Lase Number 5891 Application Trascripts Small Exhibits ETC.

BEFORE THE NEW MEXICO OIL CONSERVATION COMMISSION Santa Fe, New Mexico March 23, 1977 3 EXAMINER HEARING 5 IN THE MATTER OF: 6 Application of Sam H. Snoddy for CASE - } directional drilling and a non-standard) 5891 7 gas proration unit, Lea County, New Mexico. 8 9 sid morrish reporting service General Court Reporting Service 825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501 Phone (505) 982-9212 10 BEFORE: Richard L. Stamets, Examiner Joe D. Ramey, Director 11 12 TRANSCRIPT OF HEARING 13 APPEARANCES 14 For the New Mexico Oil Lynn Teschendorf, Esq. Conservation Commission: Legal Counsel for the Commission 15 State Land Office Building 16 Santa Fe, New Mexico 17 For the Applicant: Sim B. Christy, IV, Esq. JENNINGS, CHRISTY & COPPLE Attorneys at Law 18 1012 Security National Bank Bldg. Roswell, New Mexico 19 20 21 22 23 24 25

and describe the second the state to the term of the second to the second term of the s

INDEX Page JAMES C. WHITTEN Direct Examination by Mr. Christy Cross Examination by Mr. Stamets Cross Examination by Mr. Ramey sid morrish reporting service EXHIBIT INDEX Offered Admitted 11, Applicant's Exhibit One, Structure Map Applicant's Exhibit Two, Cross Section Applicant's Exhibit Three, Surface Location Applicant's Exhibit Four, Schematic 825 Calle Applicant's Exhibit Five, Schematic Applicant's Exhibit Six, Cost Estimate

| • | | | Page3 | | | | | |
|---------------------------------------|--|----|---|--|--|--|--|--|
| · · · · · · · · · · · · · · · · · · · | | 1 | MR. STAMETS: We will call next Case 5891. | | | | | |
| | | 2 | MS. TESCHENDORF: Case 5891, application of Sam H. | | | | | |
| · • | | 3 | Snuddy for directional drilling and a non-standard gas | | | | | |
| 4 • | | 4 | proration unit, Lea County, New Mexico. | | | | | |
| | | 5 | MR. CHRISTY: Sim Christy, Jennings, Christy and | | | | | |
| | | 6 | Copple, Roswell, New Mexico, for the applicant, Mr. Snoddy. | | | | | |
| ť | | 7 | We have one witness. Would you stand and be sworn, please? | | | | | |
| •• • • | | 8 | MR. STAMETS: The record will reflect that Mr. Whitten | | | | | |
| • | e 87501 | 9 | was sworn in the previous case and is still sworn in this case. | | | | | |
| . 8 <u>.</u> | BETVİCE vice / Mexico 8 | 10 | | | | | | |
| | 18 80 5 Servico Now Mic | 11 | JAMES C. WHITTEN | | | | | |
| | porti j eportin nta Fe,) 982-9 | 12 | alled as a witness, having been previously sworn, was examined | | | | | |
| ی فیری | hin repo Court Repo 122, Santa sec (505) 9 | 13 | and testified as follows: | | | | | |
| - | sid morrish <i>Genera Co</i> Jalle Mejia, No. 12 Phone | 14 | | | | | | |
| | Sid ma Geo Calle Mejia | 15 | DIRECT EXAMINATION | | | | | |
| | 825 (| 16 | BY MR. CHRISTY: | | | | | |
| | 4 | 17 | Q. Would you please state your name and address? | | | | | |
| - | | 18 | A James C. Whitten, 508 Oil & Gas Building, Midland, | | | | | |
| | | 19 | Texas. | | | | | |
| | | 20 | Q. What is your occupation, Mr. Whitten? | | | | | |
| | | 21 | A. I'm a Petroleum Geologist. | | | | | |
| | | 22 | Q Have you previously testified before this regulatory | | | | | |
| | | 23 | body and had your qualifications as a petroleum geologist | | | | | |
| | | 24 | accepted? | | | | | |
| المحرب . الاسمان | | 25 | A. I have. | | | | | |
| | | 1 |) | | | | | |

1 You are appearing here on behalf of the proposed Q. 2 []operator, Mr. Snoddy?

A. Yes, sir.

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Are you familiar with what is sought in Case 5891? Q. A. I am.

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And what is sought, sir? ۵.

7 I will refer to the Exhibit Number One, this A. 8 structure map. This is a map on top of the Morrow limestone 9 in the South Salt Lake Field in which Mr. Snoddy has a farmout 10 from Felmont Oil Corporation in Section 25 of 20 South, 32 11 East.

