seal)



This newspaper is duly qualified to  
publish legal notices or  
advertisements within the meaning of  
Section 3, Chapter 167, Laws of  
1937 and payment of fees for said  
publication has been made.

## Legal Notice June 4, 2013

NOTICE is hereby given that on June 4, 2013, EOR  
Operating Company, Attn: Jana True, 200 N. Lorraine, STE  
1440, Midland, TX 79701 at 432-687-0303, filed an  
application for authorization to inject for well Crossroads  
Siluro Devonian Unit #106 located 1980 feet from the north  
line and 990 feet from the east line of Section 34, Township  
9S, Range 36E to further injection rates of produced lease  
water from the Crossroads Siluro Devonian Unit. Proposed  
maximum injection rate is 8000 barrels per day with a  
maximum injection pressure of 1500 psi. Crossroads Siluro  
Devonian Unit #106 will be on a closed loop system. Only  
water produced from the Devonian formation will be  
injected into the Devonian perforations 12,136'-12,146'.

Any interested party must file objections or requests for  
hearing with the Oil Conservation Division, 1220 South St.  
Francis Dr., Santa Fe, New Mexico 87505, within 15 days.  
#28187

67109327

00115900

KELLY COX  
EOR OPERATING COMPANY  
200 NORTH LORRAINE, STE 1440  
MIDLAND, TX 79701

STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION DIVISION

RECEIVED OCD  
2013 JUN 11 A 11:14

NMOCD - ACO- 270

IN THE MATTER OF EOR OPERATING COMPANY,

Respondent.

AGREED COMPLIANCE ORDER

Pursuant to the New Mexico Oil and Gas Act, NMSA 1978, Sections 70-2-1 through 70-2-38, as amended ("Act") and OCD Rule 19.15.5.10(E) NMAC, the Director of the Oil Conservation Division ("OCD") and EOR Operating Company ("EOR" or "Operator") enter into this Agreed Compliance Order ("Order" or "ACO") under which Operator agrees to bring the wells identified herein into compliance with the Act and OCD Rule 19.15.25.8 NMAC as provided by the terms and conditions of this Order, and understands that the OCD may decide not to enter into any further agreed compliance orders with Operator if Operator fails to meet the schedule set out in this Order

FINDINGS

1. The OCD is the state division charged with administration and enforcement of the Act, and rules and orders adopted pursuant to the Act.
2. Operator is a corporation operating wells in New Mexico under OGRID 257420.
3. Operator's business plans in the next **six months** include:
  - a. Either converting the Crossroads #106 (API 30-025-24143) or the Crossroads #302 (API 30-025-03608) from a producing oil well to an injector or re-entering the UD Sawyer #10 (API 30-025-24285) in order to complete the well as an injector.
  - b. Converting the UD Sawyer #1 (API 30-025-03629) from an injector to a Devonian production well.
  - c. Converting the MSU #197 (API 30-041-00140) from an oil producer to an injector.
  - d. Converting the MSU #123 (API 30-041-00030) from an oil producer to an injector.
  - e. Re-entry of the Milnesand Unit #523 (API 30-041-20648) and the Milnesand Unit #525 (API 30-041-20650) in order to re-drill and complete the well as a lateral.
4. Operator would like to obtain permits to inject for its injectors and would like to obtain allowables for its producers. Operator represents to the OCD that this

ACO

EOR Operating Company OGRID 257420

Page 1 of 6

would allow Operator to raise more cash which in turn would allow it to bring more wells into compliance.

