

STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL  
RESOURCES DEPARTMENT

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

RECEIVED

816  
FORM C-108

Revised June 10, 2003

SEP 30 2005

APPLICATION FOR AUTHORIZATION TO INJECT  
OIL CONSERVATION  
DIVISION

- I. PURPOSE: ☒ Secondary Recovery ☐ Pressure Maintenance ☐ Disposal ☐ Storage  
Application qualifies for administrative approval? ☒ Yes ☐ No
- II. OPERATOR: Southwest Royalties, Inc.  
ADDRESS: 6 Desta Drive Midland, Texas 79705  
CONTACT PARTY: Kerry Miller PHONE: 432-688-3221
- 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-3229, R-3033, R-6171 case 8092
- 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: DAWN M. HOWARD TITLE: OPERATIONS ASSISTANT  
SIGNATURE: [Signature] DATE: 8/31/05  
E-MAIL ADDRESS: dhoward@claytonwilliams.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: \_\_\_\_\_

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate District Office

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



**ADMINISTRATIVE APPLICATION CHECKLIST**

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

**Application Acronyms:**

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

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

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

Check One Only for [B] or [C]

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

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

**[D] Other: Specify \_\_\_\_\_**

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

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

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

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

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

Print or Type Name \_\_\_\_\_ Signature \_\_\_\_\_ Title \_\_\_\_\_ Date \_\_\_\_\_

\_\_\_\_\_ e-mail Address \_\_\_\_\_



SOUTHWEST ROYALTIES, INC.

SOUTHWEST ROYALTIES, INC.  
6 Desta Drive, Suite 2100  
Midland, Texas 79705  
(432) 686-9927, (800) 658-6227

Wednesday, August 31, 2005

Offset Operators, Producers & Surface Owners  
(per attached listing)

Re: Application for Authorization to Inject  
Lea County, New Mexico

Dear Ladies and Gentlemen:

Enclosed please find Southwest Royalties Inc.'s Application for Authorization to Inject for the conversion of three wells into water injection wells for the purpose of waterflooding in the Flying "M" (SA) Field in Section 29, T9S, R33E, Lea County, New Mexico.

Please let me know if you need additional information.

Sincerely,

*Dawn M. Howard*  
Operations Assistant  
Southwest Royalties, Inc./Clayton Williams Energy  
6 Desta Drive, Ste 2100  
Midland, Texas 79705  
432/688-3267  
432/688.3268 fax

enclosed: Form C-108, Legal Notice, Affidavit of Publication & Plat

RECEIVED  
SEP 30 2005  
OIL CONSERVATION  
DIVISION

## **LEGAL NOTICE**

**Southwest Royalties, Inc., intends to convert to water injection three (3) wells in the Flying "M" (SA) Field. The wells involved are as follows:**

**Flying "M" (SA) Unit Tract 34 Well #2, located 660' FSL & 660' FWL of Section 29, T-9-S, R-33-E, Unit Letter M in Lea County, New Mexico. Injection will be to provide pressure maintenance in the San Andres formation from 4333' - 4381' at a maximum rate and pressure of 1000 BWPD @ 1200 PSI.**

**McGuffin #2, located 1980' FNL & 660' FWL of Section 29, T-9-S, R-33-E, Unit Letter E in Lea County, New Mexico. Injection will be to provide pressure maintenance in the San Andres formation from 4340' - 4364' at a maximum rate and pressure of 1000 BWPD @ 1200 PSI.**

**Flying "M" (SA) Unit Tract 24 Well #1, located 1980' FSL & 1980' FWL of Section 24, T-9-S, R-33-E, Unit Letter K in Lea County, New Mexico. Injection will be to provide pressure maintenance in the San Andres formation from 4342' - 4412' at a maximum rate and pressure of 1000 BWPD @ 1200 PSI.**

**Interested parties must file objections or request for hearings within 15 days to the following:**

**NM Oil Conservation Division  
P.O. Box 2088  
Santa Fe, NM 87501**

**If you have any questions concerning this application, please contact the following:**

**Attn: Dawn Howard  
Southwest Royalties, Inc.  
6 Desta Drive, Suite 2100  
Midland, Texas 79705**

AFFIDAVIT OF PUBLICATION

State of New Mexico,  
County of Lea.

I, KATHI BEARDEN

Publisher

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

of 1  
\_\_\_\_\_ weeks.

Beginning with the issue dated  
August 13 2005  
and ending with the issue dated

August 13 2005

Kathi Bearden

Publisher

Sworn and subscribed to before

me this 15th day of

August 2005

Notary Public.

My Commission expires  
February 07, 2009  
(Seal)



OFFICIAL SEAL  
DORA MONTZ  
NOTARY PUBLIC  
STATE OF NEW MEXICO

My Commission Expires: \_\_\_\_\_

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

LEGAL NOTICE  
August 13, 2005

Southwest Royalties, Inc., intends to convert to water injection three (3) wells in the Flying "M" (SA) Field. The wells involved are as follows:  
Flying "M" (SA) Unit Tract 34 Well #2, located 660' FSL & 660' FWL of Section 29, T-9-S, R-33-E, Unit Letter M in Lea County, New Mexico. Injection will be to provide pressure maintenance in the San Andres formation from 4333' - 4381' at a maximum rate and pressure of 1000 BWPD @ 1200 PSI.  
McGuffin #2, located 1980' FNL & 660' FWL of Section 29, T-9-S, R-33-E, Unit Letter E in Lea County, New Mexico. Injection will be to provide pressure maintenance in the San Andres formation from 4340' - 4364' at a maximum rate and pressure of 1000 BWPD @ 1200 PSI.  
Flying "M" (SA) Unit Tract 24 Well #1, located 1980' FSL & 1980' FWL of Section 24, T-9-S, R-33-E, Unit Letter K in Lea County, New Mexico. Injection will be to provide pressure maintenance in the San Andres formation from 4342' - 4412' at a maximum rate and pressure of 1000 BWPD @ 1200 PSI.  
Interested parties must file objections or request for hearings within 15 days to the following:  
NM Oil Conservation Division  
P.O. Box 2088  
Santa Fe, NM 87501  
#21720

01101469000 67532551  
SOUTHWEST ROYALTIES, INC.  
P.O. BOX 11390  
MIDLAND, TX 79702

**Application for Authorization to Inject  
Flying M Unit wells #24-1, #34-2 and McGuffin #2  
Lea County, New Mexico**

VII. Proposed Operation

1. Average anticipated rate and pressure 300 BPD @ 800 psi. Proposed maximum rate and pressure 1000 BPD @ 1200 psi.
2. This is a closed system.
3. The fluid to be injected is predominantly produced water from within the Flying M Unit. If additional water is needed, fresh water will be utilized from a well approximately 5 miles south of the unit. This system has been in use for several years.

- VIII. The recommended injection zone in the proposed injection wells is the San Andres formation ranging from 4327' - 4412'. The lithological description of the San Andres in the Flying M Field consists of a dense to porous dolomite with minor vertical fracturing. The porosity is vugular to intercrystalline. The proposed injection interval has been the main producing interval in the field. Geologically it is known as the Slaughter producing zone of the San Andres.

The underground source of drinking water in this area is the Ogallala formation which occurs from 0'-400'.

- IX. Small volume (3000-4000 gallons) matrix acid jobs will be performed on the proposed injection wells.
- X. Logs from the proposed wells are on file with the Division.
- XI. A chemical analysis of fresh water from wells in the area is attached.

09088

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S. Fed."

State

1-1-2004  
VA-1892  
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P/B 4700

Spence Ener.  
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To 8405

Brown

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1-28-68  
Coyman  
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TD8180

monis, et al (S)

24  
McGuffin  
TD 9100

Shell  
Davis  
TD 382

Co., et al 5-21-88

E.K. (U.R.C. Hanks)  
Arrenda San M.  
McGuffin, et al

Phillips (Superior)

Phillips  
No 3240

Armstrong et al, M.I.

3. McGuffin  
(B) "Alice Ann"

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V-6408  
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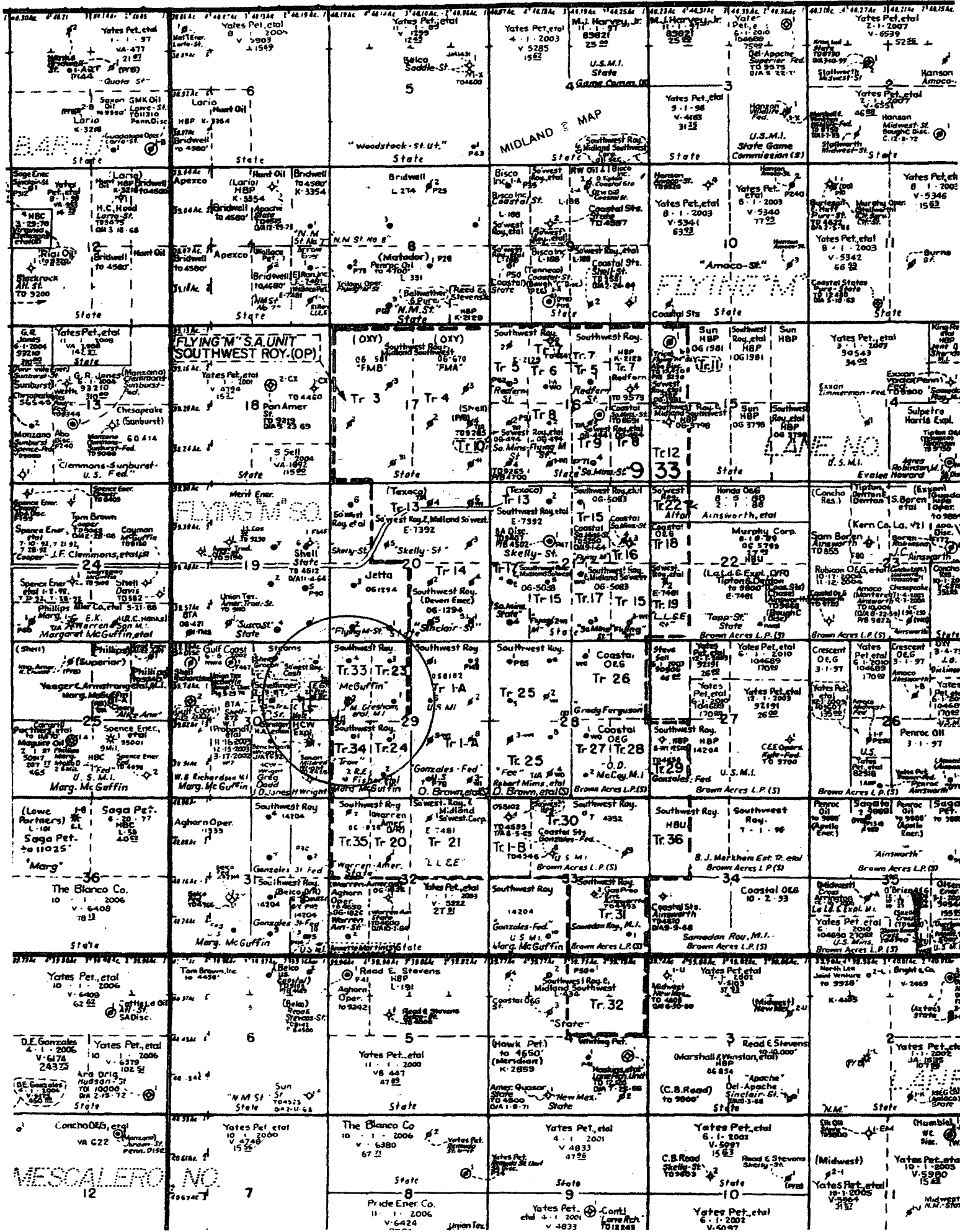
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MESCALERO NO. 12

