

CASE No.

5069

Application,

Transcripts,

Small Exhibits

ETC.

dearnley, meier & associates

209 SIMMS BLDG. • P.O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO 87103
1216 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
October 3, 1973

EXAMINER HEARING

IN THE MATTER OF:) Case No. 5069
)
Application of Sun Oil Company for a dual)
completion, Lea County, New Mexico.)

BEFORE: RICHARD L. STAMETS,
Examiner.

TRANSCRIPT OF HEARING

1 MR. STAMETS: Call next case 5069.

2 MR. DERRYBERRY: Case 5069, Application of
3 Sun Oil Company for a dual completion, Lea County, New Mexico.

4 MR. STAMETS: Call for appearances in Case 5069.

5 MR. KELLAHIN: Tom Kellahin, Kellahin & Fox,
6 Santa Fe, New Mexico, appearing on behalf of the applicant,
7 Sun Oil Company; and I have one witness to be sworn.

8 MR. STAMETS: Are there any other appearances in
9 this case? The witness may stand and be sworn.

10 *****

11 GEORGE J. HOWARD,
12 was called as a witness, and after being duly sworn, testified
13 as follows:

14 DIRECT EXAMINATION

15 BY MR. KELLAHIN:

16 Q Will you please state your name, by whom you are employed,
17 and in what capacity?

18 A George J. Howard, I'm employed by Sun Oil Company in Dallas;
19 and I'm a Production Geologist.

20 Q Mr. Howard, have you previously testified before this Commission
21 or one of its hearing examiners and had your qualifications as
22 an expert witness accepted and made a matter of record?

23 A Yes.

24 Q Are you familiar with the facts surrounding this particular
25 application by Sun Oil Company?

1 A Yes, I am.

2 MR. KELLAHIN: Are the witness' qualifications
3 acceptable?

4 MR. STAMETS: They are.

5 Q Mr. Howard, will you please state briefly what Sun Oil Company
6 is seeking by this application?

7 A Sun Oil Company is seeking permission to dually complete the
8 No. 1 Annie Christmas Well as an oil well from the Granite Wash
9 Section and a gas well from the Abo Section.

10 Q Will you please refer to what has been marked as Applicant's
11 Exhibit 1, identify it for us and explain what information it contains?

12 A Exhibit 1 is a Sun Oil Neutron-Formation Density Porosity Log
13 used as a correlation log and has the tops of the recognized
14 formations and producing zones marked on the log.

15 Q Will you locate for us the perforations that are of interest for
16 this application?

17 A Yes. Initial perforations were at 7278 to 96 in this section which
18 is the Granite Wash. This zone was potentialized for 194 barrels
19 of oil.

20 Q Will you please refer to what has been designated the Abo
21 Formation; is it?

22 A Yes.

23 Q What perforations are in that?

24 A The Abo was perforated in three porosity intervals some 6833 to
25 6927. This interval was potentialized for 5.27 million cubic feet of

1 gas per day.

2 Q Is there anything further that regards that exhibit?

3 A No.

4 Q Will you please refer to what has been marked as Applicant's
5 Exhibit 2 and identify it for us?

6 A Exhibit 2 is a Producing Zone Index map. It's been constructed
7 on a scale of one inch equals 1000 feet or each square is equal
8 to itself. The red arrow is the Sun Oil Christmas Well located
9 in the southeast of the southwest of Section 1.

10 This map shows all of the offset operators and all
11 wells which have penetrated the Drinkard formation. A lot of
12 the shallower wells have been excluded from the map in order
13 to simplify it. The producing zones have been color-coded, and
14 you will note at the bottom that some of the wells that by color-
15 coding appear to be dual are producing from two zones. The letter
16 C beneath them says they are not dual but a commingled.

17 Q In relation to this exhibit, Mr. Howard, will you please refer
18 to Exhibit 3? Would you identify this exhibit and explain what
19 information it contains?

20 A Exhibit 3 is a Structured Contour map contoured on top of the
21 Granite Wash Section which we noted on the Type Log. This again
22 is constructed on a one inch equals 1000 feet. The red arrow again
23 denotes the Sun No. 1 Annie Christmas. You will please note on
24 the Type Log to the right that the red-line area is the mapped
25 horizon.

1 It is contoured on one inch equals 100 feet. The red
2 dots on the map indicate those wells which are producing from
3 the Wantz-Granite Wash Field. There are four, two in Section 2
4 and two to the south part of Section 12. These are all oil wells.

5 Q Would you please refer to Exhibit 4, Mr. Howard, and explain
6 what information it contains?

7 A Exhibit 4 is a Structure map which is contoured on top of the
8 Abo Dolomite as you will denote on the Type Log to the right.
9 This again is on the scale of one inch equals 1000 feet. The red
10 arrow denotes the Sun No. 1 Annie Christmas.

11 The dashed line denotes the 160-acre proposed gas
12 proration unit. The blue dots indicate those wells which are
13 productive from portions of the Abo Formation which is primarily
14 composed of Dolomite with various thin porosity stringers
15 throughout the section.

16 Q Your Sun Oil Company well in this formation is a gas well; isn't it?

17 A Yes, it is.

18 Q The offsetting wells on your plat here, are these Abo oil wells?

19 A Yes, they are.

20 Q What distinction, if any, do you draw between your well and the
21 other Abo wells?

22 A Sun Oil Company perforated their well in three selective porosity
23 zones. The offset wells have perforated all indicated hydrocarbon
24 bearing zones within the Abo and many within the Drinkard Formation.

25 The pressures which were recorded in the Sun No. 1

1 Annie Christmas had mid-pressure on the Abo which is 2716 pounds
2 and indicated that the reservoir in this well has not been depleted
3 by offset production and is probably separate.

4 Q Is there any evidence of communication between the Sun Oil well
5 and the other Abo wells?

6 A No, there isn't.

7 Q How does the production in this well compare with production of
8 other wells in the area?

9 A The other wells in the area produce high ratio oil on the average
10 of thirty - to forty-thousand to one GOR at this time; and the
11 oil is 42 gravity. Sun Oil Company's well, as I said, potentialed
12 for 5.726 million and 110 barrels of condensate per billion. Gravity
13 of the condensate is 77.9 degrees at 60 degrees.

14 Q Mr. Howard, do you have any opinion as to whether this Sun Oil
15 Company well as to the Abo Formation now is located in a gas pool
16 or an oil pool?

17 A Yes. In my opinion it is located in a gas pool.

18 Q What is your opinion based upon, Mr. Howard?

19 A My opinion is based upon the near-virgin pressures that were
20 found in the pressure analysis and the high degree of the gravity
21 of the condensate and in the large amount of gas that is being
22 produced and high tubing pressures, 2,000 pound shut-in tubing
23 pressure in this well.

