

**APPLICATION FOR AUTHORIZATION TO INJECT**

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

II. OPERATOR: Stephens & Johnson Operating Co.

ADDRESS: P. O. Box 2249, Wichita Falls, TX 76307

CONTACT PARTY: William M. Kincaid PHONE: (940)723-2166

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: Case No. 9646 Order No. R-9001

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: William M. Kincaid TITLE: Petroleum Engineer

SIGNATURE: William M. Kincaid DATE: 12-22-2000

\* 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: Original "Application for Authorization to Inject" January, 1989 Case No. 9646 Order

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate District Office No. R-9001

### 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, 2040 South Pacheco, Santa Fe, New Mexico 87505, within 15 days.

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

---

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

Application for Authorization to Inject

Stephens & Johnson Operating Co. - Mobil 22 Federal No. 2  
Unit Letter I, Sec. 22, T26S, R29E  
2310' FSL & 300' FEL, API #30-015-25105  
Eddy Co., New Mexico

- I. Stephens & Johnson Operating Co. plans to convert Mobil 22 Federal No. 2 to an injection well in the Delaware formation.
- II. Operator: Stephens & Johnson Operating Co.  
P. O. Box 2249  
Wichita Falls, TX 76307-2249  
  
Attention: William M. Kincaid 940/723-2166
- III. Well Data: See Attachment "A".
- IV. This is an expansion of an existing project, Case No. 9646 Order No. R-9001
- V. See Attachment "B".
- VI. Data on old wells within the area of review were previously submitted in the original "Application for Authorization to Inject" in January, 1989 for this project. Case No. 9646, Order No. R-9001. See attachment "C" for new wells drilled and old wells plugged and abandoned since the original application in January, 1989.
- VII.
  - 1) Proposed average daily injection volume: 600 BWPD.  
Maximum daily injection volume: 1200 BWPD.
  - 2) System will be a closed system.
  - 3) Proposed average injection pressure: 500 psi  
Proposed maximum injection pressure: 1013 psi
  - 4) Injection water will be reinjected produced water from the producing wells on the Mobil 22 Federal, Gulf Federal, Exxon Federal and Worth Federal leases in the Brushy Draw - Delaware Pool.

- VIII. Geological data on the injection zone and information on underground sources of drinking water were previously submitted in the "Application for Authorization to Inject" in January, 1989 for this project. Case No. 9646, Order No. R-9001.
- IX. The proposed injection interval may be acidized with 2000 gals. 15% NEFE acid.
- X. Well logs and test data are on file at the OCD.
- XI. Fresh Water Analysis from fresh water well was previously submitted in the original "Application for Authorization to Inject" in January, 1989 for this project. Case No. 9646, Order No. R-9001.
- XII. Geologic and engineering data have been examined and no evidence of open faults or any other hydrological connection between the injection zone and any fresh water aquifer has been found.
- XIII. A) Certified letters sent to offset operators (See Attachment "D"). Surface is owned by J. C. Ross, 3311 40th St., Lubbock, TX 79413.
- B) Copy of legal advertisement attached, along with an Affidavit of Publication (Attachment "E").

INJECTION WELL DATA SHEET

Side 1

OPERATOR: Stephens & Johnson Operating Co.

WELL NAME & NUMBER: Mobil "22" Federal No. 2

WELL LOCATION: 2310' FSL, 330' FEL UNIT LETTER I SECTION 22 TOWNSHIP 26S RANGE 29E  
FOOTAGE LOCATION

WELLBORE SCHEMATIC

WELL CONSTRUCTION DATA  
Surface Casing

Hole Size: 12 1/4" Casing Size: 8 5/8"

Cemented with: 256 sx. or ft<sup>3</sup>

See Attached Schematic

Top of Cement: surface Method Determined: site

Intermediate Casing

Hole Size: \_\_\_\_\_ Casing Size: \_\_\_\_\_

Cemented with: \_\_\_\_\_ sx. or \_\_\_\_\_ ft<sup>3</sup>

Top of Cement: \_\_\_\_\_ Method Determined: \_\_\_\_\_

Production Casing

Hole Size: 7 7/8" Casing Size: 5 1/2"

Cemented with: 675 sx. or \_\_\_\_\_ ft<sup>3</sup>

Top of Cement: 2800' Method Determined: Temperature

Total Depth: 6048' Survey

Injection Interval

5004 feet to 5068

(Perforated or ~~Open Hole~~ indicate which)

INJECTION WELL DATA SHEET

Tubing Size: 2 3/8" Lining Material: Salta Lining

Type of Packer: Nickel Plated Baker Lockset

Packer Setting Depth: 4954'

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

Additional Data

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

If no, for what purpose was the well originally drilled? As a productive oil well

2. Name of the Injection Formation: Delaware

3. Name of Field or Pool (if applicable): Brushy Draw-Delaware Pool

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. Upper Cherry Canyon

3807-3838'; perforations to be cement squeezed. Amount of cement to be determined.

