

|                        |          |                    |                          |                 |                           |
|------------------------|----------|--------------------|--------------------------|-----------------|---------------------------|
| DATE IN <u>1.20.11</u> | SUSPENSE | ENGINEER <u>TW</u> | LOGGED IN <u>1.20.11</u> | TYPE <u>PMX</u> | APP NO. <u>1102053277</u> |
|------------------------|----------|--------------------|--------------------------|-----------------|---------------------------|

ABOVE THIS LINE FOR DIVISION USE ONLY

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



*Armstrong 1092*  
*Mobil Lea State #3*

**ADMINISTRATIVE APPLICATION CHECKLIST** *30-075-32105*

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]**

*Lea -*  
*State -*  
*Hobbs*

- [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 \_\_\_\_\_

*Property 1578*  
*R-10541*

*6-27-96*  
*Added new Part*  
*5578-5726*

- [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

*orig w/d*  
*Release of Hope*  
*5894-6098*  
*9-93*

- [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.**

BruceA. Stubbs

*Bruce A. Stubbs*

Vice President-Operations

01/20/2011

Print or Type Name

Signature

Title

Date

bastubbs@armstrongenergycorp.com  
 e-mail Address

*Part 5*  
*5918-*  
*5936*



500 North Main Street, Suite 200  
P.O. Box 1973  
Roswell, New Mexico 88202-1973  
(575) 625-2222  
Fax (575) 622-2512

RECEIVED OCD

January 17, 2011

2011 JAN 19 P 1:25

Mr. Terry G. Warnell  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, New Mexico 87505

Re: Mobil Lea State Pressure Maintenance Project  
Order No.: R-10541-A  
SW/4 Section 2-T20S-R34E  
Lea County, New Mexico

Dear Sir:


Armstrong Energy Corporation operates the Mobil Lea State Pressure Maintenance Project located in the SW/4 of Section 2-T20S-R34E, Lea County, New Mexico. Water injection was initiated into the Mobil Lea State #8 well in September 2002. Through July 2010 a total of 1,490,523 barrels of water has been injected into the Cherry Canyon formation for pressure maintenance. Armstrong proposes to expand injection into the Cherry Canyon formation by converting the Mobil Lea State #3 well to injection. The Mobil Lea State #3 was completed as a Cherry Canyon producer in 1993 and has since watered out. The #3 well will add injection support to the southwest side of the reservoir to enhance production from the updip wells.

Enclosed are an original and one copy of the C-108 "Application for Authorization to Inject" for the conversion of the Mobil Lea State #3 to injection. Injection will be into perforations in the interval 5578'-5936'; the anticipated injection rate is 500 BWPD at 1000 psi. Also enclosed is proof of mailing by Certified, Return-Receipt mail to each offset operator and surface owner along with a copy of the Affidavit of Publication in the Hobbs News-Sun newspaper.

Should you have any questions, please contact Bruce Stubbs with Armstrong Energy Corporation at 575-625-2222.

Sincerely,

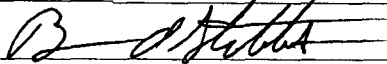
ARMSTRONG ENERGY CORPORATION

  
\_\_\_\_\_  
Bruce A. Stubbs  
Vice President – Operations

Enclosures

cc: Oil Conservation Division  
1625 N. French Drive  
Hobbs, NM 88240

**APPLICATION FOR AUTHORIZATION TO INJECT**

- I. PURPOSE: Secondary Recovery ☒ Pressure Maintenance Disposal Storage  
Application qualifies for administrative approval? ☒ Yes No
- II. OPERATOR: ARMSTRONG ENERGY CORPORATION  
ADDRESS: P.O. BOX 1973, ROSWELL, NM 88202-1973  
CONTACT PARTY: BRUCE STUBBS PHONE: 575-625-2222
- 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: R-10541 & R-10541-A
- 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: BRUCE STUBBS TITLE: VICE PRESIDENT  
SIGNATURE:  DATE: 12-28-2010  
E-MAIL ADDRESS: bastubbs@armstrongenergycorp.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.

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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.

## INJECTION WELL DATA SHEET

OPERATOR: ARMSTRONG ENERGY CORPORATIONWELL NAME & NUMBER: MOBIL LEA STATE #3WELL LOCATION: 990' FSL & 870' FWL  
FOOTAGE LOCATION

UNIT LETTER

M

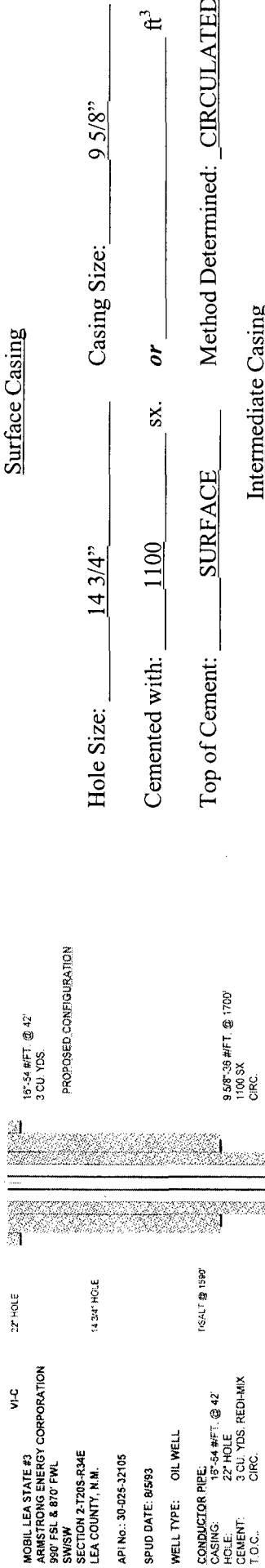
2

T20S

R34E

TOWNSHIP

RANGE

WELLBORE SCHEMATICWELL CONSTRUCTION DATASurface CasingHole Size: 14 3/4" Casing Size: 9 5/8"Cemented with: 1100 SX. or ft<sup>3</sup>Top of Cement: SURFACE Method Determined: CIRCULATEDIntermediate CasingHole Size:                      Casing Size:                     Cemented with:                      SX. or ft<sup>3</sup>Top of Cement:                      Method Determined:                     Production CasingHole Size: 8 3/4" & 7 7/8" Casing Size: 5 1/2"Cemented with: 414 SX. + 1600 SX. or ft<sup>3</sup>Top of Cement: SURFACE Method Determined: CIRCULATEDTotal Depth: 6300'Injection Interval5578' feet to 5936', Perforated, 50 shots

(Perforated or Open Hole; indicate which)

**INJECTION WELL DATA SHEET**

Tubing Size: 2 3/8"-4.7 #/FT., EUE, 8RD, J-55 Lining Material: CERAM-KOTE 54

Type of Packer: 5 1/2" BAKER LOCKSET, NICKLE PLATED OR PLASTIC COATED

Packer Setting Depth: +/-5530'

Other Type of Tubing/Casing Seal (if applicable): N.A.

Additional Data

1. Is this a new well drilled for injection? Yes X No

If no, for what purpose was the well originally drilled? CHERRY CANYON OIL WELL

2. Name of the Injection Formation: CHERRY CANYON

3. Name of Field or Pool (if applicable): NORTHEAST LEA DELAWARE

4. 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. NO

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: QUEEN 4800-5000', BONE SPRING 9476'-10258',

MORROW 13,034-13462', DEVONIAN 14,360'

## ARMSTRONG ENERGY CORPORATION

MOBIL LEA FEDERAL #3 PMW  
990' FSL & 870 FWL  
SECTION 2-T20S-R34E  
LEA COUNTY, NEW MEXICO

**III. PROPOSED PRESSURE MAINTENANCE WELL DATA:****A.**

CONDUCTOR PIPE: 16"-54 #/FT SET @ 42', CEMENT TO SURFACE W/ 3 CU. YDS. REDI-MIX

SURFACE CASING: 9 5/8"-36 #/FT. SET @ 1700', CEMENTED TO SURFACE W/ 1100 SX

LONG STRING CASING: 5 1/2"-15.5 #/FT. SET @ 6300', CEMENTED IN TWO STAGES WITH A D.V. TOOL @ 5126'  
1ST STAGE - 414 SX, CIRCULATED TO D.V. TOOL  
2ND STAGE - 1600 SX CIRCULATED TO SURFACE

TOTAL DEPTH: 6300'

TUBING: 2 3/8"-4.7 #/FT., J-55, W/ FREECOM CERAMIC COATING

PACKER: BAKER LOCKSET W/ ON-OFF TOOL AND PROFILE NIPPLE, SET @ 5850'

**B.**

INJECTION FORMATION: DELAWARE - CHERRY CANYON  
(AS SHOWN ON MOBIL LEA STATE #3 LOG FROM 5578'-5936')

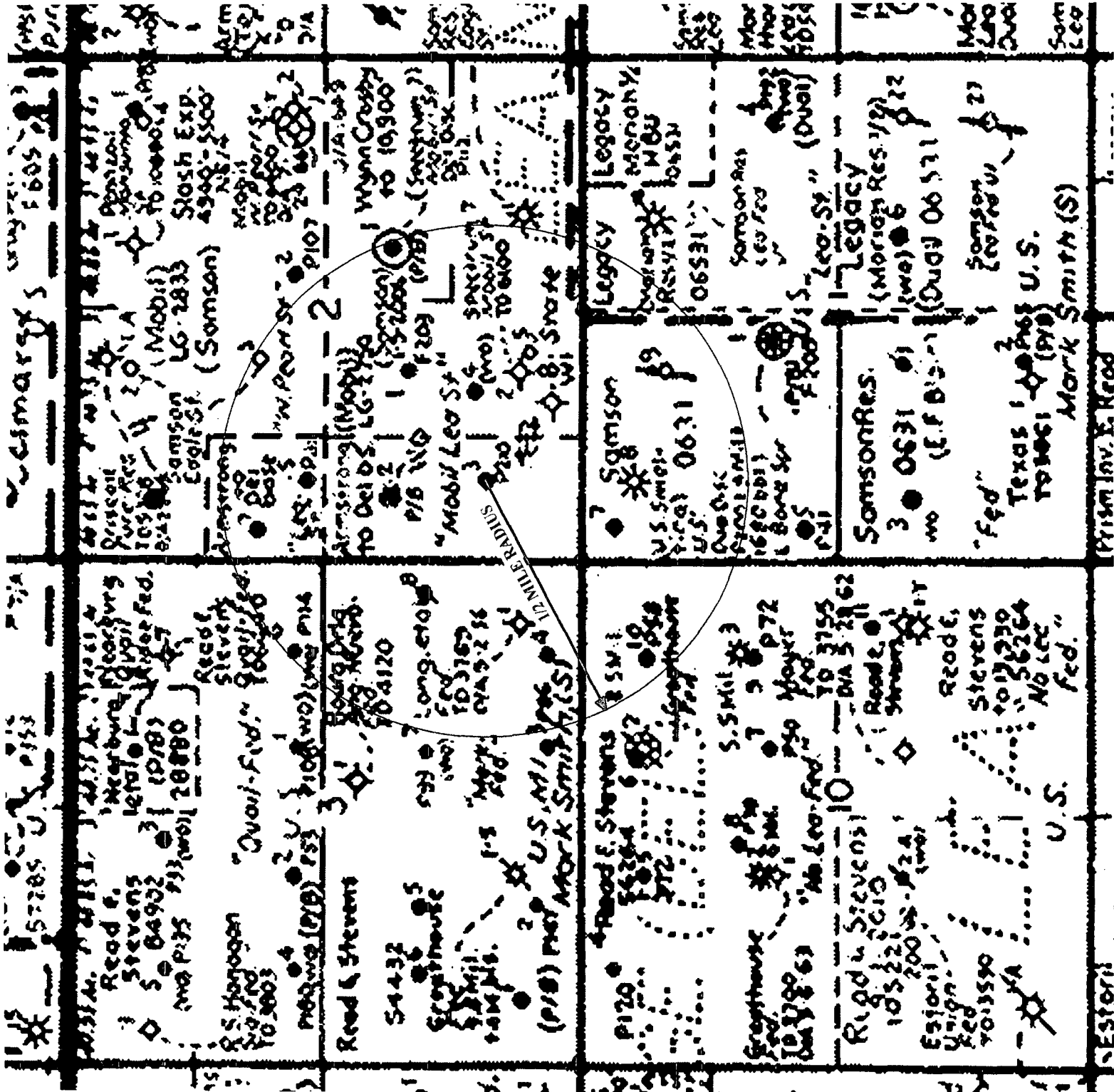
FIELD: NORTHEAST LEA DELAWARE

INJECTION INTERVAL: 5578'-5936', CASED HOLE

ORIGINAL WELL PURPOSE: THIS WELL WAS DRILLED AS A CHERRY CANYON PRODUCING WELL.

