KELLAHIN AND KELLAHIN
ATTORNEYS AT LAW
EL PATIO BUILDING
117 NORTH GUADALUPE
POST OFFICE BOX 2265
SANTA FE, NEW MEXICO 87504-2265

W THOMAS KELLAHIN*

*NEW MEXICO BOARD OF LEGAL SPECIALIZATION RECOGNIZED SPECIALIST IN THE AREA OF NATURAL RESOURCES-OIL AND GAS LAW

JASON KELLAHIN (RETIRED 1991)

TELEPHONE (505) 982-4285
TELEFAX (505) 982-2047

December 14, 1993

Mr. William J. LeMay
Oil Conservation Division
State Land Office Building
310 Old Santa Fe Trail, 2nd Floor
Santa Fe, New Mexico 87501

HAND DELIVERED

Case 10891

Re: Application of Southland Royalty Company for Approval of a Waterflood Project for its State "DS" Leasehold and to Qualify Said Project for the Recovered Oil Tax Rate Pursuant to the "New Mexico Enhanced Oil Recovery Act," Lea County, New Mexico

Dear Mr. LeMay:

On behalf of Southland Royalty Company, please find enclosed our referenced application which we request be set for hearing on the next available Examiner's docket now scheduled for January 6, 1994.

By copy of this letter and application, sent certified mail, we are notifying all interested parties within a 1/2 mile radius of the subject injection well of their right to appear at the hearing and participate in this case, including the right to present evidence either in support of or in opposition to the application and that failure to appear at the hearing may preclude them from any involvement in this case at a later date.

Pursuant to the Division's Memorandum 2-90, all parties are hereby informed that if they appear in this case, then they are requested to file a Pre-Hearing Statement with the Division not later than 4:00 PM on Friday, December 31, 1993, with a copy delivered to the undersigned.

Also enclosed is our proposed advertisement of this case for the NMOCD docket.

Very truly yours,

W. Thomas Kellahin

WTK/mg
Enclosure

cc: Southland Royalty Company and
By Certified Mail - Return Receipt
All Parties Listed on Form C-108

PROPOSED ADVERTISEMENT

CASE 1891 Application of Southland Royalty Company for approval of a waterflood project and to qualify said project for the recovered oil tax rate pursuant to the Enhanced Oil Recovery Act, Lea County, New Mexico. Applicant seeks approval of its State "DS" Leasehold Waterflood Project by injection of water into the San Andres formation, Spencer-San Andres Pool, in a new project area consisting of 280 acres, more or less and being SW/4, W/2SE/4 and SE/4SE/4 of Section 24, T17S, R36E. Applicant further seeks to qualify this project for the recovered oil tax rate pursuant to the "New Mexico Enhanced Oil Recovery Act" (Law 1992, Chapter 38, Sections 1 through 5). Said project is located approximately 6 miles west-northwest from Humble City, New Mexico.

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

IN THE MATTER OF THE APPLICATION OF
SOUTHLAND ROYALTY COMPANY FOR APPROVAL OF A
WATERFLOOD PROJECT WITHIN ITS STATE "DS" LEASE
AND TO QUALIFY SAID PROJECT FOR THE RECOVERED
OIL TAX RATE PURSUANT TO THE "NEW MEXICO
ENHANCED OIL RECOVERY ACT,"
LEA COUNTY, NEW MEXICO

CASE NO 10891

A P P L I C A T I O N

Comes now SOUTHLAND ROYALTY COMPANY, by its attorneys, Kellahin & Kellahin, and pursuant to the New Mexico " Enhanced Oil Recovery Act" and Division Rule 701 applies to the New Mexico Oil Conservation Division for authority to institute a waterflood project within its State "DS" Lease by the injection of water into the San Andres formation of the Spencer San Andres Pool, Lea County, New Mexico and to qualify said project for the recovered oil tax rate for enhanced oil recovery and in support states:

(1) Southland Royalty Company ("Southland") is the current operator of the State "DS" Leasehold Waterflood Project, Spencer-San Andres Pool, Lea County, New Mexico ("proposed EOR Project") which is a new project consisting of SW/4, W/2SE/4 and SE/4SE/4 Section 24 of T17S, R36E, NMPM and described on Exhibit "A" attached.

(2) Within the project area, the working interests and royalty owners have voluntarily agreed upon a waterflood plan the objective of which is to successfully recover an estimated additional 500,000 barrels of oil from the Spencer-San Andres Pool.

(3) The remaining oil potential from the pool within the Project area will not be recovered in the absence of waterflood operations on a project basis.

(4) To date, cumulative primary oil recovery from the Project has been 778,718 barrels.

(5) The Project is currently producing at a rate of 20 BOPD and 215 BWPD from 1 active producer. Approximately 36,000 barrels of recoverable reserves remain under the current primary mode of operations.

(6) The project area will be developed on a peripheral injection pattern involving one injection well and 4 producers.

(7) Enclosed with this application is the completed Division Form C-108 with attachments for this project.

(8) In accordance with Division Order R-9708, the following is submitted:

a. Operator's name and address:

Southland Royalty Company
P. O. Box 51810
Midland, Texas 79710

b. Description of the Project Area:

(1) Plat outlining project area:

See Exhibit "A"

(2) Description of the Project Area:

T17S, R36E, NMPM
Section 24: SW/4
W/2SE/4
SE/4SE/4

(3) Total acres in Project Area:

280 acres, more or less

(4) Name of the subject Pool and formation:

San Andres formation of the
Spencer-San Andres Pool

c. Status of operations in the project area:

(1) unit name: N/A
[If unitized, the name of the unit, and the date and number of the Division Order approving the unit plan of operation.]

(2) N/A [If an application for approval of a unit plan has been made, the date the application was filed with the Division; and

(3) if not unitized, identify each lease in the project area by lessor, lessee and legal description.

Lease: State of Mexico Oil & Gas Lease No. L-200-NM
Lessor: State of New Mexico
Lessee: Southland Royalty Company
Description:
SW/4, W/2SE/4 & SE/4SE/4 of Section 24, T17S, R36E, NMPM, Lea County, N.M.

d. Method of recovery to be used:

(1) injected fluids: water.

(2) N/A [If the Division has approved the project, provide the date and number of the Division Order]; and

(3) November 24, 1993 [if the project has not been approved by the Division, provide the date the application for approval was filed with the Division on Form C-108]

e. Description of the Project:

(1) a list of producing wells:
See Exhibit "B"

(2) a list of injection well:
See Exhibit "B"

(3) Capital cost of additional facilities:

$120,000.

(4) Total Project Costs:

$509,725.

(5) Estimated total value of the additional production that will be recovered as a result of this project:

An additional 500,000 barrels of oil with a current undiscounted value of $3.8 million dollars

(6) Anticipated date of commencement of injection:

April 1, 1994

(7) the type of fluid to be injected and the anticipated volumes:

water injected at an estimated rate of 500 BWPD up to a maximum rate of 1,000 BWPD.

(8) N/A

f. Production data:

Attached are the following graphs, charts and supporting data to show the production history and production forecast of oil, gas, casinghead gas and water from the project area:

Exhibit C: structure map
Exhibit D: isopach map
Exhibit E: cross section A-A' map
Exhibit F: cross section B-B'map
Exhibit G: production histories
Exhibit H: Production forecasts

Wherefore, Applicant requests that this application be set for hearing and that after said hearing, the Division enter its order approving this application.

Respectfully submitted

W. Thomas Kellahin
KELLAHIN & KELLAHIN
P.O. Box 2265
Santa Fe, New Mexico 87504
(505) 982-4285
Attorneys for Applicant

CERTIFICATION

STATE OF TEXAS)
) SS.
COUNTY OF MIDLAND)

I, M.P. Gaddis, having been first duly sworn, state that I am a petroleum engineer, a duly authorized representative of Meridian Oil Inc., have knowledge of the facts herein and therefore certify that the facts set forth in this Application are true and accurate to the best of my own knowledge and belief.

M. P. Gaddis

The foregoing certificate was acknowledged before me this 13th day of December, 1993, by M. P. Gaddis.

Notary Public PAMELA W. HOLLEMAN

My Commission Expires:
9/3/97

SEAL

MERIDIAN OIL

November 22, 1993

Oil Conservation Division
P. O. Box 2088
State Land Office Building
Santa Fe, New Mexico 87504-2088

RE: **Application for Authorization to Inject**
Southland Royalty Company
State DS No. 4
Spencer San Andres Field
Unit L, Section 24, T17S, R36E
Lea County, New Mexico
State Lease No.: L-200

Gentlemen:

Southland Royalty Company (SRC) is applying for authorization to convert the above referenced well for the purpose of secondary recovery and requests a hearing on the earliest possible docket for an initial secondary recovery project on this lease. At this time, SRC is also applying for the "recovered oil tax rate" (reduced oil severance tax rate) since this will be a new enhanced recovery project. Attached is an injection well data sheet showing the current and proposed mechanical configuration of this well. A map is also attached showing the one-half mile area of review around the well. The required information from "Form C-108" follows.

The proposed injection well will dispose of water produced from Southland Royalty leases from the San Andres in the Spencer Field. Our estimated initial injection rate will be 500 BPD. The estimated maximum rate is 1000 BPD. We anticipate initial injection pressure to be ±500 psi, and request an operating maximum pressure of 1000 psi. The closed injection facilities will be equipped with high and low level head switches and will not operate continuously. No deeper aquifers containing usable quality water are known in this area.

III. Well Data

A. 1 through 4. See two attached well data sheets; the first is the existing data; the second is the proposed recompletion data.

1) The proposed well:
State DS No. 4
Unit L, 1980' FSL, 660' FWL
Sec. 24, T17S, R36E
Lea County, New Mexico
Lease No.: L-200

P.O. Box 51810, Midland, Texas 79710-1810, Telephone 915-686-6400
3300 N. A, St. Bldg. 6, 79705-5406

2) Surface: 8 5/8", 24# @ 326' in 12-1/4" hole
cement with 215 sx. TOC = Circ. to Surface

Production: 5-1/2", 14# @ 5,035' in 7-7/8" hole
cement with 300 sx. TOC = 3440' by temperature survey

3) Injection Tubing: 2-3/8", 4.7#, internally plastic coated set @ ±4900'.

4) Packer: Guiberson UniV, retrievable, internally and externally plastic coated set at ±4900"

B. 1) Injection Formation: San Andres

2) Injection Interval: Perforated from: 4964' - 4994'.

3) The well was originally drilled for production of oil and gas

4) There will be no other open intervals in this injection well

5) The next possible higher oil or gas zone is the Queen located at approximately 4159'. The next possible lower oil or gas zone is a Paddock located at approximately 6600'.

IV. This is not an expansion of an existing Southland Royalty project.

V. Area of Review: See attached plat, one-half mile radius identified

VI. Tabulation of data: Wells within area of review.

Southland Royalty Co., State DS No. 4
Unit L, Sec.24, T17S, R36E, Lea Co. NM
Spud 10/4/69, TD 5035'
8-5/8" @ 326' w/ 215 sx, circulated
5-1/2" @ 5035' w/ 300 sx, TOC @ 3440 by TS
perfed 4964-94', acidize w/ 1000 gal 15% NE acid
completed 10/26/69 for 248 BOPD + 0 BWPD + 84 MCFD

Southland Royalty Co., State DS No. 2
Unit K, Sec.24, T17S, R36E, Lea Co. NM
Spud 8/4/69, TD 5100'
8-5/8" @ 323' w/ 215 sx, circulated
5-1/2" @ 5099' w/ 465 sx, TOC @ 3240' by TS
perfed 4944-5008', acidize w/ 1000 gal 15% NE acid
completed 8/22/69 for 216 BOPD + 0 BWPD + 130 MCFD

Southland Royalty Co., State DS No. 3
Unit J, Sec.24, T17S, R36E, Lea Co. NM
Spud 9/11/69, TD 5061'
8-5/8" @ 331' w/ 225 sx, circulated
5-1/2" @ 5050' w/ 325 sx, TOC @ 3510' by TS

perfed 5004-14', acidized 500 gal, squeeze w/ 50 sx
perfed 4925-66', acidized w/ 500 gal
completed 10/20/69 for 78 BOPD + 8 BWPD + 0 MCFD
deepen to 6794', set 3-1/2" liner 4985 - 6794' w/ 175 sx.
TOC @ 5050' by TS, squeeze liner top w/ 150 sx
perf 6653-77, acidize w/ 1500 gal, squeeze w/ 50 sx.
perf 6414-24, acidize w/ 1000 gal, squeeze w/ 50 sx
perf 6558-80', acidize w/ 2500 gal, squeeze w/ 50 sx
perf 5360-75', acidize w/ 500 gal, squeeze w/ 50 sx
perf 4932-66', acidize w/ 500 gal, squeeze w/ 75 sx
perf 6476-6680', acidize w/ 2000 gal, frac w/ 30,000 gal + 30,000 lbs
completed 9/21/74 5 BO + 0 BW + 0 MCFD

Southland Royalty Co., State DS No. 1
Unit N, Sec.24, T17S, R36E, Lea Co., NM
Spud 5/19/69 TD 11,253'
13-3/8" @ 361' w/ 350 sx, circulated
8-5/8" @ 5300' w/ 460 sx, TOC calc @ 2911' (11" hole, 1.32 cu.ft/sx)
spot 35 sx plug @ 11,210' Devonian
spot 25 sx plug @ 9,750' Penn
spot 25 sx plug @ 8,850' Abo
spot 25 sx plug @ 6,200' Glorieta
set CIBP @ 5,230' + 1sx cement
perf 5186-90', acidize w/ 250 gal, squeeze w/ 30 sx
perf 5130-42', acidize w/ 500 gal, squeeze w/ 71 sx
perf 5080-90', acidize w/ 500 gal, squeeze w/ 75 sx
perf 4988-5030', acidize w/ 1000 gal
completed 7/21/69 for 192 BOPD + 0 BWPD + 124 MCFD
squeeze perf 4988-5030' w/ 406 sx
perf 4948-94', acidize w/ 500 gal, set CIBP @ 4930'.

Southland Royalty Co., State DS No. 5
Unit M, Sec.24, T17S, R36E, Lea Co. NM
Spud 12/13/69, TD 5060'
8-5/8" @ 340' w/ 220 sx circulated
5-1/2" @ 5060' w/ 300 sx, TOC @ 3460' by TS
perf 5006-10', acidize w/ 1000 gal
completed 12/31/69 for 230 BOPD + 0 BWPD + 96 MCFD
squeeze perfs 5006-10' w/ 200 sx
perfed 4980-94', acidize w/ 1000 gal, squeeze w/ 50 sx
perfed 4934-72', acidize w/ 2500 gal.

Southland Royalty Co., State DS No. 6
Unit O, Sec.24, T17S, R36E, Lea Co., NM
Spud 12/26/69, TD 5060'
8-5/8" @ 332' w/ 215 sx, circulated
5-1/2" @ 5050' w/ 300 sx, TOC @ 3521' by TS
perf 4980-88', acidize w/ 1634 gal
completed 1/10/70 for 480 BOPD + 0 BWPD + 0 MCFD

squeeze perfs 4940-88' w/ 200 sx
perfed 4890-4956', acid w/ 500 gal

Southland Royalty Co., State SS No. 1
Unit F, Sec.24, T17S, R36E, Lea Co.,NM
Spud 8/21/69, TD 5150'
8-5/8" @ 332' w/ 225 sx, circulated
5-1/2" @ 5150' w/ 390 sx, TOC @ 3360' by TS
perfed 5112-16', acid w/ 500 gal, squeeze w/ 12 sx
perfed 5067-78', acid w/ 1000 gal, squeeze w/ 75 sx
perfed 5032-48', acid w/ 1000 gal, squeeze w/ 100 sx
perfed 4166-90', acidize w/ 2000 gal, squeeze w/ 150 sx
perfed 3928-50', acidize w/ 1000 gal, squeeze w/ 150 sx
perfed 5112-32, acidize w/ 4000 gal
completed 1/15/70 as an SWD well
Acidize w/ 1000 gal, Acidize w/ 1500 gal.

Stallworth Oil and Gas Turner State No. 2
Unit H, Sec. 23, T17S, R36E, Lea Co., NM
Spud 3/17/74, TD 5185'
8-5/8" @ 351' w/ 225 sx, TOC calc @ surface (12-1/4" hole, 1.32 cu.ft/sx)
35 sx plug @ 5185', 35 sx plug @ 4945'
35 sx plug @ 2104', 10 sx plug @ surf
P&A 4/20/74

Cotton Petroleum Co. Scharbauer State No. 1
Unit P, sec. 23, T17S, R36E, Lea Co., NM
Spud 1/13/81, TD 5140'
8-5/8" @ 365' w/ 180 sx, TOC calc @ surface (12-1/4" hole, 1.32 cu.ft/sx)
5-1/2" @ 5140' w/ 1270 sx, TOC calc @ surface (7-7/8" hole, 1.32cu.ft/sx)
perfed 5086-96', acidize w/ 750 gal, set CIBP @ 5050'
perfed 4975 - 5030', acidize w/ 750 gal, set CIBP @ 5010'
perfed 4952-60', squeeze w/ 300 sx
re-perf 4952-60', acidize w/ 750 gal
completed 5/20/81 for 10 BOPD + 16 BWPD + 4 MCFD
set CIBP @ 4980', perfed 3200 - 46', acidize w/ 500 gal
20 sx plug 3400 - 3500', set CIBP @ 3180' + 5 sx
20 sx plug 1900 - 2000', 10 sx plug @ surface

Avance Oil & Gas Co. State 25 No. 2
Unit C, sec.25, T 17S, R36E, Lea Co. NM
Spud 12/1/69, TD 5068'
8-5/8' @ 372' w/ 275 sx, TOC calc @ surface (12-1/4" hole, 1.32 cu.ft/sx)
4-1/2" @ 5067' w/ 200 sx. TOC @ 3980' (7-7/8" hole, 1.32cu.ft/sx)
perf 4954-5006', Acidize w/ 3000 gal
cut and pull csg @ 3950',. 25 sx plug 4635-4950'
25 sx plug 3875-3950', 25 sx plug 885-960'
25 sx plug 312-372', 10 sx plug @ surf.

Texas Crude, Inc., C. W. Trainer 25 State No. 1
formerly Pennzoil Company State 25 No. 1
Unit D, sec. 25, T17S, R36E, Lea Co., NM
re-entered 12/1/72, TD 11,305'
ran DSTs 6645-7010'
40 sx plug 6455-6600', 40 sx plug 5465'-5600'
40 sx plug 4655-4790', cut and pull 8-5/8" csg @ 1020'.
50 sx plug 950-1050', 50 sx plug 240'-340',
10 sx plug @ surface

VII. Proposed Operation:

1. Estimated average initial injection rate is 500 BWPD.
   Estimated maximum daily rate 1000 BPD.

2. This will be a closed system.

3. Estimated average injection pressure is 500 psi. Maximum estimated operating pressure is 1000 psi.

4. The source of the injected water is the produced water from the San Andres. Since produced water is being re-injected into the San Andres, no incompatibility is expected. See attached water analysis

5. Water injection will be into a zone currently productive of oil and gas.

VIII. Geological Data

The proposed zone for injection is the San Andres formation at 4900'. This Permian Age reservoir is an anticlinal structure composed of nearly 100% dolomite containing some oolites, fractures and anhydritic inclusions. The average porosity throughout the reservoir runs 6.1% though most of it comes in the form of secondary porosity (vugs and fractures). The San Andres in this area can average over 800 in gross thickness. Since an oil/water contact does exist in the reservoir, the net thickness averages approximately 70'.

There are no known underlying sources of potable water below the San Andres. The only fresh water sources located above are from an approximate depth of 100-150'.

IX. Proposed Stimulation

The proposed stimulation program is a 3000 gallon treatment of 15% NEFE HCl acid.

X. Log Data

Log section is attached with proposed interval indicated.

XI. Fresh Water Analysis

The only fresh well found within 1 mile of the proposed injection well was located in Unit D, Sec.25, T17S, R36E of Lea County, NM. A sample was taken from the well on 9/3/93 with the analysis herein attached.

XII. Hydrologic Communication

There is no known evidence of faulting or other hydrologic communication between potential fresh water aquifers and the desired injection zone.

XIII. Proof of Notice

The offset operators and surface owner were notified by certified return receipts on November 22, 1993.

Proof of Notice is attached.

XIV. Certification

Certification is on Form C-108.

If you need any additional information or if you have any questions, please contact M.P. Gaddis at 915/688-6850.

Sincerely,

M.P. Gaddis
Sr. Staff Engineer

MPG/mp
enclosures

xc: OCD-Hobbs
Hobbs Field Office
Well File
Land Dept.
Production Engineering
Reservoir Engineering
Joint Interest
Maria Perez (6)

State DS No. 4
Unit L, Sec. 24, T17S, R36E
Lea County, New Mexico
Southland Royalty Company

The following Offset Operators, Surface Owners and Mineral Interest Owners within open areas, within a one-half mile radius were notified by certified return receipt on November 22, 1993:

Maralo, Inc.
Five Post Oak Park
Suite 1010
Houston, TX 77027

Yates Petroleum Corp.
105 South 4th Street
Artesia, NM 88210

Ken McPeters
P. O. Box 1860
Hobbs, NM 88240

Howell Spears
P. O. Box 4246
Gulfport, MS 39501

Elbert Damon Shipp
& Suzy Laverne Shipp
1104 Ave. J. West
Lovington, NM 88260

Cross Timbers Oil Co. L.P.
810 Houston St., Ste. 2000
Fort Worth, TX 76102

Marshall & Winston, Inc.
P. O. Box 50880
Midland, TX 79710

Oxy USA, Inc.
P. O. Box 50250
Midland, TX 79710

E. L. Latham Co.
P. O. Box 1392
Hobbs, NM 88241

Roy G. Barton & Opal
Barton Revocable Trust
Roy G. Barton, Jr, Trustee
P. O. Box 978
Hobbs, NM 88241,

Alan Jochimsen
2402 Cimmaron
Midland, TX 79705

James Ronald Ewing
700 East 9th St., Apt. 11K
Little Rock, AR 72202

Norma Barton
P. O. Box 729
Hobbs, NM 88240

John T. Stallings
P. O. Box 685
Creedmor, NC

The Moran Partnership
1000 E. Walker Drive
Hobbs, NM 88241

Roy G. Barton, Jr.
P. O. Box 978
Hobbs, NM 88241

Charles Doornbas, Trustee
Charles F. Doornbas
Revocable Trust
P. O. Box 639
Bartlesville, OK 74005

The Bevridge Co.
P. O. Box 993
Midland, TX 79702

Surface Owner

Dorothy T. Scharbauer
P. O. Box 1471
Midland, Texas 79702

Newspaper

Hobbs News Sun
201 N. Thorp
Hobbs, NM 88241
(505) 393-2123

AFFIDAVIT OF PUBLICATION

RECEIVED

OCT 25 1993

PROD. SERV.

State of New Mexico,
County of Lea.

I, Kathi Bearden

General Manager

of the Hobbs Daily News-Sun, a daily 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 _____

one weeks.

Beginning with the issue dated

October 20, 1993

and ending with the issue dated

October 20, 1993

Kathi Bearden
General Manager

Sworn and subscribed to before

me this 21 day of

October, 1993

Notary Public.

My Commission expires
March 15, 1997
(Seal)

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

Hobbs Daily News-Sun
P.O. Box 860
Hobbs, New Mexico 88241-0860

LEGAL NOTICE
October 20, 1993

Southland Royalty Company, P.O. Box 51810, Midland Texas 79710.
Contact party. Maria Perez (915)688-6906) is making application with the Oil Conservation Division in Santa Fe, New Mexico for authority to inject salt water in the State DS No. 4 well in Unit L, 1980' FSL & 660' FWL, sec. 24, T17S, R36E, Lea County, New Mexico. The proposed injection well will inject water produced from Southland Royalty's lease from the San Andres formation in the Spencer Field into the San Andres formation 4964-94'. Estimated initial injection rate will be 500 BWPD. The estimated maximum injection rate is 1000 BWPD. Anticipated initial injection pressure to be +/-

per day and expected maximum injection pressure is 1000 pounds per square inch.

Interested parties must file objections or request for hearing with the Oil Conservation Division, P.O. Box 2088, Santa Fe, New Mexico 87501, within fifteen (15) days.

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION
POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501

FORM C-108
Revised 7-1-81

Case 10891

APPLICATION FOR AUTHORIZATION TO INJECT

I. Purpose: [X] Secondary Recovery [ ] Pressure Maintenance [ ] Disposal [ ] Storage
Application qualifies for administrative approval? [ ] yes [X] no

II. Operator: Southland Royalty Company

Address: P.O. Box 51810 Midland, Texas 79710

Contact party: Maria L. Perez, Prod. Asst. Phone: 915-688-6906

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 [X] 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 source 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: M. P. Gaddis Title Sr. Staff Engineer

Signature: M P Gaddis Date: 11/22/93

* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be duplicated and resubmitted. Please show the date and circumstance 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 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, P. O. Box 2088, Santa Fe, New Mexico 87501 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.

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 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, P. O. Box 2088, Santa Fe, New Mexico 87501 within 15 days.

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

INJECTION WELL DATA SHEET

SIDE 1

OPERATOR	LEASE			
Southland Royalty Company	State DS			
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE
4	1980' FSL, 660' FWL	24	17-S	36-E

Schematic

See Attached Diagram

Tubular Data

Surface Casing

Size 8-5/8 " Cemented with 215 sx.

TOC surface feet determined by circulation

Hole size 12-1/4"

Intermediate Casing

Size _____ " Cemented with _____ sx.

TOC _____ feet determined by _____

Hole size _____

Long String

Size 5-1/2 " Cemented with 300 sx.

TOC 3440' feet determined by temp. survey

Hole size 7-7/8"

Total Depth 5035'

Injection Interval

4964 feet to 4994 feet

(perforated or ~~open-hole~~, indicate which)

INJECTION WELL DATA SHEET

SIDE 2

Tubing size 2-3/8" lined with plastic coated (material) set in a Guiberson UniV or equiv. (brand and model) packer at +/- 4900 feet

(or describe any other casing-tubing seal).

OTHER DATA

1. Name of the injection formation San Andres

2. Name of Field or Pool (if applicable) Spencer

3. Is this a new well drilled for injection? _____ YES X NO

   If no, for what purpose was the well originally drilled? oil producer

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used)

   No

5. Give the depth to and name of any overlying and/or gas zones (pools) in this area.

   No overlying zones above or gas zones below.

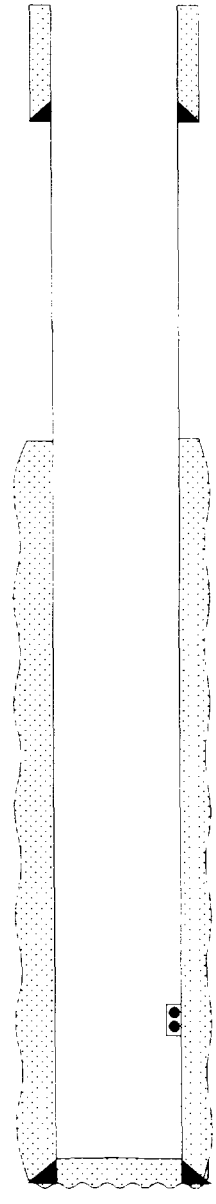
MERIDIAN *OIL*

FIELD: Spencer (San Andres) DATE SPUD: 10/4/69 COMP: 10/26/69

LEASE: STATE DS WELL NO. 4 ELEVATION: 3,808' G.L.

LOCATION: 1,980' FSL & 660' FWL; SEC. 24, T-17-S, R-36-E

Lea County, New Mexico



8 5/8", 24# @ 326'
CEMENT W/ 215 sx
TOC: SURFACE (Circ.)
In 12-1/4" Hole

TOC @ 3,440' by temp. survey

San Andres Perfs:
4,964'-94'

5 1/2", 14# @ 5,035'
Cement w/ 300 sx "C"
In 7 7/8" Hole

CURRENT CONFIGURATION

TD: 5,035'
PBTD: 5,014'

JRG/DS4
08/25/93

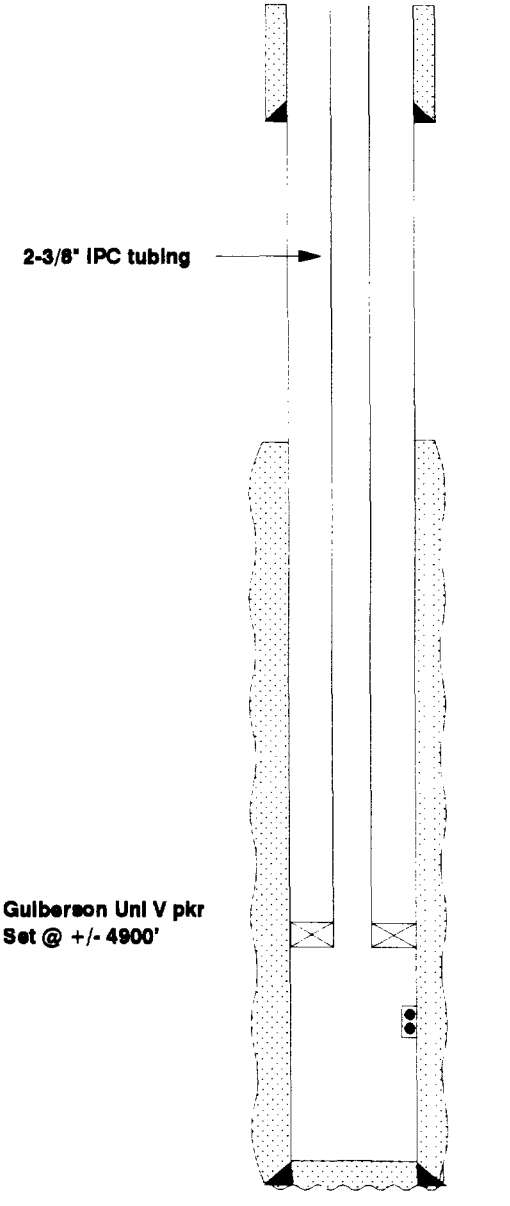
MERIDIAN *OIL*

FIELD: Spencer (San Andres) DATE SPUD: 10/4/69 COMP: 10/26/69

LEASE: STATE DS WELL NO. 4 ELEVATION: 3,808' G.L.