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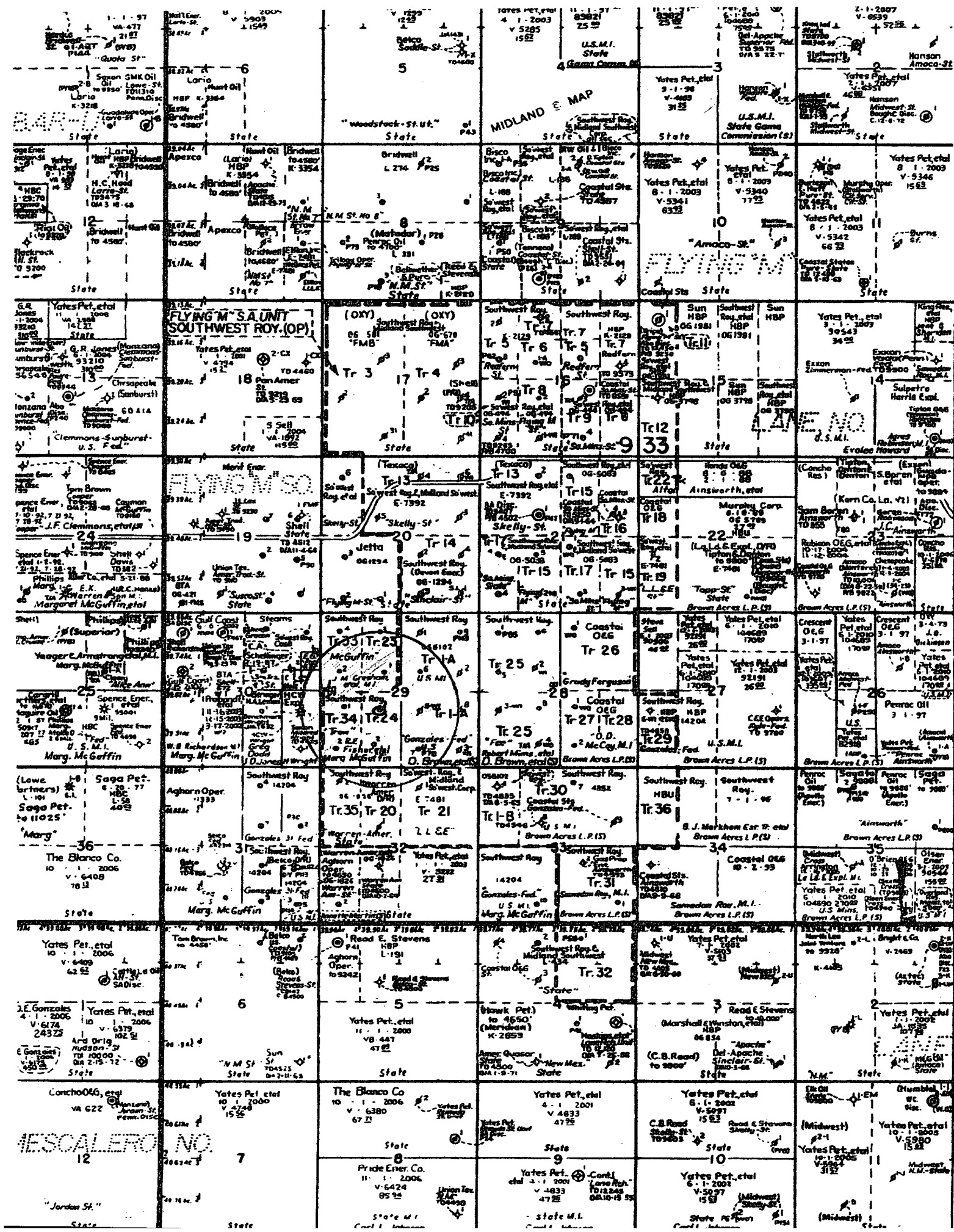
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# ARDINAL LABORATORIES

PHONE (325) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603

PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR  
SOUTHWEST ROYALTIES  
ATTN: KERRY MILLER  
6 DESTA DRIVE SUITE 2100  
MIDLAND, TX  
FAX TO:

Receiving Date: 08/08/05  
Reporting Date: 08/15/05  
Project Number: NOT GIVEN  
Project Name: NOT GIVEN  
Project Location: FLYING M FIELD

Sampling Date: 08/08/05  
Sample Type: WATER  
Sample Condition: COOL & INTACT  
Sample Received By: NF  
Analyzed By: NF/JD

| LAB NUMBER | SAMPLE ID | Na<br>(mg/L) | Ca<br>(mg/L) | Mg<br>(mg/L) | K<br>(mg/L) | Conductivity<br>(u S/cm) | T-Alkalinity<br>(mgCaCO <sub>3</sub> /L) |
|------------|-----------|--------------|--------------|--------------|-------------|--------------------------|------------------------------------------|
|------------|-----------|--------------|--------------|--------------|-------------|--------------------------|------------------------------------------|

|                             |             |           |          |          |          |          |
|-----------------------------|-------------|-----------|----------|----------|----------|----------|
| ANALYSIS DATE:              | 08/09/05    | 08/09/05  | 08/09/05 | 08/09/05 | 08/09/05 | 08/09/05 |
| H10055-1                    | 1911        | 403       | 43       | 9.00     | 3801     | 122      |
| Quality Control             | NR          | 46        | 54       | 5.24     | 1391     | NR       |
| True Value QC               | NR          | 50        | 50       | 5.00     | 1413     | NR       |
| % Recovery                  | NR          | 92.0      | 108.0    | 105.0    | 98.4     | NR       |
| Relative Percent Difference | NR          | 1.0       | 1.6      | 5.6      | 4.9      | NR       |
| METHODS:                    | SM3500-Ca-D | 3500-Mg E | 8049     | 120.1    | 310.1    |          |

|  | Cl <sup>-</sup><br>(mg/L) | SO <sub>4</sub><br>(mg/L) | CO <sub>3</sub><br>(mg/L) | HCO <sub>3</sub><br>(mg/L) | pH<br>(s.u.) | TDS<br>(mg/L) |
|--|---------------------------|---------------------------|---------------------------|----------------------------|--------------|---------------|
|--|---------------------------|---------------------------|---------------------------|----------------------------|--------------|---------------|

|                             |             |          |          |          |          |          |
|-----------------------------|-------------|----------|----------|----------|----------|----------|
| ANALYSIS DATE:              | 08/09/05    | 08/09/05 | 08/09/05 | 08/09/05 | 08/09/05 | 08/12/05 |
| H10055-1                    | 3099        | 830      | 0        | 148      | 7.12     | 6491     |
| Quality Control             | 970         | 48.52    | NR       | 985      | 7.10     | NR       |
| True Value QC               | 1000        | 50.00    | NR       | 1000     | 7.00     | NR       |
| % Recovery                  | 97.0        | 97.0     | NR       | 98.5     | 101      | NR       |
| Relative Percent Difference | 3.0         | 4.8      | NR       | 0.9      | 0        | 1.1      |
| METHODS:                    | SM4500-Cl-B | 375.4    | 310.1    | 310.1    | 150.1    | 160.1    |

Amy Hill  
Chemist

8/15/05  
Date

## INJECTION WELL DATA SHEET

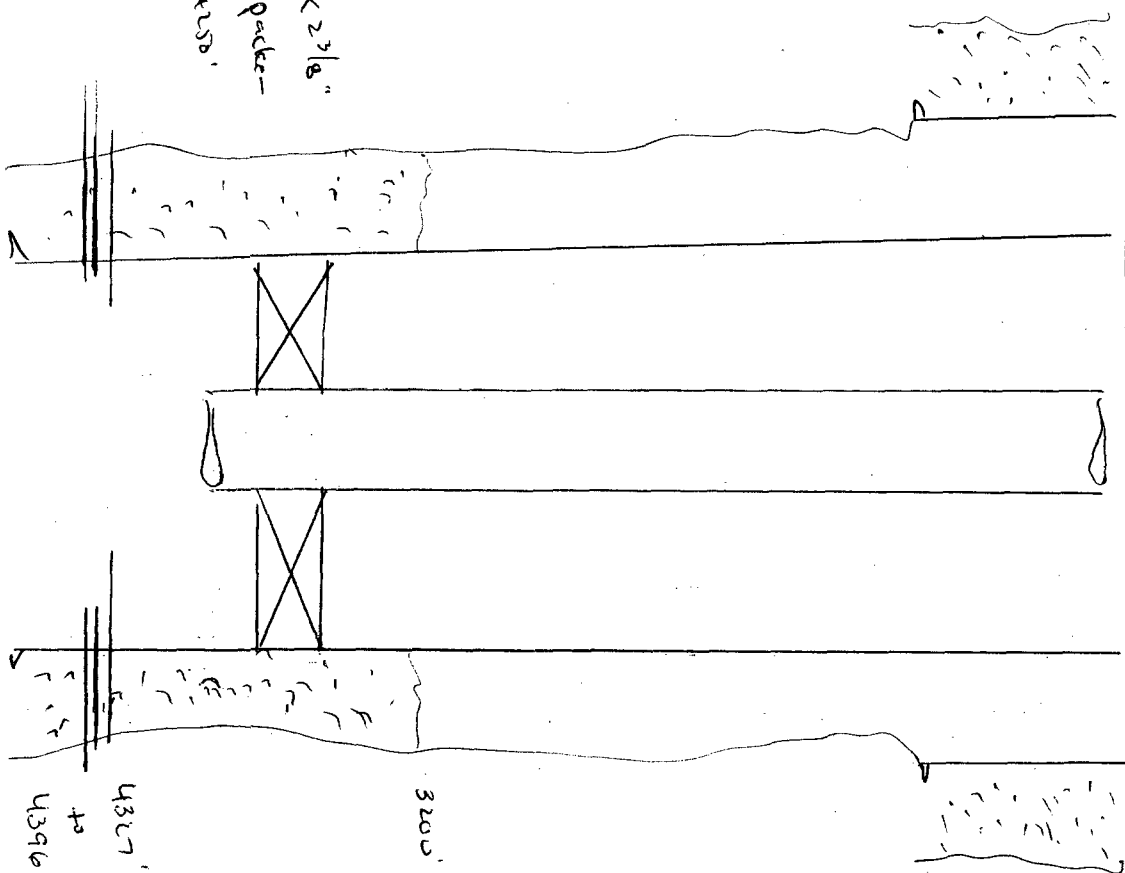
197

OPERATOR: Southwest Royalties, Inc

30-025-24693

WELL NAME & NUMBER: McGuffin Well #2Date Drilled: 5/74WELL LOCATION: 1480 FNL 660 FNL E 29 9 S 33 E  
FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGE

## WELLBORE SCHEMATIC



## WELL CONSTRUCTION DATA

## Surface Casing

Hole Size: 11" Casing Size: 8 5/8" @ 407  
 Cemented with: 350 sx. or      ft<sup>3</sup>  
 Top of Cement: Surface Method Determined: Circ

## 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: 4 1/2 @ 4440  
 Cemented with: 250 sx. or      ft<sup>3</sup>  
 Top of Cement: 3200 Method Determined: Calc  
 Total Depth: 4440

## Injection Interval

4327 feet to 4396

(Perforated or Open Hole; indicate which)

4 1/2" x 2 3/8"  
 AO - 1 packer -  
 @ 4250'

INJECTION WELL DATA SHEETTubing Size: 2 3/8" Lining Material: Internal Plastic CoatingType of Packer: AO-1 (Tension)Packer Setting Depth: 4250'

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

Additional Data

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

If no, for what purpose was the well originally drilled? Oil Production

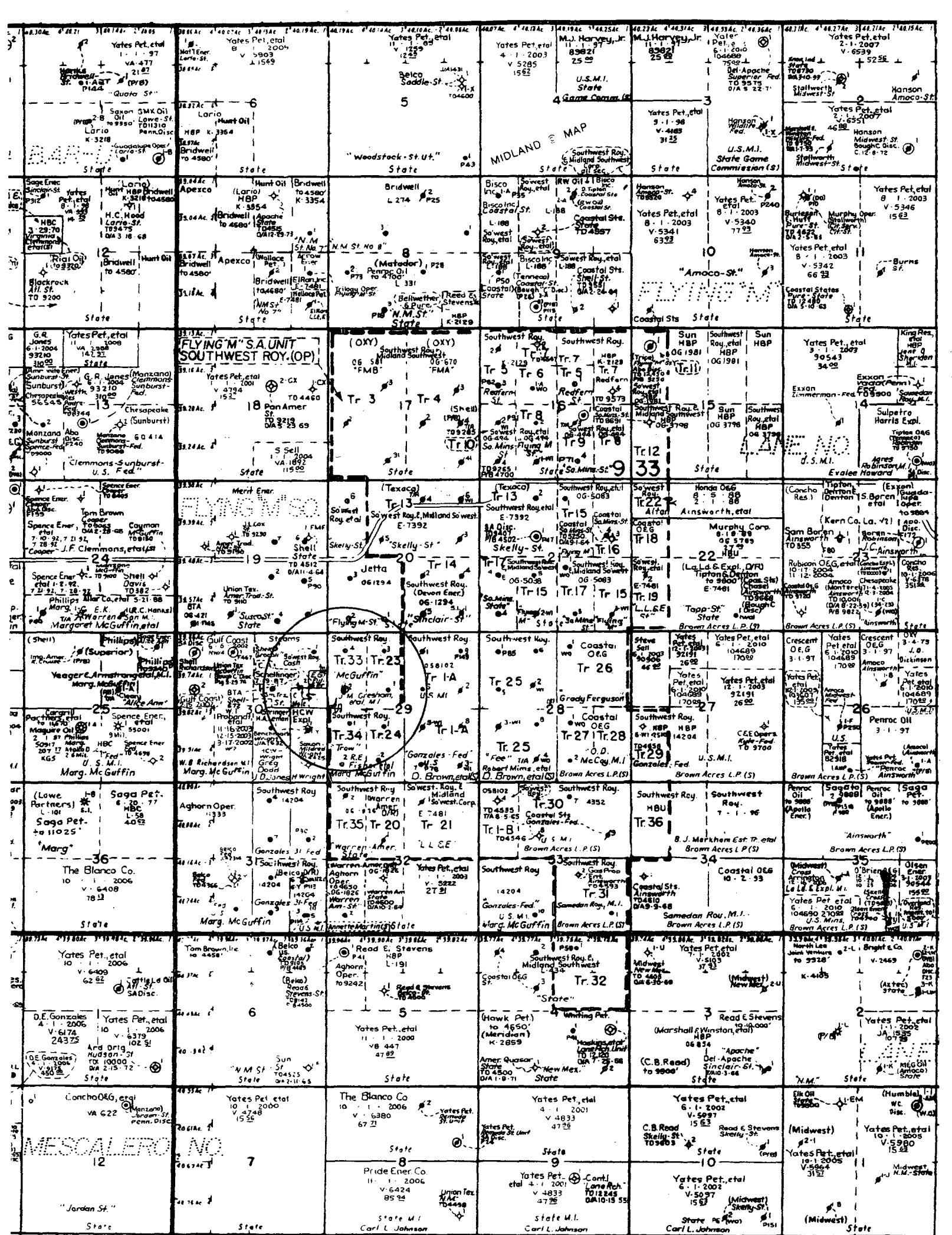
2. Name of the Injection Formation: San Andres

3. Name of Field or Pool (if applicable): Flying M

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: \_\_\_\_\_

Abo ± 8600'



**Area of Review**  
**Application for Authorization to Inject**  
**McGuffin Well #2**

**McGuffin #1**

Location: 1980' FNL, 2155' FWL

Type: Oil

Sec 29, T9S, R33E

Date Drilled: 8/66

Total Depth: 4480'

**Casing Record:**

| Size   | Depth | Sacks Cement |
|--------|-------|--------------|
| 8 5/8" | 271'  | 150          |
| 4 1/2" | 4480' | 250          |

**Completion:**

8/66

Perforated 4354'-81'. Acidize w/ 1000 gals.

