

ABOVE THIS LINE FOR DIVISION USE ONLY

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



BOPCO  
 260737

J.F. Harrison Fed #1

**ADMINISTRATIVE APPLICATION CHECKLIST**

30-015-04749

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]

Eddy

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

Drld in 1953  
 Casing Integrity

RECEIVED OGD  
 2010 NOV 18 P 12: 54

3325 PST  
 16626-17205

- [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)  
*will be provided when available*
- [F]  Waivers are Attached  
*- Notice was sent to Exxon Mobile*

[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.

Valerie Truax Print or Type Name      [Signature] Signature      Reg Clerk Title      11/18/10 Date  
vttruax@busspet.com e-mail Address

**APPLICATION FOR AUTHORIZATION TO INJECT**

I. PURPOSE: \_\_\_\_\_ Secondary Recovery \_\_\_\_\_ Pressure Maintenance  Disposal \_\_\_\_\_ Storage  
Application qualifies for administrative approval?  Yes \_\_\_\_\_ No

II. OPERATOR: BOPCO, L.P.

ADDRESS: P.O. Box 2760 Midland, TX 79702-2760

CONTACT PARTY: Valerie Truax PHONE: 432-683-227

III. WELL DATA: Complete the data required on the reverse side of this form for each well processed 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 \_\_\_\_\_

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 geological data on the injection zone including appropriate lithologic detail, geological 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 source 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: Valerie Truax TITLE: Reg. Clerk

SIGNATURE: [Signature] DATE: 11/30/10

E-MAIL ADDRESS: vtruax@bussped.com

\* If the information required under Sections VI, VII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstance of the earlier submittal: \_\_\_\_\_

**BOPCO, L. P.**  
6 DESTA DRIVE, SUITE 3700 (79705)  
P. O. BOX 2760  
MIDLAND, TEXAS 79702

(432) 683-2277

FAX (432) 687-0329

November 11, 2010

**Re: Notice of Application for  
Authorization to Convert to SWD  
JF Harrison Fed #1  
Eddy County, New Mexico  
File: 100-WF: HarFed 1 Offsetownerltr**

Oil Conservation Division  
Attention: William Jones  
1220 S. St. Francis  
Santa Fe, New Mexico 87505

Mr. Jones:

Enclosed please find BOPCO, L.P.'s Application for Authorization to Convert for disposal purposes only into the JF Harrison Fed #1, located in Section 12, T25S, R30E, Eddy County, New Mexico. It is our intention to add perforations to the Devonian as shown on the attached well-bore sketch.

The subject well is on Federal land and a complete copy of the application has been sent to the BLM's Carlsbad office and Exxon Mobile, offset operator, via Certified Mail. I will provide a copy of the signed receipt cards when they are returned.

If additional information is required, please contact Valerie Truax at the letterhead address, phone number or via email at [vltruax@basspet.com](mailto:vltruax@basspet.com)

Sincerely,



Valerie Truax  
Regulatory Clerk

vlt  
Attachments

*P.S. Copy also sent to district office in Artesia*

RECEIVED OGD  
2010 NOV 18 P 12:54

III. Well Data

- A. 1) Lease name: JF Harrison Fed  
 Well #: 1  
 Section: 12  
 Township: 25S  
 Range: 30E  
 Footage: 660' FNL & 660' FWL

2) Casing Info:

| Casing size                   | Set depth | Sacks cmt | Hole size | TOC     | Method     |
|-------------------------------|-----------|-----------|-----------|---------|------------|
| 20" 94# H-40                  | 557'      | 750       | 24"       | Surface | Circulated |
| 13-3/8" 61# & 72# N-80 & J-55 | 3971'     | 6,400     | 17-1/2"   | Surface | Circulated |
| 9-5/8" 40# & 47# N-80         | 10,073'   | 3,507     | 12-1/4"   | 4,560'  | TS         |

3) Tubing to be used (size, lining material, setting depth):  
 4-1/2" J-55 Seal Tite IPC tbg set @ 16,575'.

4) Name, model, and depth of packer to be used:  
 10K Reliant Mechanical Set Hornet Pkr EXT/INT nickel plated set @ 16,575'.

B. 1) Name of the injection formation and, if applicable, the field or pool name:  
 Devonian formation.

2) The injection interval and whether it is perforated or open hole:  
 16,626'-17,205' Devonian (open hole).

3) State if the well was drilled for injection or, if not, the original purpose of the well:  
 Drill & complete Wildcat (Wolfcamp formation) development well.

4) Give the depths of any other perforated intervals and detail on the sacks of cement or BPs used to seal off such perforations:  
 The well currently is plugged with no open perms.

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:  
 Higher: None within 1 mile  
 Lower: None

**C-108 DATA**

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.

| Well Name   | No. | API          | Operator        | Type          | Location                                  | Construction                  |                            |                                                       |        |           |           |       |              |             |
|-------------|-----|--------------|-----------------|---------------|-------------------------------------------|-------------------------------|----------------------------|-------------------------------------------------------|--------|-----------|-----------|-------|--------------|-------------|
|             |     |              |                 |               |                                           | Surface Casing                | Intermediate Casing        | Production Casing                                     | Tubing | Spud Date | Comp Date | TD    | Perforations | Stimulation |
| PLU         | 81  | 30-015-29309 | BOPCO, LP       | P&A           | 360' FNL & 330' FWL, Sec 12, T25S, R30E   | 11-3/4" @ 1079' CTS, C1625 sx | 8-5/8" @ 4,070', C11550 sx | 5-1/2" @ 8018' DVT, 440 sx;<br>5-1/2" @ 8097', 300 sx | NA     | 6/17/1997 | 7/4/1997  | 8100' | NA           | NA          |
| PLU         | 116 | 30-015-28030 | BOPCO, LP       | Never Drilled | 1980' FSL & 660' FWL, Sec 1, T25S, R30E   | NA                            | NA                         | NA                                                    | NA     | NA        | NA        | NA    | NA           | NA          |
| Shugart Fed | 1   | 30-015-10524 | Choctaw Prod Co | P&A           | 1980' FNL & 1980' FWL, Sec 12, T25S, R30E | 8-5/8" @ 341', 225 sx         | NA                         | NA                                                    | NA     | 9/16/1965 | 9/25/1965 | 4200' | NA           | NA          |

*5/16/2005*

VII. Attach data on the proposed operation, including:

- Proposed average and maximum daily rate and volume of fluids to be injected: **14,000 average, 15,000 BWPD**
- Whether the system is open or closed: **closed**
- Proposed average and maximum injection pressure: **2,325 psi average, 3,325 psi maximum**
- Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water: **water will be produced from Delaware formation**
- If injection is for disposal purposes into a zone not productive of oil & gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water: **n/a**

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 TDS 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:

Lithologic Detail: Carbonate  
 Geological Name: Devonian  
 Thickness: 579'  
 Depth: 16,626'-17,205'

The Rustler Formation is a known source of fresh water throughout this geographic area. Average depth of Rustler is 580' - 1260'. No sources of fresh water are known to exist below the proposed disposal zone.

IX. Describe the proposed stimulation program, if any.

The open hole section will be acidized with approximately 28,950 gallons 15% NEFE HCl acid (50 gallons per foot of open hole).

X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted.)  
 Logs previously submitted.

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.  
 One stock tank located near PLU #91.

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 hydrology connection between the disposal zone and any underground sources of drinking water.  
 Applicant hereby affirms that he has examined the available geologic and engineering data and finds no evidence of open faults, or other hydrologic connection between the disposal zone and any underground source of drinking water.

DST #23 (16,600-16,705). Used 8200° wb, open 3 hours, tool opened w/good blow air. Increase to strong blow immediately, sli decrease throughout test. No gas to surface. Recovered 12,788° total fluid, being 7850° wb, / 3398° black salty sulfur water w/sour odor, / 350° mud cut wb, / 920° mud cut salt water (sulfur odor & taste 24500 PPM chlor.) / 270° mud cut salt water (83000 PPM chlor.).  
FP 4120-5920# 30 Min. SIP 7390#.

The total depth of 16,705° was reached in 455 days. Casing record as follows:  
20" @ 539° w/750 sacks cement, 13 3/8" @ 3954° w/6450 sacks cement, 9 5/8" @ 10,058° w/2540 sacks cement, 7" Liner 9850-16,626 w/1150 sacks cement. Perforated 7" Liner at 10,025°, 11,930° and 12,360° and squeezed with 825 sacks cement, total of 1975 sacks cement behind 7" Liner. Plugged and abandoned September 20, 1954.

