Case Number.

Application

Transcripts.

Small Exhibits

# BEFORE THE NEW MEXICO OIL CONSERVATION COMMISSION Santa Fe, New Mexico July 9, 1969

EXAMINER HEARING

IN THE MATTER OF:

Application of Sam Boren for a dual completion and salt water disposal, Lea County, New Mexico.

Case No. 4166

BEFORE: Daniel S. Nutter, Examiner.

TRANSCRIPT OF HEARING

MR. NUTTER: Call Case 4166.

MR. HATCH: Case 4166, application of Sam Boren for a dual completion and salt water disposal, Lea County, New Mexico.

MR. KELLAHIN: If the Examiner please, may the record show the same appearances and -- as was in Case 4165, and that the witness has been sworn?

MR. NUTTER: The record will so show.

(Whereupon, Applicant's Exhibits "A" and "B" were marked for identification.)

#### RALPH VINEY

called as a witness, having been first duly sworn, was examined and testified as follows:

#### DIRECT EXAMINATION

#### BY MR. KELLAHIN:

Q Mr. Viney, you are the same Mr. Viney who testified in Case 4165?

A Yes, sir.

Q Are you familiar with the application of Sam Boren in Case 4166?

- A Yes, sir.
- Q What's proposed by the applicant in this case?
- A Applicant proposes to dispose of produced salt water through the casing annulus, and in thereby doing, request a dual completion for such permission.
- Q Now, referring to what has been marked as Applicant's Exhibit "A," consisting of numbered Exhibits One, Two, Three and Four, would you give us the information that's shown in that exhibit?

A Yes sir, basically, Mr. Boren -- if I may read the first paragraph of Exhibit "A,"
"Mr. Boren requests permission to dually complete the captioned well to permit oil production from the Bough "B" perforations at 9,972 feet, 9,974 feet and 9,976 feet and to dispose of produced salt water through the intermediate casing-production casing annulus into the San Andres and Glorieta formations in the open hole interval from 4,060 feet to 6,562 feet."

Q Now --

A All right --

#### Q Pardon me.

A -- Exhibit One is the same lease plat that was shown previously, but outlines Mr. Boren's acreage as held and now under farmout by Mr. Boren.

Exhibit Two is a copy of the application for multiple completion, which sets forth the pool name, or the -- excuse me, the well location, the pool designation, the top and bottom of the Bough "B" section and the perforations and the producing method of the well.

We have also listed and show a list of the offset producers and leases and owners within a two-mile radius of the proposed well or the -of the well.

Exhibit Three now of Exhibit "A," Case Number 4166 is a diagramatic sketch and is not necessarily to scale, but pictorally shows the casing strings used in this well and the cement tops as either determined visually or calculated.

Q With reference now to the cement top on your eight and five-eighths inch casing, is this calculated or --

A Yes sir, that's a calculated top. Mr. Boren

did not run any surveys on the well. And is the same true with respect to the

four and a half inch casing? This is right, and the cement top was

So that would leave open behind the pipe calculated at 6562. the San Andres and the top of the Glorieta formations,

is that correct? That is correct, yes sir.

Do either one of these formations produce

Not that we can find, no sir, they don't. in the vicinity of this well?

To your knowledge, has it ever produced A

within a, two-mile radius of this well?

No sir, not that I know of, no sir.

And the proposal is to continue production

through the casing, the four and a half inch, and inject the water down the annulus, is that correct?

Yes, sir. Mr. Kellahin, we did not show

the tubing string on this --

What tubing string?

There's a tubing string in this well. The packer is set at -- I've got the date, the date of that, but it's above the perforations. We did not show it because this is not a casing type disposal well, but rather an annulus type --

- Q And this would be an open hole --
- A Yes sir, this is an open hole disposal.
- Q Have you run any tests in the disposal zone?
- A Yes sir, we ran the annulus into the zone, and water was pumped into the dispsal zone at the rate of six barrels per minute at an injection pressure of eleven hundred pounds.
- Q Now, referring to Exhibit Number Four of Exhibit "A," would you identify that?
- A Yes sir, Exhibit Number Four is the application by the operator to dispose of water -- of salt water by injection into a porous formation. Basically, this shows all of the casing strings, the setting depths, sacks of cement used and the calculated tops of said cement.
- Q What is the source of the water that will be disposed of in this well?
- A This will be produced salt water from the Bough "B" zone.

- Q And it will be from the Boren leases, is that
  - A Yes sir, this is correct.
- Q Will you make it available to anyone else
  A you
  - A Yes sir, if they so request.
- Q Now, what volume do you anticipate you would inject into the well?
- A Currently, it looks like about fifty barrels a day.
- Q In your opinion, will the well take that volume of water?
- A The injectivity tests show that that amount of water we need will probably have to be pumped. We do not know, but it will be pumped.
- Q Would the use of the well in the manner in which you propose cause any damage, in your opinion, to any fresh water zones or any producing zones in the area?
- A No sir, not the way the cement -- the way the strings are cemented, I do not believe so, no sir.
  - Q Do you have any information on any fresh

#### water zones?

- A No sir, we do not.
- Q Do you know whether there are any fresh water zones there or not?
- A This we could not find out. We have not found any.
  - Q You have not found any?
  - A No, sir.
- Q Now, referring to what has been marked as Exhibit "B," is that the log of the subject well?
- A Yes sir, this is an electric log, gamma ray log, and it's just filed for the -- for record purposes so that you may see the entire section of the --
- Q And have the formation tops been marked on the log?
- A No sir, they have not, and the only -- the only topthat we could mark would be the top of the Bough "B," which could be read from the Exhibit Three of Exhibit "A" of 4165.
- MR. NUTTER: You have calculated the top of the San Andres, or could you give it to us --
  - A Yes, it's shown on the diagramatic,

it's 4063. If you will see Exhibit Three of Exhibit "A," 4166, the top of the San Andres is marked and the top of the Glorieta is marked.

For the record, we can give you the rest of the tops that are not marked. If you would like them, we can put them in the record and you can place them on the log. The Rustler zone at 1922; Tansell at 2621; Yates, 2745; Seven Rivers, 2952; San Andres, 4063; Glorieta, 5510; Tubb, 6950; Ovoe, 7753; Wolf Camp, 9070; Bough "C," 10020; Cisco, 10120; Ranger Lake, 10240; Canyon, 10500; Strawn, 10935.

- Q (By Mr. Kellahin) Were Exhibits -has Exhibit "C," consisting of separate numbered
  exhibits, prepared by you or under your supervision?
  - A Yes, they were.
- Q And Exhibit "B" is a log of the subject property, is that correct?
  - A Yes, sir.

I offer in evidence Exhibit "A" and Exhibit "B."

MR. NUTTER: Applicant's Exhibit "A"

and Exhibit "B" will be admitted in evidence.

(Whereupon, Applicant's Exhibits "A" and "B" were offered and admitted in evidence.)

MR. NUTTER: I believe this log has been identified as Exhibit Five. It was probably originally intended to be a portion of Exhibit One, so we'd better have that marked.

MR. KELLAHIN: It's marked on back.

MR. NUTTER: Oh, is it?

MR. KELLAHIN: Yes.

MR. NUTTER: Fine.

MR. KELLAHIN: I had it marked, since it was a separate instrument.

MR. NUTTER: I'll scratch Exhibit Five off the front of it then.

A Right.

MR. KELLAHIN: Yes. That completes the examination of the witness, Mr. Nutter.

#### CROSS EXAMINATION

#### BY MR. NUTTER:

Q Mr. Viney, I realize that your discussion on the first page of Exhibit "A" states that this

will be a closed type system. However, inasmuch as you have an area of pipe between the casing shoe on the surface pipe at 365 and the top of the cement on the intermediate string at 1830, you have an interval there that is not cemented. Will it be possible that there might be some corrosion through the annulus here, that water could migrate into some formation that it isn't intended to go into?

- A This is always a possibility, yes sir.
- Q Can this water be treated to prevent corrosion?
  - A Yes sir, we can add chemicals.
- Q And thereupon, tests could be conducted to determine whether corrision is taking place?
- A Yes sir, we could run this in conjunction with injection.

MR. NUTTER: Thank you. Are there any further questions of the witness.

You may be excused.

(Witness excused.)

MR. NUTTER: Do you have anything further, Mr. Kellahin?

MR. KELLAHIN: No, that's all, Mr. Nutter.

MR. NUTTER: Does anyone have anything

further they wish to offer in Case 4166?

MR. HATCH: I might remind you that the telegram and letters referred to both cases.

MR. NUTTER: Thank you.

If there's nothing further, Case 4166, we'll take the case under advisement.

And this next one, this is the one that you wanted -- where LeMay was going to testify on, wasn't it?

MR. KELLAHIN: That's correct.

# INDEX

| WITNESS                                 |                                  | • | PAGE                 |
|---|----------------------------------|---|----------------------|
| RALPH VINEY                             |                                  | æ |                      |
| Direct Examination<br>Cross Examination | by Mr. Kellahin<br>by Mr. Nutter |   | 2<br>10              |
|   |                                  |   |                      |
| EXHIBIT                                 | MARKED                           |   | OFFERED AND ADMITTED |
| Applicant's Exhibit's "A" and "B"       | 2                                |   | 10                   |

STATE OF NEW MEXICO
COUNTY OF BERNALILLO

I, JERRY MARTINEZ, Notary Public in and for the County of McKinley, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me and that the same is a true and correct record of the said proceedings, to the best of my knowledge, skill and ability.

Notary Public

My Commission Expires: January 24, 1970.

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TENNECO OIL COMPANY · P. O. BOX 1031 · 1800 WILCO BUILDING · MIDLAND, TEXAS 79701

July 3, 1969

Ov 4166

New Mexico 011 Conservation Commission P. O. Box 2088 Santa Fe, New Mexico 87501

> Re: Request for Special Pool Rules and Annular Salt Water Disposal East Bagley (Penn) Field Lea County, New Mexico

#### Gentlemen:

Tenneco 011 Company, as an operator in the East Bagley (Penn) Field,
Lea County, New Mexico is aware of the pending hearing covering the
subject wells. We support Mr. Boren's request of 160 acre spacing and
proration units and the assignment of 80 acre allowables to wells in this
area. We also have no objection to this operator's request for the annular
disposal of salt water in his Barbera State "A" Well No. 1.

