

CASE 3949: Application of PHILLIPS
FOR SALT WATER DISPOSAL, IEA
COUNTY, NEW MEXICO.

Case Number

3949

Application

Transcripts.

Small Exhibits

ETC.

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SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS

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BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
November 20, 1968

EXAMINER HEARING

IN THE MATTER OF:)

Application of Phillips Petroleum)
Company for salt water disposal, Lea)
County, New Mexico.)

Case No. 3949

BEFORE: Elvis A. Utz, Examiner.

TRANSCRIPT OF HEARING

MR. UTZ: Case 3949.

MR. HATCH: Case 3949. Application of Phillips Petroleum Company for salt water disposal, Lea County, New Mexico.

MR. KELLAHIN: If the Examiner please, Jason Kellahin of Kellahin and Fox, Santa Fe appearing for the applicant. I have one witness I would like to have sworn.

MR. UTZ: Are there other appearances? You may proceed.

(Witness sworn)

(Whereupon, Applicant's Exhibits 1 through 3 were marked for identification.)

W. J. MUELLAR

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

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q Would you state your name, please?

A W. J. Mueller; M-U-E-L-L-A-R.

Q By whom are you employed and in what position, Mr. Mueller?

A I am Associate Reservoir Engineer with Phillips

Petroleum Company, Southwest Region, Odessa, Texas.

Q Have you testified before the Oil Conservation Commission and made your qualifications a matter of record?

A Yes, sir.

Q Are the witnesses' qualifications acceptable?

MR. UTZ: Yes, sir, they are.

Q (By Mr. Kellahin) Mr. Mueller, are you familiar with the application of Phillips Petroleum Company in Case 3949?

A Yes, sir.

Q Briefly, what is proposed by Phillips Petroleum Company in this application?

A In this application we would like to re-enter our Pello A Number 1 and dispose of produced water from our Pen State Lease into the old open-hole interval in the Pello A Number 1.

Q Now, referring to what has been marked as Exhibit Number 1, would you identify that exhibit please?

A Exhibit No. 1 is a structure map, pligh of the area and cross section of the Wolfcamp-Pen production in this area. It shows our three Pen State wells in Sections 3 and 4. I would like to point out that we have a well number 3 shown on our plat here that is currently being

completed and does not now occur on the proration schedule; only the one and two are on the proration schedule now; three is in the process of completion.

MR. UTZ: What's the location of that well?

THE WITNESS: That's the one in Unit F of Section 4.

Q (By Mr. Kellahin) What is the location of the proposed disposal well, Mr. Mueller?

A The proposed disposal well is located low structurally and when drilled this interval we propose to return the water to with drill stem test, it recovered water and the well was subsequently -- pipe was run to a depth of 9580 and the well -- attempted completion in some upper Wolfcamp Limes, but it was plugged and abandoned shortly thereafter. I think it was completed in '52, plugged and abandoned in '53, after producing cumulative 2814 barrels of oil.

Q And the present condition of the well is plugged and abandoned?

A Yes.

Q And this is the well you propose to reopen -- re-enter?

A Yes, sir.

Q Now, referring to the cross section on the Exhibit 1, does that reflect the statement you made as to the well being located low structurally?

A Yes, it shows that this is the lowest well within roughly a four or five mile radius and it is low structurally to all the Tulk-Wolfcamp classified production to the west and also low to the Tulk-Pen production to the north.

Q Now, there is production then from the interval in which you propose to inject water, is that correct?

A Yes, it is producing.

Q That is producing, right? But, this would be below the water-oil contact, is that correct?

A As such, yes.

Q If there is any?

A There is no definite oil-water contact here, but it would be low structurally to anything that is currently productive or known to be productive.

Q Then, in your opinion, would the injection of water in that portion of the formation have any adverse affect on the production from the other wells in the area?

A No, not at all.

Q Would it affect the correlative rights of any

operator?

A Not to my knowledge.

Q You are the only operator in the area, are you not?

A We're the only operator within a two-mile radius, yes.

Q Within a two-mile radius? Does that complete your discussion of Exhibit No. 1?

A Yes. I did want to show that the green interval I took a green pen in the Pello A No. 1 is the overall open-hole interval we propose to open in this well and the green horizontal markings are the permeable zones as shown from log analysis so these would probably be the zones the water would enter.

Q That is an open interval all the way through the green section?

A Right, from 9580 all the way to 10,000; probably redrill it out.

Q Now, referring to what has been marked as Exhibit No. 2, a multi-page exhibit, would you identify that please?

A This is a Form C108 of the New Mexico Oil Conservation Commission; it gives all the statistical data

relative to the well, its casing seats, volume and cement tops, offset operators that were sent a copy of this application; it shows the old producing perforations, how much cement was used to squeeze those off and it shows the proposed injection interval.

Q Now, the second page of that exhibit, would you discuss that please?

A It is a diagrammatic sketch of the proposed installation we would use in disposing of produced water in this well.