**CURRENT WELLBORE DIAGRAM**

Lease: J F Harrison Federal Well No.: 1  
 Field: Wildcat (Wolfcamp)  
 Location: 660' FNL & 660' FWL, SEC 12-T25S-R30E  
 County: EDDY St: NM API: 30-015-04749

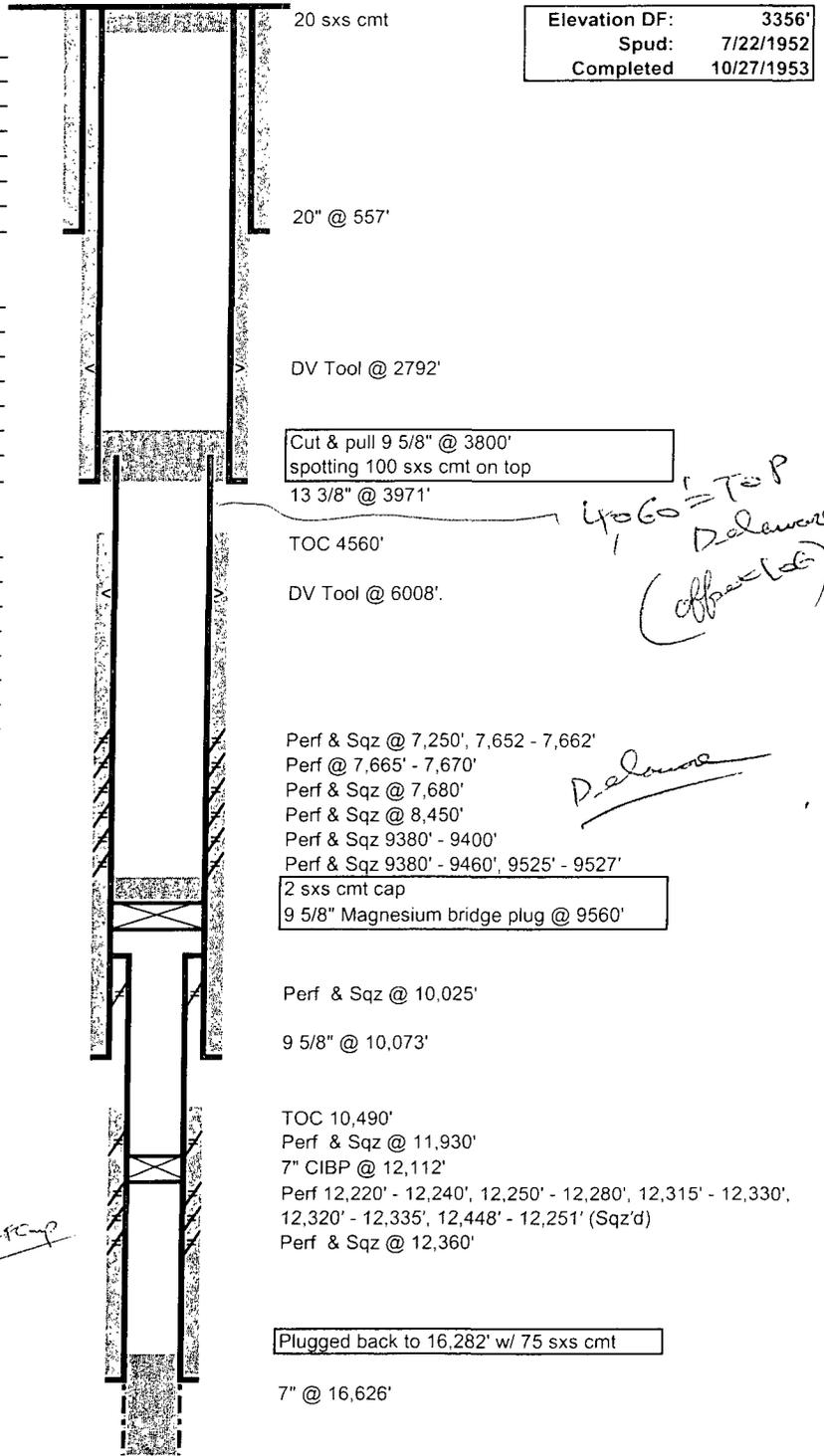
**Surface Csg.**  
 Size: 20"  
 Wt: 94#  
 Grd: H-40  
 Set @: 557'  
 Sxs cmt: 750  
 Circ: 7 sks  
 TOC: Surface  
 Hole Size: 24"

**Intermediate Csg.**  
 Size: 13 3/8"  
 Wt: 61/72#  
 Grd: J-55/N80  
 Set @: 3971'  
 Sxs Cmt: 6400  
 Circ: 2000 sks  
 TOC: Surface  
 Hole Size: 17 1/2"

**Intermediate Csg.**  
 Size: 9 5/8"  
 Wt: 40/47#  
 Grd: N-80  
 Set @: 10,073'  
 Sxs Cmt: 3507  
 Circ: None  
 TOC: 4560' (Temp Log)  
 Hole Size: 12 1/4"

**Production Liner**  
 Size: 7"  
 Wt: 32#  
 Grd: N-80  
 Set @: 9850' - 16,626'  
 Sxs Cmt: 1675  
 Circ: None  
 TOC: 10490'  
 Hole Size: 8 5/8"

**Open Hole**  
 Size: 5 7/8"



PBTD: 16,282'  
 TD: 16,705'

Updated: 8/23/2010  
 Author: crm  
 Engr: GEG

**PROPOSED WELLBORE DIAGRAM**

Lease: J F Harrison Federal Well No.: 1  
 Injection  
 Reservoir: Devonian  
 Location: 660' FNL & 660' FWL, SEC 12-T25S-R30E  
 County: EDDY St: NM API: 30-015-04749

**Surface Csg.**  
 Size: 20"  
 Wt: 94#  
 Grd: H-40  
 Set @: 557'  
 Sxs cmt: 750  
 Cir: 7 sks  
 TOC: Surface  
 Hole Size: 24"

|               |            |
|---------------|------------|
| Elevation DF: | 3356'      |
| Spud:         | 7/22/1952  |
| Completed:    | 10/27/1953 |

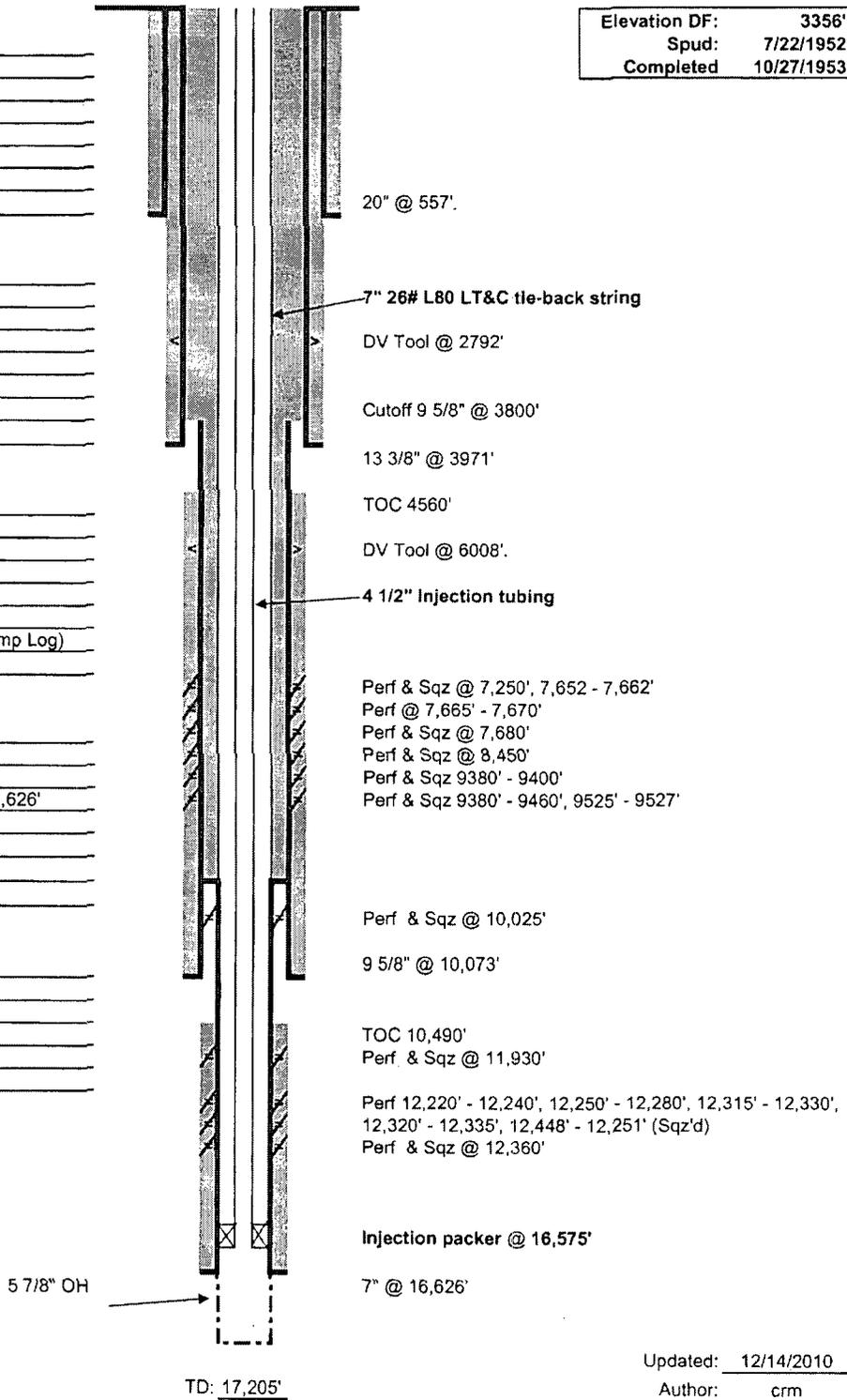
**Intermediate Csg.**  
 Size: 13 3/8"  
 Wt: 61/72#  
 Grd: J-55  
 Set @: 3971'  
 Sxs Cmt: 6400  
 Cir: 2000 sks  
 TOC: Surface  
 Hole Size: 17 1/2"