Yours very truly,

TENNECO OIL COMPANY

SIGNED BY: F. J. McDONALD

F. J. McDonald District Production Superintendent

/ JFC:gs

RECEIVED

JUL 6 RECD

RALPH H. VINEY



### OIL CONSERVATION COMMISSION

GOVERNOR
DAVID F. CARGO
CHAIRMAN

STATE OF NEW MEXICO P. O. BOX 2088 - SANTA FE LAND COMMISSIONER ALEX J. ARMIJO MEMBER

87501

STATE GEOLOGIST A. L. PORTER, JR. SECRETARY - DIRECTOR

July 16, 1969

| Mr. Jason Kellahin<br>Kellahin & Fox<br>Attorneys at Law | Re: | Case No. 4166 Order No. R-3796 Applicant: |
|--|-----|---|
| Post Office Box 1769<br>Santa Fe, New Mexico             |     | Sam Boren                                 |
| Dear Sir:  |     |   |

Enclosed herewith are two copies of the above-referenced Commission order recently entered in the subject case.

Very truly yours,

A. L. PORTER, Jr. Secretary-Director

| ALP/ir        |                |        |   |  |
|---------------|----------------|--------|---|--|
| Copy of order | also sent to:  |        | • |  |
| Hobbs OCC     | <b>x</b>       | 4.3    |   |  |
| Artesia OCC_  |                |        |   |  |
| Aztec OCC     |                |        | , |  |
| Other         | State Engineer | Office |   |  |

## BEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION OF NEW MEXICO FOR THE PURPOSE OF CONSIDERING:

> CASE No. 4166 Order No. R-3796

APPLICATION OF SAM BOREN FOR A DUAL COMPLETION AND SALT WATER DISPOSAL, LEA COUNTY, NEW MEXICO.

#### ORDER OF THE COMMISSION

#### BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on July 9, 1969, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 15th day of July, 1969, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

#### FINDS:

- (1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.
- (2) That the applicant, Sam Boren, seeks authority to complete his Barbera State "A" Well No. 1, located in Unit P of Section 6, Township 12 South, Range 34 East, NMPM, East Bagley-Pennsylvanian Pool, Lea County, New Mexico, as a dual completion to produce oil from the East Bagley-Pennsylvanian Pool through 2 3/8-inch tubing and to dispose of produced salt water down the annulus between the 4 1/2-inch production easing string and the 8 5/8-inch intermediate casing string into the San Andres and Glorieta formations in the open-hole interval from approximately 4060 feet to 6562 feet.
- (3) That the produced salt water should be continuously treated prior to injection to prevent casing corrosion and coupon corrosion tests should be conducted continuously on said well and

-2-CASE No. 4166 Order No. R-3796

the results thereof filed quarterly with the Commission until further notice from the Secretary-Director of the Commission.

(4) That approval of the dual completion and salt water disposal as set out above will prevent the drilling of unnecessary wells, and will otherwise prevent waste and protect correlative rights.

#### IT IS THEREFORE ORDERED:

(1) That the applicant, Sam Boren, is hereby authorized to complete his Barbera State "A" Well No. 1, located in Unit P of Section 6, Township 12 South, Range 34 East, NMPM, East Bagley-Pennsylvanian Pool, Lea County, New Mexico, as a dual completion to produce oil from the East Bagley-Pennsylvanian Pool through 2 3/8-inch tubing and to dispose of produced salt water down the annulus between the 4 1/2-inch production casing string and the 8 5/8-inch intermediate casing string into the San Andres and Glorieta formations in the open-hole interval from approximately 4060 feet to 6562 feet;

PROVIDED HOWEVER, that the produced salt water shall be continuously treated prior to injection to prevent casing corrosion; that coupon corrosion tests shall be conducted continuously on said well and the results thereof filed quarterly with the Commission until further notice from the Secretary-Director of the Commission;

PROVIDED FURTHER, that the applicant shall submit monthly reports of his disposal operations in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.

(2) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

PONE at Santa Pe, New Mexico, on the day and year hereinabove designated.

STATE OF MEW MEXICO
OIL COMSERVATION COMMISSION

DAVID F. CARGO, Chairman

ALUX J. ARMIJO, Member

A. L. PORTER, Jr., Member & Secretary

#### DOCKET: EXAMINER HEARING - WEDNESDAY - JULY 9, 1969

9 A.M. - OIL CONSERVATION COMMISSION CONFERENCE ROOM, STATE LAND OFFICE BUILDING - SANTA FE, NEW MEXICO

The following cases will be heard before Daniel S. Nutter, Examiner, or Elvis A. Utz, Alternate Examiner:

#### CASE 4160:

Application of Roger C. Hanks for pool redelineation, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks the redelineation of certain pool boundaries to include the deletion of the NE/4 of Section 29 from the South Prairie-Cisco Pool and the extension of the Middle Allison-Pennsylvanian Pool to include all of Section 29, the SE/4 of Section 30, and the N/2 of Section 32, all in Township 8 South, Range 36 East, Roosevelt County, New Mexico.

#### CASE 4161:

Application of Roger C. Hanks for special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the promulgation of special pool rules for the North Mescalero-Cisco Pool, Lea County, New Mexico, including a provision for 160-acre spacing and proration units and the assignment of 80-acre allowables.

#### CASE 3786: (Reopened)

In the matter of Case No. 3786 being reopened pursuant to the provisions of Order No. R-3437, which order established special rules and regulations for the North Paduca-Delaware Pool, Lea County, New Mexico, including provisions for the classification of and spacing for oil and gas wells and a special gas-liquid ratio limitation. All interested parties may appear and show cause why the special rules and regulations should not be discontinued.

#### CASE 4162:

Application of Western States Producing Company for a dual completion and salt water disposal, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks authority to dually complete its State 30 Well No. 2 located in Unit M of Section 30, Township 7 South, Range 33 East, Roosevelt County, New Mexico, in such a manner as to permit the production of oil from the Chaveroo-San Andres Pool and the disposal of produced salt water through 8 5/8 X 4 1/2 inch casing-casing annulus into the Yates, Seven Rivers, and Queen formations in the open-hole interval from approximately 1825 feet to 3785 feet.

CASE 4163:

Application of Pan American Petroleum Corporation for a non-standard gas proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of a 181-acre non-standard gas proration unit for its Pike Federal Well No. 1 located in Unit A of Section 6, Town-ship 23 South, Range 38 East, Tubb Gas Pool, Lea County, New Mexico, said unit to comprise the N/2 N/2 of said Section 6.

CASE 4164:

Application of Mobil Oil Corporation for an unorthodox location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to drill its Fristoe Well No. 8 at an unorthodox location 2470 feet from the North line and 430 feet from the East line of Section 3. Township 25 South, Range 37 East, Langlie Mattix Pool, Lea County, New Mexico.

CASE 4165:

Application of Sam Boren for special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the promulgation of special pool rules for the East Bagley-Pennsylvanian Pool, Lea County, New Mexico, including a provision for 160-acre spacing and proration units and the assignment of 80-acre allowables.

CASE 4166:

Application of Sam Boren for a dual completion and salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dually complete his Barbera State "A" Well No. 1 located in Unit P of Section 6, Township 12 South, Range 34 East, Lea County, New Mexico, in such a manner as to permit the production of oil from the East Bagley-Pennsyvlanian Pool and the disposal of produced salt water through the intermediate casing-production casing annulus into the San Andres and Glorieta formations in the open-hole interval from approximately 4060 feet to 6562 feet.

CASE 4167:

Application of Charles B. Read for a dual completion and salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dually complete his Hobbs "Y" Well No. 1 located in Unit J of Section 29, Township 12 South, Range 34 East, Lea County, New Mexico, in such a manner as to permit the production of oil from the East Hightower-Pennsylvanian Pool and the disposal of produced salt water through the intermediate casing-production casing annulus into the San Andres, Glorieta, Yeso, and Abo formations in the open-hole interval from approximately 4195 feet to 7720 feet.

- **CASE 4168:**
- Application of Charles B. Read for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Seven Rivers Reef formation in the open-hole interval between 3783 feet and 3797 feet in his Sinclair State Well No. 1 located 2310 feet from the South and West lines of Section 2, Township 21 South, Range 33 East, Lynch Pool, Lea County, New Mexico.
- CASE 4169:
- Application of Mask, Jennings, Keohane and Westall for an exception to Order No. R-3221, as amended, Eddy County, New Mexico. Applicants, in the above-styled cause, seek an exception to Order No. R-3221, as amended, which order prohibits the disposal of water produced in conjunction with the production of oil on the surface of the ground in Lea, Eddy, Chaves and Roosevelt Counties, New Mexico, after January 1, 1969. Said exception would be for applicants' wells in the E/2 NW/4 and the NE/4 of Section 2, Township 19 South, Range 31 East, Shugart Pool, Eddy County, New Mexico. Applicants seek authority to dispose of salt water produced by said wells in an unlined surface pit located in Unit C of said Section 2.
- CASE 4170:
- Application of H. C. Hood for pool redelineation, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the redelineation of the High Plains-Pennsylvanian Pool by the deletion of the SW/4 of Section 14 and the SE/4 of Section 15, Township 14 South, Range 34 East, Lea County, New Mexico.

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
EXHIBIT NO.
CASE NO. 4/66

CASE NO. 4166

NEW MEXICO OIL CONSERVATION COMMISSION

EXAMINER HEARING

WEDNESDAY, JULY 9, 1969

#### NEW MEXICO OIL CONSERVATION COMMISSION EXAMINER HEARING Wednesday, July 9, 1969

#### CASE 4166

Application of Sam Boren Oil Company for a Dual Completion and Salt Water Disposal

Barbera State "A" Well No. 1

Location being designated as Unit P, 660 feet from the south line and 660 feet from the east line, Section 6, Township 12 South, Range 34 East, N.M.P.M.