12 The potash under the north half and the southwest 13 quarter of Section 25 has been leased and as such it was 14 considered impossible. I think there was a prior hearing on 15 that, I'm not sure of the number and all. The applicant was 16 denied the right to drill through that potash section on these 17 tracts in question. So, we propose in the southeast quarter, and you will see a little five acre tract in the northwest of 19 the southeast quarter --

That's the northwest corner, isn't it? 20 Q. 21 A. Northwest corner, yes. Northwest corner of the 22 southeast quarter of Section 25. We have a surface location 23 which we would like to drill a directional hole to where it 24 would be bottomed up in the northeast quarter of Section 25 25 and immediately thereafter drill a well on approximately the

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1 same location to be drilled and bottomed up on the southwest
2 quarter of Section 25.

Q All right, sir. Now, would you please refer to
Exhibit Two and tell us what that is and what the purpose of
it is?

A. Well, this is cross section showing the offset wells
which we feel we are being drained from this acreage and not
having the ability to do anything about it.

9 The wells in question have produced quite a bit of 10 gas and oil. This is a gas field but they have produced quite 11 a bit of gas and oil and we feel like by drilling this well 12 in such a manner it will not violate anybody's rights and we 13 will still be able to obtain production under our own leases. 14 Q Now, I gather from Exhibit One that you are going to

¹⁵ directionally drill or whipstock the wells from the surface ¹⁶ location to the two bottom points you show on the map, is ¹⁷ that correct?

A. That's correct.

19 Q Let's first of all, refer to Exhibit Three, which is
20 right behind the Examiner on the bulletin board. I put them
21 up because they are kind of bulky. Is that looking on the
22 surface?

A. Exhibit Three is the surface location showing
schematically how a well drilled in that tract in the northwest
corner of the southeast quarter, a well drilled there could be

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deflected and bottomed up in the northeast guarter and the 1 2 second well could be drilled and bottomed up in the southwest quarter of that section. That is the surface location, looking 3 at a plat location.

Page.

All right, now, Exhibit Four appears to be your Б Q. directional drilling on the first well. It's going to be drilled 8 up in the northeast quarter, bottomed up there? 7

That is correct. Exhibit Four and Exhibit Five are A. 8 essentially the same, one exhibit for each well. We will be 8 kicking the well off at approximately seventy-five hundred 10 feet. In other words, we will be drilling straight down under 11 whatever specified casing program that the State approves and 12 when we get to approximately seventy-five hundred feet, we will 13 kick off there and get an angle of about eighteen degrees and 14 we figure we can bottom up in the approximate center of that 15 quarter section. 16

So, for the first, approximately, seventy-five Q. 17 hundred feet you will be in the southeast quarter? 18

Exactly. A.

And well below the postash? 0.

Very much so, yes. A.

All right, sir, anything else on Exhibits Four and 22 Q 23 Five? 24

No, sir. A.

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You mentioned that you thought you were being

Page 1 drained, I therefore assume that the denial of the application 2 would violate your correlative rights? 3 Yes, sir. A. 4 ۵ And would the granting of the application avoid 6 waste? 6 Yes, sir. A. 7 Of the hydrocarbons underneath there? Q. 8 That is correct. A. 9 Q. Were the exhibits prepared by you or under your 10 direct supervision? 11 Yes. A. 12 Excuse me, we have one other exhibit. Q. 13 A, I'll take that back, now, these exhibits here were 14 prepared by the Whipstock Company. 15 Q. Yes. We have one other exhibit because I want to ä get to the economics of the matter and that's Exhibit Six. 16 What is Exhibit Six, sir, and what does it depict? 17 This Exhibit Three, Four and Five, as well as Exhibit 18 Α. Six was prepared by a firm which we asked to show us how to 19 do this. 20 21 Q. It was your contract employee that prepared them? 22 A. Yes, Eastman Whipstock prepared them and they have 23 shown us in this Exhibit Six the cost for drilling this 24 directional hole, the additional cost for deviation of the 25 hole.

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Q. The deviation costs are about thirty-four, thirtyfive thousand dollars, something like that?

A. Forty-two thousand.

Q Excuse me, forty-two thousand.

We anticipate, of course as you all know, this is 5 Α. a prognosis, it could be quite a bit more. If the hole 6 deviates normally toward that direction we intend to go it 7 will possibly be a little less. Generally it works out that 8 you spend a lot of time on a directional hole with a lot 9 less weight on the bit at times in order to make it go in the 10 11 direction you want to go so I would anticipate the cost would 12 be more than this.

13 Q I notice they have some recommended procedures for
14 whipstocking, do you plan to follow those?

15 A. Yes.

16 Q And you are also showing your angular build up
17 schedule starting at seventy-five hundred feet?
18 A. Right. I have been on a number of deviated holes

in South Texas and I'll say this that it's my personal opinion
that this is a real science. These people can really hit
the targets and I have the utmost confidence in their ability
to do it.

Q The Commission has had testimony on this before but
just briefly mention how you can tell where you are at, what
depth, when you are whipstocking?