**Intermediate Csg.**  
 Size: 9 5/8"  
 Wt: 40/42#  
 Grd: N-80  
 Set @: 10,073'  
 Sxs Cmt: 3507  
 Cir: None  
 TOC: 4560' (Temp Log)  
 Hole Size: 12 1/4"

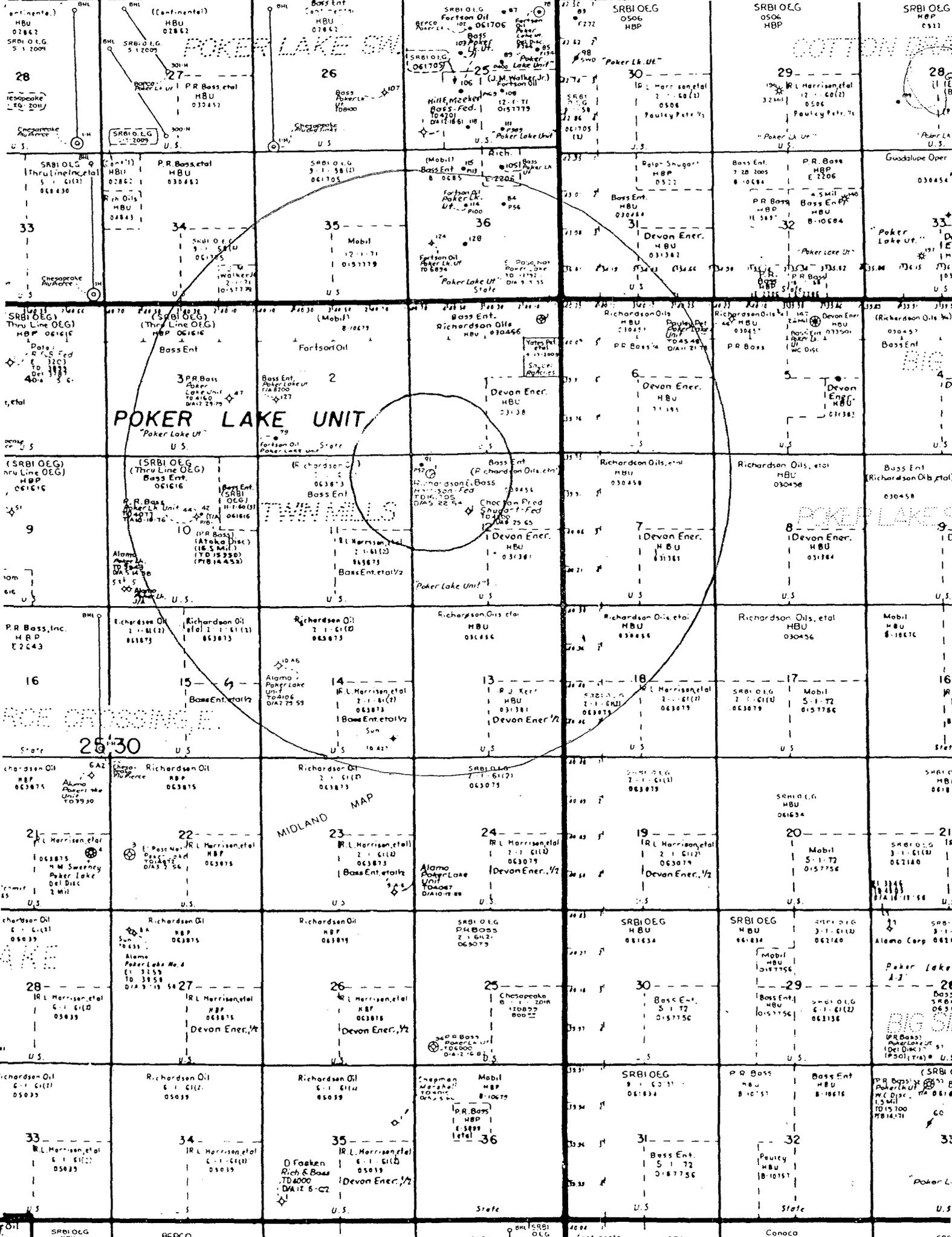
**Production Csg.**  
 Size: 7"  
 Wt: 32#  
 Grd: N-80  
 Set @: 9850' - 16,626'  
 Sxs Cmt: 1675  
 Cir: None  
 TOC: 10490'  
 Hole Size: 8 5/8"

**Liner**  
 Size: \_\_\_\_\_  
 Wt: \_\_\_\_\_  
 Grd: \_\_\_\_\_  
 Set @: 0' - 9850'  
 Sxs Cmt: \_\_\_\_\_  
 TOC: Surface

**Open Hole**  
 Size: 5 7/8"



Updated: 12/14/2010  
 Author: crm  
 Engr: CCC



**POKER LAKE UNIT**  
"Poker Lake Unit"  
U.S.

**MIDLAND MAP**

SRBIO OEG  
HBU  
02862  
SRBIO OEG  
5-1-2009

(Continental)  
HBU  
02862  
SRBIO OEG  
5-1-2009

SRBIO OEG  
HBU  
02862

SRBIO OEG  
HBU  
061709

SRBIO OEG  
0506  
HBP

SRBIO OEG  
0506  
HBP

SRBIO OEG  
HBP  
0511

SRBIO OEG  
HBU  
02862

SRBIO OEG  
HBU  
02862

SRBIO OEG  
HBU  
061709

SRBIO OEG  
HBU  
061616

# PLUG AND ABANDON WELLBORE

**LEASE:** POKER LAKE UNIT      **WELL #:** 91 -- P&A'D (6/13/2007)  
**FIELD:** NE CORRAL CANYON (DELAWARE) FIELD  
**LOCATION:** 360' FNL & 330' FWL, SEC 12, T25S, R30E  
**COUNTY:** EDDY      **ST:** NM      **API:** 30-015-29509

|            |          |
|------------|----------|
| KB:        | 3372.5'  |
| GL:        | 3355.7'  |
| SPUD DATE: | 6/1/1997 |
| COMP DATE: | 7/4/1997 |

**SURFACE CASING**

|            |         |           |
|------------|---------|-----------|
| SIZE:      | 11-3/4" |           |
| WT/GRD:    | 42#     | WC-40 STC |
| CSA:       | 1079'   |           |
| SX:        | 625     |           |
| CIRC:      | Yes     | 161 SXS   |
| TOC:       | SURF    |           |
| HOLE SIZE: | 14-3/4" | 1084'     |