LOCATION: 1,980' FSL & 660' FWL; SEC. 24, T-17-S, R-36-E

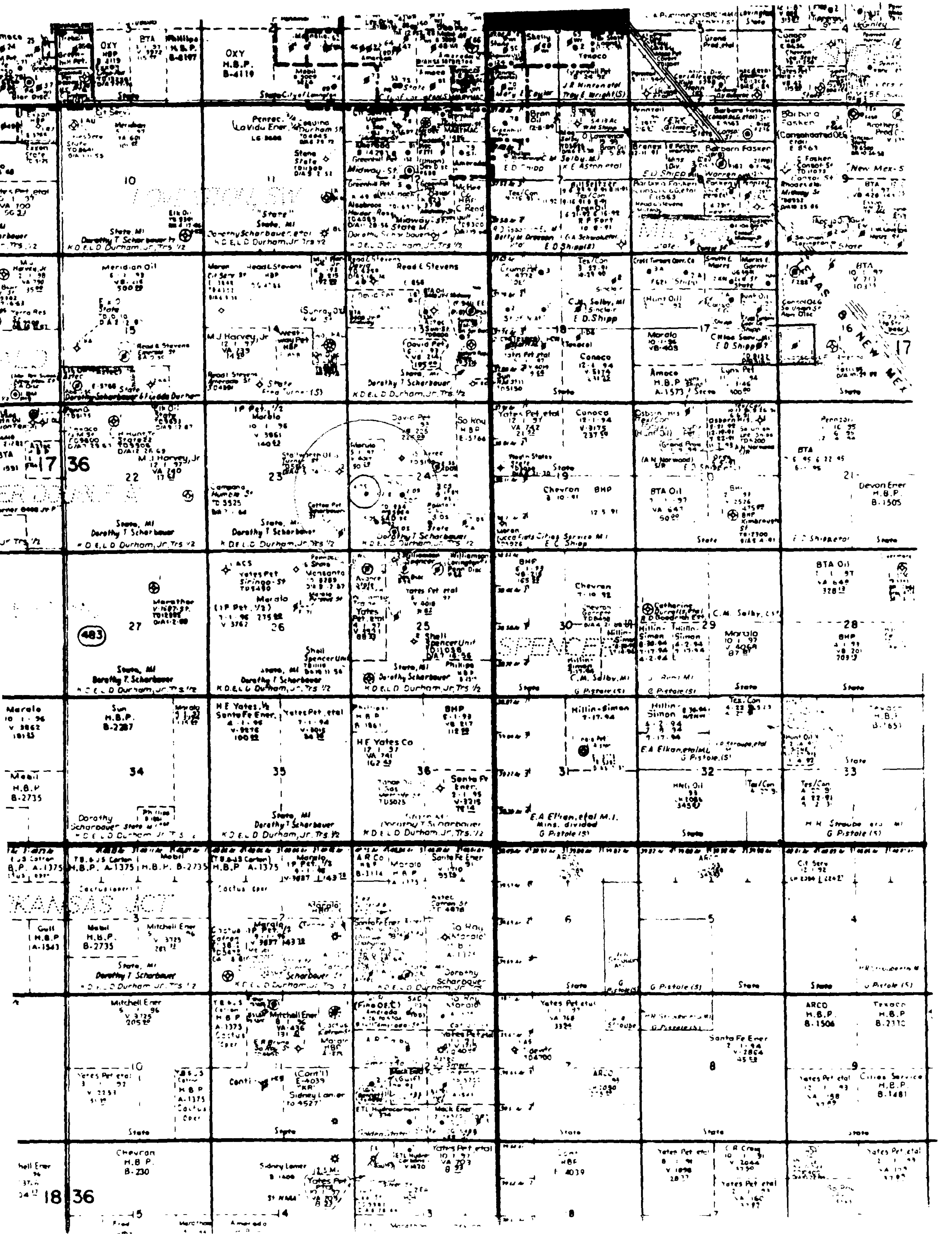
Lea County, New Mexico



PROPOSED CONFIGURATION

TD: 5,035'
PBTD: 5,014'

JRG/DS4
08/25/93



OXY
H.B.P.
B-4119
Texaco
Penzoil
Barbara Fasken
Barbara Fasken
E.D. Shipp
Midway-St.
State
Dorothy T. Scharbauer
K D E L D Durham, Jr. Trs 1/2
Meridian Oil
Read & Stevens
M.J. Harvey, Jr
Crump Pet.
C.M. Selby, MI
Sinclair
E.D. Shipp
Conoco
Maralo
Amoco
H.B.P.
BTA
Yates Pet. etal
Chevron
BHP
BTA Oil
Devon Ener
H.B.P.
B-1505
David Pet
So Kou
Spencer
Catherine
C.M. Selby
Hillin-Simon
Marathon
483
Shell
Spencer Unit
Sun
H.B.P.
B-2287
Mobil
H.B.P.
B-2735
H.E. Yates Co
Santa Fe Ener.
E.A. Elkan, etal M.I.
G Pistole (S)
H.R. Straube etal
ARCO
Mitchell Ener
Gulf
H.B.P.
A-1543
Cities Service
H.B.P.
B-1481
Chevron
H.B.P.
B-230
Sidney Lanier
Yates Pet etal
Texaco
H.B.P.
B-2110
ARCO
H.B.P.
B-1506

P. O. BOX 1468
MONAHANS, TEXAS 79756
PH. 943-3234 OR 563-1040

Martin Water Laboratories, Inc.

709 W. INDIANA
MIDLAND, TEXAS 79701
PHONE 683-4521

RESULT OF WATER ANALYSES

TO: Ms. Karen Burns
P. O. Box 51810, Midland, TX 79710

LABORATORY NO. 9939
SAMPLE RECEIVED 9-3-93
RESULTS REPORTED 9-3-93

COMPANY Meridian Oil Company LEASE State "DS"
FIELD OR POOL
SECTION ____ BLOCK ____ SURVEY ____ COUNTY Lea STATE NM
SOURCE OF SAMPLE AND DATE TAKEN:
NO. 1 Produced water - taken from State "DS".
NO. 2 Raw water - taken from windmill #1.
NO. 3
NO. 4
REMARKS: 1. San Andres

CHEMICAL AND PHYSICAL PROPERTIES

	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0121	1.0017		
pH When Sampled				
pH When Received	6.80	7.52		
Bicarbonate as HCO_3	1,684	220		
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	3,850	238		
Calcium as Ca	1,010	81		
Magnesium as Mg	322	9		
Sodium and/or Potassium	3,517	19		
Sulfate as SO_4	579	54		
Chloride as Cl	6,747	31		
Iron as Fe	2.2	1.1		
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	13,858	413		
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen,				
Hydrogen Sulfide	954	0.0		
Resistivity, ohms/m at 77° F.	0.540	22.0		
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				
Total Dissolved Solids @ 180°C.	13,100	396		

Results Reported As Milligrams Per Liter

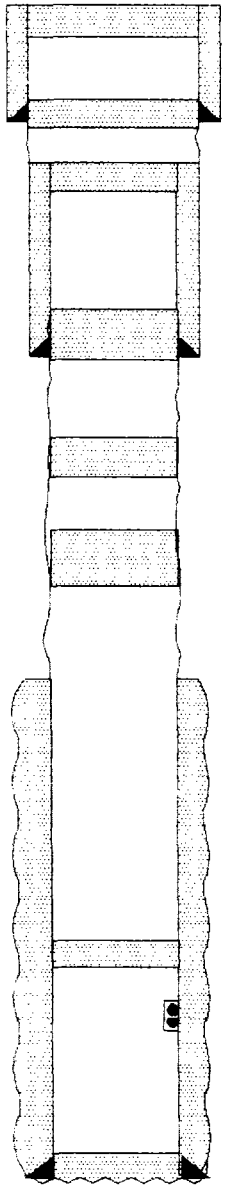
Additional Determinations And Remarks The undersigned certifies the above to be true and correct to the best of his knowledge and belief.

Form No 3

By Waylan C. Martin, M.A.

TEXAS CRUDE INC.

FIELD: SPENCER (DEVONIAN) **DATE SPUD:** 11/24/72 **COMP:** 12/1/72
LEASE: C.W. TRAINER 25 STATE **WELL NO.** 1 **ELEVATION:** 3,806' G.L.
LOCATION: 660' FNL & 660' FWL; SEC. 25, T-13-S, R-32-E
Lea County, New Mexico



10 sx plug @ surf.

50 sx plug 240'-340'

50 sx plug 950'-1050'

40 sx plug 4655'-4790'

40 sx plug 6465'-5600'

40 sx plug 6455-6600'

DEEPEST PLUGS UNKNOWN

13 3/8" @ 338'
CEMENT W/ 400 sx
TOC: SURFACE (Calc.)
In 17-1/2" Hole (assumed)

8-5/8" CASING CUT & PULLED @ 1020'

8 5/8" @ 4,791'
CEMENT W/ 300 SX, TOC @ 3234' (CALC.)
In 11" hole (assumed)

CUT AND PULL CSG @ UNKNOWN

WOLFCAMP PERFS:
9,949-51'

4 1/2" @ 10,157'
300 sx
TOC @ 8,419' (Calc.)
In 7 7/8" Hole (assumed)

CURRENT CONFIGURATION

TD: 10,157'

JRG/TXCRD1
09/21/93

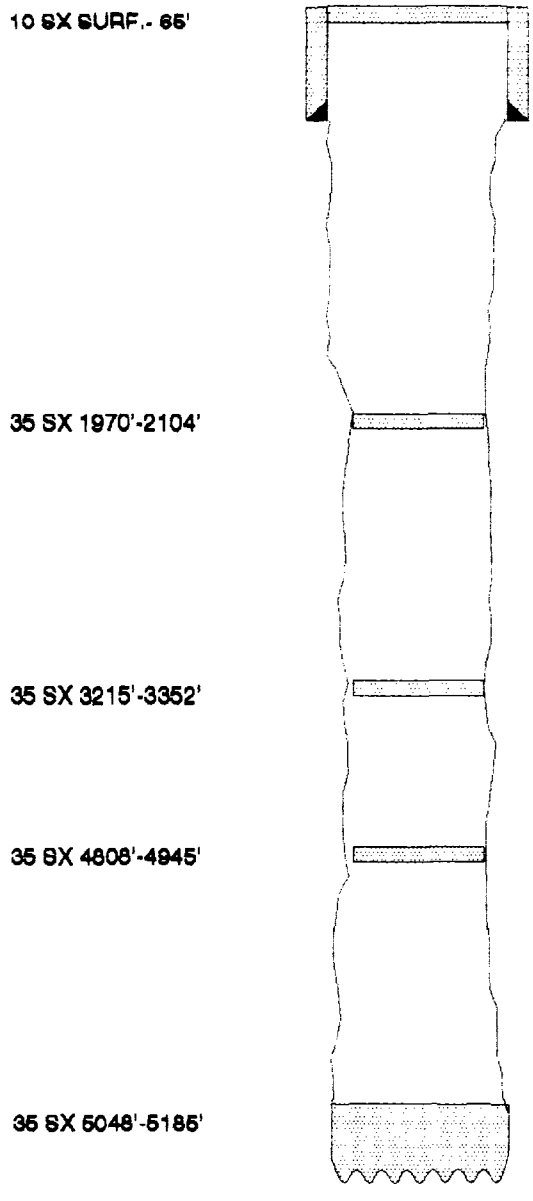
STALLWORTH OIL & GAS

FIELD: Spencer (San Andres) DATE SPUD: 3/16/74 COMP: 4/5/74

LEASE: TURNER STATE WELL NO. 2 ELEVATION: 3,814' G.L.

LOCATION: 2310' FNL & 330' FEL; SEC. 23, T-17-S, R-36-E

Lea County, New Mexico



CURRENT CONFIGURATION

In 7 7/8" Hole

TD: 5,185'

JRG/TURST1
09/21/93

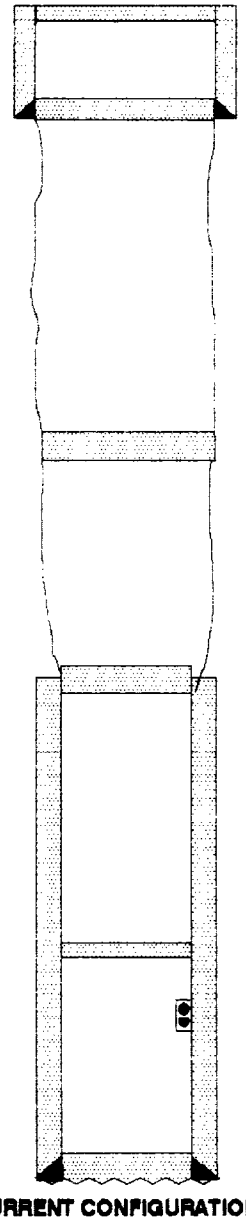
AVANCE OIL & GAS

FIELD: Spencer (San Andres) DATE SPUD: 12/1/69 COMP: 3/2/70

LEASE: STATE 25 WELL NO. 2 ELEVATION: 3,805' G.L.

LOCATION: 330' FNL & 1650' FWL; SEC. 25, T-17-S, R-36-E

Lea County, New Mexico



10 SX SURF.-65'

25 SX 312'-372'

25 SX 885'-960'

25 SX 3875'-3950'

25 sx 4635'-4950'

8 5/8" @ 372'
CEMENT W/ 275 ex
TOC: SURFACE (CALC.)
In 12-1/4" Hole (assumed)

TOC @ 3980'(calc.)

Cut & pull casing @ 3950'

San Andres Perfs:
4,954'-5006'

4 1/2" @ 5,066'
Cement w/ 200 sx
In 7 7/8" Hole (assumed)

CURRENT CONFIGURATION

TD: 5,068'

JRG/AV1
09/21/93

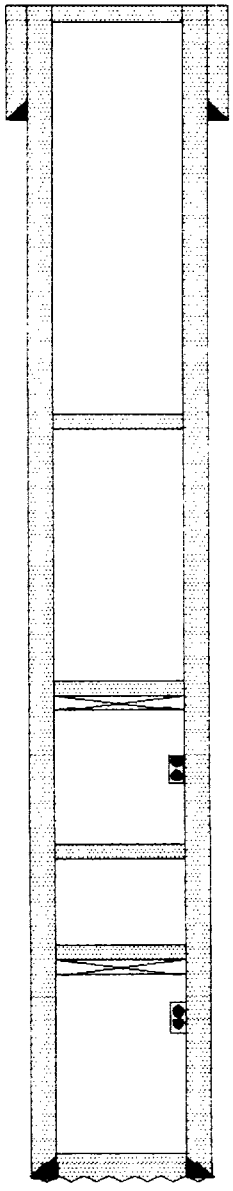
COTTON PETROLEUM

FIELD: Spencer (San Andres) DATE SPUD: 1/13/61 COMP: 5/20/61

LEASE: SCHARBAUER STATE WELL NO. 1 ELEVATION: 3,814' G.L.

LOCATION: 660' FSL & 330' FEL; SEC. 23, T-17-S, R-36-E

Lea County, New Mexico



10 SX SURF.-65'

8 5/8" @ 365'
CEMENT W/ 180 ex
TOC: SURFACE (CALC.)
In 12-1/4" Hole (assumed)

20 SX 1900'-2000'

TOC @ surface (calc.)

CIBP @ 3180' + 5 SX

YATES PERFS
3200'-46'

20 SX 3400'-3500'

CIBP @ 4690' + 5 SX

San Andres Perfs:
4,952'-60'

5 1/2" @ 5,140'
Cement w/ 1270 sx
In 7 7/8" Hole (assumed)

CURRENT CONFIGURATION

TD: 5,140'

JRG/SCHBT1
09/21/93

Welex

ACOUSTIC VELOCITY LOG

COMPANY AZTEC OIL & GAS Company

WELL STATE DS NO. 4

FIELD ~~UNDESIGNATED~~ Spencer (SA)

COUNTY LEA STATE New Mexico

Location

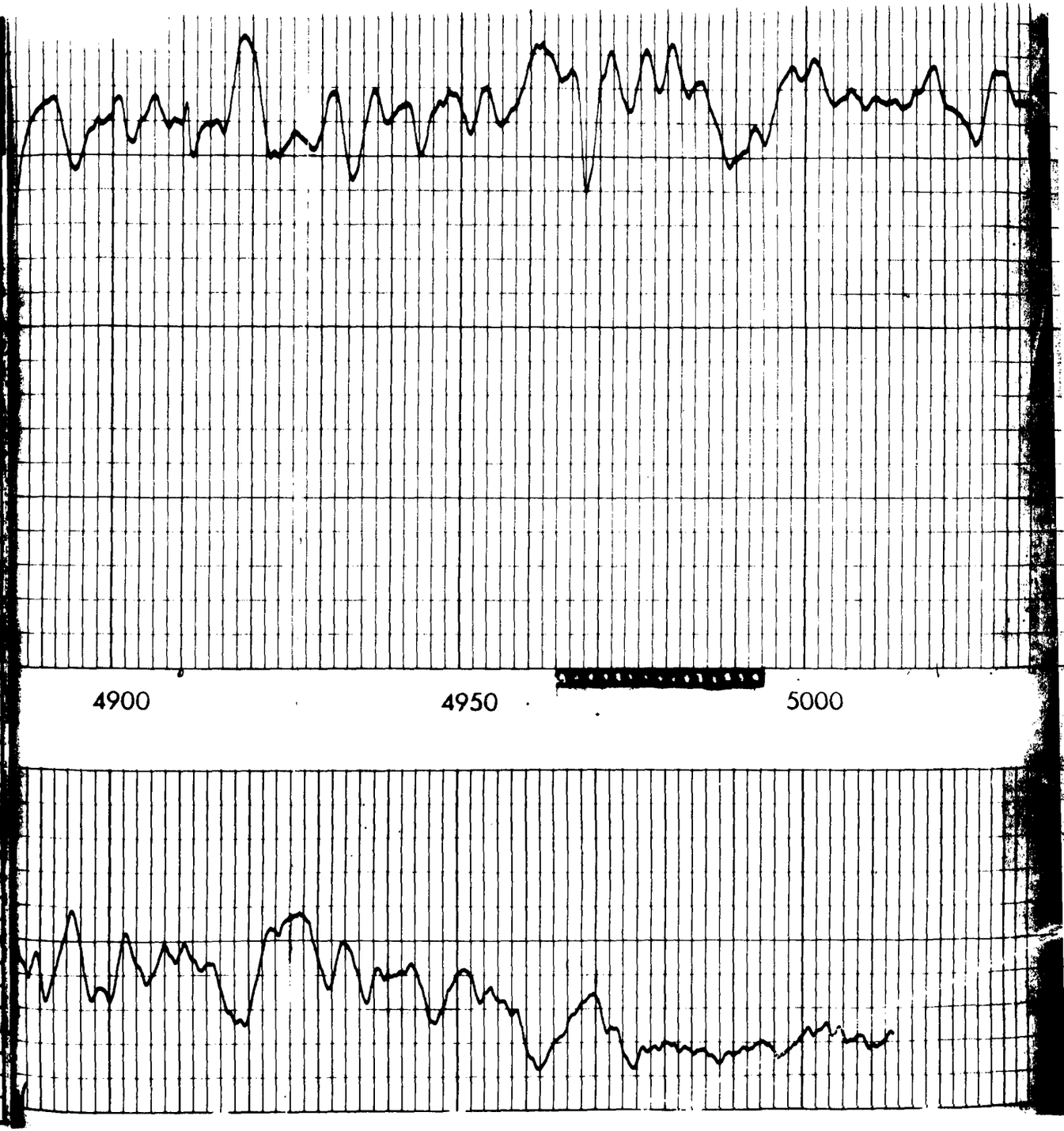
Sec. 24 Twp 17-S Rge 36-E

Other Services:

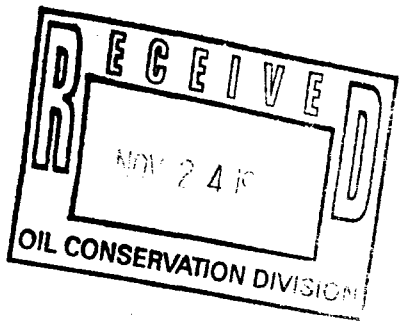
Permanent Datum GROUND Level Elev. 3808.4
Log Measured From KB 11' Ft. Above Perm. Datum
Drilling Measured From Kelly Bushing

Elev.: K.B. 3819.4
D.F. 3818.4
G.L. 3808.4

Date	10-16-69			
Run No.	ONE			
Depth Driller	5035			
Depth Welex	5035			
Btm. Log Inter.	5031			
Top Log Inter.	SURF			
Casing—Driller	326 @ 8 5/8	@	@	@
Casing—Welex				
Bit Size	7 7/8			
Type Fluid in Hole	MUD			
Dens. | Visc.	10.2 | 46	|	|	|
pH | Fluid Loss	11.6 ml	| ml	| ml	| ml
Source of Sample				
R_m @ Meas. Temp.	@ °F	@ °F	@ °F	@ °F
R_{mf} @ Meas. Temp.	@ °F	@ °F	@ °F	@ °F
R_{mc} @ Meas. Temp.	@ °F	@ °F	@ °F	@ °F
Source R_{mf} / R_{mc}	|	|	|	|
R_m @ BHT	@ °F	@ °F	@ °F	@ °F
Time Since Circ.				
Max. Rec. Temp.	°F @	°F @	°F @	°F @
Equip. | Location	2444 | Hobbs	|	|	|
Recorded By	A. H. STRAND			
Witnessed By	MR. DONALDSON			



MERIDIAN OIL



November 22, 1993

Oil Conservation Division
P. O. Box 2088
State Land Office Building
Santa Fe, New Mexico 87504-2088

RE: **Application for Authorization to Inject**
Southland Royalty Company
State DS No. 4
Spencer San Andres Field
Unit L, Section 24, T17S, R36E
Lea County, New Mexico
State Lease No.: L-200

Gentlemen:

Southland Royalty Company (SRC) is applying for authorization to convert the above referenced well for the purpose of secondary recovery and requests a hearing on the earliest possible docket for an initial secondary recovery project on this lease. At this time, SRC is also applying for the "recovered oil tax rate" (reduced oil severance tax rate) since this will be a new enhanced recovery project. Attached is an injection well data sheet showing the current and proposed mechanical configuration of this well. A map is also attached showing the one-half mile area of review around the well. The required information from "Form C-108" follows.

The proposed injection well will dispose of water produced from Southland Royalty leases from the San Andres in the Spencer Field. Our estimated initial injection rate will be 500 BPD. The estimated maximum rate is 1000 BPD. We anticipate initial injection pressure to be ±500 psi, and request an operating maximum pressure of 1000 psi. The closed injection facilities will be equipped with high and low level head switches and will not operate continuously. No deeper aquifers containing usable quality water are known in this area.

III. Well Data

A. 1 through 4. See two attached well data sheets; the first is the existing data; the second is the proposed recompletion data.

1) The proposed well:
State DS No. 4
Unit L, 1980' FSL, 660' FWL
Sec. 24, T17S, R36E
Lea County, New Mexico
Lease No.: L-200

P.O. Box 51810, Midland, Texas 79710-1810, Telephone 915-688-6800
3300 N. "A" St., Bldg. 6, 79705-5406

2) Surface: 8 5/8", 24# @ 326' in 12-1/4" hole
cement with 215 sx. TOC = Circ. to Surface

Production: 5-1/2", 14# @ 5,035' in 7-7/8" hole
cement with 300 sx. TOC = 3440' by temperature survey

3) Injection Tubing: 2-3/8", 4.7#, internally plastic coated set @ ±4900'.

4) Packer: Guiberson UniV, retrievable, internally and externally plastic coated set at ±4900"

B. 1) Injection Formation: San Andres

2) Injection Interval: Perforated from: 4964' - 4994'.

3) The well was originally drilled for production of oil and gas

4) There will be no other open intervals in this injection well

5) The next possible higher oil or gas zone is the Queen located at approximately 4159'. The next possible lower oil or gas zone is a Paddock located at approximately 6600'.

IV. This is not an expansion of an existing Southland Royalty project.

V. Area of Review: See attached plat, one-half mile radius identified

VI. Tabulation of data: Wells within area of review.

Southland Royalty Co., State DS No. 4
Unit L, Sec.24, T17S, R36E, Lea Co. NM
Spud 10/4/69, TD 5035'
8-5/8" @ 326' w/ 215 sx, circulated
5-1/2" @ 5035' w/ 300 sx, TOC @ 3440 by TS
perfed 4964-94', acidize w/ 1000 gal 15% NE acid
completed 10/26/69 for 248 BOPD + 0 BWPD + 84 MCFD

Southland Royalty Co., State DS No. 2
Unit K, Sec.24, T17S, R36E, Lea Co. NM
Spud 8/4/69, TD 5100'
8-5/8" @ 323' w/ 215 sx, circulated
5-1/2" @ 5099' w/ 465 sx, TOC @ 3240' by TS
perfed 4944-5008', acidize w/ 1000 gal 15% NE acid
completed 8/22/69 for 216 BOPD + 0 BWPD + 130 MCFD

Southland Royalty Co., State DS No. 3
Unit J, Sec.24, T17S, R36E, Lea Co. NM
Spud 9/11/69, TD 5061'
8-5/8" @ 331' w/ 225 sx, circulated
5-1/2" @ 5050' w/ 325 sx, TOC @ 3510' by TS

perfed 5004-14', acidized 500 gal, squeeze w/ 50 sx
perfed 4925-66', acidized w/ 500 gal
completed 10/20/69 for 78 BOPD + 8 BWPD + 0 MCFD
deepen to 6794', set 3-1/2" liner 4985 - 6794' w/ 175 sx.
TOC @ 5050' by TS, squeeze liner top w/ 150 sx
perf 6653-77, acidize w/ 1500 gal, squeeze w/ 50 sx.
perf 6414-24, acidize w/ 1000 gal, squeeze w/ 50 sx
perf 6558-80', acidize w/ 2500 gal, squeeze w/ 50 sx
perf 5360-75', acidize w/ 500 gal, squeeze w/ 50 sx
perf 4932-66', acidize w/ 500 gal, squeeze w/ 75 sx
perf 6476-6680', acidize w/ 2000 gal, frac w/ 30,000 gal + 30,000 lbs
completed 9/21/74 5 BO + 0 BW + 0 MCFD

Southland Royalty Co., State DS No. 1
Unit N, Sec.24, T17S, R36E, Lea Co., NM
Spud 5/19/69 TD 11,253'
13-3/8" @ 361' w/ 350 sx, circulated
8-5/8" @ 5300' w/ 460 sx, TOC calc @ 2911' (11" hole, 1.32 cu.ft/sx)
spot 35 sx plug @ 11,210' Devonian
spot 25 sx plug @ 9,750' Penn
spot 25 sx plug @ 8,850' Abo
spot 25 sx plug @ 6,200' Glorieta
set CIBP @ 5,230' + 1sx cement
perf 5186-90', acidize w/ 250 gal, squeeze w/ 30 sx
perf 5130-42', acidize w/ 500 gal, squeeze w/ 71 sx
perf 5080-90', acidize w/ 500 gal, squeeze w/ 75 sx
perf 4988-5030', acidize w/ 1000 gal
completed 7/21/69 for 192 BOPD + 0 BWPD + 124 MCFD
squeeze perf 4988-5030' w/ 406 sx
perf 4948-94', acidize w/ 500 gal, set CIBP @ 4930'.

Southland Royalty Co., State DS No. 5
Unit M, Sec.24, T17S, R36E, Lea Co. NM
Spud 12/13/69, TD 5060'
8-5/8" @ 340' w/ 220 sx circulated
5-1/2" @ 5060' w/ 300 sx, TOC @ 3460' by TS
perf 5006-10', acidize w/ 1000 gal
completed 12/31/69 for 230 BOPD + 0 BWPD + 96 MCFD
squeeze perfs 5006-10' w/ 200 sx
perfed 4980-94', acidize w/ 1000 gal, squeeze w/ 50 sx
perfed 4934-72', acidize w/ 2500 gal.

Southland Royalty Co., State DS No. 6
Unit O, Sec.24, T17S, R36E, Lea Co., NM
Spud 12/26/69, TD 5060'
8-5/8" @ 332' w/ 215 sx, circulated
5-1/2" @ 5050' w/ 300 sx, TOC @ 3521' by TS
perf 4980-88', acidize w/ 1634 gal
completed 1/10/70 for 480 BOPD + 0 BWPD + 0 MCFD

squeeze perfs 4940-88' w/ 200 sx
perfed 4890-4956', acid w/ 500 gal

Southland Royalty Co., State SS No. 1
Unit F, Sec.24, T17S, R36E, Lea Co.,NM
Spud 8/21/69, TD 5150'
8-5/8" @ 332' w/ 225 sx, circulated
5-1/2" @ 5150' w/ 390 sx, TOC @ 3360' by TS
perfed 5112-16', acid w/ 500 gal, squeeze w/ 12 sx
perfed 5067-78', acid w/ 1000 gal, squeeze w/ 75 sx
perfed 5032-48', acid w/ 1000 gal, squeeze w/ 100 sx
perfed 4166-90', acidize w/ 2000 gal, squeeze w/ 150 sx
perfed 3928-50', acidize w/ 1000 gal, squeeze w/ 150 sx
perfed 5112-32, acidize w/ 4000 gal
completed 1/15/70 as an SWD well
Acidize w/ 1000 gal, Acidize w/ 1500 gal.

