

Case Number
4700

Application

Transcripts

Small Exhibits

ETC.

dearnley-meier reporting

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS
209 SIMMS BLDG. • P.O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO 87103
FIRST NATIONAL BANK BLDG. EAST • ALBUQUERQUE, NEW MEXICO 87108

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
CONFERENCE ROOM, STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO
May 5, 1972

EXAMINER HEARING

IN THE MATTER OF:

Application of Penasco Corporation
for a unit agreement, Eddy County,
New Mexico.

a n d

Application of Penasco Corporation
for a waterflood project, Eddy
County, New Mexico.

CASE NO. 4699

CASE NO. 4700

BEFORE: Elvis A. Utz
Examiner

TRANSCRIPT OF HEARING

dearnley-meier reporting

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS
209 SIMMS BLDG., P.O. BOX 1092, PHONE 243-6691, ALBUQUERQUE, NEW MEXICO 87103
FIRST NATIONAL BANK BLDG., EAST ALBUQUERQUE, NEW MEXICO 87108

1 MR. UTZ: Case 4699.

2 MR. HATCH: Application of Penasco Corporation for
3 a unit agreement, Eddy County, New Mexico.

4 MR. LOSEE: A. J. Losee, of Artesia, New Mexico,
5 appearing on behalf of the Applicant.

6 MR. UTZ: Any other appearances in this Case?

7 (No response.)

8 MR. HATCH: Did you wish to consolidate the two
9 Cases?

10 MR. LOSEE: Yes.

11 MR. HATCH: Case 4700 is the Application of Penasco
12 Corporation for a waterflood project, Eddy County, New Mexico.

13 MR. LOSEE: A. J. Losee, appearing also on behalf
14 of the Applicant in Case 4700. We have one witness.

15 RALPH GRAY,

16 was called as a witness and, after being duly sworn, testified
17 as follows:

18 MR. LOSEE: Before commencing, Mr. Hatch, I would
19 like to amend the Application in Case 4700. The publication
20 notice was correct in listing the correct description, but
21 paragraph F of the Application, in describing the location
22 of one of the injection wells, described it as being located
23 in Section 2 and it should be in Section 17. The publication
24 notice is correct.

25 MR. UTZ: That is in your Application?

dearnley-meier reporting

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS
 209 SIMMS BLDG. • P.O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO 87103
 FIRST NATIONAL BANK BLDG. EAST ALBUQUERQUE, NEW MEXICO 87108

1 MR. LOSEE: Yes, paragraph 3, the last well in
 2 Section 17.

3 DIRECT EXAMINATION

4 BY MR. LOSEE:

5 Q Will you state your name and residence, and occupation?

6 A Ralph Gray, Artesia, New Mexico. I am a consulting
 7 Engineer.

8 Q Have you previously testified before this Commission
 9 and had your qualifications made part of the record?

10 A Yes, sir.

11 Q Would you state the purpose of the Application in Case
 12 4699?

13 A Case 4699 requests authorization for Unit agreement.

14 Q What is the purpose of Case 4700?

15 A Case 4700 requests authorization to conduct a waterflood
 16 project and inject water.

17 MR. LOSEE: Mr. Examiner, in examining Exhibit 2,
 18 which is the Unit agreement, we would like to send you a
 19 copy of the Exhibit the first part of the week by mail.

20 We will deliver it to you.

21 Q (By Mr. Losee) Please refer to what has been marked
 22 as Exhibit 1, Mr. Gray, and explain what is shown on
 23 this Exhibit.

24 A Exhibit 1 shows the general area in the proposed Unit.
 25 The boundary line for the proposed Unit is shown by

dearnley-meier reporting

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS
 209 SIMMS BLDG., P.O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO 87103
 FIRST NATIONAL BANK BLDG. EAST • ALBUQUERQUE, NEW MEXICO 87108

1 cross hash lines.

2 This Exhibit shows the proposed injection wells.
 3 I would like to comment a little bit further on the
 4 injection wells shown in the south half of the SE/4
 5 of Section 8.

6 At the time this map was prepared the Applicant
 7 was considering obtaining approval to convert either
 8 Well Number 1, or Well Number 3 for injection and, at
 9 that time, it wasn't known just which one would be
 10 used.

11 But, since that time, the Applicant has decided
 12 on Well Number 1.

13 MR. UTZ: What location?

14 THE WITNESS: Three hundred thirty feet from the
 15 south line and 1,650 feet from the east line of Section 8.

16 A (Continuing) So the Applicant is requesting permission
 17 to use, at this time, four injection wells. One well
 18 is to be located in the SW/4 of the NW/4 of Section 16;
 19 one well is to be located in the SW/4 of the NE/4 of
 20 Section 17; one well to be located in the SW/4 of the
 21 SE/4 of Section 8 and the fourth well to be located in
 22 the SE/4 of the SW/4 of Section 9.

23 Q Please refer to what has been marked as Exhibit 1-A and
 24 explain what is shown on Exhibit 1-A.

25 A Exhibit 1-A is a map showing a larger area than is

dearnley-meier reporting

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS
 209 SIMMS BLDG. • P.O. BOX 1002 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO 87103
 FIRST NATIONAL BANK BLDG. EAST ALBUQUERQUE, NEW MEXICO 87106

- 1 covered in Exhibit 1 and the purpose of this Exhibit
 2 is to show wells within a two mile radius which is
 3 requested by the Rules and Regulations of the Commission.
- 4 Q Out of this 320 acre proposed unit, Mr. Gray, how many
 5 acres is State land and how many acres are Federal land?
- 6 A There are 400 acres of Federal land and 120 acres of
 7 State land.
- 8 Q And that is made up of five tracts?
- 9 A Yes, sir.
- 10 Q Please refer to the unit agreement which has been
 11 marked as Exhibit 2, and explain what formations are
 12 unitized under this agreement.
- 13 A The Queen formation is the formation which is unitized
 14 under this agreement.
- 15 Q It is paragraph 2-G, page 3, if you wish to elaborate.
- 16 A In order that this could be more closely identified,
 17 the formation occurring in the Grayburg Number 1 Well
 18 located 330 feet from the south and 1,650 feet from the
 19 east line in Section 8, Township 17 South, Range 31 East,
 20 at a depth of 3,110 to 3,162 as recorded in the Well's
 21 neutron log dated December 4, 1957.
- 22 Q Mr. Gray, Section 13, -20, paragraph 15 of the unit
 23 agreement established a tract and the basis for tract
 24 participation, what formula was utilized?
- 25 A The formula utilized is primarily oil recovery, in fact,

dearnley-meier reporting

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS
209 SIMMS BLDG., P.O. BOX 1092, PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO 87103
FIRST NATIONAL BANK BLDG. EAST • ALBUQUERQUE, NEW MEXICO 87108

1 it is 100 percent primary recovery.

2 Q Let me ask you whether or not all the interested owners
3 and both the working and overriding royalty interests
4 have ratified this unit agreement?

5 A Yes, it is my understanding that they have all ratified
6 the agreement.

7 Q So there is actually 100 percent commitment in the
8 unitized areas?

9 A Yes, sir.

10 Q Under Section 22, -1A, when will your unit agreement
11 become effective?

12 A The agreement will become effective when the working
13 interest owners, with combined unit participation, have
14 at least eighty-five percent ratification and the
15 combined unit has sixty-five percent of the royalty
16 interests in the unit area.

17 Q And also approval of the supervisor of the U.S.G.S. and
18 the Land Commissioner of the State of New Mexico?

19 A Yes.

20 Q Has the State given its tentative approval to the form
21 of the agreement and the proposed area?

22 A Yes.

23 Q On what date?

24 A That was given on December 16, 1971.

25 Q Has the Commissioner of Public Land of the State of

dearnley-meier reporting

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS
 209 SIMMS BLDG. • P.O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO 87103
 FIRST NATIONAL BANK BLDG. EAST • ALBUQUERQUE, NEW MEXICO 87106

1 New Mexico approved the form of the unit agreement?

2 A Yes, they approved it on December 27, 1971.

3 Q Mr. Gray, do you have an opinion as to whether or
 4 not the method of allocation of production in the
 5 various tracts in the unitized area is fair and
 6 equitable?

7 A Yes, I think all the wells are marginal and as they
 8 reach the economic limits, you might say that 100 percent
 9 primary should be equitable.

10 Q Please refer to what has been marked Exhibit 3 and
 11 explain what is shown on this Exhibit.

12 A Exhibit 3 is a table showing the various well data for
 13 each of the wells located within the proposed unit
 14 area.

15 This also shows the studies of the area and
 16 also shows the status of the primary recovery for
 17 each well, as of January 1, 1971.

18 A portion of these wells were completed with
 19 pipe set above the pay and they have open hole.

20 Q There are fifteen wells in the unitized area; are
 21 there not?

22 A That's right.

23 Q How many of those are plugged and abandoned, at this
 24 point?

25 A Six are plugged and abandoned.

dearnley-meier reporting

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

209 SIMMS BLDG., P.O. BOX 1092, PHONE 243-6691, ALBUQUERQUE, NEW MEXICO 87103
FIRST NATIONAL BANK BLDG. EAST, ALBUQUERQUE, NEW MEXICO 87108

1 Q How many are shut-in?

2 A Two.

3 Q And the remainder are producing?

4 A Seven are producing, I believe.

5 Q Does your Exhibit show the accumulative production of
6 these wells?

7 A Yes, and the total accumulative production for the
8 entire area is approximately 500,000 barrels.

9 Q Please refer to what has been marked as Exhibit 4 and
10 explain what is shown by this Table.

11 A Exhibit 4 is a Table showing recent production for
12 each of the producing wells. It will be noted that
13 the Grayburg "A" wells are producing approximately
14 one barrel of oil a day and the wells on the Panako
15 State Lease are producing around three and one-half or
16 four barrels per day.

17 Q So that these wells are in the late stages of
18 completion?

19 A Yes, sir.

20 Q Please refer to what has been marked as Exhibit 5 and
21 explain what is shown on this Exhibit.

22 A Exhibit 5 is a radioactive log of the Penasco-Grayburg
23 Number 1 Well. This is located in Section 8 and the
24 perforations are indicated on the log and further identified
25 by the yellow coloring. It shows the portion of the

dearnley-meier reporting

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS
 200 SIMMS BLDG., P.O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO 87103
 FIRST NATIONAL BANK BLDG. EAST • ALBUQUERQUE, NEW MEXICO 87108

1 Queen Sand that is considered to be oil pay.

2 Q Referring to Exhibit 5-A, explain what is shown on
 3 Exhibit 5-A.

4 A Exhibit 5-A is a radioactive log of the Penasco State
 5 Number 1 Well and that log also is identified by the
 6 perforated interval and the pay section shown by the
 7 yellow coloring.

8 Q Are these two logs the only electric logs available
 9 on any of the wells in the unit?

10 A Yes, they are.

11 Q Please refer to Exhibits 6, 6-A, 6-B and 6-C, and
 12 explain what is shown by these Exhibits.

13 A All four of these Exhibits are diagrammatic sketches
 14 of the proposed injection wells.

15 Exhibit 6 shows the Penasco-Magnolian State Number
 16 1 Well in this case, five and one-half inch casing is
 17 set to the bottom of the pay zone and it is perforated
 18 from 3,180 to 3,212.

19 In the case of Exhibit 6-A, it is a diagrammatic
 20 sketch of the Penasco Number 2 Well in this Case. Seven
 21 inch casing was set above the pay. All these Exhibits
 22 also show the surface casing and the estimated top
 23 cement line.