#### DUAL COMPLETION AND SALT WATER DISPOSAL REQUEST

Mr. Boren requests permission to dually complete the captioned well to permit oil production from the Bough 'B' perforations at 9,972', 9,974' and 9,976' and to dispose of produced salt water through the intermediate casing-production casing annulus into the San Andres and Glorieta formations in the open hole interval from 4,060' to 6,562'.

A Land Lease Map of the East Bagley Field is included as Exhibit 1.

Exhibit 2 is New Mexico Oil Conservation Commission Form C-107 (Application for Multiple Completion).

Exhibit 3 is a diagramatic sketch of the well bore and casing strings.

New Mexico Oil Conservation Commission Form C-108 (Application to Dispose of Salt Water by Injection into a Porous Formation) is included as Exhibit 4. The casing size, setting depths, amount of cement used, and the method used to determine the top of the cement are set forth on this exhibit. These are also pictorially shown on the above Exhibit 3.

Exhibit 5 is an electrical log of the well in question.

It is proposed to dispose of the produced salt water down the annular space between the intermediate 8-5/8" casing string and the 4-1/2" production string into the San Andres and Glorieta formations between the base of the 8-5/8" casing at 4,060 and the top of the cement in the 7-7/8" hole at 6,562. On an annular disposal capacity test, water was pumped into the proposed disposal zones at a rate of 6 barrels per minute with an injection pressure of 1,100 psig.

The well was potentialed June 1, 1969 and on a pump test produced 212 barrels of oil, 75 barrels of water and 254 MCF of gas. Currently the well is producing approximately 75 barrels of oil and 50 barrels of water per day. The produced water will be handled in a close-type system.

Mr. Boren requests that permission be granted for the multiple completion and the annular salt water disposal into the San Andres and Glorieta formations.

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|    | Facility Tax Pote  | (rus)   | M. P. Groce  M. P. Groce  Liesz 10 M.  Major, Giebal E.  Forther  Shelf Spears  10383: MA1-13-68 | 9 17<br>L-14<br>Mosa 8  | 7. 78<br>557<br>134°                  | 12-17-73<br>  K-1776<br>  do 25   | 2∙:18·<br>1·2482  |   | Prod.   | Azfec<br>4-19-76<br>K-5917<br>26.12                                    | Solvestr<br>3. K.                |
| ř. | Irche Ishum   Tex.Poc<br>1   1764<br>1764   1764<br>1764   1764<br>1765   1764<br>1765   1764<br>1765   1 | 1   | Tex Pocific<br>12-10-62<br>E-6656<br>HBC   | ľ   |                                       | Som Borens [ [Shell] [ [Shell] [ 19 170 [ 14 19 170 [ 14 19 170 [ 15 170 [   | Pon Amer.  i E-3154: Coostol States Pan Am St. Penn. Disc.      |   | Phillips<br>Heu<br>E-1233   | ⊕<br>  West'n 5   es<br>  Cobod   10   10   10   10   10   10   10   1 | ,                                |
|    | rese Tex. Pocific  | Shell   | Shelf  | 1114  | 5.0                                   | Sener (Cobot)   |   | (Cabol Corp.)   | U.S. Smelf.   | Corinne Grace  | S<br>No Cori                     |
|    | Opt Leg<br>2 11 19<br>11 State<br>Read Leg 10 1 19   | 6 14 70   | 12 - 17 - 73<br>K-3175<br>25⊎  | R Los   | ve E s†. :<br>8 : 17                  | 5 Smap   Cobot   20 75   11 65   A 4910   Co 6 611   51 00   6 611   51 00   6 611   51 00   6 611   51 00   6 611   6 610  | HBP<br>E-2367   | U.S. Smelt.<br>1-19-70<br>K-130<br>854*<br>A Stolla E.Co.<br>2 Copper 51. | General Present States Smell St. Present St. States St. | 2 16 74<br>252<br>16 15 16<br>16 15 16<br>16 15 16                     | Mrs.Cori<br>2 - 18<br>K-3<br>18  |
|    | Read Inc. (a) 2-18-79<br>5-11<br>5-10<br>5-10<br>10-11   | No Borton   | Amercdo<br>H B P<br>B-10612  | yes J   |                                       | 7 6 6 6 6 7 7 6 6 6 7 7 7 6 6 7 7 7 6 6 7 7 7 6 6 7 7 6 6 7 7   | Honble<br>H B B<br>E-937  | B   | U.S.Smelt.<br>4 18-71<br>K-1356<br>88   | CerimeGrace 2:18-74 K-3907 250   |                                  |
|    | All Stote, MI Amerodo, S   | Luiu Graham,MJ.<br>John T. Acrey                          | Shell<br>2-17-73<br>State 7522   | (1)<br>(2)<br>(3)<br>(3) (3) (4) (4)  | S                                     | 30 SS   |   | Cobol<br>1 8-18-74<br>1016 (-43-36<br>05-20                               | Stoll z E.Co. 2   | itote  |                                  |
|    | 8.   S Collins,eto1348<br>8d   Del-Leo,inc 94<br>21:53   4 : 19 - 78<br>- 5113   10:55   | 060   | 581  | Terra Ter   | <b>⊗</b>                              | Gelfy Oil <sup>3</sup> 2<br>2-21:77<br>k:6720<br>:56 T<br>P.R. Bass t/2   | Geffy Oil<br>8 17 75<br>6-5176<br>5175                          | P. R. Bass<br>1 1 18 - 76<br>1 K-5418<br>68 U                             | Midwest<br>6 - 20 - 27<br>L 40<br>25 24   | E.Lewe<br>(1:15-19<br>R-5-10<br>E.H.McElvain.A<br>9-21-75 6 fol        | 12 - 15 - 77<br>L - 500<br>13 13 |
|    | 1 E.O. Whi 14<br>1 E.O. Whi 14<br>3 - 21 - 63<br>067713  | S)  | Acrey, S<br>13————————————————————————————————————   | in the second   |                                       | P.R. Bass E. Getty Oil  | Midwest<br>8-17-75  | 1<br>17   | Phillips<br>H BP  | Texas Pocific  | M P. Grace<br>6-21-70            |
|    | State  | Ş.  | 9114<br>5124<br>010  | 1877AF - T  |                                       | 2 - 21 - 77<br>  A - 672 <br>  156 U<br> <br>   | 2697<br>2697<br>S1<br>B.M. A                                    | dre<br>Medlin, S  | E-1233<br>Rolph Nix<br>HBP<br>E 1233<br>G.S. Friec (S)                                      | _  | K-541<br>16.35                   |
|    | ties Service \$ 17.77  X 18 18  A 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1  |   | PanAmer.<br>5-19-69<br>065450<br>1 :10 U   |   | 0 60<br>! ( - 7 7<br>6 7 2 2          | Texaco<br>1-17-77<br>K-6676<br>131 U  | Sun<br>3-18-79<br>0-2651<br>300                                 | Union<br>1-10-70<br>K-590<br>27 55  | I   | T<br>Sun<br>- 20-79  | \$un<br>\$-20-79                 |
| ı  | de   Amerode   | Amerada H.B.C.S.C.S.C.S.C.S.C.S.C.S.C.S.C.S.C.S.C         | Amerada  | uoe ·   | Eigigs (                              | <u>i</u>  | EAST  | BAGLE   | Y PENI  | TIELD<br>W FIELD   | AREA                             |
|    | 13 H.B.P.<br>B-10007   | B-100#3   | Britist<br>Britister   | See 14  | رون کر<br>معلم                        | tere, fi delig<br>l temple<br>jeu den<br>jeu |   | LEAS  | E LAN   | D MAP  |                                  |
|    | 723 A 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1  | Shell -   | Shell Som<br>Haboren<br>K3921  | Very<br>Mand<br>12:74<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16:00<br>16 | φ <u>γ</u>                            | O' See!   | .11   | H. VINEY  |   | 4000°<br>MIDEAND   | TEXAS                            |
|    | *  | \$2.50<br>\$2.50  | الما   |   | · · · · · · · · · · · · · · · · · · · | 3-250°  | ا لــاا   | SAM BORE<br>Leasehold I<br>D DATE O                                       | nterest   | UNE 20, 19   | 69                               |

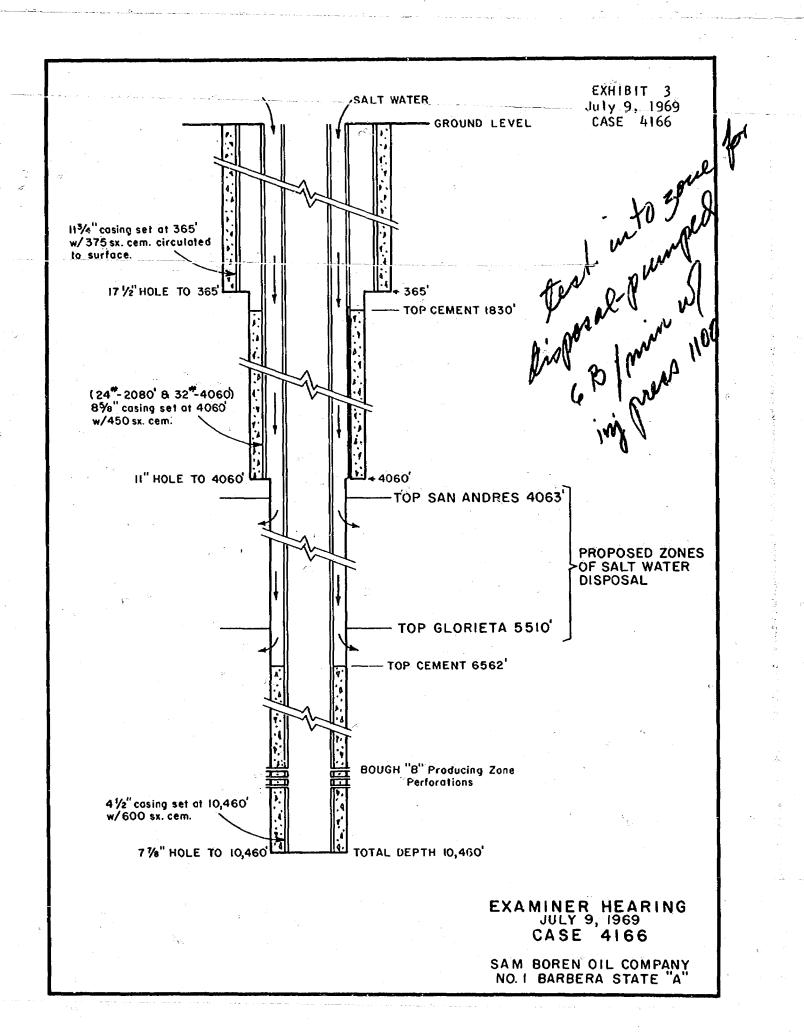
# NEW MEXICO OIL CONSERVATION COMMISSION SANTA FE, NEW MEXICO APPLICATION FOR MULTIPLE COMPLETION