OTHER PERFORATED INTERVALS: NONE

DEPTHS AND NAMES OF OTHER OIL & GAS ZONES IN THE AREA: DELAWARE -CHERRY CANYON SAND - 5456'-5950'  
BONE SPRINGS - 9476'-10258'  
MORROW - 13034'-13462'  
DEVONIAN - 14360'



WELLS WITHIN  
1/2 MILE OF THE  
MOBIL LEA STATE #3  
990' FSL & 870' FWL  
SEC. 2-T20S-R34E  
LEA COUNTY, NM



22" HOLE

16"-54 #/FT. @ 42'  
3 CU. YDS. REDI-MIX

MOBIL LEA STATE #1  
ARMSTRONG ENERGY CORPORATION  
1800' FSL & 1980' FWL  
NE/SW  
SECTION 2-T20S-R34E  
LEA COUNTY, N.M.

API No.: 30-025-31696

SPUD DATE: 9/30/92

WELL TYPE: OIL WELL

CONDUCTOR PIPE:

CASING: 16"-54 #/FT. @ 42'  
HOLE: 22" HOLE  
CEMENT: 3 CU. YDS. REDI-MIX  
T.O.C.: CIRC.

SURFACE CASING:

CASING: 9 5/8"-36 #/FT. @ 1697'  
HOLE: 14 3/4" HOLE  
CEMENT: 1300 SX.  
T.O.C.: CIRC.

LONG STRING:

CASING: 5 1/2"-15.5 #/FT. @ 6289'  
HOLE: 8 3/4" & 7 7/8" HOLE  
CEMENT: 290 SX  
2ND STAGE: D.V. TOOL @ 5345'  
CEMENT: 1600 SX.  
T.O.C.: CIRC.  
TOTAL DEPTH: 6289'

PRODUCTION ZONES: CHERRY CANYON

## DISTANCE FROM MOBIL LEA STATE #3

N-S 810 FT.  
E-W 1110 FT.  
DIAGONAL 1374.12 FT.

14 3/4" HOLE

T/SALT @ 1625'

9 5/8"-36 #/FT. @ 1697'  
1300 SX.  
CIRC.

8 3/4" &amp; 7 7/8" HOLE

B/SALT @ 3540'  
YATES @ 3630'

QUEEN @ 4662'

SAN ANDRES @ 5095'

DELAWARE @ 5345'

D.V. TOOL @ 5345'  
1600 SX.  
CIRC.

5658'-5695', 11 SHOTS

4-27-2000 2000 GALS. 12 1/2% ACID, FRAC 12,025 GALS. 19,900# SAND

5890'-5931', 41 SHOTS

3000 GALS. 7 1/2% NEFE ACID, FRAC 19,500 GALS. 47,000 16/30 SAND

5 1/2"-15.5 #/FT. @ 6289'  
290 SX

5578

5936

22" HOLE

14 3/4" HOLE

T/SALT @ 1600'

8 3/4" & 7 7/8" HOLE

YATES @ 3500'

SEVEN RIVERS @ 3790'

QUEEN @ 4655'

GRAYBURG @ 4890'

SAN ANDRES @ 5100

DELAWARE @ 5345

16"-54 #/FT. @ 40'  
3 CU. YDS. REDI-MIX

9 5/8"-36 #/FT. @ 1702'  
1200 SX  
CIRC.

D.V. TOOL @ 5171'  
1600 SX  
CIRC.

5605'-5654' 11/96

5890'-5930', 39 shots

5 1/2"-15.5 #/FT. @ 6256'  
380 SX

MOBIL LEA STATE #2  
ARMSTRONG ENERGY CORPORATION  
1800' FSL & 990' FWL  
NW/SW  
SECTION 2-T20S-R34E  
LEA COUNTY, N.M.

API No.: 30-025-31928'

SPUD DATE: 3/19/93

WELL TYPE: OIL WELL

**CONDUCTOR PIPE:**

CASING: 16"-54 #/FT. @ 40'  
HOLE: 22" HOLE  
CEMENT: 3 CU. YDS. REDI-MIX  
T.O.C.: CIRC.

**SURFACE CASING:**

CASING: 9 5/8"-36 #/FT. @ 1702'  
HOLE: 14 3/4" HOLE  
CEMENT: 1200 SX.  
T.O.C.: CIRC.

**LONG STRING:**

CASING: 5 1/2"-15.5 #/FT. @ 6289'  
HOLE: 8 3/4" & 7 7/8" HOLE  
CEMENT: 380 SX  
2ND STAGE: D.V. TOOL @ 5171'  
CEMENT: 1600 SX.  
T.O.C.: CIRC.  
TOTAL DEPTH: 6256'

PRODUCTION ZONES: CHERRY CANYON

DISTANCE FROM MOBIL LEA STATE #3

N-S 810 FT.

E-W 120 FT.

DIAGONAL 818.84 FT.

1500 GALS. 7 1/2% ACID, FRAC W/ 20,000 GALS & 46,200# 16/30 SAND

2000 GALS. 7 1/2% ACID, FRAC W/ 20,000 GALS & 46,200# 16/30 SAND

5578

5936

22" HOLE

14 3/4" HOLE

T/SALT @ 1590'

8 3/4" &amp; 7 7/8" HOLE

YATES @ 2880'

SEVEN RIVERS @ 3165'

QUEEN @ 4140'

GRAYBURG @ 4940'

DELAWARE @ 5110'

16"-54 #/FT. @ 42'  
3 CU. YDS.EXISTING CONFIGURATION9 5/8"-36 #/FT. @ 1700'  
1100 SX  
CIRC.D.V. TOOL @ 5126'  
1600 SX  
CIRC.

5578-5726' 6/96 2000 GALS. 7 1/2% ACID, 60,000 GALS. &amp; 158,500# 16/30 SAND

5918'-5936', 30 SHOTS 3000 GALS. 7 1/2% ACID, 20,000 GALS. &amp; 47,400# 16/30 SAND

5 1/2"-15.5 #/FT. @ 6300'  
414 SXMOBIL LEA STATE #3  
ARMSTRONG ENERGY CORPORATION  
990' FSL & 870' FWL  
SW/SW  
SECTION 2-T20S-R34E  
LEA COUNTY, N.M.

API No.: 30-025-32105

SPUD DATE: 8/5/93

WELL TYPE: OIL WELL

CONDUCTOR PIPE:CASING: 16"-54 #/FT. @ 42'  
HOLE: 22" HOLE  
CEMENT: 3 CU. YDS. REDI-MIX  
T.O.C.: CIRC.SURFACE CASING:CASING: 9 5/8"-36 #/FT. @ 1706'  
HOLE: 14 3/4" HOLE  
CEMENT: 1100 SX.  
T.O.C.: CIRC.LONG STRING:CASING: 5 1/2"-15.5 #/FT. @ 6300'  
HOLE: 8 3/4" & 7 7/8" HOLE  
CEMENT: 414 SX  
2ND STAGE: D.V. TOOL @ 5126'  
CEMENT: 1600 SX.  
T.O.C.: CIRC.  
TOTAL DEPTH: 6256'

PRODUCTION ZONES: CHERRY CANYON

*Fig 10*

✓

VI-C  
MOBIL LEA STATE #3  
ARMSTRONG ENERGY CORPORATION  
990' FSL- & 870' FWL  
SW/SW  
SECTION 2-T20S-R34E  
LEA COUNTY, N.M.

API No.: 30-025-32105

SPUD DATE: 8/5/93

WELL TYPE: OIL WELL

CONDUCTOR PIPE:

CASING: 16"-54 #/FT. @ 42'  
HOLE: 22" HOLE  
CEMENT: 3 CU. YDS. REDI-MIX  
T.O.C.: CIRC.

22" HOLE

14 3/4" HOLE

T/SALT @ 1590'

16"-54 #/FT. @ 42'  
3 CU. YDS.

PROPOSED CONFIGURATION

9 5/8"-36 #/FT. @ 1700'  
1100 SX  
CIRC.

SURFACE CASING:

CASING: 9 5/8"-36 #/FT. @ 1706'  
HOLE: 14 3/4" HOLE  
CEMENT: 1100 SX.  
T.O.C.: CIRC.

8 3/4" & 7 7/8" HOLE

LONG STRING:

CASING: 5 1/2"-15.5 #/FT. @ 6300'  
HOLE: 8 3/4" & 7 7/8" HOLE  
CEMENT: 414 SX  
2ND STAGE: D.V. TOOL @ 5126'  
CEMENT: 1600 SX.  
T.O.C.: CIRC.  
TOTAL DEPTH: 6256'

YATES @ 2880'

SEVEN RIVERS @ 3165'

2 3/8"-4.7 #/FT., J-55, EUE, 8RD, IPC

INJECTION ZONES: CHERRY CANYON

QUEEN @ 4140'

GRAYBURG @ 4940'

DELAWARE @ 5110'

D.V. TOOL @ 5126'  
1600 SX  
CIRC.  
5 1/2" PLASTIC COATED PACKER @ +/- 5550'  
5578-5726'

5918'-5936', 30 SHOTS

5 1/2"-15.5 #/FT. @ 6300'  
414 SX

22" HOLE

16"-54 #/FT. @ 40'  
3 CU. YDS. REDI-MIXMOBIL LEA STATE #4  
ARMSTRONG ENERGY CORPORATION  
1155' FSL & 1770' FWL  
SE/SW  
SECTION 2-T20S-R34E  
LEA COUNTY, N.M.

API No.: 30-025-32310

SPUD DATE: 12/7/93

WELL TYPE: OIL WELL

CONDUCTOR PIPE:CASING: 16"-54 #/FT. @ 40'  
HOLE: 22" HOLE  
CEMENT: 3 CU. YDS. REDI-MIX  
T.O.C.: CIRC.SURFACE CASING:CASING: 9 5/8"-36 #/FT. @ 1706'  
HOLE: 14 3/4" HOLE  
CEMENT: 1050 SX.  
T.O.C.: CIRC.LONG STRING:CASING: 5 1/2"-15.5 #/FT. @ 6285'  
HOLE: 8 3/4" & 7 7/8" HOLE  
CEMENT: 360 SX  
2ND STAGE: D.V. TOOL @ 5166'  
CEMENT: 1550 SX.  
T.O.C.: CIRC.  
TOTAL DEPTH: 6285'

PRODUCTION ZONES: CHERRY CANYON

DISTANCE FROM MOBIL LEA STATE #3

N-S 165 FT.  
E-W 900 FT.  
DIAGONAL 915.00 FT.