24 Exhibit 6-B shows the Penasco-Grayburg Number 1
 25 Well in this Case. The casing has been set through the

dearnley-meier reporting

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS
208 SIMMS BLDG., P.O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO 87103
FIRST NATIONAL BANK BLDG. EAST • ALBUQUERQUE, NEW MEXICO 87108

1 pay.

2 Exhibit 6-C shows the Grayburg Number 2 Well.

3 This well is open hole.

4 Q Mr. Gray, how does the Applicant propose to complete
5 these wells for injection?

6 A These wells will be cleaned out and the Applicant
7 wishes approval to have the option of either injecting
8 down the casing or run tubing with a Packer, which
9 would be set above the pay zone.

10 If approval is given for injecting the water
11 down the casing, the Applicant agrees to pressure test
12 each casing string up to 2,000 pounds per square inch
13 before injecting through it.

14 Q Mr. Gray, have you made a study in this particular
15 area, to determine whether or not there is any water
16 bearing zones, shallow water bearing zones?

17 A Yes, we don't have any indication that there are any
18 fresh water zones, commercial zones, in the shallow
19 formations.

20 Q What will be the injection rate proposed by the
21 Applicant?

22 A Well, the Applicant estimates that the rate will be
23 up to approximately 400 barrels of water per day and
24 possibly with a maximum pressure of 1,800 pounds per
25 square inch.

dearnley-meier reporting

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS
 209 SIMMS BLDG. • P.O. BOX 1092 • PHONE 243-6991 • ALBUQUERQUE, NEW MEXICO 87103
 FIRST NATIONAL BANK BLDG. EAST • ALBUQUERQUE, NEW MEXICO 87108

1 Q Does the Applicant have an opinion as to the life
 2 of this flood?

3 A Well, I think we have a good indication by the good
 4 Atlantic Richfield flood in the Shugart area and the
 5 particular flood I am referring to is in Section 14,
 6 of Township 18 South, Range 31 East.

7 This is approximately two and one-half miles
 8 east of the proposed unit area.

9 Atlantic Richfield conducted a flood which, at
 10 the present time, is essentially plugged out, but
 11 their flood was for approximately five years duration.
 12 So, I think that is a pretty good estimate on what to
 13 expect as to our flood life.

14 Q Mr. Gray, taking into consideration the lack of fresh
 15 water bearing zones in the area, when you pressure tested
 16 the casing and the limited life of the flood, plus, I
 17 suppose the economics of it, do you feel that injecting
 18 down the casing is a satisfactory method, under these
 19 circumstances?

20 A Yes, I think it is a very reasonable approach, under
 21 these circumstances.

22 Q Where will the water be obtained from to use in the
 23 flood?

24 A This water will be purchased from the Double Eagle
 25 Water Company as fresh water.

dearnley-meier

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

209 SIMMS BLDG., P.O. BOX 1092, PHONE 243-6691, ALBUQUERQUE, NEW MEXICO 87103
FIRST NATIONAL BANK BLDG. EAST, ALBUQUERQUE, NEW MEXICO 87108

1 Q Does the Applicant propose to reinject the produced
2 water?

3 A Yes, sir.

4 Q Do you have an opinion as to the ratio of secondary
5 oil as to primary oil that will be recovered in the
6 project?

7 A Well, the Hudson flood, which was the closest flood
8 to the proposed unit area, this flood is located
9 approximately one mile from the proposed unit and,
10 up to the present time, that flood has recovered 2.3
11 of primary recovery and it has some way to go yet.

12 I would say that roughly, approximately one to
13 one of secondary primary will be obtained in the flood
14 and I consider these two areas similar.

15 Q And that 500,000 barrels of secondary oil would not
16 otherwise be recovered?

17 A That is correct.

18 Q Were Exhibits 1 through 6 and all the sub-numbers,
19 except the unit agreement, prepared by you or under
20 your supervision?

21 A Yes.

22 MR. LOSEE: We move for the introduction of
23 Exhibits 1 through 6 with the sub-numbers.

24 MR. UTZ: Exhibits 1 through 6, including the
25 sub-numbers, will be entered into the record of this Case.

dearnley-meier reporting

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

209 SIMMS BLDG., P.O. BOX 1092, PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO 87103
FIRST NATIONAL BANK BLDG. EAST • ALBUQUERQUE, NEW MEXICO 87108

1 (Whereupon, the aforementioned Exhibits were
2 admitted in evidence.)

3 MR. LOSEE: Mr. Examiner, that is all I have
4 on Direct. I would like to bring to the Commission's
5 attention that one of the purposes of the Application was to
6 ask for Administrative Procedure to convert additional wells
7 for injection in the event the Applicant proposes to change
8 its pattern, at a later date.

9 MR. UTZ: Does that complete your Case?

10 MR. LOSEE: Yes.

11 CROSS-EXAMINATION

12 BY MR. UTZ:

13 Q Mr. Gray, what will be the deciding factor in whether
14 you inject through tubing or casing?

15 A Well, I suppose that the Applicant probably hasn't
16 gotten to the point where he has made a definite
17 decision. Just about everything in regard to the
18 waterflood will be done, in fact, there is the further
19 possibility of maybe using water from these other
20 areas.

21 There are a lot of aspects to this thing that you
22 usually decide when you get closer to the time.

23 It may have something to do with what materials
24 might be available. I really can't say what will be
25 decided finally, but I think in either Case, that this

dearnley-meier reporting

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS
 209 SIMMS BLDG., P.O. BOX 1092, PHONE 243-6691, ALBUQUERQUE, NEW MEXICO 87103
 FIRST NATIONAL BANK BLDG., EAST ALBUQUERQUE, NEW MEXICO 87108

1 method will be a satisfactory way of conducting the
 2 waterflood.

3 One thing which we haven't mentioned is this oil
 4 production is coming from the Queen Sand which is a
 5 sweet type of crude sand formation and it is not
 6 corrosive, there is very little water produced by the
 7 primary method from this sand and over the great
 8 number of years that we have been operating in the
 9 field, we have never seen any indication of corrosion
 10 by the primary operation.

11 So you would expect a casing in these wells to
 12 be just like new.

13 Q You haven't noticed corrosion either internally or
 14 externally?

15 A No, sir.

16 MR. UTZ: Any other questions?

17 CROSS-EXAMINATION

18 BY MR. STAMETS:

19 Q These other floods you mentioned in the area, do you
 20 know if these used tubing or Packers, or whether they
 21 injected by casing?

22 A I am not able to answer in the case of the Atlantic
 23 Richfield flood.

24 In the Hudson Marathon flood, the operator injected
 25 down tubing in that case.

dearnley-meier reporting service

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS
209 SIMMS BLDG., P.O. BOX 1092, PHONE 243-6691, ALBUQUERQUE, NEW MEXICO 87103
FIRST NATIONAL BANK BLDG., EAST ALBUQUERQUE, NEW MEXICO 87108

1 MR. STAMETS: That's all I have.
2 MR. UTZ: Any further questions?
3 (No response.)
4 MR. UTZ: If not, the witness may be excused.
5 (Witness excused.)
6 MR. UTZ: Any statements in this Case?
7 (No response.)
8 MR. UTZ: The Case will be taken under advisement --
9 the Cases will be taken under advisement.
10 Let the record show, and I think it already does,
11 that these Cases were consolidated, but separate Orders will
12 be written.
13
14
15
16
17
18
19
20
21
22
23
24
25

dearnley-meier reporting

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

209 SIMMS BLDG., P.O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO 87103
FIRST NATIONAL BANK BLDG., EAST • ALBUQUERQUE, NEW MEXICO 87108

1 STATE OF NEW MEXICO)
2) ss
3 COUNTY OF BERNALILLO)

4 I, RICHARD E. McCORMICK, a Certified Shorthand Reporter,
5 in and for the County of Bernalillo, State of New Mexico,
6 do hereby certify that the foregoing and attached Transcript
7 of Hearing before the New Mexico Oil Conservation Commission
8 was reported by me; and that the same is a true and correct
9 record of the said proceedings to the best of my knowledge,
10 skill and ability.

11 *Richard E. McCormick*
12 CERTIFIED SHORTHAND REPORTER

23 I do hereby certify that the foregoing is
24 a complete record of the proceedings in
25 the Bernalillo Hearing of Case No. 4780,
heard by me on May 10, 1972.
[Signature] Examiner
New Mexico Oil Conservation Commission

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25I N D E XWITNESS:PAGERALPH GRAY

Direct Examination by Mr. Losee

4

Cross-Examination by Mr. Utz

13

Cross-Examination by Mr. Stamets

14

E X H I B I T SAPPLICANT'S (Penasco)OFFEREDADMITTED

Exhibit Number 1

4

12

Exhibit Number 1-A

5

12

Exhibit Number 2

6

12

Exhibit Number 3

8

12

Exhibit Number 4

9

12

Exhibit Number 5

9

12

Exhibit Number 5-A

10

12

Exhibit Number 6

10

12

Exhibit Number 6-A

10

12

Exhibit Number 6-B

10

12

Exhibit Number 6-C

10

12

dearnley-meier reporting

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS
200 SIMMS BLDG., P.O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO 87103
FIRST NATIONAL BANK BLDG. EAST • ALBUQUERQUE, NEW MEXICO 87108



OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO
P. O. BOX 2088 - SANTA FE
87501

GOVERNOR
BRUCE KING
CHAIRMAN

LAND COMMISSIONER
ALEX J. ARMJO
MEMBER

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

May 31, 1972

Mr. A. J. Losee
Losee & Carson
Attorneys at Law
Post Office Box 239
Artesia, New Mexico 88210

Dear Mr. Losee:

Enclosed herewith is Commission Order No. R-4300, entered in Case No. 4700, approving the Penasco Shugart Queen Waterflood Project.

Injection is to be through the casing of the four authorized water injection wells, with the injection water continuously treated to prevent corrosion and coupon corrosion tests conducted as prescribed by the order. Furthermore, casing of each well shall be pressure-tested to a minimum of 2000 psi for at least 30 minutes prior to conversion to water injection. If pressure shall fail to satisfactorily hold for this period of time, adequate remedial measures shall be taken and a satisfactory casing test completed prior to placing the well on injection. The Artesia district office of the Commission shall be notified of the date and hour pressure tests are to be conducted.

The above casing tests, water treatment, and continuous coupon survey may be dispensed with if injection wells are equipped with tubing and packers immediately above the pay.

As to allowable, our calculations indicate that when all of the authorized injection wells have been placed on active injection, the maximum allowable which this project will be eligible to receive under the provisions of Rule 701-E-3 is 546 barrels per day when the Southeast New Mexico normal unit allowable is 42 barrels per day or less.

Please report any error in this calculated maximum allowable immediately both to the Santa Fe office of the Commission and the appropriate district proration office.

In order that the allowable assigned to the project may be kept current, and in order that the operator may fully benefit from the allowable

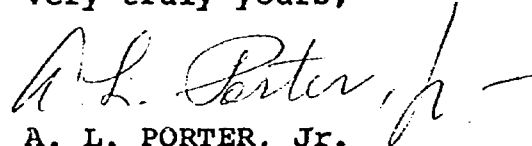
Page 2

Mr. A. J. Losee
Artesia, New Mexico
May 31, 1972

provisions of Rule 701, it behooves him to promptly notify both of the aforementioned Commission offices by letter of any change in the status of wells in the project area, i.e., when active injection commences, when additional injection or producing wells are drilled, when additional wells are acquired through purchase or unitization, when wells have received a response to water injection, etc.