Stallworth Oil and Gas Turner State No. 2
Unit H, Sec. 23, T17S, R36E, Lea Co., NM
Spud 3/17/74, TD 5185'
8-5/8" @ 351' w/ 225 sx, TOC calc @ surface (12-1/4" hole, 1.32 cu.ft/sx)
35 sx plug @ 5185', 35 sx plug @ 4945'
35 sx plug @ 2104', 10 sx plug @ surf
P&A 4/20/74

Cotton Petroleum Co. Scharbauer State No. 1
Unit P, sec. 23, T17S, R36E, Lea Co., NM
Spud 1/13/81, TD 5140'
8-5/8" @ 365' w/ 180 sx, TOC calc @ surface (12-1/4" hole, 1.32 cu.ft/sx)
5-1/2" @ 5140' w/ 1270 sx, TOC calc @ surface (7-7/8" hole, 1.32cu.ft/sx)
perfed 5086-96', acidize w/ 750 gal, set CIBP @ 5050'
perfed 4975 - 5030', acidize w/ 750 gal, set CIBP @ 5010'
perfed 4952-60', squeeze w/ 300 sx
re-perf 4952-60', acidize w/ 750 gal
completed 5/20/81 for 10 BOPD + 16 BWPD + 4 MCFD
set CIBP @ 4980', perfed 3200 - 46', acidize w/ 500 gal
20 sx plug 3400 - 3500', set CIBP @ 3180' + 5 sx
20 sx plug 1900 - 2000', 10 sx plug @ surface

Avance Oil & Gas Co. State 25 No. 2
Unit C, sec.25, T 17S, R36E, Lea Co. NM
Spud 12/1/69, TD 5068'
8-5/8' @ 372' w/ 275 sx, TOC calc @ surface (12-1/4" hole, 1.32 cu.ft/sx)
4-1/2" @ 5067' w/ 200 sx. TOC @ 3980' (7-7/8" hole, 1.32cu.ft/sx)
perf 4954-5006', Acidize w/ 3000 gal
cut and pull csg @ 3950',. 25 sx plug 4635-4950'
25 sx plug 3875-3950', 25 sx plug 885-960'
25 sx plug 312-372', 10 sx plug @ surf.

Texas Crude, Inc., C. W. Trainer 25 State No. 1
formerly Pennzoil Company State 25 No. 1
Unit D, sec. 25, T17S, R36E, Lea Co., NM
re-entered 12/1/72, TD 11,305'
ran DSTs 6645-7010'
40 sx plug 6455-6600', 40 sx plug 5465'-5600'
40 sx plug 4655-4790', cut and pull 8-5/8" csg @ 1020'.
50 sx plug 950-1050', 50 sx plug 240'-340',
10 sx plug @ surface

VII. Proposed Operation:

1. Estimated average initial injection rate is 500 BWPD.
   Estimated maximum daily rate 1000 BPD.

2. This will be a closed system.

3. Estimated average injection pressure is 500 psi. Maximum estimated operating pressure is 1000 psi.

4. The source of the injected water is the produced water from the San Andres. Since produced water is being re-injected into the San Andres, no incompatibility is expected. See attached water analysis

5. Water injection will be into a zone currently productive of oil and gas.

VIII. Geological Data

The proposed zone for injection is the San Andres formation at 4900'. This Permian Age reservoir is an anticlinal structure composed of nearly 100% dolomite containing some oolites, fractures and anhydritic inclusions. The average porosity throughout the reservoir runs 6.1% though most of it comes in the form of secondary porosity (vugs and fractures). The San Andres in this area can average over 800 in gross thickness. Since an oil/water contact does exist in the reservoir, the net thickness averages approximately 70'.

There are no known underlying sources of potable water below the San Andres. The only fresh water sources located above are from an approximate depth of 100-150'.

IX. Proposed Stimulation

The proposed stimulation program is a 3000 gallon treatment of 15% NEFE HCl acid.

X. Log Data

Log section is attached with proposed interval indicated.

XI. Fresh Water Analysis

The only fresh well found within 1 mile of the proposed injection well was located in Unit D, Sec.25, T17S, R36E of Lea County, NM. A sample was taken from the well on 9/3/93 with the analysis herein attached.

XII. Hydrologic Communication

There is no known evidence of faulting or other hydrologic communication between potential fresh water aquifers and the desired injection zone.

XIII. Proof of Notice

The offset operators and surface owner were notified by certified return receipts on November 22, 1993.

Proof of Notice is attached.

XIV. Certification

Certification is on Form C-108.

If you need any additional information or if you have any questions, please contact M.P. Gaddis at 915/688-6850.

Sincerely,

M.P. Gaddis
Sr. Staff Engineer

MPG/mp
enclosures

xc: OCD-Hobbs
Hobbs Field Office
Well File
Land Dept.
Production Engineering
Reservoir Engineering
Joint Interest
Maria Perez (6)

State DS No. 4
Unit L, Sec. 24, T17S, R36E
Lea County, New Mexico
Southland Royalty Company

The following Offset Operators, Surface Owners and Mineral Interest Owners within open areas, within a one-half mile radius were notified by certified return receipt on November 22, 1993:

Maralo, Inc.
Five Post Oak Park
Suite 1010
Houston, TX 77027

Yates Petroleum Corp.
105 South 4th Street
Artesia, NM 88210

Ken McPeters
P. O. Box 1860
Hobbs, NM 88240

Howell Spears
P. O. Box 4246
Gulfport, MS 39501

Elbert Damon Shipp
& Suzy Laverne Shipp
1104 Ave. J. West
Lovington, NM 88260

Cross Timbers Oil Co. L.P.
810 Houston St., Ste. 2000
Fort Worth, TX 76102

Marshall & Winston, Inc.
P. O. Box 50880
Midland, TX 79710

Oxy USA, Inc.
P. O. Box 50250
Midland, TX 79710

E. L. Latham Co.
P. O. Box 1392
Hobbs, NM 88241

Roy G. Barton & Opal
Barton Revocable Trust
Roy G. Barton, Jr, Trustee
P. O. Box 978
Hobbs, NM 88241,

Alan Jochimsen
2402 Cimmaron
Midland, TX 79705

James Ronald Ewing
700 East 9th St., Apt. 11K
Little Rock, AR 72202

Norma Barton
P. O. Box 729
Hobbs, NM 88240

John T. Stallings
P. O. Box 685
Creedmor, NC

The Moran Partnership
1000 E. Walker Drive
Hobbs, NM 88241

Roy G. Barton, Jr.
P. O. Box 978
Hobbs, NM 88241

Charles Doornbas, Trustee
Charles F. Doornbas
Revocable Trust
P. O. Box 639
Bartlesville, OK 74005

The Bevridge Co.
P. O. Box 993
Midland, TX 79702

<u>Surface Owner</u>

Dorothy T. Scharbauer
P. O. Box 1471
Midland, Texas 79702

<u>Newspaper</u>

Hobbs News Sun
201 N. Thorp
Hobbs, NM 88241
(505) 393-2123

AFFIDAVIT OF PUBLICATION

RECEIVED

OCT 25 1993

PROD. SERV.

State of New Mexico,
County of Lea.

I, Kathi Bearden

General Manager

of the Hobbs Daily News-Sun, a daily 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 ____________

one weeks.

Beginning with the issue dated

October 20, 1993

and ending with the issue dated

October 20, 1993

Kathi Bearden

General Manager

Sworn and subscribed to before

me this 21 day of

October, 1993

Charlene Perrin

Notary Public.

My Commission expires
March 15, 1997

(Seal)

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

Hobbs Daily News-Sun
P.O. Box 860
Hobbs, New Mexico 88241-0860

LEGAL NOTICE
October 20, 1993

Southland Royalty Company, P.O. Box [illegible], Midland Texas 79710. Contact party: [illegible] (915)[illegible] is making application with the Oil Conservation Division in Santa Fe, New Mexico for authority to inject [illegible] in the State [illegible] L, 1980' FSL & [illegible] FWL sec. 24, [illegible] County, New Mexico. [illegible] from the [illegible] tion in [illegible] into the [illegible] tion 4[illegible]. [illegible] tial injection [illegible] BWPD. The [illegible] imum injection [illegible] BWPD. [illegible] jection [illegible] per day [illegible] 1000 [illegible]

Interested parties [illegible] objections [illegible] hearing [illegible] vation [illegible] 2088, Santa Fe [illegible] co 875[illegible] days.

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION
POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501

FORM C-108
Revised 7-1-81

APPLICATION FOR AUTHORIZATION TO INJECT

I. Purpose: [X] Secondary Recovery [ ] Pressure Maintenance [ ] Disposal [ ] Storage
Application qualifies for administrative approval? [ ] yes [X] no

II. Operator: Southland Royalty Company

Address: P.O. Box 51810 Midland, Texas 79710

Contact party: Maria L. Perez, Prod. Asst. Phone: 915-688-6906

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 [X] 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 source 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: M. P. Gaddis Title Sr. Staff Engineer

Signature: M P Gaddis Date: 11/22/93

* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be duplicated and resubmitted. Please show the date and circumstance 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 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, P. O. Box 2088, Santa Fe, New Mexico 87501 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.

INJECTION WELL DATA SHEET

SIDE 1

Southland Royalty Company		State DS		
OPERATOR		LEASE		
4	1980' FSL, 660' FWL	24	17-S	36-E
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE

Schematic

See Attached Diagram

Tubular Data

Surface Casing

Size 8-5/8 " Cemented with 215 sx.

TOC surface feet determined by circulation

Hole size 12-1/4"

Intermediate Casing

Size _____ " Cemented with _____ sx.

TOC _____ feet determined by _____

Hole size _____

Long String

Size 5-1/2 " Cemented with 300 sx.

TOC 3440' feet determined by temp. survey

Hole size 7-7/8"

Total Depth 5035'

Injection Interval

4964 feet to 4994 feet

(perforated or ~~open-hole~~, indicate which)

INJECTION WELL DATA SHEET

SIDE 2

Tubing size 2-3/8" lined with plastic coated (material) set in a Guiberson UniV or equiv. (brand and model) packer at +/- 4900 feet

(or describe any other casing-tubing seal).

OTHER DATA

1. Name of the injection formation San Andres

2. Name of Field or Pool (if applicable) Spencer

3. Is this a new well drilled for injection? _____ YES __X__ NO

   If no, for what purpose was the well originally drilled? oil producer

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used)

   No

5. Give the depth to and name of any overlying and/or gas zones (pools) in this area.

   No overlying zones above or gas zones below.

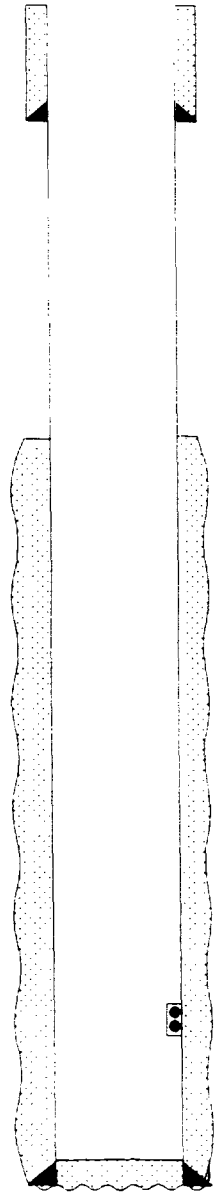
MERIDIAN *OIL*

FIELD: Spencer (San Andres) DATE SPUD: 10/4/69 COMP: 10/26/69

LEASE: STATE DS WELL NO. 4 ELEVATION: 3,808' G.L.

LOCATION: 1,980' FSL & 660' FWL; SEC. 24, T-17-S, R-36-E

Lea County, New Mexico



8 5/8", 24# @ 326'
CEMENT W/ 215 sx
TOC: SURFACE (Circ.)
In 12-1/4" Hole

TOC @ 3,440' by temp. survey

San Andres Perfs:
4,964'-94'

5 1/2", 14# @ 5,035'
Cement w/ 300 sx "C"
In 7 7/8" Hole

CURRENT CONFIGURATION

TD: 5,035'
PBTD: 5,014'

JRG/DS4
04/25/99

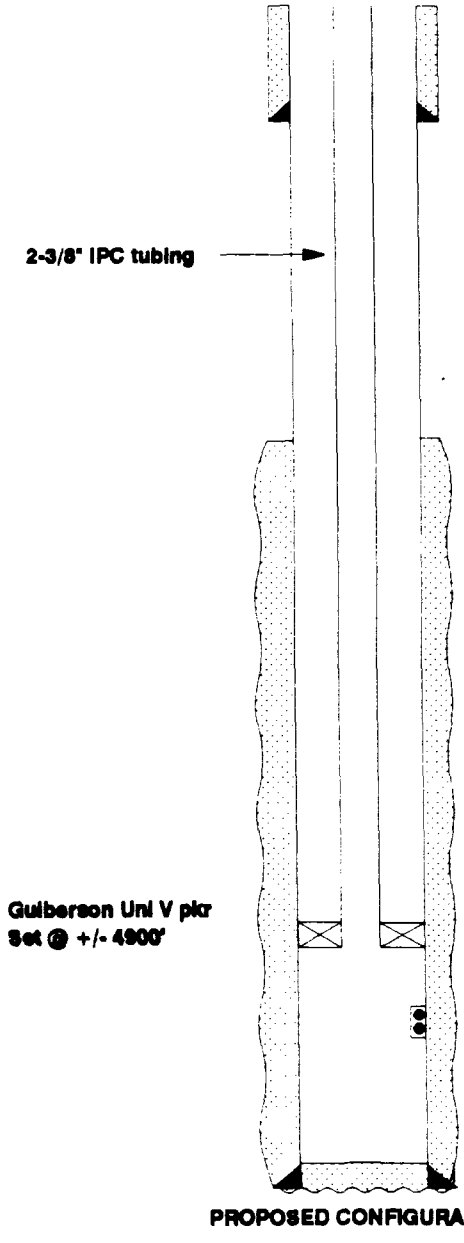
MERIDIAN *OIL*

FIELD: Spencer (San Andres) DATE SPUD: 10/4/69 COMP: 10/26/69

LEASE: STATE D6 WELL NO. 4 ELEVATION: 3,806' G.L.

LOCATION: 1,980' FSL & 660' FWL; SEC. 24, T-17-S, R-36-E

Lea County, New Mexico



8 5/8", 24# @ 326'
CEMENT W/ 215 sx
TOC: SURFACE (Circ.)
In 12-1/4" Hole

2-3/8" IPC tubing

TOC @ 3,440' by temp. survey

Guiberson Uni V pkr
Set @ +/- 4900'

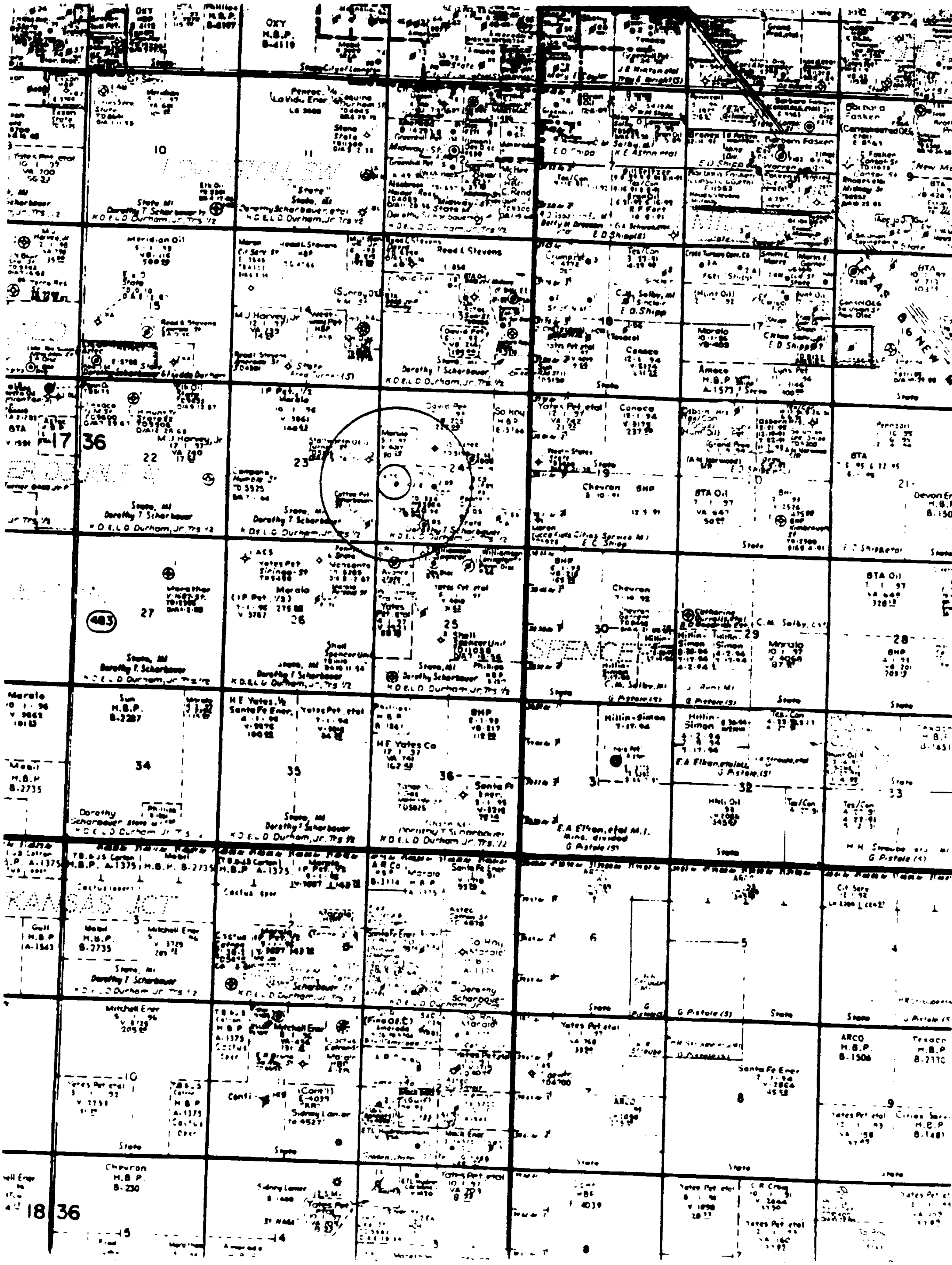
San Andres Perfs:
4,964'-94'

5 1/2", 14# @ 5,035'
Cement w/ 300 sx "C"
In 7 7/8" Hole

PROPOSED CONFIGURATION

TD: 5,035'
PBTD: 5,014'

JRG/D84
08/25/93


OXY
H.B.P.
B-4119
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483
34
35
36
18 36
Meridian Oil
Read & Stevens
M J Harvey, Jr
Marathon
Conoco
Chevron
BHP
BTA Oil
Yates Pet. etal
H E Yates Co
State, MI
Dorothy T. Scharbauer
K D & L D Durham, Jr. Trs 1/2
Hillin-Simon
C.M. Selby, MI
E.A. Elkan, etal M.I.
G Pistole (5)
Mobil
H.B.P.
B-2735
Mitchell Ener
Santa Fe Ener
ARCO
H.B.P.
B-1506
Texaco
H.B.P.
B-2110
Chevron
H.B.P.
B-230
Sidney Lanier
SPENCER

P. O. BOX 1468
MONAHANS, TEXAS 79756
PH. 943-3234 OR 563-1040

Martin Water Laboratories, Inc.

709 W. INDIANA
MIDLAND, TEXAS 79701
PHONE 683-4521

RESULT OF WATER ANALYSES

TO: Ms. Karen Burns
P. O. Box 51810, Midland, TX 79710

LABORATORY NO. 9939
SAMPLE RECEIVED 9-3-93
RESULTS REPORTED 9-3-93

COMPANY Meridian Oil Company LEASE State "DS"
FIELD OR POOL
SECTION ____ BLOCK ____ SURVEY ____ COUNTY Lea STATE NM
SOURCE OF SAMPLE AND DATE TAKEN:
NO. 1 Produced water - taken from State "DS".
NO. 2 Raw water - taken from windmill #1.
NO. 3
NO. 4
REMARKS: 1. San Andres

CHEMICAL AND PHYSICAL PROPERTIES	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0121	1.0017		
pH When Sampled				
pH When Received	6.80	7.52		
Bicarbonate as HCO_3	1,684	220		
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	3,850	238		
Calcium as Ca	1,010	81		
Magnesium as Mg	322	9		
Sodium and/or Potassium	3,517	19		
Sulfate as SO_4	579	54		
Chloride as Cl	6,747	31		
Iron as Fe	2.2	1.1		
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	13,858	413		
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen,				
Hydrogen Sulfide	954	0.0		
Resistivity, ohms/m at 77° F.	0.540	22.0		
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				
Total Dissolved Solids @ 180°C.	13,100	396		

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks The undersigned certifies the above to be true and correct to the best of his knowledge and belief.

Form No. 3

By
Waylan C. Martin, M.A.

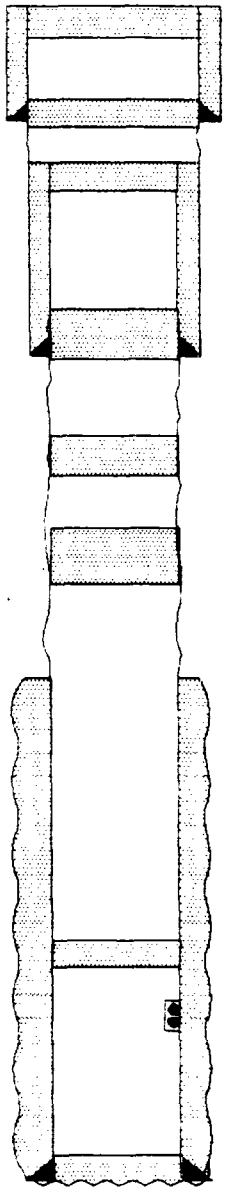
TEXAS CRUDE INC.

FIELD: SPENCER (DEVONIAN) DATE SPUD: 11/24/72 COMP: 12/1/72

LEASE: C.W. TRAINER 25 STATE WELL NO. 1 ELEVATION: 3,906' G.L.

LOCATION: 660' FNL & 660' FWL; SEC. 25, T-13-S, R-32-E

Lea County, New Mexico



10 sx plug @ surf.

50 sx plug 240'-340'

50 sx plug 950'-1050'

40 sx plug 4655'-4790'

40 sx plug 6465'-5600'

40 sx plug 6455-6600'

DEEPEST PLUGS UNKNOWN

13 3/8" @ 338'
CEMENT W/ 400 sx
TOC: SURFACE (Calc.)
In 17-1/2" Hole (assumed)

8-5/8" CASING CUT & PULLED @ 1020'

8 5/8" @ 4,791'
CEMENT W/ 300 SX, TOC @ 3234' (CALC.)
In 11" hole (assumed).

CUT AND PULL CSG @ UNKNOWN

WOLFCAMP PERFS:
9,949-51'

4 1/2" @ 10,157'
300 sx
TOC @ 8,419' (Calc.)
In 7 7/8" Hole (assumed)

CURRENT CONFIGURATION

TD: 10,157'

JRG/TXCRD1
09/21/93

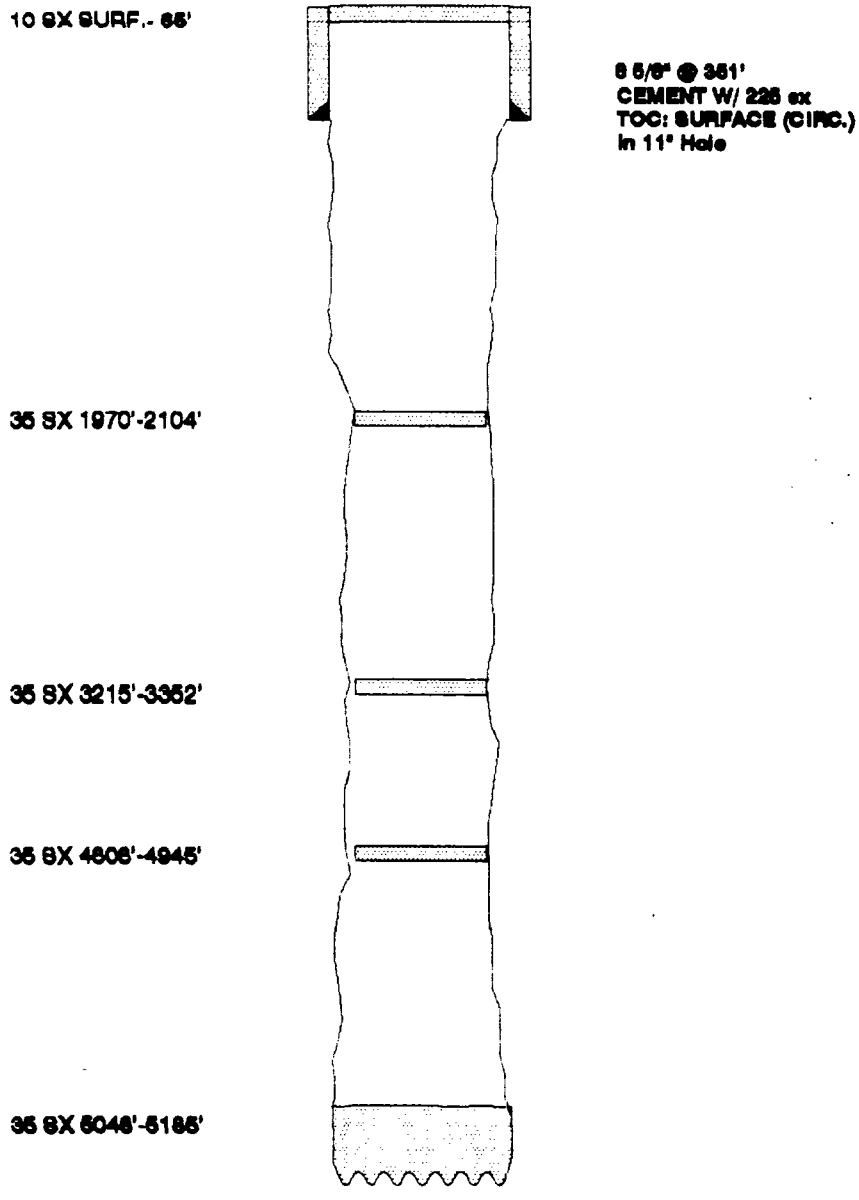
STALLWORTH OIL & GAS

FIELD: Spencer (San Andres) DATE SPUD: 3/18/74 COMP: 4/6/74

LEASE: TURNER STATE WELL NO. 2 ELEVATION: 3,814' G.L.

LOCATION: 2310' FNL & 330' FEL; SEC. 22, T-17-S, R-36-E

Lea County, New Mexico



CURRENT CONFIGURATION

In 7 7/8" Hole

TD: 5,185'

JRG/TURST1
09/21/93

AVANCE OIL & GAS

FIELD: Spencer (San Andres) - DATE SPUD: 12/1/69 COMP: 2/2/70

LEASE: STATE 25 WELL NO. 2 ELEVATION: 3,905' G.L.

LOCATION: 330' FNL & 1650' FWL; SEC. 25, T-17-S, R-36-E

Lea County, New Mexico

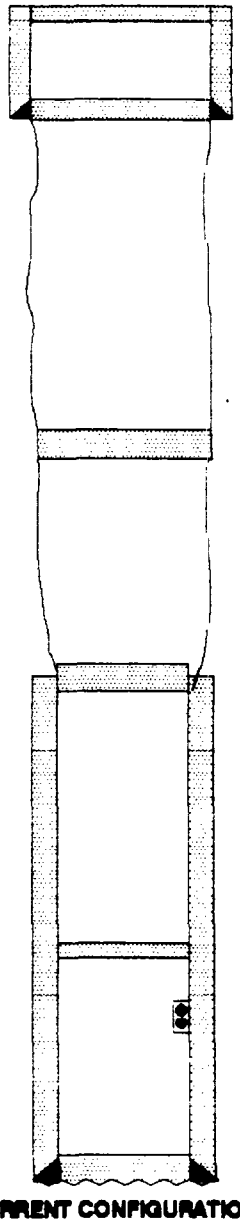
10 SX SURF.-65'

25 SX 312'-372'

25 SX 885'-960'

25 SX 3875'-3950'

25 sx 4635'-4950'



8 5/8" @ 372'
CEMENT W/ 275 sx
TOC: SURFACE (CALC.)
In 12-1/4" Hole (assumed)

TOC @ 3980'(calc.)

Cut & pull casing @ 3950'

San Andres Perfs:
4,954'-5008'

4 1/2" @ 5,068'
Cement w/ 200 sx
In 7 7/8" Hole (assumed)

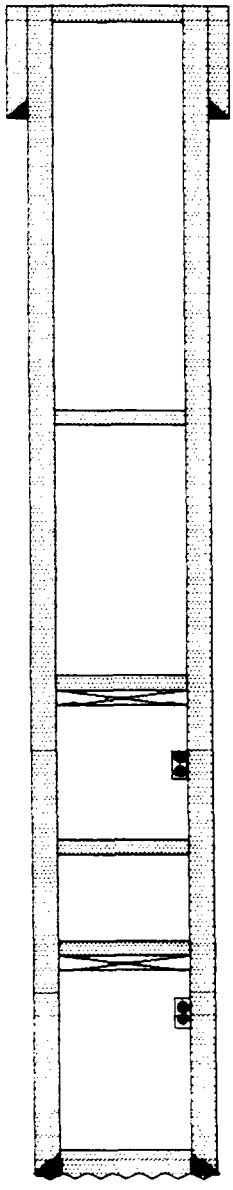
CURRENT CONFIGURATION

TD: 5,068'

JRG/AV1
09/21/93

COTTON PETROLEUM

FIELD: Spencer (San Andres) - DATE SPUD: 1/13/81 COMP: 5/20/81
LEASE: SCHARBAUER STATE WELL NO. 1 ELEVATION: 3,814' G.L.
LOCATION: 660' FSL & 330' FEL; SEC. 22, T-17-S, R-36-E
Lea County, New Mexico



10 SX SURF.-65'

8 5/8" @ 365'
CEMENT W/ 180 sx
TOC: SURFACE (CALC.)
In 12-1/4" Hole (assumed)

20 SX 1900'-2000'

TOC @ surface (calc.)