24 Q Do you draw any correlation between the Sun Oil Company well
25 and the Sohio well in the area? Is there any structural difference to

1 these wells?

2 A The Sun well is by structure high to the majority of the wells to
3 the southeast that are denoted as Abo producing wells. However,
4 it is four feet structurally low to the Sohio #13 Hinton which is
5 located in Location L, Section 12. This is classified as a gas
6 well, excuse me, as an oil well.

7 Q What conclusion do you draw from that?

8 A That we have a separate reservoir.

9 Q Will you please refer to what has been marked as Applicant's
10 Exhibit 5, explain what information it contains?

11 A Exhibit 5 is the analyses of the pressure data which was run on
12 the No. 1 Annie Christmas well indicating the maximum
13 bottom-hole pressure of 2716 pounds. That's the center of the
14 perforations.

15 Q What, Mr. Howard, is the pressure differential between the two
16 zones?

17 A Between the Abo and the Granite Wash?

18 Q Yes, sir.

19 A Approximately 300 pounds.

20 Q Will you please refer to Exhibit 6 and identify it?

21 A Exhibit 6 is just a Diagrammatic Sketch of the completion method
22 for the dual completion.

23 Q It shows completion through two sets of tubing; does it?

24 A Yes.

25 Q To produce the different formations. Is this a conventional type of

1 dual completion that has been previously approved by the Oil
2 Conservation Commission?

3 A I don't get into that. I'm sorry.

4 Q You don't know? All right. In your opinion, Mr. Howard, will
5 this manner of completion adequately protect the separation
6 between the two formations?

7 A Yes, it will.

8 Q In your opinion, Mr. Howard, in conclusion will the approval
9 of this application prevent waste and protect the correlative rights
10 of others?

11 A Yes, it will.

12 Q Were Exhibits 1 through 6 either prepared by you or under your
13 direction and supervision?

14 A Yes, they were.

15 MR. KELLAHIN: Mr. Examiner, we move for
16 introduction of Exhibits 1 through 6.

17 MR. STAMETS: Without objection, these Exhibits
18 will be admitted into evidence.

19 MR. KELLAHIN: That concludes our Direct Examination.

20 *****

21 CROSS-EXAMINATION

22 BY MR. STAMETS:

23 Q Mr. Howard, there is no doubt in your mind that this is the Abo
24 Formation?

25 A No, sir.

1 Q It's the same Abo Formation that is the productive limits, vertical
2 productive limits of the Wantz-Abo Pool?

3 A Yes, sir.

4 Q What is the spacing in the Wantz-Abo Pool?

5 A Forty acres.

6 Q Forty acres, okay. Do you know what the current topping allowable
7 is in that pool?

8 A Not exactly. I looked it up the other day and from memory I believe
9 it was 147 barrels a day.

10 Q How about 142?

11 A All right, sir.

12 Q If that is classified as a pool between six and 10,000 feet deep,
13 it would be 142 at the current market demand. Do you know what
14 the gas-oil ratio limitation in the Wantz-Abo Pool is?

15 A No, sir. I do not.

16 Q So you don't know what you would be allowed to produce on a
17 daily basis if this well were regulated by the Wantz-Abo Oil Pool
18 Casing Head Gas Limitation?

19 A No, sir.

20 Q I think that that figure would be significant and should be included
21 in the part of the record in this case.

22 MR. KELLAHIN: We don't have anybody here today
23 that could furnish that information. May we do that in letter form
24 to you?

25 MR. STAMETS: You certainly may.

1 Q Mr. Howard, you have indicated that this gas zone is separated
2 from the Wantz-Abo oil zone. You indicated that one of the
3 factors was the 2700 plus pounds of pressure you found in this
4 well. What's the current pressure in the Wantz-Abo reservoir?

5 A I'm not aware of a current pressure in the Wantz-Abo. We have
6 no pressure data on any of the offset Abo wells.

7 Q Could they be 2700 pounds too?

8 A In my opinion, no.

9 Q But you don't have any evidence to indicate that they are not?

10 A No, sir.

11 Q What's the current gas-liquid ratio of the Annie Christmas well?

12 A Approximately 10,000 to 1 from the Abo.

13 Q Which is less than the gas-oil ratio from the offsetting Wantz-Abo
14 oil wells; is that correct?

15 A Yes, sir.

16 Q Even though there is a difference in the description of the liquids?

17 A Yes, sir.

18 Q This Wantz-Abo Pool is a rather large pool. What we see on
19 your exhibits is rather a small section of it, I'd guess maybe
20 5 percent of the total field. Do you know of any other situations
21 in this large pool where gas wells such as this have been found?

22 A No, sir.

23 Q Do you know if they have not been found in this larger area?

24 A No, sir. I have not examined the entire Abo-Wantz area. It's
25 of such magnitude.

1 Q The situation could exist in the Pool? Were you aware that this
2 well is located within the horizontal limits of the Wantz-Abo Oil
3 Pool?

4 A Yes, sir.

5 Q Now, you stated that there was a 300-pound pressure differential
6 between the Abo and the Granite Wash. Which has the higher
7 pressure?

8 A The Abo.

9 Q The Abo has the higher pressure of the upper zone? I notice
10 from Exhibit 6 that the tubing and the packer on the upper zone is
11 set at 4829; is that correct?

12 A Yes, sir.

13 Q Okay. No problem there. Do you know if the wells in Section 11
14 penetrated the Abo Formation and found it to be dry?

15 A No, sir. I have not found any wells in Section 11 that penetrated
16 the Abo Formation. There is a well in the southeast of the
17 northwest which penetrated the top of the formation, but that's all.

18 Q Mr. Howard, at this stage with the analyses of what we have here,
19 you have described very adequately the situation that you have that
20 you don't know if this is a unique situation. You don't know if the
21 pressures are the same or different from other wells in the
22 Wantz-Abo Pool. You have a gas-liquid ratio that's actually less
23 than the gas-oil ratio in the Wantz-Abo Oil Pool. Does that pretty
24 well summarize it?

25 A Well, as I previously stated, the thing the Abo section is composed

1 of is predominately Dolomite with various porosity stringers in
2 it which are separate reservoir among themselves. The nearby
3 Wantz-Abo wells, the Exxon wells in Section 2, do not correlate
4 in the same well we have in the No. 1 Annie Christmas well.

5 So I don't understand what the pressures or any wells
6 would have to do with separate reservoirs.

7 Q Would it be possible that in the next, let's say, the southwest
8 quarter of the southwest quarter of Section 1, 22, 37, that a
9 well drilled in that area could penetrate both this gas and an oil
10 zone in the Abo Reservoir?