Your cooperation in keeping the Commission so informed as to the status of the project and the wells therein will be appreciated.

Very truly yours,


A. L. PORTER, Jr.
Secretary-Director

Enclosure
ALP/DSN/ir

cc: Oil Conservation Commission
Hobbs and Artesia, New Mexico

Mr. D. E. Gray, State Engineer Office
Santa Fe, New Mexico

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. 4700
Order No. R-4300

APPLICATION OF PENASCO CORPORATION
FOR A WATERFLOOD PROJECT, EDDY
COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on May 5, 1972,
at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 31st day of May, 1972, 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, Penasco Corporation, seeks
permission to institute a waterflood project in the Penasco
Shugart Queen Sand Unit Area, Shugart Pool, by the injection
of water into the Queen formation through four injection wells
in Sections 8, 9, 16, and 17, Township 18 South, Range 31 East,
NMPM, Eddy County, New Mexico.

(3) That the applicant further seeks an administrative
procedure whereby said project could be expanded to include
additional lands and injection wells in the area of the said
project as may be necessary in order to complete an efficient
injection pattern; that said administrative procedure should
provide for administrative approval for conversion to water
injection in exception to the well response requirements of
Rule 701 E-5 of the Commission Rules and Regulations.

(4) That the wells in the project area are in an advanced
state of depletion and should properly be classified as
"stripper" wells.

(5) That the proposed waterflood project should result in
the recovery of otherwise unrecoverable oil, thereby preventing
waste.

-2-

CASE NO. 4700
Order No. R-4300

(6) That the subject application should be approved and the project should be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations; provided however, that the showing of well response as required by Rule 701 E-5 shall not be necessary before obtaining administrative approval for the conversion of additional wells to water injection.

IT IS THEREFORE ORDERED:

(1) That the applicant, Penasco Corporation, is hereby authorized to institute a waterflood project in the Penasco Shugart Queen Sand Unit Area, Shugart Pool, by the injection of water into the Queen formation through the following-described four wells in Township 18 South, Range 31 East, NMPM, Eddy County, New Mexico:

<u>Well Number</u>	<u>Location</u>
Ginsberg "A" Well No. 1	Unit O - Section 8
Erwin Well No. 2	Unit N - Section 9
Magnolia State Well No. 1	Unit E - Section 16
Ginsberg Well No. 2	Unit G - Section 17

PROVIDED HOWEVER, that the water shall be continuously treated prior to injection and 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.

(2) That the subject waterflood project is hereby designated the Penasco Shugart Queen Waterflood Project and shall be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations;

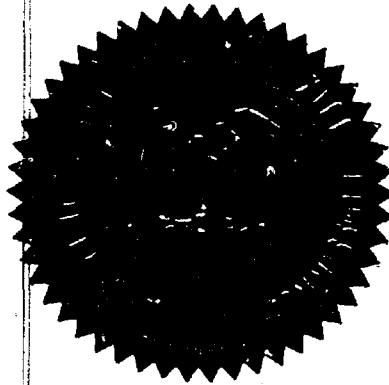
PROVIDED HOWEVER, that the Secretary-Director of the Commission may approve expansion of the Penasco Shugart Queen Waterflood Project to include such additional lands and injection wells in the area of said project as may be necessary to complete an efficient water injection pattern; that the showing of well response as required by Rule 701 E-5 shall not be necessary before obtaining administrative approval for the conversion of additional wells to water injection.

(3) That monthly progress reports of the waterflood project herein authorized shall be submitted to the Commission in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.

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

-3--
CASE NO. 4700
Order No. R-4300

DONE at Santa Fe, New Mexico, on the day and year herein-
above designated.



STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

Bruce King
BRUCE KING, Chairman

Alex J. Armiijo
ALEX J. ARMIJO, Member

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

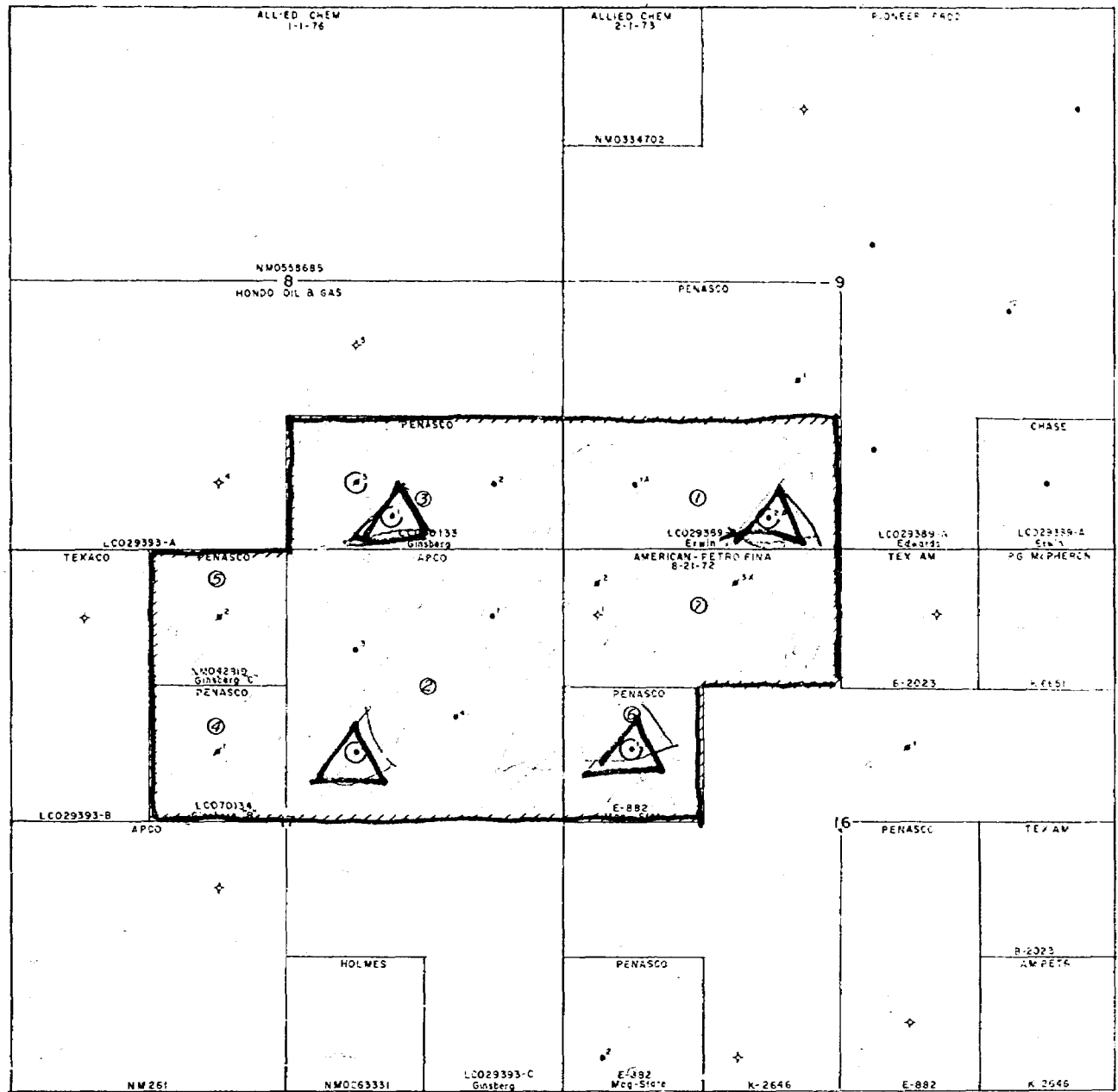
S E A L

dr/

- CASE 4700: Application of Penasco Corporation for a waterflood project, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project in the Penasco Shugart Queen Sand Unit Area, Shugart Pool, by the injection of water into the Queen formation through four wells located in Sections 8, 9, 16, and 17, Township 18 South, Range 31 East, Eddy County, New Mexico. Applicant further seeks a procedure whereby additional injection wells within the unit area may be approved administratively.
- CASE 4701: Application of Wynn Oil Company for an unorthodox location and a dual completion, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval of the dual completion of its Largo Federal Well No. 2 to produce gas from the Blanco-Mesaverde and Basin-Dakota Pools at an unorthodox location for the Blanco-Mesaverde Pool 1500 feet from the South line and 1100 feet from the East line of Section 13, Township 27 North, Range 8 West, San Juan County, New Mexico.
- CASE 4702: Application of Penroc Oil Corporation for a special gas-oil ratio limitation, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an amendment of the special rules and regulations for the Hobbs-Drinkard Pool, Lea County, New Mexico, to provide for a limiting gas-oil ratio of 10,000 cubic feet of gas per barrel of oil for said pool.
- CASE 4703: Application of Continental Oil Company for special pool rules, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks the promulgation of special pool rules for the West Lindrith Gallup-Dakota Oil Pool, Rio Arriba County, New Mexico, including provisions defining a gas well in the pool as one producing with a gas-liquid ratio of 30,000 cubic feet of gas per barrel of oil or one which produces oil with a gravity of 60° API or greater, a gas-oil ratio limitation for oil wells of 10,000 cubic feet of gas per barrel of oil, and 160-acre spacing units for both oil and gas wells.
- CASE 4709: Application of Continental Oil Company for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle production from the Eumont Gas Pool and the Penrose Skelly Oil Pool in the wellbore of its Lockhart A-17 Well No. 1 located in Unit L of Section 17, Township 21 South, Range 37 East, Lea County, New Mexico.
- CASE 4710: Application of Hanson Oil Corporation for an exception to Order No. R-3221, as amended, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an exception to Order No. R-3221, as amended, to dispose into unlined surface pits water produced by 22 wells located

