

CASE 5915: C.W. TRAINER FOR DIRECTIONAL  
DRILLING, LEA COUNTY, NEW MEXICO

Case Number

5915

Application

Transcripts

Small Exhibits

ETC.

BEFORE THE  
NEW MEXICO OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico  
May 25, 1977

EXAMINER HEARING

IN THE MATTER OF:

Application of C. W. Trainer for  
directional drilling, Lea County,  
New Mexico.

CASE  
5915

BEFORE: Richard L. Stamets, Examiner

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the New Mexico Oil  
Conservation Commission:

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For the Applicant:

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1 MR. STAMETS: At this time we will call Case Number  
2 5915.

3 MS. TESCHENDORF: Case 5915, application of C. W.  
4 Trainer for directional drilling, Lea County, New Mexico.

5 MR. HUNKER: George H. Hunker, Jr. Roswell, New Mexico,  
6 representing C. W. Trainer in this case and I have three  
7 witnesses to be sworn.

8 MR. STAMETS: Let's have all of the witnesses stand  
9 and be sworn at this time, please.

10 (THEREUPON, the witnesses were duly sworn.)

11 MR. FORNACIARI: Excuse me, Mr. Examiner, my name is  
12 Jeffery Fornaciari, Santa Fe, New Mexico with the law firm of  
13 Olmsted & Cohen and I'm appearing on behalf of Noranda Explora-  
14 tion, Incorporated which is the owner-holder of the potassium  
15 or potash lease covering Section 24 and we have arranged to get  
16 copies of the exhibits from Mr. Hunker.

17  
18 C. W. TRAINER  
19 called as a witness, having been first duly sworn, was examined  
20 and testified as follows:

21  
22 DIRECT EXAMINATION

23 BY MR. HUNKER:

24 Q Mr. Trainer, will you give for the record your correc-  
25 name, address and occupation?

1 A. I'm C. W. Trainer, I live at 8201 Espanola, E-s-p-a-  
2 n-o-l-a, Austin, Texas, 78737.

3 Q. What is your occupation?

4 A. I'm an independent oil producer.

5 Q. Have you drilled and operated a number of wells in  
6 the State of New Mexico?

7 A. I imagine more than a hundred. I never worked  
8 anywhere else.

9 Q. You are the applicant in this case, describe, if you  
10 will, the nature of what you propose to do?

11 A. Well, we propose to produce our Morrow gas under  
12 the north half of Section 24 and we are suggesting that we  
13 locate the well up in Section 13 near the old well, Flag-  
14 Redfern Hanson State Well which was my deal a couple of years  
15 ago and directly drill our well and put the bottom a half a  
16 mile south at a legal location in the north half of Section 24.

17 Q. Is the Section 13 acreage State of New Mexico land?

18 A. Yes, it's State land.

19 Q. And the Section 24 acreage, what kind of land is  
20 that?

21 A. United States government.

22 Q. Do you have an interest in the Federal tract embracing  
23 the north half of Section 24 in 20 South, 32 East?

24 A. Yes.

25 Q. What is the nature of that interest?

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1 A Well, my partner and I own a quarter of the thing  
2 as record owners and then we have farmouts from the other  
3 owners for the drilling of this well.

4 Q Do you have permission from the owner of the tract  
5 involving the surface location to locate your well at the  
6 point that you have located it?

7 A Yes, and I have worked with him to be sure that  
8 everybody is happy about it.

9 Q Why do you propose to drill the well upon the State  
10 of New Mexico tract, Mr. Trainer, in the proximity of the  
11 old well referred to as the Flag-Redfern Hanson State No. 1?

12 A In this area the potash companies have prevented the  
13 drilling of a number of wells, as a matter of fact, one on  
14 this north half of 24 about a year ago and so it was my idea  
15 that if we didn't waste any of the potash, if we get up  
16 there by Redfern's well where it is already wasted, then we  
17 wouldn't spoil anything and we all could go ahead and drill,  
18 so it is an obvious attempt to get to drill my well without  
19 interference from the potash people.