Q As I understand, then, Phillips would propose to go back into this well, drill out the cement plugs, recompleate the well for disposing in the open-hole; would the injection be then through tubing?

A Yes, through internally plastic coated tubing under a Baker packer.

Q Under a packer? Now, will the casing tubing annulus be filled with an inert fluid?

A Yes, in all probability treated water.

Q Would you have a pressure gauge at the surface?

A Yes, sir.

Q Would the water you inject be the same quality as the water found in the formation?

A They should be identical since this is the correlative producing formation throughout the area.

Q So it should be the same water then?

A Right. There is no other produced water, except Wolfcamp-Pen production in the area and all water would come from the same zones as it would be returned.

Q Now, what volumes of water would you propose to inject into this well?

A This is the function of our Kem State No. 3 which is currently undergoing completion and swabbing in the neighborhood of eight to ten barrels of water a day, so potential disposal may be from 3 to 500 barrels of water a day from it. Our other two wells that were completed in '52 have a combined total water production of 20 to 25 barrels a day.

Q Then you would be somewhere in excess of 500 barrels a day in all likelihood?

A Right.

Q But at the present time you don't know the exact volumes?

A This is true.

Q Do you anticipate that the subject well would take this volume of water without any difficulty?

A We hope so, yes.

Q Do you think it would take it on vacuum or by gravity?

A We anticipate gravity injection.

Q The third page of the Exhibit No. 2, would you identify that?

A This is a water analysis run on the water from the battery of the Kem State 1 and 2 and a sample of the water that is currently being swabbed in the Kem State 3. It shows the chlorides to be 77,000 to 81,000.

Q Would you utilize a closed system on your injection?

A Yes.

Q Now, the fourth page of Exhibit No. 2, would you identify that please?

A Fourth page of Exhibit 2 is a xerox copy of our land map with a large number of leases in this area; little plat on the cross section does not show all the operators or leases within two miles and so we just xeroxed our land map.

Q That shows all the operators within a two-mile radius?

A Yes.

Q Does it also show all the producing wells within a two-mile radius of your injection well?

A Yes.

Q Did it or exhibit 1 include that?

A Yes.

Q Do you have a log of the injection well?

A Yes.

Q A copy of that was attached to your application, was it not?

A Yes.

Q Is that marked as Exhibit No. 3?

A I believe so, yes.

Q Now, what information has been marked on the log?

A On the log we have shown the casing seats, cement circulated on each string, the old producing perforations; this is all that has been marked on the log.

Q Were Exhibits 1, 2 and 3 prepared by you or under your supervision?

A Yes, sir.

Q At this time I'll offer in evidence Exhibits 1, 2 and 3.

MR. UTZ: Without objection, Exhibits 1, 2, 3 will be entered into the record of this case.

Q (By Mr. Kellahin) Mr. Mueller, in your opinion would the approval of this application result in prevention of waste and would correlative rights be protected?

A Yes, sir.

MR. KELLAHIN: That is all I have on direct Examination, Mr. Utz.

CROSS EXAMINATION

BY MR. UTZ:

Q You will have to re-enter this well, right?

A Yes, sir.

Q Now, on page two of your Exhibit No. 2, you show perforations 8970, 9530. What are those?

A Those are the -- that is the overall top and bottom of the perforations that did produce in this well in 1952.

Q You intend to leave them open?

A No, they were cement with -- spotted over them and kind of a brain head squeeze at the time the well was plugged and abandoned.

Q They are squeezed? That will enable you to fill the annulus and hold the fluid, right?

A Yes, sir.

Q Now, there's no casing below your packer except just a stub?

A That is right. The bottom of the old perforation was 9530; we anticipate setting the packer 9550 and the casing shoes at 9580, so that is 30 feet below the packer.

Q So, it will be open hole from 9580 to 10,400?

A Yes, sir.

MR. UTZ: Any other questions of the witness?
He may be excused.

MR. KELLAHIN: If the Examiner please, there's one item that we overlooked in connection with the application. There was an error made in the well location, although the advertising on the docket in the ad correctly stated that location. Would you give us the correction on that, Mr. Mueller?

THE WITNESS: Yes. This Form C108 dated November 15 which we submitted as an exhibit here shows the correct footage of the well as being 1980 from the south. Our previous submitted form for application is in error; it showed it as 661, I believe.

MR. HATCH: It is correct as it appears in the docket?

THE WITNESS: Right.

MR. UTZ: Where was the correction again on 108?

MR. KELLAHIN: It is correct on the 108. It was in error on the application.

MR. UTZ: I see.

MR. KELLAHIN: But, it was correctly advertised as to the locations.

MR. UTZ: As long as we were right. We will take the case under advisement.