R. 31 E.

T. 18 S.



BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION

EXHIBIT NO. 1

CASE NO. 4699 & 4700

Submitted by _____

Hearing Date _____

PENASCO CORPORATION

T. 18 S. R. 31 E.

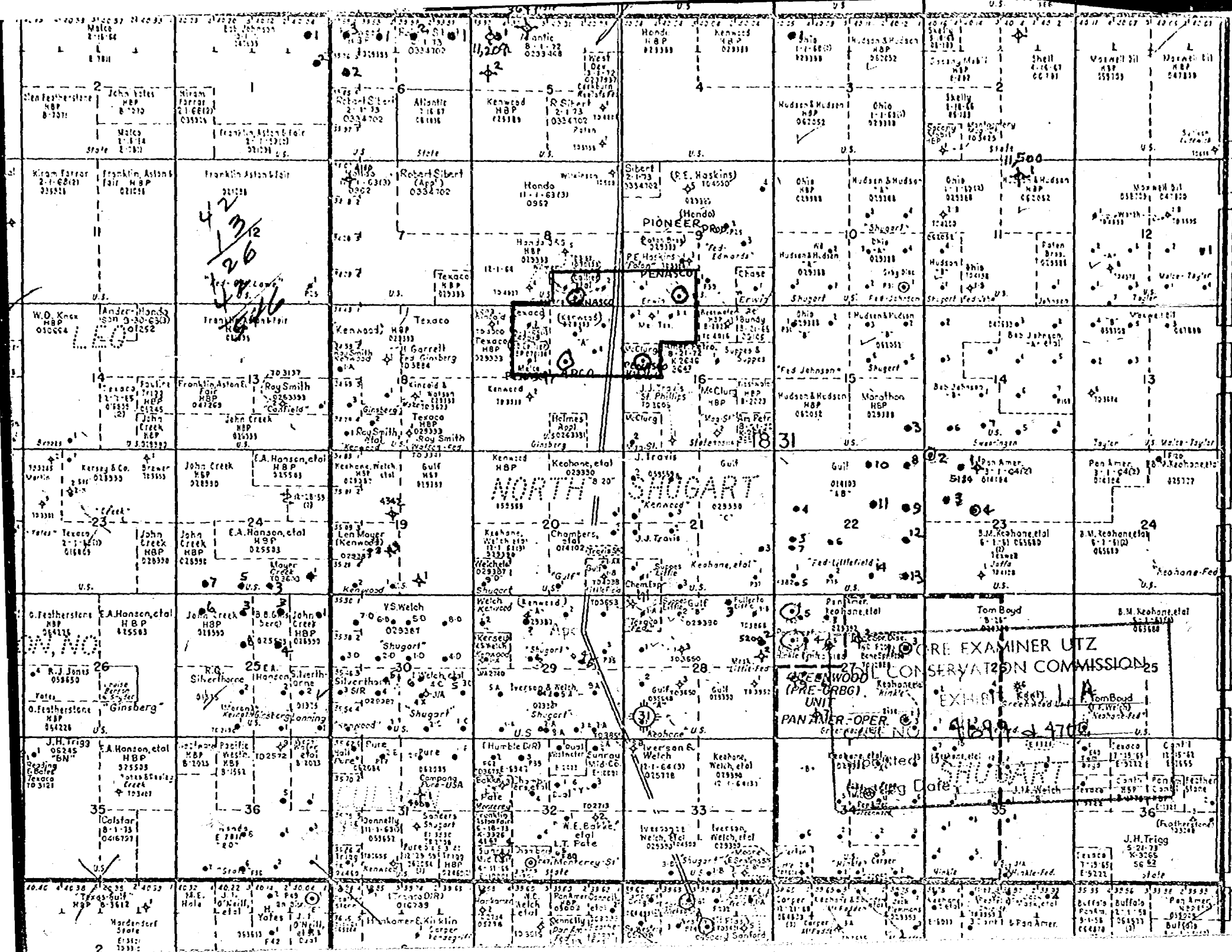
EDDY COUNTY, NEW MEXICO

NORTH SHUGART WATERFLOOD

NORTHWEST SHUGART
UNIT BOUNDARY
TRACT NO. ④

⊙ Proposed Injection Well

SCALE 8" = 1 MILE
0 1000 2000 3000



A. J. LOSEE
JOEL M. CARSON

LAW OFFICES
LOSEE & CARSON
300 AMERICAN HOME BUILDING
P. O. DRAWER 239
ARTESIA, NEW MEXICO 88210

RECEIVED
JUN 21 1972
NEW MEXICO COMM

AREA CODE 505
746-3508

28 March 1972

Case 4700

Mr. A. L. Porter, Jr.
Secretary-Director
Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico 87501

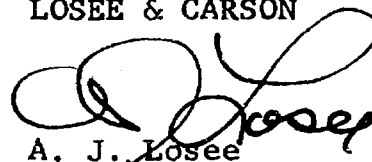
Dear Mr. Porter:

Enclosed please find application in triplicate of Penasco Corporation for a waterflood project in the Shugart Queen Oil Pool, Eddy County, New Mexico.

I understand that the next examiner hearing will be on May 5, 1972, and that this case will be set for hearing on that date.

Very truly yours,

LOSEE & CARSON


A. J. Losee

AJL/gmr

Enc.

cc: Penasco Corporation
w/enclosure

DOCKET MARKED

Date 4-21-72

RECEIVED
JUN 15 1957
OIL CONSERVATION COMMISSION

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION
OF PENASCO CORPORATION FOR A
WATERFLOOD PROJECT, SHUGART QUEEN
POOL, EDDY COUNTY, NEW MEXICO.

Case 4700

APPLICATION

COMES PENASCO CORPORATION, by its attorneys, Losee & Carson, and states:

1. Applicant, pursuant to the terms of the Penasco Shugart Queen Sand Unit Agreement and Unit Operating Agreement, is designated as operator of the Queen Sand comprising the project area covered by this application and underlying the following lands in Eddy County, New Mexico:

Township 18 South, Range 31 East, N.M.P.M.

Section 8: S/2 SE/4
Section 9: S/2 SW/4
Section 16: N/2 NW/4, SW/4 NW/4
Section 17: NE/4, E/2 NW/4

containing 520 acres, more or less.

2. There is attached hereto and by reference made a part hereof a plat showing the location of the proposed injection wells and the location of all other wells and lessees adjoining the proposed project area.

3. Applicant proposes to inject water into the Queen Sand through four injection wells described as follows:

Township 18 South, Range 31 East, N.M.P.M.

Ginsberg "A" Well No. 1, Unit O, Section 8
Erwin Well No. 2, Unit N, Section 9
Magnolia State Well No. 1, Unit E, Section 16
Ginsberg Well No. 2, Unit G, Section 17

4. That all of the wells in the project area are in advanced state of depletion and should be classified as "stripper" wells.

5. There is attached hereto and by reference made a part hereof a diagrammatic sketch of each proposed completed injection well.

6. There is attached hereto and by reference made a part hereof copies of a portion of the only available logs on the proposed injection wells, namely the Magnolia State Well No. 1 and the Ginsberg Well No. 1.

7. Applicant proposes to conduct this waterflood project under the allowable provisions of Rule 701 of the Commission.

8. Applicant may need to place additional wells in the project area on injection and a procedure should be authorized for administrative approval of any such wells.

9. The proposed waterflood project will prevent waste in that it will result in the recovery of oil that would not otherwise be recovered in the project area and correlative rights will be protected.

WHEREFORE, Applicant prays:

A. That this matter be set for hearing before an examiner duly appointed by the Commission and that due public notice be given as required by law.

B. That an order be entered authorizing the institution of the aforesaid waterflood project in the Shugart Queen Pool, establishing a procedure for administrative approval for the conversion to injection of additional wells within the

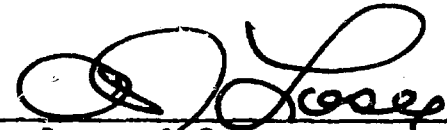
project area.

C. For such other relief as may be just in the premises.

DATED this 22 day of March, 1972.

PENASCO CORPORATION

By

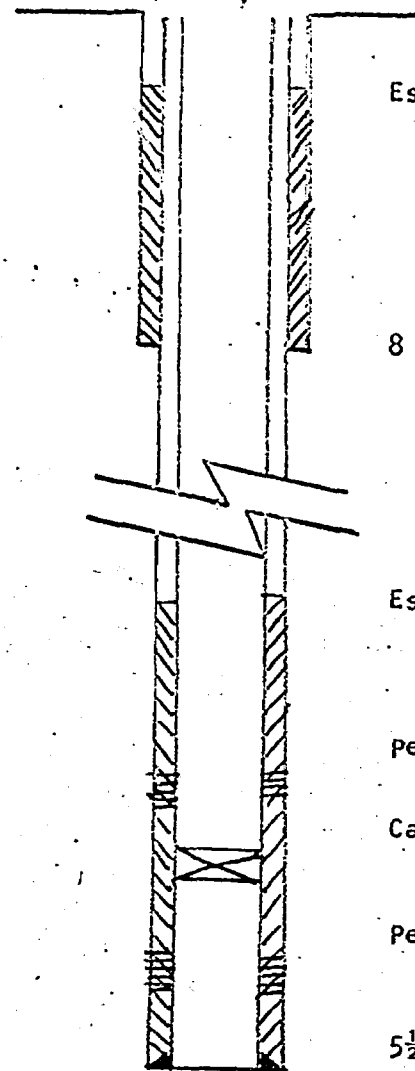


Losee & Carson

P. O. Drawer 239

Artesia, New Mexico 88210

PENASCO
Ginsberg "A" No. 1
330 FSL & 1650 FEL Section 8-18S-31E
G.L. Elev. 3675



Estimated top of cement 308'

8 5/8" @ 756' with 50 sacks

Estimated top of cement-2727'

perforated 3139-49

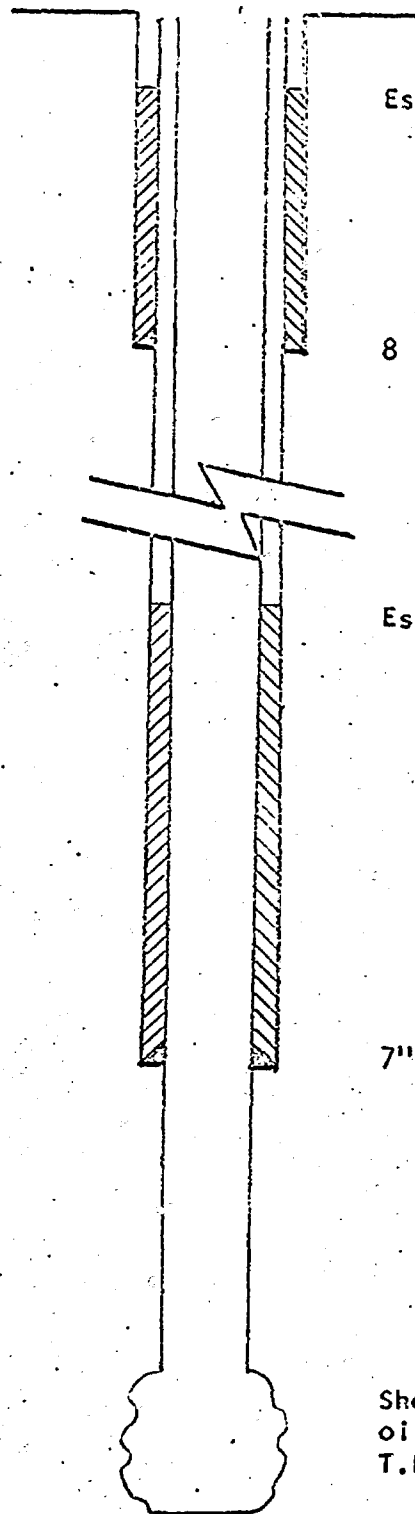
Cast iron plug to be set at 3300'

Perforated 3353-73

5 1/2" 14# casing 3406 with 100 sacks

Case 4700

PENASCO
ERWIN No. 2
330 FSL & 1980' FWL Section 9-18S-31E
G.L. elev. 3684



Estimated top of cement=370'

8 5/8" casing @ 818 with 50 sacks

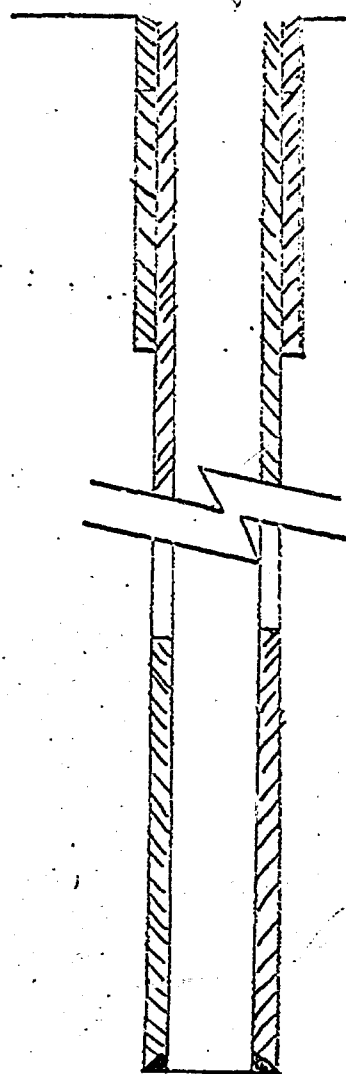
Estimated top of cement=1350'