1967

Add perfs 4395'-4404'. Acidize w/4000 gals.

**McGuffin #3**

Location: 660' FNL, 1980' FWL

Type: Oil

Sec 29, T9S, R33E

Date Drilled: 5/74

Total Depth: 4449'

**Casing Record:**

| Size   | Depth | Sacks Cement |
|--------|-------|--------------|
| 8 5/8" | 408'  | 300          |
| 4 1/2" | 4449' | 250          |

**Completion:**

5/74

Perforated 4354'-4422'. Acidize w/ 9000 gals.

**McGuffin #4**

Location: 660' FNL, 660' FWL

Type: Oil

Sec 29, T9S, R33E

Date Drilled: 4/76

Total Depth: 4456'

**Casing Record:**

| Size   | Depth | Sacks Cement |
|--------|-------|--------------|
| 8 5/8" | 364'  | 250          |
| 4 1/2" | 4456' | 230          |

**Completion:**

4/76

Perforated 4309-82'. Acidize w/ 5000 gals.

**Flying M Unit #34-1**

Location: 2112' FSL, 796' FWL

Type: Oil

Sec 29, T9S, R33E

Date Drilled: 7/67

Total Depth: 4465'

## Casing Record:

| Size   | Depth | Sacks Cement |
|--------|-------|--------------|
| 8 5/8" | 288'  | 200          |
| 4 1/2" | 4465' | 250          |

## Completion:

|      |                                             |
|------|---------------------------------------------|
| 7/67 | Perforated 4348'-83'. Acidize w/5000 gals.  |
| 1994 | Add perfs 4399'-4405'. Acidize w/2600 gals. |

**Flying M Unit #34-2**

Location: 660' FSL, 660' FWL

Type: Oil

Sec 29, T9S, R33E

Date Drilled: 12/85

Total Depth: 4404'

## Casing Record:

| Size   | Depth | Sacks Cement |
|--------|-------|--------------|
| 8 5/8" | 1790' | 900          |
| 5 1/2" | 4404' | 775          |

## Completion:

|       |                                             |
|-------|---------------------------------------------|
| 12/85 | Perforated 4333'-81'. Acidize w/18000 gals. |
|-------|---------------------------------------------|

**Flying M Unit #24-2**

Location: 794' FSL, 1856' FWL

Type: Oil

Sec 29, T9S, R33E

Date Drilled: 7/67

Total Depth: 4460'

## Casing Record:

| Size   | Depth | Sacks Cement |
|--------|-------|--------------|
| 8 5/8" | 279'  | 200          |
| 4 1/2" | 4459' | 250          |

## Completion:

|      |                                              |
|------|----------------------------------------------|
| 7/67 | Perforated 4367'-4404'. Acidize w/6000 gals. |
| 1994 | Add perfs 4422'-26'. Acidize w/3000 gals.    |

**Flying M Unit # 24-1**

Location: 1980' FSL, 1980' FWL

Type: Oil

Sec 29, T9S, R33E

Date Drilled: 3/74

Total Depth: 4450'

## Casing Record:

| Size   | Depth | Sacks Cement |
|--------|-------|--------------|
| 8 5/8" | 404'  | 300          |
| 4 1/2" | 4450' | 250          |

## Completion:

3/74 Perforated 4346'-84'. Acidize w/9000 gals.

1994 Add perfs 4342' - 4412'. Acidize w/6800 gals.

**Flying M Unit #1A-6**

Location: 1980' FNL, 1980' FEL

Type: Oil

Sec 29, T9S, R33E

Date Drilled: 4/74

Total Depth: 4450'

## Casing Record:

| Size   | Depth | Sacks Cement |
|--------|-------|--------------|
| 8 5/8" | 366'  | 300          |
| 4 1/2" | 4450' | 250          |

## Completion:

4/74 Perforated 4361'-4412'. Acidize w/9000 gals.

**Cash #1**

Location: 660' FNL, 460' FEL

Type: Oil

Sec 30, T9S, R33E

Date Drilled: 2/78

Total Depth: 4463'

## Casing Record:

| Size   | Depth | Sacks Cement |
|--------|-------|--------------|
| 7 5/8" | 1818' | 750          |
| 4 1/2" | 4463' | 200          |

## Completion:

2/78 Perforated 4329'-74'. Acidize w/ 5000 gals.

11/94 Add perfs 4393'-4415'. Acidize w/1000 gals.

**Cash #2**

Location: 1839' FNL, 519' FEL

Type: Oil

Sec 30, T9S, R33E

Date Drilled: 8/80

Total Depth: 4421'

## Casing Record:

| Size   | Depth | Sacks Cement |
|--------|-------|--------------|
| 8 5/8" | 1805' | 900          |
| 4 1/2" | 4410' | 450          |

## Completion:

2/78 Perforated 4329'-66'. Acidize w/ 5000 gals.

**Flying M State #1**

Location: 500' FSL, 1980' FWL

Type: Oil

Sec 20, T9S, R33E

Date Drilled: 8/76

Total Depth: 4500'

## Casing Record:

| Size   | Depth | Sacks Cement |
|--------|-------|--------------|
| 8 5/8" | 371'  | 265          |
| 4 1/2" | 4499' | 1675         |

## Completion:

8/76 Perforated 4342'-4410'. Acidize w/ 10000 gals.

**Flying M State #2**

Location: 500' FSL, 710' FWL

Type: Oil

Sec 20, T9S, R33E

Date Drilled: 4/77

Total Depth: 4480'

## Casing Record:

| Size   | Depth | Sacks Cement |
|--------|-------|--------------|
| 7"     | 1916' | 525          |
| 4 1/2" | 4480' | 675          |

## Completion:

4/77 Perforated 4342'-98'. Acidize w/ 5000 gals.

**Shell Groebli #1**

Location: 525' FNL, 1840' FEL

Type: Oil

Sec 30, T9S, R33E

Date Drilled: 3/79

Total Depth: 4503'

## Casing Record:

| Size   | Depth | Sacks Cement |
|--------|-------|--------------|
| 8 5/8" | 503'  | 325          |
| 4 1/2" | 4503' | 1000         |

Completion: 4/77 Perf 4308-78, acidize w/ 5000 gals

# SOUTHWEST ROYALTIES

PROJECT SHELL 672 LTD. #1  
1955' FNL + 1955' FEL

PAGE \_\_\_\_\_ OF \_\_\_\_\_  
BY \_\_\_\_\_ DATE \_\_\_\_\_

SEC 30, T9S, R33E

P + A2 10/67

10 SX SURF PLUG

50 SX PLUG 335-405'

25 SX PLUG 1150-1210'  
8 $\frac{5}{8}$ " CUT @ 1210'

4 $\frac{1}{2}$ " CUT @ 3353'

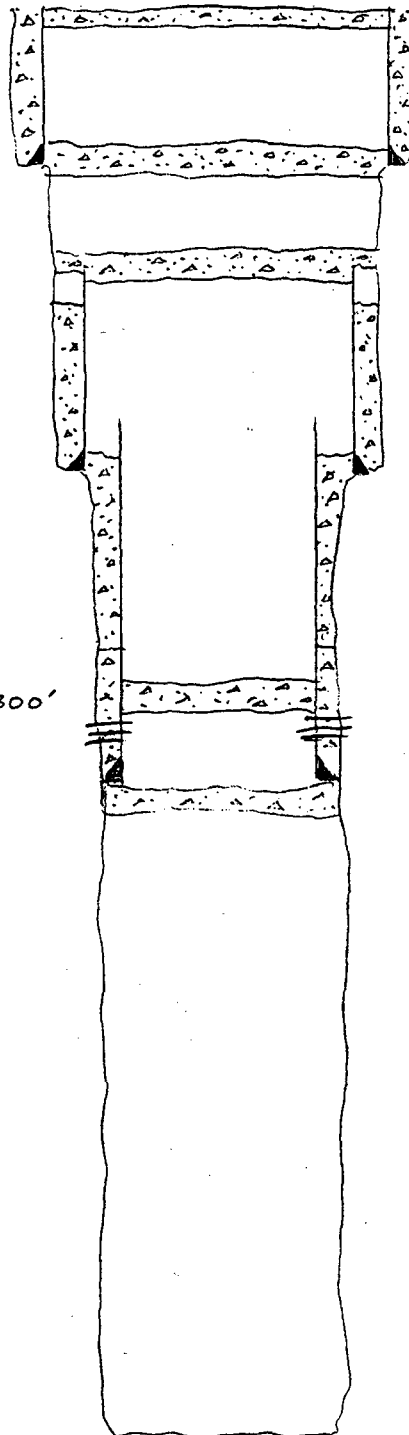
25 SX PLUG 4120-4300'

12 $\frac{3}{4}$ " @ 370' CMTD w/150 SX

8 $\frac{5}{8}$ " @ 3670' CMTD w/300 SX

PERFS: 4305-40'

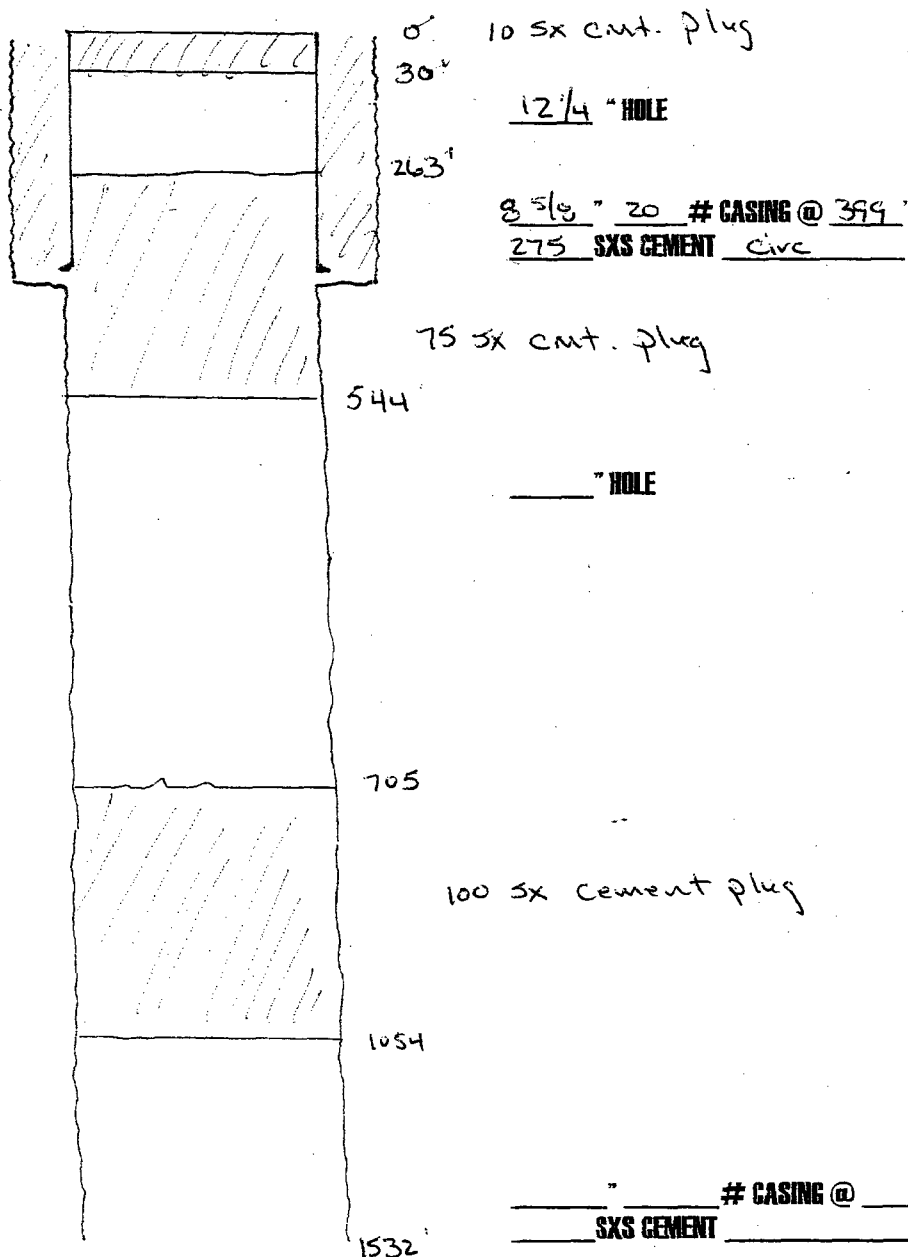
4 $\frac{1}{2}$ " @ 4487' CMTD w/275 SX



TD: 9150'