20 Q Have you prepared a surface plat showing the  
21 locations of the Boyd No. 1 Well, which is your new well, and  
22 as it relates to the Flag-Redfern Hanson State No. 1?

23 A Yes, I have and it is marked Exhibit One.

24 Q Is that plat drawn to scale?

25 A Yes, the scale of one inch is equal to one hundred

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1 feet.

2 Q Approximately how far north and east of the old well  
3 is the No. 1 Boyd?

4 A It's about a hundred and seventy some feet away from  
5 it.

6 Q Why did you locate it north of the well instead of  
7 south of the well, south of the Flag-Redfern well?

8 A Of course, if I had located it south of the well,  
9 without considering that pipeline there, my reserve pit could  
10 only come up about to their pad and I would be moving a long  
11 way from it and spoil more potash. Now, when I first located  
12 east, that's where I wanted, due east, but when we surveyed  
13 that location we found this pipeline across there that we  
14 couldn't drill on top of so I had to move to dodge the pipeline  
15 and I was trying to stay as close to my circle where the  
16 potash was there. In other words, I was trying not to spoil  
17 any unnecessary potash.

18 Q In connection with the potash that occurs in this  
19 area, at what depth does this occur?

20 A It's in the Salado section or the salt section between  
21 about twelve hundred and twenty-four hundred feet, I believe.

22 Q And how deep does it go?

23 A Well, you are out of it at about twenty-four  
24 hundred.

25 Q Out of it at twenty-four hundred feet?

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1 A Now, they required me to set the thirteen and three-  
2 eighths casing at twenty-three hundred feet to be well below  
3 it in this well.

4 Q When you say, "they" required that you do this,  
5 whose requirement was this?

6 A This was both the Oil Conservation Commission and  
7 the USGS.

8 Q The district engineer?

9 A Yes, in Hobbs.

10 Q The district engineer in Hobbs?

11 A Right.

12 Q And you say that an attempt was made within the last  
13 year to drill a test well on the north half of Section 24, is  
14 that correct?

15 A Yes, Flag-Refern staked the location and filed the  
16 form and got some protest, I don't believe it came to hearing.

17 Q There was an arbitration, however?

18 A I just saw copies of the paperwork, I'm not for  
19 certain what happened. I got a title opinion from the lawyer  
20 that represented them when they got through but that's all I  
21 really know for a fact.

22 Q And what did the opinion indicate?

23 A It indicated that we couldn't drill there. It  
24 suggested that we might do this, that's where I got the idea  
25 from.

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1 Q So you propose to drill your No. 1 Boyd directionally  
2 to an orthodox location in the north half of Section 24, is  
3 that correct?

4 A That is correct.

5 Q Have you employed experts to assist you in the  
6 drilling of this intentionally deviated well?

7 A Yes, I couldn't do it without them.

8 Q Who have you employed?

9 A I have employed Foy Boyd and Associates of Midland,  
10 Texas, who are consulting engineers and they will drill the  
11 whole well for me, supervise the whole thing and they will be  
12 working with a directional surveying company called Directional  
13 Investment Guidance, Inc., DIG. I love that name DIG but  
14 I've known Glen Harbert, the President, for fifteen years and  
15 I know that he knows what he is doing.

16 Q Will you describe the prognosis for the well that  
17 has been recommended to you by DIG?

18 A Well, we are going to drill straight to about  
19 sixty-six hundred and fifty feet and then start building the  
20 angle to as shown on the plat there and at about a thousand  
21 feet I believe he will have it up to twenty-four degrees and  
22 then just hold it on until he gets where he is going.

23 Q Let me emphasize again, you plan to drill the well  
24 vertically to about sixty-six hundred feet?

25 A Yes.

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1 Q And at that point you will have gone through the  
2 potash ore body, is that correct?

3 A Oh, yes, we will be way below it.

4 Q So at sixty-six hundred and fifty feet you will  
5 deviate the well in a southerly direction, is that correct?

6 A That is correct.

7 Q To bottom the hole nineteen hundred and eighty feet  
8 from the west and nineteen hundred and eighty feet from the  
9 north line of Section 24, is that correct?