7" casing @ 2960 with 105 sacks

Shot 3192-3227 with 100 quarts
oil pay zone 3200-3214
T.D. 3230-

Case 4700

PENASCO
Magnolia State No. 1
660 FWL & 1980 FNL Section 16-18S-31E
G.L. Elev. 3671



8-17-56 pumped 200 sacks between
8 5/8" and 5 1/2" casing from the
surface

8 5/8" 24# casing @ 128'
cement circulated

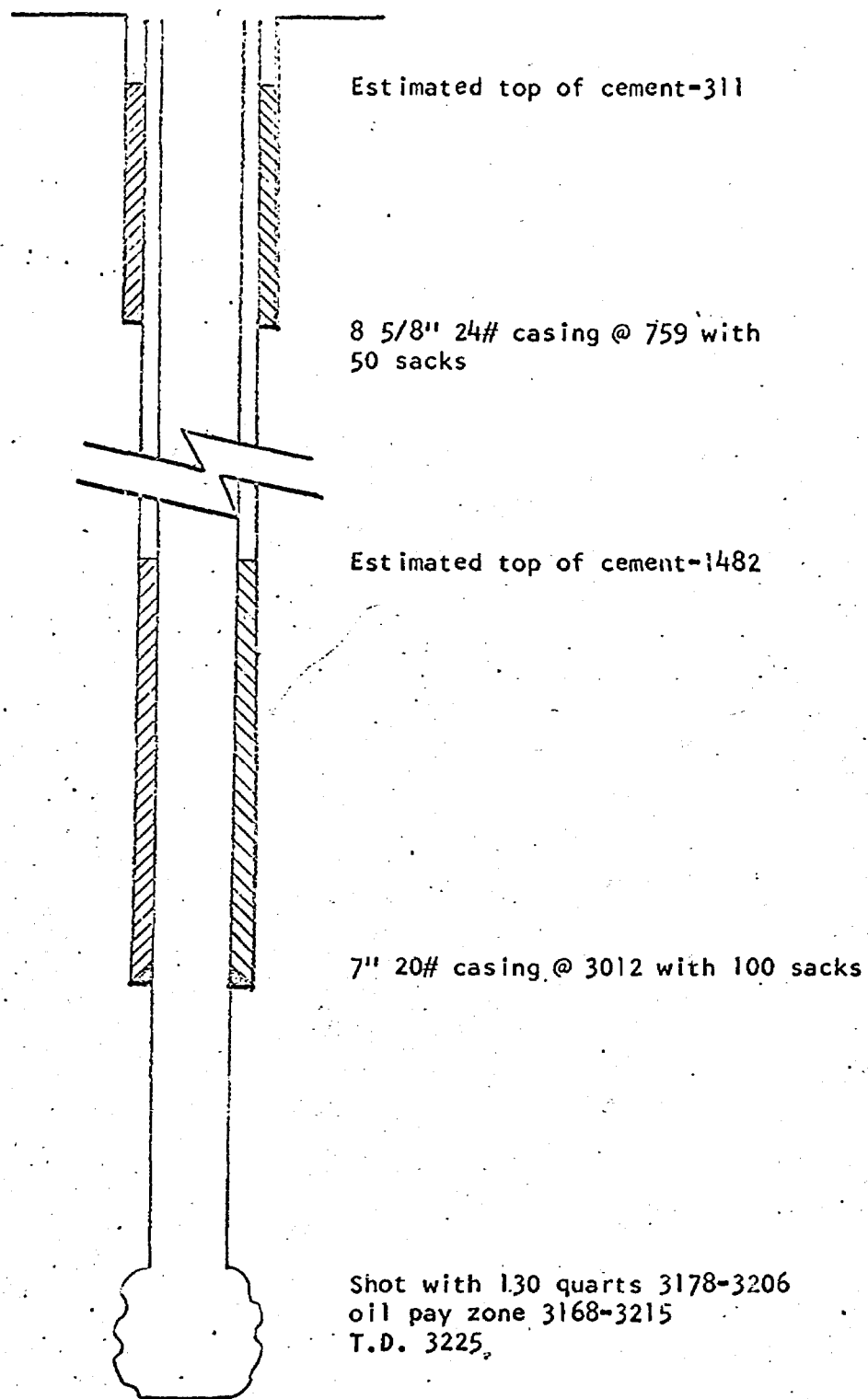
Estimated top of cement-2751'

Perforated 3180-3212

6-26-56
5 1/2" 14# casing @ 3251' with 70 sacks

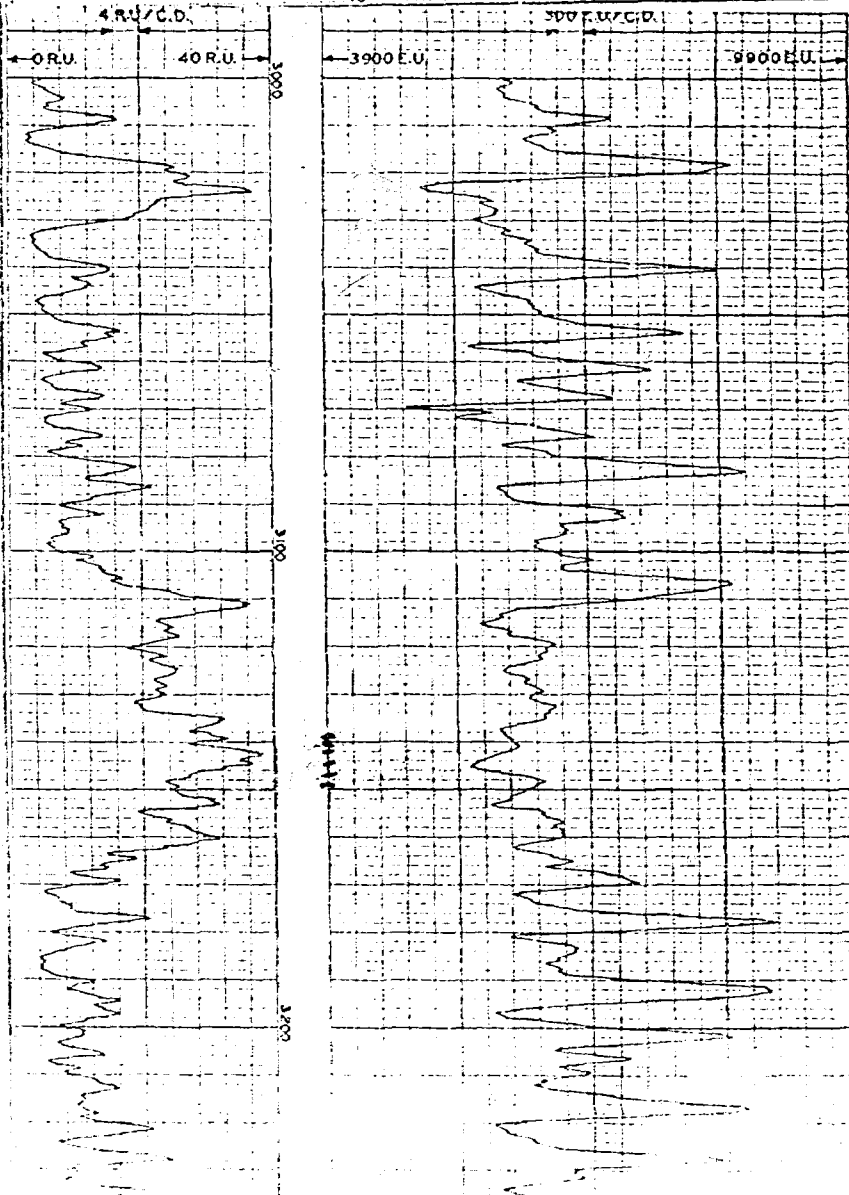
Case 4700

APCO
Ginsberg No. 2
1980' FNL & 1980 FEL Section 2-18S-31E



LANE WELLS

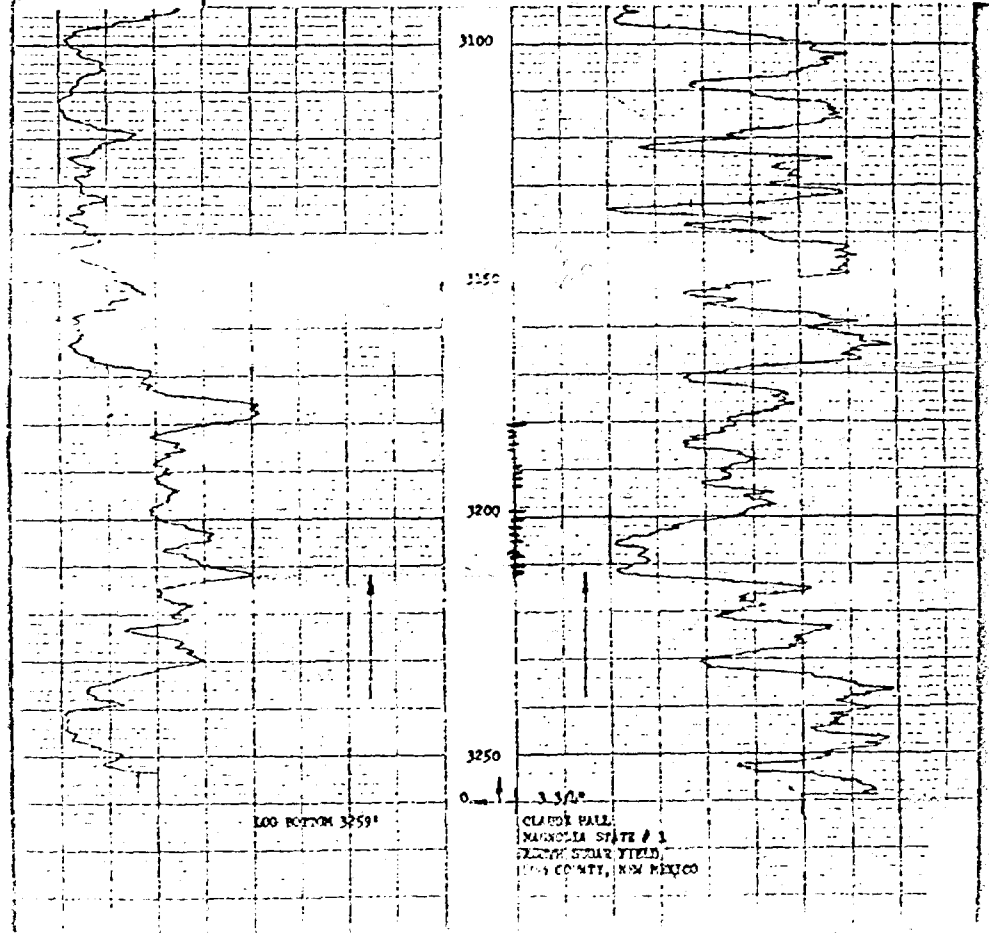
WELL RECORD				FROM WELL RECORD		FROM LOG	
RUN	PIPE SIZE	CASING	WT.-LB.	SURFACE	TO	SURFACE	TO
CONE		8 5/8		755	TO 756	763	TO 763
CONE	B			755	TO 3206	763	TO 3206
				TO		TO	
				TO		TO	
				TO		TO	