14 3/4" HOLE

T/SALT @ 1605'

9 5/8"-36 #/FT. @ 1706'  
1050 SX  
CIRC.

8 3/4" &amp; 7 7/8" HOLE

YATES @ 3600'

SEVEN RIVERS @ 3680

QUEEN @ 4665'

DELAWARE @ 5435'

D.V. TOOL @ 5166'  
1550 SX.  
CIRC.

5544-5570' APRIL 1997 1500 GALS 7 1/2% ACID, 20,000 GALS. W/ 44,000# 16/30 SAND

5910'-5940', 31 SHOTS 3000 GALS 7 1/2% ACID, 20,000 GALS. W/ 46,200# 16/30 SAND

5 1/2"-15.5 #/FT. @ 6285'  
360 SX

5578 —

5936 —

22" HOLE

14"-28 #/FT. @ 40'  
3 CU.YDS. REDI-MIXMOBIL LEA STATE #5  
ARMSTRONG ENERGY CORPORATION  
2440' FNL & 870' FWL  
SW/NW  
SECTION 2-T20S-R34E  
LEA COUNTY, N.M.

API No.: 30-025-32466

SPUD DATE: 3/26/94

WELL TYPE: OIL WELL

**CONDUCTOR PIPE:**CASING: 16"-54 #/FT. @ 40'  
HOLE: 22" HOLE  
CEMENT: 3 CU. YDS. REDI-MIX  
T.O.C.: CIRC.**SURFACE CASING:**CASING: 8 5/8"-32 #/FT. @ 1705'  
HOLE: 12 1/4" HOLE  
CEMENT: 800 SX.  
T.O.C.: CIRC.**LONG STRING:**CASING: 5 1/2"-15.5 #/FT. @ 6058'  
HOLE: 7 7/8" HOLE  
CEMENT: 325 SX  
2ND STAGE: D.V. TOOL @ 5207'  
CEMENT: 1400 SX.  
T.O.C.: CIRC.  
TOTAL DEPTH: 6058'

PRODUCTION ZONES: CHERRY CANYON

DISTANCE FROM MOBIL LEA STATE #3

N-S 1848 FT.  
E-W 0 FT.  
DIAGONAL 1848.00 FT. ✓

12 1/4" HOLE

T/SALT @ 1700'

8 5/8"-32 #/FT. @ 1705'  
800 SX  
CIRC.

7 7/8" HOLE

YATES @ 3590'

SEVEN RIVERS @ 3800'

QUEEN @ 4650'

DELAWARE @ 5540'

5578

5936

D.V. TOOL @ 5207'  
1400 SX  
CIRC.  
5610'-5630', 21 SHOTS5 1/2"-15.5 #/FT. @ 6058'  
325 SX

MOBIL LEA STATE #7  
 ARMSTRONG ENERGY CORPORATION  
 1930' FNL & 330' FWL  
 SW/NW  
 SECTION 2-T20S-R34E  
 LEA COUNTY, N.M.

API No.: 30-025-32914

SPUD DATE: 3/26/94

WELL TYPE: OIL WELL

**CONDUCTOR PIPE:**

CASING: 16"-54 #/FT. @ 40'  
 HOLE: 22" HOLE  
 CEMENT: 3 CU. YDS. REDI-MIX  
 T.O.C.: CIRC.

**SURFACE CASING:**

CASING: 8 5/8"-32 #/FT. @ 1705'  
 HOLE: 12 1/4" HOLE  
 CEMENT: 800 SX.  
 T.O.C.: CIRC.

**LONG STRING:**

CASING: 5 1/2"-15.5 #/FT. @ 6058'  
 HOLE: 7 7/8" HOLE  
 CEMENT: 325 SX  
 2ND STAGE: D.V. TOOL @ 5207'  
 CEMENT: 1400 SX.  
 T.O.C.: CIRC.  
 TOTAL DEPTH: 6058'

PRODUCTION ZONES: CHERRY CANYON

DISTANCE FROM MOBIL LEA STATE #3

N-S 2360 FT.  
 E-W 540 FT.  
 DIAGONAL 2420.99 FT.

22" HOLE

14"-28 #/FT. @ 40'  
 6 CU. YDS. REDI-MIX

12 1/4" HOLE

T/SALT @ 1650'

9 5/8"-36 #/FT. @ 1703'  
 650 SX  
 CIRC.

7 7/8" HOLE

B. SALT 3150'

YATES @ 3570'

SEVEN RIVERS @ 3665'

QUEEN @ 3815'

GRAYBURG 4350'

SAN ANDRES 4900'

DELAWARE @ 5500'

CIRC.  
 5610'-5630', 21 SHOTS

D.V. TOOL @ 5719'  
 2500 SX LITE + 200 SX "H"  
 CIRC  
 6012-6032', 1 JSPF  
 6158-6172', SQUEEZED W/ 200 SX

CEMENT RETAINER @ 6935'  
 CEMENT PLUG 6935-7950'

7322-7338', SQUEEZED W/ 200 SX.

7565-7580'  
 5 1/2"-15.5 & 17 #/FT. @ 7600'  
 900 SX, CIRC.  
 CIBP @ 7800'  
 7922, 7927, 7930, 7935, 7941, 7944, 7948 & 7950'  
 CIBP @ 8000'  
 8016, 8017, 8018, 8020'  
 CIBP @ 8080'

8096, 8101, 8114, 8120, 8150, 8186, 8190, 8204, 8217, & 8219'  
 4"-11.34 #/FT. K-55, LINER 6988-8320'  
 370 SX. CLASS "H"

BONE SPRING 8245'

17.1/2" HOLE

VI-G

**MOBIL STATE #1**  
**MERIT ENERGY COMPANY, LLC**  
**1980' FSL & 1980' FEL**  
**NW/SE**  
**SECTION 2-T20S-R34E**  
**LEA COUNTY, N.M.**

API No.: 30-025-29204

SPUD DATE: 4/16/85

WELL TYPE: OIL WELL

**SURFACE CASING:**

CASING: 13 3/8"-54.5 #/FT. K-55 @ 422'  
HOLE: 17 1/2" HOLE  
CEMENT: 450 SX  
T.O.C.: CIRC.

**INTERMEDIATE CASING:**

CASING: 8 5/8"-32 & 28 #/FT @ 4380'  
HOLE: 11" HOLE  
CEMENT: 2700 SX  
T.O.C.: CIRC.

**LONG STRING:**

CASING: 5 1/2"-17#/FT J-55 & N-80 @ 9816'  
HOLE: 7 7/8" HOLE  
CEMENT: 225 SX  
T.O.C.: CALC. @ 8550'  
2ND STAGE: D.V. TOOL @ 6374'  
CEMENT: 505 SX  
T.O.C.: CALC. @ 2660'  
TOTAL DEPTH: 10800'

PRODUCTION ZONES: FIRST BONE SPRINGS SAND  
CHERRY CANYON

DISTANCE FROM MOBIL LEA STATE #3

N-S 990 FT.  
E-W 2430 FT.  
DIAGONAL 2623.93 FT.

13 3/8"-54.5 #/FT. K-55 @ 422'  
250 SX. "HLC" 3% SALT, & 1/4# FLOCELE  
200 SX CLASS "C", 2% CACL  
CIRCULATED 135 SX

11" HOLE

RUSTLER @ 1653'

YATES @ 1650'

QUEEN @ 4665'

SAN ANDRES @ 4800'

7 7/8" HOLE

DELAWARE @ 5630'

8 5/8"-32 & 28 #/FT @ 4380'  
1000 SX HLC, 18 % SALT, 5# GILSONITE & 1/4 #/SX FLOCELE  
1500 SX HLC, 18% SALT & 1/4 #/SX FLOCELE  
200 SX CLASS "C" W/ 1% CACL  
CIRCULATED 550 SX

5626', 31', 33', 44', 71, 75', 86', 93' &amp; 95', 10 SHOTS

D.V. TOOL @ 6374'  
355 SX HLC W/ 1/4#/SX FLOCELE  
150 SX CLASS "H"

|                |               |
|----------------|---------------|
| 1.97 CU.FT./SX | 699.35 CU.FT. |
| 1.06 CU.FT./SX | 159.00 CU.FT. |

7 7/8" X 5 1/2" 0.1733 CU.FT./FT

|                   |            |
|-------------------|------------|
| THEORETICAL FILL  | 4953.0 FT. |
| LESS 25% EXCESS   | 3714.8 FT. |
| CALCULATED T.O.C. | 2660 FT.   |

BONE SPRINGS LIME  
@ 7930'

CALCULATED T.O.C. 8550'

1ST BONE SPRINGS  
SAND @ 9500'

CIBP @ 9600'  
9650'-54', 9663'66', 9676'-9681' & 9636'-9688', 2 SHOTS/FT.

2ND BONE SPR. SAND  
@ 10,737'

5 1/2"-17#/FT J-55 & N-80 @ 9816'  
225 SX CLASS "H" 50/50 POZ 2% GEL, .6% HALAD-22A, .3% CFR-2, 5# KCL & 1/4# FLOCELE

|                 |                  |
|-----------------|------------------|
| 1.30 CU. FT./SX | 292.5 CU.FT.     |
| 7 7/8" X 5 1/2" | 0.1733 CU.FT./FT |

|                   |            |
|-------------------|------------|
| THEORETICAL FILL  | 1687.8 FT. |
| LESS 25% EXCESS   | 1265.9 FT. |
| CALCULATED T.O.C. | 8550.1 FT. |
| T.D. @ 10800'     |            |



MOBIL STATE #2  
SPECTRUM "7" EXPLORATION  
660' FSL & 1980' FWL  
SE/SW  
SECTION 2-T20S-R34E  
LEA COUNTY, N.M.

API No.: 30-025-29701

SPUD DATE: 6/12/86

WELL TYPE: DRY HOLE, P/A

**SURFACE CASING:**

CASING: 8 5/8" 24 #/FT. @ 1728'  
HOLE: 12 1/4" HOLE  
CEMENT: 850 SX.  
T.O.C.: CIRC.

**LONG STRING:**

CASING: 4 1/2"-10.5#/FT. & 11.6#/FT. @ 6043'  
HOLE: 7 7/8" HOLE  
CEMENT: 450 SX  
T.O.C.: CALC. @ 4075'  
TOTAL DEPTH: 6100'

PRODUCTION ZONES: TESTED CHERRY CANYON

DISTANCE FROM MOBIL LEA STATE #3

N-S -330 FT.  
E-W 1110 FT.  
DIAGONAL 1158.02 FT.