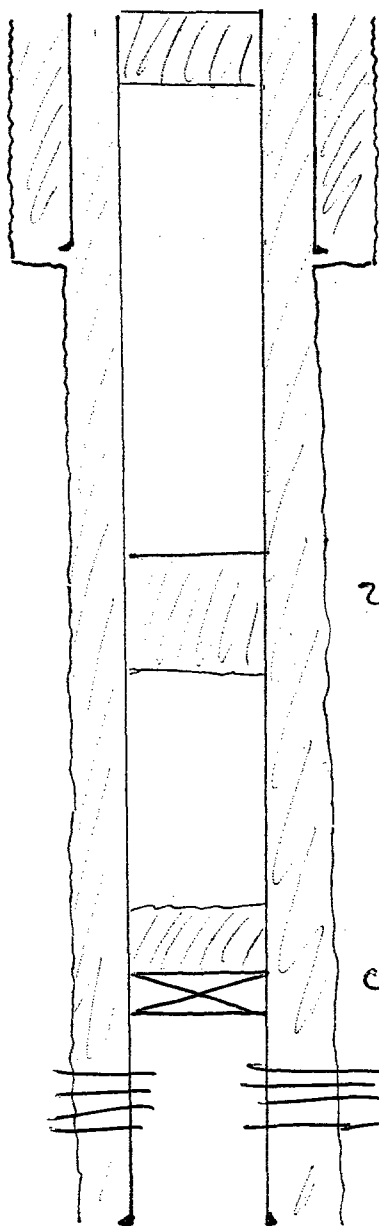
LEASE Wright WELL NO. 1 OPERATOR Benchmark Oil Co, Ltd.  
TYPE Jointed Abd DATE DRILLED 7/6/78 ELEV 4375 (GL)  
LOCATION 1990 FT FROM THE S LINE 660 FT FROM THE E LINE  
UNIT LETTER        SECTION 30 TOWNSHIP 9 S RANGE 33 E  
COUNTY Lea STATE NM TO 1532

COMPLETION Severe shale sloughing @ 1532'  
Hole abandoned



LEASE Wright WELL NO. 1Y OPERATOR HCW Exploration  
TYPE P/A DATE DRILLED 8/78 ELEV 4375  
LOCATION 1880 FT FROM THE S LINE 660 FT FROM THE E LINE  
UNIT LETTER \_\_\_\_\_ SECTION 30 TOWNSHIP 9S RANGE 33E  
COUNTY Lea STATE NM TO 4500'

COMPLETION Perf 4329-31, 4334-45, 4349-53,  
4375-80, 4384-89, 4404-08  
IP 2780 95BW 430 MCF P/A 1986



10 sx plug @ surface (1520')

12 1/4" HOLE

8 5/8" 20 # CASING @ 525'  
225 SXS CEMENT circ

7 7/8" HOLE

25 sx plug @ 1520' (320')

CIP @ 4250' w/ 35' cmt

4329

4408

4 1/2" 10.5 # CASING @ 4500'  
700 SXS CEMENT circ

Side 1

## INJECTION WELL DATA SHEET

30-025-24692

OPERATOR: Southwest Royalties, IncWELL NAME & NUMBER: Flying M Unit # 24-1Date Drilled: 3/14WELL LOCATION: 1480 FSL 1480 FWL

K

29

93

33E

FOOTAGE LOCATION

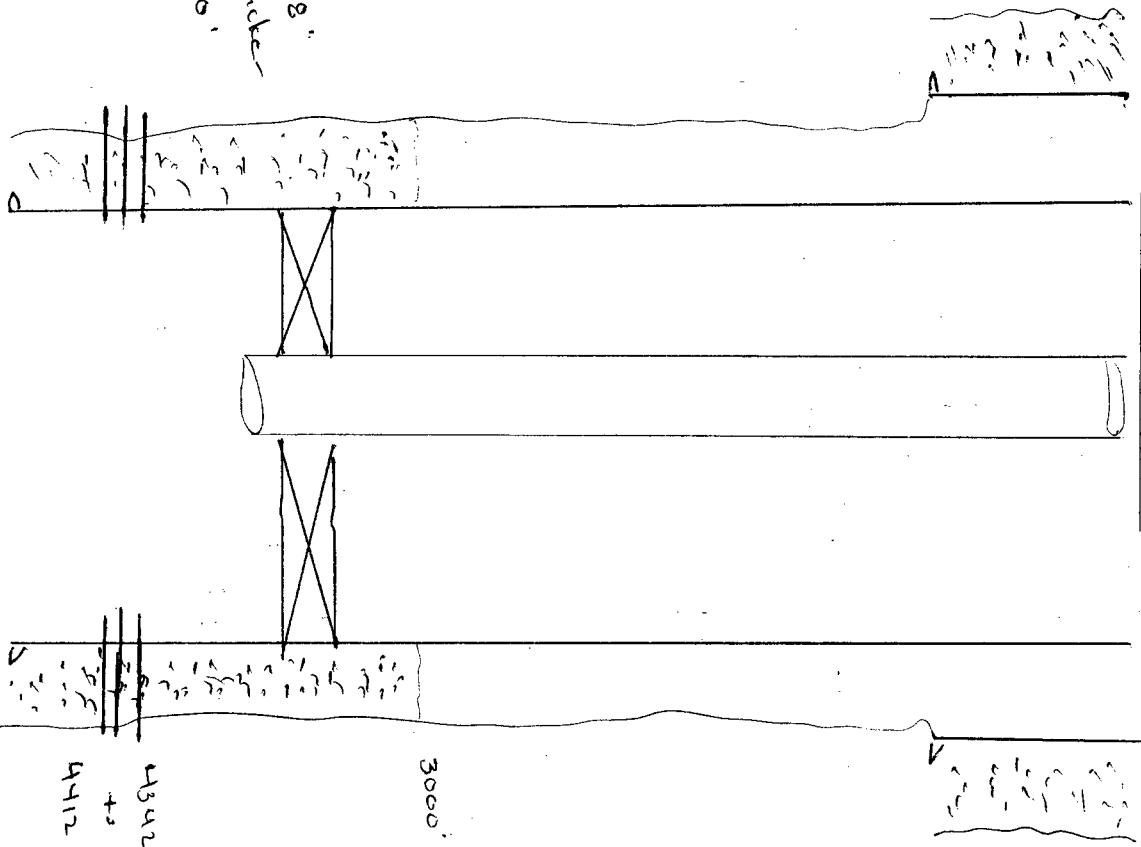
UNIT LETTER

SECTION

TOWNSHIP

RANGE

## WELLBORE SCHEMATIC



## WELL CONSTRUCTION DATA

## Surface Casing

Hole Size: 11"Casing Size: 8 5/8" @ 404'Cemented with: 360sx. or ftTop of Cement: SurfaceMethod Determined: Circ

## Intermediate Casing

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

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

Cemented with: \_\_\_\_\_

sx. or ft

Top of Cement: \_\_\_\_\_

Method Determined: \_\_\_\_\_

## Production Casing

Hole Size: 7 7/8"Casing Size: 4 1/2" @ 4450'Cemented with: 250sx. or ftTop of Cement: 3000'Method Determined: CalcTotal Depth: 4450'

## Injection Interval

4342feet to 4412

(Perforated or Open Hole; indicate which)

4 1/2 x 2 3/8"  
 AD-1 packer  
 @ 4250'

INJECTION WELL DATA SHEET

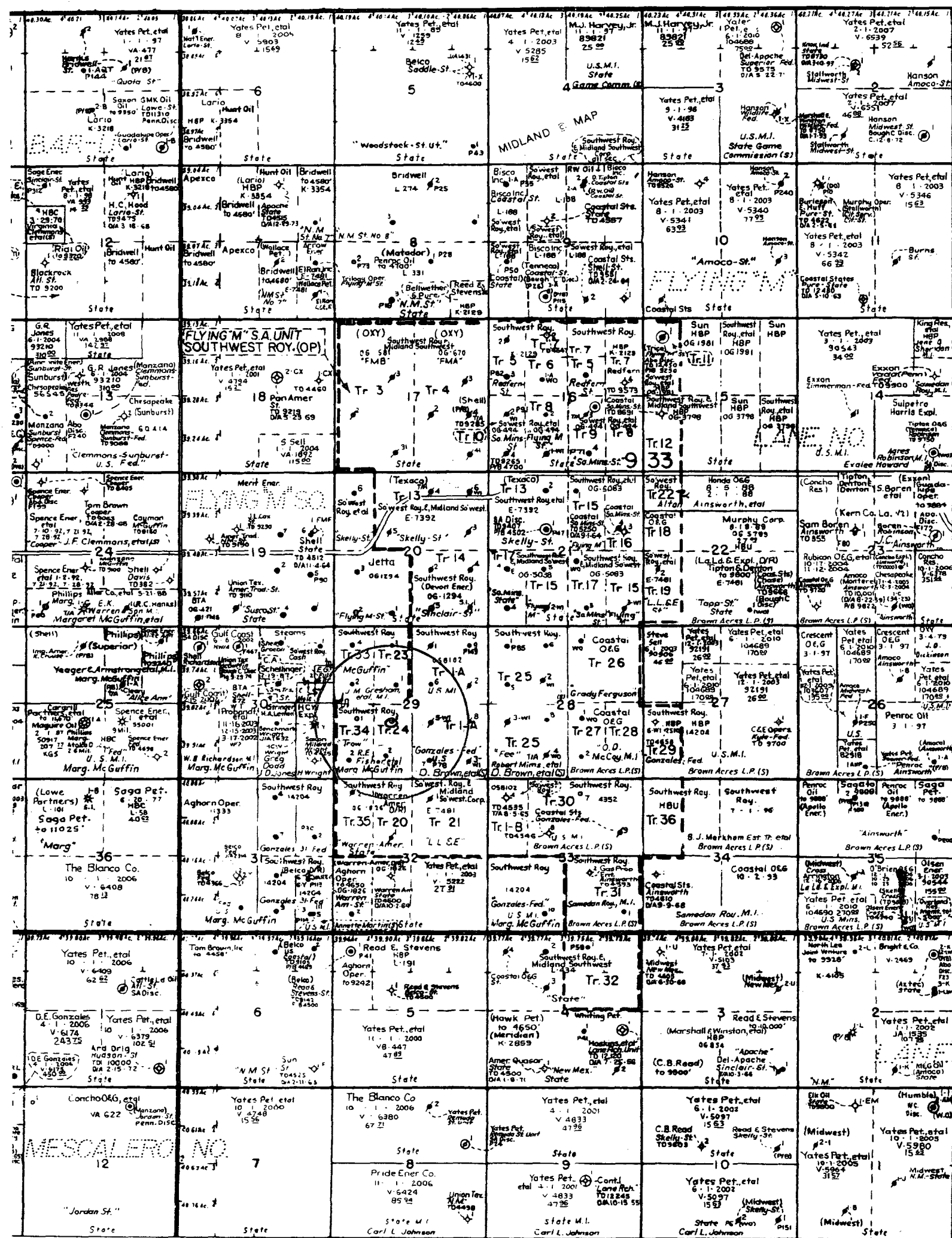
Tubing Size: 2 3/8" Lining Material: Internal Plastic Coating  
 Type of Packer: AD-1 (Tension)  
 Packer Setting Depth: 4250'  
 Other Type of Tubing/Casing Seal (if applicable): \_\_\_\_\_

Additional Data

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

2. Name of the Injection Formation: San Andres  
 3. Name of Field or Pool (if applicable): Flying M  
 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:  
Abo ± 8600'  
 \_\_\_\_\_  
 \_\_\_\_\_



**Area of Review**  
**Application for Authorization to Inject**  
**Flying M (SA) Unit #24-1**

**McGuffin #1**

Location: 1980' FNL, 2155' FWL  
Type: Oil

Sec 29, T9S, R33E  
Date Drilled: 8/66  
Total Depth: 4480'

**Casing Record:**

| Size   | Depth | Sacks Cement |
|--------|-------|--------------|
| 8 5/8" | 271'  | 150          |
| 4 1/2" | 4480' | 250          |

**Completion:**

|      |                                             |
|------|---------------------------------------------|
| 8/66 | Perforated 4354'-81'. Acidize w/ 1000 gals. |
| 1967 | Add perfs 4395'-4404'. Acidize w/4000 gals. |

**McGuffin #2**

Location: 1980' FNL, 660' FWL  
Type: Oil

Sec 29, T9S, R33E  
Date Drilled: 5/74  
Total Depth: 4440'

**Casing Record:**

| Size   | Depth | Sacks Cement |
|--------|-------|--------------|
| 8 5/8" | 407'  | 350          |
| 4 1/2" | 4440' | 250          |

**Completion:**

|      |                                             |
|------|---------------------------------------------|
| 5/74 | Perforated 4340'-74'. Acidize w/ 4500 gals. |
| 5/74 | Squeeze perfs & reperf 4340'-64'            |
| 5/00 | Add perfs 4386-96. Acidize w/2200 gals.     |

**McGuffin #3**

Location: 660' FNL, 1980' FWL  
Type: Oil

Sec 29, T9S, R33E  
Date Drilled: 5/74  
Total Depth: 4449'

**Casing Record:**

| Size   | Depth | Sacks Cement |
|--------|-------|--------------|
| 8 5/8" | 408'  | 300          |
| 4 1/2" | 4449' | 250          |

**Completion:**

|      |                                               |
|------|-----------------------------------------------|
| 5/74 | Perforated 4354'-4422'. Acidize w/ 9000 gals. |
|------|-----------------------------------------------|

**Flying M Unit #34-1**

Location: 2112' FSL, 796' FWL

Type: Oil

Sec 29, T9S, R33E

Date Drilled: 7/67

Total Depth: 4465'

## Casing Record:

| Size   | Depth | Sacks Cement |
|--------|-------|--------------|
| 8 5/8" | 288'  | 200          |
| 4 1/2" | 4465' | 250          |

## Completion:

|      |                                             |
|------|---------------------------------------------|
| 7/67 | Perforated 4348'-83'. Acidize w/5000 gals.  |
| 1994 | Add perfs 4399'-4405'. Acidize w/2600 gals. |

**Flying M Unit #34-2**

Location: 660' FSL, 660' FWL

Type: Oil

Sec 29, T9S, R33E

Date Drilled: 12/85

Total Depth: 4404'

## Casing Record:

| Size   | Depth | Sacks Cement |
|--------|-------|--------------|
| 8 5/8" | 1790' | 900          |
| 5 1/2" | 4404' | 775          |

## Completion:

|       |                                             |
|-------|---------------------------------------------|
| 12/85 | Perforated 4333'-81'. Acidize w/18000 gals. |
|-------|---------------------------------------------|

**Flying M Unit #24-2**

Location: 794' FSL, 1856' FWL

Type: Oil

Sec 29, T9S, R33E

Date Drilled: 7/67

Total Depth: 4460'

## Casing Record:

| Size   | Depth | Sacks Cement |
|--------|-------|--------------|
| 8 5/8" | 279'  | 200          |
| 4 1/2" | 4459' | 250          |

## Completion:

|      |                                              |
|------|----------------------------------------------|
| 7/67 | Perforated 4367'-4404'. Acidize w/6000 gals. |
| 1994 | Add perfs 4422'-26'. Acidize w/3000 gals.    |

**Flying M Unit # 24-1**

Location: 1980' FSL, 1980' FWL

Type: Oil

Sec 29, T9S, R33E

Date Drilled: 3/74

Total Depth: 4450'

## Casing Record:

| Size   | Depth | Sacks Cement |
|--------|-------|--------------|
| 8 5/8" | 404'  | 300          |
| 4 1/2" | 4450' | 250          |

## Completion:

3/74 Perforated 4346'-84'. Acidize w/9000 gals.