Class 4700

McCULLOUGH LOG COMPANY RADIATION LOG

Location of Well SW-NE-SE-16- 1AS-31E ELEV. 6,110	COMPANY CHARGE-NAME PENASCO WELL FIELD COUNTY LOCATION	WELL VANDERBILT COUNTY STATE	COMPANY CHARGE NAME																																																								
Log Made From Dwg. Made From Form. Data	ROTARY TAPE SAND P. 1, (0.5) LAYER 0. 1.1																																																										
Res. TA. No. 3150	TA. No. 104	TA. Oper. 1221	Log Sheet No. 1-1000																																																								
Date 5-18-66	Maximum Recorded Temp.																																																										
Total Depth (Drill) 3261'	Maximum Depth (McCulloch) 3261'																																																										
Type of Fluid in Hole MUD	Fluid Level 3261'																																																										
O.D. of Instrument 3.5"	Length of Device-Overall 11'																																																										
Neutron Source R. N-174	Spacing 19.5"-2.5" Setting																																																										
Recorded By: P. 1221	Witnessed By: MR. BALL																																																										
Type of Log	GAMMA RAY	GAMMA RAY	NEUTRON																																																								
Run No.	05-5"	05-5"	05-5"																																																								
Top of Logged Interval	1800'		1800'																																																								
Bottom of Logged Interval	3261'		3261'																																																								
Time Constant	3.25-110-310000 (0-3)		3.1-135-500000 (0-3)																																																								
Logging Speed Ft./Min.	28		28																																																								
Statistical Variation																																																											
Sensitivity-Micro-Röntgens Per Hr. Per Inch	2.72																																																										
<table border="1"> <thead> <tr> <th colspan="4">CASING RECORD (Contents)</th> <th colspan="4">OPEN (BORE) HOLE RECORD</th> </tr> <tr> <th>Run No.</th> <th>Size-In.</th> <th>Wt.-Lb.</th> <th>Interval</th> <th>Run No.</th> <th>Size-In.</th> <th>Wt.-Lb.</th> <th>Interval</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>8 5/8</td> <td>24</td> <td>1275'</td> <td>1</td> <td>11</td> <td>175'</td> <td>175'</td> </tr> <tr> <td>2</td> <td></td> <td></td> <td>to</td> <td>2</td> <td>7 1/8</td> <td>175'</td> <td>to 3261'</td> </tr> <tr> <td>3</td> <td></td> <td></td> <td>to</td> <td></td> <td></td> <td></td> <td>to</td> </tr> <tr> <td>4</td> <td></td> <td></td> <td>to</td> <td></td> <td></td> <td></td> <td>to</td> </tr> <tr> <td>5</td> <td></td> <td></td> <td>to</td> <td></td> <td></td> <td></td> <td>to</td> </tr> </tbody> </table>				CASING RECORD (Contents)				OPEN (BORE) HOLE RECORD				Run No.	Size-In.	Wt.-Lb.	Interval	Run No.	Size-In.	Wt.-Lb.	Interval	1	8 5/8	24	1275'	1	11	175'	175'	2			to	2	7 1/8	175'	to 3261'	3			to				to	4			to				to	5			to				to
CASING RECORD (Contents)				OPEN (BORE) HOLE RECORD																																																							
Run No.	Size-In.	Wt.-Lb.	Interval	Run No.	Size-In.	Wt.-Lb.	Interval																																																				
1	8 5/8	24	1275'	1	11	175'	175'																																																				
2			to	2	7 1/8	175'	to 3261'																																																				
3			to				to																																																				
4			to				to																																																				
5			to				to																																																				
REMARKS OR OTHER DATA																																																											



Case 4700

RAFT FOR WATERFLOOD LETTERS

V. Losee
arson
at Law
Office Box 239
tesia, New Mexico 88210

Dear Sir:

Enclosed herewith is

Commission Order No. R-4300, entered in Case No. 4700, approving the Penasco Shugart Queen Waterflood Project.

Injection is to be through the casing of the four authorized water injection wells, with the injection water continuously treated to prevent corrosion and coupon corrosion tests conducted as prescribed by the order. Furthermore,

to the flowing test, water treatment, etc., long term survey may be observed with if injection wells are equipped with tubing and packers immediately above the pay.

As to allowable, our calculations indicate that when all of the authorized injection wells have been placed on active injection, the maximum allowable which this project will be eligible to receive under the provisions of Rule 701-E-3 is 546 barrels per day when the Southeast New Mexico normal unit allowable is 42 barrels per day or less.

Please report any error in this calculated maximum allowable immediately, both to the Santa Fe office of the Commission and the appropriate district proration office.

In order that the allowable assigned to the project may be kept current, and in order that the operator may fully benefit from the allowable provisions of Rule 701, it behooves him to promptly notify both of the aforementioned Commission offices by letter of any change in the status of wells in the project area, i.e., when active injection commences, when additional injection or producing wells are drilled, when additional wells are acquired through purchase or unitization, when wells have received a response to water injection, etc.

Your cooperation in keeping the Commission so informed as to the status of the project and the wells therein will be appreciated.

Very truly yours,

A. L. PORTER, Jr.
Secretary-Director

cc: OCC: Hobbs X
Artesia X
Aztec

USGS

~~Mr. Frank Irby~~, State Engineer Office, Santa Fe, New Mexico

Mr. D. E. Gray,

each well casing shall be pressure tested to a minimum of 2000 psi for at least 30 minutes prior to placing the well on injection. If pressure shall fail to satisfactorily hold for this period of time adequate remedial measures shall be taken and a satisfactory casing test completed prior to placing the well on injection. The Artesia district office of the Commission shall be notified of the date and hour pressure tests are to be conducted,

conversion to water injection

DRAFT

GMH/dr

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

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

CASE No. 4700

Order No. R-4300

APPLICATION OF PENASCO CORPORATION
FOR A WATERFLOOD PROJECT, EDDY
COUNTY, NEW MEXICO.

GMH
Jan
ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on May 5, 1972,
at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this day of May, 1972, 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, Penasco Corporation, seeks permis-
sion to institute a waterflood project in the Penasco Shugart
Queen Sand Unit Area, Shugart Pool, by the injection of water
into the Queen formation through four injection wells in
Sections 8, 9, 16, and 17, Township 18 South, Range 31 East, NMPM,
Eddy County, New Mexico.

(3) That the applicant further seeks an administrative procedure whereby said project could be expanded to include additional lands and injection wells in the area of the said project as may be necessary in order to complete an efficient injection pattern; that said administrative procedure should provide for administrative approval for conversion to water injection in exception to the well response requirements of Rule 701 E-5 of the Commission Rules and Regulations.

(4) That the wells in the project area are in an advanced state of depletion and should properly be classified as "stripper" wells.

(5) That the proposed waterflood project should result in the recovery of otherwise unrecoverable oil, thereby preventing waste.

(6) That the subject application should be approved and the project should be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations; provided however, that the showing of well response as required by Rule 701 E-5 shall not be necessary before obtaining administrative approval for the conversion of additional wells to water injection.

IT IS THEREFORE ORDERED:

(1) That the applicant, Penasco Corporation, is hereby authorized to institute a waterflood project in the Penasco Shugart Queen Sand Unit Area, Shugart Pool, by the injection of water into the Queen formation through the following-described four wells in ^{Township 18 South, Range 31 East, N.M.P.A.,} Eddy County, New Mexico:

<u>well number</u>	<u>location</u>
Hinsberg "A" Well No. 1	unit O - section 8
Erwin Well No. 2	unit N - section 9
Magnolia State Well No. 1	unit E - section 16
Hinsberg well No. 2	unit G - section 17

PROVIDED HOWEVER, that the water shall be ~~directly~~ ^{continuously} treated prior to injection and canyon corrosion tests shall be conducted continuously on said wells with the results thereof filed quarterly with the Commission until further notice from the Secretary-Director of the Commission.

(2) That the subject waterflood project is hereby designated the *Penasco Sugar Queen* Waterflood Project and shall be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations;

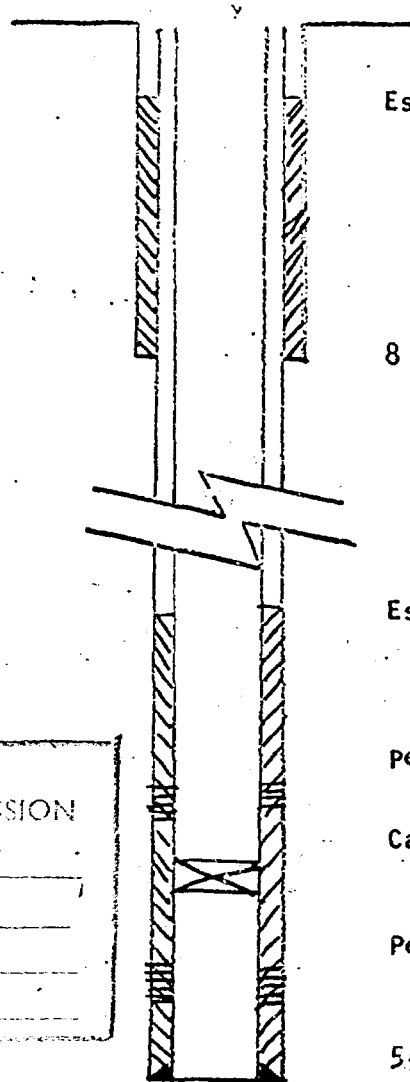
PROVIDED HOWEVER, that the Secretary-Director of the Commission may approve expansion of the *Penasco Sugar Queen* Waterflood Project to include such additional lands and injection wells in the area of said project as may be necessary to complete an efficient water injection pattern; that the showing of well response as required by Rule 701 E-5 shall not be necessary before obtaining administrative approval for the conversion of additional wells to water injection.

(3) That monthly progress reports of the waterflood project herein authorized shall be submitted to the Commission in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.

(4) 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.

PENASCO
Ginsberg "A" No. 1
330 FSL & 1650 FEL Section 8-18S-31E
G.L. Elev. 3675



Estimated top of cement 308'

8 5/8" @ 756' with 50 sacks

Estimated top of cement-2727'