25 SX @ SURFACE

12 1/4" HOLE

RUSTLER @ 1600'

T.D. @ 1731'

40 SX PLUG @ 1778'

8 5/8" 24 #/FT. @ 1728'  
650 SX HLC W/ 1/4# SX FLOCELE  
200 SX CLASS "C" W/ 2% CACL  
CIRCULATED 100 SX

7 7/8" HOLE

B/SALT @ 3248'

CASING CUT AND PULLED @ 2903'  
40 SX PLUG @ 2950', DID NOT TAG  
40 SX @ 2950', TAGGED @ 2793'

YATES @ 3705'

SEVEN RIVERS @ 4290'

QUEEN @ 4682'

TOC @ 4050'  
25 SX @ 4600'

GRAYBURG @ 5113'

25 SX PLUG @ 5600'-5400'

25 SX PLUG @ 5650'-5600'  
5698', 5699', 5700', 01', 02', 05', 06', 07', 13', 14', 15' & 16'

4 1/2"-10.5#/FT. & 11.6#/FT. @ 6043'  
450 SX CLASS "C" POZ W/ .6% CF-14 & 1/4# SX FLOCELE

YIELD 1.33 CU.FT./SX

598.5 CU.FT.

7 7/8" X 4 1/2"

0.2278 CU.FT./FT.

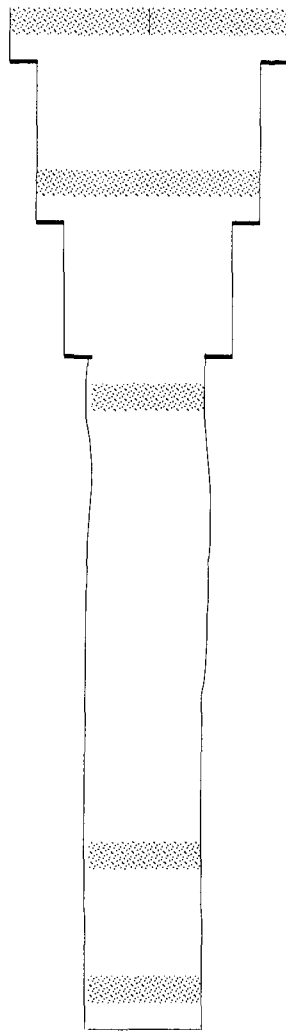
LESS 25%  
EST. T.O.C.

2627.3 FT.  
1970.5 FT.  
4073 FT.

T.D. @ 6100'

5578  
5936

*Dr up*



BRIDGE @ 80' W/ 90 SX CEMENT

13 3/8" @ 126'  
SET & PULLED

10 SX PLUG @ 600'

10 3/4" @ 740'  
SET & PULLED

8" @ 1300'  
SET & PULLED  
20 SX PLUG @ 1500'

FEDERAL "A" #1  
LANG & SCHLACHTER  
660' FSL & 660' FEL  
SE/SE  
SECTION 3-T20S-R34E  
LEA COUNTY, N.M.

API No.: 30-025-02410

SPUD DATE: 3/26/56

WELL TYPE: DRY HOLE, P/A

THIS WELL DID NOT PENETRATE  
THE CHERRY CANYON INTERVAL

DISTANCE FROM MOBIL LEA STATE #3  
N-S -330 FT.  
E-W 1530 FT.  
DIAGONAL 1565.18 FT.

PLU

ANHYDRITE @ 1562'

B/SALT @ 3160'

YATES @ 3379'

20 SX PLUG @ 3270'

25 SX PLUG @ 3755'

T.D. @ 3769'

5567

5936

MARK FEDERAL #4  
 READ & STEVENS INC.  
 330' SFL & 990' FEL  
 SE/SE  
 SECTION 3-T20S-R34E  
 LEA COUNTY, N.M.

API No.: 30-025-31818

SPUD DATE: 10/27/93

WELL TYPE: OIL WELL

**SURFACE CASING:**

CASING: 13 3/8"-54.5 #/FT. @ 1486'  
 HOLE: 17 1/2" HOLE  
 CEMENT: 1200 SX  
 T.O.C.: CIRC.

**INTERMEDIATE CASING:**

CASING: 8 5/8"-32 #/FT @ 5005'  
 HOLE: 11" HOLE  
 CEMENT: 1750 SX.  
 T.O.C.: CIRC.

**LONG STRING:**

CASING: 5 1/2"-15.5 #/FT. J-55 @ 6132'  
 HOLE: 7 7/8" HOLE  
 CEMENT: 650 SX  
 T.O.C.: 1500' - CBL

TOTAL DEPTH: 6214'

PRODUCTION ZONES: CHERRY CANYON

DISTANCE FROM MOBIL LEA STATE #3  
 N-S -660 FT.  
 E-W 1860 FT.  
 DIAGONAL 1973.63 FT.

T.O.C. @ 1500' CBL

13 3/8"-54.5 #/FT. @ 1486'  
 950 SX LITE  
 250 CLASS "C"  
 CIRC. 160 SX

D.V. TOOL @ 3771'  
 ECP @ 3816'  
 1100 SX LITE W/ 15 #/SX SALT & 1/4 #/SX FLOCELE  
 250 SX PREMIUM PLUS W/ 2% CACL  
 CIRC

8 5/8"-32 #/FT. J-55 & S-80 @ 5005'  
 400 SX PREMIUM PLUS

5912'-5922'

PBTD @ 6157'

5 1/2"-15.5 #/FT. J-55 @ 6214'  
 250 SX LITE  
 400 SX CLASS "C"

17 1/2" HOLE

OCHOAN 1560'

11" HOLE

YATES 3200'

7 RVRS 3829'

7 7/8" HOLE

DELAWARE 5504'

5936 -

5578

17 1/2" HOLE

OCHOA @ 1556'

7 7/8" HOLE

YATES @ 3401'

SEVEN RIVERS @ 3840'

DELAWARE @ 5456'

5578

5936

R.I.H. 60',  
CIRCULATE 20 SX. TO SURFACEMARK FEDERAL #8  
READ & STEVENS INC.  
1650' FSL & 330' FEL  
NE/SE  
SECTION 3-T20S-R34E  
LEA COUNTY, N.M.

API No.: 30-025-32158

SPUD DATE: 8/31/93

WELL TYPE: OIL WELL

SURFACE CASING:CASING: 13 3/8"-54.5 #/FT. @ 1496'  
HOLE: 17 1/2" HOLE  
CEMENT: 1250 SX  
T.O.C.: CIRC.LONG STRING:CASING: 5 1/2"-15.5 #/FT. J-55 @ 6349'  
HOLE: 7 7/8" HOLE  
CEMENT: 2690 SX  
T.O.C.: CIRC.

PLU

25 SX. PLUG, TAGGED AT 3024'

TOTAL DEPTH: 6349'

PRODUCTION ZONES: CHERRY CANYON  
PLUGGED AND ABANDONED

SPOT 35 SX. PLUG @ 3937', TAGGED @ 3772'

3769-73' & 3824-3828'  
D.V. TOOL @ 3830'  
1400 SX HLC W/ 10 #/SX SALT  
470 SX CLASS "C"  
CIRC 86 SX TO SURFACEDISTANCE FROM MOBIL LEA STATE #3  
N-S 660 FT.  
E-W 1200 FT.  
DIAGONAL 1369.53 FT.CIBP @ 5533' W/ 35' CEMENT  
5636-5660'5548-5552' & 5562-5572'  
5698-5708' & 5716-5727' SQUEEZED5910'-5914', 5816-5920', 5934-5960'  
CIBP @ 6020'  
6030'-6038', 32 SHOTS5 1/2"-15.5 #/FT. @ 6349'  
545 SX HLC W/ 5 #/SX GILSONITE  
275 SX CLASS "H"

NORTH LEA FEDERAL #10  
 READ & STEVENS INC.  
 660' FNL & 990' FEL  
 NE/NE  
 SECTION 10-T20S-R34E  
 LEA COUNTY, N.M.

API No.: 30-025-31822

SPUD DATE: 2/11/93

WELL TYPE: OIL WELL

**SURFACE CASING:**

CASING: 13 3/8"-54.5 #/FT. J-55 @ 1550'  
 HOLE: 17 1/2" HOLE  
 CEMENT: 1150 SX  
 T.O.C.: CIRC.

**INTERMEDIATE CASING:**

CASING: 8 5/8"-32 #/FT @ 4975'  
 HOLE: 11" HOLE  
 CEMENT: 1750 SX.  
 T.O.C.: CIRC.

**LONG STRING:**

CASING: 5 1/2"-15.5 #/FT. J-55 @ 6245'  
 HOLE: 7 7/8" HOLE  
 CEMENT: 700 SX  
 T.O.C.: 1700'

TOTAL DEPTH: 6245'

PRODUCTION ZONES: CHERRY CANYON

DISTANCE FROM MOBIL LEA STATE #3

N-S 1650 FT.

E-W 1860 FT.

DIAGONAL 2486.38 FT.

17 1/2" HOLE

OCHOA @ 1556'

T.O.C. @ 1700'

13 3/8"-54.5 #/FT. J-55 @ 1550'  
 900 SX LITE  
 250 SX P.P. W/ 2% CACL  
 CIRC.

YATES @ 3401'

SEVEN RIVERS @ 3840'

D.V. TOOL @ 3803'  
 ECP @ 3865'  
 1100 SX LITE  
 250 P.P.  
 CIRC. 125 SX

7 7/8" HOLE

DELAWARE @ 5456'

8 5/8"-32 #/FT S-80 & J-55 @ 4975'  
 400 SX CLASS "H"  
 CIRC 80 SX @ D.V. TOOL

5910'-5930', 40 SHOTS

5 1/2"-15.5#/FT. J-55 @ 6245'  
 250 SX LITE  
 450 SX P.P.  
 T.D. 6488'

5578 -  
 5936 -

24" HOLE

13 3/4" HOLE

ANKHYDRITE @ 1610'

T/SALT @ 1850'

B/SALT @ 3260'

YATES @ 3440'

QUEEN @ 3748'

TUBB @ 4834'

9 5/8" HOLE

BONE SPRINGS @ 8202'

T/PENN @ 12060'

MISSISSIPPIAN @ 13684'

WIGODFORD @ 14305'  
DEVONIAN @ 14478'

FEDERAL #1  
SAMSON RESOURCES  
1980' FNL & 2130' FWL  
SE/NW  
SECTION 11-T20S-R34E  
LEA COUNTY, N.M.

API No.: 30-025-02426

SPUD DATE: 11/14/60

WELL TYPE: GAS WELL - OIL WELL

## SURFACE CASING:

CASING: 16" 46 #/FT. @ 723'  
HOLE: 24" HOLE  
CEMENT: 1200 SX  
T.O.C.: CIRC.

## INTERMEDIATE CASING:

CASING: 10 3/4" @ 5293'  
HOLE: 13 3/4" HOLE  
CEMENT: 3420 SX.  
T.O.C.: CIRC.

## LONG STRING:

CASING: 7"-29 & 32 #/FT @ 14360'  
HOLE: 9 5/8" HOLE  
CEMENT: 1700 SX  
T.O.C.: CALC. @ 8680'

TOTAL DEPTH: 14619'

PRODUCTION ZONES:  
TESTED DEVONIAN  
PRODUCED MORROW  
RECOMPLETED TO BONE SPRINGS

DISTANCE FROM MOBIL, LEA STATE #3  
N-S 2970 FT  
E-W 1440 FT  
DIAGONAL 3300 08' FT.

10 3/4" @ 5293'  
3420 SX  
CIRC.