1994 Add perfs 4342' - 4412'. Acidize w/6800 gals.

**Flying M Unit #1A-7**

Location: 659' FSL, 1991' FEL

Type: Oil

Sec 29, T9S, R33E

Date Drilled: 1974

Total Depth: 4429'

## Casing Record:

| Size   | Depth | Sacks Cement |
|--------|-------|--------------|
| 8 5/8" | 342'  | 300          |
| 4 1/2" | 4429' | 250          |

## Completion:

1974 Perforated 4356'-4427'. Acidize w/9000 gals.

**Flying M Unit #1A-6**

Location: 1980' FNL, 1980' FEL

Type: Oil

Sec 29, T9S, R33E

Date Drilled: 4/74

Total Depth: 4450'

## Casing Record:

| Size   | Depth | Sacks Cement |
|--------|-------|--------------|
| 8 5/8" | 366'  | 300          |
| 4 1/2" | 4450' | 250          |

## Completion:

4/74 Perforated 4361'-4412'. Acidize w/9000 gals.

**Flying M Unit #1A-5**

Location: 1980' FSL, 1983' FEL

Type: Injection

Sec 29, T9S, R33E

Date Drilled: 4/66

Total Depth: 4485'

## Casing Record:

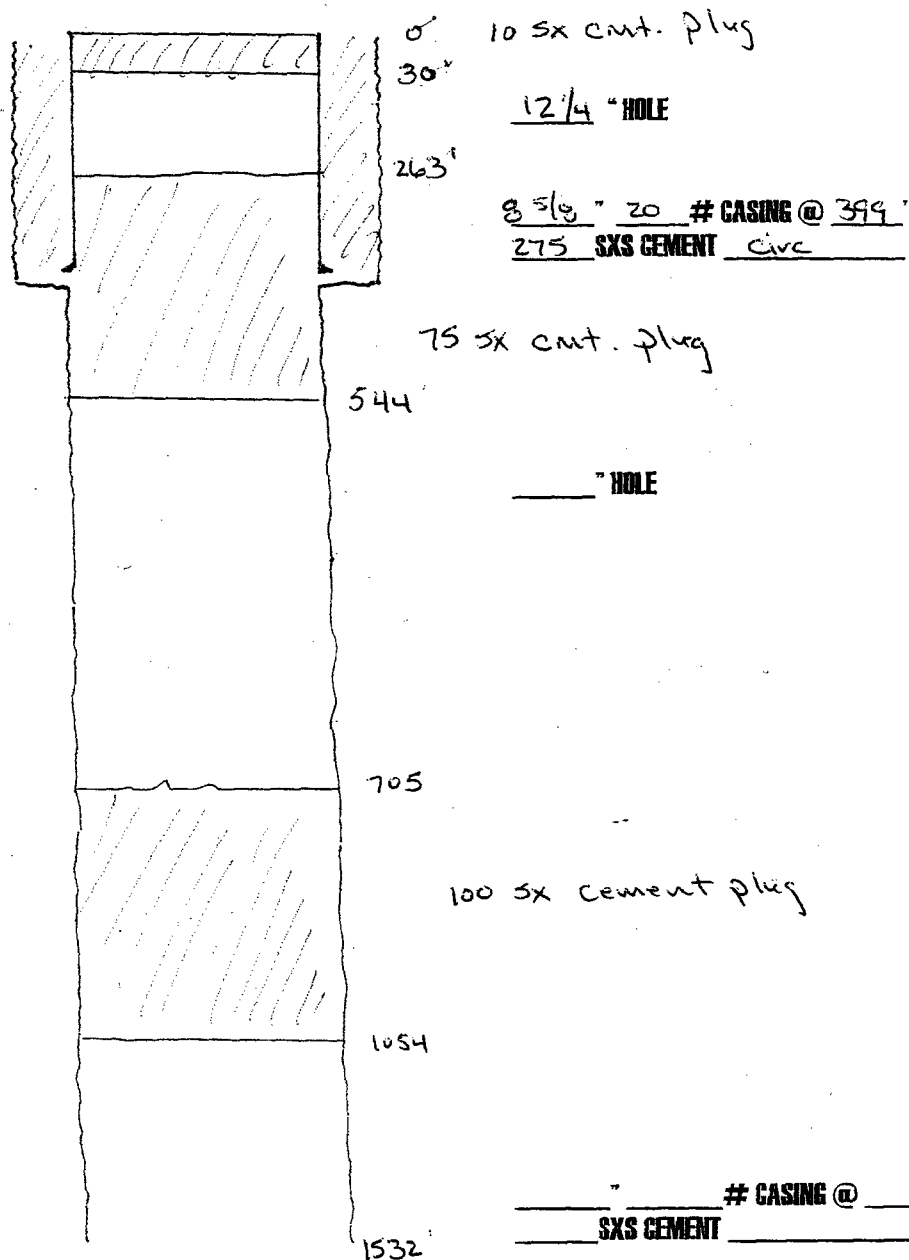
| Size   | Depth | Sacks Cement |
|--------|-------|--------------|
| 8 5/8" | 250'  | 200          |
| 4 1/2" | 4485' | 250          |

## Completion:

|      |                                             |
|------|---------------------------------------------|
| 4/66 | Perforated 4350'-75'. Acidize w/10000 gals. |
| 1967 | Add perfs 4379'-4403'                       |
| 1975 | Convert to water injection. Packer @4300'.  |

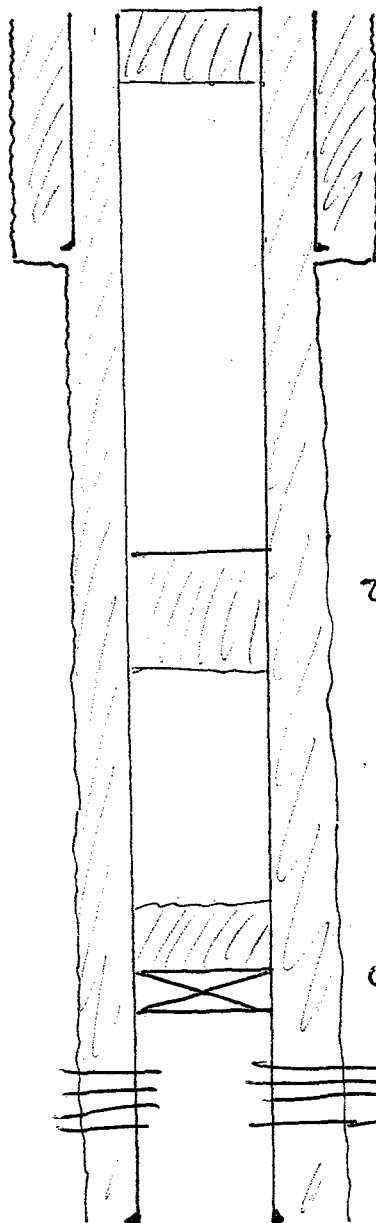
LEASE Wright WELL NO. 1 OPERATOR Benchmark Oil Co, Ltd.  
TYPE Jointed: Abd DATE DRILLED 7/6/78 ELEV 4375 (GL)  
LOCATION 1980 FT FROM THE S LINE 460 FT FROM THE E LINE  
UNIT LETTER \_\_\_\_\_ SECTION 30 TOWNSHIP 9 S RANGE 33 E  
COUNTY Lea STATE NM TO 1532

COMPLETION Severe shale sloughing @ 1532'  
Hole abandoned



LEASE Wright WELL NO. 1Y OPERATOR HCW Exploration  
TYPE P: A DATE DRILLED 8/78 ELEV 4375  
LOCATION 1880 FT FROM THE S LINE 660 FT FROM THE E LINE  
UNIT LETTER \_\_\_\_\_ SECTION 30 TOWNSHIP 9S RANGE 33E  
COUNTY Lea STATE NM TD 4500

COMPLETION Perf 4329-31 4334-45 4349-53  
4375-80 4384-89 4404-08  
IP 2780 95BW 430 MCF P: A 1986



10 sx plug @ surface (150')

12 1/4" HOLE

8 5/8" 20 # CASING @ 525'  
225 SXS CEMENT circ

7 7/8" HOLE

25 sx plug @ 1500' (370')

C.B.P @ 4250' w/ 35' cement

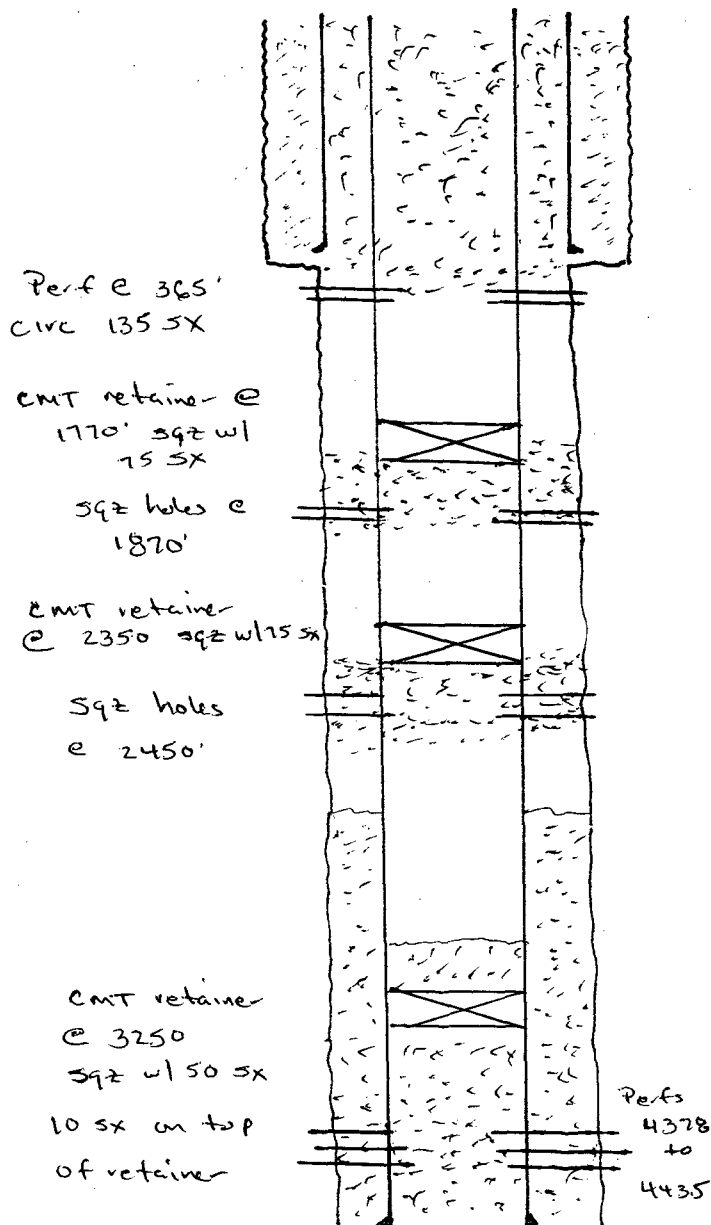
4329

4408

4 1/2" 10.5 # CASING @ 4500'  
700 SXS CEMENT circ

LEASE Flying M. Unit WELL NO. 1A-8 OPERATOR SWR  
 TYPE P.A. DATE DRILLED 4/74 ELEV 4307  
 LOCATION 1980 FT FROM THE S LINE 660 FT FROM THE E LINE  
 UNIT LETTER I SECTION 29 TOWNSHIP 9S RANGE 33E  
 COUNTY Lea STATE NM TD 4490

COMPLETION 4/74 Perf 4378-4435 Acidize w/ 9000 gels.



