

CASE 5834: SUN OIL COMPANY FOR
DIRECTIONAL DRILLING, LEA COUNTY,
NEW MEXICO

7-2-2
John
C. [unclear]
[unclear]

CASE NO.

5834

APPLICATION,
TRANSCRIPTS,
SMALL EXHIBITS,
ETC.

NEW MEXICO OIL CONSERVATION COMMISSION

EXAMINER HEARING

SANTA FE

NEW MEXICO

Case
5834

Hearing Date

FEBRUARY 2, 1977

TIME: 9:00 A.M.

NAME	REPRESENTING	LOCATION
JERRY LONG	U.S.G.S.	DURANGO, COLO.
C. E. Budget	Getty Oil Co	Tulsa, OK.
J. E. Brown	" "	Denver Co
J. Raney	Pennzoil Co.	Midland, Tex
KENNETH W. LARSON	SUN PRODUCTION CO.	DALLAS
H. R. Huey	"	"
Martin Russo	"	"
H. A. SEIDEL, JR.	"	"
Curtis Little	Palmer Oil & Gas	Albuquerque
Charles Verquer	Caulkins Oil Co	Sarlington
James Kellaher	Kellaher & Son	Forto Fe
BILL J. BROOKS	BROOKS EXPLORATION	DENVER, COLO
Don Stevens	Cool Engwall	Santa Fe
MELVIN GLERUP	TEXACO INC	DENVER
Carl Engwall	CARL ENGWALL	ROSWELL
MARVIN TWENTHAFFEL	Texaco Inc	Denver
N. E. MAXWELL, JR	NM OCC	AZTEC
Monty Gist	SOLC	Midland
W. E. Balch Jr	Trio Petro	Denver
AK Kendrick	ccc	Aytec

NEW MEXICO OIL CONSERVATION COMMISSION

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TIME: 9:00 A.M.

NAME	REPRESENTING	LOCATION
Bill Babzale	Dome Petre	Denver
Booker Kelly	Robert Karl Kell - me	S.F.
Tom Huggan	Jerome P. McHugh	Farmington
Pick Tully	Jerome P. McHugh	"

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
February 2, 1977

EXAMINER HEARING

IN THE MATTER OF:

Application of Sun Oil Company for
directional drilling, Lea County,
New Mexico.

CASE
5834

BEFORE: Daniel S. Nutter, Examiner

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the New Mexico Oil
Conservation Commission:

Lynn Teschendorf, Esq.
Legal Counsel for the Commission
State Land Office Building
Santa Fe, New Mexico

For the Applicant:

Jason W. Kellahin, Esq.
KELLAHIN & FOX
Attorneys at Law
500 Don Gaspar
Santa Fe, New Mexico

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I N D E XKENNETH W. LARSON

Direct Examination by Mr. Kellahin

3

Cross Examination by Mr. Nutter

9

HERBERT A. SEIDEL, JR.

Direct Examination by Mr. Kellahin

10

Cross Examination by Mr. Nutter

17

EXHIBIT INDEXOffered Admitted

Sun's Exhibit G-One, Structure Map

4

9

Sun's Exhibit G-Two, Land Plat

5

9

Sun's Exhibit E-One, Production History

11

17

Sun's Exhibit E-Two, Oil Production

12

17

Sun's Exhibit E-Three, Water Production

13

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Sun's Exhibit E-Four, Gas Production

14

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Sun's Exhibit E-Five, Oil Cut

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Sun's Exhibit E-Six, Well Plot

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1 MR. NUTTER: We will now call Case Number 5834.

2 MS. TESCHENDORF: Case 5834, application of Sun Oil
3 Company for directional drilling, Lea County, New Mexico.

4 MR. KELLAHIN: If the Examiner please, Jason Kellahin,
5 Kellahin and Fox, Santa Fe, appearing for the applicant and I
6 have two witnesses to be sworn.

7 (THEREUPON, the witnesses were duly sworn.)

8
9 KENNETH W. LARSON

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

12
13 DIRECT EXAMINATION

14 BY MR. KELLAHIN:

15 Q Will you state your name, please?

16 A Kenneth W. Larson.

17 Q By whom are you employed and in what position,
18 Mr. Larson?

19 A As Staff Professional Geologist, Sun Production
20 Company, Dallas Production Region, Dallas, Texas.

21 Q Mr. Larson, have you ever testified before the
22 Oil Conservation Commission and made your qualifications a
23 matter of record?

24 A Yes, I have.

25 MR. KELLAHIN: Are the witness' qualifications

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1 acceptable?

2 MR. NUTTER: Yes, they are.

3 Q (Mr. Kellahin continuing.) Mr. Larson in connection
4 with the case that is presently before the Oil Conservation
5 Commission on the application of Sun Oil Company, have you made
6 a study of the area involved and the reasons for Sun's
7 proposal?

8 A. Yes, I have completed such a study.

9 Q Referring now to what has been marked as Sun's Exhibit
10 Number G-One, would you identify that exhibit?

11 A. Geologic Exhibit Number One is a structure contour
12 map of the Crossroads Siluro-Devonian Pool, Lea County, New
13 Mexico. The field lies within Township 9 South, Range 36 East.
14 The mapping datum, the top of the Devonian is marked on a
15 type log to the right of the map. The scale of the map is one
16 inch equals one thousand feet and the contour interval is
17 fifty feet.

18 For clarification purposes the map is color coded.
19 The current and abandoned producers in the field are identified
20 in a legend in the lower left-hand portion of the map.

21 It is my opinion that the structural configuration is
22 that of a faulted anticline. The reservoir limits are
23 defined by an oil-water contact of eighty-two fifty plus or
24 minus subsea to the north and to the east and to the south and
25 to the west by a hundred and ninety foot up to the east reverse

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1 fault. The red arrow identifies the proposed unorthodox
2 location which falls three hundred and thirty feet from the
3 north line and one hundred feet from the east line of the
4 southwest quarter of Section 27. Field rules call for three
5 hundred and thirty feet from the east line.

6 Q Now, referring to what has been marked as Applicant's
7 Exhibit G-Two, would you identify that exhibit, please?

8 A Geologic Exhibit G-Two is a large land plat, at a
9 scale of one inch equals five hundred feet, of the southwest
10 quarter of Section 27, upon which the unorthodox location at a
11 respective distance of some lease lines are posted.

12 Q Now, what does the red arrow signify?

13 A That marks the proposed unorthodox location.

14 Q That is the bottom hole in this case that you are
15 talking about?

16 A That is correct.

17 Q Now, the dark circle is the surface location, is
18 that correct?

19 A The dark circle is the bottom-hole location. This
20 well will, if the petition is approved, will be sidetracked
21 from the presently producing Dessie Sawyer No. 2 which falls
22 a hundred and thirty feet to the west.

23 Q Now, referring to what has been marked as Exhibit
24 Number G-Three.

25 A Those are engineering exhibits.

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1 Q Those are, aren't they. Now, Mr. Larson, what is
2 the reason for Sun Oil's request in this case?

3 A Mr. Examiner, I'm referring now to Exhibit G-One.
4 The reason for Sun Production Company's request is to increase
5 production by moving farther away from the fault.

6 On February 24th, 1949 the Dessie Sawyer No. 1, the
7 blue coded fault cut well located in the northwest quarter of
8 the southwest quarter of Section 27 had a flowing potential
9 of seven hundred and fifty barrels of oil per day and no
10 water. The base of the perforations were four hundred and
11 fifty-two feet above the oil-water contact, however, it
12 began to produce water in July of 1959. It was plugged and
13 abandoned in April of 1968 due to excessive water production
14 of one thousand, five hundred and seventy-four barrels of
15 oil, plus eighteen thousand barrels of water for the month.
16 At the time of its abandonment, not one of the other wells in
17 Section 27 was producing water, all of which are downdip. As
18 a matter of interest the UD Sawyer 1-A located in the southwest
19 quarter of the southeast quarter of Section 27 potentialed
20 flowing nine hundred and ninety-five barrels of oil, no
21 water in six hours on May 6, 1948, one month after the Dessie
22 Sawyer No. 1 was plugged and abandoned. The base of the
23 perforations in the UD Sawyer 1-A are three hundred and eighty-
24 two feet low to the base of the perforation in the Dessie Sawyer
25 No. 1.