Form C-107 S-1-61 EXHIBIT 2 July 9, 1969 CASE 4166

| Operator                                 |  | County        |   | Date  |  |
|--|--|---------------|---|---|--|
| SAM BOREN OIL COMPANY                    |  | Lea           |   | July 3,                                     | 1969   |
| Address                                  |  | Lease         |   | Well No.                                    |  |
| 4520 West Highway 80, N                  |  | Ol Bar        | bera State "A"                                    |   |  |
| Location                                 | Hon  | ownship       |   | Range                                       |  |
| of Well P                                | 6  | 12 So         |   | 34 E  |  |
| 1. Has the New Mexico Oil Conservation   |  |               |   | fawell in these                             | same pools or in the same  |
| zones within one mile of the subject     |  | NO_X          | <del></del>                                       |   | *  |
| 2. If answer is yes, identify one such i | nstance: Order No  |               | : Operator Lease, a                               | nd Well No.:                                | · · · · · · · · · · · · · · · · · · ·  |
|  |  |               |   |   | The state of the s |
| 3. The following facts are submitted:    | Upper  | <del></del>   | Intermediate                                      |   | Lower  |
|  | Zone   | 1             | Zone  |   | Zone   |
| a. Name of Pool and Formation            | East Bagley Penn   | sylvania      | n   |   | . ,  |
| b. Top and Bottom of                     | The state of the s |               | 0 1   | B"  | ·  |
| Pay Section                              | 9,969 - 9,9811   |               | -Baugh  | .~  |  |
| (Perforations)                           | 9,972, 9,974 € 9   | 1,9761        |   | i   |  |
| c. Type of production (Oil or Gas)       | 011  |               |   |   |  |
| d. Method of Production                  |  | 1             |   | 1   |  |
| (Flowing or Artificial Lift)             | Artificial Lift  |               |   |   |  |
| 4. The following are attached. (Please   | check YES of NO)   |               |   |   |  |
| Yes No                                   |  |               | 6   |   |  |
| a. Diagrammatic Sketch                   | of the Multiple Completion   | on, showing   | all easing strings, included and top of coment of | iding diameters a<br>erforated interva      | and setting depths, central-<br>ls, tubing strings, including  |
| diameters and settin                     | g depth, location and type   | of packers a  | nd side door chokes, and                          | such other infor                            | nation as may be pertinent.  |
|  |  |               | e, all offset wells on o                          | iffset leases, an                           | d the names and addresses  |
|  | ases offsetting applicant's  |               |   |   |  |
|  | to such multiple completions shed copies of the applic   |               | offset operator, or in it                         | ieu inereor, evid                           | ence that said offset opera-   |
| X d. Electrical los of the               | well or other acceptable   | log with to   | es and bottoms of produ                           | ucing zones and                             | intervals of perforation in-<br>as provided by Rule 112.4.)  |
|  |  |               |   |   | ·  |
| 5. List all offset operators to the leas |  | _             |   |   |  |
| Coastal States Gas Prod                  | sucting company, wi  | ico biag      | ., midiand, lexe                                  | 35  | <u> </u>   |
| U. S. Smelting & Refin                   | ing Company Salt   | laka Cit      | v IItah   |   |  |
| or or oncretting o north                 | ing company, sait  | Luke Oit      | y, ocan   | <del></del>                                 |  |
| Cabot Corporation, Wile                  | o Bldg. Midland.   | Texas         |   |   |  |
|  |  |               |   | · <del>······························</del> | · · · · · · · · · · · · · · · · · · ·  |
| Sun Oil Company, Vaugh                   | n Bldo. Midland.   | Texas         | .et   |   |  |
|  |  |               | <u></u>   |   |  |
| Ralph Lowe Estate, Mid                   | land Towers, Midla   | and, Texa     | S   |   |  |
| Featherstone Developmen                  | nt Company - Addre   | ss unkno      | Wn  |   | - <del> </del>   |
| M. P. Grace - Address                    |  |               |   |   |  |
| 6. Were all operators listed in Item 5   | above notified and furnish   | ed a copy of  | this application? YES                             | SNO_X_                                      | If answer is yes, give   |
| date of such notification                |  |               |   |   |  |
| •  |  |               |   | •   | 14   |
| CERTIFICATE: I, the undersigned          |  |               |   |   | en Oil Company   |
|  | company), and that I am a  | uthorized by  | said company to make                              | this report; and the                        | hat this report was prepared   |
| under my supervision and direction and   | that the facts stated there  | ein are true, | correct and complete to                           | the best of my k                            | now reage.   |
|  | •  |               |   |   |  |
| *,                                       | ÷,   |               |   |   | the state of the s |
|  |  | 3.            |   | Signature                                   |  |
|  |  |               |   |   |  |

\*Should waivers from all offset operators not accompany an application for administrative approval, the New Mexico Oil Conservation Commission will hold the application for a period of twenty (20) days from date of receipt by the Commission's Santa Fe office. If, after said twenty-day period, no protest nor request for hearing is received by the Santa Fe office, the application will then be processed.

NOTE: If the proposed multiple completion will result in an unorthodox well location and/or a non-standard proration unit in One or more of the producing zones, then separate application for approval of the same should be filed simultaneously with this application.



Form C-108 Revised 3-1-68

EXHIBIT 4
July 9, 1969
CASE 4166

# NEW MEXICO OIL CONSERVATION COMMISSION

|   |                  |                       | R BY INJECTION I       | lighway 80, M  | idland, Texas 79701  |  |  |  |
|---|------------------|-----------------------|------------------------|--|--|--|--|--|
| SAM BOREN OIL COMPAN  | IY               | WELL NO.              |                        | East Bagley Pennsylvanian  |  |  |  |  |
| Barbera State "A"   |                  |                       | East bagie,            | South  | 660 FEET FROM THE  |  |  |  |
| UNIT LETTER   | P : we           | 66                    | FEET FROM THE          |  | E AND  |  |  |  |
|   | 6 101            | INSHIP 12 South       | RANGE 34 East          | NMPM.  |  |  |  |  |
| East LINE, SECTION  |                  | CASING A              | AND TUBING DATA        | TOP OF CEME  |  |  |  |  |
| NAME OF STRING  | SIZE             | SETTING DEPTH         | SACKS C                | Circulated   |  |  |  |  |
| RFACE CASING  | 11-3/4"          | 3651                  | 375                    | to Surface   |  |  |  |  |
| TERMEDIATE 0-2,080 24#                                      | 0 - 1011         | 4,0601                | 450                    | 1,8301   | Calculation  |  |  |  |
| 2,080-4,060 32#   |                  |                       | 600                    | 6,5621   | Calculation  |  |  |  |
|   | 4-1/2"           | 10,4601               | NAME, MODEL AND DEPTH  | OF TUBING PACKER   |  |  |  |  |
| UBING   | 2-3/811          | 9,942                 | TOP OF FORMATION       | 1. 0631  | San Andres 5,5001  |  |  |  |
| AME OF PROPOSED INJECTION FORM                              | ATION            |                       | San Andres             | 4,063'<br>5,510'   | Glorieta 6,950   |  |  |  |
| a Aldres and Glo  | rieta            | PERFORATION           | Giorieta               | ED INTERVAL(5) OF IN   | PECTION  |  |  |  |
| San Andres and Gro  |                  | ·                     | 3. 14.                 | 060 to 6,502   | HAS WELL EVER BEEN PERFORATED IN AN ZONE OTHER THAN THE PROPOSED INJECTION ZONE?   |  |  |  |
| Annulus   | LIF ANSWER       | IS NO. FOR WHAT PURPO | also to be use         | d for Salt   | TION ZONE? Yes   |  |  |  |
| S THIS A NEW WELL DRILLED FOR                               | INIL Pr          | maucei ""             | - ilonocol             |  | _l   |  |  |  |
| NO LIST ALL SUCH PERFORATED INTERV                          | ALS AND SACKS OF | CEMENT USED TO SEAL   |                        |  | AND DESCRIPTION OF THE PROPERTY OF THE PROPERT |  |  |  |
| 0 072 9 974 and   | 9,976'           |                       | THE WIGHTS             | DEPTH OF OIL OR GAS  | TOP OF NEXT LOWER<br>S ZONE IN THIS AREA   |  |  |  |
| DEPTH OF BOTTOM OF DEEPEST<br>FRESH WATER ZONE IN THIS AREA |                  | OIL OR GAS ZONE II    |                        |  | 9,970 APPROX. PRESSURE (PSI)   |  |  |  |
| Halanowa  | TMAXIMUM         | OPEN OR CL            | OSED TYPE SYSTEM IS    | INJECTION TO BE BY G   | Unknown  |  |  |  |
| ANTICIPATED DAILY MINIMUM                                   | i                | e la form             | osed                   | Pressure   | OF ARE WATER ANALYSES ATTACHED?  |  |  |  |
| (BBLS.) EN : 30   |                  | WAT                   | Oduced                 | AL ZONE  | No   |  |  |  |
|   |                  | 'Ca                   | lt Water               |  |  |  |  |  |
| STOCK, INCIDENT   | WHEN TOR LESSEE. | IF STATE OR FEDERAL   | LAND)                  |  |  |  |  |  |
| GORDON M. CONE, LIST NAMES AND ADDRESSES OF A               | P A Rox I        | 148, Lovingto         | n, New Mexico          |  |  |  |  |  |
| Gordon M. Cone,   | LL OPERATORS WIT | HIN ONE-HALF ( ) MILE | of this intection was  | land, Texas  |  |  |  |  |
| Coastal States G  | as Producir      | ig Company, "         |                        |  |  |  |  |  |
| COASTOT OCCUPA  |                  | Calt                  | Lake City, Uta         | h ·  |  |  |  |  |
| U. S. Smelting &  | Refining         | ompany, sare          | T                      |  |  |  |  |  |
| Sun Oil Company,  |                  |                       |                        |  |  |  |  |  |
| Featherstong Dev  | relopment C      | orp., Address         | unknown                |  |  |  |  |  |
| Dalah Lowe Estat  | te. Midland      | TOMBIS, ILIO          |                        |  | 112 F  |  |  |  |
|   |                  | WN<br>CE OWNER        | EACH OPERATO           |  |  |  |  |  |
| HAVE COPIES OF THIS APPLICAT                                | IONTBEEN SURFA   | No                    | . i                    | No   | DIAGRAMMATIC SKETCH OF WELL  |  |  |  |
|   | ACHED TO PLAT    | 121                   | ELECTRICAL             | 52 Control of the Con | Yes  |  |  |  |
| ARE THE FOLLOWING ITEMS ATT                                 | 5.00             |                       |                        | Yes hest of my   | knowledge and belief.  |  |  |  |
| T box   | by certify that  | the information abov  | e is true and complete | to the pest of my  | knowledge and belief.  |  |  |  |
| 1 nere  | oj cerris, mar   | *                     | t for Sam Boren        | n:1 Company  | July 7, 1969   |  |  |  |
|   |                  | _                     | . L. Cam Karen         | (I) COMPANIE   | (Date)   |  |  |  |