12 1/4" HOLE

8 5/8" 32 # CASING @ 315'  
350 SXS CEMENT CIVC

7 7/8" HOLE

4 1/2" 9.5 # CASING @ 4490'  
250 SXS CEMENT TOC 3040 (Est.)

30-625-29488

Date Filled : 12/185

## WELLBORE SCHEMATIC

## WELL CONSTRUCTION DATA

Casing Size: 2 5/8" @ 1790

SX. or  $n^3$

Method Determined: CIVC

**Casing Size:**

SX. or R

### Method Determined:

Casing Size: 5 1/2" @ 4404

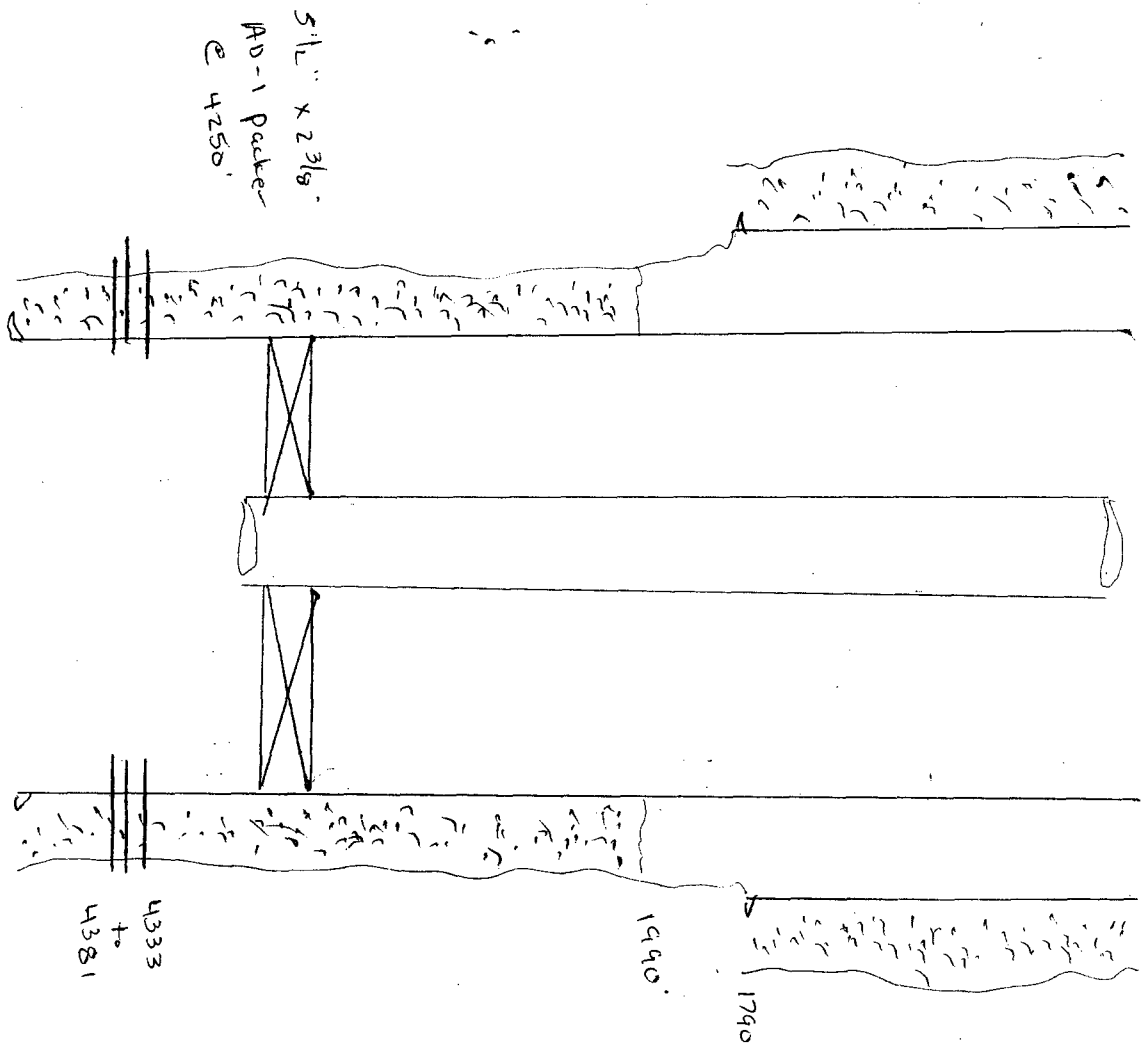
SX. or  $\alpha^3$

Method Determined: C 6 L

### Injection Interval

feet to 4381

(Perforated or Open Hole; indicate which)



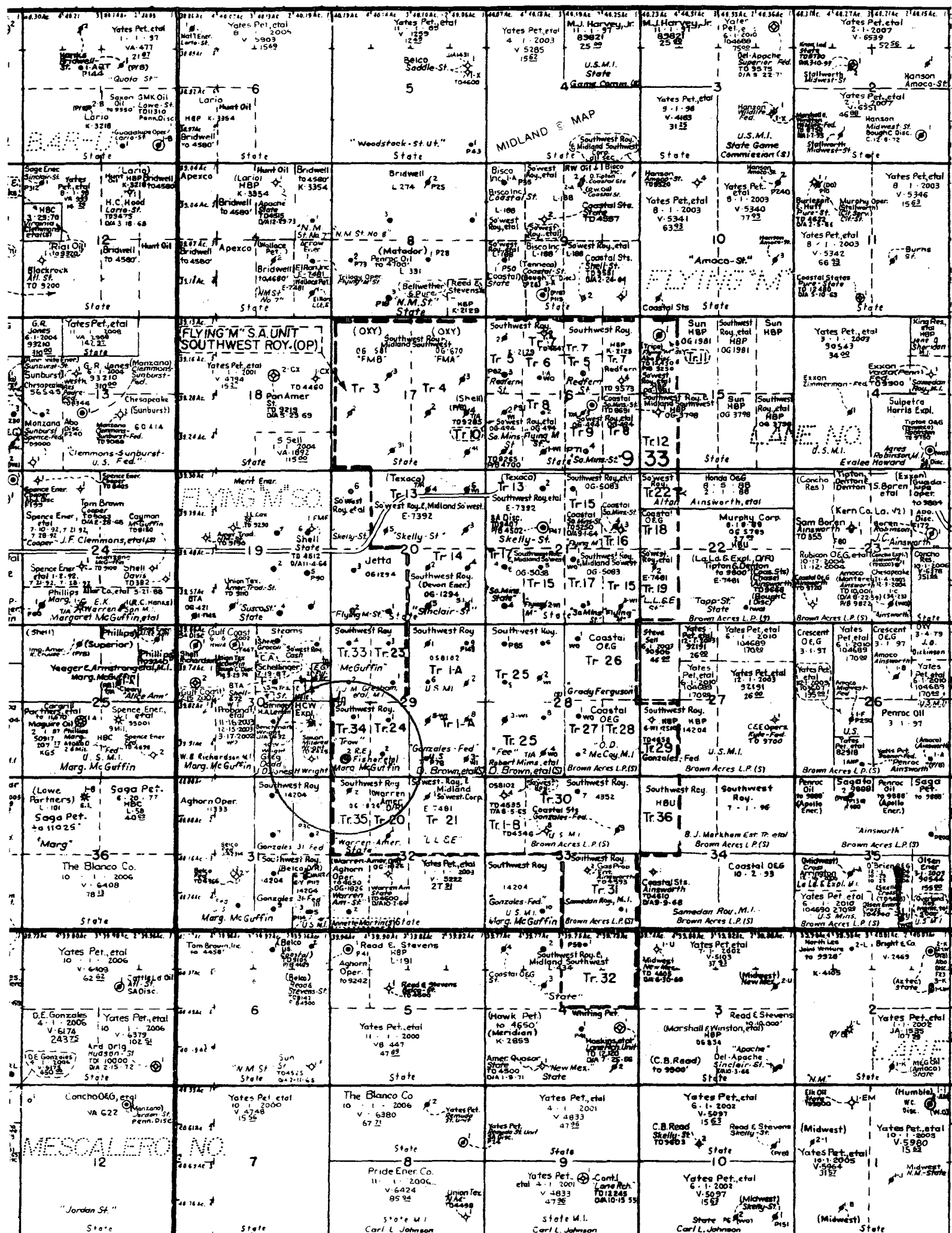
INJECTION WELL DATA SHEETTubing Size: 2 3/8" Lining Material: Internal Plastic CoatingType of Packer: AD-1 (Tension)Packer Setting Depth: 4250'

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

Additional Data1. Is this a new well drilled for injection? Yes X No \_\_\_\_\_If no, for what purpose was the well originally drilled? Oil Production2. Name of the Injection Formation: San Andres3. Name of Field or Pool (if applicable): Flying M4. 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:

Abc ± 8600'



**Area of Review**  
**Application for Authorization to Inject**  
**Flying M (SA) Unit #34-2**

**McGuffin #2**

Location: 1980' FNL, 660' FWL

Type: Oil

Sec 29, T9S, R33E

Date Drilled: 5/74

Total Depth: 4440'

**Casing Record:**

| Size   | Depth | Sacks Cement |
|--------|-------|--------------|
| 8 5/8" | 407'  | 350          |
| 4 1/2" | 4440' | 250          |

**Completion:**

|      |                                             |
|------|---------------------------------------------|
| 5/74 | Perforated 4340'-74'. Acidize w/ 4500 gals. |
| 5/74 | Squeeze perfs & reperf 4340'-64'            |
| 5/00 | Add perfs 4386-96. Acidize w/2200 gals.     |

**Flying M Unit #34-1**

Location: 2112' FSL, 796' FWL

Type: Oil

Sec 29, T9S, R33E

Date Drilled: 7/67

Total Depth: 4465'

**Casing Record:**

| Size   | Depth | Sacks Cement |
|--------|-------|--------------|
| 8 5/8" | 288'  | 200          |
| 4 1/2" | 4465' | 250          |

**Completion:**

|      |                                             |
|------|---------------------------------------------|
| 7/67 | Perforated 4348'-83'. Acidize w/5000 gals.  |
| 1994 | Add perfs 4399'-4405'. Acidize w/2600 gals. |

**Flying M Unit #24-2**

Location: 794' FSL, 1856' FWL

Type: Oil

Sec 29, T9S, R33E

Date Drilled: 7/67

Total Depth: 4460'

**Casing Record:**

| Size   | Depth | Sacks Cement |
|--------|-------|--------------|
| 8 5/8" | 279'  | 200          |
| 4 1/2" | 4459' | 250          |

**Completion:**

|      |                                              |
|------|----------------------------------------------|
| 7/67 | Perforated 4367'-4404'. Acidize w/6000 gals. |
| 1994 | Add perfs 4422'-26'. Acidize w/3000 gals.    |

**Flying M Unit # 24-1**

Location: 1980' FSL, 1980' FWL

Type: Oil

Sec 29, T9S, R33E

Date Drilled: 3/74

Total Depth: 4450'

**Casing Record:**

| Size   | Depth | Sacks Cement |
|--------|-------|--------------|
| 8 5/8" | 404'  | 300          |
| 4 1/2" | 4450' | 250          |

**Completion:**

3/74 Perforated 4346'-84'. Acidize w/9000 gals.

1994 Add perfs 4342' - 4412'. Acidize w/6800 gals.

**Flying M Unit #1A-7**

Location: 659' FSL, 1991' FEL

Type: Oil

Sec 29, T9S, R33E

Date Drilled: 1974

Total Depth: 4429'

**Casing Record:**

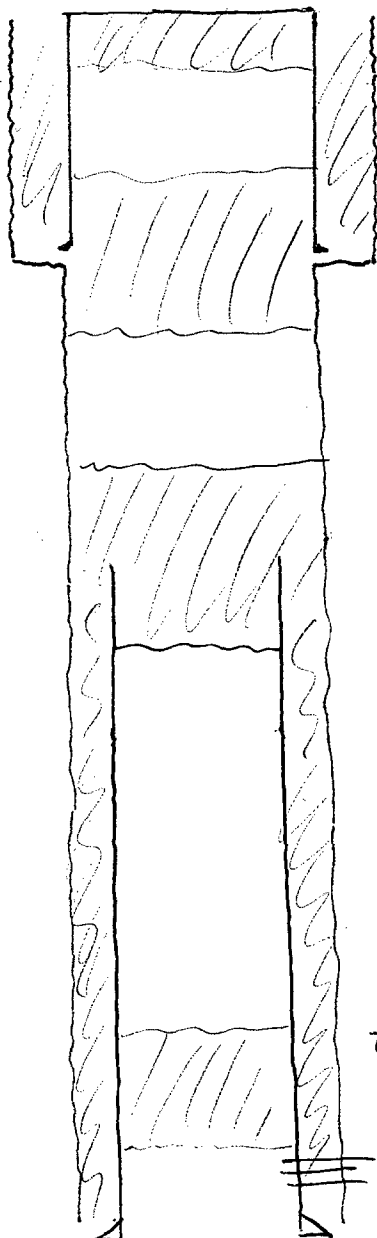
| Size   | Depth | Sacks Cement |
|--------|-------|--------------|
| 8 5/8" | 342'  | 300          |
| 4 1/2" | 4429' | 250          |