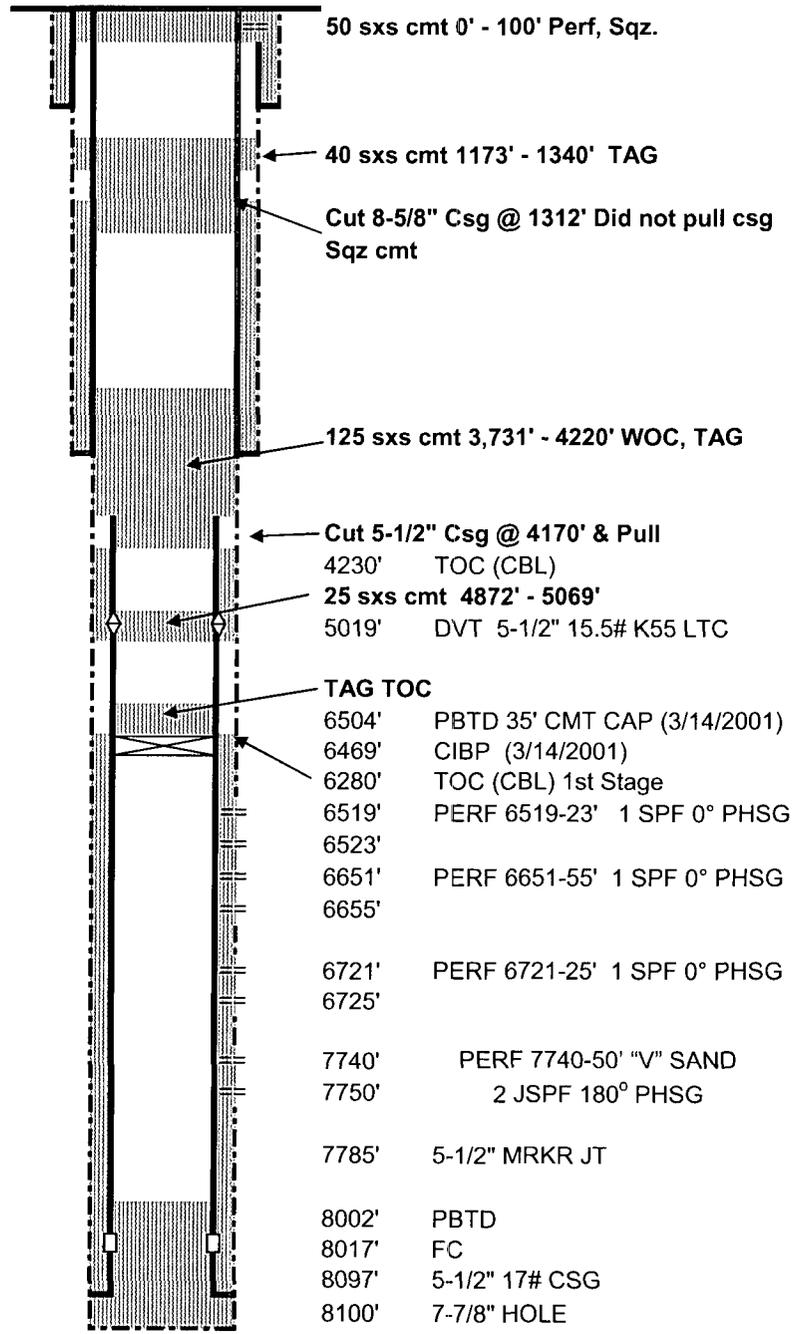
**INTERMEDIATE CASING**

|            |        |          |
|------------|--------|----------|
| SIZE:      | 8-5/8" |          |
| WT/GRD:    | 32#    | WC50 LTC |
| CSA:       | 4070'  |          |
| SX:        | 1550   |          |
| CIRC:      | No     |          |
| TOC:       | 1356'  | TS       |
| HOLE SIZE: | 11"    | 4072'    |

NOTE: CALIPER INDICATES AVG HOLE SIZE 14-1/4"

**PRODUCTION CASING**

|            |            |            |
|------------|------------|------------|
| SIZE:      | 5-1/2"     |            |
| WT/GRD:    | 15.5# K55  | 0-5019'    |
| WT/GRD:    | 17# LS LTC | 5019-8097' |
| CSA:       | 8097'      |            |
| SX:        | 440        | CLS "H"    |
| SX:        | 300        | CLS "C"    |
| CIRC:      | No         | 6280' CBL  |
| TOC:       | 4230'      | CBL        |
| HOLE SIZE: | 7-7/8"     | 8100'      |



PBTD: 6504'  
 TD: 8100'  
 LOGGER TD: 8128'

Updated: 3/9/2007  
 Author: WHF  
 Engr: MMM

N. M. O. C. C. COPY

Bureau Form No. 10 (1954)  
Approved for use by the Department of the Interior

Form 10-54

(SUBMIT IN TRIPPLICATE)

Land Office New Mexico

Lease No. 030456

Unit Poker Lake

**APPROVED**  
SEP 3 1965  
RUDOLPH C. BAUER, JR.  
CONTRACTING DISTRICT ENGINEER

UNITED STATES DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

OCT 1 1965

O. C. C.

**SUNDRY NOTICES AND REPORTS ON WELLS**

|                                                                         |                                                                     |
|-------------------------------------------------------------------------|---------------------------------------------------------------------|
| <input type="checkbox"/> NOTICE OF INTENTION TO DRILL                   | <input type="checkbox"/> SUBSEQUENT REPORT OF WATER SHUT-OFF        |
| <input type="checkbox"/> NOTICE OF INTENTION TO CHANGE PLANS            | <input type="checkbox"/> SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING |
| <input type="checkbox"/> NOTICE OF INTENTION TO TEST WATER SHUT-OFF     | <input type="checkbox"/> SUBSEQUENT REPORT OF ALTERING CASING       |
| <input type="checkbox"/> NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL | <input type="checkbox"/> SUBSEQUENT REPORT OF RE-DRILLING OR REPAIR |
| <input type="checkbox"/> NOTICE OF INTENTION TO SHOOT OR ACIDIZE        | <input type="checkbox"/> SUBSEQUENT REPORT OF ABANDONMENT           |
| <input type="checkbox"/> NOTICE OF INTENTION TO PULL OR ALTER CASING    | <input type="checkbox"/> SUPPLEMENTARY WELL HISTORY                 |
| <input type="checkbox"/> NOTICE OF INTENTION TO ABANDON WELL            |                                                                     |

**RECEIVED**  
SEP 29 1965  
U.S. GEOLOGICAL SURVEY  
ARTESIA, NEW MEXICO

INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER ACTION

September 26, 1965

CHOCTAW PRODUCTION CO. - Shugart Federal

Well No. 1 is located 1980 ft. from <sup>N</sup> line and 1980 ft. from <sup>E</sup> line of sec. 12

NW 1/4 Sec. 12

T-25-S R-30-E

NMPM

Wildcat

Eddy County

New Mexico

KDB Elev. (Measurement Datum) is

The elevation of the derrick floor above sea level is 3370 ft. 3371. Ground Level Elev. is 3363.

**DETAILS OF WORK**

State names of and expected depths to obtain the same; show sizes, weights, and lengths of proposed casing; indicate mudding jobs, cementing points, and all other important proposed work.

Well was drilled to a total depth of 4200' as of 6:30 p.m. MST 9-25-65. The interval 4100-4200 was cored, a Lane Wells gamma ray - acoustic log had been run, and a drill stem test had been taken. The drill stem test was run with a straddle tool to test the interval 4123 -4135, recovering 330' of salt water. Verbal application to plug and abandon was made to Mr. Knauf with the USGS at Artesia, and it was agreed that the well would be plugged by spotting sufficient cement to make a 100' plug at each of the following depths; 4150-4050, at the anhydrite between the Castile and Salado (about 2400-2300), at the top of salt 900-800, across the bottom of the surface casing 390-290. The final plug will be 15 sx. in the top of the 8-5/8" OD casing, with the 4 1/2" OD pipe marker stencilled with the name of the operator, name of well, and location.

*No wellbore sketch found on ocd website.*

Understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company Choctaw Production Company

Address 815 Throckmorton Street

Ft. Worth, Texas 76102

*Walter D. Powers*

Walter D. Powers

Title Engineer

Analytical Laboratory Report for:

**BOPCO LP**



BJ Chemical Services

Account Representative:

Mossman, Willis

## Production Water Analysis

*fresh water stock tank  
near PLU91*

Listed below please find water analysis report from: POKER LAKE UNIT, Fresh Water Well 91

*360' FWL+*

*330' FWL*

*See 12, T25S, R30E*

Lab Test No: 2010120071

Sample Date:

04/22/2010

Specific Gravity: 1.002

TDS: 730

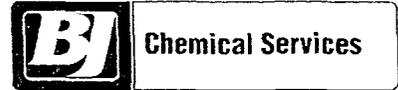
pH: 7.60

| Cations:         | mg/L  | as:                              |
|------------------|-------|----------------------------------|
| Calcium          | 109   | (Ca <sup>++</sup> )              |
| Magnesium        | 29.00 | (Mg <sup>++</sup> )              |
| Sodium           | 78    | (Na <sup>+</sup> )               |
| Iron             | 0.50  | (Fe <sup>++</sup> )              |
| Potassium        | 5.0   | (K <sup>+</sup> )                |
| Barium           | 0.46  | (Ba <sup>++</sup> )              |
| Strontium        | 1.31  | (Sr <sup>++</sup> )              |
| Manganese        | 0.03  | (Mn <sup>++</sup> )              |
| Anions:          | mg/L  | as:                              |
| Bicarbonate      | 146   | (HCO <sub>3</sub> <sup>-</sup> ) |
| Sulfate          | 240   | (SO <sub>4</sub> <sup>=</sup> )  |
| Chloride         | 120   | (Cl <sup>-</sup> )               |
| Gases:           |       |                                  |
| Carbon Dioxide   | 50    | (CO <sub>2</sub> )               |
| Hydrogen Sulfide | 17    | (H <sub>2</sub> S)               |