5. If an operator is out of compliance with 19.15.5.9 NMAC, the OCD must deny applications for permits to inject, 19.15.26.8A NMAC, and must deny applications for allowables, 19.15.16.20A NMAC.
6. Operator is currently out of compliance with 19.15.5.9.A(4) NMAC because it has too many wells out of compliance with 19.15.25.8 NMAC (the inactive well rule) that are not subject to an agreed compliance order setting a schedule for bringing the wells into compliance with the inactive well rule and imposing sanctions if the schedule is not met. See 19.15.5.9.A(4) NMAC.
7. As an operator of 84 wells, to be in compliance with 19.15.5.9.A(4) NMAC, Operator may have no more than 2 wells out of compliance with the inactive well rule. According to the inactive well list kept pursuant to 19.15.5.9(F) NMAC, Operator has 17 wells out of compliance with the inactive well rule.
8. Operator is the operator of the wells in Exhibit "A." Seven of the oldest inactive wells identified in Exhibit "A" have been inactive since 1992 (1992-wells).
9. The OCD would like Operator to focus on restoring the wells to oil or gas production, injection or other OCD-approved beneficial use, or plug them, rather than continuing to remain idle.
10. Operator represents that it can bring the following wells into compliance with 19.15.25.8 NMAC, and that it wants to plug or reactivate the wells.
  - a. MSU #311 (API 30-041-10060)
  - b. MSU #26 (API 30-041-10149)

### CONCLUSIONS

1. The OCD has jurisdiction over the parties and subject matter in this proceeding.
2. The wells identified in Exhibit "A" are out of compliance with OCD Rule 19.15.25.8 NMAC.
3. As operator of the wells identified in Exhibit "A," Operator is responsible for bringing those wells into compliance with OCD Rule 19.15.25.8 NMAC.
4. The OCD and Operator enter into this Order so that Operator may obtain injection permits and allowables for its wells, in exchange for Operator bringing 2 of the wells identified above in paragraph 10 into compliance with 19.15.25.8 NMAC in accordance with the terms of this Order.

ACO

EOR Operating Company OGRID 257420

Page 2 of 6



## ORDER

1. Operator agrees to plug the wellbore of the Milnesand Unit #311, in accordance with OCD Rule 19.15.25, **and file a C-103 describing the completed work**, by November 20, 2013.
2. Operator agrees to bring the MSU #26 into compliance with 19.15.25.8 NMAC by November 20, 2013 by
  - (a) restoring the well to oil or gas production or other OCD-approved beneficial use **and filing a C-115 documenting such production or use**;
  - (b) causing the wellbore to be plugged in accordance with OCD Rule 19.15.25.10(B) NMAC **and filing a C-103 describing the completed work**; or
  - (c) placing the well on approved temporary abandonment status in accordance with OCD Rule 19.15.25.12 NMAC through 19.15.25.14 NMAC.
3. Swabbing is not “production” or “beneficial use” for purposes of this Order.
4. Operator shall file a compliance report identifying each well returned to compliance, stating the date it was returned to compliance and describing how the well was returned to compliance (restored to production or other approved beneficial use if applicable, plugged wellbore, or approved temporary abandonment status if applicable). The written compliance report must be mailed or e-mailed to the OCD’s Enforcement and Compliance Manager so that it is **received by** the compliance deadline of November 20, 2013.
5. This Order shall be considered an “Inactive Well Agreed Compliance Order” under 19.15.5.9(F)(1)(c) NMAC for the limited purpose of removing the wells identified in Exhibit “A” from consideration in determining compliance with 19.15.5.9(A)(4) NMAC for:
  - Applications for injection permits for Operator’s injection wells;
  - Requests for allowables for Operator’s wells.
6. This Order shall not be considered an “Inactive Well Agreed Compliance Order” under 19.15.5.9(F)(1)(c) NMAC for any other purpose, and the wells identified in Exhibit “A” shall not be removed from the inactive well list kept pursuant to 19.15.5.9(F) NMAC.
7. This Order shall expire November 20, 2013.
8. Operator may negotiate with the OCD for an agreed compliance order to take effect when this Order expires. It will be within the OCD’s discretion whether to

ACO

EOR Operating Company OGRID 257420

Page 3 of 6

enter into an agreed compliance order with Operator. Factors in the OCD's determination shall include:

- Operator's compliance with OCD financial assurance requirements;
- Operator's compliance with the terms of this Agreed Compliance Order, including whether Operator successfully returned the wells identified in Ordering Paragraph #1 and Ordering Paragraph #2 to compliance by November 20, 2013, filed the necessary paperwork to document that compliance, and filed a timely compliance report;
- Whether Operator returned additional wells to compliance beyond those required under the terms of this Order;
- Whether Operator prevented wells from falling out of compliance with the inactive well rule during the time period covered by this Order; and
- Whether Operator proposes an acceptable plan for returning its inactive wells to compliance.

9. Operator understands that if it fails to meet the terms of this Order it is unlikely that the OCD will enter into further agreed compliance orders with Operator for inactive wells.

10. By signing this Order, Operator expressly:

(a) acknowledges the correctness of the Findings and Conclusions set forth in this Order;

(b) agrees that by November 20, 2013, it will

- plug the wellbore of the (1) MSU #311 in accordance with OCD Rule 19.15.25.10(B) NMAC and file a C-103 describing the completed work;
- bring MSU #26 into compliance by November 20, 2013 as defined by this Order;
- File the appropriate paperwork to document the compliance; and
- Submit a written compliance report; and

(c) waives any right, pursuant to the Oil and Gas Act or otherwise, to an appeal from this Order, or to a hearing either prior to or subsequent to the entry of this Order.

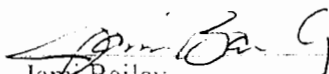
12. The OCD reserves the right to file an application for hearing to obtain authority to plug any well identified in Exhibit "A" and forfeit the applicable financial assurance if the well poses an immediate environmental threat.

Done at Santa Fe, New Mexico this 23<sup>rd</sup> day of May, 2013

ACO

EOR Operating Company OGRID 257420

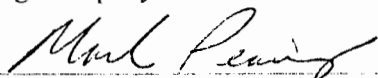
Page 4 of 6

By:   
Janin Bailey  
Director, Oil Conservation Division

ACCEPTANCE

EOR Operating Company hereby accepts the foregoing Order, and agrees to all of the terms and provisions set forth in that Order.

EOR Operating Company

By:   
(Please print name) MARK PEAVY  
Title: VP CO<sub>2</sub> projects  
Date: 5/17/13