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: Bell Canyon formation is approximately 2800' from

surface. The Brushy Draw Canyon formation is approximately

5350' from surface.

Mobil 22 Federal No. 2  
WELL

Brushy Draw - Delaware  
FIELD

DATE

PRESENT COMPLETION \_\_\_\_\_

SUGGESTED COMPLETION

WELL CLASS WI

KB ELEVATION 2912

DF ELEVATION 2911

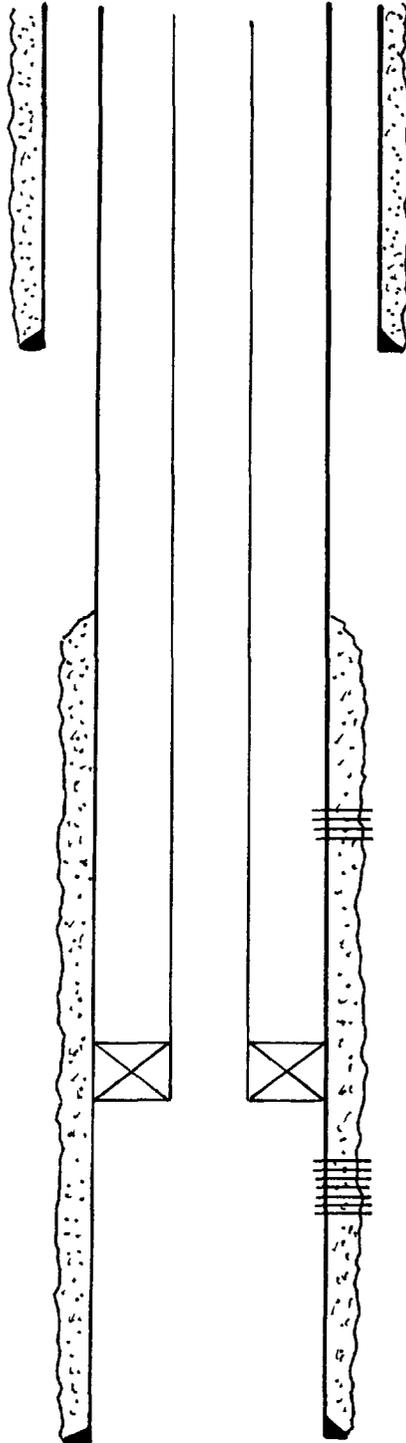
GL ELEVATION 2905

PERMANENT WELL BORE DATA

DATA ON THIS COMPLETION

8 5/8" 23# casing  
Set at 428'  
256 SX cmt  
12 1/4" Hole

5 1/2" 15.5# casing  
Set at 6048'  
675 SX cmt  
7 3/8" Hole  
Toc @ 2800' (Temp. Sur.)



2 3/8" Salta Lined  
Tubing set @ 4954'