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1 The Dessie Sawyer No. 2, the replacement well for
2 the Sawyer No. 1, located about four hundred and fifty feet
3 northeast of the No. 1 Sawyer was completed on April 9th,
4 1968 with a flowing potential of four hundred and eighty
5 barrels of oil per day, no water.

6 MR. NUTTER: Mr. Larson, that's the well that is
7 the subject of the hearing, isn't it?

8 A. Yes.

9 MR. NUTTER: The replacement well for the No. 1?

10 A. No, the No. 2, sir.

11 MR. NUTTER: It's the replacement well for the No. 1,
12 you are talking about the No. 2?

13 A. Yes, sir, the Dessie Sawyer No. 2. It's the red-
14 coded dot four hundred and fifty feet northeast of the fault
15 cut well, Mr. Examiner.

16 MR. NUTTER: Okay.

17 A. It was completed on April 9th, 1968 with a flowing
18 potential of four hundred and eighty barrels of oil per day,
19 no water. The base of the perforations in the No. 2 Sawyer
20 are eighteen feet low to the base of the perforations in the
21 No. 1 Sawyer and are four hundred and thirty-four feet above
22 the oil-water contact.

23 Then history promptly repeated itself. In April of
24 1971 it started to produce water. In January of 1977 it
25 produced five hundred and twenty-seven barrels of oil, plus

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1 eight thousand, two hundred and fifteen barrels of water.
2 At the time the Dessie Sawyer No. 2 was producing water the
3 UD Sawyer in the northwest quarter of the southeast quarter of
4 Section 27, about eight hundred feet southeast of the Dessie
5 Sawyer No. 2, was producing waterfree.

6 The base of the perforations in the No. 7 Sawyer are
7 a hundred and thirteen feet lower than the base of the
8 perforations in the Dessie Sawyer No. 2. The No. 7 Sawyer did
9 start to produce water in July of 1972. It is my opinion that
10 the influx of the water is due to the proximity of the fault
11 to the location of the two wells. The reservoir is fractured
12 and a possibility also exists that splinter or parallel relief
13 faults could be present in this immediate area.

14 It is thought that by moving two hundred and thirty
15 feet east, although about thirty feet downdip, we may improve
16 the situation relative to the influence of the fault. Should
17 this request be granted the replacement well will be whipstocked
18 from the Dessie Sawyer No. 2.

19 Q (Mr. Kellahin continuing.) Mr. Larson, is it your
20 opinion, if this application is approved, there is a possibility
21 that Sun will recover oil that would not otherwise be
22 recovered?

23 A. That is correct.

24 Q Do you anticipate that you would get away from the
25 influx of water that has bothered you in the other well, is

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1 this correct?

2 A. Well, that's our hope.

3 Q. Were Exhibits One and Two prepared by you or under
4 your supervision?

5 A. They were.

6 MR. KELLAHIN: At this time we offer into evidence
7 Exhibits G-One and G-Two of Exhibit A.

8 MR. NUTTER: Exhibits G-One and G-Two of Exhibit A
9 will be admitted.

10 (THEREUPON, Sun's Exhibits G-One and G-Two
11 of Exhibit A were admitted into evidence.)
12

13 CROSS EXAMINATION

14 BY MR. NUTTER:

15 Q. Mr. Larson, this is a rather paradoxical situation in
16 that the wells higher on the structure go to water first, right?

17 A. Yes, as a matter of interest, Mr. Examiner, the
18 well directly north, the ODC No. 2-Y is producing in excess of
19 sixty thousand barrels of water a month. Now as I say, there
20 is a tightening of the contours in that area and there could be
21 some splinter or parallel relief faulting. I was unable to
22 pinpoint the faults on the electric logs.

23 Q. The source of this water may be through the main
24 fault or these splinter faults, is that it?

25 A. I would say essentially the main fault because of the

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1 production history of the No. 1 Sawyer.

2 Q It seems that if you can get away from the fault you
3 improve the position even though you move structurally downward?

4 A That is correct.

5 Q So your proposal is to drill straight east? Now,
6 will the other witness testify as to the kick off point?

7 A Well, yes, sir, and reserves and that sort of thing.

8 MR. NUTTER: Are there any further questions of
9 Mr. Larson? He may be excused.

10 (THEREUPON, the witness was excused.)

11 MR. NUTTER: Would you call your next witness please?

12 MR. KELLAHIN: Yes.

13
14 HERBERT A. SEIDEL, JR.

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

17
18 DIRECT EXAMINATION

19 BY MR. KELLAHIN:

20 Q Would you state your name, please?

21 A I'm Herbert A. Seidel, Junior.

22 Q By whom are you employed and in what position,
23 Mr. Seidel?

24 A By Sun Production Company, Dallas Region in Dallas,
25 Texas and I'm a Senior Professional Reservoir Engineer.

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

3 A Yes, sir, I have.

4 MR. KELLAHIN: Are the witness' qualifications
5 acceptable?

6 MR. NUTTER: Yes, they are.

7 Q (Mr. Kellahin continuing.) Mr. Seidel, have you
8 made a study of the proposal of Sun Oil Company in this case?

9 A Yes, sir, I have.

10 Q And have you reached any conclusions in connection
11 with that study?

12 A Yes, sir.

13 Q Referring now to the book of exhibits and specifically
14 to Exhibit Number E-One, would you identify that exhibit,
15 please?

16 A Yes, sir, this is the production history of the
17 replacement well for the No. 1 Sawyer which, of course, is
18 the Dessie No. 2 Sawyer.

19 The vertical scale is the production, logarithmic
20 production in barrels per day. The horizontal scale is time
21 and, of course, represents the entire production history of
22 the Dessie --

23 MR. NUTTER: Mr. Seidel, that's entitled Dessie
24 Sawyer No. 2 Production History?

25 A Yes, sir.

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1 MR. NUTTER: Okay, that's identified as G-Three in
2 this book, it's E-One?

3 A. Yes, sir. It's an oversight, excuse me.

4 The solid line or solid curve connecting the circles
5 represents the daily oil production and the triangles
6 connected by the dashed curves represent the water production.

7 You can see that up until 1972 we had no problem
8 with water production in the well. We had a significant increase
9 to about eighty barrels of water per day and between that point
10 and through 1975 Sun has spent about a hundred and fifty
11 thousand dollars deepening and attempting to improve the
12 production from this well. As you can see, our water production
13 continued to increase while our oil production declined.

14 In 1976 we returned the well to essentially its
15 original perforated interval and our October production was
16 about seventeen barrels of oil per day and two hundred and
17 sixty-five barrels of water per day.

18 Q (Mr. Kellahin continuing.) Now, referring to
19 Exhibit Number E-Two, would you identify that exhibit?

20 A. Yes, sir, this is the last ten months or the only
21 ten months, January through October, 1976 oil production in
22 barrels for each month, for each one of the leases in the
23 field.

24 The Mobil lease currently contains eight wells. The
25 Oil Development Company of Texas, Santa Fe Pacific Railroad,

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1 contains three wells. The Sun Dessie Sawyer has the one
2 well which is the object of the hearing. The UD Sawyer
3 currently has five wells and the Texaco UD Sawyer has four
4 well.

5 This shows that the production during that ten
6 month period has dropped from thirty-two hundred barrels per
7 day to twenty-five hundred barrels per day or about twenty-
8 two percent which is a twenty-five percent per year decline
9 rate.

10 Q Now, referring to Exhibit E-Three, would you
11 identify that exhibit?

12 A Yes, sir, this is for the same time period,
13 representing the monthly water production for each one of the
14 leases in the field.

15 This shows that for the field the production rates
16 have increased from about fifty-five thousand barrels a day to
17 sixty-two thousand barrels a day. In ten month's time we had
18 a twenty-nine percent increase or thirty-six percent per year
19 increase in water production.