NOTE: Should waivers from the surface owner and all operators within one-half mile of the proposed injection well not accompany this application, the New Mexico Oil Conservation Commission will hold the application for a period of 15 days from the date of receipt by the Commission's Santa Fc office. If Mexico Oil Conservation Commission will hold the application for a period of 15 days from the date of receipt by the Commission will be processed. If a protest is received, at the end of the 15-day waiting period no protest has been received by the Santa Fe office, the application will be set for hearing, if the applicant so requests. SEE RULE 701.

#### NEW MEXICO OIL CONSERVATION COMMISSION

#### APPLICATION TO DISPOSE OF SALT WATER BY INJECTION INTO A POROUS FORMATION

| COSTATOR  |                  | · · · · · · · · · · · · · · · · · · ·             |                          |                          |             |                 |                  |
|---|------------------|---|--------------------------|--------------------------|-------------|-----------------|------------------|
| SAM BOREN OIL COMPA   | NY               | WELL NO.  | 4520 We                  | est Highway 80,          | Midlan      | d, Texas        | 79701            |
| Barbera State "A"   |                  | 1   | East Ba                  | agley Pennsylva          | ınian       | 1.              | ea               |
| LOCATION UNIT LETTER  | Р; w             | ELL IS LOCATED 6                                  | 60 FEET FR               | South                    | LINE AND    | 660             | FEET FROM THE    |
| East LINE, SECTION  | 6 10             | washie 12 South                                   | NAME 34 Eas              | St HMPM.                 |             |                 |                  |
|   |                  |   | AND TUBING DAT           |                          |             | er'             |                  |
| NAME OF STRING  | SIZE             | SETTING DEPTH                                     | SACKS CEMEN              | TOP OF CEN               | MENT        | TOP DETER       | MINED BY         |
| SURFACE CASING  | 11-3/4"          | 3651  | 375                      | Circulate<br>to Surfac   |             |                 |                  |
| 1NTERMEDIATE 0-2,080 24#<br>2,080-4,060 32#   | 8-5/8"           | 4,0601  | 450                      | 1,830'                   |             | Calculati       | on .             |
| LONG STRING   | 4-1/2"           | 10,4601   | 600                      | 6,562!                   |             | Calculati       | on               |
| YUBING  | 2-3/8"           | 1.  | NAME, MODEL AND DE       | PTH OF TUBING PACKER     |             |                 |                  |
| NAME OF PROPOSED INJECTION FORMAT   |                  | 9,942   | TOP OF FORM              | ATION 1 OCOL             | воттом      | Andres          | c coo.           |
| San Andres and Glor   |                  |   | San And<br>  Gloriet     |                          |             | Andres<br>ieta  | 5,500'<br>6,950' |
| IS INJECTION THROUGH TUBING, CASING   | OR ANNULUS?      | PERFORATIONS                                      |                          | OPOSED INTERVAL(S) OF IN | IJECTION    | -               |                  |
| Annulus   | Tre anewro to    | Open Ho   |                          | 4,060 to 6,562           |             | L EVER BEEN PER | FORATED 19 100   |
| IS THIS A NEW WELL DRILLED FOR DISPOSAL?  | Oil Pro          | ducer. Well                                       | also to be               | used for Salt            | ZONE OTH    | ER THAN THE PRO | POSED INJEC-     |
| LIST ALL SUCH PERFORATED INTERVAL   | SAND SÄCKS OF CI | WALES<br>O TO SEAL O                              | disposal.                | · — — — — — — —          |             | <u>Yes</u>      |                  |
| 9,972, 9,974 and 9,   | 9761             |   |                          |                          | (1)         |                 |                  |
| DEPTH OF BOTTOM OF DEEPEST FRESH WATER ZONE IN THIS AREA UNKNOWN  | 7                | DEPTH OF BOTTOM OF<br>OIL OR GAS ZONE IN 1        | NEXT HIGHER<br>THIS AREA | DEPTH OF OIL OR GAS      | 20NE IN THE | LOWER<br>S AREA |                  |
| ANTICIPATED DAILY . MINEMUM   | T MAXIMUM        | OFEN OR CLOS                                      | EO TYPE SYSTEM           | IS INJECTION TO BE BY G  |             | APPROX. PRESS   | URE (PSI)        |
| 50   30   | 100              | Clos  |                          | Pressure                 |             | Unknown         |                  |
| ANSWER YES ON NO WHETHER THE FOLE<br>ERALIZED TO SUCH A DEGREE AS TO BE<br>STOCK, IRRIGATION, OR OTHER GENERA | UNFIT FOR DOMES  | Prod  | luced                    | NATURAL WATER IN DISP    | O- ARE WAT  |                 | ACHED?           |
| NAME AND ADDRESS OF SURFACE OWNE  | R (OR LESSEE, IF | YOS STATE OF FEDERAL LAN                          | : Water                  | ·                        |             | No              | <del></del>      |
| Gordon M. Cone. P.  | O. Box 114       | 8, Lovington,                                     | New Mexico               |                          |             | ···             |                  |
| Coastal States Gas  |                  |   |                          |                          |             |                 |                  |
| U. S. Smelting & Re   | fining Com       | pany, Salt La                                     | ake City, Ut             | ah                       |             |                 |                  |
| Sun Oil Company, V  | aughn Bldg       | ., Midland, T                                     | exas                     |                          |             |                 |                  |
| Featherstong Develo   | pment Corp       | Address un  | ıknown                   |                          |             | *               |                  |
| Ralph Lowe Estate,  | 1.7              | ·· <del>···································</del> |                          |                          |             |                 |                  |
| M. P. Grace, Addres   |                  | NER   | TEACH OPERAT             | OR WITHIN ONE-HALF MILE  |             |                 |                  |
| SENT TO EACH OF THE FOLLOWING?  | ١                | lo 🐇  | OF THIS WELL             | No                       |             |                 | 4                |
| ARE THE FOLLOWING ITEMS ATTACHED THIS APPLICATION (SEE RULE 701-B)  | 1                | eś:   | ELECTRICAL L             | Yes                      | DIAGRAMI    | Yes             | WELL             |
| I Herepy ce   |                  |   | true and complete        | to the best of my kno    | wledge and  | <del></del>     | 1,               |
| Julph W M.  | 3-1              | Agent fo  |                          | Oil Company              |             | July 7.         | 1969             |
| (Signature)   | 1                |   | (Title)                  |                          |             | (Date)          |                  |

NOTE: Should waivers' from the surface owner and all operators within one-half mile of the proposed injection well not accompany this application, the New Mexico Oil Conservation Commission will hold the application for a period of 15 days from the date of receipt by the Commission's Sunta Fe office. If at the end of the 15-day waiting period no protest has been received by the Santa Fe office, the application will be processed. If a protest is received, the application will be set for hearing, if the applicant so requests. SEE RULE 701.