11 A It's possible.

12 Q And if separate pools were established, that would necessitate
13 the dual completion in order to produce the Abo?

14 A Yes, sir.

15 Q And this would be an additional expense to an operator in that
16 case?

17 A Yes, sir.

18 MR. STAMETS: Are there any other questions of
19 this witness? Mr. Kellahin, do you have anything further?

20 MR. KELLAHIN: If the Examiner please.

21 *****

22 REDIRECT EXAMINATION

23 BY MR. KELLAHIN:

24 Q Mr. Howard, how do you account for the difference in the fluids
25 in these wells? Do you have a cross-section that might be of some

1 benefit to us in explaining this?

2 A Yes, I do.

3 Q Well, why don't you get that for me.

4 MR. KELLAHIN: If the Examiner please, we have an
5 additional exhibit. Exhibit 7 is a cross-section of different
6 Abo wells in this area and may be of some benefit in reaching a
7 conclusion about the status of the Sun Oil Well.

8 Q Mr. Howard, explain what we have here and what conclusions
9 you have reached by your Exhibit.

10 A This is a cross-section beginning to the left with the two Exxon
11 wells in Section 2.

12 MR. STAMETS: I believe the Examiner will just walk
13 down and look at that one.

14 A This is a structure cross-section from the top of the Paddock which
15 is one of the oil producing zones in the area.

16 Q You have to speak up.

17 A And it starts over to the left with the two Exxon wells in Section 2.
18 It shows our completion, their completion in porosity intervals
19 within the Abo Formation and their completion within the Granite
20 Wash interval.

21 The cross-section then goes to the No. 4 Lynch Well
22 which is the Tubb-Blinbry Gas Well located at this location. That
23 well penetrated the Abo, had no Granite Wash, and went into the
24 pre-Cambry and Granite. There were no tests run on the Abo.

25 The cross-section then proceeds over to the Sun No. 1

1 Annie Christmas which illustrates our perforations in the Abo
2 Formation. They do not correlate to the Exxon perforated intervals
3 and our oil zone in the Granite Wash well. The cross-section then
4 continues to the Hendrix #1-A as a total well which is perforated
5 in the Drinkard limestone and in the Abo dolomite, in all hydrocarbon
6 bearing zones. This is one completion.

7 It then proceeds on to the Sohio #11 Hinton which is
8 perforated in the Abo Formation in all hydrocarbon bearing zones
9 and down in the Granite Wash. This is a dual well. It proceeds to
10 the Sohio #12 Hinton which is again perforated in the Drinkard
11 limestone, Abo dolomite, and is one producing interval.

12 It proceeds to the south to the #3-B. This is Hendrix
13 #3-B Cossatot well which is perforated in the Drinkard, Abo, and
14 Granite Wash, Granite Wash being a separate producing zone.
15 I felt our proximity to the Hendrix development and the Sohio
16 development related our well differently than to the only two
17 Abo producers in the Wantz Field which are in the vicinity of our
18 well.

19 Q Mr. Howard, can you tell from this exhibit where the fluids are
20 coming from in the Sohio and the Hendrix wells?

21 A No, sir. I cannot.

22 Q Mr. Howard, could the Drinkard production account for the
23 differences in gravity in production?

24 A It could. It has been an oil producer in the area for years and is
25 indicated on my Production Index map as so, and could be distributing

1 oil. Various zones could be distributing gas or oil. We have no
2 way of identifying the fluids coming out of the different zones.

3 Q Then on this basis, Mr. Howard, is it still your opinion and
4 conclusion that you have a separate gas reservoir?

5 A Yes, it is.

6 MR. KELLAHIN: Nothing further, Mr. Examiner.

7
8 RECROSS-EXAMINATION

9 BY MR. STAMETS:

10 Q Mr. Howard, this cross-section covers two or three sections; is
11 that correct?

12 A Yes, sir.

13 Q And the Wantz-Abo Field is seven or eight miles long and four
14 or five miles wide with a fairly large number of wells in it. Would
15 that be correct?

16 A Yes, sir.

17 Q So your cross-section is not intended to be illustrative of every
18 well in the field or the various possibilities that could exist in
19 another area of the field?

20 A True. It would be stretching the point to try to correlate our
21 porosity zones to several miles away because they are just not
22 continuous.

23 MR. STAMETS: Are there any other questions of
24 this witness?

25 MR. KELLAHIN: Nothing further. I offer Exhibit 7 as

1 an additional Exhibit.

2 MR. STAMETS: Without objection, it will be admitted
3 into evidence. I believe we have some communications on this
4 particular case. Mr. Derryberry, if you would read that into
5 the record.

6 MR. DERRYBERRY: We have a letter from John H.
7 Hendrix to the Oil Conservation Commission dated September 27,
8 1973. Do you want me to read the whole thing?

9 MR. STAMETS: I don't think it would be necessary to
10 read the whole thing. Just read the sense of the letter in and it
11 will be in the case file.

12 MR. DERRYBERRY: Mr. Hendrix opposes the dual
13 completion into the Abo as an undesignated gas pool stating that
14 it should be classified as a gas production from the oil well or
15 oil field, excuse me. He feels that the completion as a separate
16 undesignated gas pool would harm the correlative rights of the
17 offsetting operators.

18 MR. STAMETS: Anything further in this case?

19 MR. KELLAHIN: Nothing further.

20 MR. STAMETS: We will take the case under
21 advisement.

22 *****
23
24
25

dearnley, meier & associates

209 SIMMS BLDG. • P.O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO 87103
1216 FIRST NATIONAL BANK BLDG. EAST • ALBUQUERQUE, NEW MEXICO 87108

C E R T I F I C A T E

I, JANET RUSSELL, a Court Reporter, in and for the
County of Bernalillo, 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.