# Exhibit A to Agreed Compliance Order for EOR Operating Company

Total Well Count: 84 Inactive Well Count: 17

Printed On: Friday, May 17 2013

District	API	Well	ULSTR	OCD Unit	OGRID	Operator	Lease Type	Well Type	Last Production	Formation/Notes	Status	TA Exp Date
1	30-025-24188	CROSSROADS SILURO DEVONIAN UNIT #202Y	F 27-09S-36E	F	257420	EOR OPERATING COMPANY	P	G	06/2009			
1	30-025-24144	CROSSROADS SILURO DEVONIAN UNIT #203	C 27-09S-36E	C	257420	EOR OPERATING COMPANY	P	G	12/2008	10/09/08 RET TO PROD		
1	30-041-10104	HORTON FEDERAL #004	F 30-08S-35E	F	257420	EOR OPERATING COMPANY	F	I	02/2009			
1	30-041-10119	HORTON FEDERAL #025	F 29-08S-35E	F	257420	EOR OPERATING COMPANY	F	I	03/2009			
1	30-041-20756	HORTON FEDERAL #032	H 30-08S-35E	H	257420	EOR OPERATING COMPANY	F	I	02/2009	SAN ANDRES	T	7/9/2004
1	30-041-20821	HORTON FEDERAL #038	H-30-08S-35E	H	257420	EOR OPERATING COMPANY	F	I	05/2011	INT RWTP 08/29/2011		
1	30-041-10148	MILNESAND UNIT #025	O 19-08S-35E	O	257420	EOR OPERATING COMPANY	F	O	05/2000	INT TO RUN MIT BY 01/04/2010 BLM	T	6/30/1994
1	30-041-10149	MILNESAND UNIT #026	P 19-08S-35E	P	257420	EOR OPERATING COMPANY	F	I	12/1992	INT TO RUN MIT BY 01/04/2010 BLM	T	4/15/2009
1	30-041-00028	MILNESAND UNIT #121	A 7-08S-35E	M	257420	EOR OPERATING COMPANY	P	O	06/2011			
1	30-041-10044	MILNESAND UNIT #134	J 7-08S-35E	J	257420	EOR OPERATING COMPANY	P	O	02/1993	SAN ANDRES	T	6/30/1994
1	30-041-00245	MILNESAND UNIT #164	I 12-08S-34E	I	257420	EOR OPERATING COMPANY	P	O	12/1992		T	6/30/1994
1	30-041-00083	MILNESAND UNIT #191	I 13-08S-34E	I	257420	EOR OPERATING COMPANY	P	O	12/2007			
1	30-041-00084	MILNESAND UNIT #193	O 13-08S-34E	O	257420	EOR OPERATING COMPANY	P	O	07/2003	SAN ANDRES		
1	30-041-10181	MILNESAND UNIT #202	A 25-08S-34E	A	257420	EOR OPERATING COMPANY	P	O	01/2003			
1	30-041-10059	MILNESAND UNIT #310	F 19-08S-35E	F	257420	EOR OPERATING COMPANY	F	I	05/2000	SAN ANDRES TA EXP 06/02/2010 PER BLM	T	6/2/2010
1	30-041-10060	MILNESAND UNIT #311	B-19-08S-35E	B	257420	EOR OPERATING COMPANY	F	I	02/2009	INT TO RWTP BY 12/4/2012 BLM	T	6/2/2010
1	30-041-00262	MILNESAND UNIT #515	I 24-08S-34E	I	257420	EOR OPERATING COMPANY	F	O	05/2000	INT OT RUN MIT BY 01/04/10 BLM		

WHERE Ogrid:257420, County:All, District:All, Township:All, Range:All, Section:All, Production(months):15, Excludes Wells Under ACOI, Excludes Wells in Approved TA Period

EOR Operating Company

By:

Title:

*Mark Pearcy*  
*VP CO2 Projects*

ACO

EOR Operating Company OGRID 257420

Page 6 of 6

Injection Permit Checklist: Received 06/11/13 First Email Date: - Final Reply Date: 07/22/13 Suspended?: -

Issued Permit: Type WFX PMX / SWD Number: 914 Permit Date: 07/22/2013 Legacy Permits or Orders: R-11640-unit  
R-11641-WF

Well No. 106 Well Name(s): Crossroads Siluro-Devonian Unit

API : 30-0 25-24143 Spud Date: 6-11-1972 New/Old: (B) (UIC CI II Primacy March 7, 1982)

Footages 1980 FNL/980 FEL Lot - Unit H Sec 34 Tsp 9S Rge 36E County Lea

General Location: 1/6 miles north of Ratum Pool: Original: Siluro-Devonian  
(some injection interval) Pool No.: 13490

Operator: Enhanced Oil Recovery/EOR operating OGRID: 257420 Contact: -

COMPLIANCE RULE 5.9: Inactive Wells: 2 Total Wells: 84 Fincl Assur: OK Compl. Order? (Yes) IS 5.9 OK? -

\* Agreed Compliance Order NMACD-ACO-270  
Well File Reviewed: ✓ Current Status: Producer in Unit

Planned Rehab Work to Well: Limited - use existing perfs - well part of producers/high water

Well Diagrams: Proposed ✓ Before Conversion ✓ After Conversion ✓ Are Elogs in Imaging?: Yes + Sat. Pool Log w/Applicator