10 A That is correct, that's the plan. Now, we have also  
11 planned the job so that our Bone Springs zone at ten thousand  
12 and two hundred feet, we'll penetrate it under the Federal  
13 lease. We couldn't produce it under the State lease because  
14 it is already produced.

15 Q Why are you interested in the Bone Springs?

16 A Well, it's a flowing oil well in the offset, it might  
17 produce.

18 Q In other words, the Flag-Redfern is producing from  
19 the Bone Springs?

20 A Yes.

21 Q Now, did you take preliminary steps a month or more  
22 ago with regard to the Commission's requirements as regards  
23 potash under Rule R-111 as amended?

24 A Yes, we filed a notice of intention to drill this  
25 well with all of this business we are talking about here and

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1 at the same time sent copies out to all of the owners of  
2 potash leases within one mile of our well as you set out in  
3 R-111-A, registered mail, return receipt requested and all  
4 of the receipts came back and at the end of the ten-day time  
5 there were no protests.

6 Q Did the Commission office in Hobbs advise you of  
7 this fact?

8 A Yes, they did, in fact they wrote me a short letter  
9 saying they had no protests.

10 MR. HUNKER: I would like the Examiner to take  
11 notice of the fact that the office in Hobbs has notified  
12 Mr. Trainer that no notice was received in response to the  
13 notices of intention to drill that he sent out.

14 MR. STAMETS: We will so note.

15 Q (Mr. Hunker continuing.) Will the drilling of the  
16 No. 1 Boyd, Mr. Trainer, in the manner that you've proposed  
17 and as recommended by your consultant, prevent waste, protect  
18 correlative rights and assure the maximum conservation of oil,  
19 gas and potash and at the same time permit economic recovery  
20 of these minerals?

21 A I believe it surely will.

22 MR. HUNKER: I have no further questions of this  
23 witness.

24 MR. STAMETS: I presume you will have an expert on  
25 directional drilling?

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1 MR. HUNKER: Yes, sir, I will and we will recall  
2 Mr. Trainer if we need anything else.

3 MR. STAMETS: Any questions of this witness? He may  
4 be excused.

5 (THEREUPON, the witness was excused.)

6 MR. HUNKER: Mr. Harbert.

7

8 GLEN HARBERT

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

11

12 DIRECT EXAMINATION

13 BY MR. HUNKER:

14 Q For the record will you please state your name and  
15 your address?

16 A My name is Glen Harbert, I live at 3208 Camarie,  
17 Midland, Texas.

18 Q And your name is spelled G-l-e-n, H-a-r-b-e-r-t, is  
19 that correct?

20 A Yes, sir.

21 Q What is your occupation?

22 A I'm President of Directional Investment Guidance, Inc  
23 and we are in the directional drilling business.

24 Q How long have you been associated with DIG?

25 A Since its inception in December of 1975.

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1 Q Now, with what company were you associated prior to  
2 that time?

3 A Eastman Whipstock, I was Regional Vice President for  
4 Eastman Whipstock.

5 Q How long have you been working in the area of  
6 intentionally deviated wells, Mr. Harbert?

7 A Since 1955.

8 Q About how many have you supervised or planned?

9 A It would be in excess of a thousand.

10 Q Have you made a study of C. W. Trainer's proposed  
11 No. 1 Boyd Well and the hole that is to be intentionally  
12 deviated?

13 A Yes, sir.

14 Q I would like for you to turn to what has been  
15 marked as Applicant's Exhibit Number Two and explain to the  
16 Examiner what basic facts were given to you and what materials  
17 you had in the preparation of that exhibit?

18 A Well, Exhibit Two is a two degrees per one hundred  
19 foot angle build up schedule and it was derived by the informa-  
20 tion that was given to us. This number one is the surface  
21 location of the Boyd Well No. 1 and also the bottom-hole  
22 location of the Boyd Well No. 1 and we had bit records and  
23 daily drilling reports in the Flag-Redfern Hanson State No. 1  
24 that we utilized in drawing up this angle build up schedule  
25 and also we were given a secondary target or another target at

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1 ten thousand two hundred foot vertical depth which is in the  
2 Bone Springs. This is an additional target to the Morrow.