CIBP @ 3180' + 5 SX

YATES PERFS
3200'-46'

20 SX 3400'-3500'

CIBP @ 4890' + 5 SX

San Andres Perfs:
4,952'-60'

5 1/2" @ 5,140'
Cement w/ 1270 sx
In 7 7/8" Hole (assumed)

CURRENT CONFIGURATION

TD: 5,140'

JRG/SCHST1
09/21/93

Welex

ACOUSTIC VELOCITY LOG

COMPANY AZTEC OIL & GAS Company

WELL STATE DS NO. 4

FIELD ~~UNDESIGNATED~~ Spencer (DD)

COUNTY LEA STATE New Mexico

Location

Sec. 24 Twp 17-S Rge 36-E

Other Services:

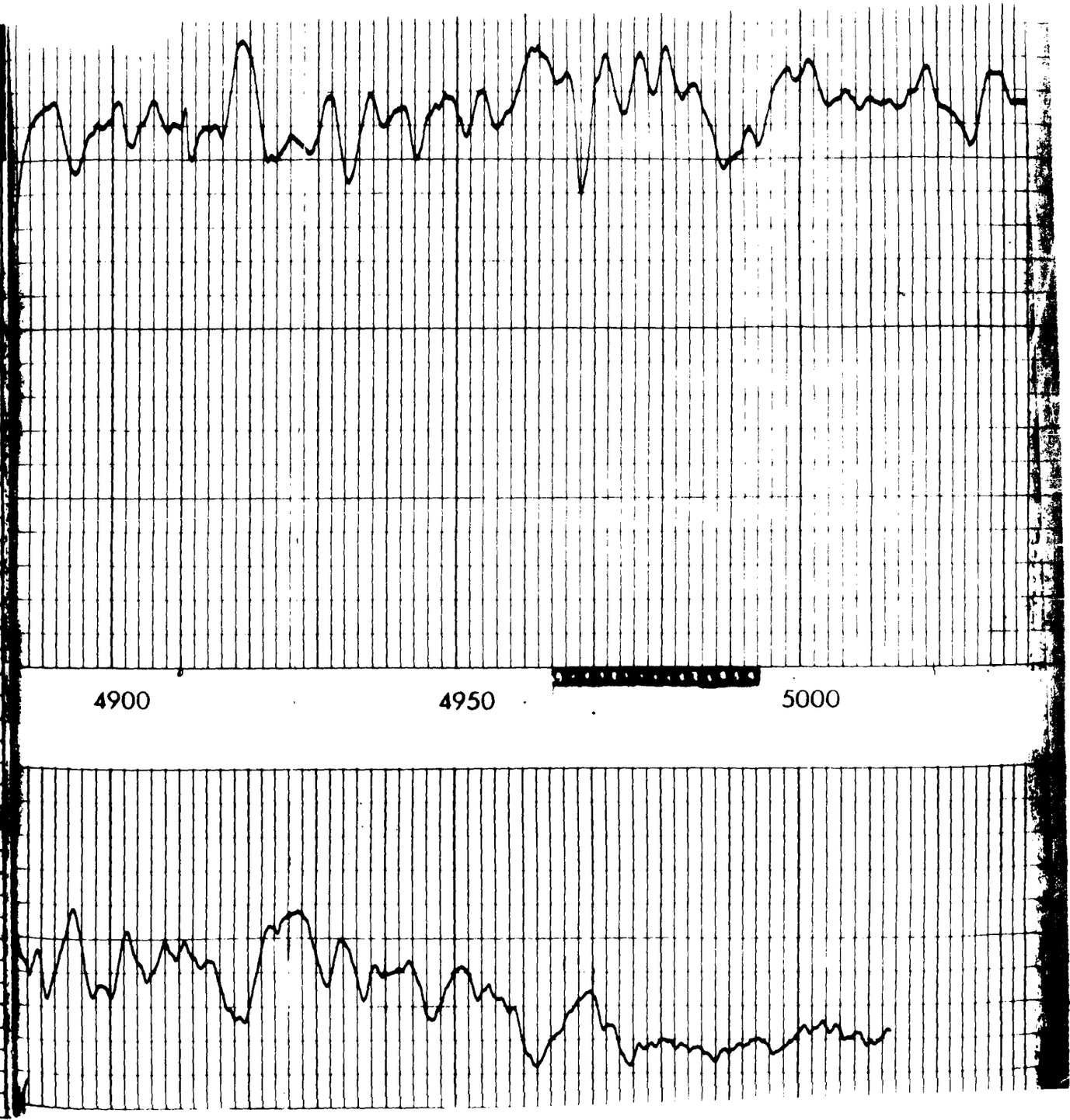
Permanent Datum GROUND Level Elev. 3808.4

Log Measured From KB 11' Ft. Above Perm. Datum

Drilling Measured From Kelly Bushing

Elev.: K.B. 3819.4
D.F. 3818.4
G.L. 3808.4

Date	10-16-69			
Run No.	ONE			
Depth—Driller	5035			
Depth—Welex	5035			
Btm. Log Inter.	5031			
Top Log Inter.	SURF			
Casing—Driller	321@ 8 5/8	@	@	@
Casing—Welex				
Bit Size	7 7/8			
Type Fluid in Hole	MUD			
Dens. / Visc.	10.2 / 46	/	/	/
pH / Fluid Loss	11.6 ml	/ ml	/ ml	/ ml
Source of Sample				
R_m @ Meas. Temp.	@ °F	@ °F	@ °F	@ °F
R_{mf} @ Meas. Temp.	@ °F	@ °F	@ °F	@ °F
R_{mc} @ Meas. Temp.	@ °F	@ °F	@ °F	@ °F
Source R_{mf} / R_{mc}	/	/	/	/
R_m @ BHT	@ °F	@ °F	@ °F	@ °F
Time Since Circ.				
Max. Rec. Temp.	°F @	°F @	°F @	°F @
Equip. / Location	8444 Hobbs	/	/	/
Recorded By	B. H. STROUD			
Witnessed By	MR DONALDSON			



MERIDIAN OIL

November 22, 1993

Oil Conservation Division
P. O. Box 2088
State Land Office Building
Santa Fe, New Mexico 87504-2088

RE: **Application for Authorization to Inject**
Southland Royalty Company
State DS No. 4
Spencer San Andres Field
Unit L, Section 24, T17S, R36E
Lea County, New Mexico
State Lease No.: L-200

Gentlemen:

Southland Royalty Company (SRC) is applying for authorization to convert the above referenced well for the purpose of secondary recovery and requests a hearing on the earliest possible docket for an initial secondary recovery project on this lease. At this time, SRC is also applying for the "recovered oil tax rate" (reduced oil severance tax rate) since this will be a new enhanced recovery project. Attached is an injection well data sheet showing the current and proposed mechanical configuration of this well. A map is also attached showing the one-half mile area of review around the well. The required information from "Form C-108" follows.

The proposed injection well will dispose of water produced from Southland Royalty leases from the San Andres in the Spencer Field. Our estimated initial injection rate will be 500 BPD. The estimated maximum rate is 1000 BPD. We anticipate initial injection pressure to be ±500 psi, and request an operating maximum pressure of 1000 psi. The closed injection facilities will be equipped with high and low level head switches and will not operate continuously. No deeper aquifers containing usable quality water are known in this area.

III. Well Data

A. 1 through 4. See two attached well data sheets; the first is the existing data; the second is the proposed recompletion data.

1) The proposed well:
State DS No. 4
Unit L, 1980' FSL, 660' FWL
Sec. 24, T17S, R36E
Lea County, New Mexico
Lease No.: L-200

P.O. Box 51810, Midland, Texas 79710-1810, Telephone 915-688-6800
3300 N. "A" St. Bldg. 6, 79705-5406

2) Surface: 8 5/8", 24# @ 326' in 12-1/4" hole
cement with 215 sx. TOC = Circ. to Surface

Production: 5-1/2", 14# @ 5,035' in 7-7/8" hole
cement with 300 sx. TOC = 3440' by temperature survey

3) Injection Tubing: 2-3/8", 4.7#, internally plastic coated set @ ±4900'.

4) Packer: Guiberson UniV, retrievable, internally and externally plastic coated set at ±4900"

B. 1) Injection Formation: San Andres

2) Injection Interval: Perforated from: 4964' - 4994'.

3) The well was originally drilled for production of oil and gas

4) There will be no other open intervals in this injection well

5) The next possible higher oil or gas zone is the Queen located at approximately 4159'. The next possible lower oil or gas zone is a Paddock located at approximately 6600'.

IV. This is not an expansion of an existing Southland Royalty project.

V. Area of Review: See attached plat, one-half mile radius identified

VI. Tabulation of data: Wells within area of review.

Southland Royalty Co., State DS No. 4
Unit L, Sec.24, T17S, R36E, Lea Co. NM
Spud 10/4/69, TD 5035'
8-5/8" @ 326' w/ 215 sx, circulated
5-1/2" @ 5035' w/ 300 sx, TOC @ 3440 by TS
perfed 4964-94', acidize w/ 1000 gal 15% NE acid
completed 10/26/69 for 248 BOPD + 0 BWPD + 84 MCFD

Southland Royalty Co., State DS No. 2
Unit K, Sec.24, T17S, R36E, Lea Co. NM
Spud 8/4/69, TD 5100'
8-5/8" @ 323' w/ 215 sx, circulated
5-1/2" @ 5099' w/ 465 sx, TOC @ 3240' by TS
perfed 4944-5008', acidize w/ 1000 gal 15% NE acid
completed 8/22/69 for 216 BOPD + 0 BWPD + 130 MCFD

Southland Royalty Co., State DS No. 3
Unit J, Sec.24, T17S, R36E, Lea Co. NM
Spud 9/11/69, TD 5061'
8-5/8" @ 331' w/ 225 sx, circulated
5-1/2" @ 5050' w/ 325 sx, TOC @ 3510' by TS

perfed 5004-14', acidized 500 gal, squeeze w/ 50 sx
perfed 4925-66', acidized w/ 500 gal
completed 10/20/69 for 78 BOPD + 8 BWPD + 0 MCFD
deepen to 6794', set 3-1/2" liner 4985 - 6794' w/ 175 sx.
TOC @ 5050' by TS, squeeze liner top w/ 150 sx
perf 6653-77, acidize w/ 1500 gal, squeeze w/ 50 sx.
perf 6414-24, acidize w/ 1000 gal, squeeze w/ 50 sx
perf 6558-80', acidize w/ 2500 gal, squeeze w/ 50 sx
perf 5360-75', acidize w/ 500 gal, squeeze w/ 50 sx
perf 4932-66', acidize w/ 500 gal, squeeze w/ 75 sx
perf 6476-6680', acidize w/ 2000 gal, frac w/ 30,000 gal + 30,000 lbs
completed 9/21/74 5 BO + 0 BW + 0 MCFD

Southland Royalty Co., State DS No. 1
Unit N, Sec.24, T17S, R36E, Lea Co., NM
Spud 5/19/69 TD 11,253'
13-3/8" @ 361' w/ 350 sx, circulated
8-5/8" @ 5300' w/ 460 sx, TOC calc @ 2911' (11" hole, 1.32 cu.ft/sx)
spot 35 sx plug @ 11,210' Devonian
spot 25 sx plug @ 9,750' Penn
spot 25 sx plug @ 8,850' Abo
spot 25 sx plug @ 6,200' Glorieta
set CIBP @ 5,230' + 1sx cement
perf 5186-90', acidize w/ 250 gal, squeeze w/ 30 sx
perf 5130-42', acidize w/ 500 gal, squeeze w/ 71 sx
perf 5080-90', acidize w/ 500 gal, squeeze w/ 75 sx
perf 4988-5030', acidize w/ 1000 gal
completed 7/21/69 for 192 BOPD + 0 BWPD + 124 MCFD
squeeze perf 4988-5030' w/ 406 sx
perf 4948-94', acidize w/ 500 gal, set CIBP @ 4930'.

Southland Royalty Co., State DS No. 5
Unit M, Sec.24, T17S, R36E, Lea Co. NM
Spud 12/13/69, TD 5060'
8-5/8" @ 340' w/ 220 sx circulated
5-1/2" @ 5060' w/ 300 sx, TOC @ 3460' by TS
perf 5006-10', acidize w/ 1000 gal
completed 12/31/69 for 230 BOPD + 0 BWPD + 96 MCFD
squeeze perfs 5006-10' w/ 200 sx
perfed 4980-94', acidize w/ 1000 gal, squeeze w/ 50 sx
perfed 4934-72', acidize w/ 2500 gal.

Southland Royalty Co., State DS No. 6
Unit O, Sec.24, T17S, R36E, Lea Co., NM
Spud 12/26/69, TD 5060'
8-5/8" @ 332' w/ 215 sx, circulated
5-1/2" @ 5050' w/ 300 sx, TOC @ 3521' by TS
perf 4980-88', acidize w/ 1634 gal
completed 1/10/70 for 480 BOPD + 0 BWPD + 0 MCFD

squeeze perfs 4940-88' w/ 200 sx
perfed 4890-4956', acid w/ 500 gal

Southland Royalty Co., State SS No. 1
Unit F, Sec.24, T17S, R36E, Lea Co.,NM
Spud 8/21/69, TD 5150'
8-5/8" @ 332' w/ 225 sx, circulated
5-1/2" @ 5150' w/ 390 sx, TOC @ 3360' by TS
perfed 5112-16', acid w/ 500 gal, squeeze w/ 12 sx
perfed 5067-78', acid w/ 1000 gal, squeeze w/ 75 sx
perfed 5032-48', acid w/ 1000 gal, squeeze w/ 100 sx
perfed 4166-90', acidize w/ 2000 gal, squeeze w/ 150 sx
perfed 3928-50', acidize w/ 1000 gal, squeeze w/ 150 sx
perfed 5112-32, acidize w/ 4000 gal
completed 1/15/70 as an SWD well
Acidize w/ 1000 gal, Acidize w/ 1500 gal.

Stallworth Oil and Gas Turner State No. 2
Unit H, Sec. 23, T17S, R36E, Lea Co., NM
Spud 3/17/74, TD 5185'
8-5/8" @ 351' w/ 225 sx, TOC calc @ surface (12-1/4" hole, 1.32 cu.ft/sx)
35 sx plug @ 5185', 35 sx plug @ 4945'
35 sx plug @ 2104', 10 sx plug @ surf
P&A 4/20/74

Cotton Petroleum Co. Scharbauer State No. 1
Unit P, sec. 23, T17S, R36E, Lea Co., NM
Spud 1/13/81, TD 5140'
8-5/8" @ 365' w/ 180 sx, TOC calc @ surface (12-1/4" hole, 1.32 cu.ft/sx)
5-1/2" @ 5140' w/ 1270 sx, TOC calc @ surface (7-7/8" hole, 1.32cu.ft/sx)
perfed 5086-96', acidize w/ 750 gal, set CIBP @ 5050'
perfed 4975 - 5030', acidize w/ 750 gal, set CIBP @ 5010'
perfed 4952-60', squeeze w/ 300 sx
re-perf 4952-60', acidize w/ 750 gal
completed 5/20/81 for 10 BOPD + 16 BWPD + 4 MCFD
set CIBP @ 4980', perfed 3200 - 46', acidize w/ 500 gal
20 sx plug 3400 - 3500', set CIBP @ 3180' + 5 sx
20 sx plug 1900 - 2000', 10 sx plug @ surface

Avance Oil & Gas Co. State 25 No. 2
Unit C, sec.25, T 17S, R36E, Lea Co. NM
Spud 12/1/69, TD 5068'
8-5/8' @ 372' w/ 275 sx, TOC calc @ surface (12-1/4" hole, 1.32 cu.ft/sx)
4-1/2" @ 5067' w/ 200 sx. TOC @ 3980' (7-7/8" hole, 1.32cu.ft/sx)
perf 4954-5006', Acidize w/ 3000 gal
cut and pull csg @ 3950',. 25 sx plug 4635-4950'
25 sx plug 3875-3950', 25 sx plug 885-960'
25 sx plug 312-372', 10 sx plug @ surf.

Texas Crude, Inc., C. W. Trainer 25 State No. 1
formerly Pennzoil Company State 25 No. 1
Unit D, sec. 25, T17S, R36E, Lea Co., NM
re-entered 12/1/72, TD 11,305'
ran DSTs 6645-7010'
40 sx plug 6455-6600', 40 sx plug 5465'-5600'
40 sx plug 4655-4790', cut and pull 8-5/8" csg @ 1020'.
50 sx plug 950-1050', 50 sx plug 240'-340',
10 sx plug @ surface

VII. Proposed Operation:

1. Estimated average initial injection rate is 500 BWPD.
   Estimated maximum daily rate 1000 BPD.

2. This will be a closed system.

3. Estimated average injection pressure is 500 psi. Maximum estimated operating pressure is 1000 psi.

4. The source of the injected water is the produced water from the San Andres. Since produced water is being re-injected into the San Andres, no incompatibility is expected. See attached water analysis

5. Water injection will be into a zone currently productive of oil and gas.

VIII. Geological Data

The proposed zone for injection is the San Andres formation at 4900'. This Permian Age reservoir is an anticlinal structure composed of nearly 100% dolomite containing some oolites, fractures and anhydritic inclusions. The average porosity throughout the reservoir runs 6.1% though most of it comes in the form of secondary porosity (vugs and fractures). The San Andres in this area can average over 800 in gross thickness. Since an oil/water contact does exist in the reservoir, the net thickness averages approximately 70'.

There are no known underlying sources of potable water below the San Andres. The only fresh water sources located above are from an approximate depth of 100-150'.

IX. Proposed Stimulation

The proposed stimulation program is a 3000 gallon treatment of 15% NEFE HCl acid.

X. Log Data

Log section is attached with proposed interval indicated.

XI. Fresh Water Analysis

The only fresh well found within 1 mile of the proposed injection well was located in Unit D, Sec.25, T17S, R36E of Lea County, NM. A sample was taken from the well on 9/3/93 with the analysis herein attached.

XII. Hydrologic Communication

There is no known evidence of faulting or other hydrologic communication between potential fresh water aquifers and the desired injection zone.

XIII. Proof of Notice

The offset operators and surface owner were notified by certified return receipts on November 22, 1993.

Proof of Notice is attached.

XIV. Certification

Certification is on Form C-108.

If you need any additional information or if you have any questions, please contact M.P. Gaddis at 915/688-6850.

Sincerely,

M.P. Gaddis
Sr. Staff Engineer

MPG/mp
enclosures

xc: OCD-Hobbs
Hobbs Field Office
Well File
Land Dept.
Production Engineering
Reservoir Engineering
Joint Interest
Maria Perez (6)

State DS No. 4
Unit L, Sec. 24, T17S, R36E
Lea County, New Mexico
Southland Royalty Company

The following Offset Operators, Surface Owners and Mineral Interest Owners within open areas, within a one-half mile radius were notified by certified return receipt on November 22, 1993:

Maralo, Inc.
Five Post Oak Park
Suite 1010
Houston, TX 77027

Yates Petroleum Corp.
105 South 4th Street
Artesia, NM 88210

Ken McPeters
P. O. Box 1860
Hobbs, NM 88240

Howell Spears
P. O. Box 4246
Gulfport, MS 39501

Elbert Damon Shipp
& Suzy Laverne Shipp
1104 Ave. J. West
Lovington, NM 88260

Cross Timbers Oil Co. L.P.
810 Houston St., Ste. 2000
Fort Worth, TX 76102

Marshall & Winston, Inc.
P. O. Box 50880
Midland, TX 79710

Oxy USA, Inc.
P. O. Box 50250
Midland, TX 79710

E. L. Latham Co.
P. O. Box 1392
Hobbs, NM 88241

Roy G. Barton & Opal
Barton Revocable Trust
Roy G. Barton, Jr, Trustee
P. O. Box 978
Hobbs, NM 88241,

Alan Jochimsen
2402 Cimmaron
Midland, TX 79705

James Ronald Ewing
700 East 9th St., Apt. 11K
Little Rock, AR 72202

Norma Barton
P. O. Box 729
Hobbs, NM 88240

John T. Stallings
P. O. Box 685
Creedmor, NC

The Moran Partnership
1000 E. Walker Drive
Hobbs, NM 88241

Roy G. Barton, Jr.
P. O. Box 978
Hobbs, NM 88241

Charles Doornbas, Trustee
Charles F. Doornbas
Revocable Trust
P. O. Box 639
Bartlesville, OK 74005

The Bevridge Co.
P. O. Box 993
Midland, TX 79702

<u>Surface Owner</u>

Dorothy T. Scharbauer
P. O. Box 1471
Midland, Texas 79702

<u>Newspaper</u>

Hobbs News Sun
201 N. Thorp
Hobbs, NM 88241
(505) 393-2123

AFFIDAVIT OF PUBLICATION

RECEIVED

OCT 25 1993

PROD. SERV.

State of New Mexico,
County of Lea.

I, Kathi Bearden

General Manager

of the Hobbs Daily News-Sun, a daily 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 ______________________

one weeks.

Beginning with the issue dated

October 20, 1993

and ending with the issue dated

October 20, 1993

Kathi Bearden
General Manager

Sworn and subscribed to before

me this 21 day of

October, 1993

Charlene Perrin
Notary Public.

My Commission expires
March 15, 1997
(Seal)

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

Hobbs Daily News-Sun
P.O. Box 860
Hobbs, New Mexico 88241-0860

LEGAL NOTICE
October 20, 1993

Southland Royalty Company, P.O. [illegible], Midland Texas 79710. Contact [illegible] (915)688-[illegible] application with the OCD Conservation Division in Santa Fe, New Mexico [illegible] to inject [illegible] State [illegible] L, 1980' FS[illegible] sec. 24, T[illegible] County, New Mexico. [illegible] from the San [illegible] tion in the [illegible] into the San [illegible] tion 4[illegible]. [illegible] tial injection [illegible] BWPD. The [illegible] imum injection [illegible] BWPD. Anticipated [illegible] jection pressure [illegible] per [illegible] imum [illegible] 1[illegible] [illegible]

Interested parties [illegible] objections [illegible] hearing [illegible] vation Division [illegible] 2088, Santa Fe, New Mexico 875[illegible] within [illegible] days.

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION
POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501

FORM C-108
Revised 7-1-81

APPLICATION FOR AUTHORIZATION TO INJECT

I. Purpose: [X] Secondary Recovery [ ] Pressure Maintenance [ ] Disposal [ ] Storage
Application qualifies for administrative approval? [ ] yes [X] no

II. Operator: Southland Royalty Company

Address: P.O. Box 51810 Midland, Texas 79710

Contact party: Maria L. Perez, Prod. Asst. Phone: 915-688-6906

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 [X] 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 source 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: M. P. Gaddis Title Sr. Staff Engineer

Signature: M P Gaddis Date: 11/22/93

* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be duplicated and resubmitted. Please show the date and circumstance 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 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, P. O. Box 2088, Santa Fe, New Mexico 87501 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.

INJECTION WELL DATA SHEET

SIDE 1

Southland Royalty Company		State DS		
OPERATOR		LEASE		
4	1980' FSL, 660' FWL	24	17-S	36-E
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE

Schematic

See Attached Diagram

Tubular Data

Surface Casing

Size 8-5/8 " Cemented with 215 sx.

TOC surface feet determined by circulation

Hole size 12-1/4"

Intermediate Casing

Size _____ " Cemented with _____ sx.

TOC _____ feet determined by _____

Hole size _____

Long String

Size 5-1/2 " Cemented with 300 sx.

TOC 3440' feet determined by temp. survey

Hole size 7-7/8"

Total Depth 5035'

Injection Interval

4964 feet to 4994 feet

(perforated or ~~open-hole~~, indicate which)

INJECTION WELL DATA SHEET

SIDE 2

Tubing size 2-3/8" lined with plastic coated (material) set in a Guiberson UniV or equiv. (brand and model) packer at +/- 4900 feet

(or describe any other casing-tubing seal).

OTHER DATA

1. Name of the injection formation San Andres

2. Name of Field or Pool (if applicable) Spencer

3. Is this a new well drilled for injection? _____ YES X NO

   If no, for what purpose was the well originally drilled? oil producer

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used)

   No

5. Give the depth to and name of any overlying and/or gas zones (pools) in this area.

   No overlying zones above or gas zones below.

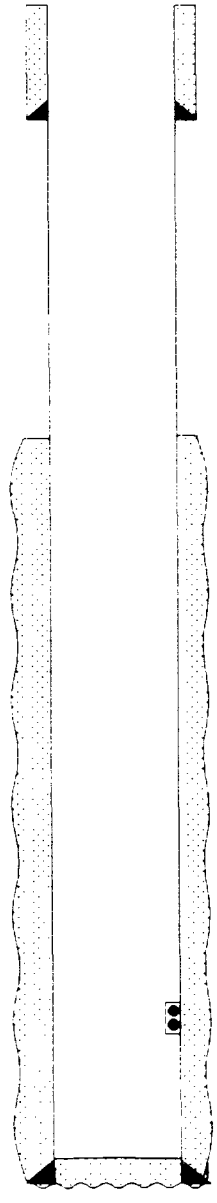
MERIDIAN *OIL*

FIELD: Spencer (San Andres) DATE SPUD: 10/4/69 COMP: 10/26/69

LEASE: STATE DS WELL NO. 4 ELEVATION: 3,808' G.L.

LOCATION: 1,980' FSL & 660' FWL; SEC. 24, T-17-S, R-36-E

Lea County, New Mexico



8 5/8", 24# @ 326'
CEMENT W/ 215 sx
TOC: SURFACE (Circ.)
In 12-1/4" Hole

TOC @ 3,440' by temp. survey

San Andres Perfs:
4,964'-94'

5 1/2", 14# @ 5,035'
Cement w/ 300 sx "C"
In 7 7/8" Hole

CURRENT CONFIGURATION

TD: 5,035'
PBTD: 5,014'

JRG/DS4
08/25/93

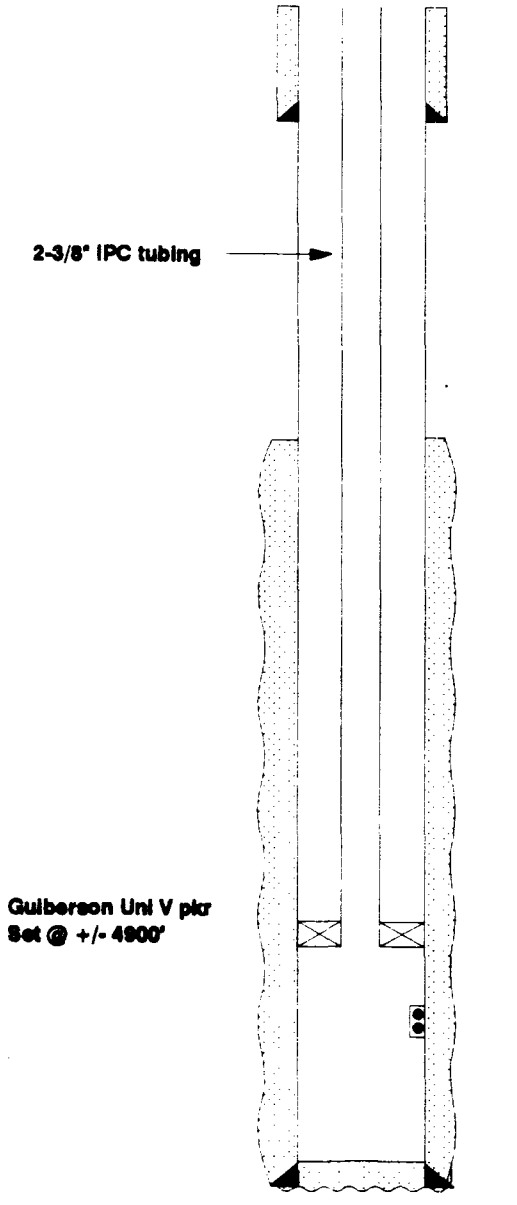
MERIDIAN *OIL*

FIELD: Spencer (San Andres) DATE SPUD: 10/4/69 COMP: 10/26/69

LEASE: STATE DS WELL NO. 4 ELEVATION: 3,808' G.L

LOCATION: 1,980' FSL & 660' FWL; SEC. 24, T-17-S, R-36-E

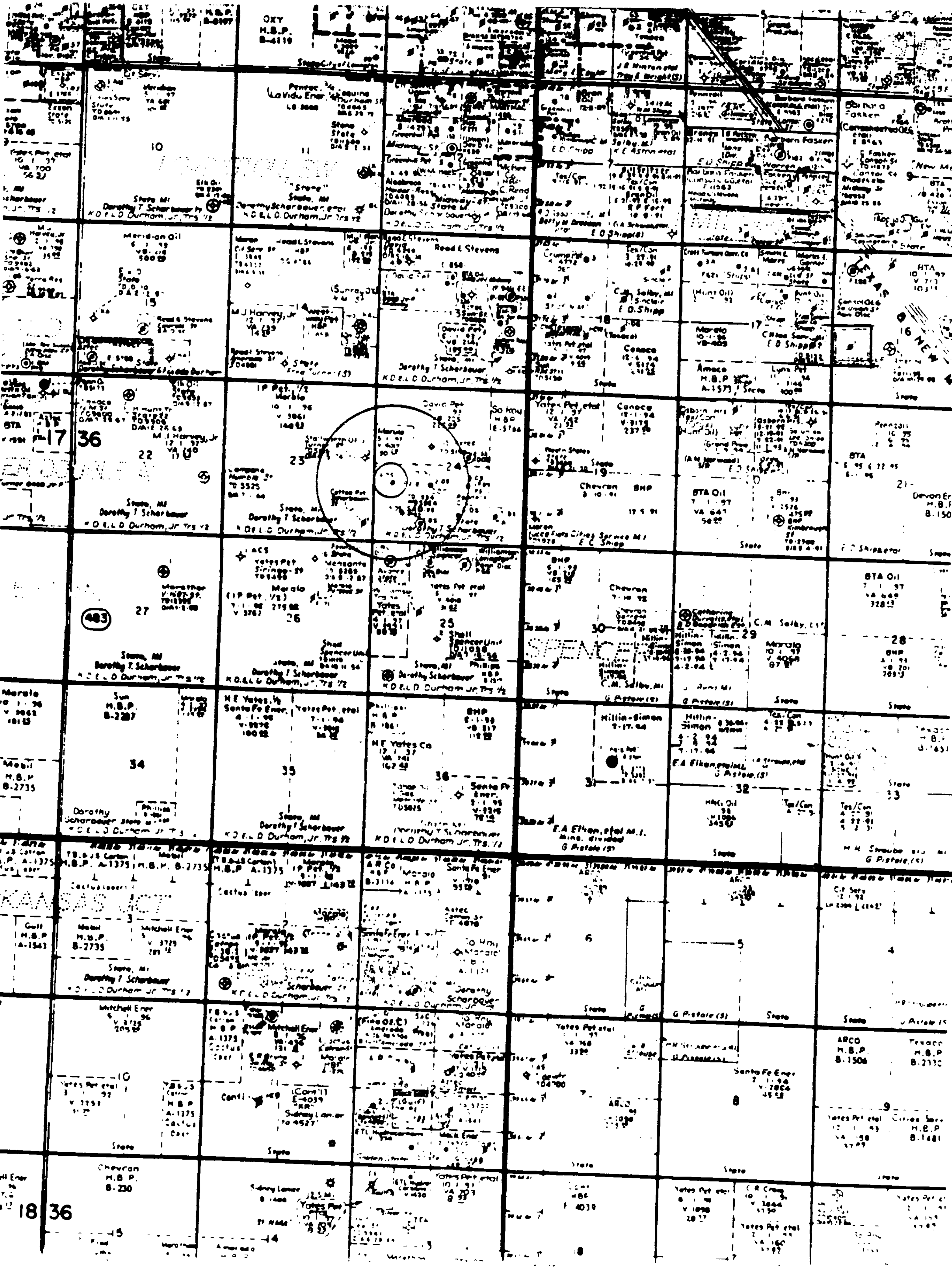
Lea County, New Mexico



PROPOSED CONFIGURATION

TD: 5,035'
PBTD: 5,014'

JRG/DS4
08/25/95



OXY
H.B.P.
B-6119
Meridian Oil
Read & Stevens
M J Harvey, Jr
Dorothy T. Scharbauer
K D & L D Durham, Jr. Trs ½
State, MI
E D Shipp
C.M. Selby, MI
Chevron
Conoco
BTA Oil
Amoco
H.B.P.
A-1375
Morale
Sun
H.B.P.
B-2287
Mobil
H.B.P.
B-2735
M E Yates Co
Santa Fe Ener
Hillin-Simon
E.A. Elken, etal M.I.
G Pistole (S)
Mitchell Ener
ARCO
H.B.P.
B-1506
Texaco
Yates Pet. etal
Chevron
H.B.P.
B-230
Cities Serv
H.B.P.
B-1481
Barbara Fasken
Devon En
Shell
Spencer Unit
Phillips
483
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P. O. BOX 1468
MONAHANS, TEXAS 79756
PH. 943-3234 OR 563-1040

Martin Water Laboratories, Inc.