Janet Russell
COURT REPORTER

I do hereby certify that the foregoing is
a complete record of the proceedings in
the Examiners hearing of Case No. 5069,
heard by me on *October 3*, 1973.
Richard H. [Signature], Examiner
New Mexico Oil Conservation Commission

I N D E XWITNESS,GEORGE J. HOWARDPage

Direct Examination by Mr. Kellahin	3
Cross-Examination by Mr. Stamets	9
Redirect Examination by Mr. Kellahin	13
Recross-Examination by Mr. Stamets	16

E X H I B I T S

<u>Applicant's</u>	<u>Offered</u>	<u>Admitted</u>
Exhibit 1 Log	9	9
Exhibit 2 Map	9	9
Exhibit 3 Contour Map	9	9
Exhibit 4 Structure Map	9	9
Exhibit 5 Data Analyses	9	9
Exhibit 6 Diagrammatic Sketch	9	9
Exhibit 7 Structural Map	14	14



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

November 16, 1973

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

Re: Case No. 5069
Order No. R-4656
Applicant:
SUN OIL COMPANY

Dear Sir:

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

Very truly yours,

A. L. Foster, Jr.

A. L. PORTER, Jr.
Secretary-Director

ALP/ir

Copy of order also sent to:

Hobbs OCC _____ x
Artesia OCC _____
Aztec OCC _____

Other _____

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. 5969
Order No. R-4656

APPLICATION OF SUN OIL COMPANY
FOR A DUAL COMPLETION, LEA
COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on October 3, 1973, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 16th day of November, 1973, 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, Sun Oil Company, seeks authority to complete its Annie Christmas Well No. 1, located in Unit N of Section 1, Township 22 South, Range 37 East, NMPM, Lea County, New Mexico, as a dual completion (conventional) to produce gas from an undesignated Abo Gas Pool and oil from the Wantz-Granite Wash Pool through parallel strings of 2 3/8-inch tubing set in packers at approximately 4829 and 7254 feet, respectively,
- (3) Applicant contends that the gas production from the upper zone of the dual completion originates from an undesignated Abo Gas Pool.
- (4) That the evidence indicates that the upper zone of the subject well should more properly be considered to be within the vertical and horizontal limits of the Drinkard (Oil) Pool, as presently defined.
- (5) That applicant has failed to prove that the gas production is from a source of supply separate from the Wantz-Abo Pool or the Drinkard Pool.
- (6) That the completion of said well as a Drinkard and Wantz-Granite Wash dual completion including the mechanics of such proposed dual completion is feasible and in accord with good conservation practices.

-2-

CASE NO. 5069
Order No. R-4656

(7) That approval of said dual completion will prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That the applicant, Sun Oil Company, is hereby authorized to complete its Annie Christinas Well No. 1, located in Unit N of Section 1, Township 22 South, Range 37 East, NMPM, Lea County, New Mexico, as a dual completion (conventional) to produce gas and oil from the Drinkard Pool and oil from the Wantz-Granite Wash Pool through parallel strings of 2 3/8-inch tubing set in packers at approximately 4829 feet and 7254 feet, respectively.

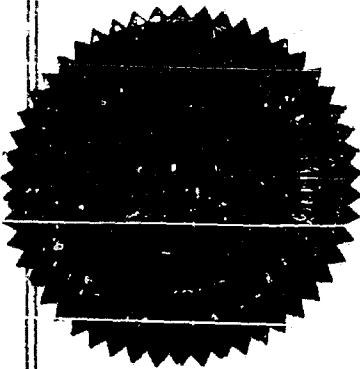
PROVIDED HOWEVER, that the applicant shall complete, operate and produce said well in accordance with the provisions of Rule 112-A of the Commission Rules and Regulations insofar as said rule is not inconsistent with this order.

PROVIDED FURTHER, that the applicant shall take packer-leakage tests upon completion and annually thereafter during the Annual Gas-Oil Ratio Test Period for the Wantz-Granite Wash Pool.

(2) That jurisdiction of this cause is hereby 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



I. R. Trujillo
I. R. TRUJILLO, Chairman

ALEX J. ARMIJO, Member

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

S E A L

jr/

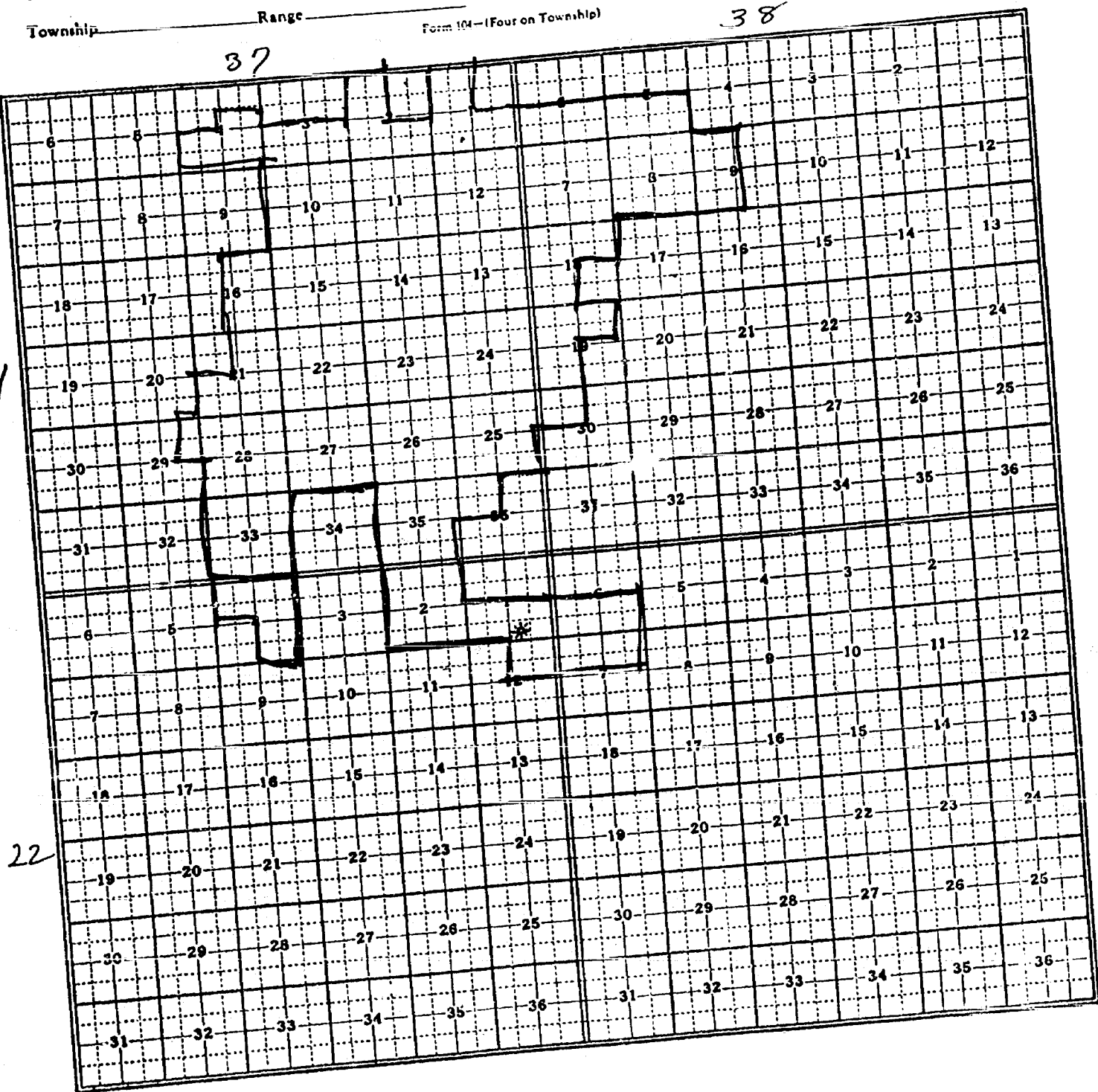
W₄ + 2 A60

County, _____
Township _____ Range _____
Township _____ Range _____
Township _____ Range _____
Form 104—(Four on Township)