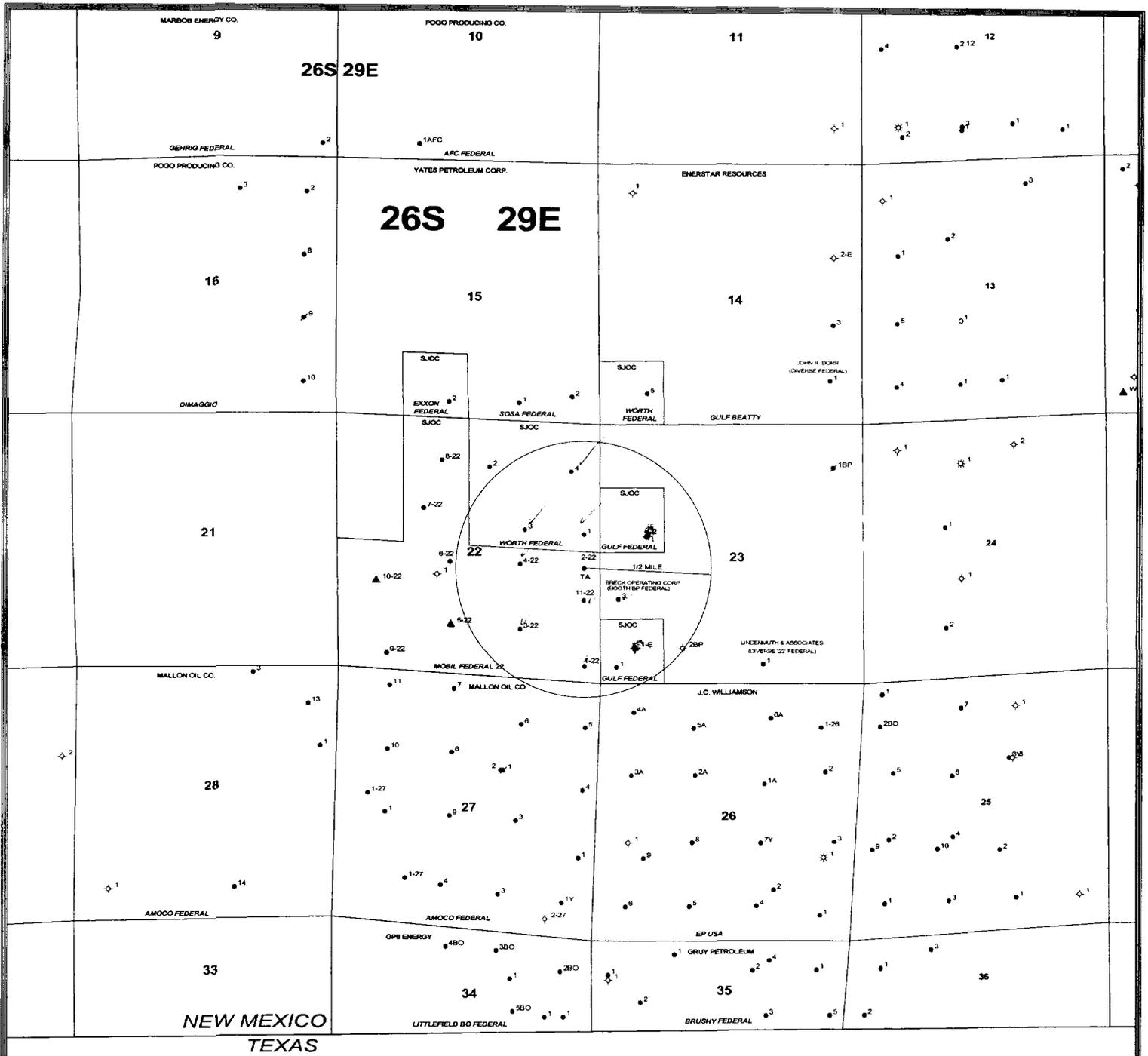
PFS: 3807 - 3838'  
To be cement squeezed  
Amount of cement to  
be determined.

2 3/8" x 5/2" Nickel  
Plated Baker Lockset  
Packer @ 4954'

PFS: 5004 - 5068'

PBTD - 6012'  
TD - 6048'

ATTACHMENT "B"



STEPHENS & JOHNSON OPERATING COMPANY

BRUSHY DRAW FIELD  
EDDY COUNTY, NEW MEXICO



LEGEND

- Producing Oil Well
- ☼ Producing Gas Well
- ▲ Water Injection Well
- ⊕ Dry Hole
- Plugged & Abandoned Well
- Location

1" = 3000'



ATTACHMENT "C"

NEW WELLS DRILLED AND OLD WELLS PLUGGED SINCE JANUARY, 1989  
WELLS WITHIN 1/2 MILE RADIUS

WELL NAME & NO.	WELL TYPE	SPUD/PLUG DATE	LOCATION	TOTAL DEPTH	SURFACE CASING	PRODUCTION CASING	PERFORATIONS	NAME OF ZONE
Sec. 22, T26S, R29E								
Mobil 22 Federal No. 11	Oil	3-27-2000	330' FEL, 1650' FSL <i>22-26S, 29E</i>	5180	8 5/8" @ 829'	5 1/2" @ 5164'	5015-5065	Delaware (Williamson Sand)
Sec. 23, T26S, R29E								
Gulf Federal No. 2	P&A	4-28-2000	2310' FNL, 900' FWL	5180	8 5/8" @ 536'	5 1/2" @ 5180'	3918-4024 5085-5113	Delaware (Cherry Canyon) Delaware (Williamson Sand)