# NEW MEXICO OIL CONSERVATION COMMISSION SANTA FE, NEW MEXICO APPLICATION FOR MULTIPLE COMPLETION

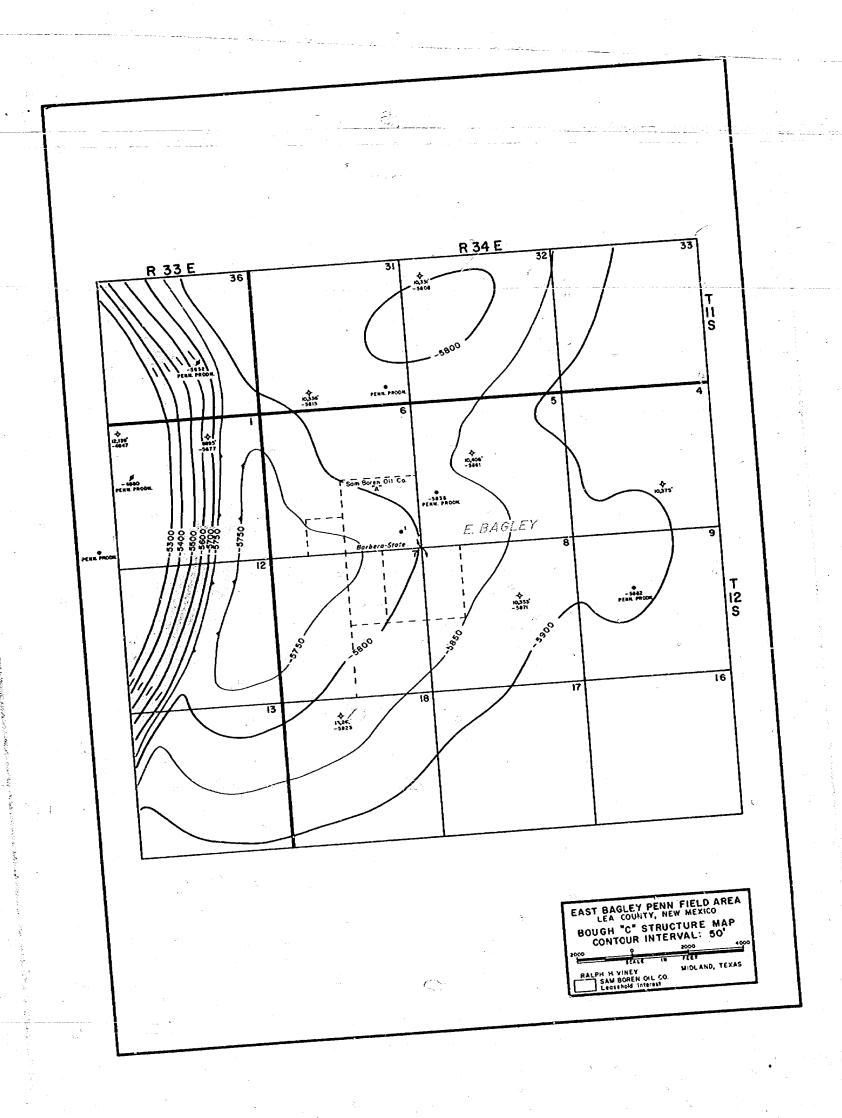
Form C-107 5-1-61

| Operator   |   | County  | Date   |  |  |  |
|--|---|---|--|--|--|--|
| SAM BOREN OIL COMPANY  |   | Lea   | July 3, 1969   |  |  |  |
| 4520 West Highway 80, M  | idland, Texas 7970  | nship   | Range  |  |  |  |
|  | b   | 12 South  | 34 East  |  |  |  |
| zones within one mile of the subject  2. If answer is yes, identify one such in  | well? YES   | NO_X  | f a well in these same pools or in the same  |  |  |  |
| 3. The following facts are submitted:  | Upper   | Intermediate  | Lower  |  |  |  |
|  | Zone  | Zone  | Zone   |  |  |  |
| a. Name of Pool and Formation  | East Bagley Pennsy  | /lvanian  |  |  |  |  |
| b. Top and Bottom of Pay Section (Perforations)  | 9,969 - 9,981'<br>9,972, 9,974 & 9,9  |   |  |  |  |  |
| c. Type of production (Oil or Gas)   | [01]  |   |  |  |  |  |
| d. Method of Production  | August 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1  |   |  |  |  |  |
| (Flowing or Artificial Lift)  4. The following are attached. (Please of  | Artificial Lift   |   | <u> </u>   |  |  |  |
| b. Plat showing the loca of operators of all lea  c. Waivers consenting to tors have been furnis  A. Electrical log of the | ation of all wells on applicates offsetting applicant's loos such multiple completion shed copies of the application well or other acceptable louch log is not available at the on which this well is located ucing Company, Wilden | ant's lease, all offset wells on of<br>ease.  from each offset operator, or in li<br>on.  g with tops and bottoms of produ<br>he time application is filed it sha<br>ed together with their correct mail<br>co Bldg., Midland, Texa |  |  |  |  |
| O. S. Sherting & Reffin  | ing company, sait La  | ske City, Utan  |  |  |  |  |
| Cabot Corporation, Wilc Sun Oil Company, Vaughn  |   |   |  |  |  |  |
| Ralph Lowe Estate, Midl  | and Towers, Midland   | i, Texas  |  |  |  |  |
| Featherstone Developmen<br>M. P. Grace - Address u   | t Company - Address   |   |  |  |  |  |
|  |   | a copy of this application? VFS   | NO_X If answer is yes, give  |  |  |  |
| date of such notification  |   |   | The state of the s |  |  |  |
| CERTIFICATE: I, the undersigned, (cunder my supervision and direction and t  | ompany), and that I am aut  | horized by said company to make the   | the Sam Boren Oil Company his report; and that this report was prepared the best of my knowledge.  |  |  |  |
|  | •   | Lulph   | Meg - agen   |  |  |  |
|  |   | •   | Signature  |  |  |  |

\*Should waivers from all offset operators not accompany an application for administrative approval, the New Mexico Oil Conservation Commission will hold the application for a period of twenty (20) days from date of receipt by the Commission's Santa Fe office. If, after said twenty-day period, no protest nor request for hearing is received by the Santa Fe office, the application will then be processed.

NOTE: If the proposed multiple completion will result in an unorthodox well location and/or a non-standard proration unit in one or more of the producing zones, then separate application for approval of the same should be filed simultaneously with this application.

| of Maliament Diff 1 as Tumores K-2792  | So Roy.<br>(Shell)  |  | SALANT HE  | of IP.De Clevo, elol   |  | Mory LeveTr.#3<br>9: 18: 72<br>K-2720       | Cobat<br>4 - 20<br>X - 41<br>16  | 1.75   | 34 Sun 5,16.7                           |
|--|---|--|--|--|--|---|--|--|---|
| State 128 158  | Epperson*   | So, Roy:   | Shellound  | 19"Shell-St."  | Beg!   | Forms, Inc.                                 | _  | (a. eq (a.c.)  | Siate M<br>Bogie Ro                     |
| Ed Holl RIAL   | (Shell)<br>So Roy<br>1 9900'  | (S#e0)   | Sharse See Rolph Low   |  | Mary Lo<br>8- 18-<br>K-21  | . 72  | Cobo<br>4 . 4<br>K   | of Corp.<br>10 - 75<br>1807<br>5 22  | \$ N.                                   |
| SM payment say the payment of the pa   | Mobile<br>Anna Experson<br>Rueben W.<br>FABR LA<br>Se. Rou.   | Epperson<br>Mr 2-9<br>Bo Rey1                                      | Share<br>Shall   |  |  | ere<br>Av.                                  | Se<br>Oet-   | L.C.   |   |
| W. S. Widowski   |   | Wa.Rey) *  | na i   | NBF<br>R-4601  | So. R<br>10 - 18<br>× 84<br>24 1   | 42 76<br>11                                 | 13.1   | 19 - 77<br>-497<br>1822  | K-1352   K                              |
| 7726 Mas Dallos 772 320 Mins. 773 300 Mins. 774 300 416 3100 417   | 1 × 2   | 5  | Isisic I   | 30   | 2  | 9   | 2  | felmont Skelly   | ; ﴿ لـــــ<br>ا                         |
| Midwest 5 is 72  | S'Awar<br>T M. Epperson   | Nancy<br>Eppersonetal<br>R.W. Epperso                              | NA T   | State  | Sr   | ete   | <br>Sh   | ⊗  | 11 m/s<br>11 700°5                      |
| Amuseo   | Major, Giabal E.<br>Forster<br>3 · 21 · 71<br>K · 1261  | i  | Ten<br>Ten<br>Bun 7 00   | intro  |  | 0.74  | 3-18<br>Not  | -79<br>Bid   | A3<br>2. i<br>1- 2                      |
| rede Angrodo<br>1347<br>- 35 Angroda   | 3   | Amer:Petrofine   | Bra j  | 31   | Roleh Lan<br>Ameriodo<br>16 Misi<br>MA A II Si   | st.<br>2                                    | 3  | 33   | 21                                      |
| GLEY   | 70 12:30  | Major Giebel<br>& Forster<br>Fina Sf.                              | क्रमक दी   | TF.Modge Transco-St. 1010 312 - 2 W  |  |   |  |  | FOUR                                    |
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| es Pacific   Tex. Polic<br>constitution   Tex. Pol | 10 100 100 100 100 100 100 100 100 100  | Major, Grebel &<br>Forster<br>Shelf-Spears<br>1193832<br>141-13-68 | 9 17- 78<br>1-1497<br>3434 3 34  | 12-11-73<br>K-1776   | 2. 18.<br>1. 2482<br>11 9  |   | Prod.<br>12-19-37<br>L-517   | Azfec<br>4+19-76<br>K-5917<br>26-12  | Solveste                                |
| redu isang ilon Pice<br>1 9 74<br>1 7 74<br>1 7 74<br>1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1  | Sre   | Tex Pocific<br>12-10-62<br>Е-6696<br>ИВС                           | 510  | hot (Shell) less 4 13 70 less 4 13 70 less 54 10 less 54 10 less 60 2000 0 0 0   | Pon Amer.  i E-5134 Coostol States Pan Am - 57. Penn. Disc. F241 Si  | 1   | Phillips<br>Heu<br>E-1234<br>Sa  | ⊗   West'r Storce  | s                                       |
| Tex. Pacific  At  Se  Cont. Leg  17 Store  17 Store  People Ang. (p. 1921-182)   | Shell<br>6-14-70<br>Ameroda<br>Store<br>15 Ulap   | Shell<br>12 · 17 · 73<br>K- 3775<br>25 · 1<br>2 ·                  | Total P<br>R. Long Es<br>4-18-77<br>5-6067   | U.S. Same Cobot. U.S. S |  |   | OG 6171 6544 Western States Smed 57 (Sunray) Jean Ha E Begley (Integral)   | Corinne Grece<br>2" [8 - 74]<br>252]<br>8 Rateh Lever<br>12" 15" 69                        | Mrs.Cori<br>2 - 18<br>K-3<br>18         |
| 5-77 5-8 1-24814<br>17501<br>30-11 51670, MI<br>Ameroda, S   | Lulu Graham M.L.<br>John T. Acrey   | Amerado<br>H B P<br>B-10612<br>Shell<br>2-17-73<br>State 2512      | 1000 € 179<br>1000 71<br>1000 71   | FR Boss E,<br>Getty Oil<br>t-17-17<br>X-6677<br>30 99  | E-937  | 8 - TD 10333<br> U.S. Smed. Stelle:<br>     | U.S.Smelf,<br>4 i8-71<br>K-056<br>64 5<br>Stoll x E.Co. 2  | CerimeGrace 2:10-74 1  |   |
| S Collins, atol \$4 od   | H (<br>060<br>U.S<br>John T.  | rods<br>3.P.<br>581<br>"M.<br>Acroy, S                             | Hunt Tr.<br>Store<br>To Deal<br>Dra 8-26-65<br>Tresta 7<br>Testa 7 | P.R.Boza 1/2   | Gelly Oil<br>e 17 - 75<br>E-5176<br>5125   | P. P. Boss<br>1 1-18-76<br>1 K-5618<br>6848 | Midwest<br>6 - 20 - 77<br>L 40<br>25 25  | R. Lawe<br>12-15-59<br>K-5 -10<br>T.H. McEtvoin, Jr<br>9 - 21 - 75 etcl<br>R-5269<br>13-52 | 12 - 20 - 77<br>L - 500<br>13 12        |
| E.D. While<br>7-21-69<br>968113<br>1<br>1<br>Steps   | SI<br>12-<br>X-<br>2  | 13   | 18114 F  | 18 P.R. Boss E.   Getty Oil   2-21-77   K-5721   156 U   | Midwest<br>8-17-78<br>K 5219<br>26-12<br>Sr  | 17<br>                                      | Philips<br>HBP<br>E-1233<br>Relph Nix<br>HBP<br>E 1233<br>O.S. Frier (S) S   | Texas Pocific  | M P. Grace<br>6-21-70<br>K-541<br>16 35 |
| Ties Service  To The Control of the  |   | PanAmer.<br>5-19-68<br>038450<br>110-02                            | Texaco<br>2 · 21 · 77<br>E · 672?<br>Type 7   311  | 1 1 - 17 - 77  | 5un<br>3+18-79<br>+-≥651<br>309  | Union<br>7- 0-70<br>x-596                   | 5·   | T<br>Sun<br>20-79  | Sun<br>5·20·79<br>25 #                  |
| 23   | Amerose Senim   | A as 65  | 1  | and.   | EAST   | BAGLE                                       | Y PENN   | . 12<br>I FIELD  | AREA                                    |
| Amerada<br>B3 H.B.P.<br>B-10007  | H.B P.<br>B=10083<br>Stee   | REMITED I  | F110   | Serv. forfille<br>(-1)<br>(-1)<br>(-1)<br>(-1)<br>(-1)<br>(-1)<br>(-1)<br>(-1)   |  | EA COU<br>L <b>eas</b>                      | NTY, NE<br>E LAN   | W MEXIC  | 0                                       |
|  | Shell<br>MBP<br>K2548<br>3287   | Shell Boren<br>Kaparen   | Honds<br>12 14 31<br>17 040<br>17 14 7   | Texom, Peaker  | SCALE: I" = 4000'  RALPH H. VINEY MIDLAND, TEX  SAM BOREN OIL CO. Ledschold Interest  POSTED DATE OF MAP - JUNE 20, 1969 |   |  |  |   |