(Witness excused)

I N D E X

| <u>WITNESS</u> | <u>PAGE</u> |
|------------------------------------|-------------------------------------|
| W. J. MUELLAR | |
| Direct Examination by Mr. Kellahin | 2 |
| Cross Examination by Mr. Utz | 11 |
| <u>EXHIBIT</u> | <u>MARKED</u> |
| Applicant's 1 through 3 | 2 |
| | <u>OFFERED AND ADMITTED</u> |
| | 10 |

Witness by Hand this 23rd day of November, 1968.

Linda Banks
COURT REPORTER

I do hereby certify that the foregoing is a complete record of the proceedings in the Easchner hearing of Case No. 3849, heard by me on May 20, 1968.

[Signature], President
New Mexico Oil Conservation Commission

GOVERNOR
DAVID F. CARGO
CHAIRMAN

State of New Mexico
Oil Conservation Commission



LAND COMMISSIONER
GUYTON B. HAYS
MEMBER

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

P. O. BOX 2088
SANTA FE

November 26, 1968

Mr. Jason Kellahin
Kellahin & Fox
Attorneys at Law
Post Office Box 1769
Santa Fe, New Mexico

Re: Case No. 3949
Order No. R-3594
Applicant:
Phillips Petroleum Co.

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

Carbon copy of order also sent to:

Hobbs OCC x

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. 3949
Order No. R-3594

APPLICATION OF PHILLIPS PETROLEUM
COMPANY FOR SALT WATER DISPOSAL,
LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 8:30 a.m. on November 20, 1968, at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 26th day of November, 1968, 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, Phillips Petroleum Company, is the owner and operator of the Pello "A" Well No. 1, located in Unit 1 of Section 2, Township 15 South, Range 32 East, NMPM, Tulk-Wolfcamp Pool, Lea County, New Mexico.

(3) That the applicant proposes to utilize said well to dispose of produced salt water into the Lower Wolfcamp and Upper Pennsylvanian formations, with injection into the open-hole interval from approximately 9580 feet to 10,400 feet.

(4) That the injection should be accomplished through 2 3/8-inch plastic-lined tubing installed in a packer set at approximately 9550 feet; that the casing-tubing annulus should be filled with an inert fluid; and that a pressure gauge should

-2-

CASE No. 3949

Order No. R-3594

be attached to the annulus at the surface in order to determine leakage in the casing, tubing, or packer.

(5) That approval of the subject application will prevent the drilling of unnecessary wells and otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

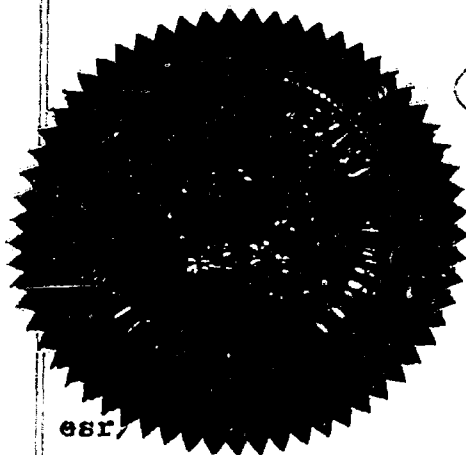
(1) That the applicant, Phillips Petroleum Company, is hereby authorized to utilize its Pello "A" Well No. 1, located in Unit L of Section 2, Township 15 South, Range 32 East, NMPM, Tulk-Wolfcamp Pool, Lea County, New Mexico, to dispose of produced salt water into the Lower Wolfcamp and Upper Pennsylvanian formations, injection to be accomplished through 2 3/8-inch tubing installed in a packer set at approximately 9550 feet, with injection into the open-hole interval from approximately 9580 feet to 10,400 feet;

PROVIDED HOWEVER, that the tubing shall be plastic-lined; that the casing-tubing annulus shall be filled with an inert fluid; and that a pressure gauge shall be attached to the annulus at the surface in order to determine leakage in the casing, tubing, or packer.

(2) That the applicant shall submit monthly reports of its disposal operations in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.

(3) 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.



STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

David F. Cargo
DAVID F. CARGO, Chairman

Gilbert B. Hays
GILBERT B. HAYS, Member

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

esr

Lease 6015 ARC Federal Well No. 1 located in Unit O of Section 9, Township 20 South, Range 33 East, West Teas Pool, Lea County, New Mexico.

CASE 3949: Application of Phillips Petroleum Company for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Lower Wolfcamp and Upper Pennsylvanian formations in the open-hole interval from approximately 9580 feet to 10,400 feet in its Pello "A" Well No. 1, located in Unit L of Section 2, Township 15 South, Range 32 East, Tulk-Wolfcamp Pool, Lea County, New Mexico.

CASE 3950: Application of Agua, Inc., for salt water disposal, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the San Andres and such other formations as may be present in the perforated interval from approximately 4148 feet to 4388 feet in its Chaveroo SWD Well No. C-30 (formerly the Humble Oil & Refining Company Federal Andrews Well No. 1) located in the NE/4 NW/4 of Section 30, Township 7 South, Range 33 East, Chaveroo-San Andres Pool, Roosevelt County, New Mexico.