ATTACHMENT "D"

List of all offset leasehold operators and surface owner that were sent certified letters of notification:

Leasehold Operators Within One-Half Mile

Breck Operating Corp.  
Box 911  
Breckenridge, TX 76424

POGO Producing Company  
Box 2504  
Houston, TX 77252

Mallon Oil Company  
999 18th Street, Suite 1700  
Denver, CO 80202

J. C. Williamson  
214 W. Texas, Suite 1250  
Midland, TX 79707

Lindenmuth & Associates  
510 Hearn Street  
Austin, TX 78703

Yates Petroleum Corporation  
105 S. Fourth Street  
Artesia, NM 88210

Surface Owner:

J. G. Ross  
3311 40th Street  
Lubbock, TX 79413







# Affidavit of Publication

# Copy of Publication:

NO. 17185

STATE OF NEW MEXICO

County of Eddy:

Gary D. Scott being duly

sworn, says: That he is the Publisher of The

Artesia Daily Press, a daily newspaper of general circulation, published in English at Artesia, said county and county and state, and that the here to attached

### Legal Notice

was published in a regular and entire issue of the said Artesia Daily Press, a daily newspaper duly qualified for that purpose within the meaning of Chapter 167 of the 1937 Session Laws of the state of New Mexico for 1 consecutive weeks/days on the same

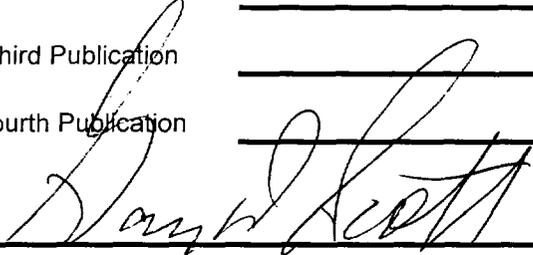
day as follows:

First Publication December 21 2000

Second Publication \_\_\_\_\_

Third Publication \_\_\_\_\_

Fourth Publication \_\_\_\_\_



Subscribed and sworn to before me this

21st day of December 2000



Notary Public, Eddy County, New Mexico

My Commission expires September 23, 2003

### LEGAL NOTICE

#### NOTICE OF APPLICATION FOR FLUID INJECTION WELL PERMIT

Stephens & Johnson Operating Co., P.O. Box 2249, Wichita Falls, TX 76307 is applying to the New Mexico Oil Conservation Division for a permit to inject fluid into a formation which is productive of oil or gas. The applicant proposes to inject fluid into the Delaware Zone, Brushy Draw-Delaware Pool, Mobile 22 Federal Lease, Well Number 2. The proposed injection well is located in Sec. 22, T-26-S, R-29-E, 2310' FSL & 330' FEL, in Eddy County, New Mexico. Fluid will be injected into strata in the average subsurface depth interval from 5004 feet to 5068 feet. Expected maximum injection rate will be 1200 BWPD and maximum injection pressure will be 1013 psig. Interested parties must file objections or requests for hearings with the Oil Conservation Division, P.O. Box 2088, Santa Fe, New Mexico 87501. Published in the Artesia Daily Press, Artesia, N.M. December 21, 2000. Legal 17185

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

N.M. Oil Cons. Division  
811 S. 1st Street  
Artesia, NM 88210-2834

FORM APPROVED  
OMB No. 1004-0135  
Expires July 31, 1996

51

**SUNDRY NOTICES AND REPORTS ON WELLS**

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

Lease Serial No.  
NM - 22634

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

8. Well Name and No.  
Mobil "22" Federal No. 11

9. API Well No.  
30-015-30987

10. Field and Pool, or Exploratory Area  
Brushy Draw, Delaware

11. County or Parish, State  
Eddy County, NM

**SUBMIT IN TRIPLICATE - Other instructions on reverse side**

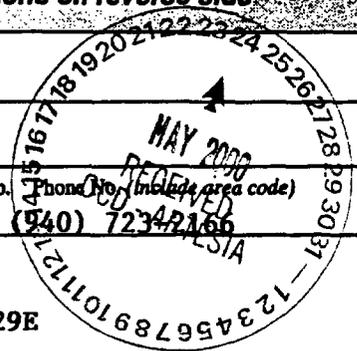
1. Type of Well  
 Oil Well  Gas Well  Other

2. Name of Operator  
Stephens & Johnson Operating Co.

3a. Address 76307  
P.O. Box 2249, Wichita Falls, TX

3b. Phone No. (include area code)  
(940) 723-4216

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
1650' FSL, 330' FEL, Sec. 22, T26S, R29E