709 W. INDIANA
MIDLAND, TEXAS 79701
PHONE 683-4521

RESULT OF WATER ANALYSES

TO: Ms. Karen Burns
P. O. Box 51810, Midland, TX 79710

LABORATORY NO. 9939
SAMPLE RECEIVED 9-3-93
RESULTS REPORTED 9-3-93

COMPANY Meridian Oil Company LEASE State "DS"
FIELD OR POOL
SECTION ____ BLOCK ____ SURVEY ____ COUNTY Lea STATE NM
SOURCE OF SAMPLE AND DATE TAKEN:
NO. 1 Produced water - taken from State "DS".
NO. 2 Raw water - taken from windmill #1.
NO. 3
NO. 4
REMARKS: 1. San Andres

CHEMICAL AND PHYSICAL PROPERTIES

	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0121	1.0017		
pH When Sampled				
pH When Received	6.80	7.52		
Bicarbonate as HCO_3	1,684	220		
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	3,850	238		
Calcium as Ca	1,010	81		
Magnesium as Mg	322	9		
Sodium and/or Potassium	3,517	19		
Sulfate as SO_4	579	54		
Chloride as Cl	6,747	31		
Iron as Fe	2.2	1.1		
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	13,858	413		
Temperature °F				
Carbon Dioxide, Calculated				
Dissolved Oxygen,				
Hydrogen Sulfide	954	0.0		
Resistivity, ohms/m at 77° F.	0.540	22.0		
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				
Total Dissolved Solids @ 180°C.	13,100	396		

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks: The undersigned certifies the above to be true and correct to the best of his knowledge and belief.

Form No 3

By _____
Waylan C. Martin, M.A.

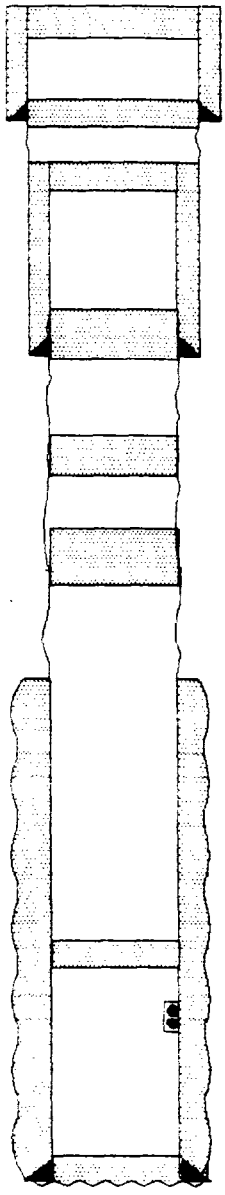
TEXAS CRUDE INC.

FIELD: SPENCER (DEVONIAN) DATE SPUD: 11/24/72 COMP: 12/1/72

LEASE: C.W. TRAINER 25 STATE WELL NO. 1 ELEVATION: 3,806' G.L.

LOCATION: 660' FNL & 660' FWL; SEC. 25, T-13-S, R-22-E

Lea County, New Mexico



10 sx plug @ surf.

50 sx plug 240'-340'

50 sx plug 950'-1050'

40 sx plug 4655'-4790'

40 sx plug 6465'-5600'

40 sx plug 6455-6600'

DEEPEST PLUGS UNKNOWN

13 3/8" @ 338'
CEMENT W/ 400 sx
TOC: SURFACE (Calc.)
in 17-1/2" Hole (assumed)

8-5/8" CASING CUT & PULLED @ 1020'

8 5/8" @ 4,791'
CEMENT W/ 300 SX, TOC @ 3234' (CALC.)
in 11" hole (assumed) .

CUT AND PULL CSG @ UNKNOWN

WOLFCAMP PERFS:
9,949-51'

4 1/2" @ 10,157'
300 sx
TOC @ 8,419' (Calc.)
in 7 7/8" Hole (assumed)

CURRENT CONFIGURATION

TD: 10,157'

JRG/TXCRD1
09/21/93

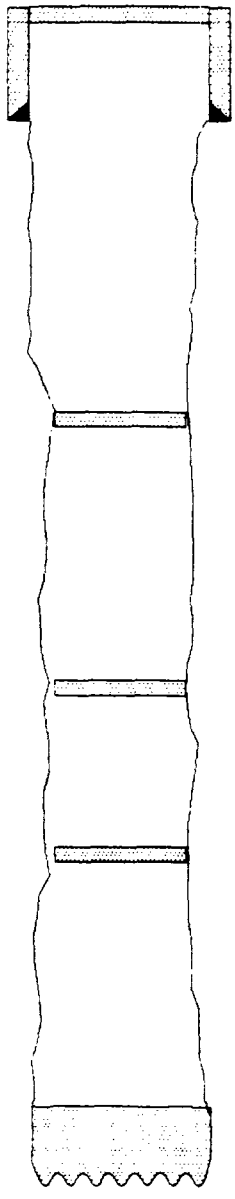
STALLWORTH OIL & GAS

FIELD: Spencer (San Andres) DATE SPUD: 3/18/74 COMP: 4/5/74

LEASE: TURNER STATE WELL NO. 2 ELEVATION: 3,814' G.L.

LOCATION: 2310' FNL & 330' FEL; SEC. 22, T-17-S, R-36-E

Lea County, New Mexico



10 SX SURF.- 65'

8 5/8" @ 351'
CEMENT W/ 225 sx
TOC: SURFACE (CIRC.)
In 11" Hole

35 SX 1970'-2104'

35 SX 3215'-3352'

35 SX 4808'-4945'

35 SX 5046'-5185'

CURRENT CONFIGURATION

In 7 7/8" Hole

TD: 5,185'

JRG/TURST1
09/21/93

AVANCE OIL & GAS

FIELD: Spencer (San Andres) DATE SPUD: 12/1/69 COMP: 3/2/70

LEASE: STATE 25 WELL NO. 2 ELEVATION: 3,905' G.L.

LOCATION: 330' FNL & 1650' FWL; SEC. 25, T-17-S, R-36-E

Lea County, New Mexico

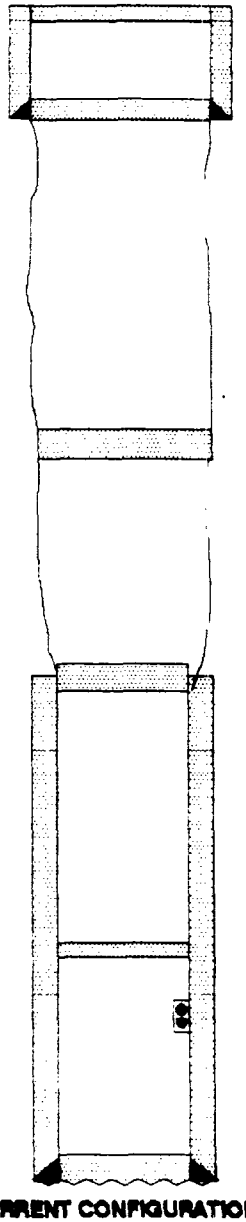
10 SX SURF.-65'

25 SX 312'-372'

25 SX 885'-960'

25 SX 3875'-3950'

25 sx 4635'-4950'



8 5/8" @ 372'
CEMENT W/ 275 sx
TOC: SURFACE (CALC.)
In 12-1/4" Hole (assumed)

TOC @ 3980'(calc.)

Cut & pull casing @ 3950'

San Andres Perfs:
4,954'-5008'

4 1/2" @ 5,068'
Cement w/ 200 sx
In 7 7/8" Hole (assumed)

CURRENT CONFIGURATION

TD: 5,068'

JRG/AV1
09/21/93

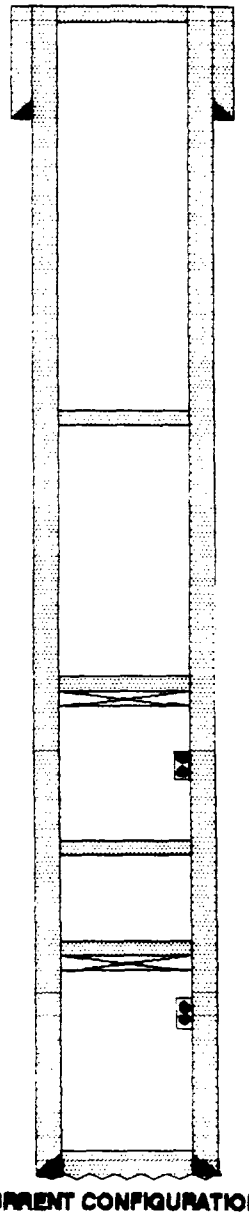
COTTON PETROLEUM

FIELD: Spencer (San Andres) - DATE SPUD: 1/13/61 COMP: 6/20/61

LEASE: SCHARBAUER STATE WELL NO. 1 ELEVATION: 3,614' G.L.

LOCATION: 660' FSL & 330' FEL; SEC. 23, T-17-S, R-36-E

Lea County, New Mexico



10 SX SURF.-65'

8 5/8" @ 365'
CEMENT W/ 180 sx
TOC: SURFACE (CALC.)
in 12-1/4" Hole (assumed)

20 SX 1900'-2000'

TOC @ surface (calc.)

CIBP @ 3150' + 5 SX

YATES PERFS
3200'-46'

20 SX 3400'-3500'

CIBP @ 4690' + 5 SX

San Andres Perfs:
4,952'-60'

5 1/2" @ 5,140'
Cement w/ 1270 sx
in 7 7/8" Hole (assumed)

CURRENT CONFIGURATION

TD: 5,140'

JRG/SCHST1
09/21/95

Welex

ACOUSTIC VELOCITY LOG

COMPANY AZTEC OIL & GAS Company

WELL STATE DS NO. 4

FIELD ~~UNDESIGNATED~~ Spencer (SA)

COUNTY LEA STATE New Mexico

Location

Sec. 24 Twp 17-S Rge 36-E

Other Services:

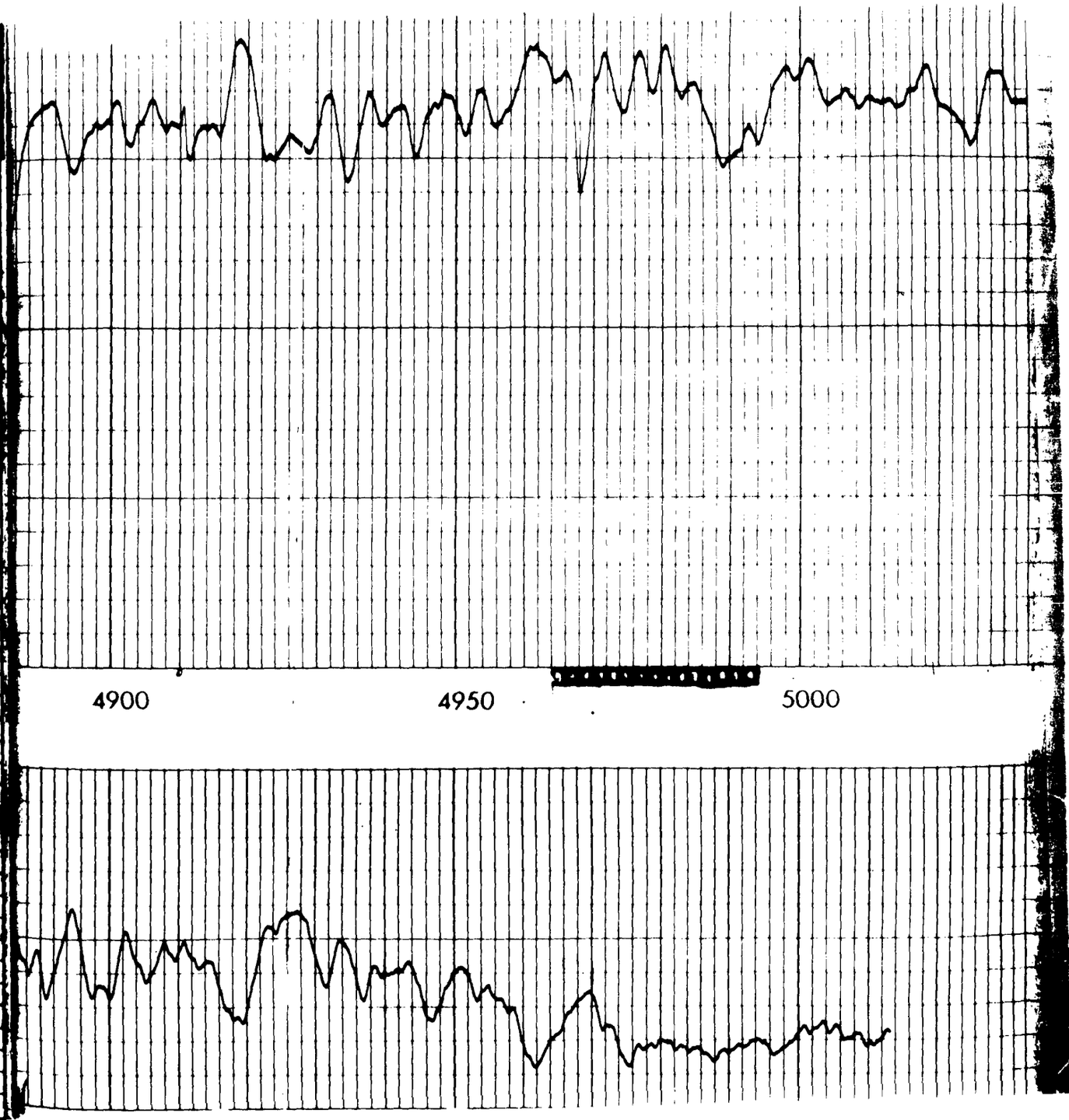
Permanent Datum GROUND Level Elev. 3808.4

Log Measured From KB 11' Ft. Above Perm. Datum

Drilling Measured From Kelly Bushing

Elev.: K.B. 3819.4
D.F. 3818.4
G.L. 3808.4

Date	10-16-69			
Run No.	ONE			
Depth—Driller	5035			
Depth—Welex	5035			
Btm. Log Inter.	5031			
Top Log Inter.	SURF			
Casing—Driller	321@ 8 5/8	@	@	@
Casing—Welex				
Bit Size	7 7/8			
Type Fluid in Hole	MUD			
Dens. / Visc.	10.2 / 46	/	/	/
pH / Fluid Loss	11.0 / 10 ml	/ ml	/ ml	/ ml
Source of Sample				
R_m @ Meas. Temp.	@ °F	@ °F	@ °F	@ °F
R_{mf} @ Meas. Temp.	@ °F	@ °F	@ °F	@ °F
R_{mc} @ Meas. Temp.	@ °F	@ °F	@ °F	@ °F
Source R_{mf} / R_{mc}	/	/	/	/
R_m @ BHT	@ °F	@ °F	@ °F	@ °F
Time Since Circ.				
Max. Rec. Temp.	°F @	°F @	°F @	°F @
Equip. / Location	8444 / Hobbs	/	/	/
Recorded By	B. H. STROUD			
Witnessed By	MR DONALDSON			



MERIDIAN OIL

November 22, 1993

Oil Conservation Division
P. O. Box 2088
State Land Office Building
Santa Fe, New Mexico 87504-2088

RE: **Application for Authorization to Inject**
Southland Royalty Company
State DS No. 4
Spencer San Andres Field
Unit L, Section 24, T17S, R36E
Lea County, New Mexico
State Lease No.: L-200

Case 10891

Gentlemen:

Southland Royalty Company (SRC) is applying for authorization to convert the above referenced well for the purpose of secondary recovery and requests a hearing on the earliest possible docket for an initial secondary recovery project on this lease. At this time, SRC is also applying for the "recovered oil tax rate" (reduced oil severance tax rate) since this will be a new enhanced recovery project. Attached is an injection well data sheet showing the current and proposed mechanical configuration of this well. A map is also attached showing the one-half mile area of review around the well. The required information from "Form C-108" follows.

The proposed injection well will dispose of water produced from Southland Royalty leases from the San Andres in the Spencer Field. Our estimated initial injection rate will be 500 BPD. The estimated maximum rate is 1000 BPD. We anticipate initial injection pressure to be ±500 psi, and request an operating maximum pressure of 1000 psi. The closed injection facilities will be equipped with high and low level head switches and will not operate continuously. No deeper aquifers containing usable quality water are known in this area.

III. Well Data

A. 1 through 4. See two attached well data sheets; the first is the existing data; the second is the proposed recompletion data.

1) The proposed well:
State DS No. 4
Unit L, 1980' FSL, 660' FWL
Sec. 24, T17S, R36E
Lea County, New Mexico
Lease No.: L-200

P.O. Box 51810, Midland, Texas 79710-1810, Telephone 915-688-6800
3300 N. "A" St., Bldg. 6, 79705-5406

2) Surface: 8 5/8", 24# @ 326' in 12-1/4" hole
cement with 215 sx. TOC = Circ. to Surface

Production: 5-1/2", 14# @ 5,035' in 7-7/8" hole
cement with 300 sx. TOC = 3440' by temperature survey

3) Injection Tubing: 2-3/8", 4.7#, internally plastic coated set @ ±4900'.

4) Packer: Guiberson UniV, retrievable, internally and externally plastic coated set at ±4900"

B. 1) Injection Formation: San Andres

2) Injection Interval: Perforated from: 4964' - 4994'.

3) The well was originally drilled for production of oil and gas

4) There will be no other open intervals in this injection well

5) The next possible higher oil or gas zone is the Queen located at approximately 4159'. The next possible lower oil or gas zone is a Paddock located at approximately 6600'.

IV. This is not an expansion of an existing Southland Royalty project.

V. Area of Review: See attached plat, one-half mile radius identified

VI. Tabulation of data: Wells within area of review.

Southland Royalty Co., State DS No. 4
Unit L, Sec.24, T17S, R36E, Lea Co. NM
Spud 10/4/69, TD 5035'
8-5/8" @ 326' w/ 215 sx, circulated
5-1/2" @ 5035' w/ 300 sx, TOC @ 3440 by TS
perfed 4964-94', acidize w/ 1000 gal 15% NE acid
completed 10/26/69 for 248 BOPD + 0 BWPD + 84 MCFD

Southland Royalty Co., State DS No. 2
Unit K, Sec.24, T17S, R36E, Lea Co. NM
Spud 8/4/69, TD 5100'
8-5/8" @ 323' w/ 215 sx, circulated
5-1/2" @ 5099' w/ 465 sx, TOC @ 3240' by TS
perfed 4944-5008', acidize w/ 1000 gal 15% NE acid
completed 8/22/69 for 216 BOPD + 0 BWPD + 130 MCFD

Southland Royalty Co., State DS No. 3
Unit J, Sec.24, T17S, R36E, Lea Co. NM
Spud 9/11/69, TD 5061'
8-5/8" @ 331' w/ 225 sx, circulated
5-1/2" @ 5050' w/ 325 sx, TOC @ 3510' by TS

perfed 5004-14', acidized 500 gal, squeeze w/ 50 sx
perfed 4925-66', acidized w/ 500 gal
completed 10/20/69 for 78 BOPD + 8 BWPD + 0 MCFD
deepen to 6794', set 3-1/2" liner 4985 - 6794' w/ 175 sx.
TOC @ 5050' by TS, squeeze liner top w/ 150 sx
perf 6653-77, acidize w/ 1500 gal, squeeze w/ 50 sx.
perf 6414-24, acidize w/ 1000 gal, squeeze w/ 50 sx
perf 6558-80', acidize w/ 2500 gal, squeeze w/ 50 sx
perf 5360-75', acidize w/ 500 gal, squeeze w/ 50 sx
perf 4932-66', acidize w/ 500 gal, squeeze w/ 75 sx
perf 6476-6680', acidize w/ 2000 gal, frac w/ 30,000 gal + 30,000 lbs
completed 9/21/74 5 BO + 0 BW + 0 MCFD

Southland Royalty Co., State DS No. 1
Unit N, Sec.24, T17S, R36E, Lea Co., NM
Spud 5/19/69 TD 11,253'
13-3/8" @ 361' w/ 350 sx, circulated
8-5/8" @ 5300' w/ 460 sx, TOC calc @ 2911' (11" hole, 1.32 cu.ft/sx)
spot 35 sx plug @ 11,210' Devonian
spot 25 sx plug @ 9,750' Penn
spot 25 sx plug @ 8,850' Abo
spot 25 sx plug @ 6,200' Glorieta
set CIBP @ 5,230' + 1sx cement
perf 5186-90', acidize w/ 250 gal, squeeze w/ 30 sx
perf 5130-42', acidize w/ 500 gal, squeeze w/ 71 sx
perf 5080-90', acidize w/ 500 gal, squeeze w/ 75 sx
perf 4988-5030', acidize w/ 1000 gal
completed 7/21/69 for 192 BOPD + 0 BWPD + 124 MCFD
squeeze perf 4988-5030' w/ 406 sx
perf 4948-94', acidize w/ 500 gal, set CIBP @ 4930'.

Southland Royalty Co., State DS No. 5
Unit M, Sec.24, T17S, R36E, Lea Co. NM
Spud 12/13/69, TD 5060'
8-5/8" @ 340' w/ 220 sx circulated
5-1/2" @ 5060' w/ 300 sx, TOC @ 3460' by TS
perf 5006-10', acidize w/ 1000 gal
completed 12/31/69 for 230 BOPD + 0 BWPD + 96 MCFD
squeeze perfs 5006-10' w/ 200 sx
perfed 4980-94', acidize w/ 1000 gal, squeeze w/ 50 sx
perfed 4934-72', acidize w/ 2500 gal.

Southland Royalty Co., State DS No. 6
Unit O, Sec.24, T17S, R36E, Lea Co., NM
Spud 12/26/69, TD 5060'
8-5/8" @ 332' w/ 215 sx, circulated
5-1/2" @ 5050' w/ 300 sx, TOC @ 3521' by TS
perf 4980-88', acidize w/ 1634 gal
completed 1/10/70 for 480 BOPD + 0 BWPD + 0 MCFD

squeeze perfs 4940-88' w/ 200 sx
perfed 4890-4956', acid w/ 500 gal

Southland Royalty Co., State SS No. 1
Unit F, Sec.24, T17S, R36E, Lea Co.,NM
Spud 8/21/69, TD 5150'
8-5/8" @ 332' w/ 225 sx, circulated
5-1/2" @ 5150' w/ 390 sx, TOC @ 3360' by TS
perfed 5112-16', acid w/ 500 gal, squeeze w/ 12 sx
perfed 5067-78', acid w/ 1000 gal, squeeze w/ 75 sx
perfed 5032-48', acid w/ 1000 gal, squeeze w/ 100 sx
perfed 4166-90', acidize w/ 2000 gal, squeeze w/ 150 sx
perfed 3928-50', acidize w/ 1000 gal, squeeze w/ 150 sx
perfed 5112-32, acidize w/ 4000 gal
completed 1/15/70 as an SWD well
Acidize w/ 1000 gal, Acidize w/ 1500 gal.

Stallworth Oil and Gas Turner State No. 2
Unit H, Sec. 23, T17S, R36E, Lea Co., NM
Spud 3/17/74, TD 5185'
8-5/8" @ 351' w/ 225 sx, TOC calc @ surface (12-1/4" hole, 1.32 cu.ft/sx)
35 sx plug @ 5185', 35 sx plug @ 4945'
35 sx plug @ 2104', 10 sx plug @ surf
P&A 4/20/74

Cotton Petroleum Co. Scharbauer State No. 1
Unit P, sec. 23, T17S, R36E, Lea Co., NM
Spud 1/13/81, TD 5140'
8-5/8" @ 365' w/ 180 sx, TOC calc @ surface (12-1/4" hole, 1.32 cu.ft/sx)
5-1/2" @ 5140' w/ 1270 sx, TOC calc @ surface (7-7/8" hole, 1.32cu.ft/sx)
perfed 5086-96', acidize w/ 750 gal, set CIBP @ 5050'
perfed 4975 - 5030', acidize w/ 750 gal, set CIBP @ 5010'
perfed 4952-60', squeeze w/ 300 sx
re-perf 4952-60', acidize w/ 750 gal
completed 5/20/81 for 10 BOPD + 16 BWPD + 4 MCFD
set CIBP @ 4980', perfed 3200 - 46', acidize w/ 500 gal
20 sx plug 3400 - 3500', set CIBP @ 3180' + 5 sx
20 sx plug 1900 - 2000', 10 sx plug @ surface

Avance Oil & Gas Co. State 25 No. 2
Unit C, sec.25, T 17S, R36E, Lea Co. NM
Spud 12/1/69, TD 5068'
8-5/8' @ 372' w/ 275 sx, TOC calc @ surface (12-1/4" hole, 1.32 cu.ft/sx)
4-1/2" @ 5067' w/ 200 sx. TOC @ 3980' (7-7/8" hole, 1.32cu.ft/sx)
perf 4954-5006', Acidize w/ 3000 gal
cut and pull csg @ 3950',. 25 sx plug 4635-4950'
25 sx plug 3875-3950', 25 sx plug 885-960'
25 sx plug 312-372', 10 sx plug @ surf.

Texas Crude, Inc., C. W. Trainer 25 State No. 1
formerly Pennzoil Company State 25 No. 1
Unit D, sec. 25, T17S, R36E, Lea Co., NM
re-entered 12/1/72, TD 11,305'
ran DSTs 6645-7010'
40 sx plug 6455-6600', 40 sx plug 5465'-5600'
40 sx plug 4655-4790', cut and pull 8-5/8" csg @ 1020'.
50 sx plug 950-1050', 50 sx plug 240'-340',
10 sx plug @ surface

VII. Proposed Operation:

1. Estimated average initial injection rate is 500 BWPD.
   Estimated maximum daily rate 1000 BPD.

2. This will be a closed system.

3. Estimated average injection pressure is 500 psi. Maximum estimated operating pressure is 1000 psi.

4. The source of the injected water is the produced water from the San Andres. Since produced water is being re-injected into the San Andres, no incompatibility is expected. See attached water analysis

5. Water injection will be into a zone currently productive of oil and gas.

VIII. Geological Data

The proposed zone for injection is the San Andres formation at 4900'. This Permian Age reservoir is an anticlinal structure composed of nearly 100% dolomite containing some oolites, fractures and anhydritic inclusions. The average porosity throughout the reservoir runs 6.1% though most of it comes in the form of secondary porosity (vugs and fractures). The San Andres in this area can average over 800 in gross thickness. Since an oil/water contact does exist in the reservoir, the net thickness averages approximately 70'.

There are no known underlying sources of potable water below the San Andres. The only fresh water sources located above are from an approximate depth of 100-150'.

IX. Proposed Stimulation

The proposed stimulation program is a 3000 gallon treatment of 15% NEFE HCl acid.

X. Log Data

Log section is attached with proposed interval indicated.