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1 A. Well, they will be running a Manell drill collar 2 which will be anti-magnetic, it's going to be taking pictures 3 as they drill. This is a good point. After they have finished the hole we will also take a directional survey every hundred 4 feet to be sure that this is exactly what they have done so 5 that it will be proof that they have done what they said they 6 could do. So we have actually two surveys, you will be 7 8 surveying as you proceed in drilling and then there will be a survey as you finish up to show the exact location of the 9 service 10 well. 11 Anything else on Exhibit Six? Q. reporting 12 A. No, sir. 13 Is there anything else I failed to ask you that you Q. morrish 14 think the Commission ought to know in connection with this 15 application? sid 2 No, sir. 16 Α. 17 MR. CHRISTY: That's all. 18 CROSS EXAMINATION 19 BY MR. STAMETS: 20 Mr. Whitten, on Exhibits Four and Five you show Q. 21 a two hundred foot target area? 22 23 Yes, sir. A. That is within a two hundred foot radius of the 24 Q. 25 center of the northeast quarter and the southwest quarter?

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10 Page 1 A hundred foot radius. A. 2 A hundred foot radius? Q. 3 A. Yes. I believe it says ---۵ Q. A two hundred foot target. Okay, there is two Б Α. hundred R, is that a one hundred foot radius? 6 7 A. Well, maybe I'm --MR. CHRISTY: I think he's right. 8 I said it was a two hundred foot target. All right, 9 Α. two hundred foot radius. We have no particular small target 10 11 to hit, yeah, use a two hundred radius, they can hit a two 12 hundred foot target, a hundred foot radius is pretty easy too 13 without, you know, the smaller the target -- I might explain, the smaller the target, the harder it will be to do but they 14 can do it but it means slowing up drilling or speeding up 15 drilling and more and more pictures. The bigger the target 16 the less problems there are. In a two hundred foot radius 17 that will be easy. 18 Q. (Mr. Stamets continuing.) What acreage will be 19 dedicated to these two wells? 20 We plan to dedicate the north half of Section 25 to A. 21 the first well and the southwest quarter to the second well. 22 We would probably entertain the idea of, if the Commission 23 would, I haven't discussed this fully with our attorney, but 24 I don't know the position, the Commission's position, of pooling 25

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1) Page across section lines. I've seen it done in a lot of other 1 2 fields. We have a tract in Section 36, it's a State tract, ³ we might at a later date ask the Commission to allow us to combine the two tracts and make up a three hundred and 4 twenty unit, proration unit, which is a standard proration 5 unit here. 6 Has a non-standard unit been approved in the south-7 Q. 8 west guarter of Section 25? No, we want to see if we can drill it first. 9 A. 87501 MR. CHRISTY: We purposely did not make that appli-10 cation yet. 11 (Mr. Stamets continuing.) I presume you do know that 12 0. you would still be subject to all of the other requirements of 13 morrish Order R-111-A? 14 Yes, sir. 15 A. sid Calle Regardless of the outcome of this hearing? 2 16 Q. Right. 17 A MR. STAMETS: Any other questions of the witness? 18 Mr. Ramey? 19 20 CROSS EXAMINATION 21 BY MR. RAMEY: 22 Mr. Whitten, referring to your well which will be 23 Q in the northeast quarter, why did you pick the center of the 24 quarter rather than trying to bottom at, say, nineteen, eighty 25

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1 from the north and nineteen, eighty from the east which would 2 be a standard location?

Well, now, I'm not going to hedge. I'm going to 3 A. say this, I notice that the locations are staked in this 4 5 particular field as close as six hundred and sixty from the line by Cleary and others over here to the east. I would 6 anticipate being within -- we are attempting to do this and 7 set up a program in order to kick it out in the middle of 8 9 this quarter but I would anticipate that it would be all right 10 if we would have a bottom location possibly closer than the 11 center of the quarter. In other words, we will stay legal but 12 we would possibly be less than the center of it, farther south 13 than the center of the quarter. I don't deny that. Like I say, I'm not hedging, right away we just set it up for the 14 hearing in this manner. 15

16 Q Do you think you would have better drainage?
17 A I think so. The Belco Well in Section 30 is a real
18 good well and we would like to take advantage of the good
19 reservoir characteristics in that well or at least the sand
20 seems to be very good quality in that well.

We could quite possibly miss that center of the
quarter, I want you to be aware of that but we will stay legal.
You tell me what's legal, is six, sixty all right?
MR. STAMETS: With a two hundred foot radius you

would still be eleven hundred and twenty feet from the east

id mo**rrish reporting service** General Court Reporting Service lic Mejia, No. 122, Santa Fe, New Mexico 1 Phone (305) 982-9212

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1 line of the section?

A. Yes.

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MR. STAMETS: At the furtherest east point. Any other questions?

MR. RAMEY: That's all.

MR. CHRISTY: On the question you asked a minute ago about the non-standard, I think that is in the publication, a non-standard unit for the south -- the last sentence, (Reading) and would dedicate a non-standard one hundred and sixty acre unit comprising the southwest quarter of said Section 25 to the second well. (End of reading)

MR. STAMETS: I believe you're right.