20 Q Does that indicate that water is a problem throughout
21 the field or is that just kind of in a few wells?

22 A Water is a problem throughout the field primarily
23 on a down structure position as we will show later on on an
24 exhibit that we do have.

25 Q Now, refer to what has been marked as Exhibit Number

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1 E-Four and identify it?

2 A. E-Four is just the reported monthly gas production.
3 The initial gas-oil ratio is about a hundred cubic feet per
4 barrel and the initial formation volume factor is about one
5 point oh two. So the oil is severely under saturated.

6 Q. So you have no gas drive at all then?

7 A. No. No gas energy helping us in the recovery
8 mechanism at all.

9 Q. Now, referring to what has been marked as Exhibit
10 Number E-Five, would you identify that exhibit?

11 A. This is for the ten month period, January through
12 October 1976, the oil cut, and looking at the totals you can
13 see that the oil cut has declined from five point five percent
14 to three point five percent or thirty-six percent for ten
15 months, which is a forty-two percent per year decline rate.

16 Of particular interest is the Dessie Sawyer No. 2
17 oil cut which is six and a half percent, one of the structurally
18 high wells in the field, yet it has a lower oil cut than the
19 UD Sawyer lease which is down structure at sixteen percent oil
20 cut.

21 This leads us on into the next exhibit, Exhibit Six,
22 which is a plot on an individual well basis of the oil cut
23 data.

24 I would like to direct your attention to the area
25 around the Dessie Sawyer 2 which is in the northeast of the

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1 southwest quarter of Section 27 where we show the oil cut is
2 seven point five percent.

3 The southeast offset, the UD Sawyer No. 7 operated
4 by the Sun Oil Company has a sixty-three percent oil cut.

5 I would like to point out to the northeast and south-
6 east, we have some extremely low oil cuts, one percent, which
7 is evidence of a relatively strong water drive from those
8 directions.

9 Going back to the Dessie Sawyer 2 you can see that
10 the oil cut is increasing away from the fault, from the Dessie
11 Sawyer No. 2 and if we were permitted to whipstock this well
12 to the location proposed in the application we would expect an
13 oil cut of about twenty-seven percent. Our rates would be
14 expected to be around nine hundred to a thousand barrels per
15 day which would give us two hundred and eighty barrels per
16 day oil rate, plus about seven hundred barrels of water which
17 would be pretty comparable to the Sun UD Sawyer No. 6 which
18 is significantly on downdip from this Dessie Sawyer 2
19 location.

20 Q Do you agree with Mr. Larson's conclusions that the
21 water in the Dessie Sawyer No. 2 is possibly coming from the
22 fault or fractures associated with the fault?

23 A I feel that this is substantial evidence that we
24 do have some water influx from the west to the east and it is
25 most likely coming down a fault lane, coming from a fault lane.

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1 I feel like we would recover additional oil from the reservoir
2 as a result of drilling this well.

3 Q Now, how would you propose to complete this well in
4 case this application is approved?

5 A Well, we would first plug the zone that we have open
6 right now in compliance with the Conservation Commission's
7 Rules and Regulations, lay a plug after we recovered our five
8 and a half inch production string at about seven thousand feet
9 which is the top of our cement, dress the plug off, set a
10 whipstock and go ahead and directionally drill the well to
11 this proposed location within a fifty foot radius of the
12 target.

13 Q You do ask for a fifty foot tolerance in the bottom-
14 hole location?

15 A Yes, sir, we do.

16 Q You will run a bottom-hole survey?

17 A Yes, we definitely plan to do that.

18 Q And file it with the Commission?

19 A Right.

20 Q Do you have anything else to add, Mr. Seidel?

21 A No.

22 Q Were Exhibits E-One through E-Six prepared by you or
23 under your supervision?

24 A Yes, sir, they were.

25 MR. KELLAHIN: We offer into evidence Exhibits E-One

1 through E-Six of Exhibit A.

2 MR. NUTTER: Sun's Exhibits E-One through E-Six will
3 be admitted into evidence.

4 (THEREUPON, Sun's Exhibits E-One through
5 E-Six of Exhibit A were admitted into
6 evidence.)
7

8 CROSS EXAMINATION

9 BY MR. NUTTER:

10 Q Mr. Seidel, for the mechanics of the thing, as I
11 understand it, you would set a plug at about seven thousand
12 feet, is that it?

13 A Yes.

14 Q And did I say after you had recovered the five and
15 a half inch casing?

16 A Well, I got that backwards. We would first try to
17 recover as much of the five and a half inch casing as we could.
18 The top of the cement is about seven thousand feet, we would
19 expect to recover about seven thousand feet of casing.

20 Q Does the well have intermediate in it?

21 A Yes, sir, it's got some eight and five eighths. I
22 don't have that depth, though, Mr. Examiner.

23 Q So you would pull as much of this five and a half as
24 you could?

25 A Yes, sir.

1 Q And presumably you would be able to break it loose
2 at seven thousand feet?

3 A Right.

4 Q And then you would set your whipstock at that point?

5 A We would lay a cement plug over the upper part of
6 the casing, up above the top of the casing, dress it off, get
7 a firm place to set our whipstock.

8 Q You are not going to try to drill through the casing
9 and cut a window in it, are you?

10 A No, sir, we're not going to try to do that.

11 Q And then do you intend to run a full string of
12 casing to the pay or would it just be a liner back into the
13 eight five?

14 A It will be a full string of casing, five and a half
15 inch casing. Most of these completions are open holes so we
16 will probably drill to the top of the Devonian and case that
17 interval off and drill an open hole section below that.

18 Q Have you run a directional deviation survey to find
19 out where the bottom of the hole is or where this seven thousand
20 foot point is?

21 A We have the seven thousand foot point. We have a
22 gyro directional for the entire Dessie 2 location or well.

23 Q And where is the seven thousand foot point with
24 respect to the surface location at this time?

25 A I'm going to have to recall from memory. I didn't

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1 bring the directional survey with me. The well, I believe as
2 I recall, takes off in a northwesterly direction and circles
3 on around back to the original location, so it would probably
4 be kicking off from a point somewhere north of the current
5 location, possibly as much as fifty to a hundred feet. The
6 bottom-hole location of this well, however, is very nearly
7 within fifty feet of the actual surface location.

8 Q Almost right under the surface there?

9 A Yes, sir.

10 Q Okay, but at seven thousand feet it's a little bit
11 north or northwest and then you would deviate so as to bottom
12 the hole in the Devonian?

13 A About two hundred and thirty feet.

14 Q Within a fifty foot circle?

15 A Yes, sir.

16 Q Within fifty feet of a point twenty-three ten from
17 the south line and twenty-five forty from the west line?

18 A Yes, sir, and this is three hundred and thirty feet
19 from the north line and one hundred feet from the east line of
20 the southwest quarter.

21 Q And due east of the present surface location?

22 A Yes, sir.

23 MR. NUTTER: Are there any further questions of
24 Mr. Seidel? He may be excused.

25 (THEREUPON, the witness was excused.)

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

3 MR. KELLAHIN: That's all, Mr. Nutter, thank you.

4 MR. NUTTER: Does anyone have anything they wish to
5 offer in Case Number 5834? We will take the case under
6 advisement.


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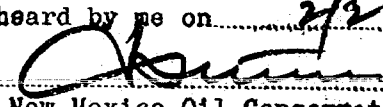
REPORTER'S CERTIFICATE

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I, SIDNEY F. MORRISH, a Certified Shorthand Reporter,
do hereby certify that the foregoing and attached Transcript
of Hearing before the New Mexico Oil Conservation Commission
was reported by me, and the same is a true and correct record
of the said proceedings to the best of my knowledge, skill and
ability.


Sidney F. Morrish, C.S.R.

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I do hereby certify that the foregoing is
a complete record of the proceedings in
the Examiner hearing of Case No. 5834
heard by me on 2/2, 1977.

Examiner
New Mexico Oil Conservation Commission

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
January 5, 1977

EXAMINER HEARING

IN THE MATTER OF:

Application of Sun Oil Company for
directional drilling, Lea County,
New Mexico.