**Completion:**

1974 Perforated 4356'-4427'. Acidize w/9000 gals.

LEASE Mildred Wright WELL NO. 1 OPERATOR Saxon oil  
TYPE Dry Hole DATE DRILLED 6/72 ELEV 4344  
LOCATION 659 FT FROM THE S LINE 659 FT FROM THE E LINE  
UNIT LETTER \_\_\_\_\_ SECTION 30 TOWNSHIP 9S RANGE 33E  
COUNTY Lea STATE NM TO 4425

COMPLETION Perf 4317-4360 Acidize w/ 6000 gals  
Swab test  
Plug 6/1/73



5 sx plug e su-face

10 3/4" HOLE

8 5/8" 20 # CASING @ 375'  
275 SXS CEMENT cwc

35 sx plug 425-325

7 3/4" HOLE

cut & pull casing @ 1209'

30 sx plug 1260-1160'

25 sx plug 4360-4110

4 1/2" 9.5 # CASING @ 4413'  
260 SXS CEMENT

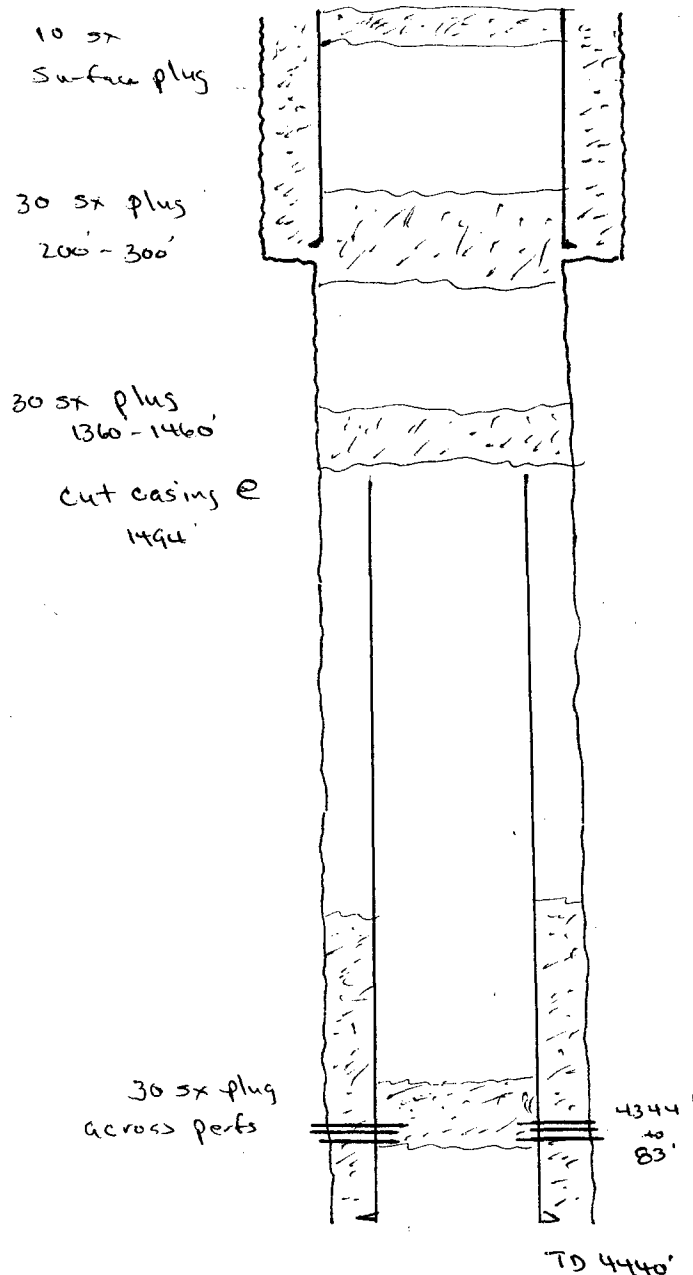
WA state

2

LEASE Flying M Unit WELL NO. 35-2 OPERATOR SWR  
TYPE P: A DATE DRILLED 1967 ELEV 4325  
LOCATION 469 FT FROM THE N LINE 660 FT FROM THE W LINE  
UNIT LETTER D SECTION 32 TOWNSHIP 9S RANGE 33E  
COUNTY Lea STATE NM TD 4440

COMPLETION (67) perf 4344-83 Acidize w/ 9000 gals.

P: A 1969



12 1/4" HOLE

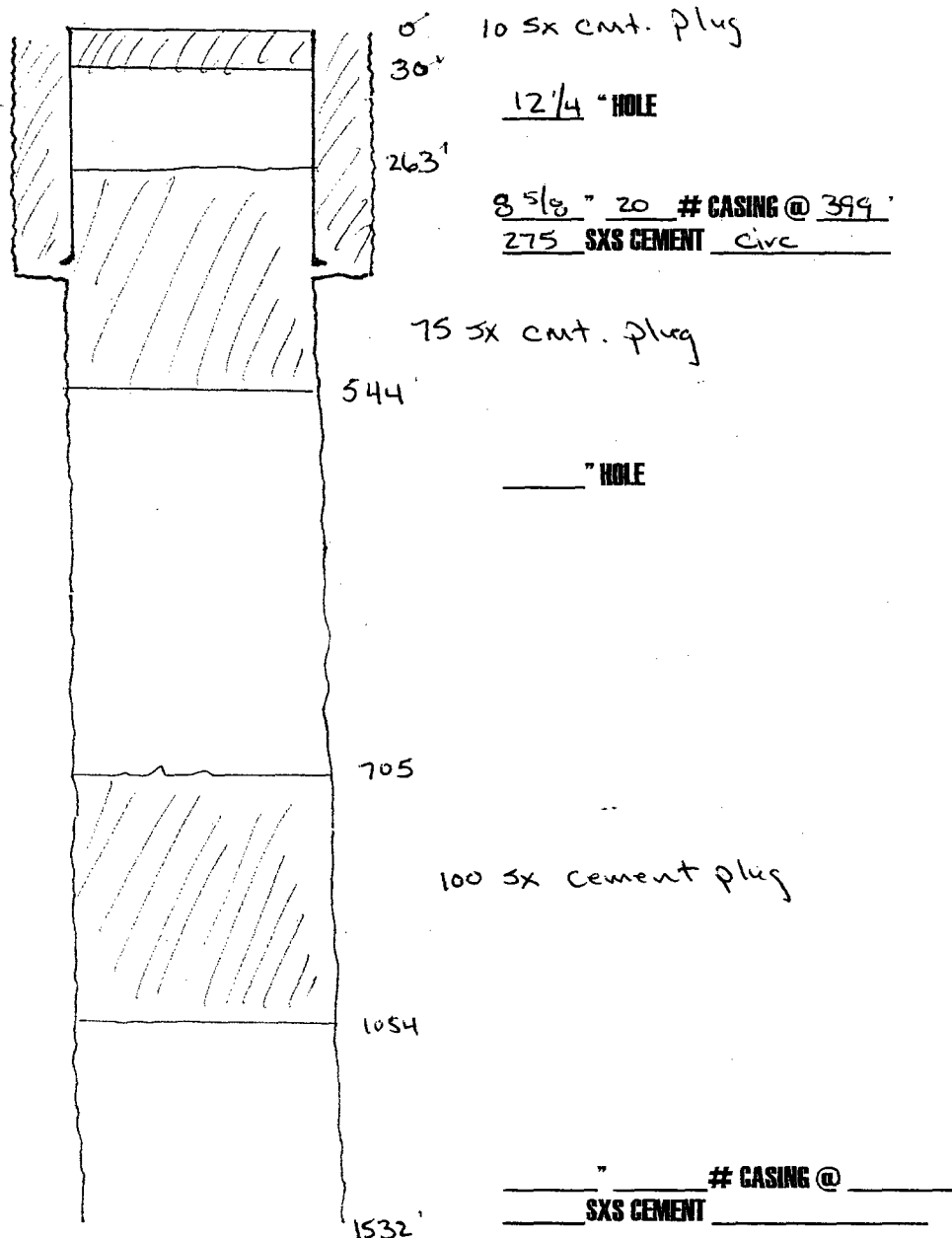
8 5/8" 32 # CASING @ 286'  
200 SXS CEMENT

7 7/8" HOLE

4 1/2" 10.5 # CASING @ 4438'  
250 SXS CEMENT

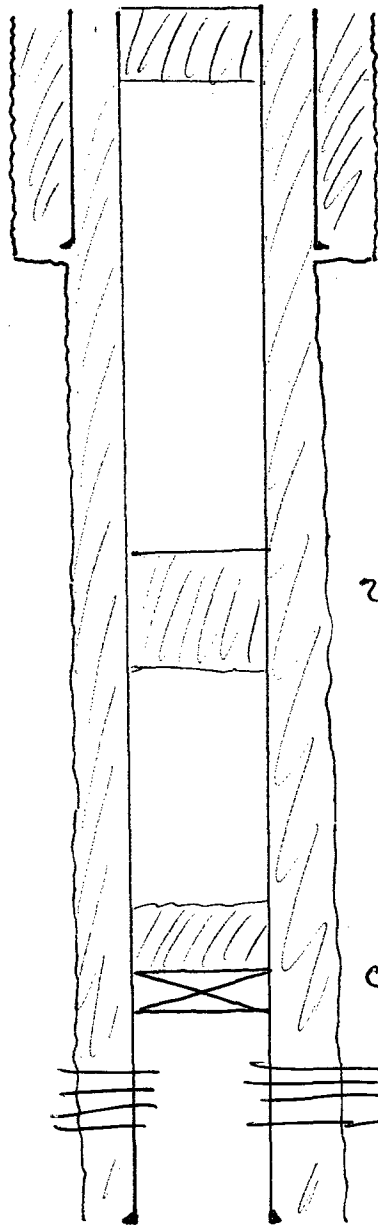
LEASE Wright WELL NO. 1 OPERATOR Benchmark Oil Co, Ltd.  
TYPE Junked' Abd DATE DRILLED 7/6/78 ELEV 4375 (GL)  
LOCATION 1980 FT FROM THE S LINE 460 FT FROM THE E LINE  
UNIT LETTER  SECTION 30 TOWNSHIP 9 S RANGE 33 E  
COUNTY Lea STATE NM TO 1532

COMPLETION Severe shale sloughing @ 1532'  
Hole abandoned



LEASE Wright WELL NO. 1Y OPERATOR HCW Exploration  
TYPE P: A DATE DRILLED 8/78 ELEV 4375  
LOCATION 1880 FT FROM THE S LINE 660 FT FROM THE E LINE  
UNIT LETTER \_\_\_\_\_ SECTION 30 TOWNSHIP 9S RANGE 33E  
COUNTY Lea STATE NM TO 4500'

COMPLETION Perf 4329-31, 4339-45, 4349-53,  
4375-80, 4384-89, 4404-08  
IP 2760 95BW 430 MCF P: A 1986



10 sx plug @ Surface (1520')

12 1/4" HOLE

8 5/8" 20 # CASING @ 525'  
275 SXS CEMENT circ

7 7/8" HOLE

25 sx plug @ 1500' (370')

c18P @ 4250' w/ 35' cmt

4329

4408

4 1/2" 10.5 # CASING @ 4500'  
700 SXS CEMENT circ



SOUTHWEST ROYALTIES, INC.

SOUTHWEST ROYALTIES, INC.  
6 Desta Drive, Suite 2100  
Midland, Texas 79705  
(432) 686-9927, (800) 658-6227

Wednesday, August 31, 2005

Offset Operators, Producers & Surface Owners  
(per attached listing)

Re: Application for Authorization to Inject  
Lea County, New Mexico

Dear Ladies and Gentlemen:

Enclosed please find Southwest Royalties Inc.'s Application for Authorization to Inject for the conversion of three wells into water injection wells for the purpose of waterflooding in the Flying "M" (SA) Field in Section 29, T9S, R33E, Lea County, New Mexico.

Please let me know if you need additional information.

Sincerely,

*Dawn M. Howard*  
Operations Assistant  
Southwest Royalties, Inc./Clayton Williams Energy  
6 Desta Drive, Ste 2100  
Midland, Texas 79705  
432/688-3267  
432/688.3268 fax

enclosed: Form C-108, Legal Notice, Affidavit of Publication & Plat

**Flying M Field, Section 29  
Offset Operators, Producers & Surface Owners**

Merit Energy Company  
13727 Noel Road, Suite 500  
Dallas, Texas 75240

Sundown Energy LP  
Two Galleria Tower  
13455 Noel Road, Suite 2000  
Dallas, Texas 75240

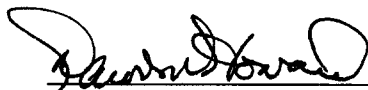
John R. Stearns, et ux Lou Ann  
Stearns, d/b/a Stearns  
P.O. Box 988  
Crossroads, NM 87114

Dale Todd or Vanica Todd  
P.O. Box 310  
Boxque, NM 87006

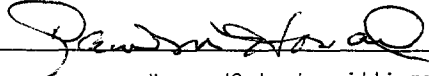
Joseph E. & Twila M. Goodding  
1009 Crestview Circle  
Farmington, NM 87401

Laura Kaempf, ssp  
1325 Valley View Road, Apt. 302  
Glendale, CA 91202

I, Dawn M. Howard, certify that a true and correct copy of the Application to Inject Fluid a Reservoir Productive of Oil and Gas has been mailed to the above parties by Certified Return Receipt mail.