MR. CHRISTY: That is what we presently seek to do.
14 They haven't talked to me about crossing section lines yet.

MR. STAMETS: So by this application you are indeedseeking approval of the non-standard unit?

THE WITNESS: Yes, sir, that's right.

18 MR. STAMETS: Are there any other questions of the19 witness? He may be excused.

(THEREUPON, the witness was excused.)

21 MR. CHRISTY: We offer into evidence Applicant's
22 Exhibits One through Six, inclusive, and I would like to amend
23 Six. Somehow they aren't all the same, I don't know which one
24 is right.

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

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| 14 Fe, New Mexico 87501 982-9212 | 1 | MR. CHRISTY: Anyway, we would like to offer into |
| | 2 | evidence Applicant's Exhibits One through Six, inclusive. |
| | 3 | (THEREUPON, a discussion was held |
| | 4 | off the record.) |
| | 5 | MR. STAMETS: We are going to ask him another questic |
| | 6 | so you can have him tell us about Six-A. |
| | 7 | Mr. Ramey, you have a question for Mr. Whitten? |
| | 8 | MR. RAMEY: Yes, Mr. Whitten, you said the acreage |
| | 9 | was under lease for potash, is that right? |
| | 10 | MR. WHITTEN: Yes, in the north half and the south- |
| | 11 | west quarter of that section. |
| | 12 | MR. RAMEY: Have you tried to clear this through |
| | 13 | the potash company involved? |
| | 14 | MR. WHITTEN: NO. |
| | 15 | MR. RAMEY: To see if they would permit the drilling |
| | 16 | of the well? |
| | 17 | MR. WHITTEN: No. |
| | 18 | MR. RAMEY: Just curious. |
| | 19 | MR. CHRISTY: Mr. Whitten, I belive that Applicant's |
| | 20 | Exhibit Six deals with one well and Six-A deals with the other |
| | 21 | well, is that correct? |
| | 22 | MR. WHITTEN: Yes. |
| | 23 | MR. CHRISTY: We offer Six-A. |
| | 24 | (THEREUPON, a discussion was held off |
| | 25 | the record.) |
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| | | 1 | MR. STAMETS: Let's just clarify what we've got. We |
| | | 2 | will just call these both Exhibit Six and they have both |
| | | 3 | figures in them. |
| | | 4 | MR. CHRISTY: All right. |
| | | 5 | MR. STAMETS: For the record, Exhibit Six has at |
| . | | 6 | this point been clarified. There is a single Exhibit Six |
| | | .7 | which reflects the directional drilling costs for both wells. |
| } | | 8 | MR. CHRISTY: That is correct, Mr. Examiner. |
| | õ | 9 | MR. STAMETS: And these exhibits will be admitted |
| | rvice xico 87501 | 10 | into evidence. |
| - | Ser. | 11 | (THEREUPON, Applicant's Exhibits One through |
| | rting ving 5 82-9213 | 12 | |
| | repo Sunta | 13 | Six, inclusive, were admitted into evidence.) |
| _ | Tich None (Cou | | MR. STAMETS: If there is nothing further the case |
| | MOIT Central Kajia, No | 14 | will be taken under advisement. |
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REPORTER'S CERTIFICATE 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. Sidhey sid morrish 825 Calle Mejia 100 011 Conservation Commission ner



OIL CONSERVATION COMMISSION

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



EMERY C. ARNOLD

DIRECTOR JOE D. RAMEY

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LAND COMMISSIONER PHIL R. LUCERO March 30, 1977

> CASE NO. Re: ORDER NO.

Mr. Sim Christy Jennings, Christy & Copple Attorneys at Law Post Office Box 1180 Roswell, New Mexico 88201

Applicant:

Sam H. Snoddy

5891

R-5408

Dear Sir:

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

Yours very truly, JOE D. RAMEY Director

JDR/fd

Copy of order also sent to:

| Hobbs 0 | CC | x | |
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| Artesia | 000 | X | |
| Aztec C | 000 | | <u> </u> |
| Other | Tom | Keilahin | |

Other

BEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

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

> CASE NO. 5891 Order No. R-5408

APPLICATION OF SAM H. SNODDY FOR DIRECTIONAL DRILLING AND A NON-STANDARD GAS PRORATION UNIT, LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on March 23, 1977, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this <u>29th</u> day of March, 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, Sam H. Snoddy, seeks approval of a 160-acre non-standard gas proration unit comprising the SW/4 of Section 25, Township 20 South, Range 32 East, NMPM.

(3) That applicant further seeks approval for the directional drilling of two 13,500 foot Morrow test wells from a single drilling site in the extreme Northwest five acres of the NW/4 SE/4 of Section 25, Township 20 South, Range 32 East, Potash-Oil Area, Lea County, New Mexico. Applicant proposes to vertically drill each of said wells to a depth of approximately 3000 feet and to then directionally drill one well in a Northeasterly direction bottoming said well in the approximate center of the NE/4 of said Section 25, and to then directionally drill the other well in a Southwesterly direction, bottoming said well in the approximate center of the SW/4 of said Section 25.