BOPCO LP

Lab Test No: 2010120071

DownHole SAT™ Scale Prediction  
@ 100 deg. F

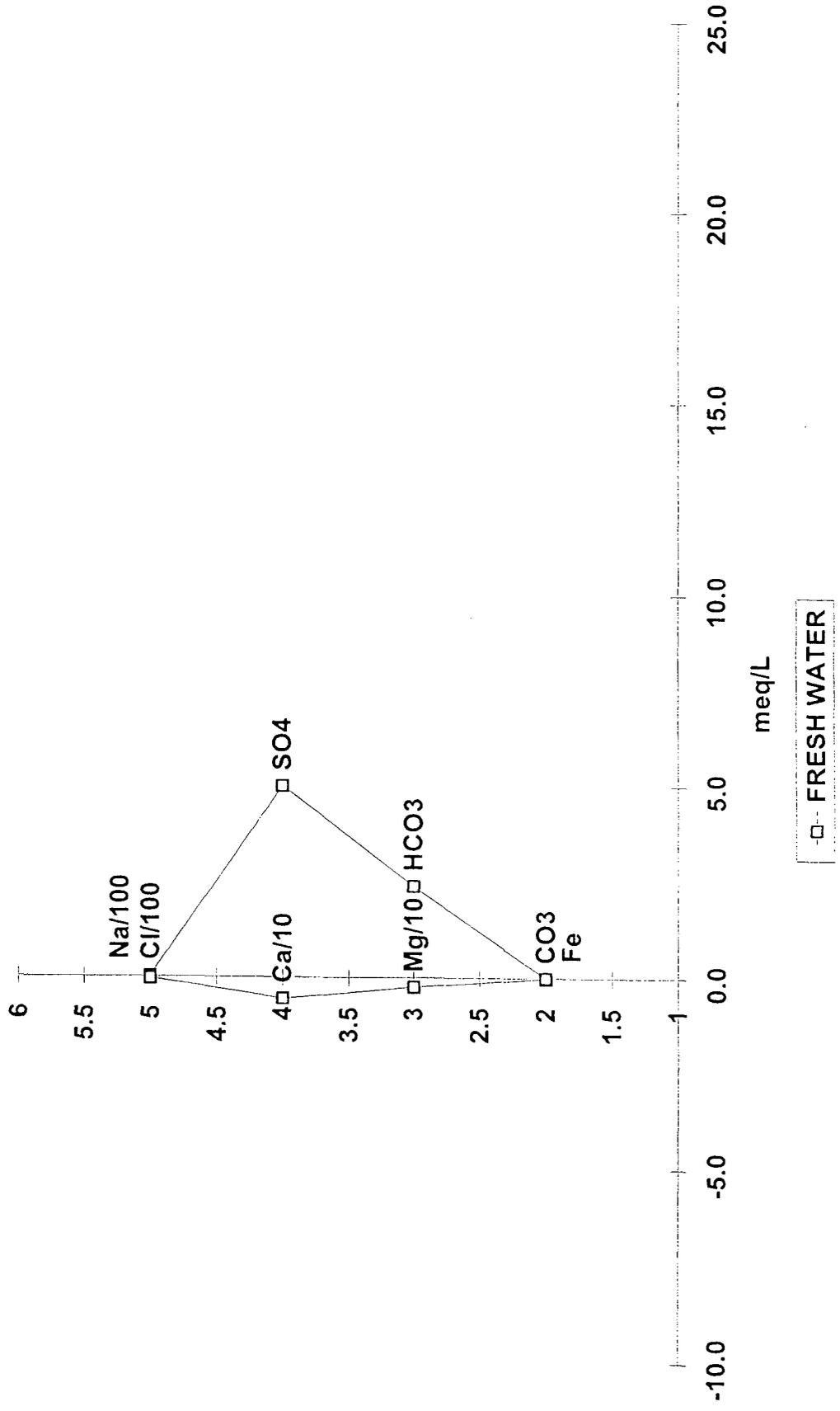


| Mineral Scale        | Saturation Index | Momentary Excess<br>(lbs/1000 bbls) |
|----------------------|------------------|-------------------------------------|
| Calcite (CaCO3)      | 1.50             | 0.21                                |
| Strontianite (SrCO3) | 0.05             | -4.75                               |
| Anhydrite (CaSO4)    | 0.04             | -1079.08                            |
| Gypsum (CaSO4*2H2O)  | 0.06             | -967.16                             |
| Barite (BaSO4)       | 9.05             | 0.70                                |
| Celestite (SrSO4)    | 0.03             | -85.60                              |
| Siderite (FeCO3)     | 14.31            | 0.58                                |
| Halite (NaCl)        | 0.00             | -426942.47                          |
| Iron sulfide (FeS)   | 328.85           | 0.42                                |

**Interpretation of DHSat Results:**

The Saturation Index is calculated for each mineral species independently and is a measure of the degree of supersaturation (driving force for precipitation) under the conditions modeled. This value ranges from 0 to infinity with 1.0 representing a condition of equilibrium where scale will neither dissolve nor precipitate. Values less than 1.0 are undersaturated and values greater than 1.0 are supersaturated. The Momentary excess is a measure of how much scale would have to precipitate to bring the system back to a non-scaling condition. This value ranges from negative (dissolving) to positive (precipitating) values. The Momentary Excess represents the amount of scale possible while the Saturation Level represents the probability that scale will form.

FRESH WATER STOCK TANK NEAR PLU 91



4/22/2010

**BOPCO, L. P.**  
6 DESTA DRIVE, SUITE 3700 (79705)  
P. O. BOX 2760  
MIDLAND, TEXAS 79702

(432) 683-2277

FAX (432) 687-0329

November 11, 2010

Re: Application to Inject Fluid  
JF Harrison Fed #1  
Eddy County, New Mexico  
File: 100-WF: HarFed 1 Offsetownerltr

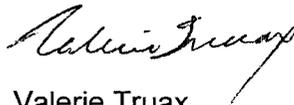
Exxon Mobile Production Corp  
c/o Mr. Bob Mathew  
Corp-WGR-776  
P.O. Box 4610  
Houston, TX 77210-4610

Mr. Mathew:

This letter and attached copy of our injection well application is to notify you, as offset operator, that BOPCO, L.P. is petitioning the Oil Conservation Division to grant permission to inject fluid into a non productive zone of oil and gas in the subject wellbore.

If you should have any questions or require additional information, please contact Valerie Truax at the above letterhead address, phone number or via email at [vltruax@basspet.com](mailto:vltruax@basspet.com). Any objections or requests for hearing must be filed with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days of this letter's date. Please sign and return the enclosed Waiver Request if there are no objections.

Sincerely,



Valerie Truax  
Regulatory Clerk

vl  
Attachments

Article Number

COMPLETE THIS SECTION ON DELIVERY

A. Received by (Print Name) *H. Onsilver* Date of Delivery *11/24*

C. Signature *H. Onsilver*

2. Service Type: CERTIFIED MAIL

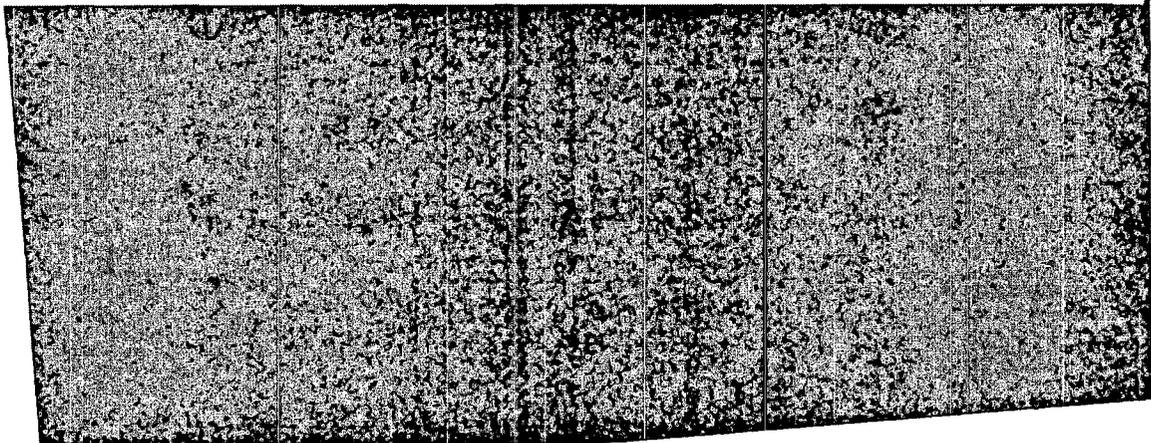
3. Restricted Delivery / Extra Fee: Yes

Article Addressed to:

Bureau of Land Management  
620 E. Greenc Street  
Carlsbad, NM 88220-6292

PS Form 3811, January 2005

Domestic Return Receipt





PLACE STICKER AT TOP OF ENVELOPE TO THE RIGHT OF RETURN ADDRESS FOLD AT DOTTED LINE

2. Article Number  
 7150 3901 9846 3454 8958

3. Service Type: CERTIFIED MAIL

4. Restricted Delivery? (Extra Fee)  Yes

1. Article Addressed to:  Yes

C. Signature *[Signature]*

D. Is delivery address different from item types?  YES, enter delivery address below

USPS  
 CENTER STATION, OK  
 DEC 20 2005

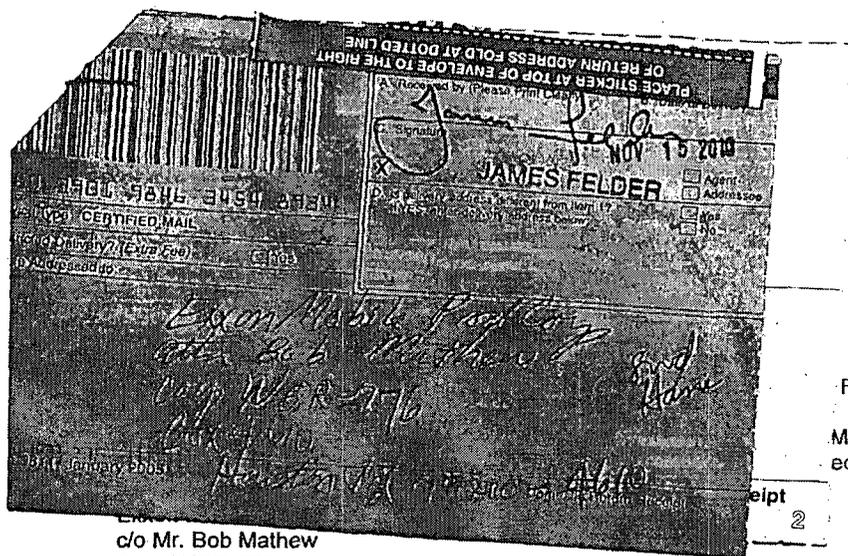
Devon Energy Prod Co  
 c/o Teresa King  
 20 N Broadway Suite 1500  
 Oklahoma City, OK 73102

PS Form 3811, January 2005

Domestic Return Receipt

STAMPED BY  
 DEVON

Signed receipt for JF Harrison Fed #1 SWD well.



FAX (432) 687-0329

Fluid

Mexico  
ed 1 Offsetownerltr

c/o Mr. Bob Mathew  
Corp-WGR-776  
P.O. Box 4610  
Houston, TX 77210-4610

Mr. Mathew:

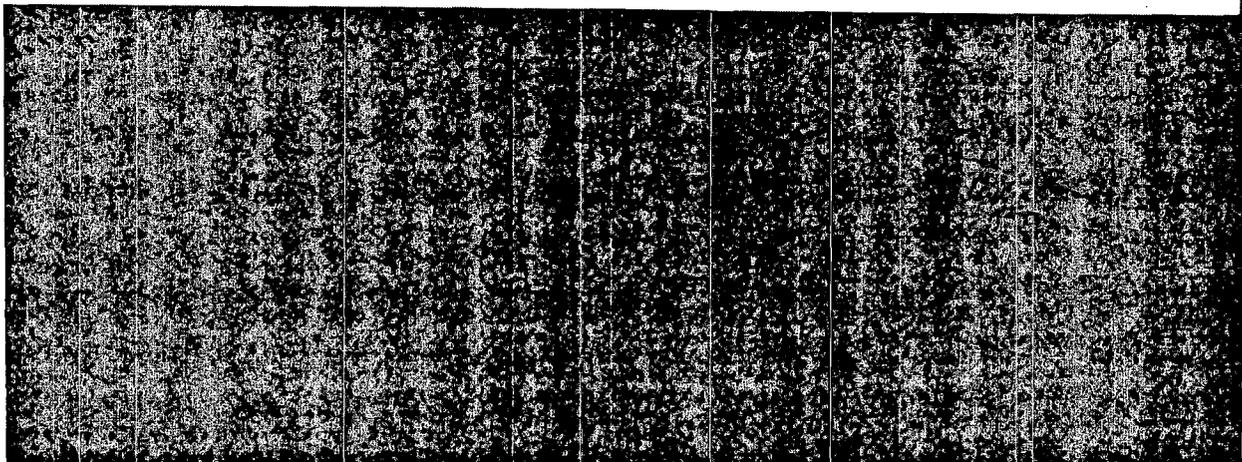
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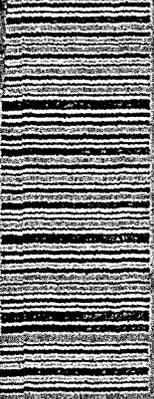
Sincerely,

Valerie Truax  
Regulatory Clerk

vt  
Attachments



2. Article Number



7160 3503 9846 3454 8534

3. Service Type CERTIFIED MAIL

4. Restricted Delivery? (Extra Fee)  Yes

1. Article Addressed to:

Exxon Mobile Prod Corp  
c/o Bob Mathewson  
c/o WSR-776  
Box 4610  
Houston TX 77210-4610

JAMES FELDER

Signature

Agent  
Addressee

D. Is delivery address different from item 1? If YES, enter delivery address below:

Yes  
No

PS Form 3811, January 2005

Domestic Return Receipt

PLACE STICKER AT TOP OF ENVELOPE TO THE RIGHT OF RETURN ADDRESS. FOLD AT DOTTED LINE

NOV 15 2010

RECEIVED OGD  
2010 NOV 23 A 11: 33

signed Receipt  
by Exxon for  
JF Hanison SUD  
well application

**Affidavit of Publication**

State of New Mexico,  
County of Eddy, ss.

**Kathy McCarroll**, being first duly sworn,  
on oath says:

That she is the Classified Supervisor of the Carlsbad Current-Argus, a newspaper published daily at the City of Carlsbad, in said county of Eddy, state of New Mexico and of general paid circulation in said county; that the same is a duly qualified newspaper under the laws of the State wherein legal notices and advertisements may be published; that the printed notice attached hereto was published in the regular and entire edition of said newspaper and not in supplement thereof on the date as follows, to wit:

October 16 2010

That the cost of publication is \$56.74 and that payment thereof has been made and will be assessed as court costs.

Kathy McCarroll

Subscribed and sworn to before me this

19<sup>th</sup> day of October, 2010

Stephanie Dobson

My commission Expires on 1/25/2014

Notary Public



October 16, 2010  
NOTICE OF APPEAL  
CATION FOR SALT  
WATER DISPOSAL  
WELL PERMIT  
BOPCO, L.P. has ap-  
plied to the New  
Mexico Oil Conserva-  
tion Division for a  
permit to dispose of  
produced salt water  
or other oil and gas  
waste into a porous  
formation not pro-  
ductive of oil or gas.  
The applicant propos-  
es to dispose of pro-  
duced water or other  
oil and gas waste into  
the J.F. Harrison Fed-  
eral Devonian Forma-  
tion. The maximum  
injection pressure  
will be 3,325 psi and  
the maximum rate  
will be 15,000 bbls  
produced water/day.  
The proposed dispos-  
al well is located 1.4  
miles southeast of  
Malaga, New Mexico  
in Section 12, T25S,  
R30E, Eddy County,  
New Mexico. The  
produced salt water  
will be disposed at a  
subsurface depth of  
16,626-17,205'.  
Any questions con-  
cerning this applica-  
tion should be direct-  
ed to Valerie Giroux,  
Regulatory Clerk,  
BOPCO, L.P., P.O.  
Box 2760, Midland,  
Texas 79702-2760,  
(432) 683-2277.  
Interested parties  
must file objections  
or requests for hear-  
ing with the Oil Con-  
servation Division,  
1220 S. St. Francis  
Dr., Santa Fe, New  
Mexico 87505 within  
15 days.

RECEIVED  
OCT 27 2010  
BOPCO WTD PRODUCTION

**Jones, William V., EMNRD**

---

**From:** Jones, William V., EMNRD  
**Sent:** Monday, December 13, 2010 5:16 PM  
**To:** 'Truax, Valerie L.'  
**Cc:** Ezeanyim, Richard, EMNRD; Dade, Randy, EMNRD; 'Wesley\_Ingram@blm.gov'  
**Subject:** Disposal application from BOPCO LP: J.F. Harrison Federal #1 30-015-04749 Devonian from 16626 - 17205 open hole

Hello Valerie:  
Just reviewed your application.