perforated 3139-49

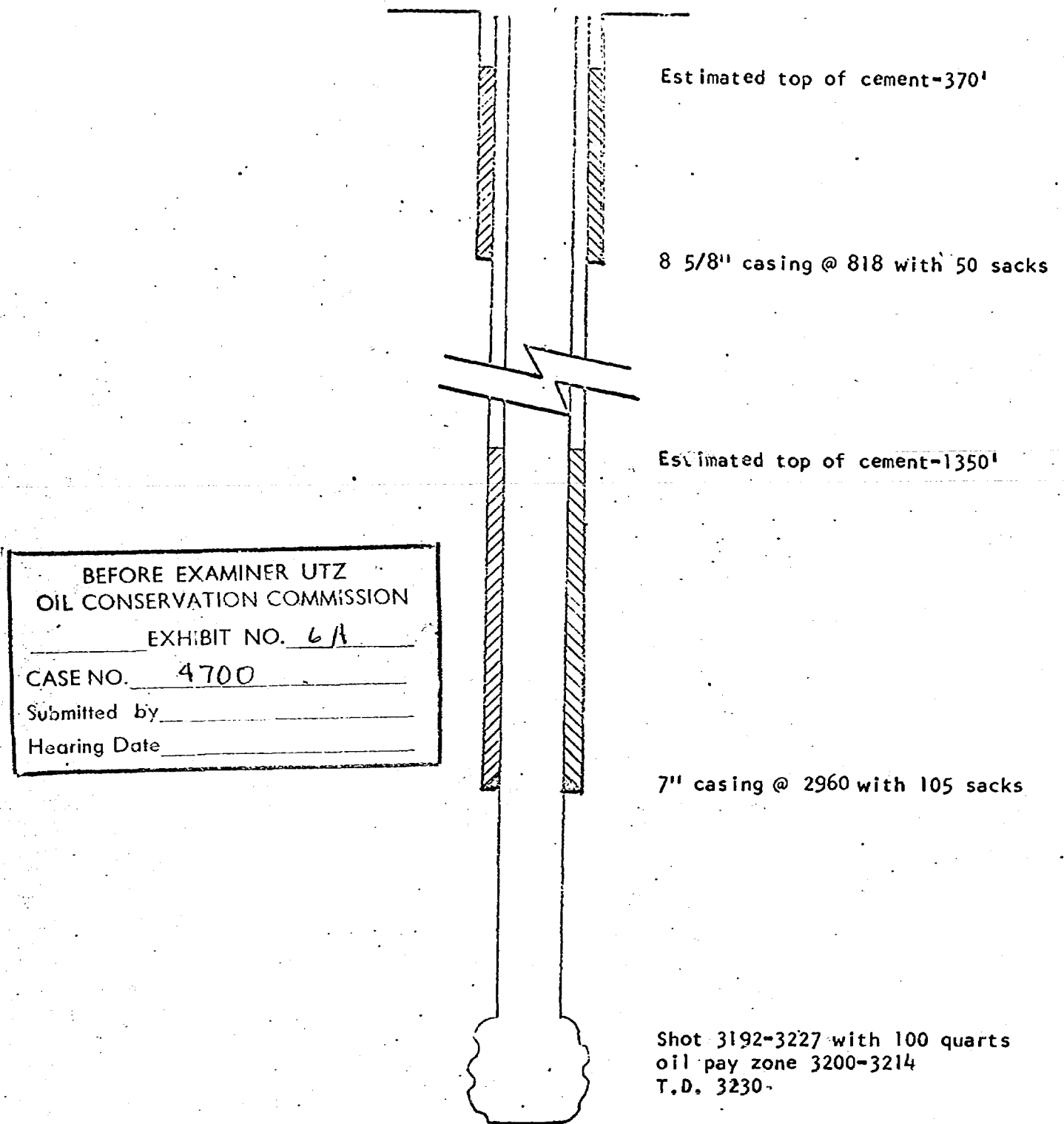
Cast iron plug to be set at 3300'

Perforated 3353-73

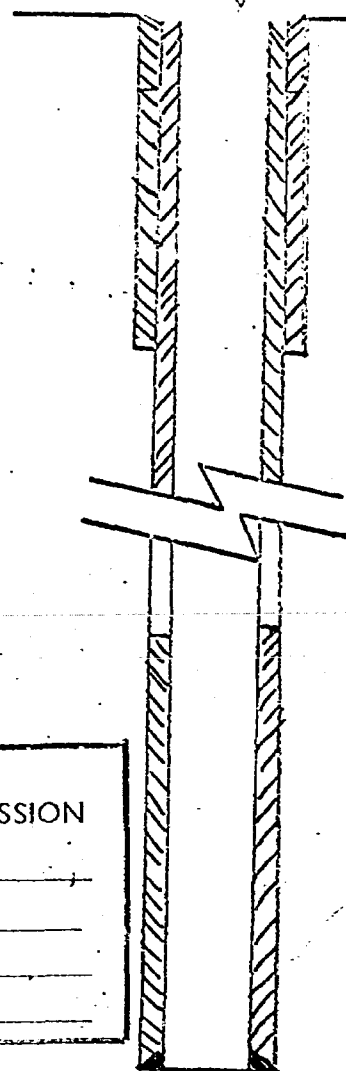
5 1/2" 14# casing 3406 with 100 sacks

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
EXHIBIT NO. 6B
CASE NO. 4700
Submitted by
Hearing Date

PENASCO
ERWIN No. 2
330 FSL & 1980' FWL Section 9-18S-31E
G.L. elev. 3684



PENASCO
Magnolia State No. 1
660 FWL & 1980 FNL Section 16-18S-31E
G.L. Elev. 3671



8-17-56 pumped 200 sacks between
8 5/8" and 5 1/2" casing from the
surface

8 5/8" 24# casing @ 128'
cement circulated

Estimated top of cement-2751'

Perforated 3180-3212

6-26-56
5 1/2" 14# casing @ 3251' with 70 sacks

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION

EXHIBIT NO. 6

CASE NO. 4700

Submitted by _____

Hearing Date _____

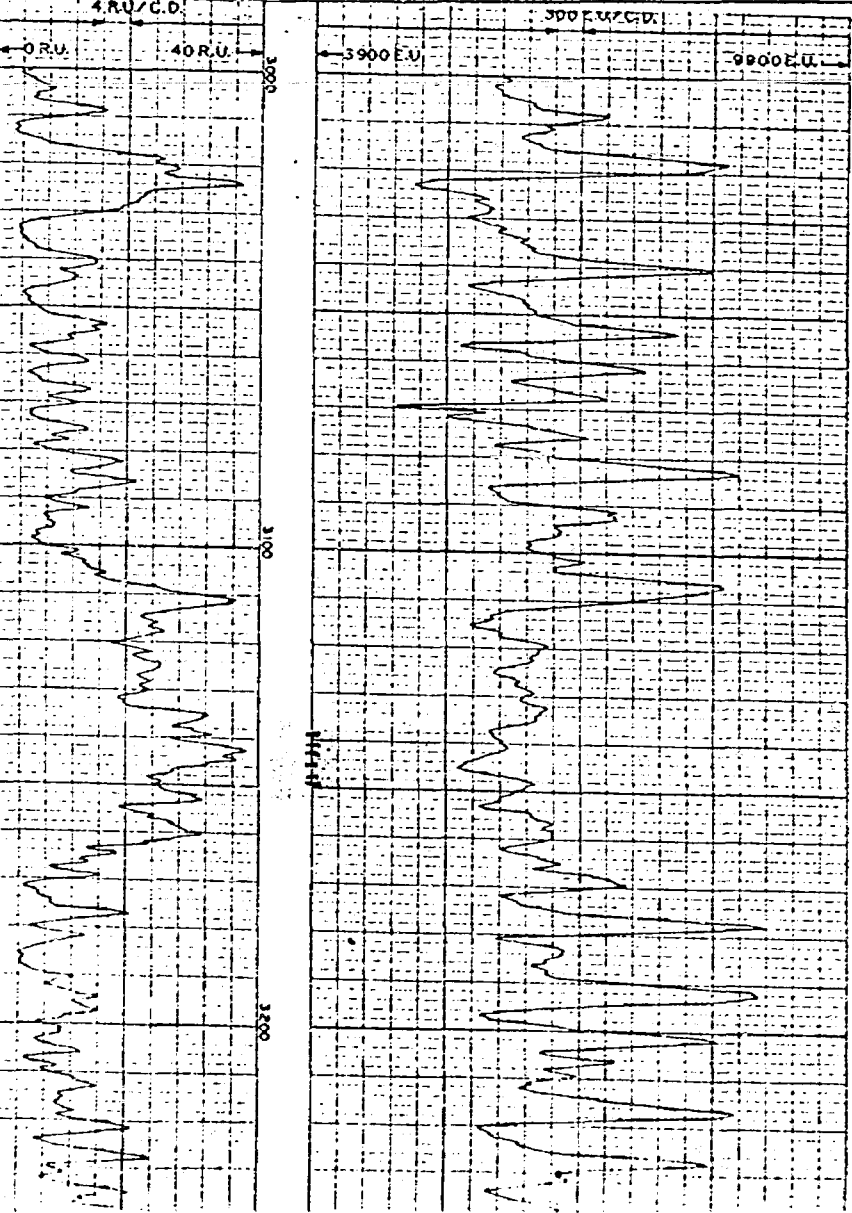
LANE & WELLS

Radioactivity Log

COMPANY: P. D. COLLIER
PENASCO
 WELL: 005899 NO. 1
 FIELD: NORTH SPUR
 LOCATION: 330' FSL & 1500' FSL OF SUR. 3,
 T-15-S, R-31-E
 COUNTY: KENT STATE: N. KENT.
 LOG ZERO: CABLE TOOL FLOOR
 DILG ZERO: CABLE TOOL FLOOR
 PERM. DATUM: C. T. 15 3.5' ABOVE O. L.

TYPE OF LOG: GAMMA RAY
 RUN NO.: 12-1-57
 DATE: 12-1-57
 TOTAL DEPTH (DRILLER'S, L.): 3100
 EFFECTIVE DEPTH (DRILLER'S, L.): 3100
 TOP OF LOGGED INTERVAL: SURFACE
 BOTTOM OF LOGGED INTERVAL: 3100
 TYPE OF FLUID IN HOLE: OIL
 FLUID LEVEL: 3100
 MAXIMUM RECORDED TEMP.:
 SOURCE STRENGTH & TYPE: 3100
 SOURCE SPACING - IN.: 13.5
 DETECTOR CLASS: SCINT.
 DETECTOR TYPE: NaI
 LENGTH OF MEAS. DEVICE - IN.: 4
 O.D. OF INSTRUMENT - IN.: 3 5/8
 TIME CONSTANT - SECONDS: 2.0-0.9
 LOGGING SPEED FT./MIN.: 30-60
 STATISTICAL VARIATION - IN.: RECORDED
 SENSITIVITY REFERENCE: 274 J10
 RECORDED BY: SYLVAN & COLLIER
 WITNESSED BY: COLLIER

WELL RECORD			
RUN	BIT SIZE	CASING WT. - LB.	FROM WELL RECORD
ONE	8 5/8		SURFACE TO 756
TWO			756 TO 3100
			TO 3100



BEFORE EXAMINER UTZ
 OIL CONSERVATION COMMISSION
 EXHIBIT NO. 5
 CASE NO. 4700
 Submitted by _____
 Hearing Date _____



McCULLOUGH

LOGGING COMPANY
RADIATION LOG



Location of Well CLAYTON, 16- 165-31E ELEV: O.L. 3663'	COMPANY PENASCO WELL MAYNOLA STATE # 1 FIELD MAYNOLA, TEXAS COUNTY MAYNOLA STATE NEW MEXICO LOCATION	CONTRACT CLARK M-11 WELL MAYNOLA STATE # 1 FIELD MAYNOLA, TEXAS COUNTY MAYNOLA STATE NEW MEXICO LOCATION
---	---	---

Log Meas. From O.L. Meas. From Form. Datum	ROCKY MOUNTAIN SAND R. 9, (P. 5) ADJ. O. L. 1	Log Sheet No. Date Total Depth (Outlet) Type of Fluid in Hole O.D. of Instrument Neutron Source # Recorded By	Log Sheet No. Date Total Depth (Outlet) Type of Fluid in Hole O.D. of Instrument Neutron Source # Recorded By
--	---	---	---

Type of Log	GAMMA RAY	GAMMA RAY	NEUTRON	NEUTRON
Run No.	ON-5	ON-5	ON-5	ON-5
Top of Logged Interval	1800'	1800'	1800'	1800'
Bottom of Logged Interval	3200'	3200'	3200'	3200'
Time Constant	3.253-140-3600FS, (0-3)	3.253-140-3600FS, (0-3)	3.253-140-3600FS, (0-3)	3.253-140-3600FS, (0-3)
Logging Speed Ft./Min.	28	28	28	28
Statistical Variation				
Sensitivity-Micro-Ramogram				
Per. No.	2.72			