EST TOC @ 8680'

SQUEEZE HOLES @ 9420' & 9555'  
SHOT HOLES @ 9470'  
SQUEEZE W/ 30 SX CLASS "H" W/ .75% CF-14  
SQUEEZE W/ 30 SX CLASS "H"  
SQUEEZE W/ 30 SX CLASS "H" W/ .75% CF-14

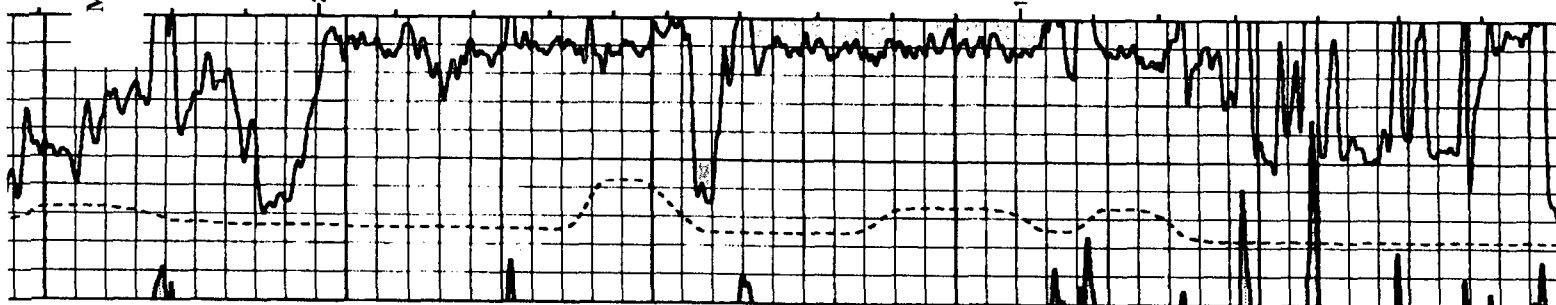
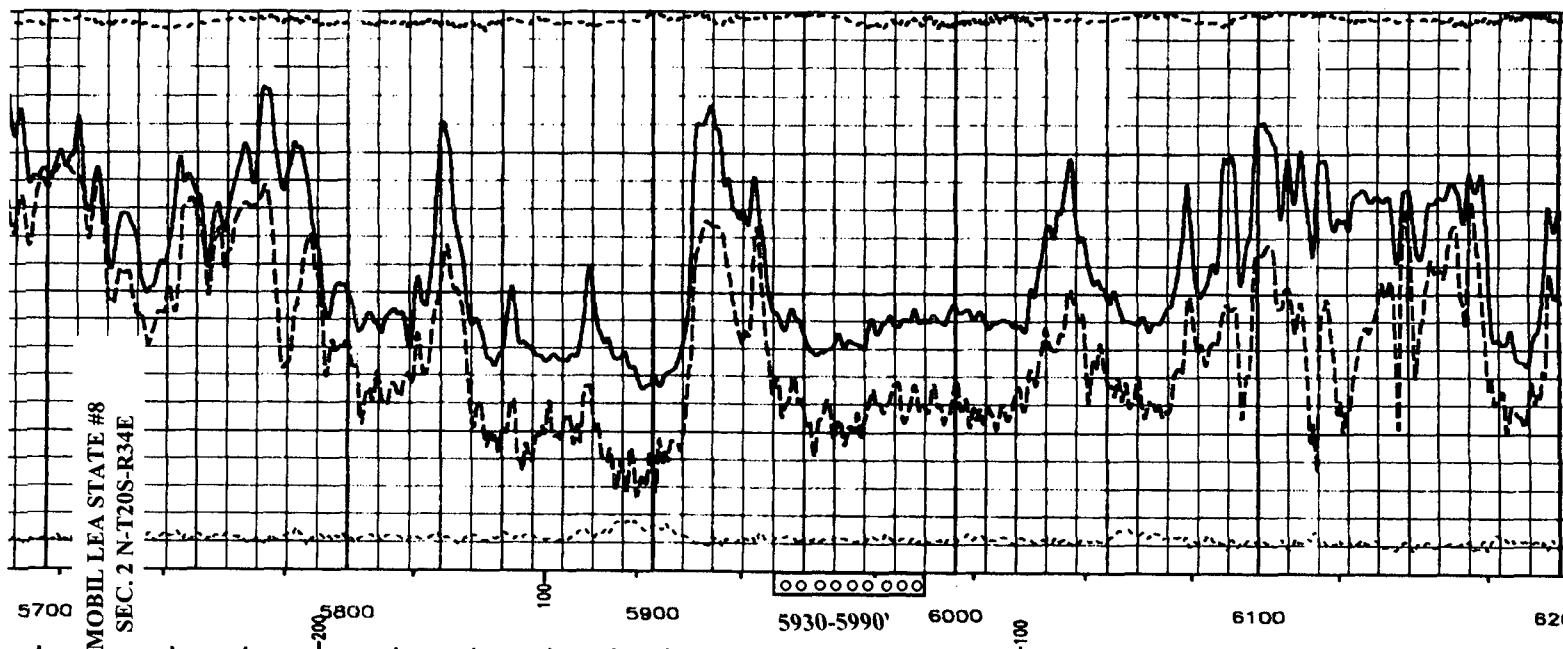
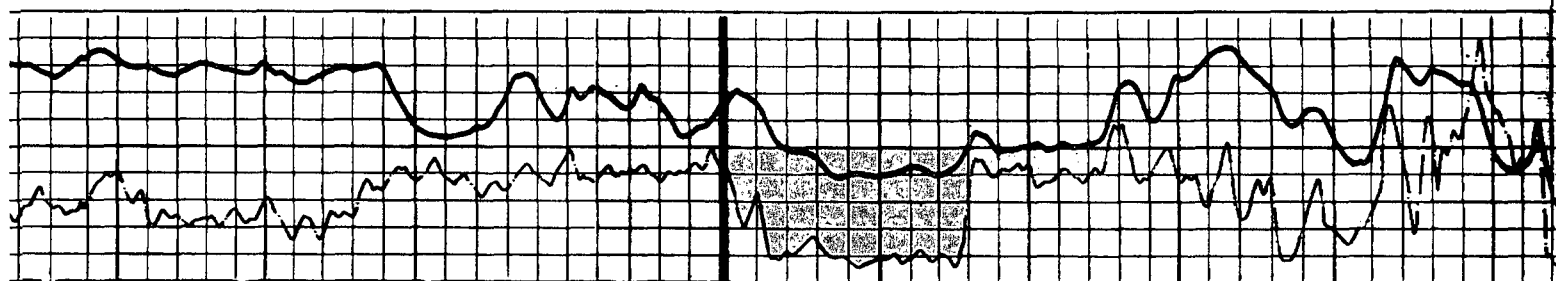
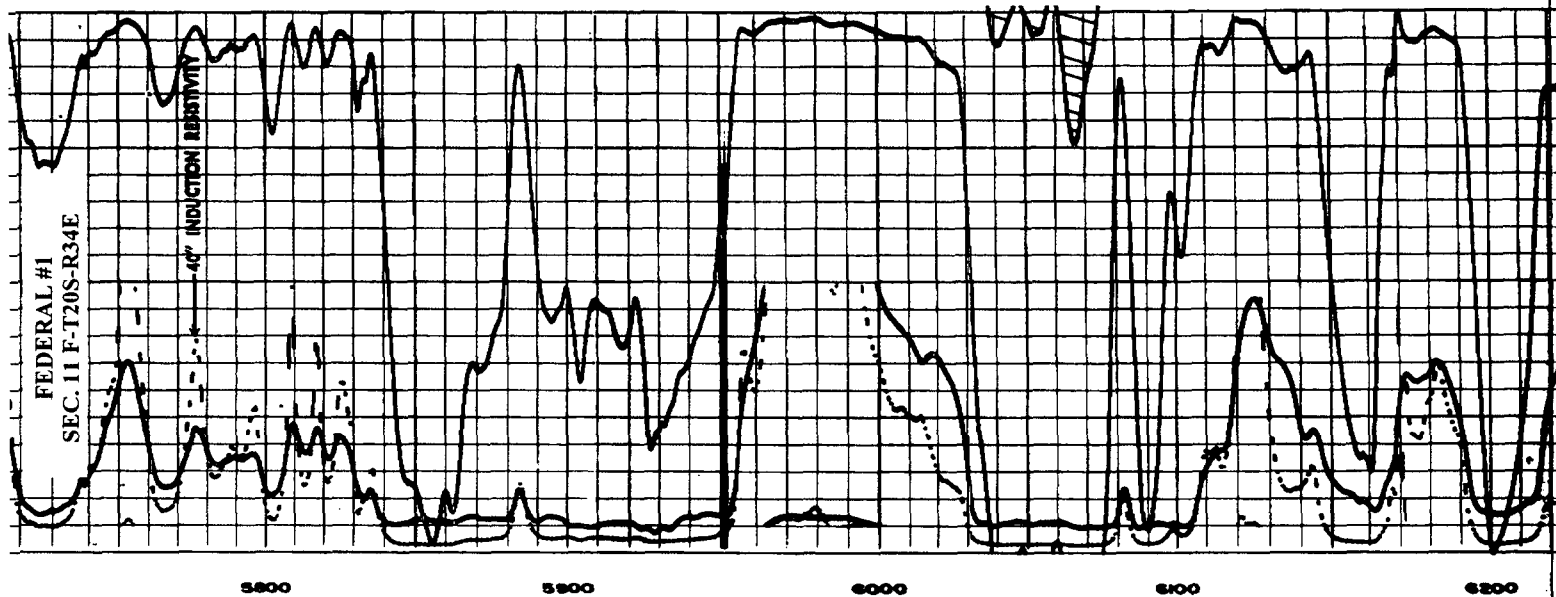
10156-10166, 32 SHOTS  
SQUEEZE W/ 100 SX CLASS "H" W/ 68% SX SAND,  
1/4 #/SX FLOCELE, 5% CFR-2  
10253-10258, 10150-10158, 9572-9577, 9560-9568, 9478-9486, 4 JSPP

PBTO @ 12686'  
SPOT 61 SX CLASS "H" W/ .75% CF-14 ON TOP OF PACKER  
SPOT 65 SX CLASS "H" W/ .75% CF-14 ON TOP OF PACKER  
PACKER @ 12946'

13034-13054, 80 SHOTS  
CIRP @ 13058'  
13077-13087'

7"-29 & 32 #/FT @ 14380'  
1700 SX

T.D. @ 14619'



22" HOLE

14 3/4" HOLE

T/ANHYDRITE @1595'  
B/ANHYDRITE @ 1710'  
T/SALT @ 1710'

8 3/4" &amp; 7 7/8" HOLE

B. SALT 3431'  
YATES @ 3612'

SEVEN RIVERS @ 3835'

QUEEN @ 4655'

GRAYBURG @ 5050'

SAN ANDRES 5300'

DELAWARE @ 5596'

5588

5936

16"-54 #/FT. @ 42'  
3 CU. YDS. REDI-MIX

9 5/8"-36 #/FT. @ 1700'  
850 SX. + 200SX.  
CIRC. 135 SX.

2 7/8" 6.5 #/FT. J-55 TUBING, FREECOM CERAMIC COATING

D.V. TOOL @ 5239'  
375 SX. + 1050 SX + 100 SX.  
CIRC. 55 SX.

ON/OFF TOOL WITH PROFILE NIPPLE  
5880' BAKER LOCKSET PACKER - NICKLE PLATED

5930'-5990', 2 JSPF, ACIDIZE W/ 3000 GALS. 7 1/2% NEFE ACID, FRAC W/  
20,000 GALS CARRYING 45,000# 20-40 SAND

5 1/2"-15.5 #/FT. @ 6100'  
250 SX CIRC. 55 SX.

PRESSURE MAINTENANCE WELL

MOBIL LEA STATE #8 PMW  
ARMSTRONG ENERGY CORPORATION  
330' FSL & 1650' FWL  
SE/SW  
SECTION 2-T20S-R34E  
LEA COUNTY, N.M.

API No.: 30-025-32310

SPUD DATE: 12/7/93

WELL TYPE: OIL WELL

CONDUCTOR PIPE:

CASING: 16"-54 #/FT. @ 42'  
HOLE: 22" HOLE  
CEMENT: 3 CU. YDS. REDI-MIX  
T.O.C.: CIRC.