CASE
5834

BEFORE: Daniel S. Nutter, Examiner

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the New Mexico Oil Conservation Commission: Lynn Teschendorf, Esq.
Legal Counsel for the Commission
State Land Office Building
Santa Fe, New Mexico

For the Applicant: Jason W. Kellahin, Esq.
KELLAHIN & FOX
Attorneys at Law
500 Don Gaspar
Santa Fe, New Mexico

sid morrish reporting service
General Court Reporting Service
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501
Phone (505) 982-9212

1 MR. NUTTER: We will call Case Number 5834.

2 MS. TESCHENDORF: Case 5834, application of Sun Oil
3 Company for directional drilling, Lea County, New Mexico.

4 MR. KELLAHIN: If the Examiner please, Jason Kellahin
5 Kellahin and Fox, Santa Fe, appearing for the applicant. We
6 request that this case be continued and readvertised on the
7 basis of a change in the proposed location.

8 MR. NUTTER: Do you have that change at the present
9 time, Mr. Kellahin, or will that be filed with the Commission
10 later?

11 MR. KELLAHIN: No, I can file it but I do have a
12 plat of the proposed new location.

13 MR. NUTTER: Now, the surface location remains the
14 same, it's just a different target, is that it?

15 MR. KELLAHIN: It's a different target, yes, sir,
16 and the target will be within fifty feet of a location twenty-
17 seven hundred and forty feet from the east line of the section.

18 MR. NUTTER: Instead of twenty-five, forty?

19 MR. KELLAHIN: Right.

20 MR. NUTTER: Case Number 5834 will be continued to
21 the Examiner Hearing scheduled to be held at this same place
22 at nine o'clock A.M. February 2nd, 1977 with the target area
23 designated in the advertisement amended to a point within
24 fifty feet of a point twenty-seven hundred and forty feet from
25 the south and west line of Section 27.

sid morish reporting service

General Court Reporting Service
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501
Phone (505) 982-9212

(THEREUPON, a discussion was held
off the record.)

MR. NUTTER: Well, we'll readvertise it.

MR. KELLAHIN: Thank you.


sid morrish reporting service
General Court Reporting Service
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501
Phone (505) 982-9212

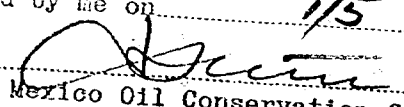
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REPORTER'S CERTIFICATE

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I, SIDNEY F. MORRISH, a Certified Shorthand Reporter,
do hereby certify that the foregoing and attached Transcript
of Hearing before the New Mexico Oil Conservation Commission
was reported by me, and the same is a true and correct record
of the said proceedings to the best of my knowledge, skill and
ability.


Sidney F. Morrish, C.S.R.

I do hereby certify that the foregoing is
a complete record of the proceedings in
the Examiner hearing of Case No. 5834
heard by me on 1/5, 1977
, Examiner
New Mexico Oil Conservation Commission

sid morrish reporting service
General Court Reporting Service
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501
Phone (505) 982-9212

Dockets Nos. 6-77 and 7-77 are tentatively set for hearing on February 16 and March 9, 1977. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - FEBRUARY 2, 1977

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

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

CASE 5820: (Continued & Readvertised)

Application of Texas Oil & Gas Corporation for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Wolfcamp and Pennsylvanian formations underlying the W/2 of Section 4, Township 22 South, Range 26 East, Eddy County, New Mexico, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof, as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 5834: (Continued & Readvertised)

Application of Sun Oil Company for directional drilling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to re-enter its Dessie Sawyer Well No. 2, the surface location of which is 2310 feet from the South and West lines of Section 27, Township 9 South, Range 36 East, Crossroads Siluro-Devonian Pool, Lea County, New Mexico, and to directionally drill said well in such a manner as to bottom it in the Siluro-Devonian formation within 50 feet of a point 2310 feet from the South line and 2540 feet from the West line of said Section 27.

CASE 5835: (Continued & Readvertised)

Application of Palmer Oil Company for non-standard proration units and unorthodox locations, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for the following non-standard proration units in Township 31 North, Range 7 West, San Juan County, New Mexico: a 310.48-acre Basin-Dakota unit comprising Lots 5, 6, 7, and 8 and the E/2 SW/4 and SE/4 of Section 2; the following Blanco Mesaverde and Basin-Dakota Units: 323.39 acres comprising Lots 5, 6, 7, and 8 and W/2 SW/4 of Section 3 and Lot 5 and the E/2 SE/4 and SW/4 SE/4 of Section 4; 320 acres comprising the E/2 SW/4 and S/2 SE/4 of Section 3 and NW/4 of Section 10; and 320 acres comprising the W/2 SW/4 of Section 2, N/2 SE/4 of Section 3, and NE/4 of Section 10; the following Fruitland and Pictured Cliffs Units: 150.48 acres comprising Lots 5, 6, 7, and 8 and the E/2 SW/4 of Section 2; 175.76 acres comprising Lots 5, 6, 7, and 8 and W/2 SW/4 of Section 3; 160 acres comprising the W/2 SW/4 of Section 2 and N/2 SE/4 of Section 3; 160 acres comprising the E/2 SW/4 and S/2 SE/4 of Section 3; and 147.63 acres comprising Lot 5 and the SW/4 SE/4 and E/2 SE/4 of Section 4.

Applicant proposes to dedicate the above lands to various wells to be drilled at orthodox and unorthodox locations as follows: Section 2: 2200 feet from South and 800 feet from East lines, and 800 feet from South and 1675 feet from West lines; Section 3: 800 feet from North and West lines, 800 feet from South and 1850 feet from West lines, and 1400 feet from South and 1110 feet from East lines; Section 4: 800 feet from South and East lines; Section 10: 1800 feet from North and 850 feet from West lines, and 1525 feet from North and 1850 feet from East lines.

CASE 5840: (Continued from January 19, 1977, Examiner Hearing)

Application of Dome Petroleum Corporation for pool creation and assignment of a discovery allowable, McKinley County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new oil pool for Entrada production and the assignment of approximately 25,800 barrels of oil discovery allowable to the discovery well, being applicant's Federal 15 Well No. 1 located in Unit F of Section 15, Township 19 North, Range 5 West, McKinley County, New Mexico.

CASE 5843: In the matter of the hearing called by the Oil Conservation Commission on its own motion to consider the creation of a new pool for the production of gas from the Dakota and Morrison formations, said pool to be designated the Wagon Mound Dakota-Morrison Gas Pool and located in Township 21 North, Range 21 East, Mora County, New Mexico.

CASE 5844: Application of Skelly Oil Company for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle Pictured Cliffs and Chacra production in the wellbores of the Jicarilla "C" Wells Nos. 9 and 17 located in Units K and D, Section 28; Nos. 11 and 19 in Units L and I, Section 27; Nos. 12 and 13, Units C and B, Section 33; No. 10 in Unit N, Section 22; and No. 15 in Unit G, Section 34, all in Township 25 North, Range 5 West, Rio Arriba County, New Mexico, and to provide for administrative approval of the commingling downhole of additional wells in Sections 5 and 6, Township 24 North, Range 5 West, and Sections 21 and 34, Township 25 North, Range 5 West.

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. 5834
Order No. R-5363

APPLICATION OF SUN OIL COMPANY
FOR DIRECTIONAL DRILLING,
LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on February 2, 1977, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 8th day of February, 1977, 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, is the owner and operator of its Dessie Sawyer Well No. 2, located 2310 feet from the South line and 2310 feet from the West line of Section 27, Township 9 South, Range 36 East, NMPM, Crossroads Siluro-Devonian Pool, Lea County, New Mexico.

(3) That the applicant proposes to re-enter the subject well and to directionally drill said well in such a manner as to bottom it in the Siluro-Devonian formation within 50 feet of a point 2310 feet from the South line and 2540 feet from the West line of said Section 27.

(4) That the applicant should be required to determine the subsurface location of the bottom of the hole by means of a continuous multi-shot directional survey conducted subsequent to said directional drilling, if said well is to be completed as a producing well.