(4) That the entire non-standard proration unit may reasonably be presumed productive of gas from the South Salt Lake-Morrow Gas Pool and that the entire non-standard gas proration unit can be efficiently and economically drained and developed by the aforesaid well to be completed in the SW/4 of said Section. -2-Case No. 5891 Order No. R-5408

(5) That approval of the subject application will afford the applicant the opportunity to produce his just and equitable share of the gas in the South Salt Lake-Morrow Gas Pool, will prevent the economic loss caused by the drilling of unnecessary wells, avoid the augmentation of risk arising from the drilling of an excessive number of wells, and will otherwise prevent waste and protect correlative rights, provided that the applicant should be required to determine the subsurface location of the bottom of each of the holes by means of a continuous multi-shot directional survey conducted subsequent to directional drilling, if said wells are to be completed as producing wells.

IT IS THEREFORE ORDERED:

(1) That the applicant, Sam H. Snoddy, is hereby authorized to directionally drill two wells to test the Morrow formation, all in Section 25, Township 20 South, Range 32 East, South Salt Lake-Morrow Gas Pool, Lea County, New Mexico, and with acreage dedications as follows:

> Federal Well No. 1, from a surface location at least 10 feet from any quarter section line in the extreme Northwest five acres of the NW/4 SE/4 of said Section 25 to a bottom-hole location within 200 feet of a point 1320 feet from the North and East lines with the N/2 of said Section 25 being dedicated thereto.

Federal Well No. 2, from a surface location at least 10 feet from any quarter section line in the extreme Northwest five acres of the NW/4 SE/4 of said Section 25 to a bottom hole location within 200 feet of a point 1320 feet from the South and West lines with the SW/4 of said Section 25, a 160acre non-standard gas proration unit hereby approved, being dedicated thereto.

PROVIDED HOWEVER, that each of said wells shall be drilled vertically to a depth of 3000 feet and thence directionally to their intended bottom-hole locations.

PROVIDED FURTHER, that subsequent to the above-described directional drilling, should said wells be producers, a continuous multi-shot directional survey shall be made of the wellbore from total depth to the surface, or to the whipstock point if the same has been determined in this manner, 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 surveys are to be commenced. -3-Case No. 5891 Order No. R-5408

(2) That Form C-105 shall be filed in accordance with Commission Rule 1108 and the operator shall indicate thereon true vertical depths in addition to measured depths.

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

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

> STATE OF NEW MEXICO OIL CONSERVATION COMMISSION



PHIL R. LUCERO, Chairman

EMERY & ARNOLD ARNOLD Member JOE D. RAMEY, Member & Secretary

SEAL

)r/

Mr. Sam H. Snoddy Federal Well No. 1 Lea Co., New Mexico



(915) 563-0511 / Telex: 74-3452 P. O. Box 5577 / Midland, Texas 79701 Int'l: TWX 910-881 5066/ Cable: EASTCO

March 16, 1977

Mr. Sam H. Snoddy 202 Mid American Bldg. Midland, Texas 79701

Dear Mr. Snoddy;

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×.,

Please find enclosed an Angle Build up schedule proposal, Surface Plat showing both surface locations and bottom hole locations and Cost Estimates to control directional drill your pending Federal Wells No. 1 and 2, in Lea County, New Mexico.

I believe the cost estimates are realistic but will do more research into the actual planning of the kick-off point. We will be looking for a drilling break in the vacinity of 7500'. The kick-off point could vary a few 100' either way.

We appreciate the opportunity to submit this proposal to you and as always, it is our pleasure to be of service.

Sincerely,

Lang Married Ray Warner

District Representative

RW/pj

enc:

Directional Drillers/Sub-Surface Surveyors/Instrument & Tool Rentals/Sales/Worldwide

Federal Well No. 1 Lea Co., New Mexico

RECOMMENDED PRODECURES

- 1. Run directional survey 0' to 3000' (casing point) either on 5/16" (minimum) wire line or run 6%" x 25' non-magnetic drill collar on last bit trip before drilling to casing point and drop multiple shot and survey on trip out of hole.
- 2. Drill to approximately 7000' and drop multiple shot survey on trip out. (Accumulated deviation in off-set well is 133'). It is possible that this deviation could be in the opposite direction of the proposed direction. In this case it is possible we would have to start deflecting the well at this point (depending on where the bottom hole location from surface and/or proposed bottom hole location). If the bottom hole location is in a favorable position we would drill to a deeper depth for our kick off point.
- 3. Upon reaching kick off point, we would run 7 7/8" diamond bit, down hole mud motor, 2° deflecting sub w/orienting sleeve, 6½" x 25' non-magnetic drill collar and regular steel drill collars and drill pipe and drill 60' +/- w/surface read out equipment to deflect the well bore with the proper direction and angle.
- 4. Run regular drilling bit, extention sub, bottom hole reamer, non-magnetic drill collar and steel collars until average angle is reached.
- 5. Run packer hole assembly consisting of regular drilling bit, bottom hole reamer, short steel drill collar, reamer, non-magnetic drill collar, reamer and steel drill collars.
- 6. Drill until it is determined that a corrective deflecting tool is needed or to total depth.