XI. Fresh Water Analysis

The only fresh well found within 1 mile of the proposed injection well was located in Unit D, Sec.25, T17S, R36E of Lea County, NM. A sample was taken from the well on 9/3/93 with the analysis herein attached.

XII. Hydrologic Communication

There is no known evidence of faulting or other hydrologic communication between potential fresh water aquifers and the desired injection zone.

XIII. Proof of Notice

The offset operators and surface owner were notified by certified return receipts on November 22, 1993.

Proof of Notice is attached.

XIV. Certification

Certification is on Form C-108.

If you need any additional information or if you have any questions, please contact M.P. Gaddis at 915/688-6850.

Sincerely,

M.P. Gaddis
Sr Staff Engineer

MPG/mp
enclosures

xc: OCD-Hobbs
Hobbs Field Office
Well File
Land Dept.
Production Engineering
Reservoir Engineering
Joint Interest
Maria Perez (6)

State DS No. 4
Unit L, Sec. 24, T17S, R36E
Lea County, New Mexico
Southland Royalty Company

The following Offset Operators, Surface Owners and Mineral Interest Owners within open areas, within a one-half mile radius were notified by certified return receipt on November 22, 1993:

Maralo, Inc.
Five Post Oak Park
Suite 1010
Houston, TX 77027

Yates Petroleum Corp.
105 South 4th Street
Artesia, NM 88210

Ken McPeters
P. O. Box 1860
Hobbs, NM 88240

Howell Spears
P. O. Box 4246
Gulfport, MS 39501

Elbert Damon Shipp
& Suzy Laverne Shipp
1104 Ave. J. West
Lovington, NM 88260

Cross Timbers Oil Co. L.P.
810 Houston St., Ste. 2000
Fort Worth, TX 76102

Marshall & Winston, Inc.
P. O. Box 50880
Midland, TX 79710

Oxy USA, Inc.
P. O. Box 50250
Midland, TX 79710

E. L. Latham Co.
P. O. Box 1392
Hobbs, NM 88241

Roy G. Barton & Opal
Barton Revocable Trust
Roy G. Barton, Jr, Trustee
P. O. Box 978
Hobbs, NM 88241,

Alan Jochimsen
2402 Cimmaron
Midland, TX 79705

James Ronald Ewing
700 East 9th St., Apt. 11K
Little Rock, AR 72202

Norma Barton
P. O. Box 729
Hobbs, NM 88240

John T. Stallings
P. O. Box 685
Creedmor, NC

The Moran Partnership
1000 E. Walker Drive
Hobbs, NM 88241

Roy G. Barton, Jr.
P. O. Box 978
Hobbs, NM 88241

Charles Doornbas, Trustee
Charles F. Doornbas
Revocable Trust
P. O. Box 639
Bartlesville, OK 74005

The Bevridge Co.
P. O. Box 993
Midland, TX 79702

<u>Surface Owner</u>

Dorothy T. Scharbauer
P. O. Box 1471
Midland, Texas 79702

<u>Newspaper</u>

Hobbs News Sun
201 N. Thorp
Hobbs, NM 88241
(505) 393-2123

AFFIDAVIT OF PUBLICATION

RECEIVED

OCT 25 1993

PROD. SERV.

State of New Mexico,
County of Lea.

I, Kathi Bearden

General Manager

of the Hobbs Daily News-Sun, a daily 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 _____

one weeks.
Beginning with the issue dated

October 20, 1993
and ending with the issue dated

October 20, 1993

Kathi Bearden
General Manager
Sworn and subscribed to before

me this 21 day of

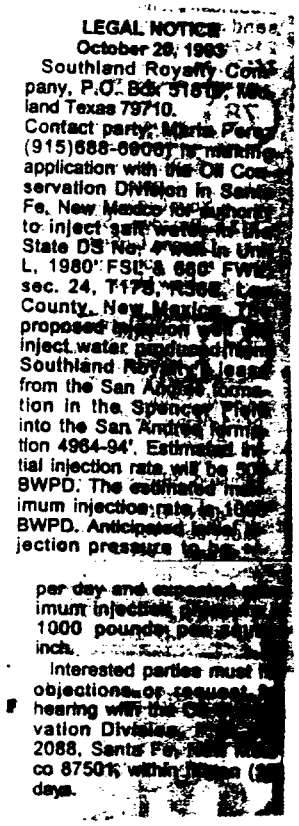
October, 1993

Marline Perrin
Notary Public.

My Commission expires
March 15, 1997
(Seal)

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

Hobbs Daily News-Sun
P.O. Box 860
Hobbs, New Mexico 88241-0860



LEGAL NOTICE
October 20, 1993
Southland Royalty Company, P.O. Box 51810, Midland Texas 79710.
Contact party: Marla Perrin (915)688-6000 is making application with the Oil Conservation Division in Santa Fe, New Mexico for authority to inject salt water into its State DS No. 4 well in Unit L, 1980' FSL & 660' FWL sec. 24, T17S, R36E, Lea County, New Mexico. The proposed injection will inject water produced from Southland Royalty's lease from the San Andres formation in the Spencer Field into the San Andres formation 4964-94'. Estimated initial injection rate will be 500 BWPD. The estimated maximum injection rate is 1000 BWPD. Anticipated surface injection pressure to be ... per day and estimated maximum injection ... 1000 pounds per square inch.
Interested parties must file objections or requests for hearing with the Oil Conservation Division, P.O. Box 2088, Santa Fe, New Mexico 87501, within fifteen (15) days.

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION
POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501

FORM C-108
Revised 7-1-81

Case 10891

APPLICATION FOR AUTHORIZATION TO INJECT

I. Purpose: [X] Secondary Recovery [ ] Pressure Maintenance [ ] Disposal [ ] Storage
Application qualifies for administrative approval? [ ] yes [X] no

II. Operator: Southland Royalty Company

Address: P.O. Box 51810 Midland, Texas 79710

Contact party: Maria L. Perez, Prod. Asst. Phone: 915-688-6906

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 [X] 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 source 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: M. P. Gaddis Title Sr. Staff Engineer

Signature: M P Gaddis Date: 11/22/93

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

DISTRIBUTION: ORIGINAL

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 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, P. O. Box 2088, Santa Fe, New Mexico 87501 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.

INJECTION WELL DATA SHEET

SIDE 1

Southland Royalty Company		State DS		
OPERATOR		LEASE		
4	1980' FSL, 660' FWL	24	17-S	36-E
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE

Schematic

See Attached Diagram

Tubular Data

Surface Casing

Size 8-5/8 " Cemented with 215 sx.

TOC surface feet determined by circulation

Hole size 12-1/4"

Intermediate Casing

Size _____ " Cemented with _____ sx.

TOC _____ feet determined by _____

Hole size _____

Long String

Size 5-1/2 " Cemented with 300 sx.

TOC 3440' feet determined by temp. survey

Hole size 7-7/8"

Total Depth 5035'

Injection Interval

4964 feet to 4994 feet

(perforated or ~~open-hole~~, indicate which)

INJECTION WELL DATA SHEET

SIDE 2

Tubing size 2-3/8" lined with plastic coated (material) set in a Guiberson UniV or equiv. (brand and model) packer at +/- 4900 feet

(or describe any other casing-tubing seal).

OTHER DATA

1. Name of the injection formation San Andres

2. Name of Field or Pool (if applicable) Spencer

3. Is this a new well drilled for injection? _____ YES __X__ NO

   If no, for what purpose was the well originally drilled? oil producer

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used)

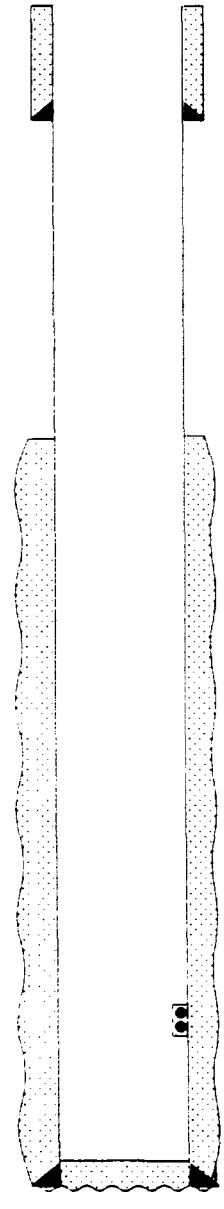
   No

5. Give the depth to and name of any overlying and/or gas zones (pools) in this area.

   No overlying zones above or gas zones below.

MERIDIAN *OIL*

FIELD: Spencer (San Andres) DATE SPUD: 10/4/69 COMP: 10/26/69
LEASE: STATE DS WELL NO. 4 ELEVATION: 3,808' G.L.
LOCATION: 1,980' FSL & 660' FWL; SEC. 24, T-17-S, R-36-E
Lea County, New Mexico



8 5/8", 24# @ 326'
CEMENT W/ 215 sx
TOC: SURFACE (Circ.)
In 12-1/4" Hole

TOC @ 3,440' by temp. survey

San Andres Perfs:
4,964'-94'

5 1/2", 14# @ 5,035'
Cement w/ 300 sx "C"
In 7 7/8" Hole

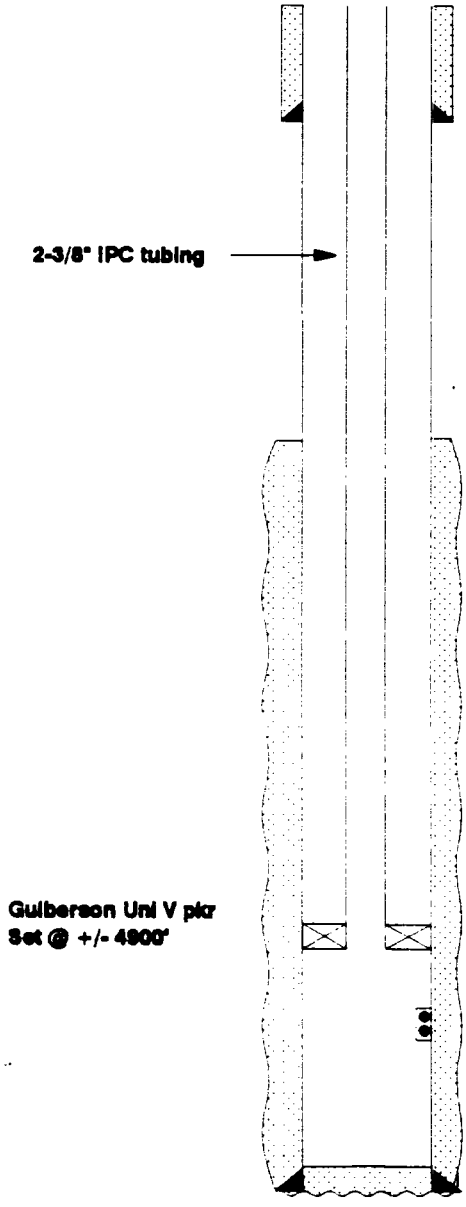
CURRENT CONFIGURATION

TD: 5,035'
PBTD: 5,014'

JRG/DS4
08/25/93

MERIDIAN *OIL*

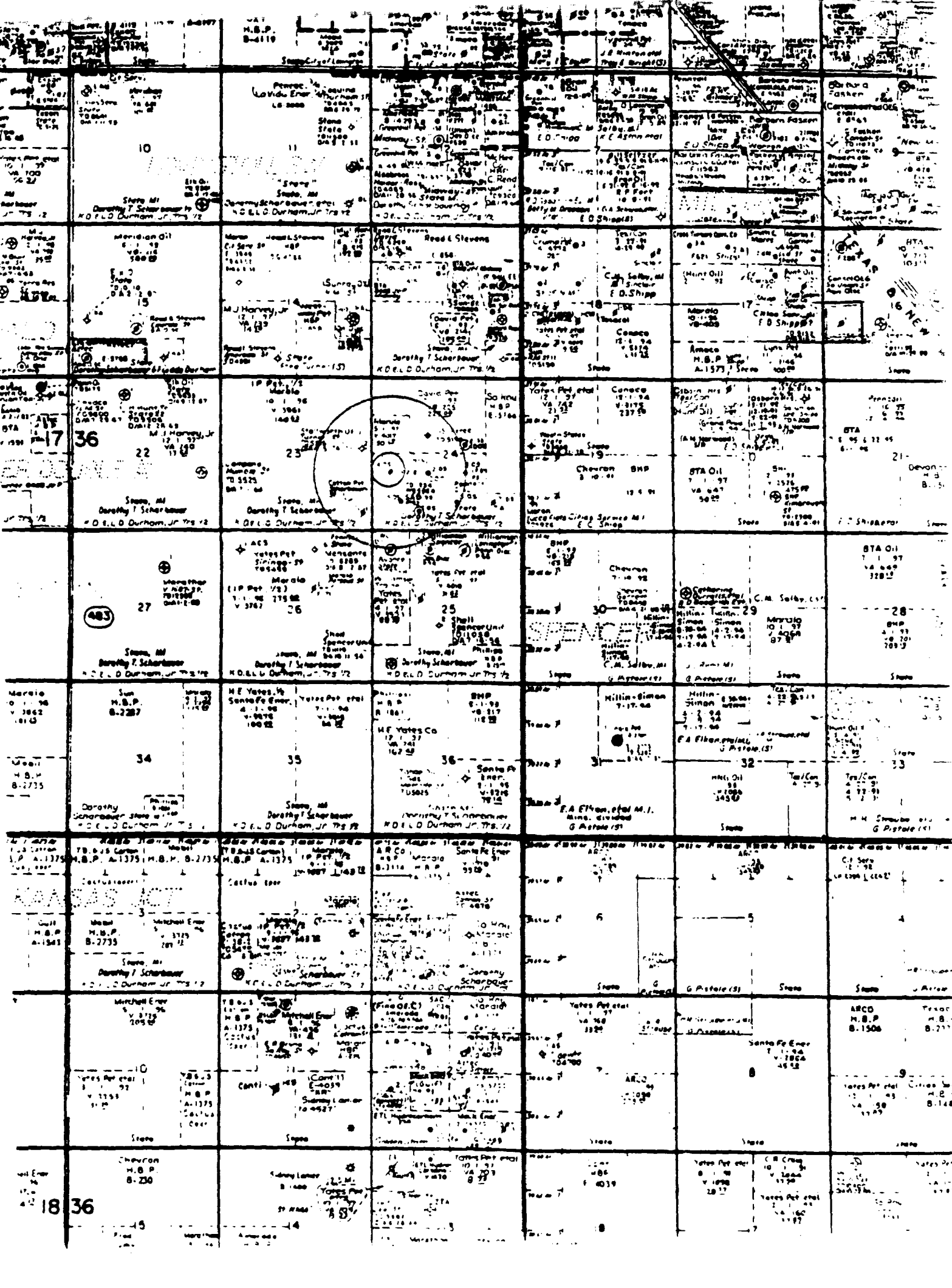
FIELD: Spencer (San Andres) DATE SPUD: 10/4/69 COMP: 10/26/69
LEASE: STATE DS WELL NO. 4 ELEVATION: 3,908' G.L.
LOCATION: 1,980' FSL & 660' FWL; SEC. 24, T-17-S, R-36-E
Lea County, New Mexico



PROPOSED CONFIGURATION

TD: 5,035'
PBTD: 5,014'

JRG/DS4
04/25/95



P. O. BOX 1468
MONAHANS, TEXAS 79756
PH. 943-3234 OR 563-1040

Martin Water Laboratories, Inc.

709 W. INDIANA
MIDLAND, TEXAS 79701
PHONE 683-4521

RESULT OF WATER ANALYSES

TO: Ms. Karen Burns
P. O. Box 51810, Midland, TX 79710

LABORATORY NO. 9939
SAMPLE RECEIVED 9-3-93
RESULTS REPORTED 9-3-93

COMPANY Meridian Oil Company LEASE State "DS"
FIELD OR POOL
SECTION ____ BLOCK ____ SURVEY ____ COUNTY Lea STATE NM
SOURCE OF SAMPLE AND DATE TAKEN:
NO. 1 Produced water - taken from State "DS".
NO. 2 Raw water - taken from windmill #1.
NO. 3
NO. 4

REMARKS: 1. San Andres

CHEMICAL AND PHYSICAL PROPERTIES

	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0121	1.0017		
pH When Sampled				
pH When Received	6.80	7.52		
Bicarbonate as HCO_3	1,684	220		
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	3,850	238		
Calcium as Ca	1,010	81		
Magnesium as Mg	322	9		
Sodium and/or Potassium	3,517	19		
Sulfate as SO_4	579	54		
Chloride as Cl	6,747	31		
Iron as Fe	2.2	1.1		
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	13,858	413		
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen,				
Hydrogen Sulfide	954	0.0		
Resistivity, ohms/m at 77° F.	0.540	22.0		
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				
Total Dissolved Solids @ 180°C.	13,100	396		

Results Reported As Milligrams Per Liter

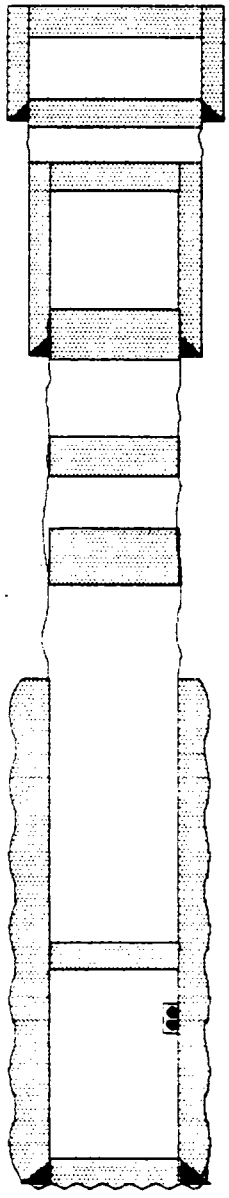
Additional Determinations And Remarks: The undersigned certifies the above to be true and correct to the best of his knowledge and belief.

Form No. 3

By _____
Waylan C. Martin, M.A.

TEXAS CRUDE INC.

FIELD: SPENCER (DEVONIAN) DATE SPUD: 11/24/72 COMP: 12/1/72
LEASE: C.W. TRAINER 25 STATE WELL NO. 1 ELEVATION: 3,806' G.L.
LOCATION: 660' FNL & 660' FWL; SEC. 25, T-13-S, R-32-E
Lea County, New Mexico



10 sx plug @ surf.

50 sx plug 240'-340'

50 sx plug 950'-1050'

40 sx plug 4655'-4790'

40 sx plug 6465'-5600'

40 sx plug 6455-6600'

DEEPEST PLUGS UNKNOWN

13 3/8" @ 338'
CEMENT W/ 400 sx
TOC: SURFACE (Calc.)
In 17-1/2" Hole (assumed)

8-5/8" CASING CUT & PULLED @ 1020'

8 5/8" @ 4,791'
CEMENT W/ 300 SX, TOC @ 3234' (CALC.)
In 11" hole (assumed)

CUT AND PULL CSG @ UNKNOWN

WOLFCAMP PERFS:
9,949-51'

4 1/2" @ 10,157'
300 sx
TOC @ 8,419' (Calc.)
In 7 7/8" Hole (assumed)

CURRENT CONFIGURATION

TD: 10,157'

JRG/TXCRD1
09/21/93

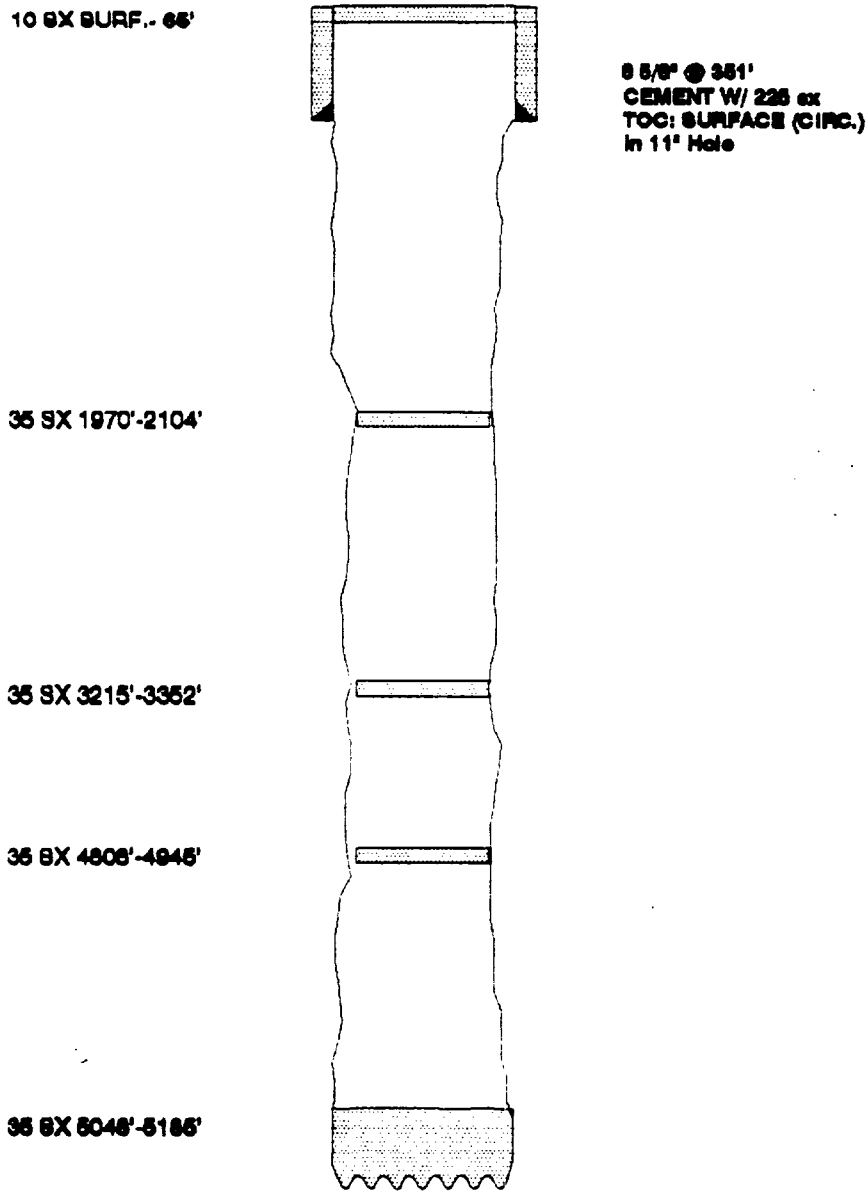
STALLWORTH OIL & GAS

FIELD: Spencer (San Andres) DATE SPUD: 3/18/74 COMP: 4/8/74

LEASE: TURNER STATE WELL NO. 2 ELEVATION: 3,814' G.L.

LOCATION: 2310' FNL & 330' FEL; SEC. 23, T-17-S, R-36-E

Lea County, New Mexico



CURRENT CONFIGURATION

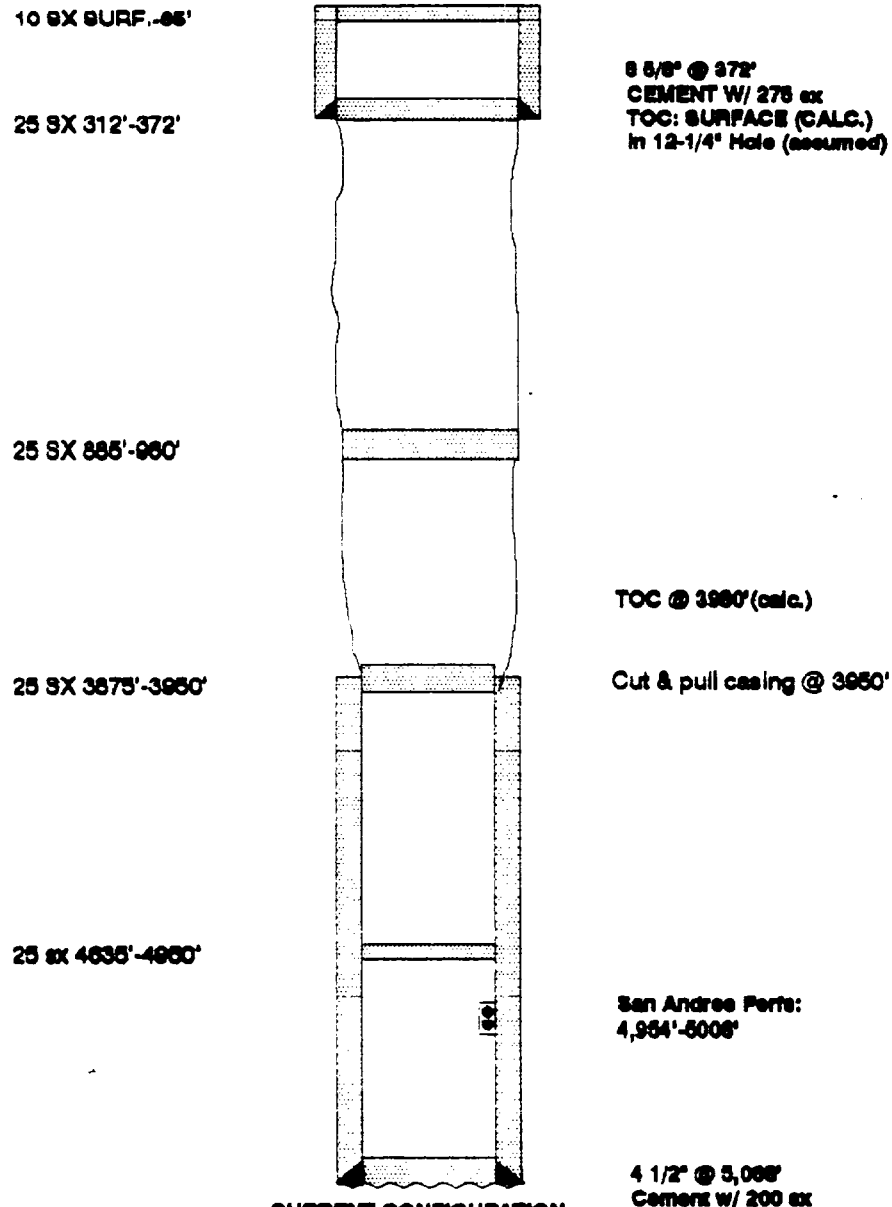
In 7 7/8" Hole

TD: 5,185'

JRG/TURST1
09/21/89

AVANCE OIL & GAS

FIELD: Spencer (San Andres) DATE SPUD: 12/1/69 COMP: 2/2/70
LEASE: STATE 25 WELL NO. 2 ELEVATION: 3,805' G.L.
LOCATION: 330' FNL & 1650' FWL; SEC. 25, T-17-S, R-36-E
Lea County, New Mexico



JRG/AV1
09/21/93

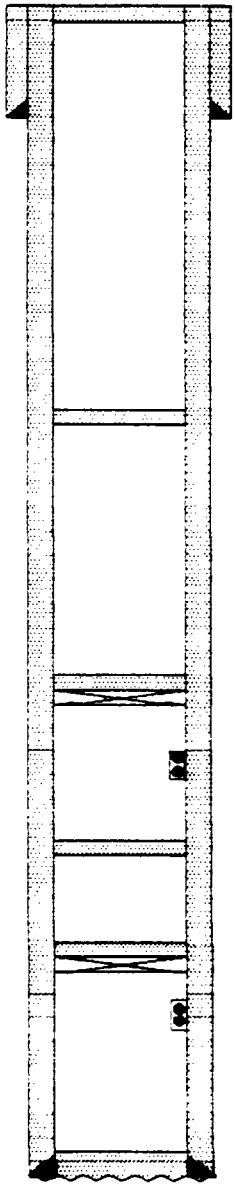
COTTON PETROLEUM

FIELD: Spencer (San Andres) - DATE SPUD: 1/13/81 COMP: 5/20/81

LEASE: SCHARBAUER STATE WELL NO. 1 ELEVATION: 3,814' G.L.

LOCATION: 660' FSL & 330' FEL; SEC. 23, T-17-S, R-36-E

Lea County, New Mexico



10 SX SURF.-65'

8 5/8" @ 365'
CEMENT W/ 180 sx
TOC: SURFACE (CALC.)
in 12-1/4" Hole (assumed)

20 SX 1900'-2000'

TOC @ surface (calc.)