-2-

Case No. 5834
Order No. R-5363

(5) That approval of the subject application will prevent the drilling of unnecessary wells, avoid the augmentation of risk arising from the drilling of an excessive number of wells, and otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That the applicant, Sun Oil Company, is hereby authorized to re-enter its Dessie Sawyer Well No. 2, the surface location of which is 2310 feet from the South line and 2310 feet from the West line of Section 27, Township 9 South, Range 36 East, NMPM, Crossroads Siluro-Devonian Pool, Lea County, New Mexico, and to directionally drill said well in such a manner as to bottom it in the Siluro-Devonian formation within 50 feet of a point 2310 feet from the South line and 2540 feet from the West line of said Section 27.

PROVIDED HOWEVER, that prior to the above-described directional drilling, the applicant shall establish the location of the whipstock point by conducting a continuous multi-shot directional survey of the well.

PROVIDED FURTHER, that subsequent to the above-described directional drilling should said well be a producer, a continuous multi-shot directional survey shall be made of the well bore from total depth to the whipstock point with shot points not more than 100 feet apart; that the operator shall cause the surveying company to forward a copy of the survey report directly to the Santa Fe Office of the Commission, Box 2088, Santa Fe, New Mexico, and that the operator shall notify the Commission's Hobbs District Office of the date and time said survey is to be commenced.

(2) That Form C-105 shall be filed in accordance with Commission Rule 1105 and the operator shall indicate thereon true vertical depths in addition to measured depths.

(3) That the NE/4 SW/4 of said Section 27 shall be dedicated to the subject well.

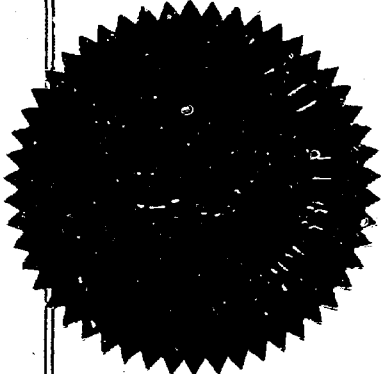
(4) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

-3-

Case No. 5834
Order No. R-5363

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION


Phil R. Lucero
PHIL R. LUCERO, Chairman

Emery C. Arnold
EMERY C. ARNOLD, Member

Joe D. Ramey
JOE D. RAMEY, Member & Secretary

S E A L

dr/

ROUTE - MESSAGE

JN-7401-A

DATE

TO

JASON

LOCATION

ROOM NO.

REMARKS:

CASE No. 5834

ATTACHED IS PLAT SHOWING NEW PROPOSED
B.H. LOCATION FOR D. SAWYER No. 2
WHICH WILL BE BOTTOMED APPROXIMATELY
WITHIN 50' RADIUS 2740' FROM EAST LINE OF
SECTION.

JIMMY

FROM

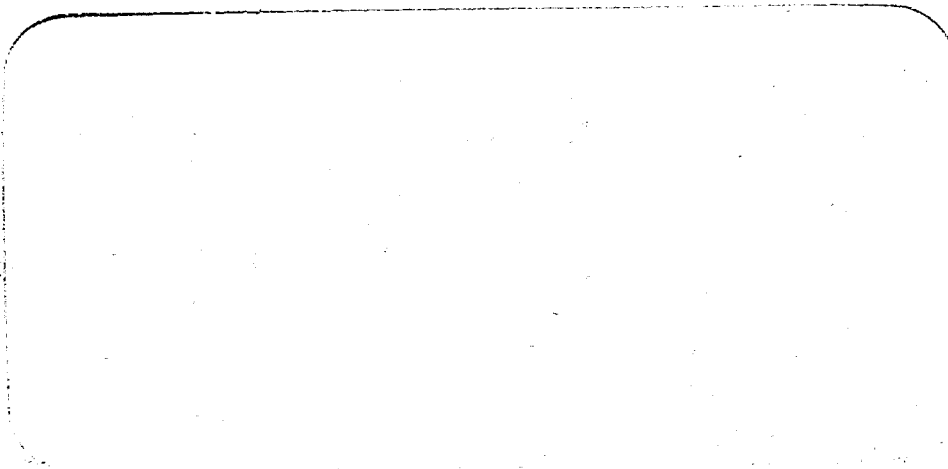
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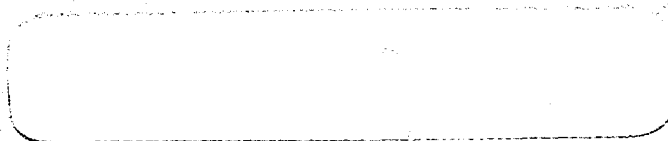
Jason called said to tell you on the
Directional Drilling Case (you know about it)
the surface location will be 2310' from the
South line and 2310' from the West line

Bottomhole location will be within 50'
of a point located ~~within~~ 2540' from the West line
and 2310' from the South line.

SUN OIL COMPANY



BEFORE EXAMINER NUMBER _____
OIL CONSERVATION COMPANY
Sun EXHIBIT NO. A
CASE NO. 5834



NEW MEXICO OIL CONSERVATION COMMISSION

CASE NUMBER 5834

CROSSROADS (SILURO-DEVONIAN) FIELD

LEA COUNTY, NEW MEXICO

FEBRUARY 2, 1977

T 9 S - R 36 E

28

27

2310'

2540'

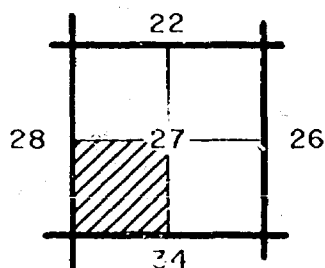
Sun Oil Co.

Dessie Sawyer

33

34

T 9 S - R 36 E



BEFORE EXAMINED NUTTER
OIL CONSERVATION COMMISSION
EXHIBIT NO. G-2
CASE NO. 5834

CASE NO. 5834
FEBRUARY 2, 1977
EXHIBIT NO. G-2

SUN OIL COMPANY
DESSIE SAWYER LSE.
CROSSROADS SILURO DEVONIAN
LEA COUNTY, NEW MEXICO
SCALE: 1" 500' FEB. 2, 1977

SUN OIL COMPANY
DALLAS REGION
CROSSROADS (SILURO-DEVONIAN) FLD
LEA COUNTY, NEW MEXICO

DESSIE SAWYER # 2 PRODUCTION HISTORY
 Case No. 5834
 February 2, 1977 Ex. No. E-1