RALPH H. VINEY

I

Consultant to the Oil and Gas Industry

Central Building

Central Building

MIDLAND, TEXAS 79701

915 682-5346

June 16, 1969

Case 4/66

New Mexico Oil Conservation Commission Post Office Box 2088 Santa Fe, New Mexico 87501

Gentlemen:

Request for <del>Special Pool Rules for the East Bagley (Penn) Fieldy</del>
Lea County; New Mexico; and Annular Salt Water Disposal for
Barbera State "A" Well No. 1

Sam Boren respectfully requests a hearing before the Commission to consider the promulgation of special rules for the captioned field and permission to dispose of salt water in the San Andres zone through the annular casing space in the captioned well.

In the request for special pool rules, Mr. Boren is asking for the provision of 160-acre spacing and proration units together with the assignment of 80-acre allowables to the proposed units.

Mr. Boren intends to inject water down the annular space between the  $4\frac{1}{2}$ " and 8-5/8" casing and dispose of such water between the base of the 8-5/8" casing in the annular space between the 7-7/8" hole and the  $4\frac{1}{2}$ " casing in the San Andres zone between the base of the 8-5/8" casing at 4,060' and the top of the cement at 6,562'.

The lease and well in question is the Sam Boren Oil Company Barbera State "A" Lease Well No. 1. State Lease No. K 367, Bagley (Penn) Field, Lea County, New Mexico. The well is located 660° FSL and 660° FEL of Section 6, Township 12 South, Range 34 East, N.M.P.M.

Mr. Boren respectfully requests of the Oil Conservation Commission, a hearing of this application at the first open available date.