CASE 3951: Application of Marathon Oil Company for salt water disposal, Roosevelt County, New Mexico. Applicant in the above-styled cause, seeks authority to dispose of produced salt water into the San Andres formation in the perforated interval from approximately 4163 feet to 4460 feet in its Marathon State Well No. 1 located in Unit G of Section 36, Township 7 South, Range 33 East, Chaveroo-San Andres Pool, Roosevelt County, New Mexico.

CASE 3952: Application of Sam D. Ares 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 formation in the open-hole interval from approximately 3415 feet to 3492 feet in his Everett Well No. 2 located 660 feet from the South line and 1980 feet from the West line of Section 35, Township 24 South, Range 36 East, Jalmat Pool, Lea County, New Mexico.

CASE 3953: Application of B. J. Graham 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 formation in the open-hole interval from approximately

Case. 3949

Revised 11-20-68

Rec. 11-21-68

Grant Phillips Pet. permission
connect their Pello. A #1, L-2-155-328
to an SWD well. Injection shall
be thru internally plastic coated
2 $\frac{3}{8}$ " tubing, underpacker set @ approx.
9550' into the upper Penn +
W.C. fm. in open hole from 9550
to 10,400'. Annulus shall be filled
with inert. fluid w/ press. gauge
at surface.

Thos. W. [Signature]

NEW MEXICO OIL CONSERVATION COMMISSION
APPLICATION TO DISPOSE OF SALT WATER BY INJECTION INTO A POROUS FORMATION

| | | | |
|---|---------------|---|---------------|
| OPERATOR Phillips Petroleum Company | | ADDRESS Phillips Building, Odessa, Texas | |
| LEASE NAME Pello "A" | WELL NO. 1 | FIELD Tulk - Wolfcamp (P & A 1953) | COUNTY Lea |
| LOCATION UNIT LETTER <u>L</u> ; WELL IS LOCATED <u>1980</u> FEET FROM THE <u>South</u> LINE AND <u>660</u> FEET FROM THE <u>West</u> LINE, SECTION <u>2</u> TOWNSHIP <u>15-S</u> RANGE <u>32-E</u> NMPM. | | | |

