

NEW MEXICO DEPARTMENT OF ENERGY, MINERALS AND NATURAL RESOURCES

CASE NO. 9670

STATE OF NEW MEXICO)) ss.
COUNTY OF SANTA FE)

William F. Carr
WILLIAM F. CARR

Notary Public

August 17, 1971

DEFOUL EXAMINER STODIER
OIL CONSERVATION DIVISION
STEVENS EXHIBIT NO. 5
CASE NO. 9670

EXHIBIT A

Yates Petroleum Corporation
105 South Fourth Street
Artesia, New Mexico 88210

Chevron, USA Inc.
Post Office Box 1150
Midland, Texas 79702

Santa Fe Exploration
Post Office Box 1136
Roswell, New Mexico 88201

CAMPBELL & BLACK, P.A.

LAWYERS

JACK M. CAMPBELL
BRUCE D. BLACK
MICHAEL B. CAMPBELL
WILLIAM F. CARR
BRADFORD C. BERGE
MARK F. SHERIDAN
J. SCOTT HALL
JOHN H. BEMIS
WILLIAM R. SLATTERY
MARTE D. LIGHTSTONE
PATRICIA A. MATTHEWS

JEFFERSON PLACE
SUITE 1 - 110 NORTH GUADALUPE
POST OFFICE BOX 2208
SANTA FE, NEW MEXICO 87504-2208
TELEPHONE: (505) 988-4421
TELECOPIER: (505) 983-6043

April 19, 1989

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Yates Petroleum Corporation
105 South Fourth Street
Artesia, New Mexico 88210

Re: Application of Stevens Operating Corporation for
Directional Drilling, Chaves County, New Mexico

Gentlemen:

This letter is to advise you that Stevens Operating Corporation has filed the enclosed application with the New Mexico Oil Conservation Division seeking an Order approving the directional drilling of its Deemar Federal No. 1 Well (previously its Philtex No. 1 Honolulu Federal Well) from a surface location of 1980 feet from the South and West lines to a bottom hole location within 100 feet of a point 1980 feet from the South line and 2475 feet from the West line of Section 9, Township 14 South, Range 29 East, N.M.P.M., Chaves County, New Mexico. Stevens Operating Corporation proposes to dedicate the E/2 W/2 of said Section 9 to this well, and drill it to a depth sufficient to test the Devonian formation.

This application has been set for hearing before a Division Examiner on May 10, 1989. You are not required to attend this hearing, but as an owner of an interest that may be subject to pooling, you may appear and present testimony. Failure to appear at that time and become a party of record will preclude you from challenging the matter at a later date.

Very truly yours,



WILLIAM F. CARR
ATTORNEY FOR STEVENS OPERATING CORPORATION
WFC:mlh
Enclosure
cc: Mr. Don Stevens

SENDER: Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.
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3. Article Addressed to:	4. Article Number P 106 676 643
Yates Petroleum Corporation 105 South Fourth Street Artesia, New Mexico 88210	Type of Service: <input type="checkbox"/> Registered <input checked="" type="checkbox"/> Certified <input type="checkbox"/> Insured <input type="checkbox"/> COD <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Express Mail Always obtain signature of addressee or agent and DATE DELIVERED.
5. Signature — Address X	8. Addressee's Address (ONLY if requested and fee paid)
6. Signature — Agent X	
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P-106 676 643

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P.O. State and ZIP Code	Artesia, NM 88210
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Chevron, USA Inc.
Post Office Box 1150
Midland, Texas 79702

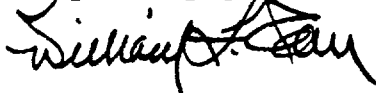
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4. Article Number
 P 106 676 642

Type of Service:
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☒ Certified ☐ COD
☐ Express Mail ☐ Return Receipt for Merchandise

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5. Signature - Address
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6. Signature - Agent
 X *[Signature]*

7. Date of Delivery
25 April 89

8. Addressee's Address (ONLY if requested and fee paid)

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Certified Fee	.85
Special Delivery Fee	
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April 19, 1989

CERTIFIED MAIL
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Santa Fe Exploration
Post Office Box 1136
Roswell, New Mexico 88201

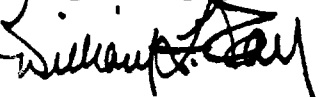
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WILLIAM F. CARR
ATTORNEY FOR STEVENS OPERATING CORPORATION
WFC:mlh
Enclosure
cc: Mr. Don Stevens

P-106 676 641

RECEIPT FOR CERTIFIED MAIL

INSURANCE COVERAGE PROVIDED
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Street and No. P. O. Box 1136	
P.O., State and ZIP Code Roswell, NM 88201	
Postage	\$.45
Certified Fee	\$.85
Special Delivery Fee	
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Return Receipt showing to whom and Date Delivered	\$.90
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5. Signature of Addressee
[Signature]

6. Signature - Agent
[Signature]

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4-24-89

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STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO

10 May 1989

EXAMINER HEARING

IN THE MATTER OF:

Application of Stevens Operating Corp- CASE
oration to amend Division Order No. 9670
R-8917, directional drilling and an un-
orthodox oil well location, Chaves County,
New Mexico.