CIBP @ 3180' + 5 SX

YATES PERFS
3200'-46'

20 SX 3400'-3500'

CIBP @ 4690' + 5 SX

San Andres Perfs:
4,952'-60'

5 1/2" @ 5,140'
Cement w/ 1270 sx
in 7 7/8" Hole (assumed)

CURRENT CONFIGURATION

TD: 5,140'

JRG/SCHITT
09/21/95

Welex

ACOUSTIC VELOCITY LOG

COMPANY AZTEC OIL & Gas Company

WELL STATE DS NO. 4

FIELD ~~UNDESIGNATED~~ Spencer (SA)

COUNTY LEA STATE New Mexico

COMPANY / WELL / FIELD / County / State

Location

Sec. 24 Twp 17-S Rge 36-E

Other Services:

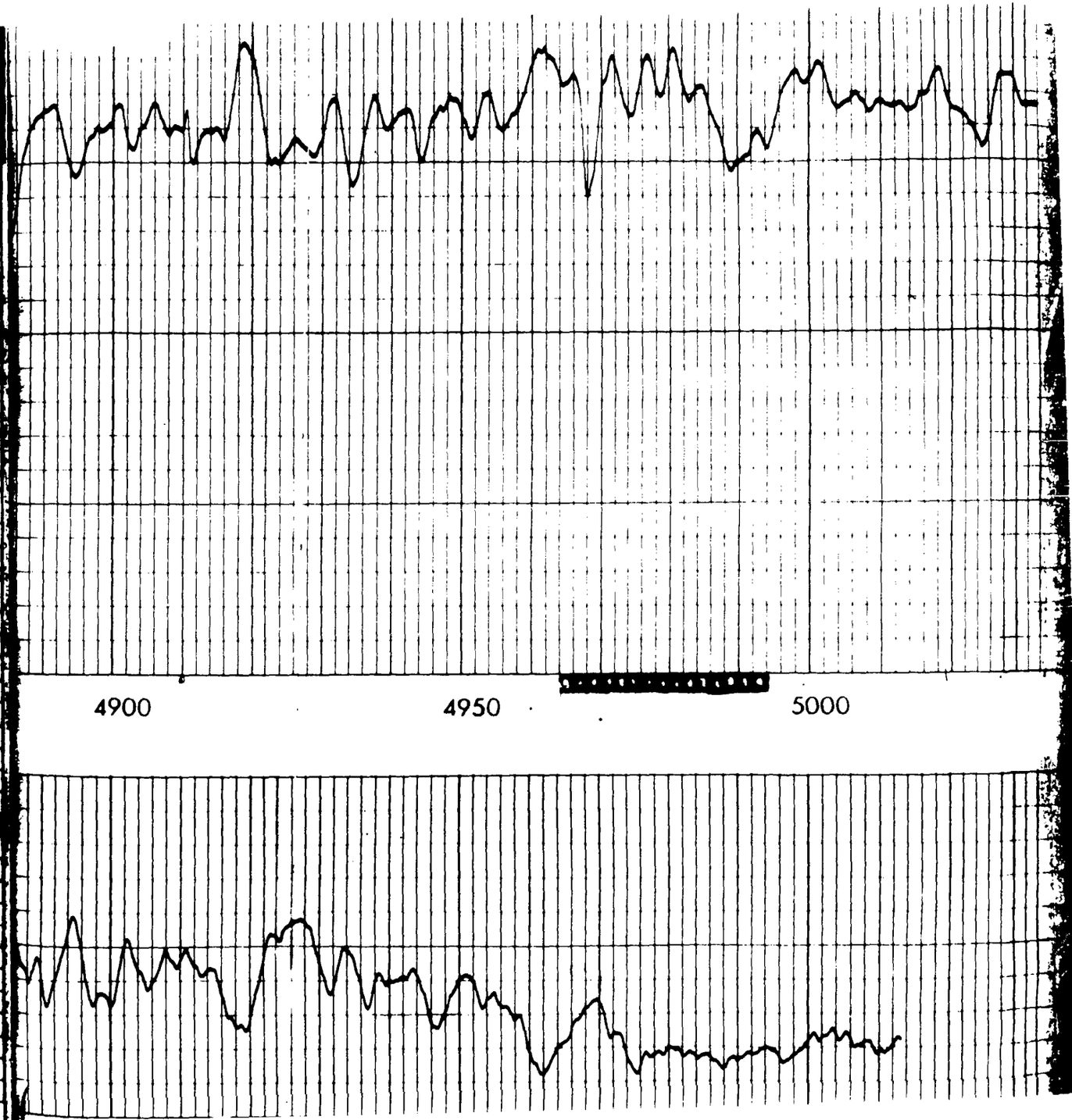
Permanent Datum GROUND Level Elev. 3808.4

Log Measured From KB 11' Ft. Above Perm. Datum

Drilling Measured From Kelly Bushing

Elev.: K B 3819.4
D.F. 3818.4
G.L. 3808.4

Date	10-11a-69			
Run No.	ONE			
Depth–Driller	5035			
Depth–Welex	5035			
Btm. Log Inter.	5031			
Top Log Inter.	SURF			
Casing–Driller	321a @ 8 5/8	@	@	@
Casing–Welex				
Bit Size	7 7/8			
Type Fluid in Hole	MUD			
Dens. / Visc.	10.2 / 46	/	/	/
pH / Fluid Loss	11a.1a ml	/ ml	/ ml	/ ml
Source of Sample				
R_m @ Meas. Temp.	@ °F	@ °F	@ °F	@ °F
R_{mf} @ Meas. Temp.	@ °F	@ °F	@ °F	@ °F
R_{mc} @ Meas. Temp.	@ °F	@ °F	@ °F	@ °F
Source R_{mf} / R_{mc}	/	/	/	/
R_m @ BHT	@ °F	@ °F	@ °F	@ °F
Time Since Circ.				
Max. Rec. Temp.	°F @	°F @	°F @	°F @
Equip. / Location	8444 / Hobbs	/	/	/
Recorded By	B. N. STRAND			
Witnessed By				



MERIDIAN OIL

November 22, 1993

Oil Conservation Division
P. O. Box 2088
State Land Office Building
Santa Fe, New Mexico 87504-2088

RE: **Application for Authorization to Inject**
Southland Royalty Company
State DS No. 4
Spencer San Andres Field
Unit L, Section 24, T17S, R36E
Lea County, New Mexico
State Lease No.: L-200

Case 10891

Gentlemen:

Southland Royalty Company (SRC) is applying for authorization to convert the above referenced well for the purpose of secondary recovery and requests a hearing on the earliest possible docket for an initial secondary recovery project on this lease. At this time, SRC is also applying for the "recovered oil tax rate" (reduced oil severance tax rate) since this will be a new enhanced recovery project. Attached is an injection well data sheet showing the current and proposed mechanical configuration of this well. A map is also attached showing the one-half mile area of review around the well. The required information from "Form C-108" follows.

The proposed injection well will dispose of water produced from Southland Royalty leases from the San Andres in the Spencer Field. Our estimated initial injection rate will be 500 BPD. The estimated maximum rate is 1000 BPD. We anticipate initial injection pressure to be ±500 psi, and request an operating maximum pressure of 1000 psi. The closed injection facilities will be equipped with high and low level head switches and will not operate continuously. No deeper aquifers containing usable quality water are known in this area.

III. Well Data

A. 1 through 4. See two attached well data sheets; the first is the existing data; the second is the proposed recompletion data.

1) The proposed well:
State DS No. 4
Unit L, 1980' FSL, 660' FWL
Sec. 24, T17S, R36E
Lea County, New Mexico
Lease No.: L-200

P.O. Box 51810, Midland, Texas 79710-1810, Telephone 915-688-6800
3300 N. "A" St., Bldg. 6, 79705-5406

2) Surface: 8 5/8", 24# @ 326' in 12-1/4" hole
cement with 215 sx. TOC = Circ. to Surface

Production: 5-1/2", 14# @ 5,035' in 7-7/8" hole
cement with 300 sx. TOC = 3440' by temperature survey

3) Injection Tubing: 2-3/8", 4.7#, internally plastic coated set @ ±4900'.

4) Packer: Guiberson UniV, retrievable, internally and externally plastic coated set at ±4900"

B. 1) Injection Formation: San Andres

2) Injection Interval: Perforated from: 4964' - 4994'.

3) The well was originally drilled for production of oil and gas

4) There will be no other open intervals in this injection well

5) The next possible higher oil or gas zone is the Queen located at approximately 4159'. The next possible lower oil or gas zone is a Paddock located at approximately 6600'.

IV. This is not an expansion of an existing Southland Royalty project.

V. Area of Review: See attached plat, one-half mile radius identified

VI. Tabulation of data: Wells within area of review.

Southland Royalty Co., State DS No. 4
Unit L, Sec.24, T17S, R36E, Lea Co. NM
Spud 10/4/69, TD 5035'
8-5/8" @ 326' w/ 215 sx, circulated
5-1/2" @ 5035' w/ 300 sx, TOC @ 3440 by TS
perfed 4964-94', acidize w/ 1000 gal 15% NE acid
completed 10/26/69 for 248 BOPD + 0 BWPD + 84 MCFD

Southland Royalty Co., State DS No. 2
Unit K, Sec.24, T17S, R36E, Lea Co. NM
Spud 8/4/69, TD 5100'
8-5/8" @ 323' w/ 215 sx, circulated
5-1/2" @ 5099' w/ 465 sx, TOC @ 3240' by TS
perfed 4944-5008', acidize w/ 1000 gal 15% NE acid
completed 8/22/69 for 216 BOPD + 0 BWPD + 130 MCFD

Southland Royalty Co., State DS No. 3
Unit J, Sec.24, T17S, R36E, Lea Co. NM
Spud 9/11/69, TD 5061'
8-5/8" @ 331' w/ 225 sx, circulated
5-1/2" @ 5050' w/ 325 sx, TOC @ 3510' by TS

perfed 5004-14', acidized 500 gal, squeeze w/ 50 sx
perfed 4925-66', acidized w/ 500 gal
completed 10/20/69 for 78 BOPD + 8 BWPD + 0 MCFD
deepen to 6794', set 3-1/2" liner 4985 - 6794' w/ 175 sx.
TOC @ 5050' by TS, squeeze liner top w/ 150 sx
perf 6653-77, acidize w/ 1500 gal, squeeze w/ 50 sx.
perf 6414-24, acidize w/ 1000 gal, squeeze w/ 50 sx
perf 6558-80', acidize w/ 2500 gal, squeeze w/ 50 sx
perf 5360-75', acidize w/ 500 gal, squeeze w/ 50 sx
perf 4932-66', acidize w/ 500 gal, squeeze w/ 75 sx
perf 6476-6680', acidize w/ 2000 gal, frac w/ 30,000 gal + 30,000 lbs
completed 9/21/74 5 BO + 0 BW + 0 MCFD

Southland Royalty Co., State DS No. 1
Unit N, Sec.24, T17S, R36E, Lea Co., NM
Spud 5/19/69 TD 11,253'
13-3/8" @ 361' w/ 350 sx, circulated
8-5/8" @ 5300' w/ 460 sx, TOC calc @ 2911' (11" hole, 1.32 cu.ft/sx)
spot 35 sx plug @ 11,210' Devonian
spot 25 sx plug @ 9,750' Penn
spot 25 sx plug @ 8,850' Abo
spot 25 sx plug @ 6,200' Glorieta
set CIBP @ 5,230' + 1sx cement
perf 5186-90', acidize w/ 250 gal, squeeze w/ 30 sx
perf 5130-42', acidize w/ 500 gal, squeeze w/ 71 sx
perf 5080-90', acidize w/ 500 gal, squeeze w/ 75 sx
perf 4988-5030', acidize w/ 1000 gal
completed 7/21/69 for 192 BOPD + 0 BWPD + 124 MCFD
squeeze perf 4988-5030' w/ 406 sx
perf 4948-94', acidize w/ 500 gal, set CIBP @ 4930'.

Southland Royalty Co., State DS No. 5
Unit M, Sec.24, T17S, R36E, Lea Co. NM
Spud 12/13/69, TD 5060'
8-5/8" @ 340' w/ 220 sx circulated
5-1/2" @ 5060' w/ 300 sx, TOC @ 3460' by TS
perf 5006-10', acidize w/ 1000 gal
completed 12/31/69 for 230 BOPD + 0 BWPD + 96 MCFD
squeeze perfs 5006-10' w/ 200 sx
perfed 4980-94', acidize w/ 1000 gal, squeeze w/ 50 sx
perfed 4934-72', acidize w/ 2500 gal.

Southland Royalty Co., State DS No. 6
Unit O, Sec.24, T17S, R36E, Lea Co., NM
Spud 12/26/69, TD 5060'
8-5/8" @ 332' w/ 215 sx, circulated
5-1/2" @ 5050' w/ 300 sx, TOC @ 3521' by TS
perf 4980-88', acidize w/ 1634 gal
completed 1/10/70 for 480 BOPD + 0 BWPD + 0 MCFD

squeeze perfs 4940-88' w/ 200 sx
perfed 4890-4956', acid w/ 500 gal

Southland Royalty Co., State SS No. 1
Unit F, Sec.24, T17S, R36E, Lea Co.,NM
Spud 8/21/69, TD 5150'
8-5/8" @ 332' w/ 225 sx, circulated
5-1/2" @ 5150' w/ 390 sx, TOC @ 3360' by TS
perfed 5112-16', acid w/ 500 gal, squeeze w/ 12 sx
perfed 5067-78', acid w/ 1000 gal, squeeze w/ 75 sx
perfed 5032-48', acid w/ 1000 gal, squeeze w/ 100 sx
perfed 4166-90', acidize w/ 2000 gal, squeeze w/ 150 sx
perfed 3928-50', acidize w/ 1000 gal, squeeze w/ 150 sx
perfed 5112-32, acidize w/ 4000 gal
completed 1/15/70 as an SWD well
Acidize w/ 1000 gal, Acidize w/ 1500 gal.

Stallworth Oil and Gas Turner State No. 2
Unit H, Sec. 23, T17S, R36E, Lea Co., NM
Spud 3/17/74, TD 5185'
8-5/8" @ 351' w/ 225 sx, TOC calc @ surface (12-1/4" hole, 1.32 cu.ft/sx)
35 sx plug @ 5185', 35 sx plug @ 4945'
35 sx plug @ 2104', 10 sx plug @ surf
P&A 4/20/74

Cotton Petroleum Co. Scharbauer State No. 1
Unit P, sec. 23, T17S, R36E, Lea Co., NM
Spud 1/13/81, TD 5140'
8-5/8" @ 365' w/ 180 sx, TOC calc @ surface (12-1/4" hole, 1.32 cu.ft/sx)
5-1/2" @ 5140' w/ 1270 sx, TOC calc @ surface (7-7/8" hole, 1.32cu.ft/sx)
perfed 5086-96', acidize w/ 750 gal, set CIBP @ 5050'
perfed 4975 - 5030', acidize w/ 750 gal, set CIBP @ 5010'
perfed 4952-60', squeeze w/ 300 sx
re-perf 4952-60', acidize w/ 750 gal
completed 5/20/81 for 10 BOPD + 16 BWPD + 4 MCFD
set CIBP @ 4980', perfed 3200 - 46', acidize w/ 500 gal
20 sx plug 3400 - 3500', set CIBP @ 3180' + 5 sx
20 sx plug 1900 - 2000', 10 sx plug @ surface

Avance Oil & Gas Co. State 25 No. 2
Unit C, sec.25, T 17S, R36E, Lea Co. NM
Spud 12/1/69, TD 5068'
8-5/8' @ 372' w/ 275 sx, TOC calc @ surface (12-1/4" hole, 1.32 cu.ft/sx)
4-1/2" @ 5067' w/ 200 sx. TOC @ 3980' (7-7/8" hole, 1.32cu.ft/sx)
perf 4954-5006', Acidize w/ 3000 gal
cut and pull csg @ 3950',. 25 sx plug 4635-4950'
25 sx plug 3875-3950', 25 sx plug 885-960'
25 sx plug 312-372', 10 sx plug @ surf.

Texas Crude, Inc., C. W. Trainer 25 State No. 1
formerly Pennzoil Company State 25 No. 1
Unit D, sec. 25, T17S, R36E, Lea Co., NM
re-entered 12/1/72, TD 11,305'
ran DSTs 6645-7010'
40 sx plug 6455-6600', 40 sx plug 5465'-5600'
40 sx plug 4655-4790', cut and pull 8-5/8" csg @ 1020'.
50 sx plug 950-1050', 50 sx plug 240'-340',
10 sx plug @ surface

VII. Proposed Operation:

1. Estimated average initial injection rate is 500 BWPD.
   Estimated maximum daily rate 1000 BPD.

2. This will be a closed system.

3. Estimated average injection pressure is 500 psi. Maximum estimated operating pressure is 1000 psi.

4. The source of the injected water is the produced water from the San Andres. Since produced water is being re-injected into the San Andres, no incompatibility is expected. See attached water analysis

5. Water injection will be into a zone currently productive of oil and gas.

VIII. Geological Data

The proposed zone for injection is the San Andres formation at 4900'. This Permian Age reservoir is an anticlinal structure composed of nearly 100% dolomite containing some oolites, fractures and anhydritic inclusions. The average porosity throughout the reservoir runs 6.1% though most of it comes in the form of secondary porosity (vugs and fractures). The San Andres in this area can average over 800 in gross thickness. Since an oil/water contact does exist in the reservoir, the net thickness averages approximately 70'.

There are no known underlying sources of potable water below the San Andres. The only fresh water sources located above are from an approximate depth of 100-150'.

IX. Proposed Stimulation

The proposed stimulation program is a 3000 gallon treatment of 15% NEFE HCl acid.

X. Log Data

Log section is attached with proposed interval indicated.

XI. Fresh Water Analysis

The only fresh well found within 1 mile of the proposed injection well was located in Unit D, Sec.25, T17S, R36E of Lea County, NM. A sample was taken from the well on 9/3/93 with the analysis herein attached.

XII. Hydrologic Communication

There is no known evidence of faulting or other hydrologic communication between potential fresh water aquifers and the desired injection zone.

XIII. Proof of Notice

The offset operators and surface owner were notified by certified return receipts on November 22, 1993.

Proof of Notice is attached.

XIV. Certification

Certification is on Form C-108.

If you need any additional information or if you have any questions, please contact M.P. Gaddis at 915/688-6850.

Sincerely,

M.P. Gaddis
Sr. Staff Engineer

MPG/mp
enclosures

xc: OCD-Hobbs
Hobbs Field Office
Well File
Land Dept.
Production Engineering
Reservoir Engineering
Joint Interest
Maria Perez (6)

State DS No. 4
Unit L, Sec. 24, T17S, R36E
Lea County, New Mexico
Southland Royalty Company

The following Offset Operators, Surface Owners and Mineral Interest Owners within open areas, within a one-half mile radius were notified by certified return receipt on November 22, 1993:

Maralo, Inc.
Five Post Oak Park
Suite 1010
Houston, TX 77027

Yates Petroleum Corp.
105 South 4th Street
Artesia, NM 88210

Ken McPeters
P. O. Box 1860
Hobbs, NM 88240

Howell Spears
P. O. Box 4246
Gulfport, MS 39501

Elbert Damon Shipp
& Suzy Laverne Shipp
1104 Ave. J. West
Lovington, NM 88260

Cross Timbers Oil Co. L.P.
810 Houston St., Ste. 2000
Fort Worth, TX 76102

Marshall & Winston, Inc.
P. O. Box 50880
Midland, TX 79710

Oxy USA, Inc.
P. O. Box 50250
Midland, TX 79710

E. L. Latham Co.
P. O. Box 1392
Hobbs, NM 88241

Roy G. Barton & Opal
Barton Revocable Trust
Roy G. Barton, Jr, Trustee
P. O. Box 978
Hobbs, NM 88241,

Alan Jochimsen
2402 Cimmaron
Midland, TX 79705

James Ronald Ewing
700 East 9th St., Apt. 11K
Little Rock, AR 72202

Norma Barton
P. O. Box 729
Hobbs, NM 88240

John T. Stallings
P. O. Box 685
Creedmor, NC

The Moran Partnership
1000 E. Walker Drive
Hobbs, NM 88241

Roy G. Barton, Jr.
P. O. Box 978
Hobbs, NM 88241

Charles Doornbas, Trustee
Charles F. Doornbas
Revocable Trust
P. O. Box 639
Bartlesville, OK 74005

The Bevridge Co.
P. O. Box 993
Midland, TX 79702

<u>Surface Owner</u>

Dorothy T. Scharbauer
P. O. Box 1471
Midland, Texas 79702

<u>Newspaper</u>

Hobbs News Sun
201 N. Thorp
Hobbs, NM 88241
(505) 393-2123

AFFIDAVIT OF PUBLICATION

RECEIVED

OCT 25 1993

PROD. SERV.

State of New Mexico,
County of Lea.

I, Kathi Bearden

General Manager

of the Hobbs Daily News-Sun, a daily 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 _____

one weeks.
Beginning with the issue dated

October 20, 1993
and ending with the issue dated

October 20, 1993

Kathi Bearden
General Manager
Sworn and subscribed to before

me this 21 day of

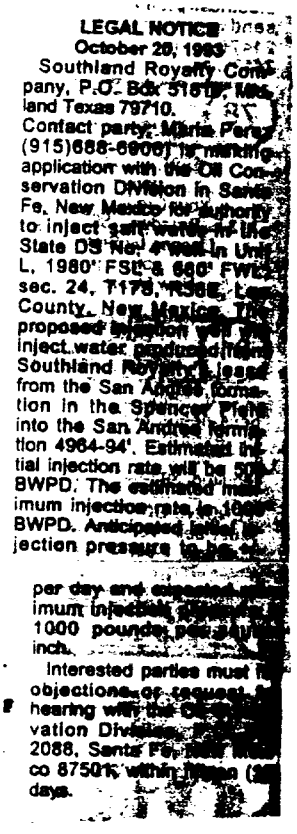
October, 1993

Notary Public.

My Commission expires
March 15, 1997
(Seal)

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

Hobbs Daily News-Sun
P.O. Box 860
Hobbs, New Mexico 88241-0860



LEGAL NOTICE
October 20, 1993

Southland Royalty Company, P.O. Box 51571, Midland Texas 79710.

Contact party: Maria Perez (915)686-6906) is making application with the Oil Conservation Division in Santa Fe, New Mexico for authority to inject salt water in the State DS No. 1 well in Unit L, 1980' FSL & 660' FWL, sec. 24, T17S, R36E, Lea County, New Mexico. The proposed injection will inject water produced from Southland Royalty's lease from the San Andres formation in the Spencer Field into the San Andres formation 4964-94'. Estimated initial injection rate will be 500 BWPD. The estimated maximum injection rate is 1000 BWPD. Anticipated initial injection pressure to be

per day and expected maximum injection pressure 1000 pounds per square inch.

Interested parties must file objections or request for hearing with the Oil Conservation Division, P.O. Box 2088, Santa Fe, New Mexico 87501, within fifteen (15) days.

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION
POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501

FORM C-108
Revised 7-1-81

Case 10891

APPLICATION FOR AUTHORIZATION TO INJECT

I. Purpose: [X] Secondary Recovery [ ] Pressure Maintenance [ ] Disposal [ ] Storage
Application qualifies for administrative approval? [ ] yes [X] no

II. Operator: Southland Royalty Company

Address: P.O. Box 51810 Midland, Texas 79710

Contact party: Maria L. Perez, Prod. Asst. Phone: 915-688-6906

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 [X] 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 source 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: M. P. Gaddis Title Sr. Staff Engineer

Signature: M P Gaddis Date: 11/22/93

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

DISTRIBUTION: ORIGINAL + 2 COPIES

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 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, P. O. Box 2088, Santa Fe, New Mexico 87501 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.

INJECTION WELL DATA SHEET

SIDE 1

OPERATOR		LEASE		
Southland Royalty Company		State DS		
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE
4	1980' FSL, 660' FWL	24	17-S	36-E

Schematic

See Attached Diagram

Tubular Data

Surface Casing

Size 8-5/8" Cemented with 215 sx.

TOC surface feet determined by circulation

Hole size 12-1/4"

Intermediate Casing

Size _____" Cemented with _____ sx.

TOC _____ feet determined by _____

Hole size _____

Long String

Size 5-1/2" Cemented with 300 sx.

TOC 3440' feet determined by temp. survey

Hole size 7-7/8"

Total Depth 5035'

Injection Interval

4964 feet to 4994 feet

(perforated or ~~open-hole~~, indicate which)

4964
2
4994.

INJECTION WELL DATA SHEET

SIDE 2

Tubing size 2-3/8" lined with plastic coated (material) set in a Guiberson UniV or equiv. (brand and model) packer at +/- 4900 feet
(or describe any other casing-tubing seal).

OTHER DATA

1. Name of the injection formation San Andres

2. Name of Field or Pool (if applicable) Spencer

3. Is this a new well drilled for injection? _____ YES __X__ NO

   If no, for what purpose was the well originally drilled? oil producer

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used)

   No

5. Give the depth to and name of any overlying and/or gas zones (pools) in this area.

   No overlying zones above or gas zones below.

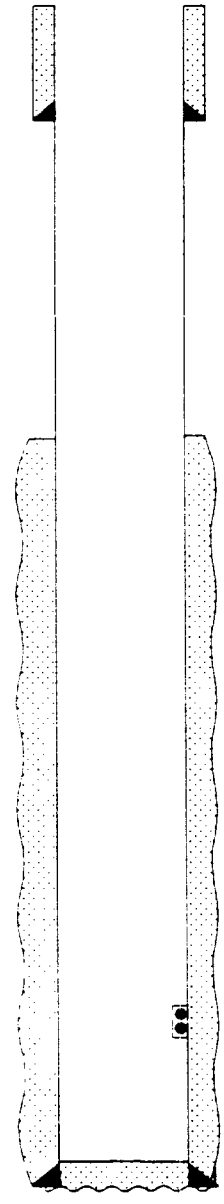
MERIDIAN *OIL*

FIELD: Spencer (San Andres) DATE SPUD: 10/4/69 COMP: 10/26/69

LEASE: STATE DS WELL NO. 4 ELEVATION: 3,808' G.L.

LOCATION: 1,980' FSL & 660' FWL; SEC. 24, T-17-S, R-36-E

Lea County, New Mexico



8 5/8", 24# @ 326'
CEMENT W/ 215 sx
TOC: SURFACE (Circ.)
In 12-1/4" Hole

TOC @ 3,440' by temp. survey

San Andres Perfs:
4,964'-84'

5 1/2", 14# @ 5,035'
Cement w/ 300 sx "C"
In 7 7/8" Hole

CURRENT CONFIGURATION

TD: 5,035'
PBTD: 5,014'

JBG/DS4
06/25/99

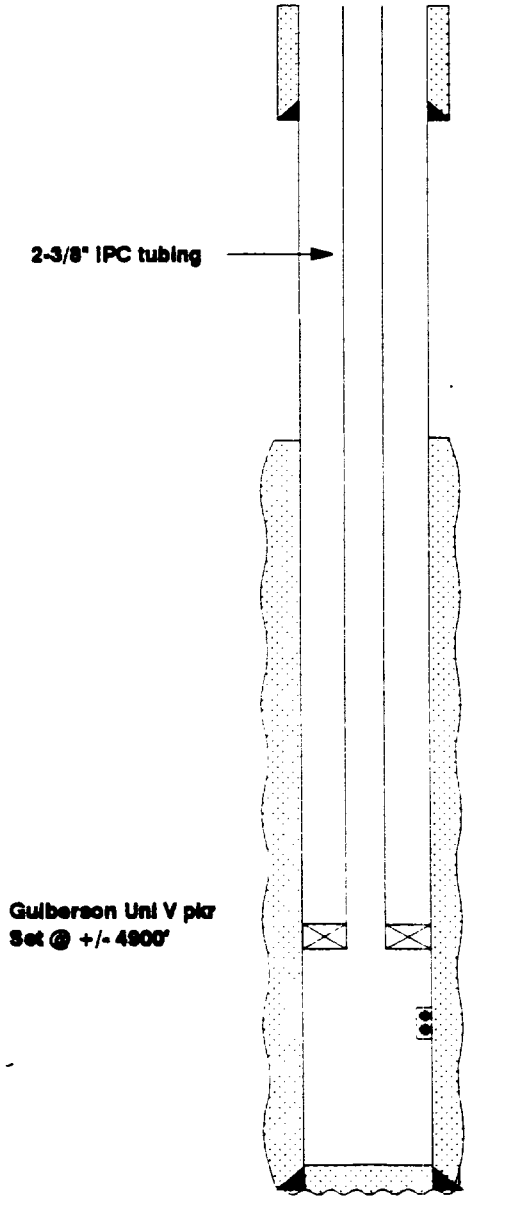
MERIDIAN *OIL*

FIELD: Spencer (San Andres) DATE SPUD: 10/4/69 COMP: 10/26/69

LEASE: STATE DS WELL NO. 4 ELEVATION: 3,808' G.L.

LOCATION: 1,980' FSL & 660' FWL; SEC. 24, T-17-S, R-36-E

Lea County, New Mexico



8 5/8", 24# @ 326'
CEMENT W/ 215 sx
TOC: SURFACE (Circ.)
In 12-1/4" Hole

TOC @ 3,440' by temp. survey

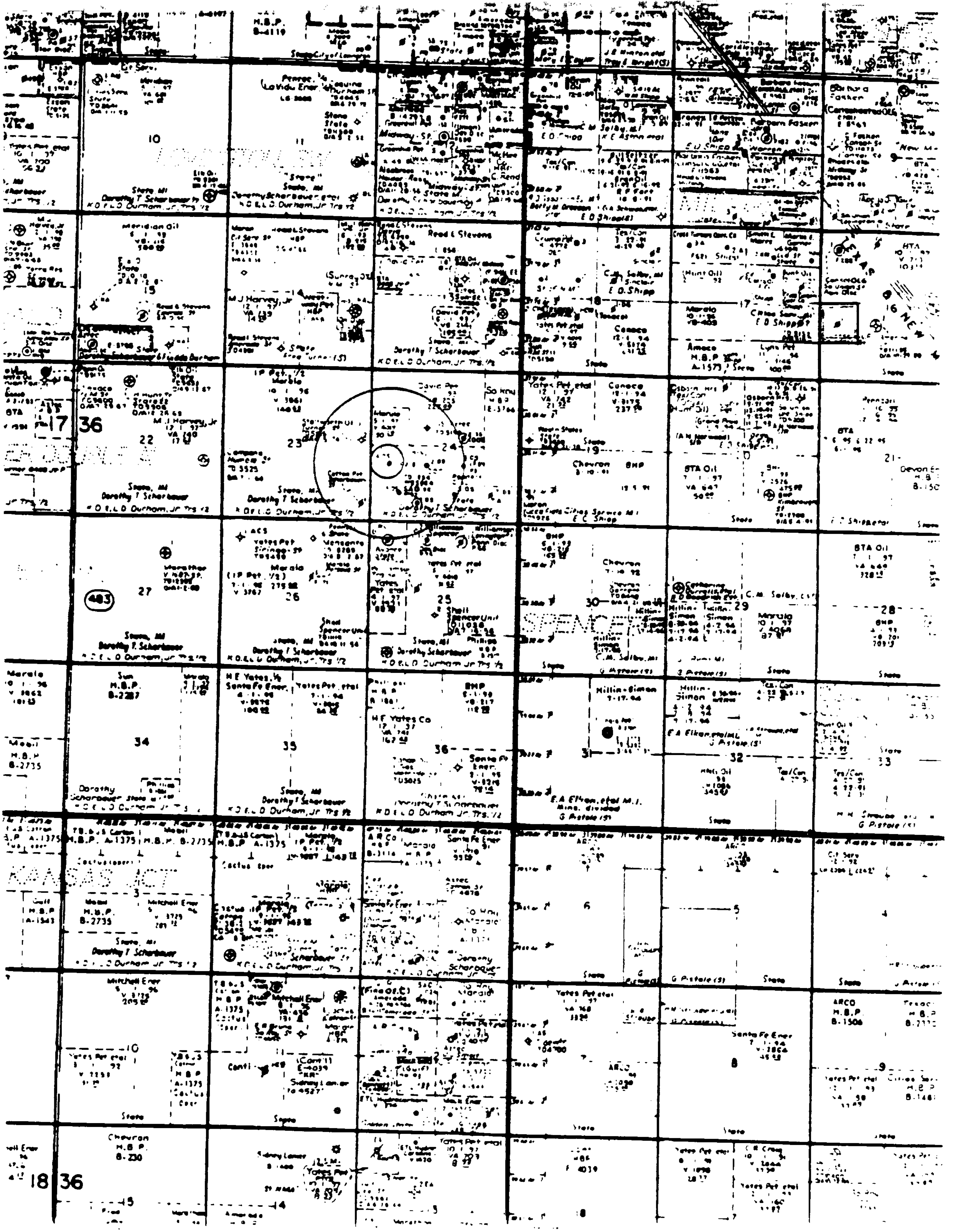
San Andres Perfs:
4,964'-84'

5 1/2", 14# @ 5,035'
Cement w/ 300 sx "C"
In 7 7/8" Hole

PROPOSED CONFIGURATION

TD: 5,035'
PBTD: 5,014'

JRG/DS4
08/25/93



Meridian Oil
Read & Stevens
M J Harvey, Jr
Dorothy T Scharbauer
K D & L D Durham, Jr Trs 1/2
Chevron
Conoco
Amoco
BTA Oil
Marathon
Shell Spencer Unit
H E Yates Co
Santa Fe Ener
Mitchell Ener
Sidney Lanier
Yates Pet etal
E A Elkan, etal M.I.
G Pistole (S)
Millin - Simon
C.M. Selby
Devon En
ARCO
Texaco
Cities Serv
Mobil
Sun
17 36
18 36

P. O. BOX 1468
MONAHANS, TEXAS 79756
PH. 943-3234 OR 563-1040

Martin Water Laboratories, Inc.