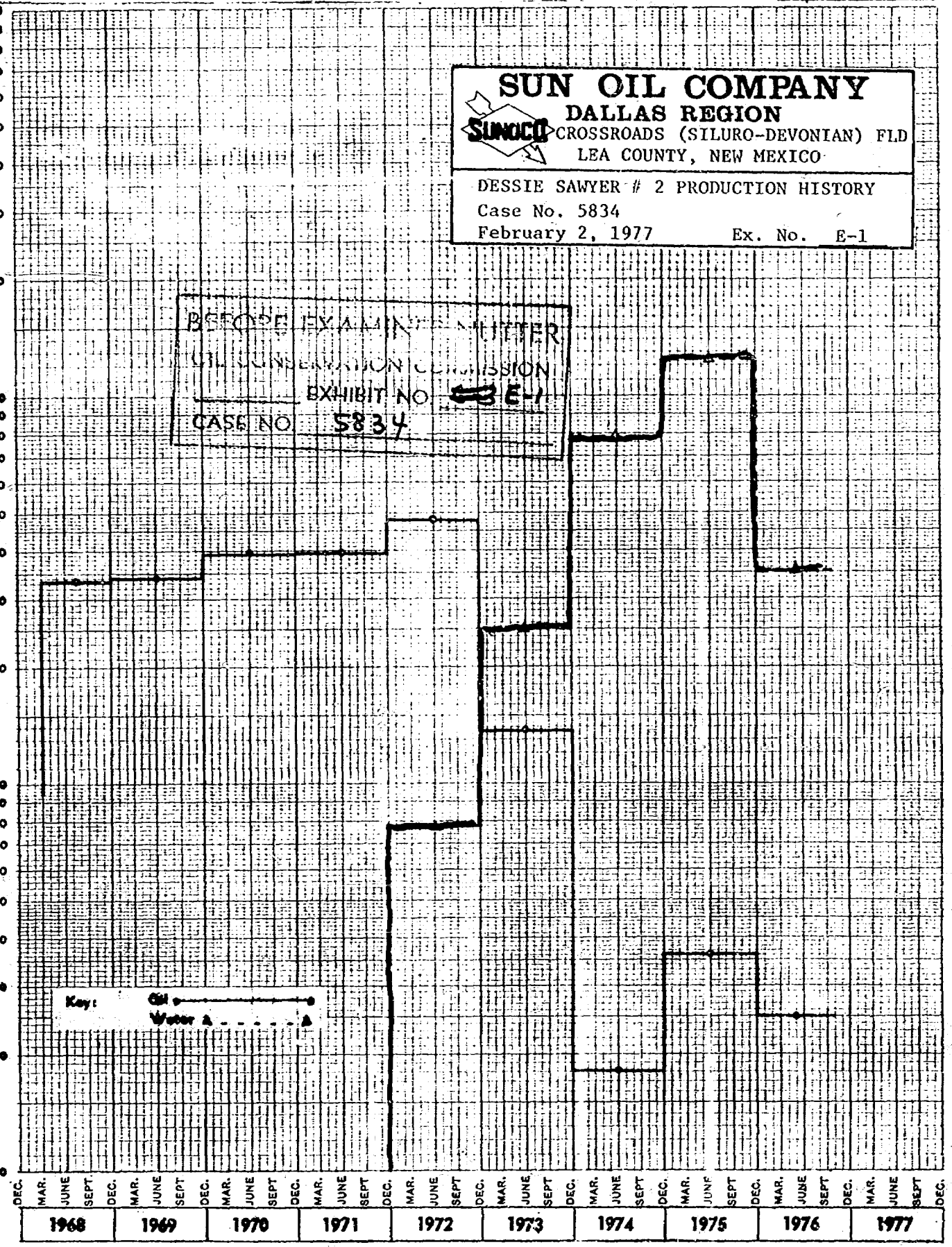
BECOME EXAMINER
 OIL CONSERVATION COMMISSION
 EXHIBIT NO. ~~5834~~ E-1
 CASE NO. 5834

Barrels per day

Key:

Oil

Water



MONTHLY PRODUCTION DATA
CROSSROADS (SILURO DEVONIAN) FIELD
LEA COUNTY, NEW MEXICO
OIL PRODUCTION, BBLs.

1976	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	TOTAL
MOBIL OIL CORP. SANTA FE PACIFIC	29421	27394	29493	27652	28842	24819	25274	24432	23275	28948	269,550
OIL DEVELOPMENT CO. OF TEXAS-SANTA FE PACIFIC RAILROAD	17803	15798	17154	14692	14895	13441	13484	12319	11172	10738	141,496
STOLTZ WAGNER & BROWN - H. L. VINSON	638	678	648	647	510	496	472	30	47		4,166
SUN OIL CO. DESSIE SAWYER <i>1 well</i>	692	1000	1103	856	723	703	721	711	591	614	7,714
U.D. SAWYER <i>5 wells</i>	40304	33683	33471	32741	31539	30699	29126	25241	24734	27514	309,052
TEXACO INC. (CAPROCK DISTRICT) U.D. SAWYER <i>4 wells</i>	10366	10476	9434	10471	11405	10741	10488	9435	9724	9915	102,455
TOTAL	99224	89029	91303	87059	87914	80399	79565	72168	69543	77729	834,433


BEFORE EXAMINER MUTTER
OIL CONSERVATION DISTRICT
EX-111 NO. E-2
CASE NO. 5834

SUN OIL COMPANY	
DALLAS REGION	
SUNOCO CROSSROADS (SILURO-DEVONIAN) FLD	
LEA COUNTY, NEW MEXICO	
OIL PRODUCTION TABLE	
Case No. 5834	Ex. No. E-2
February 2, 1977	

MONTHLY PRODUCTION DATA
CROSSROADS (SILURO DEVONIAN) FIELD
LEA COUNTY, NEW MEXICO
WATER PRODUCTION, BBLs.

1976	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	TOTAL
MOBIL OIL CORP. SANTA FE PACIFIC	1184,977	1134,699	1292,267	1220,198	1347,782	1169,373	1190,881	1257,157	1257,086	1532,343	12,586,763
OIL DEVELOPMENT CO. OF TEXAS - SANTA FE PACIFIC RAILROAD	56,505	49,901	59,803	57,609	68,118	69,711	71,544	72,262	76,880	79,367	661,700
STOLTZ WAGNER & BROWN - H.L. VINSON	3,410	31,900	34,100	33,000	33,000	33,000	31,900	2,200	3,300		205,810
SUN OIL CO. DESSIE SAWYER	41,553	6,700	8,029	7,511	8,029	7,770	8,029	7,595	7,350	7,595	110,161
U.D. SAWYER	88,722	168,896	180,544	174,720	180,544	173,873	179,697	174,720	174,720	177,420	1673,856
TEXACO INC. (CAPROCK DISTRICT) U.D. SAWYER	335,100	396,575	181,450	256,600	420,350	414,600	428,730	428,730	406,000	414,900	3683,035
TOTAL	1710,267	1788,671	1756,193	1749,638	2057,823	1868,327	1910,781	1942,664	1925,336	2211,625	18921,325

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
EXHIBIT NO. E-3
CASE # 5834

SUN OIL COMPANY	
DALLAS REGION	
	CROSSROADS (SILURO-DEVONIAN) FLD
LEA COUNTY, NEW MEXICO	
WATER PRODUCTION TABLE	
Case No. 5834	Ex. No. E-3
February 2, 1977	

MONTHLY PRODUCTION DATA
CROSSROADS (SILURO DEVONIAN) FIELD
LEA COUNTY, NEW MEXICO
GAS PRODUCTION, BBLS.

1976	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	TOTAL
MOBIL OIL CORP. SANTA FE PACIFIC	2189	2029	2149	2537	2842	2475	2755	2732	2227	3068	25003
OIL DEVELOPMENT CO. OF TEXAS - SANTA FE PACIFIC RAILROAD	186	174	186	180	186	180	186	186	180	186	1830
STOLTZ WAGNER & BROWN - H.L. VINSON	1	1	1	1	1	1	1	1	1		9
SUN OIL CO. DESSIE SAWYER	8	6	4	7	3	1	1		12	1	43
U. D. Sawyer	841	627	369	653	90	43	9		111	111	2854
TEXACO INC. (CAPROCK DISTRICT) U.D. SAWYER											
TOTAL	3225	2837	2709	3378	3122	2700	2952	2919	2531	3366	29739