SURFACE CASING:

CASING: 9 5/8"-36 #/FT. @ 1700'  
HOLE: 14 3/4" HOLE  
CEMENT: 1100 SX.  
T.O.C.: CIRC.

LONG STRING:

CASING: 5 1/2"-15.5 #/FT. @ 6100'  
HOLE: 8 3/4" & 7 7/8" HOLE  
CEMENT: 450 SX  
2ND STAGE: D.V. TOOL @ 5166'  
CEMENT: 1600 SX.  
T.O.C.: CIRC.  
TOTAL DEPTH: 5200'

INJECTION ZONES: 3RD SAND CHERRY CANYON

ORDER No.: R-10541-A

## DISTANCE FROM MOBIL LEA STATE #3

N-S -660 FT.  
E-W 780 FT.  
DIAGONAL 1021.76 FT.



FEDERAL 11 20 34 #7  
 SAMSON RESOURCES CO.  
 330' FNL & 330' FWL  
 NW/NW  
 SECTION 11-T20S-R34E  
 LEA COUNTY, N.M.

API No. 30-025-36300

SPUD DATE: 8/16/03

WELL TYPE: OIL WELL

SURFACE CASING:

CASING: 13 3/8"-54.5 #/FT. @ 1609'  
 HOLE: 17 1/2" HOLE  
 CEMENT: 1275 SX.  
 T.O.C.: CIRC.

INTERMEDIATE CASING:

CASING: 8 5/8"-32 #/FT. @ 4979'  
 HOLE: 11" HOLE  
 CEMENT: 1140 SX.  
 T.O.C.: 427'

LONG STRING:

CASING: 5 1/2"-17 #/FT. @ 6310'  
 HOLE: 7 7/8" HOLE  
 CEMENT: 235 SX  
 T.O.C.: 4330'  
 TOTAL DEPTH: 6310'

**PRODUCTION ZONES: CHERRY CANYON**

DISTANCE FROM MOBIL LEA STATE #3  
 N-S 1320 FT.  
 E-W -540 FT.  
 DIAGONAL 1426.18 FT.

PUMP 170 SX  
 PERF @ 340'

25 SX PLUG 605'-350'

40 SX PLUG 1681', TAG @ 1502'

13 3/8"-54.50 #/FT @ 1609'  
 1275 SX, CIRC.

PLA

CIBP @ 3450', 25 SX, TOC @ 3200'

3500-3510'

3710-3720'

60 SX PLUG @ 4250-3708'

PERF 4200', CIRC. 500 SX CEMENT  
 TOC @ 4330'

25 SX PLUG @ 5027', TAG @ 4900'

8 5/8"-32 #/FT. @ 4979'  
 1140 SX  
 TOC @ 427'

25 SX PLUG 5234-5484'

CIBP @ 5484' W/ 20' CEMENT  
 5526-5536'

CIBP @ 5780'  
 5824-5834' & 5886-5896'  
 5980-6000'

5 1/2"-17 #/FT. @ 6310'  
 235 SX

17 1/2" HOLE

RUSTLER 1590'

11" HOLE

YATES @ 3486'

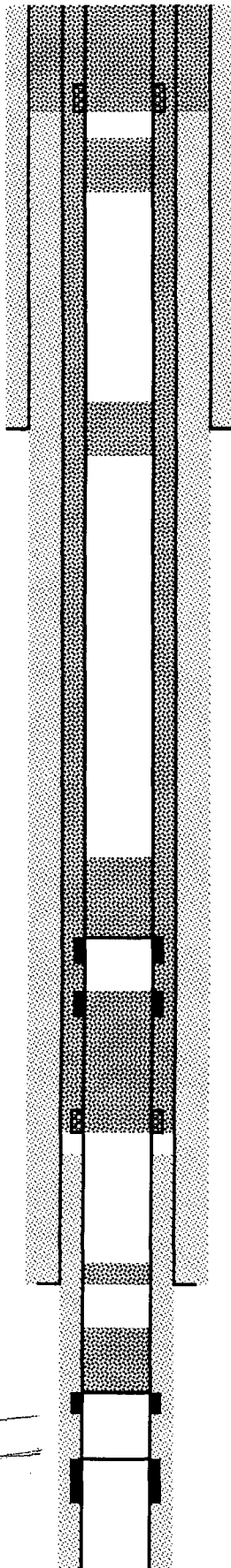
SEVEN RIVERS @ 3828'

QUEEN @ 4628'

SAN ANDRES 5150'  
 7 7/8" HOLE

DELAWARE @ 5476'

5578  
 5936



FEDERAL 11 20 34 #8  
 SAMSON RESOURCES  
 510' FNL & 810' FWL  
 NW/NW  
 SECTION 11-T20S-R34E  
 LEA COUNTY, N.M.

API No.: 30-025-38511

SPUD DATE: 11/7/88

WELL TYPE: GAS WELL

SURFACE CASING:

CASING: 13 3/8"-54.5 #/FT. @ 1665'  
 HOLE: 17 1/2" HOLE  
 CEMENT: 1545 SX  
 T.O.C.: CIRC. 132 SX.

INTERMEDIATE CASING:

CASING: 9 5/8"-40 #/FT. @ 5462'  
 HOLE: 12 1/4" HOLE  
 CEMENT: 1980 SX 2-STAGE  
 T.O.C.: 1900'

LONG STRING:

CASING: 5 1/2"-20 #/FT @ 13,698'  
 HOLE: 8 3/4" HOLE  
 CEMENT: 2085 SX  
 T.O.C.: 3300'

TOTAL DEPTH: 13,700'

PRODUCTION ZONES:

PRODUCED MORROW

D.V. TOOL

DISTANCE FROM MOBIL LEA STATE #3  
 N-S 1500 FT.  
 E-W 60 FT.  
 DIAGONAL 1501.20 FT.

9 5/8" @ 5462'  
 1980 SX 2-STAGE  
 TOC @ 1900'

8 3/4" HOLE

BONE SPRINGS 8217'

WOLFCAMP 11,089'

MORROW 13,024'

13045-13054'  
 13190-13248'  
 13287-13359'

5 1/2"-20 #/FT @ 13,698'  
 2085 SX  
 TOC @ 3300'  
 T.D. @ 13,700'

5578  
 5936

17 1/2" HOLE

13 3/8"-54.5#/FT. @ 420'  
140 SX + 240 SX  
CIRC. 48 SX.

EAGLE 2 STATE #2  
SAMSON RESOURCES  
1980' FSL & 660' FWL  
NW//SW  
SECTION 2-T20S-R34E  
LEA COUNTY, N.M.

API No.: 30-025-37863

SPUD DATE: 6/13/2007

WELL TYPE: OIL WELL

**SURFACE CASING:**

CASING: 13 3/8"-54.5 #/FT. @ 420'  
HOLE: 17 1/2" HOLE  
CEMENT: 140 SX + 240 SX  
T.O.C.: CIRC. 48 SX.

**INTERMEDIATE CASING:**

CASING: 9 5/8"-40 #/FT. @ 5425'  
HOLE: 12 1/4" HOLE  
CEMENT: 1810 SX.  
T.O.C.: CIRC.

12 1/4" HOLE

**LONG STRING:**

CASING: 5 1/2"-20 #/FT @ 13,750'  
HOLE: 8 3/4" HOLE  
CEMENT: 1000 SX + 1075 SX  
T.O.C.:

TOTAL DEPTH-13,750'

**PRODUCTION ZONES:**

TESTED MORROW  
PRODUCING BONE SPRING

SEVEN RIVERS

DISTANCE FROM MOBIL LEA STATE #3

N-S 990 FT.  
E-W 210 FT.  
DIAGONAL 1012.03 FT.

9 5/8" @ 5328'  
1810 SX.  
CIRC.

DELAWARE

5578  
5936

8 3/4" HOLE

BONE SPRINGS

9541-9885'

9898-9912'

10,830-10,836'  
10,920-10,934'

WOLFCAMP

CIBP @ 13,145 W/ 35' CEMENT  
13,166-13,172  
13,250-13,316'

13,506-13,582'

5 1/2"-20 #/FT @ 13,750'  
2075 SX  
T.O. @ 13,750'

17 1/2" HOLE

13 3/8" - 54.5 #/FT. @ 422'  
250 SX + 150 SX  
CIRC. 71 BBLs.

EAGLE 2 STATE #5  
SAMSON RESOURCES  
580' FSL & 2105' FWL  
SE//SW  
SECTION 2-T20S-R34E  
LEA COUNTY, N.M.

API No.: 30-025-38451

SPUD DATE: 7/23/2007

WELL TYPE: OIL WELL

SURFACE CASING:

CASING: 13 3/8" - 54.5 #/FT. @ 422'  
HOLE: 17 1/2" HOLE  
CEMENT: 400 SX  
T.O.C.: CIRC. 71 BBLs.

INTERMEDIATE CASING:

CASING: 9 5/8" - 40 #/FT. @ 5430'  
HOLE: 12 1/4" HOLE  
D.V. TOOL: 3670'  
1ST STAGE: 580 SX., CIRC. 168 SX.  
2ND STAGE: 1080 SX., CIRC. 142 SX.  
T.O.C.: CIRC. 318 BBLs.

LONG STRING:

CASING: 5 1/2" - 17 #/FT @ 11,150'  
HOLE: 8 3/4" HOLE  
CEMENT: 1350 SX  
T.O.C.: 5000'

TOTAL DEPTH: 11,150'

PRODUCTION ZONES:  
BONE SPRING

DISTANCE FROM MOBIL LEA STATE #3  
N-S -410 FT.  
E-W 1235 FT.  
DIAGONAL 1301.28 FT.

DV TOOL @ 5430'  
2ND 980 SX. + 100 SX.

TOC @ 4150' EST.

SEVEN RIVERS +/-4000'

DELAWARE 5437'

9 5/8" - 40 #/FT. @ 5430'  
1ST 310SX. + 270 SX  
CIRC.

8 3/4" HOLE

5 1/2" X 8 3/4" = .2526 CU. FT./FT.