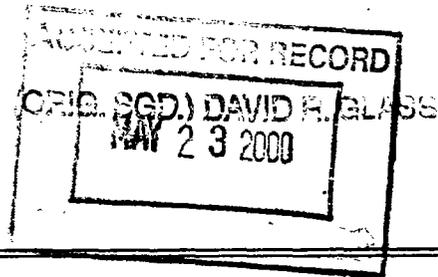


**12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other <u>Surface Casing</u>
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

3-27-2000: Spud 12 1/4" surface hole @ 11:30 AM. Drill to 830' KB. Run 20 jts 8 5/8" new Maverick, J-55, 24 lb/ft surface csg. Set csg at 829' KB. Cement with 260 sx Premium Plus w/2% CC. Circulate 33 sx to pit. Plug down at 5:15 AM  
3-28-2000. WOC 18 hrs.



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

Name (Printed/Typed) **William M. Kincaid** Title **Petroleum Engineer**

Signature *William M. Kincaid* Date **May 18, 2000**

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by \_\_\_\_\_ Title \_\_\_\_\_ Date \_\_\_\_\_

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon. Office \_\_\_\_\_

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

N.M. Oil Cons. Division

811 S. 1st Street

Artesia, NM 88210-2834

FORM APPROVED  
OMB No. 1004-0135  
Expires July 31, 1996

SF

**SUNDRY NOTICES AND REPORTS ON WELLS**

*Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.*

Case Serial No.

NM - 22634

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

8. Well Name and No.

Mobil "22" Federal No. 11

9. API Well No.

30-015-30987

10. Field and Pool, or Exploratory Area

Brushy Draw, Delaware

11. County or Parish, State

Eddy County, NM

**SUBMIT IN TRIPLICATE - Other instructions on reverse side**

1. Type of Well

Oil Well  Gas Well  Other

2. Name of Operator

Stephens & Johnson Operating Co.

3a. Address

76307

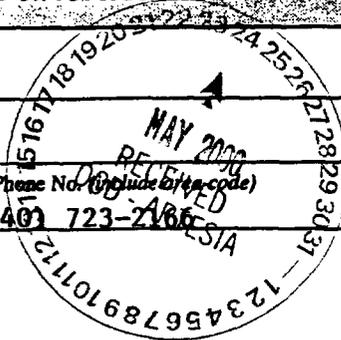
3b. Phone No. (Include area code)

P.O. Box 2249, Wichita Falls, TX

(940) 723-2186

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

1650' FSL, 330' FEL, Sec. 22, T26S, R29E



**12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

**TYPE OF SUBMISSION**

**TYPE OF ACTION**

Notice of Intent

Subsequent Report

Final Abandonment Notice

Acidize

Alter Casing

Casing Repair

Change Plans

Convert to Injection

Deepen

Fracture Treat

New Construction

Plug and Abandon

Plug Back

Production (Start/Resume)

Reclamation

Recomplete

Temporarily Abandon

Water Disposal

Water Shut-Off

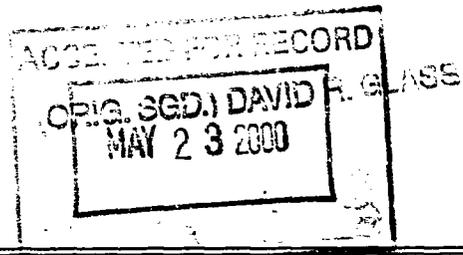
Well Integrity

Other Production

Casing

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

March 28 thru April 4, 2000: Drill 7 7/8" hole to TD of 5180' KB. Ran 5 1/2", 15.50 lb/ft, K-55 smls, LT&C, new Baoshan csg to 5164' KB. DV Tool at 4345' KB. Cement Stage 1 w/200 sx Premium Plus w/0.5% Halad 322, 3 lbs/sk gilsonite and 1/4 lb/sk Flocele. Plug down @ 10:45 4-4-2000. Wait 5 hrs and cement Stage 2 thru DV Tool w/300 sx Interfill C and 50 sx Premium Plus. Plug down at 4:45 PM 4-4-2000. Top of cement at 2690' KB.



14. I hereby certify that the foregoing is true and correct  
Name (Printed/Typed)

William M. Kincaid

Title

Petroleum Engineer

Signature

*William M. Kincaid*

Date

May 18, 2000

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by

Title

Date

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.