BEFORE: Michael E. Stogner, Examiner

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Division:

For Stevens Operating
Corporation:

William F. Carr
Attorney at Law
CAMPBELL and BLACK, P. A.
P. O. Box 2208
Santa Fe, New Mexico 87501

For Exxon Company USA:

W. Thomas Kellahin
Attorney at Law
KELLAHIN, KELLAHIN & AUBREY
P. O. Box 2265
Santa Fe, New Mexico 87504

For Santa Fe Exploration
Company:

Ernest L. Padilla
Attorney at Law
PADILLA & SNYDER
P. O. Box 2523
Santa Fe, New Mexico 87504

I N D E X

STATEMENT BY MR. CARR

4

JACK AHLEN

Direct Examination by Mr. Carr

6

Cross Examination by Mr. Padilla

14

Cross Examination by Mr. Stogner

23

WILLIAM A. McALPINE

Direct Examination by Mr. Padilla

27

Cross Examination by Mr. Stogner

30

STATEMENT BY MR. PADILLA

32

STATEMENT BY MR. CARR

33

E X H I B I T S

Stevens Exhibit One, Land Map

7

Stevens Exhibit Two, Structural Map

8

Stevens Exhibit Three, Schematic Diagram

10

Stevens Exhibit Four, Cross Section

11

Stevens Exhibit Five, Affidavit

13

1 MR. STOGNER: This hearing
2 will come to order.

3 We're going to call next Case
4 Number 9570, which is the application of Stevens Operating
5 Corporation to amend Division Order No. R-8917, direction-
6 al drilling and an unorthodox oil well location, Chaves
7 County, New Mexico.

8 At this time I'll call for
9 appearances.

10 MR. CARR: May it please the
11 Examiner, my name is William F. Carr with the law firm
12 Campbell & Black, P. A., of Santa Fe. We represent Stevens
13 Operating Corporation.

14 MR. STOGNER: Any additional
15 appearances?

16 MR. PADILLA: Mr. Examiner,
17 Ernest L. Padilla, Santa Fe, New Mexico, for Santa Fe Ex-
18 ploration Company.

19 MR. STOGNER: Are there any
20 witnesses, Mr. Padilla?

21 MR. PADILLA: I have one wit-
22 ness. It will be very short.

23 MR. STOGNER: Mr. Carr?

24 MR. CARR: One witness.

25 MR. STOGNER: I'm sorry, Mr.

1 Carr?

2 MR. CARR: I have one witness.

3 MR. STOGNER: Okay. Will the
4 witnesses please stand and be sworn.

5

6 (Witnesses sworn.)

7

8 MR. STOGNER: All right, Mr.
9 Carr.

10 MR. CARR: Mr. Stogner, ini-
11 tially I think I should point out --

12 MR. KELLAHIN: Mr. Stogner,
13 I'd like to enter my appearance on behalf of Exxon Com-
14 pany, USA.

15 I'm Tom Kellahin of the Santa
16 Fe law firm of Kellahin, Kellahin & Aubrey.

17 MR. STOGNER: Do you have any
18 witnesses, Mr. Kellahin?

19 MR. KELLAHIN: No, sir.

20 MR. STOGNER: Are there any
21 other appearances which we missed?

22 There being none you may con-
23 tinue, Mr. Carr.

24 MR. CARR: Mr. Stogner, on
25 April 19, 1989, the Division entered Order R-8917 in Case

1 9617, which approved the nonstandard -- or an unorthodox
2 oil well location and a nonstandard proration unit, Chaves
3 County, New Mexico.

4 Stevens Operating Company is
5 before you here today seeking authority to directionally
6 drill a well and that is the only aspect or provision of
7 the prior order which we are interested in changing or
8 amending.

9 Our testimony will show that
10 we intend to comply with the provisions of the order as
11 previously entered.

12 If you will note, the order
13 contains a severe restriction on the allowable that is as-
14 signed to the well. In Finding 15 there is a calculation
15 which indicates the restriction could be as -- could be
16 allowed to produce only 15.6 percent of the allowable as-
17 signed to the well, and the purpose of this application is
18 to utilize an offsetting wellbore to reduce costs and
19 therefore attempt to make a completion at the location pre-
20 viously approved.

21 My first witness, my only
22 witness, is Jack Ahlen.

23
24
25

1 JACK AHLEN,

2 being called as a witness and being duly sworn upon his
3 oath, testified as follows, to-wit:

4
5 DIRECT EXAMINATION

6 BY MR. CARR:

7 Q Would you state your full name for the
8 record, please?

9 A My name is Jack Ahlen.

10 Q Mr. Ahlen, where do you reside?

11 A In Roswell.

12 Q What do you do for a living?

13 A I'm a consulting geologist.

14 Q And in what capacity are you employed in
15 this case?

16 A I'm a consultant for Stevens Oil and
17 Curry and Thornton in this particular -- in this matter.

18 Q Have you previously testified before
19 this Division and had your credentials as a geologist ac-
20 cepted and made a matter of record?