Note: It may be necessary to change the recommended procedures because of hole conditions or other considerations.

Federal No. 1 Lea Co., New Mexico

COST ESTIMATE

Cost Estimate based on 44 Straight Hole Drilling days from kick-off point, 7500' TVD, to total depth of 13,500' TVD.

| Directional Surveys 0' to 13,500' | \$2420.00 |
|--|----------------------|
| 1st Day Directional Drilling Service | 575.00 |
| 59 Additional days @ \$310.00 per day | 18,290.00 |
| 60 Days Meals and lodging @ \$30.00 per day | 1800.00 |
| Down Hole Motor (initial run, 15 hrs) | 1850.00 |
| Loss in Hole Coverage | 110.00 |
| Down Hole Motor (corrective run, 8 hrs) | 1010.00 |
| Loss in Hole Coverage | 70.00 |
| Wire Line Charges1st run | 1000.00 |
| Surface Read-Out 1st run | 2300.00 |
| 2 ⁰ Deflecting sub w/sleeve min 7.50 @ 15 days | 112.50 |
| 6 1/4 x 25' Non Magnetic Drill Collar 60 days @ 60.60 per day | [,] 3636.00 |
| Directional Single Shot Instrument 60 days @34.00 per day | 2040.00 |
| 7 7/8 Diamond Bit | 3500.00 |
| 3 Reamer Body Rental @165.00 each | 495.00 |
| 3 Sets 7 7/8 Reamer Cutters @ 315.00 each | 945.00 |
| 6 1/2" x 10' Steel Drill Collar 56 Days @ 9.00 per day | 504.00 |
| Miscellaneous subs, trucking, mileage, etc. | 600.00 |
| | \$33,985.50 |
| | 4125750 |

Average cost per day -- \$566.45

्यो २**३२** Federal Well No. 1 Lea Co., New Mexico

ANGLE BUILD-UP SCHEDULE

2⁰ per 100'

| Measured Depth | Angle | TVD | Displace | ment |
|-------------------|---------------------|----------|------------------|----------|
| 7500' | 0 [°] | 7500.00' | 0 <mark>0</mark> | |
| 7600' | 2 ⁰ | 7599.98' | 1.75' | <u>.</u> |
| 7700' | 4 ⁰ | 7699.84' | 6.98' | |
| 7800' | 6 ⁰ | 7799.45' | 15.70' | a se se |
| 7900' | 8 ⁰ | 7898.70' | 27.89' | · · · |
| 8000' | 10 ⁰ | 7997.46' | 43.54' | |
| 8100' | 12 ⁰ | 8095.62' | 62.63' | • |
| 8200 | 14 ⁰ | 8193.05' | 85.13' | |
| 8300' | 16 ⁰ | 8289.63' | 111.02' | |
| 13777.45' | 17 ⁰ 58' | 13500.00 | 1800.00' | • |
| | • • • • • • | | | |

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COST ESTIMATE

Cost Estimate based on 44 Straight Hole Drilling days from kick-off point, 7500' TVD, to total depth of 13,500' TVD.

| Directional Surveys 0' to 13,500' | \$2420.00 |
|--|--------------|
| lst Day Directional Drilling Service | 575.00 |
| 59 Additional days @ \$310.00 per day | 18,290.00 |
| 60 Days Meals and lodging @ \$30.00 per day | 1800.00 |
| Down Hole Motor (initial run, 15 hrs) | 1850.00 |
| Loss in Hole Coverage | 110.00 |
| Down Hole Motor (corrective run, 8 hrs) | 1010.00 |
| Loss in Hole Coverage | 70.00 |
| Wire Line Charges1st run | 1000.00 |
| Surface Read-Out 1st run | 2300.00 |
| 2° Deflecting sub w/sleeve min 7.50 @ 15 days | 112,50 |
| 6 1/4 x 25' Non Magnetic Drill Collar 60 days @ 60.60 per day | 3636,00 |
| Directional Single Shot Instrument 60 days @34.00 per day | 2040.00 |
| 7 7/8 Diamond Bit | 3500.00 |
| 3 Reamer Body Rental @165.00 each | 495.00 |
| 7 Sets 7 7/8 Reamer Outters @ 315.00 each | 2205.00 |
| 6 1/2" x 10' Steel Drill Collar 56 Days @ 9.00 per day | 504.00 |
| Miscellaneous subs, trucking, mileage, etc. | 600.00 |
| | \$ 42,517.50 |