709 W. INDIANA
MIDLAND, TEXAS 79701
PHONE 683-4521

RESULT OF WATER ANALYSES

LABORATORY NO. 9939
SAMPLE RECEIVED 9-3-93
RESULTS REPORTED 9-3-93

TO: Ms. Karen Burns
P. O. Box 51810, Midland, TX 79710

COMPANY Meridian Oil Company LEASE State "DS"
FIELD OR POOL
SECTION ____ BLOCK ____ SURVEY ____ COUNTY Lea STATE NM
SOURCE OF SAMPLE AND DATE TAKEN:
NO. 1 Produced water - taken from State "DS".
NO. 2 Raw water - taken from windmill #1.
NO. 3
NO. 4
REMARKS: 1. San Andres

CHEMICAL AND PHYSICAL PROPERTIES

	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0121	1.0017		
pH When Sampled				
pH When Received	6.80	7.52		
Bicarbonate as HCO_3	1,684	220		
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	3,850	238		
Calcium as Ca	1,010	81		
Magnesium as Mg	322	9		
Sodium and/or Potassium	3,517	19		
Sulfate as SO_4	579	54		
Chloride as Cl	6,747	31		
Iron as Fe	2.2	1.1		
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	13,858	413		
Temperature °F				
Carbon Dioxide, Calculated				
Dissolved Oxygen,				
Hydrogen Sulfide	954	0.0		
Resistivity, ohms/m at 77° F.	0.540	22.0		
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				
Total Dissolved Solids @ 180°C.	13,100	396		

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks The undersigned certifies the above to be true and correct to the best of his knowledge and belief.

Form No. 3

By Waylan C. Martin, M.A.

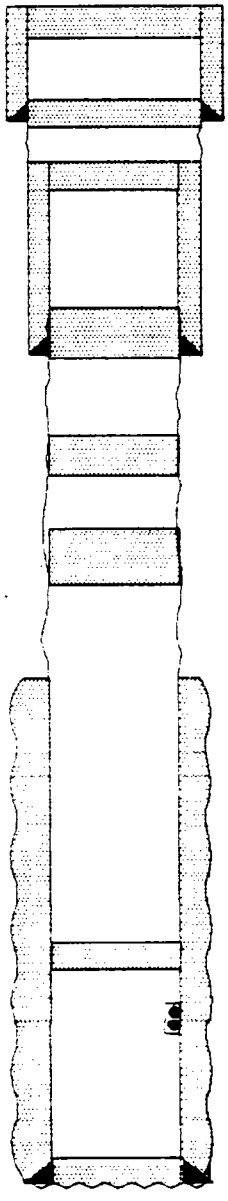
TEXAS CRUDE INC.

FIELD: SPENCER (DEVONIAN) DATE SPUD: 11/24/72 COMP: 12/1/72

LEASE: C.W. TRAINER 26 STATE WELL NO. 1 ELEVATION: 3,906' G.L.

LOCATION: 660' FNL & 660' FWL; SEC. 25, T-12-S, R-32-E

Lea County, New Mexico



10 sx plug @ surf.

50 sx plug 240'-340'

50 sx plug 950'-1050'

40 sx plug 4655'-4790'

40 sx plug 6465'-5600'

40 sx plug 6455-6600'

DEEPEST PLUGS UNKNOWN

13 3/8" @ 338'
CEMENT W/ 400 sx
TOC: SURFACE (Calc.)
in 17-1/2" Hole (assumed)

8-5/8" CASING CUT & PULLED @ 1020'

8 5/8" @ 4,791'
CEMENT W/ 300 SX, TOC @ 3234' (CALC.)
in 11" hole (assumed)

CUT AND PULL CSG @ UNKNOWN

WOLFCAMP PERFS:
9,949-61'

4 1/2" @ 10,157'
300 sx
TOC @ 8,419' (Calc.)
in 7 7/8" Hole (assumed)

CURRENT CONFIGURATION

TD: 10,157'

JRG/TXCRD1
09/21/93

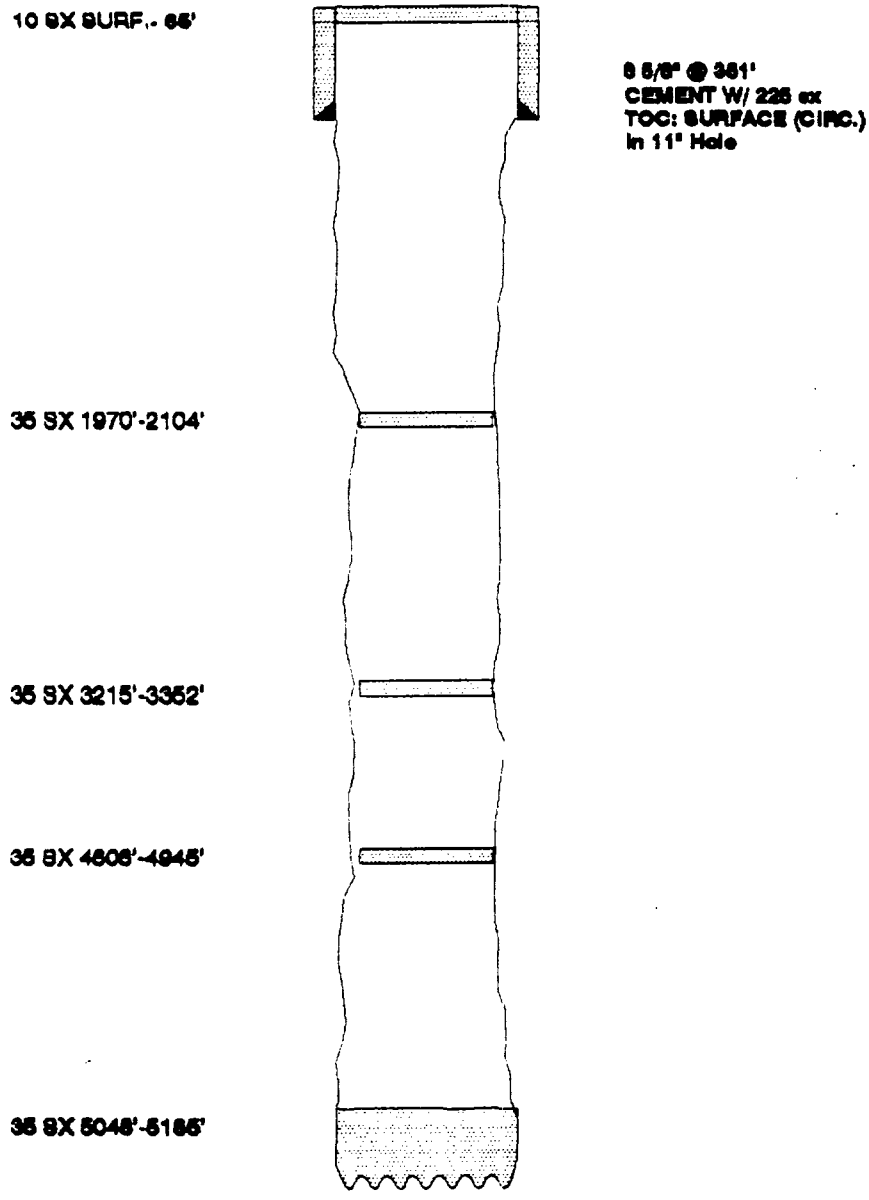
STALLWORTH OIL & GAS

FIELD: Spencer (San Andres) DATE SPUD: 3/18/74 COMP: 4/6/74

LEASE: TURNER STATE WELL NO. 2 ELEVATION: 3,814' G.L.

LOCATION: 2310' FNL & 330' FEL; SEC. 22, T-17-S, R-36-E

Lea County, New Mexico



JRG/TURST1
09/23/93

AVANCE OIL & GAS

FIELD: Spencer (San Andres) DATE SPUD: 12/1/69 COMP: 2/2/70

LEASE: STATE 25 WELL NO. 2 ELEVATION: 3,806' G.L.

LOCATION: 330' FNL & 1650' FWL; SEC. 25, T-17-S, R-36-E

Lea County, New Mexico

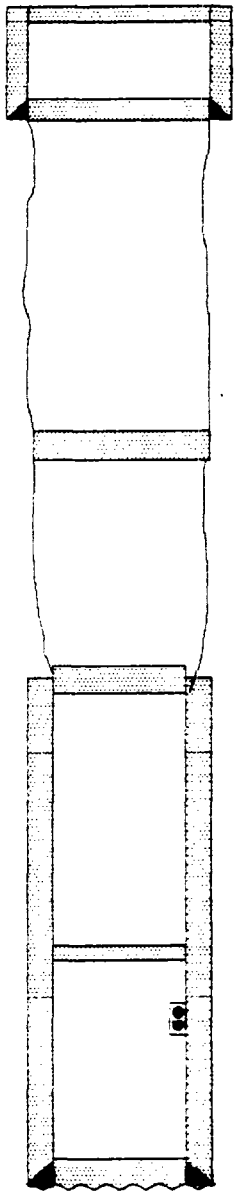
10 SX SURF.-65'

25 SX 312'-372'

25 SX 885'-960'

25 SX 3875'-3950'

25 sx 4635'-4950'



8 5/8" @ 372'
CEMENT W/ 275 sx
TOC: SURFACE (CALC.)
in 12-1/4" Hole (assumed)

TOC @ 3960' (calc.)

Cut & pull casing @ 3950'

San Andres Perfs:
4,954'-5008'

4 1/2" @ 5,068'
Cement w/ 200 sx
in 7 7/8" Hole (assumed)

CURRENT CONFIGURATION

TD: 5,068'

JRG/AV1
09/25/93

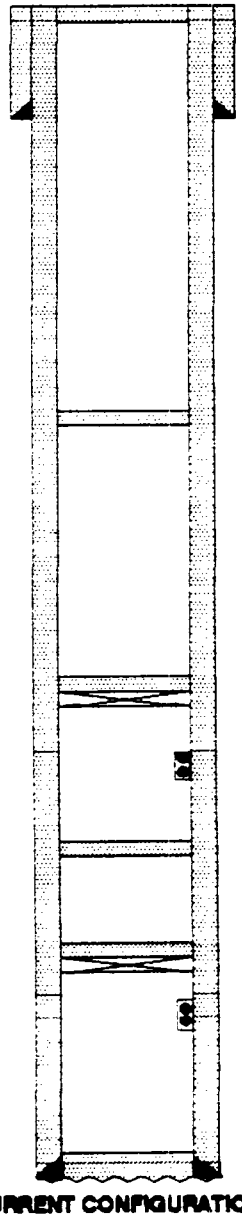
COTTON PETROLEUM

FIELD: Spencer (San Andres) - DATE SPUD: 1/13/61 COMP: 5/20/61

LEASE: SCHARBAUER STATE WELL NO. 1 ELEVATION: 3,814' G.L.

LOCATION: 660' FSL & 330' FEL; SEC. 23, T-17-S, R-36-E

Lea County, New Mexico



10 SX SURF.-65'

8 5/8" @ 365'
CEMENT W/ 150 sx
TOC: SURFACE (CALC.)
in 12-1/4" Hole (assumed)

20 SX 1900'-2000'

TOC @ surface (calc.)

CIBP @ 3150' + 5 SX

YATES PERFS
3200'-46'

20 SX 3400'-3500'

CIBP @ 4690' + 5 SX

San Andres Perfs:
4,952'-60'

5 1/2" @ 5,140'
Cement w/ 1270 sx
in 7 7/8" Hole (assumed)

CURRENT CONFIGURATION

TD: 5,140'

JRG/SCHRT1
09/21/89

Welex

ACOUSTIC VELOCITY LOG

COMPANY AZTEC OIL & GAS Company

WELL STATE AS NO. 4

FIELD ~~UNDESIGNATED~~ Spencer, (SA)

COUNTY LEA STATE New Mexico

COMPANY / WELL / FIELD / County / State

Location

Sec. 24 Twp 17-S Rge 36-E

Other Services:

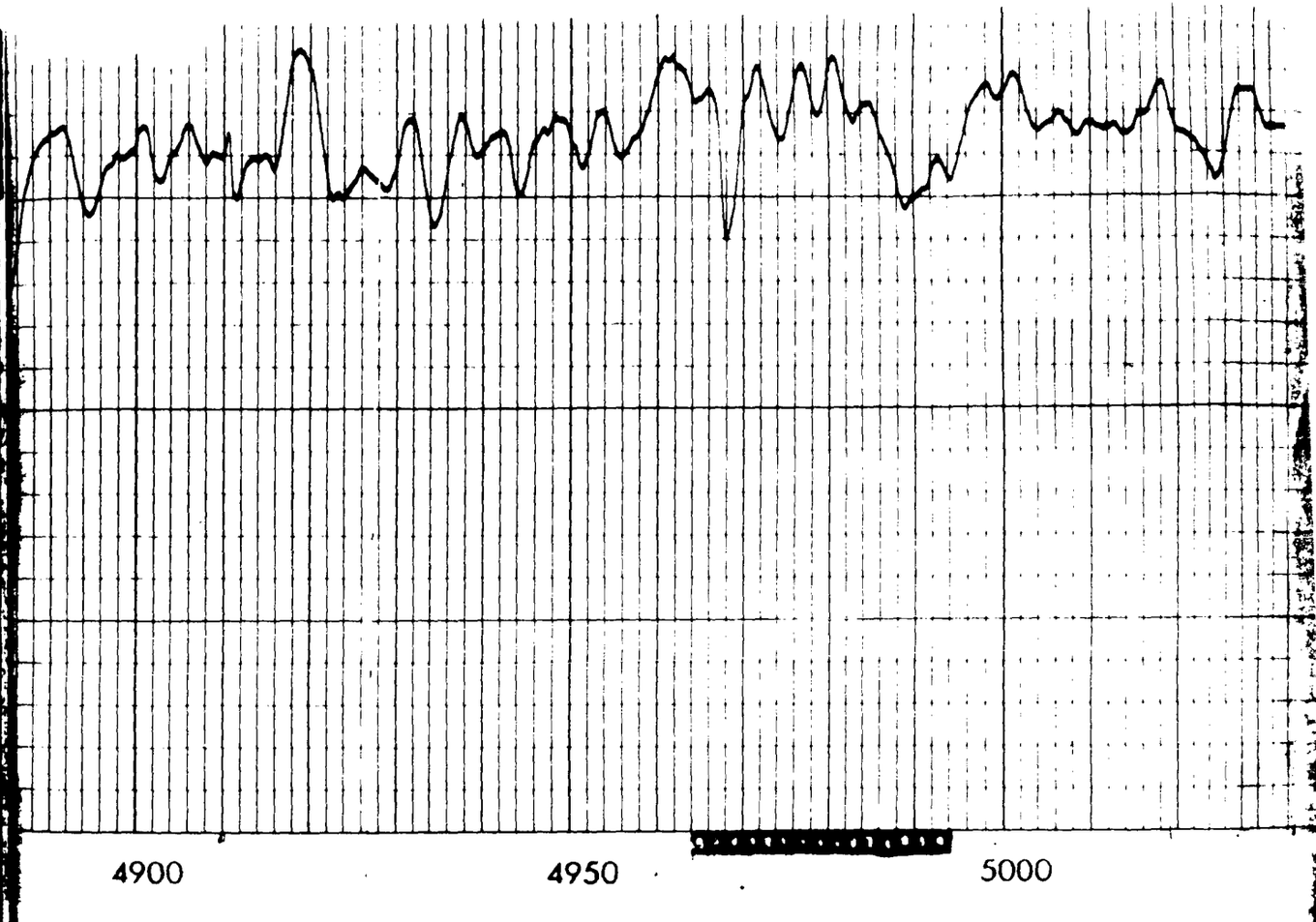
Permanent Datum GROUND Level Elev. 3808.4

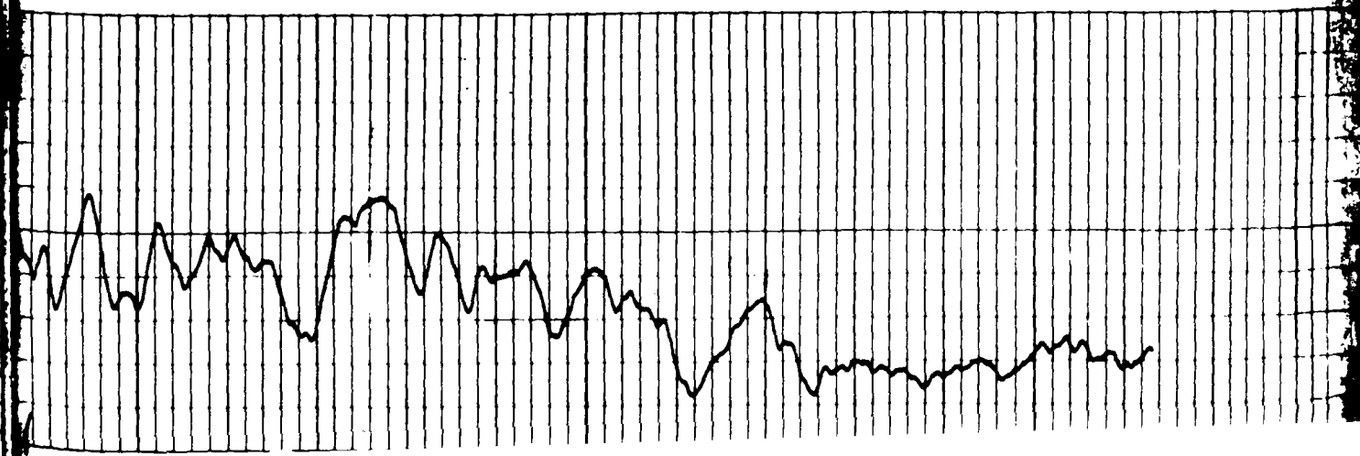
Log Measured From KB 11' Ft. Above Perm. Datum

Drilling Measured From Kelly Bushing

Elev.: K.B. 3819.4
D.F. 3818.4
G.L. 3808.4

Date	10-11a-09			
Run No.	ONE			
Depth—Driller	5035			
Depth—Welex	5035			
Btm. Log Inter.	5031			
Top Log Inter.	SURF			
Casing—Driller	321a @ 8 5/8	@	@	@
Casing—Welex				
Bit Size	7 7/8			
Type Fluid in Hole	MUD			
Dens. / Visc.	10.2 / 42a	/	/	/
pH / Fluid Loss	11a.a ml	/ ml	/ ml	/ ml
Source of Sample				
R_m @ Meas. Temp.	@ °F	@ °F	@ °F	@ °F
R_{mf} @ Meas. Temp.	@ °F	@ °F	@ °F	@ °F
R_{mc} @ Meas. Temp.	@ °F	@ °F	@ °F	@ °F
Source R_{mf} / R_{mc}	/	/	/	/
R_m @ BHT	@ °F	@ °F	@ °F	@ °F
Time Since Circ.				
Max. Rec. Temp.	°F @	°F @	°F @	°F @
Equip. / Location	8444 Hobbs	/	/	/
Recorded By	B. H. STROUD			
Witnessed By	MR. DAVIS			





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

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
DIVISION FOR THE PURPOSE OF
CONSIDERING:

CASE NO. 10891
ORDER NO. R-10054

APPLICATION OF SOUTHLAND ROYALTY COMPANY FOR A WATERFLOOD PROJECT AND QUALIFICATION FOR THE RECOVERED OIL TAX CREDIT PURSUANT TO THE NEW MEXICO OIL RECOVERY ACT, LEA COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on January 6, 1994, at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this 26th day of January, 1994 the Division Director, having considered the testimony, the record and the recommendations of the Examiner, and being fully advised in the premises,

FINDS THAT:

(1) Due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.

(2) The applicant, Southland Royalty Company ("Southland"), seeks authority to institute a pilot waterflood project on its State "DS" leasehold comprising the SW/4, W/2 SE/4 and SE/4 SE/4 of Section 24, Township 17 South, Range 36 East, NMPM, Lea County, New Mexico, by the re-injection of produced water into the Spencer-San Andres Pool through the perforated interval from approximately 4694 feet to 4994 feet in its existing State "DS" Well No. 4 located 1980 feet from the South line and 660 feet from the West line (Unit L) of said Section 24.

(3) The evidence presented indicates that only one well, the State "DS" Well No. 2 located in Unit "K", is presently producing from the Spencer-San Andres Pool within the State "DS" Lease. Monthly production from this well currently averages between 20 to 25 barrels of oil per day. Under the definition in Division General Rule 701.G(1) for a waterflood project, producing wells in the surrounding area shall have

reached an advanced state of depletion and are considered to be classified as "stripper wells" or wells with an average rate of production of 10 barrels of oil per day or less. While this one well is not considered to be a "stripper well" it can be considered a well that has reached an advanced state of depletion. Division records and data submitted by Southland subsequent to the hearing show only five other wells to have produced from the Spencer-San Andres Pool within Southland's State "DS" Lease. Said records on these five wells demonstrates that prior to abandonment production declined on each well to the point to be considered a "stripper well".

(4) The applicant testified that cumulative primary oil recovery from the six State "DS" Lease wells has been 778,718 barrels and that under the present mode of operations only 36,000 barrels remain as primary recoverable reserves.

(5) Southland is proposing to initiate a peripheral injection pattern utilizing this one injection well and four producing wells, with the projected total cost for the project expected to be approximately $510,000.00.

(6) At the hearing, the applicant demonstrated that an estimated 500,000 barrels of oil from the Spencer-San Andres Pool could be obtained by institution of the proposed pilot waterflood project, resulting in the recovery of additional oil which would not otherwise be recovered.

(7) The operator should take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape into other formations or onto the surface from injection, production or plugged and abandoned wells.

(8) Injection should be accomplished through 2 3/8-inch internally plastic-coated tubing installed in a packer set approximately 100 feet above the uppermost perforated interval; the casing-tubing annulus should be filled with an inert fluid; and a pressure gauge or approved leak-detection device should be attached to the annulus in order to determine leaks in the casing, tubing or packer.

(9) Prior to commencing injection operations, the casing of the subject well should be pressure-tested throughout the interval, from the surface down to the proposed packer-setting depth, to assure integrity of such casing.

(10) The injection well or injection pressurization system should be so equipped as to limit injection pressure at the wellhead to no more than 990 psi.

(11) The Director of the Division should be authorized to administratively approve an increase in the injection pressure upon a proper showing by the operator that such higher pressure will not result in migration of the injected waters from the San Andres formation.

(12) The operator should give advance notification to the supervisor of the Hobbs District Office of the Division of the date and time of the installation of injection equipment and of the mechanical integrity pressure-test in order that the same may be witnessed.

(13) No offset operator or interested party appeared at the hearing in opposition to this application.

(14) The proposed waterflood project is in the best interest of conservation and will serve to prevent waste and protect correlative rights, therefore this application should be approved and the project should be governed by the provisions of Rule Nos. 701 through 708 of the Oil Conservation Division Rules and Regulations.

(15) The applicant further requests that the subject waterflood project be approved by the Division as a qualified "Enhanced Oil Recovery Project" pursuant to the "Enhanced Oil Recovery Act" (Laws 1992, Chapter 38, Sections 1 through 5).

(16) The evidence presented indicates that the subject waterflood project meets all the criteria for approval.

(17) The approved "project area", to be designated the State "DS" Lease Waterflood Project, should initially comprise that area described in Finding Paragraph No. (2), above.

(18) To be eligible for the EOR credit, prior to commencing injection operations, the operator must request from the Division a Certificate of Qualification, which certificate will specify the proposed project area as described above.

(19) At such time as a positive production response occurs and within five years from the date of the Certificate of Qualification, the applicant must apply to the Division for certification of positive production response, which application shall identify the area actually benefitting from enhanced recovery operations, and identifying the specific wells which the operator believes are eligible for the credit. The Division may review the application administratively or set it for hearing. Based upon evidence presented, the Division will certify to The Department of Taxation and Revenue those lands and wells which are eligible for the credit.

(20) The injection authority granted herein for the proposed injection well should terminate one year after the date of this order if the operator has not commenced injection operation into the subject well by that date, provided however, the Division, upon written request by the operator, may grant an extension thereof for good cause shown.

IT IS THEREFORE ORDERED THAT:

(1) The applicant, Southland Royalty Company ("Southland"), is hereby authorized to institute a one well waterflood pilot project on its State "DS" leasehold, underlying the following described lands, by the re-injection of produced San Andres formation water into the Spencer-San Andres Pool through the perforated interval from approximately 4694 feet to 4994 feet in its existing State "DS" Well No. 4 located 1980 feet from the South line and 660 feet from the West line (Unit L) of said Section 24, Township 17 South, Range 36 East, NMPM, Lea County, New Mexico:

STATE "DS" LEASE WATERFLOOD PROJECT AREA

LEA COUNTY, NEW MEXICO

TOWNSHIP 17 SOUTH, RANGE 36 EAST, NMPM,
Section 24: SW/4, W/2 SE/4 and SE/4 SE/4

(2) Injection into said well shall be accomplished through 2 3/8-inch internally plastic-lined tubing installed in a packer set at approximately 100 feet above the uppermost perforated interval.

PROVIDED HOWEVER THAT, the casing-tubing annulus in said well shall be filled with an inert fluid; and a pressure gauge shall be attached to the annulus or the annulus shall be equipped with an approved leak-detection device in order to determine leakage in the casing, tubing or packer.

PROVIDED FURTHER THAT, prior to commencing injection operations, the casing in the subject well shall be pressure-tested to assure the integrity of such casing in a manner that is satisfactory to the supervisor of the Division's Hobbs District Office.

(3) The injection well or system shall be equipped with a pressure-limiting switch or other acceptable device which will limit the wellhead pressure on the injection well to no more than 990 psi.

(4) The Director of the Division may authorize an increase in injection pressure upon a proper showing by the operator of said well that such higher pressure will not result in migration of the injected fluid from the San Andres formation.

(5) The operator shall notify the supervisor of the Hobbs District Office of the Division in advance of the date and time of the installation of injection equipment and of the mechanical integrity pressure-test in order that the same may be witnessed.

(6) The operator shall immediately notify the supervisor of the Division's Hobbs District Office of the failure of the tubing, casing or packer, in said well or the leakage of water from or around said well and shall take such steps as may be timely and necessary to correct such failure or leakage.

(7) The subject waterflood project is hereby designated the State "DS" Lease Waterflood Project and shall be governed by the provisions of Rules 701 through 708 of the Division Rules and Regulations.

(8) Monthly progress reports of the waterflood project herein authorized shall be submitted to the Division in accordance with Rules 706 and 1115 of the Division Rules and Regulations.

FURTHERMORE:

(9) The subject waterflood project is hereby approved as an "Enhanced Oil Recovery Project" pursuant to the "Enhanced Oil Recovery Act" (Laws 1992, Chapter 38, Sections 1 through 5).

(10) The approved "project area" shall initially comprise that area described in Decretory Paragraph No. (1) above.

(11) To be eligible for the EOR credit, prior to commencing injection operations, the operator must request from the Division a Certificate of Qualification, which certificate will specify the proposed project area as described above.

(12) At such time as a positive production response occurs and within five years from the date of the Certificate of Qualification, the applicant must apply to the Division for certification of positive production response, which application shall identify the area actually benefitting from enhanced recovery operations, and identifying the specific wells

which the operator believes are eligible for the credit. The Division may review the application administratively or set it for hearing. Based upon evidence presented, the Division will certify to The Department of Taxation and Revenue those lands and wells which are eligible for the credit.

(13) The injection authority granted herein for the proposed injection well shall terminate one year after the date of this order if the operator has not commenced injection operation into the subject well by that date, provided however, the Division, upon written request by the operator, may grant an extension thereof for good cause shown.

(14) Jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

SEAL

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

WILLIAM J. LEMAY
Director