  
Dawn M. Howard

APPLICATION FOR AUTHORIZATION TO INJECT

- I. PURPOSE: X Secondary Recovery        Pressure Maintenance        Disposal        Storage  
Application qualifies for administrative approval? X Yes        No
- II. OPERATOR: Southwest Royalties, Inc.  
ADDRESS: 6 Desta Drive Midland, Texas 79705  
CONTACT PARTY: Kerry Miller PHONE: 432-688-3221
- 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? X Yes        No  
If yes, give the Division order number authorizing the project: R-3229, R-3033, R-6171
- 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: DAWN M. HOWARD TITLE: OPERATIONS ASSISTANT  
SIGNATURE:  DATE: 8/31/05  
E-MAIL ADDRESS: dhoward@claytonwilliams.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.

## **LEGAL NOTICE**

**Southwest Royalties, Inc., intends to convert to water injection three (3) wells in the Flying "M" (SA) Field. The wells involved are as follows:**

**Flying "M" (SA) Unit Tract 34 Well #2, located 660' FSL & 660' FWL of Section 29, T-9-S, R-33-E, Unit Letter M in Lea County, New Mexico. Injection will be to provide pressure maintenance in the San Andres formation from 4333' - 4381' at a maximum rate and pressure of 1000 BWPD @ 1200 PSI.**

**McGuffin #2, located 1980' FNL & 660' FWL of Section 29, T-9-S, R-33-E, Unit Letter E in Lea County, New Mexico. Injection will be to provide pressure maintenance in the San Andres formation from 4340' - 4364' at a maximum rate and pressure of 1000 BWPD @ 1200 PSI.**

**Flying "M" (SA) Unit Tract 24 Well #1, located 1980' FSL & 1980' FWL of Section 24, T-9-S, R-33-E, Unit Letter K in Lea County, New Mexico. Injection will be to provide pressure maintenance in the San Andres formation from 4342' - 4412' at a maximum rate and pressure of 1000 BWPD @ 1200 PSI.**

**Interested parties must file objections or request for hearings within 15 days to the following:**

**NM Oil Conservation Division  
P.O. Box 2088  
Santa Fe, NM 87501**

**If you have any questions concerning this application, please contact the following:**

**Attn: Dawn Howard  
Southwest Royalties, Inc.  
6 Desta Drive, Suite 2100  
Midland, Texas 79705**

AFFIDAVIT OF PUBLICATION

State of New Mexico,  
County of Lea.

I, KATHI BEARDEN

Publisher

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

of 1  
\_\_\_\_\_ weeks.

Beginning with the issue dated

August 13 2005

and ending with the issue dated

August 13 2005

Kathi Bearden

Publisher

Sworn and subscribed to before

me this 15th day of

August 2005

[Signature]  
Notary Public.

My Commission expires  
February 07, 2009  
(Seal)



OFFICIAL SEAL  
DORA MONTZ  
NOTARY PUBLIC  
STATE OF NEW MEXICO

My Commission Expires: \_\_\_\_\_

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

LEGAL NOTICE  
August 13, 2005

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Interested parties must file objections or request for hearings within 15 days to the following:

NM Oil Conservation Division  
P.O. Box 2088  
Santa Fe, NM 87501

#21720

01101469000

67532551

SOUTHWEST ROYALTIES, INC.

P.O. BOX 11390

MIDLAND, TX 79702

09088

ons-Sunburst-  
S. Fed."

State

1-1-2004  
VA-1892  
11500

State

TD9265  
PB 4700

Spence Ener.  
To 8495

Brown

1063  
1-28-68  
Coyman  
McGuffin  
TD8150

monis, et al, et

24  
McGuffin  
TD 900

Shell  
Davis  
TD 382

Co., et al 5-21-88

E.K. (R.C. Hanns)  
arren Son M.  
McGuffin, et al

Merit Ener.

39.30 Ac

39.39 Ac

39.48 Ac

39.57 Ac

08-421

Union Tex.  
Arner. Trad. St.  
TD 310

"Susco St."  
State

2  
D/Al-4-64  
P90

Stearns

Shen

Richardson

Union Tex.

Shell

Gulf Coast

BT

Probant

W. 8 Richardson M

Marg. McGuffin

D. Jones

H. Wright

Warren

Ag Horn

Op.

11333

48.88 Ac

3

Gonzales 31 Fed

Southwest Roy.

(Belco) D/R

14204

Gonzales 31 Fed

14204

3

US M.

Belco

Coastal

TD 9105

(Belco)

Read Stevens

TD 9142

64500

6

Southwest Roy. et al

Skelly-St

Skelly-St

3

Jetta

061294

Southwest Roy.

(Devon Ener.)

06-1294

"Flying M-St."

State

Southwest Roy.

Tr. 33

McGuffin

J. M. Gresham

et al. M

Southwest Roy.

Tr. 34

Tr. 24

"Trow"

2 R.E.

Fisher, et al

Marg McGuffin

Southwest Roy.

2

Warren

06-926

Tr. 35

Tr. 20

Warren-Am

Ag Horn

Op.

104650

06-1026

Warren Am

State

TD 4600

Warren

Am-St

TD 4600

DIAIO-2-64

2

Annette Martin

State

(Texaco)

Tr. 13

Southwest Roy. E. Midland Southwest

E-7392

Skelly-St

Skelly-St

2

Jetta

061294

Southwest Roy.

(Devon Ener.)

06-1294

"Flying M-St."

State

Southwest Roy.

Tr. 33

Tr. 23

McGuffin

J. M. Gresham

et al. M

Southwest Roy.

Tr. 34

Tr. 24

"Trow"

2 R.E.

Fisher, et al

Marg McGuffin

Southwest Roy.

2

Warren

06-926

Tr. 35

Tr. 20

Warren-Am

Ag Horn

Op.

104650

06-1026

Warren Am

State

TD 4600

Warren

Am-St

TD 4600

DIAIO-2-64

2

Annette Martin

State

(Texaco)

Tr. 13

Southwest Roy. E-7392

8A Disc.

109407

184502

Skelly-St

Southwest Roy. E. Midland

06-50

1 Tr

State

Southwest Roy.

Tr. 25

06-50

Southwest Roy.

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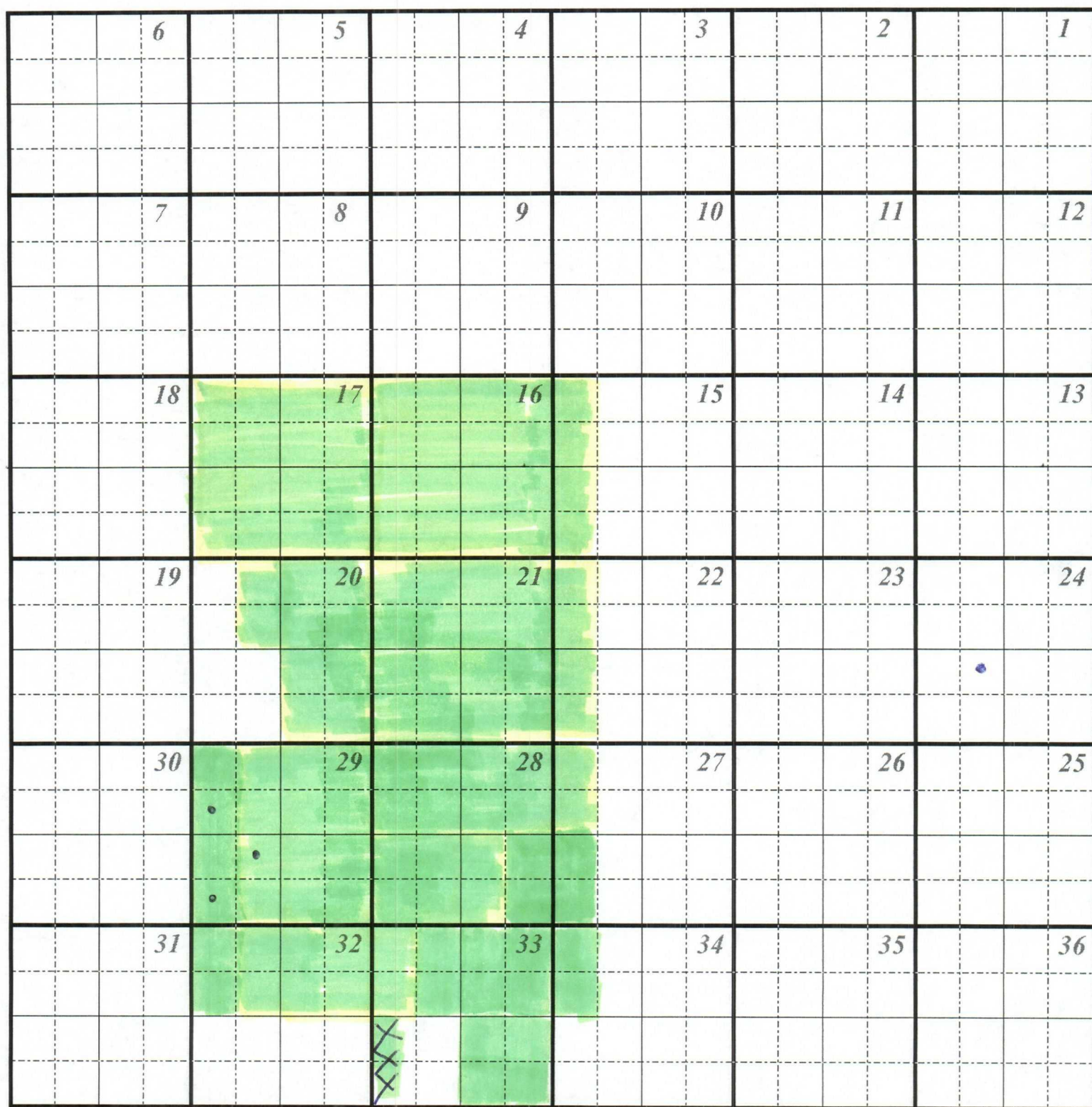
06-50

Southwest Roy.

Tr. 25

06-50

Southwest Roy.



Township \_\_\_\_\_ Range \_\_\_\_\_

## Catanach, David, EMNRD

---

**From:** Howard, Dawn [DHoward@claytonwilliams.com]  
**Sent:** Wednesday, October 26, 2005 9:22 AM  
**To:** Catanach, David, EMNRD  
**Subject:** RE: C-108 Application Flying M (SA) Field / Lea County, NM



20650001.pdf (350 KB)

Good morning-

You are correct in that there was an Administrative Order No. PMX-197 approved in 1998 (pdf attached).

These wells were not converted.

|      |     |                      |          |
|------|-----|----------------------|----------|
| 1865 | 038 | FLYING M SA TR 34 #2 | OIL WELL |
| 1869 | 002 | MCGUFFIN JOHN R #2   | OIL WELL |

I'm new at this, so I didn't know if there was an expiration date. When I checked w/Dorothy Phillips in July of this year, she told me that they expired. This is also true of Administrative Order No. PMX-194.

Please do not hesitate if I may provide further information. Thank you and have a great day! - Dawn

-----Original Message-----

**From:** Catanach, David, EMNRD [mailto:david.catanach@state.nm.us]  
**Sent:** Wednesday, October 26, 2005 9:45 AM  
**To:** Howard, Dawn  
**Subject:** RE: C-108 Application Flying M (SA) Field / Lea County, NM

Dawn,

I was working on this permit and I happened to notice that two of the Wells, the McGuffin and the 34-2 were previously permitted for injection by Division Order No. PMX-197 dated July 30, 1998. Were these wells never converted to injection? If they were not converted to injection, PMX-197 had a one-year expiration provision. Is that what happened? Please let me know.

David

-----Original Message-----

**From:** Howard, Dawn [mailto:DHoward@claytonwilliams.com]  
**Sent:** Tuesday, October 25, 2005 2:59 PM  
**To:** Catanach, David, EMNRD  
**Subject:** RE: C-108 Application Flying M (SA) Field / Lea County, NM

Afternoon David:

The revised Legal Notice has been publicized in the Hobbs News-Sun with the correct information and the original is in the mail to you this date. Thank you for patience.

Have a great day!

Dawn M. Howard  
Operations Assistant  
Southwest Royalties, Inc./Clayton Williams Energy  
6 Desta Drive, Ste 2100  
Midland, Texas 79705

432/688-3267  
432/688.3250 fax

> <<20590001.pdf>>

From: Howard, Dawn  
Sent: Monday, October 17, 2005 3:26 PM  
To: 'Catanach, David, EMNRD'  
Subject: Will do - thank you.

-----Original Message-----

From: Catanach, David, EMNRD  
[mailto:david.catanach@state.nm.us]  
Sent: Monday, October 17, 2005 3:15 PM  
To: dhoward@claytonwilliams.com  
Subject: Form C-108

Dawn,

I am currently reviewing your Form C-108 Application to convert three wells to injection within the

Flying "M" SA Waterflood Project. Please be advised that the newspaper ad is incorrect.

Please correct the following mistakes and re-run the advertisement:

Ad shows Tract 24 Well No. 1 to be in Section 24. Should be Section 29.

Ad shows injection interval for the McGuffin Well No. 2 to be 4,340'-4,364'.

Should be

4,327'-4,396'.

Please send me the corrected newspaper ad, and at that time, I will continue to

process the application.

If you have any questions, call me at (505) 476-3466.

Sincerely,

David Catanach  
Engineer

>

Confidentiality Notice: This e-mail, including all attachments is for the sole use of the intended recipient(s) and may contain confidential and privileged information. Any unauthorized review, use, disclosure or distribution is prohibited unless specifically provided under the New Mexico Inspection of Public Records Act. If you are not the intended recipient, please contact the sender and destroy all copies of this message. -- This email has been scanned by the Sybari - Antigen Email System.