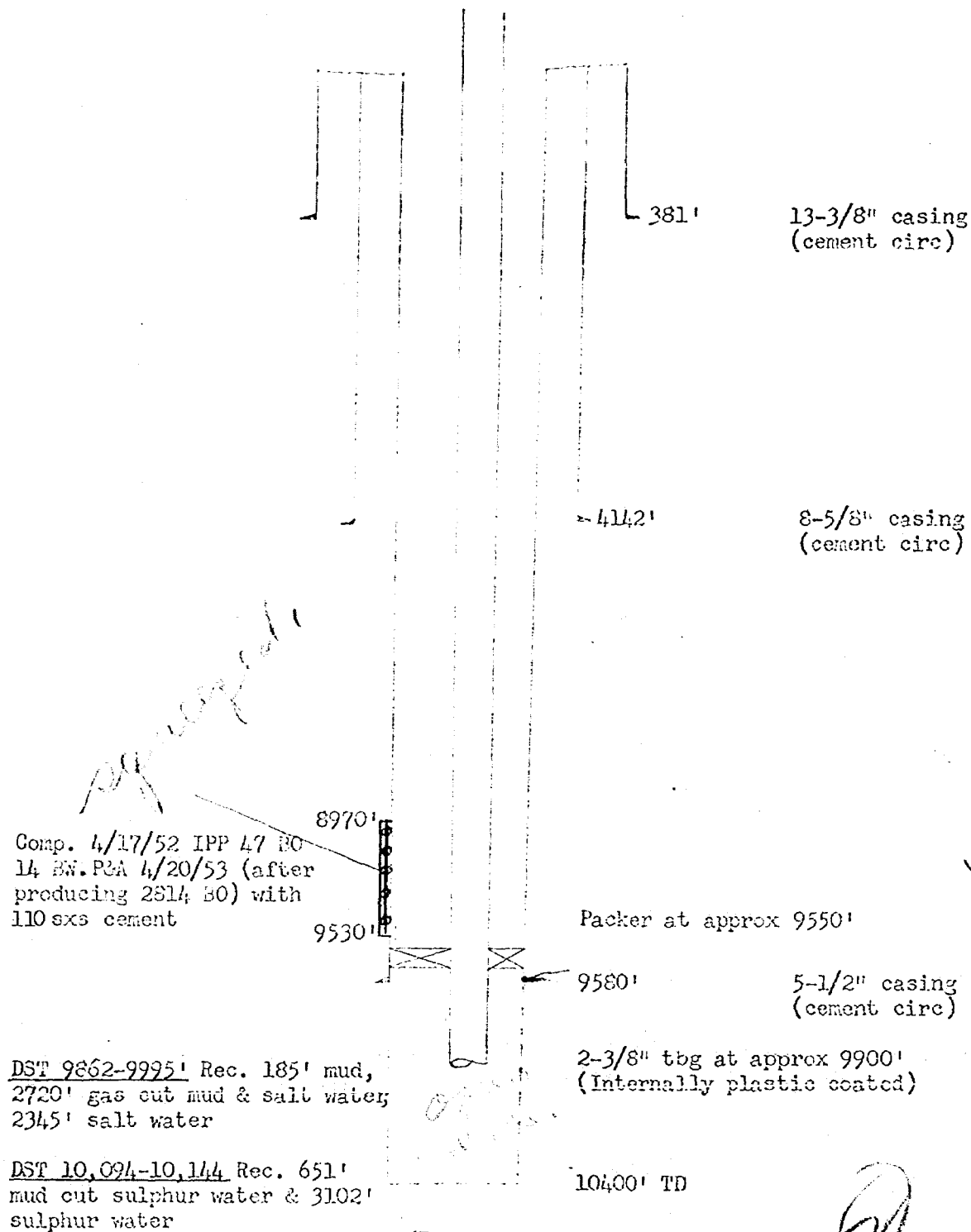
| CASING AND TUBING DATA | | | | | |
|---|---------------|---|---|---|---|
| NAME OF STRING | SIZE | SETTING DEPTH | SACKS CEMENT | TOP OF CEMENT | TOP DETERMINED BY |
| SURFACE CASING | 13-3/8" | 381' | 350 | surface | circ. |
| INTERMEDIATE | 8-5/8" | 4142' | 2575 | surface | circ. |
| LONG STRING | 5-1/2" | 9580' | 788 | surface | circ. |
| TUBING | 2-3/8" | 9900' | NAME, MODEL AND DEPTH OF TUBING PACKER Baker Model "D" - 9550' | | |
| NAME OF PROPOSED INJECTION FORMATION Basal Wolfcamp & Penn. | | | TOP OF FORMATION Penn. - 9750' ✓ | | BOTTOM OF FORMATION 10,400 + |
| IS INJECTION THROUGH TUBING, CASING, OR ANNULUS? Tubing | | | PERFORATIONS OR OPEN HOLES open hole | | PROPOSED INTERVAL(S) OF INJECTION 9580'-10,400' |
| IS THIS A NEW WELL DRILLED FOR DISPOSAL? No | | IF ANSWER IS NO, FOR WHAT PURPOSE WAS WELL ORIGINALLY DRILLED? Oil | | | HAS WELL EVER BEEN PERFORMED IN ANY ZONE OTHER THAN THE PROPOSED INJECTION ZONE? Yes |
| LIST ALL SUCH PERFORATED INTERVALS AND SACKS OF CEMENT USED TO SEAL OFF OR SQUEEZE EACH 9490-9530' (90 sx.); 9012-9044', 8970-8988' (20 sx) | | | | | |
| DEPTH OF BOTTOM OF DEEPEST FRESH WATER ZONE IN THIS AREA 275' | | DEPTH OF BOTTOM OF NEXT HIGHER OIL OR GAS ZONE IN THIS AREA 9530' | | DEPTH OF TOP OF NEXT LOWER OIL OR GAS ZONE IN THIS AREA none | |
| ANTICIPATED DAILY INJECTION VOLUME (BBLs.) 50 | MINIMUM 50 | MAXIMUM 1000 | OPEN OR CLOSED TYPE SYSTEM closed | IS INJECTION TO BE BY GRAVITY OR PRESSURE? gravity | APPROX. PRESSURE (PSI) - |
| ANSWER YES OR NO WHETHER THE FOLLOWING WATERS ARE MINERALIZED TO SUCH A DEGREE AS TO BE UNFIT FOR DOMESTIC, STOCK, IRRIGATION, OR OTHER GENERAL USE - yes | | | WATER TO BE DISPOSED OF yes | | NATURAL WATER IN DISPOSAL ZONE yes |
| ARE WATER ANALYSES ATTACHED? yes | | | | | |
| NAME AND ADDRESS OF SURFACE OWNER (OR LESSEE, IF STATE OR FEDERAL LAND) H. B. Burris - 1611 Madison Ave., Roswell, New Mexico | | | | | |
| LIST NAMES AND ADDRESSES OF ALL OPERATORS WITHIN ONE-HALF (1/2) MILE OF THIS INJECTION WELL Sun Oil Company, P. O. Box 1861, Midland, Texas Union Oil of California, Union Oil Building, Midland, Texas Texaco Inc., P. O. Box 3109, Midland, Texas Getty Oil Company, P. O. Box 1231, Midland, Texas | | | | | |
| HAVE COPIES OF THIS APPLICATION BEEN SENT TO EACH OF THE FOLLOWING? | | SURFACE OWNER Yes | | EACH OPERATOR WITHIN ONE-HALF MILE OF THIS WELL Yes | |
| ARE THE FOLLOWING ITEMS ATTACHED TO THIS APPLICATION (SEE RULE 701-B) | | PLAT OF AREA Yes | | ELECTRICAL LOG Yes | |
| | | | | THE NEW MEXICO STATE ENGINEER Yes | |
| | | | | DIAGRAMMATIC SKETCH OF WELL Yes | |

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

W. J. Mueller Associate Reservoir Engineer November 15, 1968
(Signature) W. J. Mueller (Title) (Date)

NOTE: Should waivers from the State Engineer, 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 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.