21 A Yes, sir.

22 Q Were you an expert geological witness in
23 Case 9617, which resulted in the prior order approving the
24 nonstandard unit and unorthodox well location?

25 A Yes, sir.

1 Q Are you familiar with the application
2 filed in this case on behalf of Stevens Operating Corpor-
3 ation?

4 A Yes, sir.

5 Q Have you studied and are you familiar
6 with the subject area?

7 A Yes, sir.

8 MR. CARR: Are the witness'
9 qualifications acceptable?

10 MR. STOGNER: They are.

11 Q Mr. Ahlen, would you briefly state what
12 Stevens Operating Corporation seeks with this application?

13 A Stevens Operating Corporation seeks to
14 reduce the costs in drilling to their particular acreage in
15 the tract. By re-entering a previously drilled hole in the
16 immediate vicinity and doing directional drilling from that
17 wellbore we expect to have a savings of approximately 50
18 percent of the normal cost of a well.

19 Q Would you refer to what has been marked
20 for identification as Stevens Exhibit Number One, identify
21 it and review it for Mr. Stogner?

22 A This is the -- exactly the same appli-
23 cation that was utilized in Case Number 9617. It shows a
24 copy of the Midland Map Company land map showing lease
25 ownership. It shows the discovery well and the standard

1 proration units surrounding that well. It also shows the
2 applied for proration unit for the unorthodox location
3 which was granted.

4 Q And this is the same plat that you
5 testified from at the prior hearing.

6 A Yes, sir.

7 Q And in what pool are you -- is Stevens
8 going to be attempting to make a completion?

9 A In the North King Camp Pool.

10 Q And you propose to dedicate to it the
11 previously approved nonstandard proration unit?

12 A Yes, sir.

13 Q And that is the east half of the west
14 half of Section 9.

15 A Being approximately 160 acres.

16 Q Would you now go to Exhibit Number Two,
17 identify that and review it for the Examiner?

18 A Okay, Exhibit Number Two is the same
19 Devonian seismic structure map that was used in the pre-
20 vious testimony, except that I have added to that the nota-
21 tion that the original requested location has been approved
22 by Order No. should be R-8917.

23 I have also added a semi-circle to the
24 west of that approved location and we propose to hit that
25 target with our directional well.

1 Q And it is your intention to control the
2 well so that you will be no closer to the eastern boundary
3 of your spacing or proration unit than the location that
4 was previously approved, is that correct?

5 A We will conduct a continuous deviation
6 and directional survey during the drilling of that well
7 such that we know where the bottom of the hole will be.

8 Prior to kicking off we will also run a
9 deviation and directional survey of the old hole at the
10 standard location so that we know the surface, the relative
11 surface location of the old hole.

12 Q Now, when these directional or deviation
13 surveys are conducted, will the Oil Conservation Division
14 be notified?

15 A They will be supplied with a copy of all
16 surveys that are made for the deviation. We will making
17 them at a regular interval so it will be difficult to call
18 exactly when each one will be made.

19 Q Will you make copies of these also
20 available to other interest owners in the area if they re=
21 quest?

22 A Yes, sir.

23 Q All right. Now, in the prior case the
24 applicant was Curry and Thornton. Could you explain to Mr.
25 Stogner the relationship between Curry and Thornton and

1 Stevens Operating in regard to this particular venture?

2 A Yes, sir. Curry and Thornton do not
3 operate wells in this part of New Mexico and Mr. Stevens
4 was a working interest owner in that particular lease and
5 he has accepted operations from Curry and Thornton.

6 Q All right, and Exhibit Number Two also
7 shows the fault that was the subject of the last hearing --

8 A Yes, sir.

9 Q -- is that correct? Would you now re-
10 fer to Stevens Exhibit Number Three, identify that, and
11 review it for Mr. Stogner?

12 A This is a schematic diagram of the
13 PhilTex Honolulu Federal previously drilled in Section 9 of
14 14 South, 29 East, located 1980 out of the south and west
15 corners.

16 I have noted on this exhibit the surface
17 elevation; that there is a 4 inch marker pipe sticking out
18 of the ground cemented to the surface; that the well has
19 13-3/8ths inch casing set at 320 feet, the cement was cir-
20 culated. It also has an intermediate string of 8-5/8ths at
21 3990, cement was circulated. A 25-sack cement plug was
22 placed in the well over that, the interval at the bottom of
23 that pipe from 4050 to 3950. It also has a 25-sack cement
24 plug at 5740 to 5637; another 25-sack cement plug at 7784
25 to 7681; and a 25-sack cement plug in the bottom of the

1 hole from 9894 to 9791; and the total depth of the well is
2 9894.

3 We intend to drill all the cement
4 markers out above the 7700 foot plug and kick off our well
5 immediately above that.