560 X 2.00 = 1120 CU. FT.  
790 X 1.70 = 1343 CU. FT.

2463 X .75 / .2526 = 7300 FT. FILL  
11,150-7300= 4150'

BONE SPRINGS 8011'

BONE SPRING SAND 9515'

9520-9684'

WOLFCAMP +/-11,000'

10,930-11,044'

5 1/2" - 17 #/FT @ 11,150'  
560 SX. + 790 SX  
T.D. @ 11,150'

5578  
5936

VI. TABULATION OF WELL DATA

| Exhibit | API Number            | Original Operator                 | Lease Name                    | #  | LOCATION      | Field Name        | TD     | Formation at TD | Elevation | Datum | Date Spud   | Latitude | Longitude  |
|---------|-----------------------|-----------------------------------|-------------------------------|----|---------------|-------------------|--------|-----------------|-----------|-------|-------------|----------|------------|
| A       | 3002531696            | ARMSTRONG ENRGY CORP              | MOBIL LEA STATE A             | 1  | 2K-T20S-R34E  | LEA NORTHEAST     | 6,289  | DELAWARE        | 3,682     | KB    | 30-Sep-92   | 32.59966 | -103.53259 |
| B       | 3002531928            | ARMSTRONG ENRGY CORP              | MOBIL-LEA STATE A             | 2  | 2L-T20S-R34E  | LEA NORTHEAST     | 6,256  | DELAWARE        | 3,678     | KB    | 19-Mar-93   | 32.59966 | -103.53580 |
| C       | 3002532105            | ARMSTRONG ENRGY CORP              | MOBIL LEA STATE A             | 3  | 2M-T20S-R34E  | LEA NORTHEAST     | 6,300  | DELAWARE        | 3,671     | KB    | 05-Aug-93   | 32.59743 | -103.53620 |
| D       | 3002532310            | ARMSTRONG ENRGY CORP              | MOBIL LEA STATE A             | 4  | 2N-T20S-R34E  | LEA NORTHEAST     | 6,285  | DELAWARE        | 3,677     | KB    | 07-Dec-93   | 32.59788 | -103.53327 |
| E       | 3002532466            | ARMSTRONG ENRGY CORP              | MOBIL LEA STATE A             | 5  | 2E-T20S-R34E  | LEA NORTHEAST     | 6,058  | DELAWARE        | 3,687     | KB    | 26-Mar-94   | 32.60264 | -103.53619 |
| F       | 3002532914            | ARMSTRONG ENRGY CORP              | MOBIL LEA STATE A             | 7  | 2E-T20S-R34E  | LEA NORTHEAST     | 8,320  | BONE SPRING     | 3,694     | KB    | 15-Apr-95   | 32.60395 | -103.53794 |
| G       | 3002529204            | SPECTRUM 7 EXPL CO                | MOBIL STATE A                 | 1  | 2J-T20S-R34E  | LEA               | 10,800 | BONE SPRING     | 3,687     | KB    | 16-Apr-85   | 32.60015 | -103.52828 |
| H       | <del>3002529704</del> | <del>SPECTRUM 7 EXPL CO</del>     | <del>MOBIL STATE A</del>      | 2  | 2N-T20S-R34E  | LEA CO UNDESIGNTD | 6,100  | GRAYBURG        | 3,669     | KB    | 12-Jun-86   | 32.59653 | -103.53259 |
| I       | 3002502410            | LANG-SCHLACHER                    | FEDERAL P                     | 1  | 3P-T20S-R34E  |                   | 3,759  | UNKNOWN         | 3,654     | DF    | 26-Mar-56   | 32.59653 | -103.54117 |
| J       | 3002531818            | READ & STEVENS INC                | MARK FEDERAL A                | 4  | 3P-T20S-R34E  | QUAIL RIDGE       | 6,480  | DELAWARE        | 3,664     | KB    | 27-Oct-93   | 32.59743 | -103.54009 |
| K       | <del>3002532158</del> | <del>READ &amp; STEVENS INC</del> | <del>MARK FEDERAL A</del>     | 8  | 3L-T20S-R34E  | QUAIL RIDGE       | 6,349  | DELAWARE        | 3,673     | KB    | 31-Aug-93   | 32.59925 | -103.54009 |
| L       | 3002531822            | READ & STEVENS INC                | NORTH LEA FEDERAL A           | 10 | 10A-T20S-R34E | QUAIL RIDGE       | 6,488  | DELAWARE        | 3,658     | KB    | 11-Feb-93   | 32.59290 | -103.54223 |
| M       | 3002502426            | NATIONAL COOPER REF               | FEDERAL A                     | 1  | 11E-T20S-R34E | LEA               | 14,619 | UNKNOWN         | 3,666     | DF    | 04-Nov-60   | 32.58927 | -103.53152 |
| N       | 3002533562            | ARMSTRONG ENRGY CORP              | MOBIL LEA STATE A             | 8  | 2N-T20S-R34E  | LEA NORTHEAST     | 6,275  | DELAWARE        | 3,677     | KB    | 19-Aug-2002 | 32.59578 | -103.53367 |
| O       | <del>3002533300</del> | <del>SAMSON RESOURCES CO</del>    | <del>FEDERAL-11-20-34 P</del> | 7  | 11D-T20S-R34E | LEA NORTHEAST     | 6,310  | DELAWARE        | 3,678     | KB    | 16-Aug-2003 | 32.59396 | -103.53796 |
| P       | 3002538611            | SAMSON RESOURCES CO               | FEDERAL 11 A                  | 8  | 11D-T20S-R34E | LEA               | 13,700 | PENNSYLVANIAN   | 3,652     | GR    | 14-Dec-2007 | 32.59347 | -103.53640 |
| Q       | 3002537863            | SAMSON RESOURCES CO               | EAGLE 2 STATE A               | 2  | 2L-T20S-R34E  | LEA               | 13,750 | MORROW          | 3,670     | GR    | 13-Jun-2007 | 32.60031 | -103.53688 |
| R       | 3002538451            | SAMSON RESOURCES CO               | EAGLE 2 STATE A               | 5  | 2N-T20S-R34E  | LEA               | 11,150 | BONE SPRING     | 3,662     | GR    | 23-Jul-2007 | 32.59647 | -103.53219 |

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-4

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## ARMSTRONG ENERGY CORPORATION

MOBIL LEA FEDERAL #3 PMW  
990' FSL & 870 FWL  
SECTION 2-T20S-R34E  
LEA COUNTY, NEW MEXICO

**VII. PROPOSED OPERATION:****VOLUME OF FLUID TO BE INJECTED:**

AVERAGE DAILY RATE 500 BWPD  
MAXIMUM DAILY RATE 700 BWPD

**SYSTEM TYPE:**

CLOSED

**INJECTION PRESSURE:**

AVERAGE INJECTION PRESSURE 1000 PSI  
MAXIMUM INJECTION PRESSURE 1116 PSI (5578' X .2 PSI/FT.)

**WATER SOURCE:**

PRODUCED DELAWARE WATER FROM WELLS IN SECTIONS 1, 2, 3 & 10  
T20S-R34E AND QUEEN WATER FROM SEC. 25-T19S-R34E

**WATER ANALYSIS:**

MOBIL LEA STATE #1 12/9/92

|                  |            |              |
|------------------|------------|--------------|
| TOTAL HARDNESS   | 1820.00    | me/l         |
| CALCIUM          | 32076.98   | mg/l         |
| MAGNESIUM        | 2673.31    | mg/l         |
| IRON             | 30.00      | mg/l         |
| SODIUM           | 44604.19   | mg/l         |
| CHLORIDE         | 1321995.38 | mg/l         |
| SULFATE          | 550.00     | mg/l         |
| CARBONATE        | 0.00       | mg/l         |
| BICARBONATE      | 183.04     | mg/l         |
| TOTAL SOLIDS     | 213112.90  | mg/l         |
| CARBON DIOXIDE   | 217.80     | mg/l         |
| pH               | 6.65       |              |
| SPECIFIC GRAVITY | 1.14       |              |
| TDS              | 213115.89  |              |
| RESISTIVITY      | 0.057      | @ 70 DEGREES |

ARMSTRONG ENERGY CORPORATION

MOBIL LEA FEDERAL #8 PMW  
990' FSL & 870 FWL  
SECTION 2-T20S-R34E  
LEA COUNTY, NEW MEXICO

VIII. GEOLOGICAL DATA:

GEOLOGICAL NAME: DELAWARE - CHERRY CANYON

LITHOLOGICAL DETAIL: PRIMARILY SANDSTONES INTERBEDDED WITH LIMESTONE AND SHALE.

FORMATION TOP: CHERRY CANYON - TOP @ -1899' - THIRD SAND @ -2239  
(MOBIL LEA STATE #3 LOG)

THICKNESS: 358 FT, 5578' - 5936'

GEOLOGICAL DATA OF DRINKING WATER ZONE: THE UNDERGROUND SOURCE OF DRINKING WATER IN THE AREA IS THE "CHINLEE", FORMATION WHICH OCCURS AT 65'-200' AND IS APPROXIMATELY 100'-150' THICK. THE CLOSEST FRESHWATER WELL IS THE ROBERTS WELL LOCATED ONE AND ONE-HALF MILES WEST IN THE SE/SE SECTION 4-T20S-R34E. THE STATE ENGINEERS OFFICE INDICATES THAT THERE ARE ONLY MINOR ISOLATED ACCUMULATIONS OF FRESH WATER IN THIS AREA AND THERE ARE NO WELLS WITHIN ONE MILE OF THE PROPOSED WELL.

ARMSTRONG ENERGY CORPORATION

MOBIL LEA FEDERAL #3 PMW  
990' FSL & 870 FWL  
SECTION 2-T20S-R34E  
LEA COUNTY, NEW MEXICO

**IX. STIMULATION PROGRAM:**

ACID BREAKDOWN: 5578-5726' 2000 GALS. 7 1/2% NEFE ACID  
5918-5936' 3000 GALS. 7 1/2% NEFE ACID

FRACTURE STIMULATION: 5578-5726' 60,000 GALS. & 158,500# 16/30 SAND 7 1/2% NEFE ACID  
5918-5936' 47,400 GALS. & 47,400# 16/30 SAND

**X. LOGGING AND TEST DATA:** LOGS RUN ON THIS WELL INCLUDE: GR, CNL, FDC, PE,  
DLL AND MLL  
RUN ON: 8-21-1993



## ARMSTRONG ENERGY CORPORATION

MOBIL LEA FEDERAL #3 PMW  
990' FSL & 870 FWL  
SECTION 2-T20S-R34E  
LEA COUNTY, NEW MEXICO

**XI. ANALYSIS OF FRESH WATER WELLS:**

THE CLOSEST SOURCE OF FRESH WATER IS A WINDMILL USED FOR LIVESTOCK WATERING LOCATED IN THE SE/SE OF SECTION 4-T20S-R34E. THIS IS CALLED THE ROBERTS WELL AND IT IS APPROXIMATELY ONE AND ONE-HALF MILES WEST OF THE PROPOSED PRESSURE MAINTENANCE WELL. A CHECK (10/31/95) BY ARMSTRONG ENERGY'S PUMPER INDICATED THIS WELL IS CAPPED AND WATER IS BEING PIPED TO THIS STOCK TANK FROM A SOURCE APPROXIMATELY TWO AND ONE-HALF MILES NORTH NORTHEAST OF THIS SITE. A SAMPLE OF THIS WATER WAS ANALYZED AND THE RESULTS ARE INCLUDED.

THE NEW MEXICO STATE ENGINEERS OFFICE IN ROSWELL, INDICATES THERE IS ONLY LIMITED AMOUNTS OF FRESH WATER IN THE AREA AND THE ROBERTS WELL IS THE CLOSEST SOURCE OF FRESH WATER. THEY INDICATE THE ROBERTS WELL WAS DRILLED TO A DEPTH OF 200 FEET AND PRODUCES WATER FROM THE CHINLEE FORMATION. IN JANUARY 1986 THE WELL HAD A FLUID LEVEL OF 125.86 FEET FROM THE SURFACE. THIS WELL IS CURRENTLY NOT PRODUCING.

SAMPLE FROM THE ROBERTS WELL STOCK TANK  
ANALYZED BY BAKER PETROLEUM CHEMICALS, INC.