PROPOSED INSTALLATION



PHILLIPS PETROLEUM COMPANY
Pello "A" Well No. 1
Unit L, 2-15-32
Lea County, New Mexico

BEFORE EXAMINER UTZ

OIL CONSERVATION COMMISSION

EXHIBIT NO. _____

CASE NO. _____

HALLIBURTON DIVISION LABORATORY
HALLIBURTON COMPANY
MIDLAND DIVISION

LABORATORY WATER ANALYSIS No. W1-443-68

To Phillips Petroleum Co.

Date 11-14-68

BJox 2130

Hobbs, New Mexico 88240

Attention: George Mossman

This report is the property of Halliburton Company and neither it nor any part thereof nor a copy thereof is to be published or disclosed without first securing the express written approval of laboratory management; it may however, be used in the course of regular business operations by any person or concern and employees thereof receiving such report from Halliburton Company.

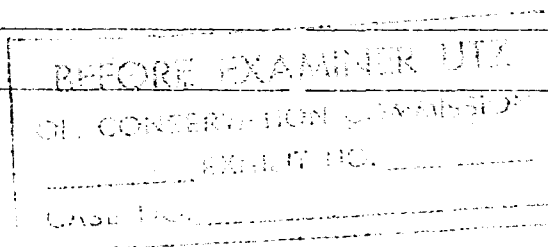
Submitted by _____ Date Rec. 11-12-68

Well No. _____ Depth _____ Formation _____

County _____ Field _____ Source _____

| | Chem St. #1 & #2 | Chem St. #3 | |
|----------------------------------|------------------|-------------|------|
| Resistivity | .070 @ 79 F | .074 @ 79 F | |
| Specific Gravity | 1.090 | 1.086 | |
| pH | 6.5 | 6.3 | |
| Calcium (Ca) | 4,700 | 4,200 | *MPL |
| Magnesium (Mg) | 390 | 480 | |
| Chlorides (Cl) | 81,500 | 77,000 | |
| Sulfates (SO ₄) | 320 | 300 | |
| Bicarbonates (HCO ₃) | 150 | 160 | |
| Soluble Iron (Fe) | 75 | 90 | |

Remarks:



*Milligrams per liter

31

Respectfully submitted,

Analyst: Frank Whitfield

cc:

HALLIBURTON COMPANY

By Frank Whitfield
DIVISION CHEMIST

NOTICE

This report is limited to the described sample tested. Any user of this report agrees that Halliburton shall not be liable for any loss or damage, whether it be to act or omission, resulting from such report or its use.

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
ATP. EXHIBIT NO. 2
CASE NO. 3948

5 5 4

[illegible]

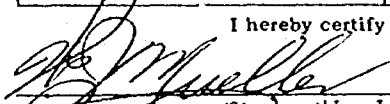
Case 3949
S. J. for hearing

NEW MEXICO OIL CONSERVATION COMMISSION
APPLICATION TO DISPOSE OF SALT WATER BY INJECTION INTO A POROUS FORMATION

| | | | |
|--|---------------|--|---------------|
| OPERATOR Phillips Petroleum Company | | ADDRESS Phillips Bldg., Odessa, Texas | |
| LEASE NAME Pello "A" | WELL NO. 1 | FIELD P & A 1953 | COUNTY Lea |
| LOCATION UNIT LETTER <u>L</u> ; WELL IS LOCATED <u>660</u> FEET FROM THE <u>south</u> LINE AND <u>661</u> FEET FROM THE <u>west</u> LINE, SECTION <u>2</u> TOWNSHIP <u>15-S</u> RANGE <u>32-E</u> NMPM. | | | |