*orig GOR
100 cu ft / bbl*

BEFORE EXAMINER NUTTER
OIL CONSERVATION
EXH. IF NO. E-4
CASE NO. 5834

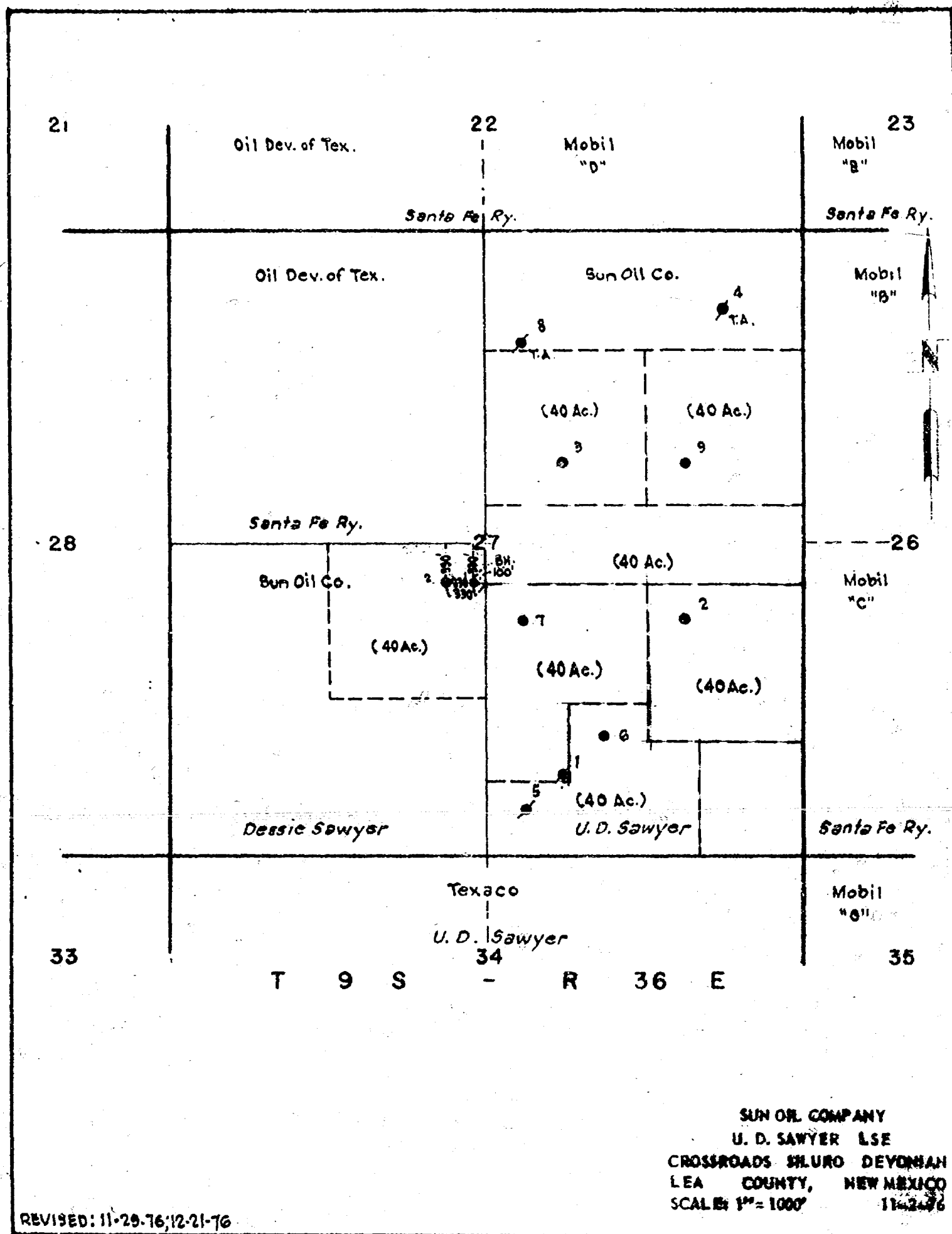
SUN OIL COMPANY	
DALLAS REGION	
CROSSROADS (SILURO-DEVONIAN) FLD.	
LEA COUNTY, NEW MEXICO	
GAS PRODUCTION TABLE	
Case No. 5834	Ex. No. E-4
February 2, 1977	

MONTHLY PRODUCTION DATA
CROSSROADS (SILURO DEVONIAN) FIELD
LEA COUNTY, NEW MEXICO
OIL CUT, %

1976	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	TOTAL
MOBIL OIL CORP. Santa Fe Pacific	2.4	2.4	2.2	2.2	2.1	2.1	2.1	1.9	1.8	1.8	2.1
OIL DEVELOPMENT CO. OF TEXAS - Santa Fe Pacific Railroad	24.0	24.0	22.0	20.3	17.9	16.2	15.9	14.6	12.7	11.9	17.6
STOLTZ WAGNER & BROWN - H. L. Vinson	15.8	2.1	1.8	1.9	1.5	1.5	1.5	1.4	1.4		2.0
SUN OIL CO. Dessie Sawyer	1.6	13.0	12.1	10.2	8.3	8.3	8.2	8.6	7.4	7.5	6.5
U. D. Sawyer	31.2	16.2	15.6	15.8	14.9	15.0	13.9	14.4	12.4	13.4	15.6
TEXACO, INC. (Caprock District) U. D. Sawyer	3.0	2.6	4.9	3.9	2.6	2.5	2.4	2.2	2.3	2.3	2.7
TOTALS	5.5	4.7	4.9	4.7	4.3	4.3	4.2	3.6	3.6	3.5	4.2

SUN OIL COMPANY	
DALLAS REGION	
SUNOCO CROSSROADS (SILURO-DEVONIAN) FLD	
LEA COUNTY, NEW MEXICO	
OIL CUT, %	
Case No. 5834	Ex. No. E-5
February 2, 1977	

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
EXHIBIT NO. E-5
CASE NO. 5834



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
Dec. 1, 1976

RECEIVED
DEC 2 - 1976
NEW MEXICO OIL CONSERVATION COMMISSION
TELEPHONE 982-4315
AREA CODE 505

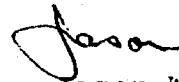
Mr. Joe D. Ramey, Secretary-Director
New Mexico Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico 875011

Dear Joe:

Enclosed is the application of Sun Oil Company
for permission to directionally drill a well in
the Crossroads Siluro-Devonian Pool, Lea County,
New Mexico.

It is requested that this application be set for
hearing at the January 5, 1977 examiner hearing.

Sincerely,



Jason W. Kellahin

JWK:ss
cc: Jim Powers

DEC 2 - 1955
OIL CONSERVATION COMMISSION

BEFORE THE
OIL CONSERVATION COMMISSION OF NEW MEXICO

IN THE MATTER OF THE APPLICATION
OF SUN OIL COMPANY FOR APPROVAL
OF DIRECTIONAL DRILLING, LEA
COUNTY, NEW MEXICO

A P P L I C A T I O N

Comes now Sun Oil Company and applies to the Oil Conservation Commission of New Mexico for authority to directionally drill a well in the Crossroads Siluro Devonian Pool, Lea County, New Mexico, and in support thereof would show the Commission:

1. Applicant proposes to re-enter the Dessie Sawyer No. 2 well, located in Unit K, Section 27, Township 9 South, Range 36 East, N.M.P.M. at a surface location 2970 feet from the North line, and 2970 feet from the East line of the section, and to deviate the well bore to bottom the hole 2740 feet from the North line, and 2740 feet from the East line of the section.

2. A well bottomed at the location proposed by applicant will recover hydrocarbons that would not otherwise be recovered, and will prevent waste. The correlative rights of other operators and interest owners will not be impaired by approval of the application.

WHEREFOR applicant prays that this application be set for hearing before the Commission or the Commission's duly appointed examiner, and that after notice and hearing as required by law the Commission enter its order approving

the deviation of the well and bottom-hole location as requested.

Respectfully submitted,

SUN OIL COMPANY

By Jason W. Kellahin
KELLAHIN & FOX
P. O. Box 1769
Santa Fe, New Mexico 87501

ATTORNEYS FOR APPLICANT

DEC 2 - 1975
OIL CONSERVATION COMMISSION

BEFORE THE
OIL CONSERVATION COMMISSION OF NEW MEXICO

IN THE MATTER OF THE APPLICATION
OF SUN OIL COMPANY FOR APPROVAL
OF DIRECTIONAL DRILLING, LEA
COUNTY, NEW MEXICO

A P P L I C A T I O N

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2. A well bottomed at the location proposed by applicant will recover hydrocarbons that would not otherwise be recovered, and will prevent waste. The correlative rights of other operators and interest owners will not be impaired by approval of the application.

WHEREFOR applicant prays that this application be set for hearing before the Commission or the Commission's duly appointed examiner, and that after notice and hearing as required by law the Commission enter its order approving

the deviation of the well and bottom-hole location as requested.