CASING RECORD (Continued)				OPEN (BORE) HOLE RECORD			
Run No.	Size-in.	Wt.-lb.	Interval	Run No.	Size	Wt.-lb.	Interval
1	8 5/8	24	0' to 125'	1	11	0' to 175'	
2			125' to 175'	2	7 1/8	175' to 3261'	
3			175' to 3261'				
4			3261' to 3261'				
5			3261' to 3261'				

REMARKS OR OTHER DATA

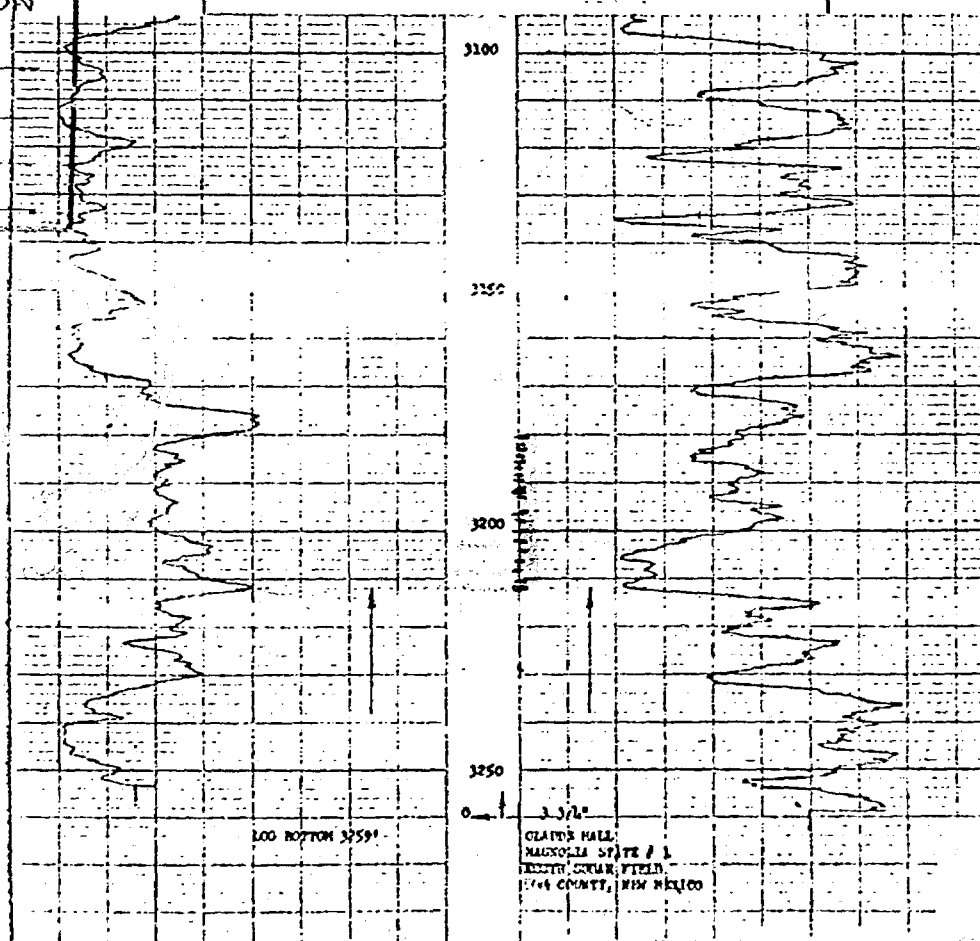
BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION

EXHIBIT NO. 5A

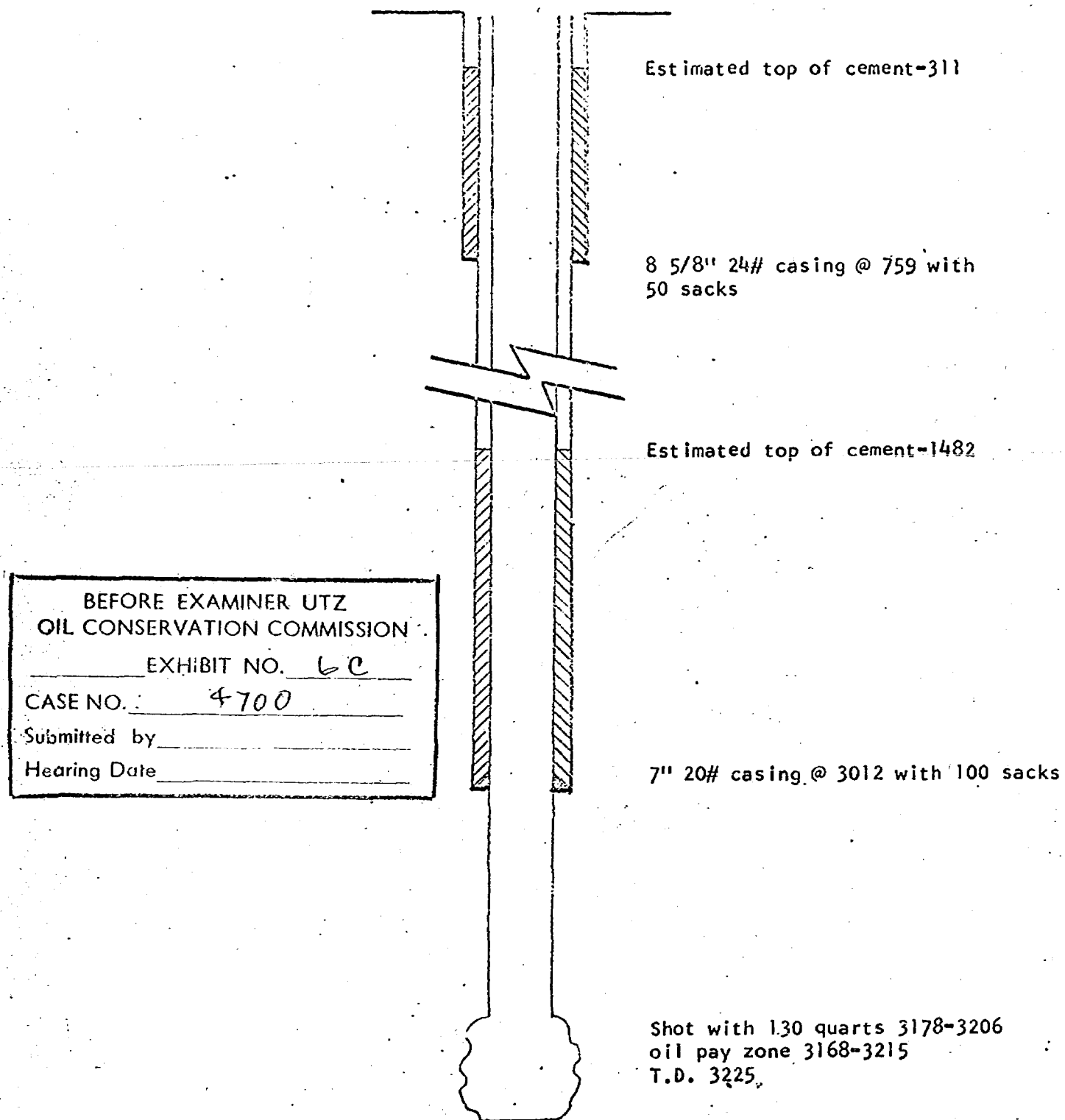
CASE NO. A700

Submitted by

Hearing Date



APCO
Ginsberg No. 2
1980' FNL & 1980 FEL Section 17-18S-31E



PRODUCTION TABLE

	<u>FEBRUARY OIL PRODUCTION</u>	<u>WATER</u>	<u>GAS</u>	<u>AVERAGE BOPD</u>
<u>APCO</u>				
Ginsberg "A" #1-A-17-18-31	31	29		1
#2-G	21	28		1
#3-B	23	26		1
#4-H	<u>22</u>	<u>30</u>		1
	97	112		
<u>PENASCO CORPORATION</u>				
Erwin #1-M-9-18-31	9			
#2-N	<u>10</u>			
	19			
Magnolia St. #1-E-16-18-31	109		67	4
#2-M	<u>109</u>		<u>68</u>	<u>4</u>
	218		135	8

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION

EXHIBIT NO. 4

CASE NO. 4700

Submitted by _____

Hearing Date _____

BEFORE EXAMINER UTZ:
OIL CONSERVATION COMMISSION

EXHIBIT NO. 3

CASE NO. 4760

Submitted by

Hearing Date LOCATION

PENASCO - SHUGART UNIT AREA

WELL DATA

ELEVATION	DATE COMPLETED	INITIAL PRODUCTION	PAY ZONE	OIL STRING	TOTAL DEPTH	SHOT	PRESENT STATUS	PRIMARY RECOVERY 1-1-71	1970 PRODUCTION
-----------	----------------	--------------------	----------	------------	-------------	------	----------------	-------------------------	-----------------

AMERICAN PETROFINA

State K-2646 (N/2 NW/4 Sec. 16)

No. 1	660 FNL & 330 FNL	11-7-39	Dry	None	None	3635	P & A 11-7-39	0	0
No. 2	330 FNL & 330 FNL	3-4-42	36	3176-96	6" @ 2665'	3198	P & A 9-15-46	4,620	0
No. 3	330 FNL & 1650 FNL	4-15-42	66	3204-30	6" @ 2470'	3230	P & A 9-15-46	3,551	0

APCO

Ginsberg "A" LC 029393(c) (NE/4 Sec. 17)

No. 1	660 FNL & 660 FEL	10-21-39	157	3154-87	7" @ 3025'	3187	Producing	74,937	663
No. 2	1980 FNL & 1980 FEL	7-17-40	112		7" @ 3012'	3235	Producing	33,119	163
No. 3	990 FNL & 1980 FEL	9-1-40	160	3145-	7" @ 3016'	3183	Producing	50,449	329
No. 4	1650 FNL & 990 FEL	10-25-40	125	3165-90	7" @ 3047'	3198	Producing	44,952	330

PENASCO

Erwin LC 029389(c) (S/2 SW/4 Sec. 9)

No. 1	660 FSL & 660 FNL	6-12-39	150	3175-92	7" @ 3005'	3210	Producing	80,692	154
No. 2	330 FSL & 1980 FNL	11-28-39	210	3192-3227	7" @ 3047'	3230	Producing	78,952	236

Ginsberg "A" LC 070133 (S/2 SW/4 Sec. 8)

No. 1	330 FSL & 1650 FEL	1-31-58	17	3112-54	5 1/2" @ 3406'	3406	Shut in	4,849	0
No. 2	660 FSL & 660 FEL	7-23-38	60	3147-83	7" @ 3073'	3185	Shut in	57,487	0
No. 3	660 FSL & 1980 FEL	9-10-40	200	3102-55	7" @ 3000'	3160	P & A 3-20-47	29,373	0

Ginsberg "B" LC 070134 (SE/4 NW/4 Sec. 17)

No. 1	1980 FNL & 1980 FNL	1-22-41	15	3135-70	7" @ 3020'	3176	P & A 3-15-49	14,438	0
-------	---------------------	---------	----	---------	------------	------	---------------	--------	---

Ginsberg "C" LC 042819 (NE/4 NW/4 Sec. 17)

No. 2	660 FNL & 1980 FNL	10-8-41	150	3150-60	7" @ 2994'	3169	P & A 3-20-47	9,882	0
-------	--------------------	---------	-----	---------	------------	------	---------------	-------	---

Magnolia State E-882 (SW/4 NW/4 Sec. 16)

No. 1	1980 FNL & 660 FNL	5-23-56	48	3198-3212	5 1/2" @ 3251'	3474	Producing	12,487	182
-------	--------------------	---------	----	-----------	----------------	------	-----------	--------	-----

Erwin

560