| CASING AND TUBING DATA | | | | | |
|---|---------------|---|---|--|--------------------------------|
| NAME OF STRING | SIZE | SETTING DEPTH | SACKS CEMENT | TOP OF CEMENT | TOP DETERMINED BY |
| SURFACE CASING | 13-3/8" | 381' | 350 | surface | circ. |
| INTERMEDIATE | 8-5/8" | 4142' | 2575 | surface | circ. |
| LONG STRING | 5-1/2" | 9580' | 788 | surface | circ. |
| TUBING | 2-3/8" | 9900' | NAME, MODEL AND DEPTH OF TUBING PACKER Baker Model "D" - 9550' | | |
| NAME OF PROPOSED INJECTION FORMATION Basal Wolfcamp & Cisco | | | TOP OF FORMATION Cisco - 9830' | | BOTTOM OF FORMATION 10,400+ |
| IS INJECTION THROUGH TUBING, CASING, OR ANNULUS? Tubing | | PERFORATIONS OR OPEN HOLES? open hole | | PROPOSED INTERVAL(S) OF INJECTION 9580'-10,400' | |
| IS THIS A NEW WELL DRILLED FOR DISPOSAL? No | | IF ANSWER IS NO, FOR WHAT PURPOSE WAS WELL ORIGINALLY DRILLED? Oil | | HAS WELL EVER BEEN PERFORATED IN ANY ZONE OTHER THAN THE PROPOSED INJECTION ZONE? Yes | |
| LIST ALL SUCH PERFORATED INTERVALS AND SACKS OF CEMENT USED TO SEAL OFF OR SQUEEZE EACH 9490-9530' (70 sx); 9012-9044', 8970-8988' (20 sx) | | | | | |
| DEPTH OF BOTTOM OF DEEPEST FRESH WATER ZONE IN THIS AREA 275' | | DEPTH OF BOTTOM OF NEXT HIGHER OIL OR GAS ZONE IN THIS AREA 9530' | | DEPTH OF TOP OF NEXT LOWER OIL OR GAS ZONE IN THIS AREA none | |
| ANTICIPATED DAILY INJECTION VOLUME (BBL/S.) 50 | MINIMUM 50 | MAXIMUM 1000 | OPEN OR CLOSED TYPE SYSTEM closed | IS INJECTION TO BE BY GRAVITY OR PRESSURE? gravity | APPROX. PRESSURE (PSI) - |
| ANSWER YES OR NO WHETHER THE FOLLOWING WATERS ARE MINERALIZED TO SUCH A DEGREE AS TO BE UNFIT FOR DOMESTIC, STOCK, IRRIGATION, OR OTHER GENERAL USE. yes | | | WATER TO BE DISPOSED OF yes | | |
| NAME AND ADDRESS OF SURFACE OWNER (OR LESSEE, IF STATE OR FEDERAL LAND) H. B. Burris - 1611 Madison Ave, Roswell, New Mexico | | | ARE WATER ANALYSES ATTACHED? no | | |
| LIST NAMES AND ADDRESSES OF ALL OPERATORS WITHIN ONE-HALF (1/2) MILE OF THIS INJECTION WELL | | | | | |
| Sun Oil Co., P. O. Box 1861, Midland, Texas | | | | | |
| Union Oil of California, Union Oil Building, Midland, Texas | | | | | |
| Texaco Inc., P. O. Box 3109, Midland, Texas | | | | | |
| Getty Oil Co., P. O. Box 1231, Midland, Texas | | | | | |
| HAVE COPIES OF THIS APPLICATION BEEN SENT TO EACH OF THE FOLLOWING? | | SURFACE OWNER yes | | EACH OPERATOR WITHIN ONE-HALF MILE OF THIS WELL yes | |
| ARE THE FOLLOWING ITEMS ATTACHED TO THIS APPLICATION (SEE RULE 701-B) | | PLAT OF AREA yes | | ELECTRICAL LOG yes | |
| | | | | THE NEW MEXICO STATE ENGINEER yes | |
| | | | | DIAGRAMMATIC SKETCH OF WELL yes | |