Very truly yours,

Raiph H. Viney

Regan t

RHV: mm

cc: Mr. J. D. Ramey Box 1980 Hobbs, New Mexico 88240

> Mr. F. J. McDonald Tenneco Oil Company Wilco Building Midland, Texas 79701

Mr. J. D. Rankin Sam Boren Oil Company 4520 West Highway 80 Midland, Texas 79701

Mr. Sam Boren 225 Park Cities Bank Building Dallas, Texas 75205

1 2-1

Com 4/66

|  |                   |                | •                                       |               |                  | <u>^</u>           | .111   |                  | <u> </u>                 |                        |
|--|-------------------|----------------|---|---------------|------------------|--------------------|--|------------------|--------------------------|------------------------|
|  |                   |                |   |               | · /6             | see .              | 4/66   | Ś                |                          | 35                     |
|  |                   | 7              | *************************************** |               |                  |                    |  |                  |                          | ္ သ                    |
| NO. OF COPIES RECEIVE                  | •                 | -{.            |   |               |                  |                    |  | •                | Form C - [6<br>Revised ] | 5                      |
| SANTA PE                               |                   | -{             |   | C + 5         |                  |                    | · .  | ES               | ,                        | ype of Legse           |
| FILE                                   |                   | -{ <b></b>     |   |               |                  | SERVATION C        |  |                  | Statex                   |                        |
| U.S.G.S.                               |                   | JWELL          | _ COMPLE                                | HON OF        | RECO             | MPLETION           | REPORT AN  | D LOGI           |                          | Gas Leage No.          |
| LAND OFFICE                            |                   | ┪              |   |               |                  | pr <sup>2</sup>    | 1  | ! .,             | 357 ×                    | <u> </u>               |
| OPERATOR                               |                   | -{             |   |               | •                |                    |  | K                | TITT                     | THE THE STATE          |
| <u> </u>                               |                   | _5             |   |               |                  |                    |  | <i>[</i> ]       |                          |                        |
| IG. TYPE OF WELL                       | ·                 |                | <del></del>                             |               |                  |                    | <del></del>  | 7                | . Unit Agreet            | nent Name              |
| ************************************** | 0                 | EVE            | GAS<br>WELL                             |               | DRY              | OTHER              |  |                  | 8.                       |                        |
| D. TYPE OF COMPLET                     | rion              |                |   |               |                  |                    |  | 8                | . Farm or Le             | ase Name               |
| WELLE WOR                              | K 0E4             | PEN            | PLUG<br>BACK                            | RE            | VR.              | OTHER              |  |                  |                          | rivers-State A         |
| 2. Name of Operator                    |                   |                |   | -             |                  |                    |  | ] 9              | . Well No.               |                        |
| Sam Boren<br>3. Address of Operator    |                   |                |   |               |                  |                    |  |                  | <del></del>              |                        |
| 3, Address of Operator                 | * .               |                | ·                                       |               |                  | -                  |  |                  |                          | Pool, or Wildcat       |
| Box 953 Midl:                          | and Toxas         | 7970           | 11                                      | <del></del>   |                  |                    |  |                  | 4. 13418                 | x (8499)               |
| 4. Location of well                    | •                 |                |   |               | 51               |                    |  |                  |                          |                        |
| UNIT LETTER - P                        |                   | 666            | ,                                       |               | South            |                    | 553  |                  |                          |                        |
|  | LOCATED           | 300            | FERT FI                                 | TOM THE       | 300 (11          | LINE AND           | ***************************************            | ET FROM          | 2. County                | <i>11111111111</i>     |
| THE BAST - LINE OF S                   |                   | 7              | 28                                      | SAR           |                  | UIIIIII            | HHHH   | 1////            | era.                     |                        |
|  |                   |                |   |               | nmpm<br>ady to P |                    | vations (DF. RF                                    | 77777            |                          | lev. Cashinghoad       |
| 5-16-69                                |                   |                | 1                                       | 1-69          |                  |                    | 36 GL  | ,,               | 10, 2                    | 4                      |
| 20. Total Depth                        | 21. 1             | Plug Bac       |   |               | f Multiple       | e Compl., How      | 23. Intervals                                      | , Rotary         | rools                    | . Cable Tools          |
| 11,189                                 |                   | 10.4           | _                                       | ,             | dany             |                    | Drilled B  | ly<br>► 10111    |                          |                        |
| 24. Producing Interval(s               | ), of this comp   |                |   | , Name        |                  |                    | 1  |                  |                          | Was Directional Survey |
| {                                      |                   |                |   |               |                  |                    |  |                  | 1                        | Made                   |
| 9972-78-75 ()                          | Poad)             |                |   |               |                  |                    |  |                  | 1                        | Yea                    |
| 26. Type Electric and O                | ther Logs Run     | ī <sub>k</sub> |   |               |                  |                    |  |                  | 27. Was                  | Well Cored             |
| Gamma Ray He                           | utron             | ,              | - F                                     |               |                  |                    |  |                  |                          | หือ                    |
| 28.                                    |                   |                | CAS                                     | ING RECO      | RD (Rec          | ort all strings se | ot in well)  |                  |                          |                        |
| CASING SIZE                            | WEIGHT L          | B./FT.         | DEPT                                    | SET           | HOL              | E SIZE             | CEMENT   | ING RECOF        | rD.                      | AMOUNT PULLED          |
| 11-3/4                                 | - 1 <del>-2</del> |                | 365                                     |               | 17               | -1/2               | 375  |                  |                          | 9                      |
| 3-5/8                                  | 24                |                | 2000                                    |               |                  | 373                | (  |                  |                          | 3                      |
| 8-5/8                                  | 3.2               |                | 4039                                    |               |                  | -378               | 450  |                  | 4                        | 9                      |
| 4-3/2                                  | 11.6              |                | 10000                                   |               | 7                | -7/8               | 500  |                  |                          | 9                      |
| 29.                                    |                   | LINER          | RECORD                                  |               |                  |                    | 30.  | TU               | BING RECO                | RD                     |
| SIZE                                   | тор               | E              | BOTTOM                                  | SACKS C       | EMENT            | SCREEN             | SIZE   |                  | TH SET                   | PACKER SET             |
| ļ                                      | <del> </del>      |                |   |               |                  | <del> </del>       |  | 937              | <u> </u>                 | 9942                   |
|  |                   |                | <del></del>                             | L             | 1                | T                  |  | 1                |                          |                        |
| 31, Perforation Record (               | Interval, size    | and num        | ber)                                    |               |                  |                    | ID, SHOT, FRA                                      |                  |                          |                        |
|  |                   |                |   |               |                  | DEPTH IN           | <del></del>  |                  |                          | MATERIAL USED          |
|  |                   |                |   |               |                  | 9972-34-           | <del>* '}                                   </del> | - 350 1          | <u>jels, ec</u>          | EG                     |
|  |                   |                |   |               |                  | <b>}</b>           |  | <del>,,,</del> , | <del></del>              |                        |
|  |                   |                |   |               |                  | <b> </b>           |  |                  |                          |                        |
| 33.                                    |                   |                |   |               | PROD             | UCTION             |  |                  |                          |                        |
| Date First Production                  | Pr                | eduction       | Method (Flor                            | wing, gas l   |                  | ing - Size and t   | ype pump)  | 1                | Well Status              | (Prod. or Shut-in)     |
| 6-1-69                                 |                   |                | •                                       |               | mine             |                    |  | {                |                          | oducing                |
| Date of Test                           | Hours Tested      | 1 (            | Choke Size                              | Prod'n.       | For              | Oil - Bbl.         | Gas MCF  | Water            |                          | Gas - Oll Ratio        |
| 8-1-69                                 | 23                |                | ••                                      | Test Pe       | riod             | 212                | 254  | 75               | 1                        | 1200                   |
| Flow Tubing Press.                     | Casing Pres       |                | Calculated 24                           | - Oil - B     | bl.              | Gas - MCI          |  | er – Bbl.        | Oil G                    | ravity - API (Com.) .  |
| 0                                      | Pecker            | [.             | Hour Rate                               | •             |                  |                    | 10   |                  |                          | <u>.</u> :             |
| 34, Disposition of Gas (               | Sold, used for    | fuel, ve       | nted, etc.)                             |               |                  |                    |  | Test V           | itnessed By              | 10 .                   |
| Sold                                   |                   |                |   |               |                  |                    |  |                  | Mules                    | Beck                   |
| 35. List of Attachments                |                   |                |   | ,             |                  |                    |  |                  |                          |                        |
| Inclination                            | sittysy s.        | 16 lo,         | š , 35.                                 |               |                  |                    |  | \<br><del></del> |                          |                        |
| 35. I hereby certify that              | the information   | n shown        | on both side                            | es of this fo | onn is tru       | e and complete     | to the best of m                                   | y knowledge      | und belief.              | , .                    |
| •                                      |                   |                | 1.                                      |               |                  |                    |  |                  | and the second second    |                        |
|  |                   |                | ¥ .                                     |               |                  |                    |  |                  |                          |                        |

Come 4/66

#### INSTRUCTIONS

This form is to be filed with the appropriate District Office of the Commission not later than 20 days after the completion of any newly-drilled or deepened well. It shall be accompanied by one copy of all electrical and radio-activity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, items 30 through 34 shall be reported for each zone. The form is to be filed in quintuplicate except on state land, where six copies are required. See Rule 1105.

#### INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

| Runtler              |                    | stern | New Mexico           |        | Nor                      | thwestem No | w Mexico     |          |
|----------------------|--------------------|-------|----------------------|--------|--------------------------|-------------|--------------|----------|
| TXX6XXy              | 1922               | _ Т.  | Canyon 10,500        | T.     | Ojo Alamo                | T.          | Penn. "B"    |          |
| T. Balt              |                    | _ т.  | Strawn 10, 935       | T.     | Kirtland-Fruitland       | Т.          | Penn. "C"    | <u> </u> |
| B. OBLIGHT - STREET  | <u>60-22 (3. )</u> |       | Atoka                |        | Pictured Cliffs          | т.          | Penn. "D"    |          |
| T. Yates             | 2745               | _ T.  | Miss                 | Т.     | Cliff House              | T.          | Leadville    |          |
| T. 7 Rivers          | 2952 /             | _ Ţ,  | Devenian             | Т.     | Menefee                  | т.          | Madison      |          |
| T. Queen             |                    | _ T.  | Silurian             | т.     | Point Lookout            | т.          | Elbert       |          |
| T. Grafburg          | <u> </u>           | _ T.  | Montoya              | Т.     | Mancos                   | T.          | McCracken    |          |
| T. San Andres        | 4063               |       | Simpson              |        |                          |             |              |          |
| T Giorieta           | 5510               | Ŀт.   | McKee                | Ba     | se Greenhorn             | т.          | Granite      |          |
| T. Peddock           |                    | _ Т.  | Ellenburger          | т.     | - Dakota                 | Т.          | <del> </del> |          |
| T. Blinebry          |                    | _ T.  | Gr. Wash             | Т.     | Morrison                 | т.          |              |          |
| T. Tubb              | 6950               | _ T.  | Granite              | T.     | Todilto                  | Т           |              |          |
| T. Drinkard          | 7753               | _ T.  | Delaware Sand        | т      | Entrada                  | т.          |              |          |
| T. Abo               |                    |       | Bone Springs         |        |                          |             |              |          |
| T. Wolfcamp          | 2070               |       |                      |        |                          |             |              |          |
| T. Penn.             |                    |       |                      |        |                          |             |              |          |
| " To Class (Bough C) | 10020              |       |                      |        |                          |             |              |          |
| Cisco                | 10120              |       | *                    |        |                          |             |              |          |
| Ranger, Leke         | 10240              |       | FORMATION RECORD (An | ach ad | ditional sheets if nece: | ssary)      |              |          |

| From  | То                   | Thickness<br>in Feet | Formation                                | From | То | Thickness<br>in Feet | Formation  |         |
|---|----------------------|----------------------|--|------|----|----------------------|--|---------|
| ันรามชา<br>0  | 985                  | 985                  | Surface rocks & red bed                  |      |    |                      |  |         |
| 2355  | 2356<br>3862<br>7476 | 1371<br>1506<br>3614 | Red bed & enhy.<br>Anay.<br>Lize & Shale |      |    |                      |  |         |
| 3862<br>7576  | 13159                | 3704                 | Line                                     |      |    |                      |  |         |
| <u> </u>  |                      |                      |  |      |    |                      |  |         |
| OBEG  | Andre                |                      |  |      |    | 50                   |  |         |
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| v * - * - *<br>  <u>-                                </u>   |                      |                      |  |      |    |                      |  |         |

GMH/esr

B

### BEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION OF NEW MEXICO FOR THE PURPOSE OF CONSIDERING:

CASE No. 4166

Order No. R-\_

APPLICATION OF SAM BOREN FOR A DUAL COMPLETION AND SALT WATER DISPOSAL, LEA COUNTY, NEW MEXICO.

219

#### ORDER OF THE COMMISSION

#### BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on July 9 , 1969 at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this day of July , 1969, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

#### FINDS:

- (1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.
- (2) That the applicant, Sam Boren, seeks authority to complete his Barbera State "A" Well No. 1, located in Unit P of Section 6, Township 12 South, Range 34 East, NMPM, East Bagley-Pennsylvanian Pool, Lea County, New Mexico, as a dual completion to produce oil from the East Bagley-Pennsylvanian Pool through and to dispose of produced salt water down the annulus between the 4/2 -inch production casing string and the 8/8 -inch intermediate casing string into the San Andres and Glorieta formations in the open-hole interval from approximately 4060 feet to 6562 feet.

- (3) That the produced salt water should be continuously treated prior to injection to prevent casing corrosion and coupon corrosion tests should be conducted continuously on said well and the results thereof filed quarterly with the Commission until further notice from the Secretary-Director of the Commission.
- (4) That approval of the dual completion and salt water disposal as set out above will prevent the drilling of unnecessary wells, and will otherwise prevent waste and protect correlative rights.

(1) That the applicant, Sam Boren, is hereby authorized to

#### IT IS THEREFORE ORDERED:

PROVIDED HOWEVER, that the produced salt water shall be continuously treated prior to injection to prevent casing corrosion; that coupon corrosion tests shall be conducted continuously on said well and the results thereof filed quarterly with the Commission until further notice from the Secretary-Director of the Commission;

PROVIDED FURTHER, that the applicant shall submit monthly reports of his disposal operations in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.

-3-CASE No. 4166

(2) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

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