6 Q And so Exhibit Number Three shows the
7 current configuration.

8 A Current, yes, sir, the current config-
9 uration of the dry hole that was drilled several years in
10 the past.

11 Q All right. Let's now go to Stevens
12 Exhibit Number Four and referring to this exhibit I would
13 ask that you review for Mr. Stogner exactly how you pro-
14 pose to directionally drill this well.

15 A The display is an east/west cross
16 structure cross section between the PhilTex Honolulu Fed-
17 eral No. 1 and the Santa Fe Exploration Holmstrom Federal
18 No. 1.

19 I illustrate a copy of the electric log
20 on the PhilTex Well to the west of the stick diagram. The
21 stick diagrams represent the wells and they are in true
22 scale proportion on the diagram. That means that one inch
23 equals 100 feet vertically as wells as horizontally.

24 You'll note that the datums in the Phil-
25 Tex Well are substantially lower than those in the -- in

1 the Santa Fe Exploration Well, being that the -- the prim-
2 ary pay zone, the Devonian formation, is approximately 150
3 feet low at a datum of -6109 in the PhilTex Well; for the
4 producing well the Devonian datum is at -5976.

5 Our seismic information suggests that
6 the fault in question that was one of the primary concerns
7 of the previous testimony is very close to the location
8 Santa Fe had exhibited in their initial presentation before
9 the committee. The seismic that we ran shows it at the
10 same spot, being approximately 100 to 200 feet east of the
11 PhilTex Well.

12 It is our proposal that we kick off the
13 hole at a point close to 7474 in the PhilTex Well, build an
14 angle to the east of approximately 15 degrees by the time
15 we reach a depth of 8224 feet, measured. At that depth we
16 will attempt to hold the angle constant at 15 degrees to
17 the east until we reach a depth of 8913, measured.

18 At that point we will start to straight-
19 en the hole out at the rate of 2 degrees per 100 feet, pass
20 through the fault near the top of the Mississippian forma-
21 tion and drop to vertical at a depth of approximately 9450
22 feet, measured.

23 We will continue that rate to the west,
24 building an angle of -- at the rate of 2 degrees per 100
25 feet to the west, intersect the top of the Fusselman or the

1 Devonian formation at 59 -- -5945, penetrate the same ap-
2 proximately good pay zone as the Holmstrom Well did, and
3 our total depth will be at a depth of 9751 feet, measured,
4 depth. That would be equivalent to a depth of 9710 feet if
5 it had been, measured from the surface straight down and
6 that would be a location which is 330 feet east of the
7 Philtex Honolulu Federal No. 1 Well.

8 Q Now, Mr. Ahlen, by doing this you will
9 save the cost of drilling to the kickoff point at 7474
10 feet, is that correct?

11 A Yes, sir, that is correct.

12 Q And if you are unable to affect this
13 economic savings, in your opinion will it be possible from
14 an economic point of view to go forward with the well to
15 test or to produce the reserves on this nonstandard prora-
16 tion unit?

17 A Yes, it will.

18 Q Would an order resulting from this
19 hearing which provided that you were authorized to complete
20 within 500 feet of the location but in all events west of
21 the proposed -- or the previously approved location, be
22 satisfactory for your purposes?

23 A That would accomplish our purpose.

24 Q Would you identify what has been marked
25 as Exhibit Number Five?

1 A Exhibit Number Five is an affidavit that
2 offset operators have been notified of this cause.

3 Q In your opinion will granting this ap-
4 plication be in the best interest of conservation, the
5 prevention of waste, and the protection of correlative
6 rights?

7 A Yes, sir, it will.

8 Q Were Exhibits One through Five either
9 prepared by you or compiled at your direction?

10 A Yes, sir.

11 MR. CARR: At this time, Mr.
12 Stogner, we would move the admission of Stevens Operating
13 Corporation Exhibits One through Five.

14 MR. STOGNER: Are there any
15 objections?

16 Exhibits One through Five will
17 be admitted into evidence.

18 MR. CARR: And that concludes
19 my direct examination of Mr. Ahlen.

20 MR. STOGNER: Mr. Padilla,
21 your witness.

22

23 CROSS EXAMINATION

24 BY MR. PADILLA:

25 Q Mr. Ahlen, on your Exhibit Number Two

1 you show the approved location and I'm wondering what's --
2 what's the other circle to the left of the proposed loca-
3 tion in that exhibit?

4 A That would be the approximate location
5 of the directional hole. If we succeed in doing what has
6 been -- this -- this is an idealized attempt to reach the
7 reservoir with a directional survey and directional tech-
8 niques. We would hope that we can come close to this --
9 this exact drilling program.

10 Q Mr. Ahlen, you are then trying to bot-
11 tom hole locate -- the bottom hole location will be just
12 east of the fault as shown on this exhibit, then.

13 A Yes, sir, if we are -- if the interpre-
14 tation, the geophysical interpretation is correct.

15 Q What is the distance between the ap-
16 proved location and your approximate bottom hole location?

17 A In this particular instance it would be
18 165 feet.

19 Q How would that affect the penalty as
20 made in Order R-8990 (unclear)?

21 A It would not affect it all. The formula
22 would be --

23 Q Constant.

24 A Yes, sir. Well, the formula would be as
25 determined by the order.

1 Q But as I understand, you've changed the
2 footage and as I read the order footage has to -- it is
3 factor in the formula, is that not true?