Respectfully submitted,
SUN OIL COMPANY

By Jason Kellahin
KELLAHIN & FOX
P. O. Box 1769
Santa Fe, New Mexico 87501

ATTORNEYS FOR APPLICANT

DEC 2 - 1975
OIL CONSERVATION COMMISSION

BEFORE THE
OIL CONSERVATION COMMISSION OF NEW MEXICO

IN THE MATTER OF THE APPLICATION
OF SUN OIL COMPANY FOR APPROVAL
OF DIRECTIONAL DRILLING, LEA
COUNTY, NEW MEXICO

A P P L I C A T I O N

Comes now Sun Oil Company and applies to the Oil Conservation Commission of New Mexico for authority to directionally drill a well in the Crossroads Siluro Devonian Pool, Lea County, New Mexico, and in support thereof would show the Commission:

1. Applicant proposes to re-enter the Dessie Sawyer No. 2 well, located in Unit K, Section 27, Township 9 South, Range 36 East, N.M.P.M. at a surface location 2970 feet from the North line, and 2970 feet from the East line of the section, and to deviate the well bore to bottom the hole 2740 feet from the North line, and 2740 feet from the East line of the section.
2. A well bottomed at the location proposed by applicant will recover hydrocarbons that would not otherwise be recovered, and will prevent waste. The correlative rights of other operators and interest owners will not be impaired by approval of the application.

WHEREFOR applicant prays that this application be set for hearing before the Commission or the Commission's duly appointed examiner, and that after notice and hearing as required by law the Commission enter its order approving

the deviation of the well and bottom-hole location as requested.

Respectfully submitted,
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Santa Fe, New Mexico 87501

ATTORNEYS FOR APPLICANT

- CASE 5829: Application of Elk Oil Company for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Wolfcamp and Pennsylvanian formations underlying the W/2 of Section 36, Township 11 South, Range 32 East, Lea County, New Mexico, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof, as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.
- CASE 5830: Application of Northwest Production Corporation for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle Tapacito-Pictured Cliffs and Blanco Mesaverde production in the wellbore of its Jicarilla 117E Well No. 2 located in Unit H of Section 33, Township 26 North, Range 3 West, Rio Arriba County, New Mexico.
- CASE 5831: Application of El Paso Natural Gas Company for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle South Blanco-Pictured Cliffs and Otero-Chacra production in the wellbore of its Jicarilla 67 Well No. 6 located in Unit H of Section 19, Township 25 North, Range 5 West, Rio Arriba County, New Mexico.
- CASE 5832: Application of El Paso Natural Gas Company for downhole commingling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle South Blanco-Pictured Cliffs and Blanco Mesaverde production in the wellbore of its Storey C Well No. 10 located in Unit N of Section 35, Township 28 North, Range 9 West, San Juan County, New Mexico.
- CASE 5833: Application of Southern Union Production Company for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle Gallup and Dakota production in the wellbores of the following wells:

Jicarilla "L" Wells Nos. 2, 3, and 4, and Jicarilla "H" Wells Nos. 1 and 2, located respectively in Unit G of Section 10, Unit E of Section 3, Unit G of Section 9, Unit K of Section 4, and Unit N of Section 3, all in Township 24 North, Range 5 West, and Jicarilla "L" Wells Nos. 5 and 6, located respectively in Units N of Section 33 and M of Section 34, both in Township 25 North, Range 5 West, all in Rio Arriba County, New Mexico.

- CASE 5834: Application of Sun Oil Company for directional drilling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to re-enter its Dessie Sawyer Well No. 2, the surface location of which is 2310 feet from the South and West lines of Section 27, Township 9 South, Range 36 East, Crossroads Siluro-Devonian Pool, Lea County, New Mexico, and to directionally drill said well in such a manner as to bottom it in the Siluro-Devonian formation within 50 feet of a point 2540 feet from the South and West lines of said Section 27.

- CASE 5835: Application of Palmer Oil Company for non-standard proration units, unorthodox locations, and dual completions, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the following non-standard proration units in Township 31 North, Range 7 West, Rio Arriba County, New Mexico: a 310.48-acre Basin-Dakota unit comprising Lots 5, 6, 7, and 8 and the E/2 SW/4 and SE/4 of Section 2; the following Blanco Mesaverde and Basin-Dakota Units: 323.39 acres comprising Lots 5, 6, 7, and 8 and W/2 SW/4 of Section 3 and Lot 5 and the E/2 SE/4 and SW/4 SE/4 of Section 4; 320 acres comprising the E/2 SW/4 and S/2 SE/4 of Section 3 and NW/4 of Section 10; and 320 acres comprising the W/2 SW/4 of Section 2, N/2 SE/4 of Section 3, and NE/4 of Section 10; the following Fruitland and Pictured Cliffs Units: 150.48 acres comprising Lots 5, 6, 7, and 8 and the E/2 SW/4 of Section 2; 175.76 acres comprising Lots 5, 6, 7, and 8 and W/2 SW/4 of Section 3; 160 acres comprising the W/2 SW/4 of Section 2 and N/2 NE/4 of Section 3; 160 acres comprising the E/2 SW/4 and S/2 SE/4 of Section 3; and 147.63 acres comprising Lot 5 and the SW/4 SE/4 and E/2 SE/4 of Section 4.

Applicant proposes to dedicate the above lands to various wells to be drilled at orthodox and unorthodox locations as follows: Section 2: 2200 feet from South and 800 feet from East lines, and 800 feet from South and 1675 feet from West lines; Section 3: 800 feet from North and West lines, 800 feet from South and 1850 feet from West lines, and 1400 feet from South and 1110 feet from East lines; Section 4: 800 feet from South and East lines; Section 10: 1800 feet from North and 850 feet from West lines, and 1525 feet from North and 1850 feet from East lines.

Applicant further proposes the dual completion of any of the aforesaid wells in any combination of two of the Fruitland, Pictured Cliffs, Mesaverde, or Dakota formations.

ROUGH

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. 5834
Order No. R- 5363

APPLICATION OF SUN OIL COMPANY
FOR DIRECTIONAL DRILLING,
LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on February 2, 1977,
at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this _____ day of February, 1977, 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, is the owner and
operator of its Dessie Sawyer Well No. 2, located 2310 feet
from the South line and 2310 feet from the West line of Section
27, Township 9 South, Range 36 East, ^{NMPM} Crossroads Siluro-Devonian
Pool, Lea County, New Mexico.

(3) That the applicant proposes to re-enter the subject
well and to directionally drill said well in such a manner as to
bottom it in the Siluro-Devonian formation within 50 feet of a
point 2310 feet from the South line and 2540 feet from the West
line of said Section 27.

(5) That approval of the subject application will prevent
the drilling of unnecessary wells, avoid the augmentation of
risk arising from the drilling of an excessive number of wells,
and otherwise prevent waste and protect correlative rights.

(4) That the applicant should be required to determine
the subsurface location of the bottom of the hole by means of
a continuous multi-shot directional survey conducted subsequent
to said directional drilling, if said well is to be completed
as a producing well.

IT IS THEREFORE ORDERED:

(1) That the applicant, Sun Oil Company, is hereby authorized to re-enter its Dessie Sawyer Well No. 2, the surface location of which is 2310 feet from the South line and 2310 feet from the West line of Section 27, Township 9 South, Range 36 East, NMPM, Crossroads Siluro-Devonian Pool, Lea County, New Mexico, and ~~thence~~ to directionally drill said well in such a manner as to bottom it in the Siluro-Devonian formation within 50 feet of a point 2310 feet from the South line and 2540 feet from the West line of said Section 27.

PROVIDED FURTHER, that subsequent to the above-described directional drilling should said well be a producer, a continuous multi-shot directional survey shall be made of the well bore from total depth to the whipstock point with shot points not more than 100 feet apart; that the operator shall cause the surveying company to forward a copy of the survey report directly to the Santa Fe Office of the Commission, Box 2088, Santa Fe, New Mexico, and that the operator shall notify the Commission's Hobbs District Office of the date and time said survey is to be commenced.

(2) That Form C-105 shall be filed in accordance with Commission Rule 1105 and the operator shall indicate thereon true vertical depths in addition to measured depths.

(3) That the NE/4 ^{SW/4} ~~SW/4~~ of said Section 27 shall be dedicated to the subject well.

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

DONE at

PROVIDED HOWEVER, that prior to the above-described directional drilling, the applicant shall establish the location of the whipstock point by conducting a continuous multi-shot directional survey of the well.