38

37

21

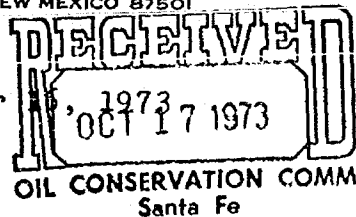


JASON W. KELLAHIN
ROBERT E. FOX
W. THOMAS KELLAHIN

KELLAHIN AND FOX
ATTORNEYS AT LAW
500 DON GASPAR AVENUE
POST OFFICE BOX 1769
SANTA FE, NEW MEXICO 87501

TELEPHONE 982-4315
AREA CODE 505

October



Mr. Richard Stamets
New Mexico Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico 87501

Re: OCC Case #5069

Dear Mr. Stamets:

In accordance with your request at the Examiner's hearing on case 5069 for additional data on the Wantz Abo field in Lea County, New Mexico, the enclosed information is provided.

Very truly yours,

W. Thomas Kellahin

WTK:ks

Enclosure

CASE # 5069

EXHIBIT # _____

WANTZ ABO FIELD
LEA COUNTY, NEW MEXICO

Discovery Data: June 1950; Moran #2 Owen, Loc. 'D' Section 14, T21S-R37E

Type of Trap: Anticline, with porosity and permeability controlling accumulation.

Top Allowable: 187 BOPD

GOR Limit: 2000

Top Casinghead Gas Limit: 374 MCF

Initial Field Pressure: 2924 PSI @ -3750'

Gravity of Oil: 41^o API

Avg. Field Pressure: Last reported 1969, avg. 10 wells, 777 psi

Pressures in the Two Exxon Wells in Section 2, T22S-R37E
(one mile west of Sun #1 Annie Christmas)

Last Reported 1969

N.M. State 'S' #24	1716#
N.M. State 'S' #25	912#

Total Wells in Field = 85

Pumping = 41
Flowing = 22
Gas Lift = 1
TA & SI = 21

Production data from the N.M. Oil Conservation Commission's Monthly Statistical Report indicates that there are no wells in the Wantz Abo Field which produce gas and condensate.

CASE # 5069

EXHIBIT #

WANTZ ABO FIELD
LEA COUNTY, NEW MEXICO

Discovery Data: June 1950; Moran #2 Owen, Loc. 'D' Section 14, T21S-R37E

Type of Trap: Anticline, with porosity and permeability controlling accumulation.

Top Allowable: 187 BOPD

GOR Limit: 2000

Top Casinghead Gas Limit: 374 MCF

Initial Field Pressure: 2924 PSI @ -3750'

Gravity of Oil: 41° API

Avg. Field Pressure: Last reported 1969, avg. 10 wells, 777 psi

Pressures in the Two Exxon Wells in Section 2, T22S-R37E
(one mile west of Sun #1 Annie Christmas)

Last Reported 1969

N.M. State 'S' #24	1716#
N.M. State 'S' #25	912#

Total Wells in Field = 85

Pumping = 41

Flowing = 22

Gas Lift = 1

TA & SI = 21

Production data from the N.M. Oil Conservation Commission's Monthly Statistical Report indicates that there are no wells in the Wantz Abo Field which produce gas and condensate.

CASE # 5069

EXHIBIT # _____

WANTZ ABO FIELD
LEA COUNTY, NEW MEXICO

Discovery Data: June 1950; Moran #2 Owen, Loc. 'D' Section 14, T21S-R37E

Type of Trap: Anticline, with porosity and permeability controlling accumulation.

Top Allowable: 187 BOPD

GOR Limit: 2000

Top Casinghead Gas Limit: 374 MCF

Initial Field Pressure: 2924 PSI @ -3750'

Gravity of Oil: 41° API

Avg. Field Pressure: Last reported 1969, avg. 10 wells, 777 psi

Pressures in the Two Exxon Wells in Section 2, T22S-R37E
(one mile west of Sun #1 Annie Christmas)

Last Reported 1969

N.M. State 'S' #24	1716#
N.M. State 'S' #25	912#

Total Wells in Field = 85

Pumping = 41
Flowing = 22
Gas lift = 1
TA & SI = 21

Production data from the N.M. Oil Conservation Commission's Monthly Statistical Report indicates that there are no wells in the Wantz Abo Field which produce gas and condensate.

Docket No. 27-73

DOCKET: EXAMINER HEARING - WEDNESDAY - OCTOBER 3, 1973

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

The following cases will be heard before Richard L. Stamets, Examiner, or Daniel S. Nutter, Alternate Examiner:

- ALLOWABLE: (1) Consideration of the allowable production of gas for November, 1973, from seventeen prorated pools in Lea, Eddy, Roosevelt and Chaves Counties, New Mexico;
- (2) Consideration of the allowable production of gas from nine prorated pools in San Juan, Rio Arriba, and Sandoval Counties, New Mexico, for November, 1973.

CASE 5044: (Continued from the August 9, 1973, Examiner Hearing)

In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Sycor Newton, Peru Milling Company, R. E. Deming and Aetna Life and Casualty Company and all other interested parties to appear and show cause why the State L 6350 Well No. 1 located in Unit M of Section 10, Township 23 South, Range 11 West, Luna County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

CASE 5069: Application of Sun Oil Company for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion of its Annie Christmas Well No. 1 located in Unit N of Section 1, Township 22 South, Range 37 East, Lea County, New Mexico, to produce gas from an undesignated Abo gas pool and oil from the Wantz-Granite Wash Pool through parallel strings of tubing.

CASE 5070: Application of Amoco Production Company for a unit agreement, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Bubbling Spring Unit Area comprising 3078 acres, more or less, of Federal and Fee lands in Township 20 South, Range 26 East, Eddy County, New Mexico.

CASE 5071: Application of Texas West Oil & Gas Corporation for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion of its State "2" Well No. 2 located in Unit K of Section 2, Township 24 South, Range 34 East, Antelope Ridge Field Area, Lea County, New Mexico, to produce gas from the Atoka and Morrow formations through parallel strings of tubing.