11/01/95**ANALYSIS # 4462**

|                  |               |
|------------------|---------------|
| TOTAL HARDNESS   | 1.00 me/l     |
| CALCIUM          | 20.00 mg/l    |
| MAGNESIUM        | 0.00 mg/l     |
| IRON             | 0.00 mg/l     |
| SODIUM           | 4452.80 mg/l  |
| CHLORIDE         | 5000.00 mg/l  |
| SULFATE          | 660.00 mg/l   |
| CARBONATE        | 600.00 mg/l   |
| BICARBONATE      | 1220.00 mg/l  |
| TOTAL SOLIDS     | 11952.80 mg/l |
| CARBON DIOXIDE   | 0.00 mg/l     |
| pH               | 7.70          |
| SPECIFIC GRAVITY | 1.00          |
| TDS              | 11952.80 PPM  |

SAMPLE FROM THE ROBERTS WELL STOCK TANK  
ANALYZED BY CARDINAL LABORATORIES

07/01/10**ANALYSIS # H20259**

|             |             |
|-------------|-------------|
| CALCIUM     | 41.70 mg/l  |
| MAGNESIUM   | 10.70 mg/l  |
| SODIUM      | 36.00 mg/l  |
| CHLORIDE    | 28.00 mg/l  |
| SULFATE     | 89.50 mg/l  |
| CARBONATE   | 4.00 mg/l   |
| BICARBONATE | 112.00 mg/l |
| pH          | 8.13        |
| TDS         | 248.00 PPM  |

ARMSTRONG ENERGY CORPORATION

MOBIL LEA FEDERAL #3 PMW  
990' FSL & 870 FWL  
SECTION 2-T20S-R34E  
LEA COUNTY, NEW MEXICO

**XII. COMMUNICATION WITH SOURCES OF DRINKING WATER:**

AFTER EXAMINING ALL AVAILABLE GEOLOGICAL AND ENGINEERING DATA, WE FIND NO EVIDENCE OF OPEN FAULTS OR ANY OTHER HYDROLOGIC CONNECTION BETWEEN THE INJECTION ZONE AND ANY UNDERGROUND SOURCE OF DRINKING WATER.

ARMSTRONG ENERGY CORPORATION

MOBIL LEA FEDERAL #3 PMW  
990' FSL & 870 FWL  
SECTION 2-T20S-R34E  
LEA COUNTY, NEW MEXICO

**XIII. NOTICE**

A COPY OF OUR APPLICATION HAS BEEN FURNISHED BY CERTIFIED MAIL TO THE SURFACE OWNER AND TO EACH LEASEHOLD OPERATOR WITHIN ONE-HALF MILE OF OUR PROPOSED PRESSURE MAINTENANCE WELL. SEE LISTING ON EXHIBIT "A".

**OPERATORS**

SAMSON RESOURCES COMPANY  
200 N. LORAIN, SUITE 1010  
MIDLAND, TX 79701

MR. JOHN MAXEY  
READ & STEVENS, INC.  
P.O. BOX 1518  
ROSWELL, NM 88202-1518

MERIT ENERGY COMPANY, LLC  
13727 NOEL ROAD, SUITE 500  
TOWER 2  
DALLAS, TX 75240

**SURFACE**

MR. JIM STOVALL  
BUREAU OF LAND MANAGEMENT  
CARLSBAD FIELD OFFICE  
620 E. GREENE ST.  
CARLSBAD, NM 88220-6292

MR. KENNETH SMITH  
KENNETH SMITH, INC.                      STATE LEASE: GT2922  
267 SMITH RANCH ROAD  
HOBBS, NM 88240

MR. PATRICK H. LYONS  
NEW MEXICO STATE LAND OFFICE  
P.O. BOX 1148  
SANTA FE, NM 87504-1148

# Affidavit of Publication

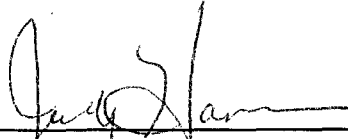
State of New Mexico,  
County of Lea.

I, JUDY HANNA  
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  
December 30, 2010  
and ending with the issue dated  
December 30, 2010

  
PUBLISHER

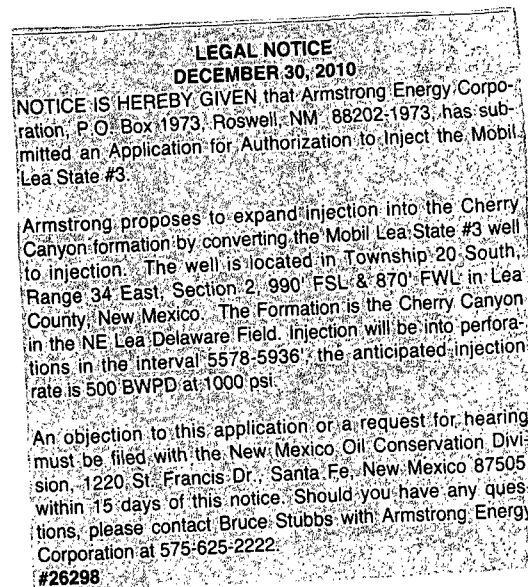
Sworn and subscribed to before me  
this 30th day of  
December, 2010

  
Notary Public

My commission expires  
February 09, 2013  
(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.



67107061

00065480

IRMA CUNNINGHAM  
ARMSTRONG ENERGY CORP  
PO BOX 1973  
ROSWELL, NM 88203

## SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Mr. John Maxey  
Read & Stevens, Inc.  
P.O. Box 1518  
Roswell, NM 88202-1518

2. Article Number  
(Transfer from service label)

7006 3450 0001 4289 4531

PS Form 3811, February 2004

Domestic Return Receipt

102595-02-M-1540

## COMPLETE THIS SECTION ON DELIVERY

A. Signature

X *L. Roderer*☐ Agent☐ Addressee

B. Received by (Printed Name)

L. Roderer

C. Date of Delivery

12-29-10

D. Is delivery address different from item 1? ☐ YesIf YES, enter delivery address below: ☐ No

3. Service Type

☒ Certified Mail ☐ Express Mail☐ Registered☒ Return Receipt for Merchandise☐ Insured Mail☐ C.O.D.

4. Restricted Delivery? (Extra Fee)

☐ Yes

## SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Samson Resources Company  
200 N. Loraine, Suite 1010  
Midland, TX 79701

2. Article Number  
(Transfer from service label)

7008 2810 0001 9033 7522

PS Form 3811, February 2004

Domestic Return Receipt

102595-02-M-1540

## COMPLETE THIS SECTION ON DELIVERY

A. Signature

X *W. Kemper*☒ Agent☐ Addressee

B. Received by (Printed Name)

W. Kemper

C. Date of Delivery

12-28-10

D. Is delivery address different from item 1? ☐ YesIf YES, enter delivery address below: ☒ No

3. Service Type

☒ Certified Mail ☐ Express Mail☐ Registered☒ Return Receipt for Merchandise☐ Insured Mail☐ C.O.D.

4. Restricted Delivery? (Extra Fee)

☐ Yes

## SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Mr. Jim Stovall  
Bureau of Land Management  
Carlsbad Field Office  
620 E. Greene St.  
Carlsbad, NM 88220-6292

2. Article Number  
(Transfer from service label)

7007 2560 0002 2220 5262

PS Form 3811, February 2004

Domestic Return Receipt

102595-02-M-1540

## COMPLETE THIS SECTION ON DELIVERY

A. Signature

X *J. Stovall*☒ Agent☐ Addressee

B. Received by (Printed Name)

Joe Stovall

C. Date of Delivery

12-28-10

D. Is delivery address different from item 1? ☐ YesIf YES, enter delivery address below: ☒ No

3. Service Type

☒ Certified Mail ☐ Express Mail☐ Registered☒ Return Receipt for Merchandise☐ Insured Mail☐ C.O.D.

4. Restricted Delivery? (Extra Fee)

☐ Yes

**SENDER: COMPLETE THIS SECTION**

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Merit Energy Company, LLC  
13727 Noel Road, Suite 500  
Tower 2  
Dallas, TX 75240

2. Article Number

(Transfer from service label)

7008 2810 0001 9033 5009

PS Form 3811, February 2004

Domestic Return Receipt

102595-02-M-1540

**COMPLETE THIS SECTION ON DELIVERY**

A. Signature

X

☐ Agent☐ Addressee

B. Received by (Printed Name)

C. Date of Delivery

D. Is delivery address different from item 1?

☐ Yes

If YES, enter delivery address below:

☐ No

3. Service Type

☒ Certified Mail☐ Express Mail☐ Registered☒ Return Receipt for Merchandise☐ Insured Mail☐ C.O.D.

4. Restricted Delivery? (Extra Fee)

☐ Yes**SENDER: COMPLETE THIS SECTION**

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Mr. Patrick H. Lyons  
New Mexico State Land Office  
P.O. Box 1148  
Santa Fe, NM 87504-1148

2. Article Number

(Transfer from service label)

7007 2560 0002 2220 5293

PS Form 3811, February 2004

Domestic Return Receipt

102595-02-M-1540

**COMPLETE THIS SECTION ON DELIVERY**

A. Signature

X

☐ Agent☐ Addressee

B. Received by (Printed Name)

C. Date of Delivery

D. Is delivery address different from item 1?

☐ Yes

If YES, enter delivery address below:

☐ No

3. Service Type

☒ Certified Mail☐ Express Mail☐ Registered☒ Return Receipt for Merchandise☐ Insured Mail☐ C.O.D.

4. Restricted Delivery? (Extra Fee)

☐ Yes**SENDER: COMPLETE THIS SECTION**

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Mr. Kenneth Smith  
Kenneth Smith, Inc.  
267 Smith Ranch Road  
Hobbs, NM 88240

2. Article Number

(Transfer from service label)

7007 2560 0002 2220 5255

PS Form 3811, February 2004

Domestic Return Receipt

102595-02-M-1540

**COMPLETE THIS SECTION ON DELIVERY**

A. Signature

X

☐ Agent☐ Addressee

B. Received by (Printed Name)

C. Date of Delivery

D. Is delivery address different from item 1?

☐ Yes

If YES, enter delivery address below:

☐ No

3. Service Type

☒ Certified Mail☐ Express Mail☐ Registered☒ Return Receipt for Merchandise☐ Insured Mail☐ C.O.D.

4. Restricted Delivery? (Extra Fee)

☐ Yes

# UNDERGROUND INJECTION CONTROL PROGRAM

## PERMIT SUMMARY PAGE

### Nature of Permit

☒ New Permit  
☐ Amend Existing Permit  
☐ Injection Pressure Increase  
☐ Renew Discharge Plan  
☐ Other(Specify) \_\_\_\_\_

### Number of Wells

☒ Single Well  
☐ Multiple Wells  
☐ Specify Number Wells \_\_\_\_\_

### Approval Process

☒ Administrative Hearing  
☐ If Hearing:  
Case No. \_\_\_\_\_  
Order No. R- \_\_\_\_\_

### OCD Standing

☒ Inactive Wells  
☒ Financial Assurance

### Reviewer

☒ Ezeanyim  
☐ Brooks  
☐ Jones  
☒ Warnell

### Quarter in which Permit Issued

☐ 1<sup>st</sup> (October-December)  
☒ 2<sup>nd</sup> (January-March)  
☐ 3<sup>rd</sup> (April-June)  
☐ 4<sup>th</sup> (July-September)

### Type of Permit

☐ SWD Well  
☒ Waterflood or Pressure Maintenance Injection Well  
☐ Class III Brine Well  
☐ Other(Specify) \_\_\_\_\_

### Final Outcome

☒ Application Approved  
☐ Application Denied  
☐ Application Returned

PMX Permit Type

259

Permit Number 21771b

Permit Date Armstrong

Operator

1092

OGRID Number

### Area of Review (AOR) Well Data

#### Area of Review Wells

18 Total Number of Area of Review Wells  
4 Plugged and Abandoned Area of Review Wells  
14 Active Area of Review Wells

#### Area of Review Wells to be Repaired

P&A Wells  
Active Wells

### Injection/Disposal Well Classification

☒ New Wells (Wells were Drilled After March 7, 1982 – New Mexico Primacy Date)

☐ Existing Wells (Wells that were Drilled Prior to March 7, 1982)