4 A Yes, sir, whatever it figures out to be.

5 Q Would locating the well in this manner
6 have the effect of lessening the penalty?

7 A Yes, sir.

8 Q By how much?

9 A I have not calculated it.

10 Q By the distance of 165 feet, whatever
11 that is, is that --

12 A It -- it affects both of the penalty
13 calculations, since it's the product of the -- of the two
14 penalties.

15 Q You haven't done any calculations as to
16 how this proposed bottom hole location would affect the
17 formula as described or as written in the order.

18 A The formula remains the same, sir.

19 Q I understand the formula remains the
20 same. I'm just simply asking you whether or not you have
21 made calculations as a result of the new footage location.

22 A I have not.

23 Q Looking at your Exhibit Number Four,
24 what are the chances that you can -- if you're in effect
25 changing the direction of the well twice, is that correct?

1 A Yes, sir. Yes, sir. If you change the
2 direction of a well as slowly as possible so that you don't
3 get any dog legs in it, which make it hard to produce.

4 Q What -- what range of deviation do you
5 have in locating your -- your bottom hole location consi-
6 dering the fact that you're changing the direction twice?

7 A In effect the Eastman people, who are
8 the leading experts in this particular field, say that as
9 they change these directions they get better and better
10 control as to the location. As a matter of fact, they say
11 that they steer the bottom of the hole in the direction
12 that you want it.

13 Our maximum deflection will be 15 de-
14 grees from vertical when we are drilling that segment be-
15 tween 8224 and 8913.

16 Q Do the Eastman people have a figure as
17 to what the range of deviation that you --

18 A How far we would be from that location?

19 Q How far you're going to be from that
20 location?

21 A In projecting it they feel as though
22 they can control it within 50 feet, but after you get there
23 they'll probably know within 2 feet.

24 Q 2 feet of the actual bottom hole --

25 A Of the actual bottom hole location, yes,

1 sir.

2 Q But you could actually be 50 feet away
3 from where you actually projected the bottom --

4 A Anticipated, yes, sir.

5 Q So you could be closer to the fault or
6 you could be --

7 A Further away.

8 Q -- further away, so there's a range of
9 100 feet, approximately, between what you actually project
10 either way.

11 A Yes, sir.

12 Q I mean -- I shouldn't say either way,
13 but the total error, total potential error could be 100
14 feet.

15 A If you would allow me, though, the
16 greatest potential error in drilling a well like this is
17 the misinterpretation of the seismic data as to the exact
18 location of the fault, as well as the angle of the fault.

19 Q Now what --

20 A So that could vary 100 percent.

21 Q What effect would you have crossing the
22 -- crossing the fault? What does the fault do in -- to
23 your drilling activity here as you cross a fault?

24 A It causes significant deviation in the
25 immediate vicinity of the fault. There is -- de[ending

1 upon the nature of the fault itself, how broad the fault
2 angle, the broken strata in the vicinity of a fault is, as
3 well as the angle of those segments of rock, cause the bit
4 to deviate violently in that -- in the immediate vicinity
5 of a fault.

6 Q But how --

7 A Eastman has developed a technique to
8 lower the consequence of that with a downhole turban bit.

9 Q So you could have some wild gyrations
10 right at the point of crossing the fault, essentially.

11 A Yes, sir. Yes, sir, there was signifi-
12 cant discussion of that when we held the previous hearing.

13 Q How do you -- how do you -- suppose you
14 do find you're going in a different direction than you want
15 to go, how do you control the bit at that point? Do you
16 come back up hole and start again or how do you do that?

17 A Yes, sir. Yes, sir, if they go too far
18 off, you plug back and redrill the hole.

19 Q So you actually have to plug back and
20 come back up again.

21 A If the deviation encountered is too
22 great and the dog leg is too great as a result of crossing
23 that fault, you do plug back, unless it's nominal and then
24 -- and then they can steer the course of the hole back on
25 -- on course.

1 Q If you -- if you have that kind of
2 problem, what -- what increase in cost would you exper-
3 ience should that problem --

4 A Probably lose a day. I would imagine
5 it's a day -- a day of rig time plus a day of the Eastman
6 people. It's approximately \$4-to-\$5000 a day.

7 Q How -- do you have an estimate in your
8 cost estimates as to how many times you may have to ac-
9 tually come back up and plug back again and start over, you
10 know, start the hole again?

11 A The Christianson people say we shouldn't
12 have to do that. They -- they have developed a technology
13 well enough so that shouldn't be necessary. That will be a
14 surprise to us.

15 Q But you -- you considered this, haven't
16 you?

17 A Oh, yes. Oh, yes. That's part of the
18 risk.

19 Q Have you added anything to your cost as
20 part of that risk?

21 A I have not. I do not have a copy of the
22 AFE with me so -- and I have not seen one. It was being
23 developed as I left Roswell for this hearing.