CASE 5072: Application of Northern Minerals, Inc. for a waterflood project, McKinley County, New Mexico. Applicant, in the above-styled cause, seeks

A & A ENGINEERING SERVICE

P. O. BOX 3323

Midland, Texas 79701

BOTTOM HOLE PRESSURE REPORT

Operator Sun Oil Company Lease Annie Christmas Well No. 1
 Field _____ Reservoir _____ Datum _____
 Test Date August 23, 1973 Well Status Shut In Hours Shut In _____
 Tubing 2 3/8" Depth _____ End _____ Packer 6730' S. N. 6729'
 Casing _____ Depth _____ Perf. 6833-6927' Total Depth _____

	Depth	Press. Lbs/Sq. In.	Δ Press.	Gradient Lbs/Ft.
Tubing Press.....	Surface	2006		
Casing Press.....	2000	2184	178	.089
Top of Fluid.....None	4000	2405	221	.111
Top of Water.....None	6300	2649	244	.106
Temp. @.....*F.....	6500	2672	23	.115
Elev. KP.....Gl.....	6700	2695	23	.115
Last Test Date.....	+180	+21		
Press. Last Test.....	6880	2716	Ctr. of Perf.	.115
Change.....Per Day.....				
Inst. No. <u>10786-N Cal. 73-2</u>				
Tested By. <u>Leon Arnett</u>				
Calcu. By. <u>L. Arnett</u>				
Prod. Index.....Bbls/day/lb.....				
Drop.....				
Cumulative prod.....				

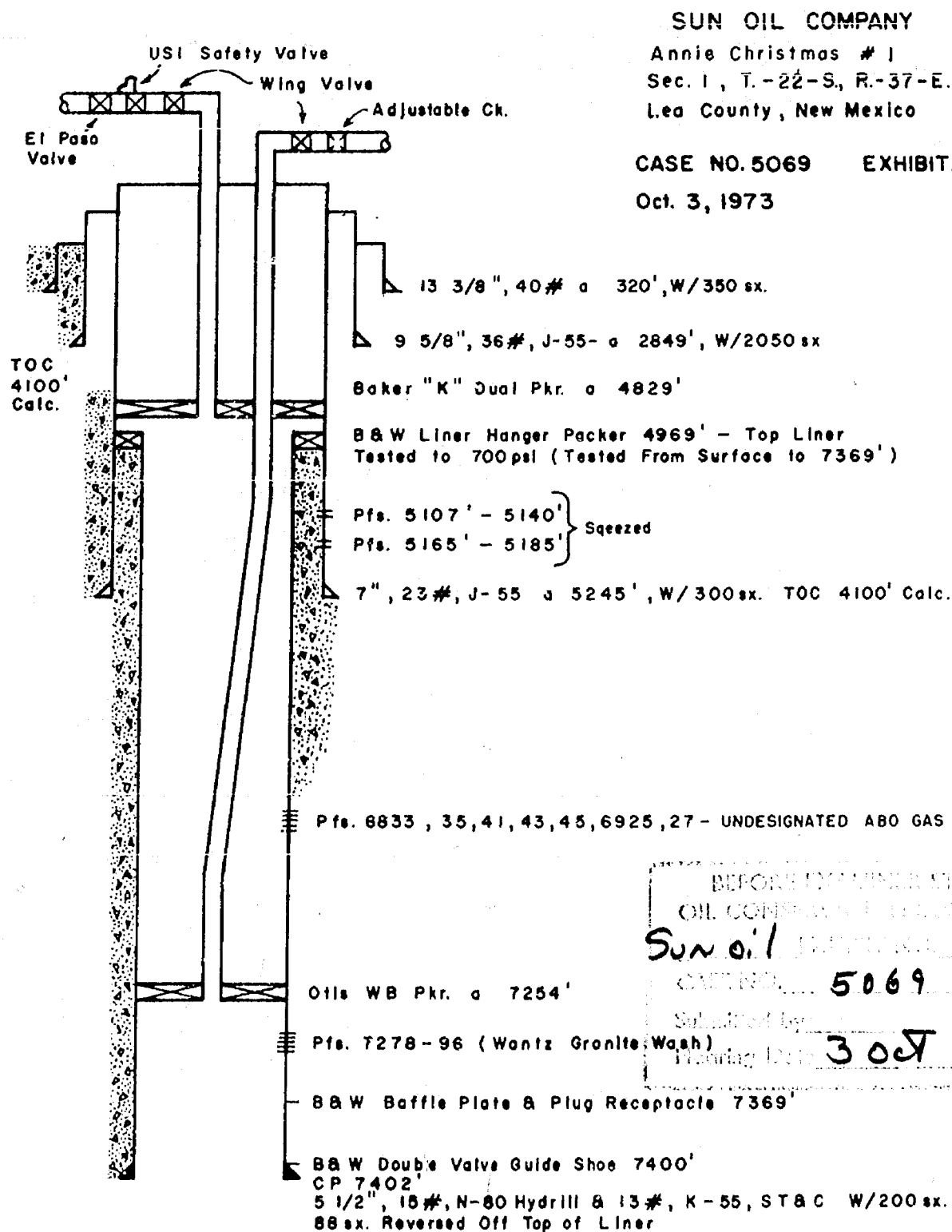
Remarks:

BEFORE EXAMINER STAMPS	
OIL CONSERVATION COMMISSION	
Sun Oil	EXHIBIT NO. 5
CASE NO.	5069
Submitted by	
Hearing Date	305723

Case # 5069

Exhibit # 5

DIAGRAMMATIC SKETCH



SUN OIL COMPANY

Annie Christmas #1
Sec. 1, T.-22-S, R.-37-E.
Lea County, New Mexico

CASE NO. 5069

EXHIBIT 6

Oct. 3, 1973

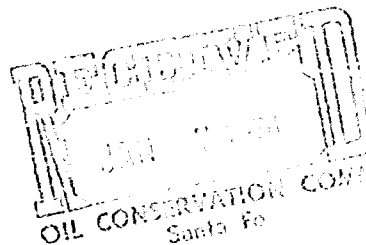
BEFORE EXAMINATION BY
OIL COMPANY FIELD REPRESENTATIVE
Sun Oil COMPANY 6
CASE NO. 5069
Submitted by
Planning Date 3 OCT 73

JASON W. KELLAHIN
ROBERT E. FOX
W. THOMAS KELLAHIN

KELLAHIN AND FOX
ATTORNEYS AT LAW
500 DON GASPAR AVENUE
POST OFFICE BOX 1769
SANTA FE, NEW MEXICO 87501

TELEPHONE 982-4315
AREA CODE 505

January 14, 1974



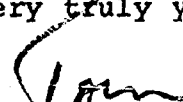
Mr. A. L. Porter
New Mexico Oil Conservation Commission
P. O. Box 2008
Santa Fe, New Mexico 87501

Re: Commission Case No. 5069
Order No. R-4656

Dear Mr. Porter:

In behalf of Sun Oil Company, I would like to withdraw their application for a hearing de novo in the above referenced Commission Case.