*ANDY Morrison will send out Broker TODAY 12/14/10*

- a. Please confirm that Exxon is the only other owner within the ½ mile Area of Review. The midland map you sent with the application shows Fortson and Devon also...so I am confused.
- b. Please send proof of notice to the BLM in Carlsbad.
- c. We have the summary of the extensive coring and DST's on this deep, science well, but no elogs appear on the OCD web site. Please look through your internal well file and send copies of any logs run to the Hobbs OCD office for scanning into the imaging system. If no logs were run, let me know that also.
- d. The 7 inch liner is shown as extending from 9850 to 16626. The post conversion wellbore diagram shows tieback cement of the new 7 inch to approx 7000 feet. Is this correct? Is the 7 inch casing planned to extend to surface?

Thank you for this application.

Regards,

William V Jones, P.E.  
Engineering, Oil Conservation Division  
1220 South St. Francis Drive, Santa Fe, NM 87505  
Tel 505.476.3448 ~ Fax 505.476.3462



*12/15/10 - NOTICED DEVON*  
*Robson X 1/3/11*

## Jones, William V., EMNRD

---

**From:** Truax, Valerie L. [VLTruax@BassPet.Com]  
**Sent:** Wednesday, December 15, 2010 9:25 AM  
**To:** Jones, William V., EMNRD  
**Cc:** Cruz, Carlos  
**Subject:** RE: Disposal application from BOPCO LP: J.F. Harrison Federal #1 30-015-04749 Devonian from 16626 - 17205 open hole  
**Attachments:** HARSWD.pdf; Harr Fed.pdf

Will,

- a. Andy spoke to you. Exxon attached; Devon in process.
- b. see attached – sorry I had some confusion on the Exxon receipt & didn't get these to you earlier. (We have had no response from Exxon.) If you can't read these or need me to mail them to you, please let me know.
- c. Contacted Larry in Ft. Worth – waiting on his response.
- d. Per Carlos, we will run the cement & liner to the surface. I have attached an updated proposed wellbore sketch.

Will get to your other emails soon....thanks. Valerie

---

**From:** Jones, William V., EMNRD [<mailto:William.V.Jones@state.nm.us>]  
**Sent:** Monday, December 13, 2010 6:16 PM  
**To:** Truax, Valerie L.  
**Cc:** Ezeanyim, Richard, EMNRD; Dade, Randy, EMNRD; [Wesley\\_Ingram@blm.gov](mailto:Wesley_Ingram@blm.gov)  
**Subject:** Disposal application from BOPCO LP: J.F. Harrison Federal #1 30-015-04749 Devonian from 16626 - 17205 open hole

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- a. Please confirm that Exxon is the only other owner within the ½ mile Area of Review. The midland map you sent with the application shows Fortson and Devon also.....so I am confused.
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Regards,

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## Jones, William V., EMNRD

---

**From:** Truax, Valerie L. [VLTruax@BassPet.Com]  
**Sent:** Wednesday, December 15, 2010 9:21 AM  
**To:** Jones, William V., EMNRD  
**Subject:** FW: Disposal application from BOPCO LP: J.F. Harrison Federal #1 30-015-04749 Devonian from 16626 - 17205 open hole  
**Attachments:** JF Harrison SWD .5mi plat.pdf

Will, I am in the process of sending the notification to Devon. I have some answers to some of your other questions – they are on the way.

---

**From:** Morrison, Andy  
**Sent:** Wednesday, December 15, 2010 9:07 AM  
**To:** Truax, Valerie L.  
**Subject:** RE: Disposal application from BOPCO LP: J.F. Harrison Federal #1 30-015-04749 Devonian from 16626 - 17205 open hole

Valerie,

Please find attached a plat showing the 1/2mile radius around the JF Harrison well. In addition to XOM in Sec. 2, we will also need to notify Devon. The plat attached to the original map is very old, Devon now owns Fortson's interest. I spoke with Will Jones yesterday and he said he would have the application ready to go out pending proof of notification to all 3<sup>rd</sup> parties. If you need anything else, please let me know.

Thanks,

**Andy Morrison**  
BOPCO, L.P.  
201 N. Main St., Suite 2900  
Fort Worth, TX 76102  
Bus: (817) 339-7036  
Fax: (817) 339-7102

---

**From:** Truax, Valerie L.  
**Sent:** Tuesday, December 14, 2010 9:16 AM  
**To:** Morrison, Andy  
**Subject:** FW: Disposal application from BOPCO LP: J.F. Harrison Federal #1 30-015-04749 Devonian from 16626 - 17205 open hole

Andy, what kind of a response do you want me to send Will regarding his point a (see attached map)? Or do you want to answer him directly? Thanks. Valerie

---

**From:** Jones, William V., EMNRD [<mailto:William.V.Jones@state.nm.us>]  
**Sent:** Monday, December 13, 2010 6:16 PM  
**To:** Truax, Valerie L.  
**Cc:** Ezeanyim, Richard, EMNRD; Dade, Randy, EMNRD; [Wesley Ingram@blm.gov](mailto:Wesley_Ingram@blm.gov)  
**Subject:** Disposal application from BOPCO LP: J.F. Harrison Federal #1 30-015-04749 Devonian from 16626 - 17205 open hole

Hello Valerie:  
Just reviewed your application.

- a. Please confirm that Exxon is the only other owner within the ½ mile Area of Review. The midland map you sent with the application shows Fortson and Devon also.....so I am confused.
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- d. The 7 inch liner is shown as extending from 9850 to 16626. The post conversion wellbore diagram shows tieback cement of the new 7 inch to approx 7000 feet. Is this correct? Is the 7 inch casing planned to extend to surface?

Thank you for this application.

Regards,

William V. Jones, P.E.  
Engineering, Oil Conservation Division  
1220 South St. Francis Drive, Santa Fe, NM 87505  
Tel 505.476.3448 ~ Fax 505.476.3462



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## Jones, William V., EMNRD

---

**From:** Truax, Valerie L. [VLTruax@BassPet.Com]  
**Sent:** Thursday, December 23, 2010 9:31 AM  
**To:** Jones, William V., EMNRD  
**Subject:** FW: Disposal application from BOPCO LP: J.F. Harrison Federal #1 30-015-04749 Devonian from 16626 - 17205 open hole  
**Attachments:** JF Harrison SWD .5mi plat.pdf

I believe you should have the information you requested. If you are missing something, please let me know! Merry Christmas.

---

**From:** Truax, Valerie L.  
**Sent:** Wednesday, December 15, 2010 10:21 AM  
**To:** 'Jones, William V., EMNRD'  
**Subject:** FW: Disposal application from BOPCO LP: J.F. Harrison Federal #1 30-015-04749 Devonian from 16626 - 17205 open hole

Will, I am in the process of sending the notification to Devon. I have some answers to some of your other questions – they are on the way.

---

**From:** Morrison, Andy  
**Sent:** Wednesday, December 15, 2010 9:07 AM  
**To:** Truax, Valerie L.  
**Subject:** RE: Disposal application from BOPCO LP: J.F. Harrison Federal #1 30-015-04749 Devonian from 16626 - 17205 open hole

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Thanks,

**Andy Morrison**  
BOPCO, L.P.  
201 N. Main St., Suite 2900  
Fort Worth, TX 76102  
Bus: (817) 339-7036  
Fax: (817) 339-7102

---

**From:** Truax, Valerie L.  
**Sent:** Tuesday, December 14, 2010 9:16 AM  
**To:** Morrison, Andy  
**Subject:** FW: Disposal application from BOPCO LP: J.F. Harrison Federal #1 30-015-04749 Devonian from 16626 - 17205 open hole

Andy, what kind of a response do you want me to send Will regarding his point a (see attached map)? Or do you want to answer him directly? Thanks. Valerie

**From:** Jones, William V., EMNRD [<mailto:William.V.Jones@state.nm.us>]

**Sent:** Monday, December 13, 2010 6:16 PM

**To:** Truax, Valerie L.

**Cc:** Ezeanyim, Richard, EMNRD; Dade, Randy, EMNRD; [Wesley\\_Ingram@blm.gov](mailto:Wesley_Ingram@blm.gov)

**Subject:** Disposal application from BOPCO LP: J.F. Harrison Federal #1 30-015-04749 Devonian from 16626 - 17205 open hole

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- c. We have the summary of the extensive coring and DST's on this deep, science well, but no elogs appear on the OCD web site. Please look through your internal well file and send copies of any logs run to the Hobbs OCD office for scanning into the imaging system. If no logs were run, let me know that also.
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Regards,

William V Jones, P.E.

Engineering, Oil Conservation Division

1220 South St. Francis Drive, Santa Fe, NM 87505

Tel 505.476.3448 ~ Fax 505.476.3462



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## Jones, William V., EMNRD

---

**From:** Truax, Valerie L. [VLTruax@BassPet.Com]  
**Sent:** Thursday, December 23, 2010 8:52 AM  
**To:** Jones, William V., EMNRD; Galindo, Erma M.  
**Subject:** FW: Disposal application from BOPCO LP: J.F. Harrison Federal #1 30-015-04749 Devonian from 16626 - 17205 open hole

Will, for your info, I received the signed certified mail receipt from the OCD office in Hobbs (signed on 12/20/10).