Well Construction Details:	Sizes (in) Borehole / Pipe	Setting Depths (ft)	Stage Tool	Cement Sx or Cf	Cement Top and Determination Method
Planned <u>-</u> or Existing <u>Cond</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Planned <u>-</u> or Existing <u>Surface</u>	<u>14 1/2 / 11 3/4</u>	<u>0 to 350</u>	<u>No</u>	<u>250</u>	<u>Cir to surface</u>
Planned <u>-</u> or Existing <u>Interm</u>	<u>11 / 8 5/8</u>	<u>0 to 500</u>	<u>No</u>	<u>1220</u>	<u>Cir to surface</u>
Planned <u>-</u> or Existing <u>LongSt</u>	<u>7 7/8 / 5 1/2</u>	<u>4837 to 12175</u>	<u>No</u>	<u>700 + 400</u>	<u>\$6000 to 12175</u>
Planned <u>-</u> or Existing <u>Liner</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>(Temp survey 07/20/72)</u>
Planned <u>-</u> or Existing <u>✓ OK (PERF)</u>	<u>7 7/8 5 1/2</u>	<u>12136 to 12146</u>	<u>-</u>	<u>-</u>	<u>-</u>

Injection Strat Column:	Depths (ft)	Formation	Tops?	Completion/Ops Details:
Above Top of Inject Formation	<u>-</u>	<u>-</u>	<u>-</u>	Drilled TD <u>12175</u> PBTD <u>12172</u>
Above Top of Inject Formation	<u>+16</u>	<u>Missippian</u>	<u>5</u>	Open Hole <u>-</u> or <u>(Perfs X)</u>
Proposed Interval TOP:	<u>12136</u>	<u>Siluro-Devonian</u>	<u>11580?</u>	Tubing Size <u>2 7/8</u> Inter Coated? <u>Yes</u>
Proposed Interval BOTTOM:	<u>12146</u>	<u>-</u>	<u>(12130)</u>	Proposed Packer Depth <u>12060 ±</u>
Below Bottom of Inject Formation	<u>(In Type Section)</u>	<u>Granite/PE</u>	<u>-</u>	Min Packer Depth <u>12036</u> (100-ft limit)
Below Bottom of Inject Formation	<u>-</u>	<u>-</u>	<u>-</u>	Proposed Max. Surface Press <u>1500</u>
				Calc. Injt Press <u>2427</u> (0.2 psi per ft)
				Calc. FPP <u>-</u> (0.65 psi per ft)

#### AOR: Hydrologic and Geologic Information

POTASH: R-111-P No Noticed? - BLM Sec Ord No WIPPA No Noticed? - SALADO: T: NA B: NA CLIFF HOUSE NA

Fresh Water: Max Depth: 4001-3900 FW Formation Ogallala Wells? No Analysis? Yes Hydrologic Affirm Statement 07/22/2013

Disposal Fluid: Formation Source(s) Produced water - Siluro-Dev On Lease ✓ Only from Operator - or Commercial -

Disposal Interval: Injection Rate (AVE/MAX) 5000/8000 Protectable Waters: No CAPITAN REEF: thru No adjacent No

H/C Potential: Producing Interval? Yes Formerly Producing? Yes Method: E Log / Mudlog/DST / Depleted / Other High water

AOR Wells: 1/2-M Radius Map? Yes Well List? Yes Total No. Wells Penetrating Interval: 10

Penetrating Wells: No. Active Wells 3 Num Repairs? 0 on which well(s)? - Diagrams? Yes

Penetrating Wells: No. P&A Wells 7 Num Repairs? 0 on which well(s)? - Diagrams? Yes

NOTICE: Newspaper Date June 4, 2013 Mineral Owner Dixon / Lee Surface Owner Williams Branch N. Date 06/07/2013

RULE 26.7(A): Identified Tracts? ✓ Affected Persons: Jacobson Trust / TS4M minerals [four RPs] - private N. Date 06/07/2013

Permit Conditions: Fully / Good

Issues: -