Very truly yours,


W. Thomas Kellahin

WTK:ks

cc: Sun Oil Company

JASON W. KELLAHIN
ROBERT E. FOX
W. THOMAS KELLAHIN

KELLAHIN AND FOX
ATTORNEYS AT LAW
500 DON GASPAR AVENUE
POST OFFICE BOX 1769
SANTA FE, NEW MEXICO 87501

TELEPHONE 982-4315
AREA CODE 505

December 10, 1973

Mr. A. L. Porter
New Mexico Oil Conservation Commission
P. O. Box 2008
Santa Fe, New Mexico 87501

Re: Commission Case No. 5069
Order No. R-4656

Dear Mr. Porter:

In behalf of Sun Oil Company, please find an original and three copies of an application for a Hearing De Novo in the above referenced Commission Case.

Very truly yours,



W. Thomas Kellahin

WTK:ks

Enclosure

cc: Sun Oil Company

BEFORE THE
OIL CONSERVATION COMMISSION 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. 5069
Order No. R-4656

APPLICATION OF SUN OIL COMPANY
FOR A DUAL COMPLETION, LEA COUNTY,
NEW MEXICO

APPLICATION FOR HEARING DE NOVO

COMES NOW, SUN OIL COMPANY, an interested party adversely
affected by the order entered in the above captioned case,
and pursuant to the provisions of Rule 1220 of the Rules and
Regulations of the New Mexico Oil Conservation Commission
applies to the Oil Conservation Commission of New Mexico for
a Hearing De Novo of the above captioned Case No. 5069, and
Order No. R-4656 issued pursuant thereto.

Respectfully submitted,

SUN OIL COMPANY

By


KELLAHIN & FOX

P. O. Box 1769

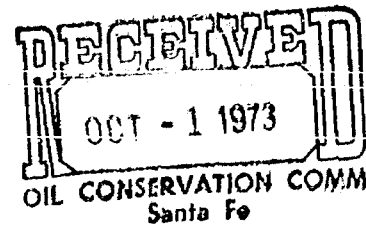
Santa Fe, New Mexico 87501



OFFICE PHONE 684-663
RESIDENCE PHONE 684-68

JOHN H. HENDRIX
OIL PRODUCERS
403 WALL TOWERS WEST
MIDLAND, TEXAS 79701

September 27, 1973



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

Ref: Sun Oil Company's Application
for Multiple Completion
SE-1/4 SW-1/4 Section 1,
T-22-S, R-37-E
Lea County, New Mexico

Gentlemen:

On September 14, 1973 I received notice from Sun Oil Company concerning their application for multiple completion of their Annie Christmas No. 1 as a dual in the Wantz Granite Wash pool and in an undesignated gas field. I am strongly opposed to the completion interval 6833'-6927' being placed "Classified as an Undesignated Gas pool." This interval should be placed in either the Drinkard pool or the Wantz Abo pool and simply classified as a gas well in an oil field.

It is my understanding from Sun that they intend to produce this well at the rate of 2 1/2 to 3 million cubic feet per day as a non-prorated gas field. This will seriously affect the correlative right of offsetting operators in the Drinkard and/or Granite Wash pools.

Should the New Mexico Oil Conservation Commission proceed to consider granting administrative approval of this matter, I request that it be set for examiner hearing.

Yours very truly,


John H. Hendrix

JHH:mc

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

Form C-107
5-1-61

Cover 5064

Operator Sun Oil Company		County Lea	Date September 5, 1973
Address 12850 Hillcrest Road, Dallas, Texas 75230		Lease Annie Christmas	Well No. 1
Location of Well N	Unit 1	Township 22 South	Range 37 East

1. Has the New Mexico Oil Conservation Commission heretofore authorized the multiple completion of a well in these same pools or in the same zones within one mile of the subject well? YES _____ NO X
2. If answer is yes, identify one such instance: Order No. _____; Operator Lease, and Well No.: _____

3. The following facts are submitted:	Upper Zone	Intermediate Zone	Lower Zone
a. Name of Pool and Formation	Undesignated <i>Albo</i>		Wantz Granite Wash
b. Top and Bottom of Pay Section (Perforations)	6833' 6927'		7278' 7296'
c. Type of production (Oil or Gas)	Gas		Oil
d. Method of Production (Flowing or Artificial Lift)	Flowing		Flowing

4. The following are attached. (Please check YES or NO)

Yes	No	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	a. Diagrammatic Sketch of the Multiple Completion, showing all casing strings, including diameters and setting depths, centralizers and/or turbolizers and location thereof, quantities used and top of cement, perforated intervals, tubing strings, including diameters and setting depth, location and type of packers and side door chokes, and such other information as may be pertinent.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	b. Plat showing the location of all wells on applicant's lease, all offset wells on offset leases, and the names and addresses of operators of all leases offsetting applicant's lease.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	c. Waivers consenting to such multiple completion from each offset operator, or in lieu thereof, evidence that said offset operators have been furnished copies of the application.*
<input checked="" type="checkbox"/>	<input type="checkbox"/>	d. Electrical log of the well or other acceptable log with tops and bottoms of producing zones and intervals of perforation indicated thereon. (If such log is not available at the time application is filed it shall be submitted as provided by Rule 112-A.)

5. List all offset operators to the lease on which this well is located together with their correct mailing address.

See attached list.

6. Were all operators listed in Item 5 above notified and furnished a copy of this application? YES X NO _____. If answer is yes, give date of such notification September 11, 1973.

CERTIFICATE: I, the undersigned, state that I am the Regional Mgr. of Consv. of the Sun Oil Company (~~company~~), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

H. R. Huey
H. R. Huey

Signature

DOCKET MAILED

Date 9-24-73

*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.