Average cost per day -- \$ 708.63

Can: 5891

drill site * Section 25, Tourship 20 South, Range 32 East

Case Sarl

JAMES T. JENNINGS SIM B. CHRISTY IV. BRIAN W. COPPLE RUBERT O. ARMSTRONG LAW OFFICES OF JENNINGS, CHRISTY & COPPLE IOI2'SECURITY NATIONAL BANK BUILDING P. O. BOX 1180 ROSWELL, NEW MEXICO BOCO:

March 1, 1977

TELEPHONE 622-8432 Area Code 505

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

Attention: Mr. Joe D. Ramey Secretary-Director

Gentlemen:

We enclose herewith in triplicate Application by Sam H. Snoddy for directional drilling pursuant to Rule 111, Lea County, New Mexico.

In view of the fact that I have jury trials both April 4 and April 6, and again April 13-15, I would appreciate it if you would not set the matter for hearing on those dates. If there is a problem on the matter, I would appreciate a telephone call.

Respectfully,

JENNINGS, CHRISTY & COPPLE

Ву Β.

SBC:pv

Encl.

cc: Mr. Sam H. Snoddy

BEFORE THE NEW MEXICO OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF SAM H. SNODDY FOR DIRECTIONAL DRILL-ING PURSUANT TO RULE 111, LEA COUNTY, NEW MEXICO.

to:

Case No. 5891

APPLICATION

COMES NOW Sam H. Snoddy and pursuant to Rule 111 of the Oil Conservation Commission Rules hereby makes application to directionally drill two wells in Lea County, New Mexico, and states: 1. Applicant is the owner of a farmout from the record title holder, Felmont Oil Corporation, covering U.S.A. Lease NM-15907 as

Township 20 South, Range 32 East, N.M.P.M.

Section 25: N¹/₂, SW¹/₄

2. Applicant is further the owner and holder of a right to use and possess the surface estate, for the purpose of drilling for oil, gas and associated hydrocarbons, of a five acre tract in the form of a square in the extreme Northwest corner of the NW4SE4 Section 25, Township 20 South, Range 32 East, N.M.P.M.

3. Applicant proposes from his surface location aforesaid to drill a well, within the confines of the NW\2SE\2 of said Section 25 to a depth of not less than 3,000 feet, and thereafter directionally drill such well to a location in approximately the center of the NE\2 of said Section 25 at a projected total depth of 13,500 feet or sufficient depth to test the Lower Morrow zone of the Pennsylvanian formation.

4. Applicant proposes from his surface location aforesaid to drill a well, within the confines of the NW\SE\ of said Section 25 to a depth of not less than 3,000 feet, and thereafter directionally drill such well to a location in approximately the center of the SW& of said Section 25 at a projected total depth of 13,500 feet or sufficient depth to test the Lower Morrow zone of the Pennsylvanian formation.

5. Applicant hereby requests the Oil Conservation Commission to grant permission to directionally drill said wells, and each of them, and states that in his opinion the granting of this Application will result in the prevention of waste and will not violate the correlative rights of any interested parties. Applicant agrees to comply with all provisions of Rule 111, and all other applicable rules incident to the drilling, testing, completing and producing of the directionally drilled wells sought by this Application.

Sam H. Snoddy

202 Mid-America Building Midland, Texas 79701

JENNINGS, CHRISTY & COPPLE

By S. B. Christy IV, as a Member of the Firm P. O. Box 1180 Roswell, New Mexico 88201 (505) 622-8432 Attorneys for Applicant