24 Q Do you know the difference in the cost
25 between what the well would cost to drill as originally

1 proposed and using this method?

2 A We're saving approximately half the cost
3 of the well, of a new well.

4 Q And it's -- your testimony is that you
5 have -- you will do a continuous drilling survey in accor-
6 dance with the --

7 A Yes, sir, in conformance with the order.

8 MR. PADILLA: Mr. Examiner, I
9 believe that's all I have.

10 MR. STOGNER: Mr. Carr, do you
11 have any recross -- redirect further?

12 MR. CARR: Nothing further,
13 Mr. Stogner.

14 MR. STOGNER: Mr. Padilla,
15 before I start cross examining Mr. Ahlen here, has your
16 witness done some calculations based on the formula given
17 on this particular application?

18 MR. PADILLA: I believe that
19 we have in terms of figuring and computing what the total
20 amount of penalty would be in terms of barrels per day pro-
21 duced. In other words, it's a simple calculation, multi-
22 plying the penalty times the top allowable, which is ap-
23 proximately 80 barrels.

24 MR. STOGNER: Through the
25 whole gamut of the 500-foot radius?

1 MR. PADILLA: At the original
2 proposed location. At this point it seems like maybe we
3 might have to redo the calculation to see what the -- what
4 the (unclear) penalty is.

5 Q I'm coming up with some flaws is the
6 reason I'm asking on this penalty. I can come up -- it
7 looks like you can get greater than -- than what you're
8 asking according to what you have here.

9 MR. CARR: Do you have the
10 order there, Mr. Stogner?

11 MR. STOGNER; Yeah, I do.

12 MR. CARR: Okay. The way we
13 read the order is that a penalty is assessed based on what
14 the actual location is under the provisions, the 13, 14 and
15 15, the Findings 13, 14 and 15, and so what -- and even un-
16 der this order it would be based on what the actual loca-
17 tion was after the well was drilled and surveyed, and so
18 what we're trying to do is save the cost if we are further
19 to the west, and we believe that under these penalty pro-
20 visions that those numbers would -- would affect that, and
21 it depends on where they actually have the well when they
22 get down there, and that's true.

23 But we didn't see that any-
24 thing here needed to be changed because after the survey
25 we'll know where it is within, we think, 2 feet, and that

1 then we would apply whatever the actual location is to the
2 factors set out in this order.

3
4 CROSS EXAMINATION

5 BY MR. STOGNER:

6 Q Well, I did a preliminary calculation
7 and correct me, Mr. Ahlen, along here.

8 Finding Number 13 in Order No.
9 R-8917 is a penalty (unclear) should be assessed for crowd-
10 ing the east line of the unit in proportion to the dis-
11 tance moved from a standard location towards that line, or
12 in this case, 495 over 660.

13 Well, you were asking for 500
14 feet target area of a location 2475. So I took 2475 minus
15 500 coming up with 970. Now that comes up with 870 from
16 the lease line. 870 over 660 equals 1.318.

17 Now, then, the formula goes on
18 as 1 minus P1, 1 minus 1.318, gives us a negative number.
19 A negative number times another number is going to give you
20 a negative allowable. So we have a problem here.

21 A Okay. I -- as I -- as I read the pen-
22 alty, the normal distance would have been 660 from the
23 boundary line and we're going 330, so that would be a 50
24 percent penalty right there.

25 Q Uh-huh.

1 A Okay, and then -- and then we're going
2 -- and the next dimension is from the dry hole to the
3 discovery well, and the relative distance of the location
4 to the discovery well.

5 Q Yes.

6 A Okay, so that would be approximately,
7 let's say, $7/8$ ths, so $7/8$ ths times $1/2$ would be the pen-
8 alty.

9 Q Oh, but you put a 500 foot target area
10 in, so let's take the worst case --

11 A Okay, I -- I --

12 Q -- scenario --

13 A Yeah, okay, well, in the first place
14 we're not going to go west of the dry hole. That's ob-
15 viously a -- I'd say that the boundary would be the fault.

16 Q Okay. And --

17 MR. PADILLA: Mr. Stogner, I'd
18 be all for a negative allowable, if that's the way you
19 compute it, I agree.

20 Q Well, if we take everything -- I realize
21 that -- that more than likely you're not going to swing
22 that way but I'm looking at what is written and the worst
23 case scenario and that really throws this particular --

24 A I'm going to presume that we're doing
25 pretty well on getting it where we hope we can get it.

1 Q So there will probably be an extra
2 stipulation on there, anyway, either like you suggest,
3 either the fault line or to 660 from the -- in this case
4 1980 from the west line, because anything past that you're
5 going to get a negative -- I'm mean you're going to get a
6 zero product or you're going to divide a number by zero.

7 A You're going to be 800 over 600. See,
8 that's a 660 location --

9 Q Uh-huh.

10 A -- and if we get west of that location
11 it would be 800, as an example, over 600. That's not a
12 negative number.