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

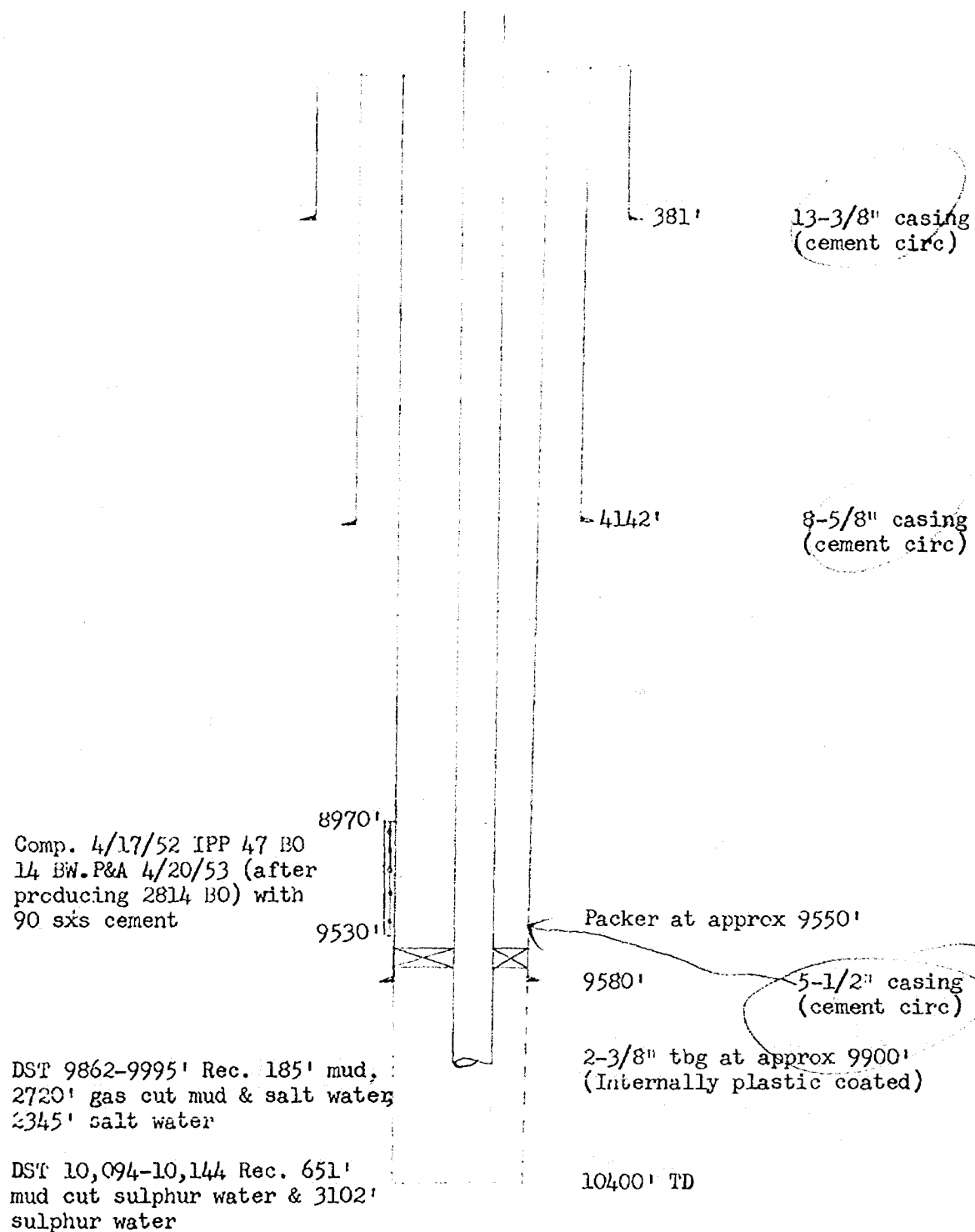
 Associate Reservoir Engineer October 21, 1968
 (Signature) W. J. Mueller (Title) (Date)

NOTE: Should waivers from the State Engineer, 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 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.

DOCKET MAILED
Date 11-7-68

Case 3919

PROPOSED INSTALLATION



PHILLIPS PETROLEUM COMPANY
Pello "A" Well No. 1
Unit L, 2-15-32
Lea County, New Mexico

[illegible]

DRAFT

GMH/esr

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. 3949

Order No. R-3594

APPLICATION OF PHILLIPS PETROLEUM
COMPANY FOR SALT WATER DISPOSAL,
LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

8:30

This cause came on for hearing at 9 a.m. on November 20, 1968,
at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this _____ day of November, 1968, 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, Phillips Petroleum Company,
is the owner and operator of the Pello "A" Well No. 1,
located in Unit L of Section 2, Township 15 South, Range
32 East, NMPM, Tulk-Wolfcamp Pool, Lea
County, New Mexico.

(3) That the applicant proposes to utilize said well to
dispose of produced salt water into the Lower Wolfcamp and
Upper Pennsylvanian
formations with injection into the open-hole interval
from approximately 9580 feet to 10,400 feet.

(4) That the injection should be accomplished through
2 3/8-inch plastic-lined tubing installed in a packer set at

approximately 9550 feet; that the casing-tubing annulus should be filled with an inert fluid; and that a pressure gauge should be attached to the annulus ~~or the annulus left open~~ at the surface in order to determine leakage in the casing, tubing, or packer.

(5) That approval of the subject application will prevent the drilling of unnecessary wells and otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That the applicant, Phillips Petroleum Company, is hereby authorized to utilize its Pello "A" Well No. 1, located in Unit L of Section 2, Township 15 South, Range 32 East, NMPM, Tulk-Wolfcamp Pool, Lea County, New Mexico, to dispose of produced salt water into the Lower Wolfcamp and Upper Pennsylvanian formations, injection to be accomplished through 2 3/8-inch tubing installed in a packer set at approximately 9550 feet, with injection into the open-hole interval from approximately 9580 feet to 10,400 feet;

PROVIDED HOWEVER, that the tubing shall be plastic-lined; that the casing-tubing annulus shall be filled with an inert fluid; and that a pressure gauge shall be attached to the annulus ~~or the annulus left open~~ at the surface in order to determine leakage in the casing, tubing, or packer.

(2) That the applicant shall submit monthly reports of its disposal operations in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.

(3) 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.