cc: (Certified Mail) Texaco Jnc. P. O. Box 3109 Midland, Texas 79701

> Felmont Oil Corporation P. O. Box 2266 Midland, Texas 79701

Mrs. Emily Bingham c/o Tom Bingham P. O. Box 163 Hobbs, New Mexico 88240

United States Geological Survey P. O. Drawer 1857 Roswell, New Mexico 88201

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|------------------------|--|----------|--|--|--|--|
| DRAFT ' | | | | | | |
| Alternative Press, Lag | BEFORE THE OIL CONSERVATION COMMISSION | | | | | |
| dr/ | OF THE STATE OF NEW MEXICO | | | | | |
| ur/ | | | | | | |
| | IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION | | | | | |
| | COMMISSION OF NEW MEXICO FOR THE PURPOSE OF CONSIDERING: | | | | | |
| | | • | | | | |
| $\sim \sqrt{k}$ | CASE NO. 5891 | | | | | |
| | Order No. R- <u>5408</u> | | | | | |
| | FOR DIRECTIONAL DRILLING AND A | | | | | |
| | NON-STANDARD GAS PRORATION UNIT, LEA COUNTY, NEW MEXICO. | | | | | |
| | | | | | | |
| - | ORDER OF THE COMMISSION | | | | | |
| 1.42 (24) | BY THE COMMISSION: | | | | | |
| | This cause came on for hearing at 9 a.m. on March 23 , | | | | | |
| | 19 <u>77</u> , at Santa Fe, New Mexico, before Examiner <u>Richard L. Stamets</u> . | | | | | |
| | NOW, on this day of , 19 77, 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, Sam H. Snoddy, seeks approval of a | | | | | |
| | 160-acre non-standard gas proration unit comprising the SW/4 of | | | | | |
| | Section 25, Township 20 South, Range 32 East, NMPM. | <u>.</u> | | | | |
| | (3) That applicant further seeks approval for the directional | | | | | |
| | drilling of two 13,500 foot Morrow test wells from a single | | | | | |
| | drilling site in the extreme Northwest five acres of the NW/4 SE/4 | | | | | |
| | of Section 25, Township 20 South, Range 32 East, Potash-Oil Area, | | | | | |
| | Lea County, New Mexico. Applicant proposes to vertically drill | | | | | |
| | each of said wells to a depth of approximately 3000 feet and to | - | | | | |
| | then directionally drill one well in a Northeasterly direction | | | | | |
| | bottoming said well in the approximate center of the NE/4 of said | | | | | |
| | Section 25, and to then directionally drill the other well in a | - | | | | |
| - | Southerwesterly direction, bottoming said well in the approximate | • | | | | |
| | center of the SW/4 of said Section 25. | | | | | |
| | Center of the BH/4 of Safu Becchon 23. | | | | | |
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-2-Case No. 5891 Order No. R-

(4) That the entire non-standard proration unit may reasonably be presumed productive of gas from the South Salt Lake-Morrow Gas Pool and that the entire non-standard gas proration unit can be efficiently and economically drained and developed by the aforesaid in the Sulfi to be completed thereon. If said pectant.

(5) That approval of the subject application will afford the applicant the opportunity to produce his just and equitable share of the gas in the South Salt Lake-Morrow Gas Pool, will prevent the economic loss caused by the drilling of unnecessary wells, avoid the augmentation of risk arising from the drilling of an excessive number of wells, and will otherwise prevent waste and protect correlative rights, provided that the applicant should be required to determine the subsurface locations of the bottom cached of the holes by means of a continuous multi-shot directional survey conducted subsequent to directional drilling, if said wells are to be completed as producing wells.

IT IS THEREFORE ORDERED:

(1) That the applicant, Sam H. Snoddy, is hereby authorized to directionally drill two wells to test the Morrow formation, all in Section 25, Township 20 South, Range 32 East, South Salt Lake-Morrow Gas Pool, Lea County, New Mexico, and with acreage dedications as follows:

Federal Well No. 1, from a surface location at least 10 feet from any quarter section line in the extreme Northwest five acres of the NW/4 SE/4 of said Section 25 to a bottom-hole location within 200 feet of a point 1320 feet from the North and East lines with the N/2 of said Section 25 being dedicated thereto. -3-Case No. 5891 Order No. R-

> Federal Well No. 2, from a surface location at least 10 feet from any quarter section line in the extreme Northwest five acres of the NW/4 SE/4 of said Section 25 to a bottom hole location with 4200 feet of a point 1320 feet from the South and West lines with the SW/4 of said Section 25, a 160-acre non-standard gas proration unit hereby approved, being dedicated thereto.

PROVIDED HOWEVER, that each of said wells shall be drilled vertically to a depth of 3000 feet and thence directionally to their intended bottom-hole locations.

<u>PROVIDED FURTHER</u>, that subsequent to the above-described directional drilling, should said wells be producers, a continuous multi-shot directiona' survey shall be made of the wellbore from total depth to the surface, or to the whipstock point if the same has been determined in this manner, 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 surveys are to be commenced.

(2) That Form C-105 shall be filed in accordance with Commission Rule 1108 and the operator shall indicate thereon true vertical depths in addition to measured depths.

(3) Jurisdection

-3-Case No. 5891 Order No. R-

> Federal Well No. 2, from a surface location at least 10 feet from any quarter section line in the extreme Nurthwest five acres of the NW/4 SE/4 of said Section 25 to a bottom hole location with#200 feet of a point 1320 feet from the South and West lines with the SW/4 of said Section 25, a 160-acre non-standard gas proration unit hereby approved, being dedicated thereto.

<u>PROVIDED HOWEVER</u>, that each of said wells shall be drilled vertically to a depth of 3000 feet and thence directionally to their intended bottom-hole locations.

<u>PROVIDED FURTHER</u>, that subsequent to the above-described directional drilling, should said wells be producers, a continuous multi-shot directional survey shall be made of the wellbore from total depth to the surface, or to the whipstock point if the same has been determined in this manner, 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 surveys are to be commenced.

(2) That Form C-105 shall be filed in accordance with Commission Rule 1108 and the operator shall indicate thereon true vertical depths in addition to measured depths.

(3) Jurisdeitim

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