13 That's 1.3.

14 Q 1.3 but you've got to subtract that from
15 one according to the formula on the order in paragraph
16 number 4, part C.

17 A Right.

18 Q So there will probably be an extra stip-
19 ulation that this will work out considering you're not
20 going to be drilling east of your location.

21 A Right.

22 Q So to make this work there will probably
23 be an extra stipulation and do you see a problem in an ex-
24 tra stipulation being added, Mr. Carr, Mr. Ahlen?

25 MR. CARR: No, I don't.

1 Q In which --

2 MR. CARR: It would avoid
3 having to come back if we did something that we don't think
4 we can do, but, you know, I think an additional requirement
5 would be appropriate.

6 MR. STOGNER: Other than that,
7 that's all the questions I have for this witness.

8 Are there any other questions
9 of Mr. Ahlen?

10 MR. CARR: I have no questions
11 of Mr. Ahlen.

12 MR. STOGNER: He may be ex-
13 cused.

14 Mr. Carr, do you have any
15 other witnesses?

16 MR. CARR: No, I have no other
17 witness, Mr. Stogner.

18 MR. STOGNER: Okay, Mr. Pad-
19 illa?

20 MR. PADILLA: No, I don't have
21 any further questions.

22 I have one witness, though.

23 We'll call Bill McAlpine at
24 this time, Mr. Examiner.

25

1 WILLIAM A. McALPINE, SR.,
2 being called as a witness and being duly sworn upon his
3 oath, testified as follows, to-wit:
4

5 DIRECT EXAMINATION

6 BY MR. PADILLA:

7 Q Mr. McAlpine, will you state your full
8 name, please?

9 A William A. McAlpine, Senior.

10 Q Your President of Santa Fe Exploration
11 Company?

12 A I am.

13 Q And you testified here in Case 9617 as
14 President of Santa Fe Exploration Company?

15 A Yes, sir.

16 Q Does the proposed application affect
17 your -- what you own -- well, tell us, sir, where you own
18 property in relation to the proposed location.

19 A We're the adjacent operator with the
20 discovery well of the Devonian that is east of the proposed
21 location and the location that was set forth and approved
22 in Order No. R-8917.

23 Q Mr. McAlpine, have you figured what the
24 total barrel allowable would be under Order R-8917?

25 A An engineer in our office did.

1 Q At your direction?

2 A Yes.

3 Q And what did he conclude?

4 A Well, at that depth the maximum allow-
5 able was 515 barrels a day, and based on the formula, he
6 calculated that the well would be allowed to produce 80
7 barrels a day if it received the maximum.

8 Q Do you have any problem with 80 barrels
9 a day as authorized by that order generally?

10 A Well, we have no objection to the direc-
11 tional drilling being done here as long as the maximum pro-
12 duction allowed under the formula is not in excess of 80
13 barrels a day.

14 Q Mr. McAlpine, --

15 A The -- if I may?

16 Q Go ahead.

17 A Mr. Examiner, when this case was heard
18 this was not contemplated and the Commission, the Division,
19 approved a most unorthodox shaped proration unit and which,
20 you know, was hashed at length.

21 I'm of the opinion that the reason that
22 the formula was given was at that time that if there was
23 deviation in the hole toward our lease line, then that could
24 be taken into account.

25 Q Concerning the testimony of Mr. Ahlen,

1 which you heard awhile ago, what is your attitude if the
2 penalty is actually diminished by moving the bottom hole
3 location 165 feet to the west?

4 A Well, I've just got through saying that
5 I'm of the opinion that this whole testimony, all of our
6 entire case when we had our engineers and they had theirs,
7 and we had our geophysicists and we went through all that
8 stuff, should have been heard at that time if that's what
9 they anticipated doing; that we're of the opinion that 80
10 barrels a day under that formula should be the maximum that
11 should be allowed to produce here, because the shape of the
12 proration unit runs along the edge of the fault that allows
13 a certain amount of acreage we both think possibly that
14 could be productive over onto their lease, but just be-
15 cause they clipped the edge of that does not mean that that
16 fault runs clearly and precisely in a direction that will
17 allow them a larger production than is set forth, that was
18 meant to be set forth, in my opinion, in this order.

19 Q So as I understand your testimony, you
20 wish the -- simply wish that the maximum penalty be -- the
21 maximum allowable for the applicant here be 80 barrels a
22 day.

23 A Yes, sir, and that's -- in other words
24 that's what was approved by the prior order if you run
25 through the calculations, and so however they get there,

1 whether they want to drill the well or -- or come through
2 the dry hole, we have no objection to it.