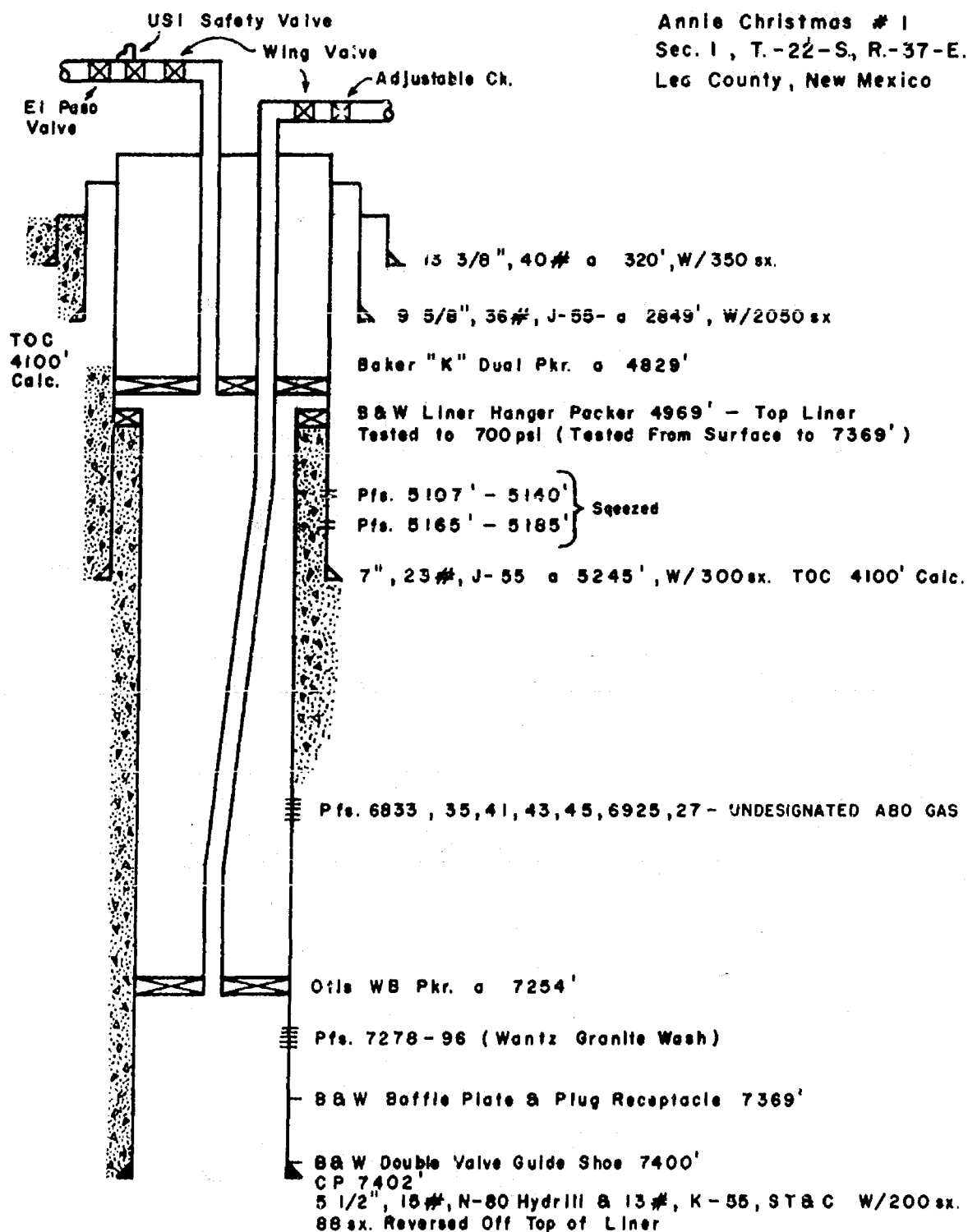
OTE: If the proposed multiple completion will result in an unorthodox well location and/or a non-standard perforation unit in one or more of the producing zones, then separate application for approval of the same should be filed simultaneously with this application.

DIAGRAMMATIC SKETCH

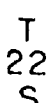
Case 5069

SUN OIL COMPANY

Annie Christmas #1
Sec. 1, T. 22-S, R. 37-E.
Log County, New Mexico



R 38 F



SUN OIL COMPANY
DALLAS PRODUCTION REGION
UNDESIGNATED ABO GAS
LEA COUNTY NEW MEXICO
SCALE: 1" = 4000'

Page 5069

OFFSET OPERATORS
Annie Christmas No. 1
Undesignated Abo Gas Field
Lea County, New Mexico

Exxon Corporation
Box 1600
Midland, Texas 79701

Marathon Corporation
Box 2409
Hobbs, New Mexico 88240

Penrose Production Company
1605 Commerce Building
Fort Worth, Texas 76102

Gulf Oil Company - U.S.
P. O. Box 1150
Midland, Texas 79701

Sohio Petroleum Company
P. O. Box 3167
Midland, Texas 79701

John H. Hendrix
316 Central Building
Midland, Texas 79701

DRAFT

TWD/dr

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. 5069

Order No. R- 4656

APPLICATION OF SUN OIL COMPANY
FOR A DUAL COMPLETION, LEA
COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on October 3, 1973,
at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this November day of October, 1973, 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, Sun Oil Company, seeks authority
to complete its Annie Christmas Well No. 1, located in Unit N
of Section 1, Township 22 South, Range 37 East, NMPM, Lea County,
New Mexico, as a dual completion (conventional) to produce gas
from an undesignated Abo Gas Pool and oil from the Wantz-Granite
Wash Pool through parallel strings of 2 3/8-inch tubing set in
packers at approximately 4829 and 7254 feet, respectively.

(3) Applicant contends that the ~~Abo~~ gas production ^(from the upper zone of the dual completion) originates from an undesignated Abo Gas Pool.

(4) That the evidence indicates that the ^{upper zone of the} subject well ^{should} ~~is~~ ^{more properly be considered to be} completed within the vertical and horizontal limits of the ~~Drinkard~~ ^{Drinkard} Wantz-Abo (Oil) Pool, as presently defined.

(5) That applicant has failed to prove that the ~~Abo~~ gas production is from a source of supply separate from the Wantz-Abo Pool ^{or the Drinkard Pool,}

(6) That the completion of said well as a ^{Drinkard} ~~Wantz-Abo~~ and Wantz-Granite Wash dual completion including the mechanics of such proposed dual completion is feasible and in accord with good conservation practices.

(7) That approval of said dual completion will prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That the applicant, Sun Oil Company, is hereby authorized to complete its Annie Christmas Well No. 1, located in Unit N of Section 1, Township 22 South, Range 37 East, NMPM, Lea County, New Mexico, as a dual completion (conventional) to produce gas and oil from the ^{Drinkard} ~~Wantz-Abo~~ Pool and oil from the Wantz-Granite Wash Pool through parallel strings of 2 3/8-inch tubing set in packers at approximately 4829 feet and 7254 feet, respectively.

PROVIDED HOWEVER, that the applicant shall complete, operate and produce said well in accordance with the provisions of Rule 112-A of the Commission Rules and Regulations insofar as said rule is not inconsistent with this order.

PROVIDED FURTHER, that the applicant shall take packer-leakage tests upon completion and annually thereafter during the Annual Gas-Oil Ratio Test Period for the Wantz-Granite Wash Pool.

(2) That jurisdiction of this cause is hereby 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.