---

**From:** Truax, Valerie L.  
**Sent:** Friday, December 17, 2010 9:09 AM  
**To:** 'Jones, William V., EMNRD'  
**Subject:** FW: Disposal application from BOPCO LP: J.F. Harrison Federal #1 30-015-04749 Devonian from 16626 - 17205 open hole

In fact, they are going out today.

---

**From:** Truax, Valerie L.  
**Sent:** Friday, December 17, 2010 7:41 AM  
**To:** 'Jones, William V., EMNRD'  
**Subject:** RE: Disposal application from BOPCO LP: J.F. Harrison Federal #1 30-015-04749 Devonian from 16626 - 17205 open hole

Our IT guy remembers sending another file to you – but we sent them via CD. He is in the process of converting them. As soon as he completes the transfer, I will send the CD to the Hobbs office.

---

**From:** Jones, William V., EMNRD [mailto:William.V.Jones@state.nm.us]  
**Sent:** Thursday, December 16, 2010 10:12 AM  
**To:** Truax, Valerie L.  
**Cc:** Ludwick, Larry; Kautz, Paul, EMNRD  
**Subject:** RE: Disposal application from BOPCO LP: J.F. Harrison Federal #1 30-015-04749 Devonian from 16626 - 17205 open hole

Valerie:

This attachment did not come through – the IT gurus are holding it hostage somewhere in IT Land.

If you folks would just send a copy of all logs run (Field Prints) on this well to the Hobbs district office in Hobbs – attention Paul Kautz.

We have a log scanner in Hobbs. You could call Paul and he could tell you more about this:  
OFFICE: (575) 393-6161 FAX: (575) 393-0720

I see in the file that the following logs were run:

CNL/FDC

DLL-MSFL

These should be available on the OCD imaged web site.

Thank You,

Will Jones  
New Mexico

---

**From:** Truax, Valerie L. [mailto:VLTruax@BassPet.Com]  
**Sent:** Thursday, December 16, 2010 8:55 AM  
**To:** Jones, William V., EMNRD  
**Subject:** FW: Disposal application from BOPCO LP: J.F. Harrison Federal #1 30-015-04749 Devonian from 16626 - 17205 open hole

Will, one more step. The attached should answer #c. Thanks!

---

**From:** Ludwick, Larry  
**Sent:** Thursday, December 16, 2010 9:39 AM  
**To:** Truax, Valerie L.  
**Subject:** RE: Disposal application from BOPCO LP: J.F. Harrison Federal #1 30-015-04749 Devonian from 16626 - 17205 open hole

Attached are tif files of E-Log & GR-Neutron that were on our database. I would think that they should suffice for OCD.

*Larry Ludwick*  
**BOPCO, L.P.**  
Petrophysical Specialist  
Work: 817-339-7024  
Cell: 817-692-0907  
Email: lludwick@basspet.com

---

**From:** Truax, Valerie L.  
**Sent:** Tuesday, December 14, 2010 9:35 AM  
**To:** Ludwick, Larry  
**Subject:** FW: Disposal application from BOPCO LP: J.F. Harrison Federal #1 30-015-04749 Devonian from 16626 - 17205 open hole

Larry, Will at the OCD is requesting log info (point c below), none of which we have here in Midland. Carlos & I thought you would be able to help us with Will's request. Thanks. Valerie

---

**From:** Jones, William V., EMNRD [mailto:William.V.Jones@state.nm.us]  
**Sent:** Monday, December 13, 2010 6:16 PM  
**To:** Truax, Valerie L.  
**Cc:** Ezeanyim, Richard, EMNRD; Dade, Randy, EMNRD; Wesley\_Ingram@blm.gov  
**Subject:** Disposal application from BOPCO LP: J.F. Harrison Federal #1 30-015-04749 Devonian from 16626 - 17205 open hole

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- b. Please send proof of notice to the BLM in Carlsbad.
- c. We have the summary of the extensive coring and DST's on this deep, science well, but no elogs appear on the OCD web site. Please look through your internal well file and send copies of any logs run to the Hobbs OCD office for scanning into the imaging system. If no logs were run, let me know that also.

- d. The 7 inch liner is shown as extending from 9850 to 16626. The post conversion wellbore diagram shows tieback cement of the new 7 inch to approx 7000 feet. Is this correct? Is the 7 inch casing planned to extend to surface?

Thank you for this application.

Regards,

William V. Jones, P.E.

Engineering, Oil Conservation Division  
1220 South St. Francis Drive, Santa Fe, NM 87505  
Tel 505.476.3448 ~ Fax 505.476.3462



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Injection Permit Checklist (11/15/2010)

WFX PMX SWD 1259 Permit Date 10/11 UIC Qtr JFM

# Wells 1 Well Name(s): J.F. HARRISON FED. #1

API Num: 30-0 15-04749 Spud Date: 7/22/1952 New/Old: 0 (UIC primacy March 7, 1982)

Footages 660 FNL/660 FWL Unit D Sec 12 Tsp 25 S Rge 30 E County EDDY

General Location: 14 mi SE of Malaga ≈ 12 mi N. of Red Bluff Res.

Operator: BOPCO L.P. Contact Valerie Truax

OGRID: 26037 RULE 5.9 Compliance (Wells) 4/402 (Finan Assur) OK IS 5.9 OK? OK

Well File Reviewed  Current Status: PEAKED

Planned Work to Well: RE-Enter inside 7" CSG & 4 1/2 TBG

Diagrams: Before Conversion  After Conversion  Elogs in Imaging File: NO LOGS

| Well Details:                                                                      | Sizes                  |      | Setting                | Stage        | Cement       | Determination  |
|------------------------------------------------------------------------------------|------------------------|------|------------------------|--------------|--------------|----------------|
|                                                                                    | Hole.....              | Pipe | Depths                 | Tool         | Sx or Cf     | Method         |
| New <input type="checkbox"/> Existing <input checked="" type="checkbox"/> Surface  | <u>24 - 20</u>         |      | <u>557</u>             |              | <u>750</u>   | <u>CIRC</u>    |
| New <input type="checkbox"/> Existing <input checked="" type="checkbox"/> Interm   | <u>17 1/2 - 13 3/8</u> |      | <u>3,971</u>           | <u>2792</u>  | <u>6400</u>  | <u>CIRC</u>    |
| New <input type="checkbox"/> Existing <input checked="" type="checkbox"/> LongSt   | <u>12 1/4 - 9 5/8</u>  |      | <u>10,073</u>          | <u>6,908</u> | <u>3,507</u> | <u>4560'</u>   |
| New <input type="checkbox"/> Existing <input checked="" type="checkbox"/> Liner    | <u>7</u>               |      | <u>9850 - 16,626</u>   |              | <u>1,675</u> | <u>10,490'</u> |
| New <input checked="" type="checkbox"/> Existing <input type="checkbox"/> OpenHole | <u>5 7/8</u>           |      | <u>16,626 - 17,205</u> |              |              |                |

| Depths/Formations: | Depths, Ft. | Formation | Tops? |
|--------------------|-------------|-----------|-------|
| Formation(s) Above |             |           |       |

|                    |              |            |                          |                                              |                                |
|--------------------|--------------|------------|--------------------------|----------------------------------------------|--------------------------------|
| Injection TOP:     | <u>16626</u> | <u>Dav</u> | Max. PSI <u>3325</u>     | OpenHole <input checked="" type="checkbox"/> | Perfs <input type="checkbox"/> |
| Injection BOTTOM:  | <u>17205</u> | <u>Dav</u> | Tubing Size <u>4 1/2</u> | Packer Depth <u>16575</u>                    |                                |
| Formation(s) Below |              |            |                          |                                              |                                |

Capitan Reef?  (Rotash?  Noticed?  [WIPP?  Noticed?  Salado Top/Bot  Cliff House?

Fresh Water: Depths: 580 - 1260' Formation Rutter Wells? yes Analysis?  Affirmative Statement

Disposal Fluid Analysis? Sources: Delaware

Disposal Interval: Analysis? Production Potential/Testing: Total wet (See DST)

Notice: Newspaper Date 10/16/10 Surface Owner BLM Mineral Owner(s) MIRCO MP

RULE 26.7(A) Affected Persons: EXXON MOBIL

AOR: Maps?  Well List?  Producing in Interval? NO Wellbore Diagrams? yes

.....Active Wells 0 Repairs?  Which Wells? ---

.....P&A Wells 0 Repairs?  Which Wells? ---

Issues: Tie Back to 7" ? why not @ 9850' is top of 7 1/8" hole PSI = 3971 - 4565

16626  
3325  
OK

DST

Further Data