3 Q You just simply don't want that top
4 allowable based on that penalty to be increased above 80
5 barrels a day, is that --

6 A For the reasons I just got through
7 saying.

8 MR. PADILLA: I have no
9 further questions, Mr. Examiner.

10 MR. STOGNER: Mr. Carr, your
11 witness.

12 MR. CARR: I have no ques-
13 tions.

14

15 CROSS EXAMINATION

16 BY MR. STOGNER:

17 Q Mr. McAlpine, no matter where the loca-
18 tion of the well is, 80 barrels max, that's what you're re-
19 questing.

20 A Yes, sir, because of the shape that the
21 Commission approved of the proration unit and the indeter-
22 minable -- now they're, the way they're going to approach
23 it, you know, one foot through the fault line into that
24 zone, that's all they have to do, but that doesn't tell you
25 that that fault line is that distance from the lease line

1 that entire mile went north/south.

2 Q So it could be right up against the
3 fault line which is further west of your lease, but you
4 still want 80-acre allowable.

5 A No, sir, they have -- there is a
6 160-acre allowable here.

7 Q Uh-huh.

8 A But -- and as you'll notice, well, going
9 back further, --

10 Q I'm sorry, I should have said 80 barrels
11 a day allowable no matter where the location in the prora-
12 tion unit, as long as it's no closer than 2417, or
13 whatever --

14 A Yes, sir, whatever was approved on that
15 prior order.

16 Q Okay. I wanted to make sure that I un-
17 derstood you on that.

18 MR. STOGNER: Okay, I have no
19 other questions of this witness.

20 Is there any other questions
21 of Mr. McAlpine?

22 MR. CARR: No. I just have a
23 closing statement and that's it.

24 MR. STOGNER: He may be ex-
25 cused.

1 Mr. Padilla, I'll let you go
2 first and, Mr. Carr, I'll let you be last.

3 MR. PADILLA: Well, Mr. Exa-
4 miner, I think the -- this case is very simple. It's just
5 simply a matter of Santa Fe Exploration being able to live
6 with the nonstandard proration unit and the nonstandard
7 location with an allowable, maximum allowable of 80 barrels
8 a day.

9 To -- now, obviously, the
10 order states a formula which in effect could increase that
11 allowable beyond the 80 barrels per day if the well is ac-
12 tually located -- if the bottom hole location is actually
13 (not clearly heard) west of the original proposed location.

14 We're simply saying that, yes,
15 it may be a matter of another challenge of the Order R-8917
16 insofar as any increase in the allowable is concerned.

17 The other side is obviously
18 going to argue that we have a formula and whatever para-
19 meters fit into that formula is fair game.

20 We're simply saying that we
21 believe that without necessarily a collateral attack on the
22 previous order that if a directional drilling application
23 is going to be approved that the allowable ought to be
24 maintained at 80 barrels and no greater than 80 barrels.

25 MR. STOGNER: Thank you, Mr.

1 Padilla.

2 Mr. Carr?

3 MR. CARR: Mr. Stogner, we're
4 before you asking for an amendment of the prior order in
5 one respect and that's for authority to directionally
6 drill.

7 I think that it's important to
8 understand the case to look at what the order says and if
9 you look at what the order says and the order paragraphs
10 that we're focusing on are 3 and 4 and the sub-parts of 4.

11 There's nothing in here that
12 says an 80 barrel per day allowable. That's not what the
13 order says.

14 The order requires a contin-
15 uous directional survey to be run on the well to establish
16 a bottom hole location and then it sets certain factors for
17 determining what the penalty will be and it says in para-
18 graph 4, the depth bracket allowable for the well shall be
19 penalized by using the following formula based on the bot-
20 tom hole location.

21 It's penalized for being too
22 close, too close to Mr. McAlpine's property. Now we don't
23 know exactly where the well is going to bottomed, but what
24 we are doing is coming in here with a penalty that could be
25 as much as 85 percent of the well's allowable and trying to

1 do it in a way that will, one, enable us to produce the
2 reserves that are under that tract and do it in an econ-
3 omically feasible way. And all we're asking for is a
4 provision to permit the directional drilling and a bottom
5 hole location that will still be determined by directional
6 survey, and we use that -- that location and apply it to
7 this formula, and yes, if it is farther away from them, the
8 penalty would be reduced, but we think if it's farther away
9 from them a penalty should be reduced and it would be con-
10 sisten with the prior order.

11 We believe that if this appli-
12 cation is granted as proposed, we'll be able to develop the
13 reserves that are under our tract in the most efficient and
14 economic way, thereby preventing waste, that will impair
15 the correlative rights of no one but will enable us to pro-
16 duce without waste the reserves under our tract.

17 MR. STOGNER: Thank you, Mr.
18 Carr?

19 Is there anything further by
20 anybody in Case Number 9670?

21 This case will be taken under
22 advisement.

23

24

(Hearing concluded.)

25

C E R T I F I C A T E

I, SALLY W. BOYD, C. S. R. DO HEREBY
CERTIFY that the foregoing Transcript of Hearing before the
Oil Conservation Division (Commission) was reported by me;
that the said transcript is a full, true and correct record
of the hearing, prepared by me to the best of my ability.

Sally W. Boyd CSR

I do hereby certify that the foregoing is
a complete record of the proceedings in
the Examiner hearing of Case No. 9610
heard by me on 10/16/37 1937.

William H. Rogers Examiner
Oil Conservation Division