3 Q I would like for you to turn now to the exhibit  
4 that is marked Number Three, being a plat, and I will ask you  
5 if you prepared this plat in connection with the proposed  
6 deviated hole?

7 A Yes, sir.

8 Q Looking to the left-hand side of that plat, will you  
9 tell the Examiner what that projection shows?

10 A The left-hand side of Exhibit Three is a vertical  
11 view of our proposed course that we will drill the well and it  
12 shows the rate of angle increase which is up to twenty-four  
13 degrees and twenty minutes average and it shows the displace-  
14 ment from the surface location in Section 13 on where the  
15 placement of the wellbore will be at ten thousand two hundred  
16 vertical depth and it also shows the bottom-hole location  
17 placement at thirteen thousand five hundred true vertical  
18 depth.

19 Q Referring to the center part of that same plat what  
20 does that projection depict?

21 A That reflects the surface location of the Boyd No. 1,  
22 the target area at ten thousand two hundred feet true vertical  
23 depth and the target area at thirteen thousand true vertical  
24 depth in relation to the section lines.

25 Q Referring to the right-hand projection will you

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1 explain to the Examiner what this projection shows?

2 A Well, basically in the right-hand side of the plat  
3 we have a -- it's a horizontal projection or horizontal view  
4 of the surface location and the two target areas and it also  
5 shows the placement of the surface old location of the Flag-  
6 Redfern Hanson State and there is a slashed circle around the  
7 Flag-Redfern well that designates the maximum displacement that  
8 this well could have from the surface location at a depth of  
9 seventy-six hundred and fifty foot. And it also shows the  
10 section line, Section 13 and Section 24 section line.

11 MR. STAMETS: Excuse me, now, did you calculate that  
12 by just projecting all of the Totco's in one direction?

13 A Yes, sir, this is how the slashed circle was arrived  
14 at was from the drilling records of the Flag-Redfern well and  
15 just the inclination surveys that were taken on it.

16 Q (Mr. Hunker continuing.) Did you also prepare an  
17 exhibit referred to as Number Four wherein you recommended  
18 certain directional drilling procedures?

19 A Yes, sir.

20 Q Will you describe briefly to the Examiner what those  
21 recommended procedures are?

22 A Exhibit Four is just a brief condensed recommended  
23 directional drilling procedure starting at the surface and  
24 carrying on through to TD and it's just a brief summary of  
25 recommendations on single-shot surveying on the upper portion

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1 of the hole down to our kickoff point and then our deflecting  
2 assemblies and drilling assemblies from that point on down to  
3 TD.

4 Q Will continuous surveys be made of this hole as it  
5 is drilled if these recommendations are approved?

6 A There will be continuous single-shot surveys taken  
7 as the well is drilled, whereas we will know where the wellbore  
8 is at any point.

9 Q You have recommended that the well be drilled  
10 vertically to a depth of sixty-six hundred and fifty feet, is  
11 that correct?

12 A Correct.

13 Q Would you make a comparison, please, as between the  
14 Flag-Redfern well, the well that has already been drilled and  
15 the Boyd No. 1 Well, will those two wells proceed in substan-  
16 tially the same manner, in other words the deviation, will the  
17 deviation remain about the same for both wells that are drilled?

18 A Yes, sir, in my opinion it will.

19 Q Where is the most dangerous point at, what point, in  
20 other words, could you come the closest to encountering the  
21 wellbore of the No. 1 Hanson State?

22 A Without a directional survey on the Hanson well you  
23 really can't pick a point which will be the most dangerous  
24 point. I will say from calculations of the inclination survey  
25 and our projection on the Boyd directional well, that when we

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1 reach the depth in the directional well of seventy-six fifty  
2 we would be past the point where there would be any danger  
3 whatsoever of encountering the Hanson well, the Flag-Redfern  
4 well.

5 Q Is the possibility very remote?

6 A Very remote. In my opinion it would be almost  
7 impossible. I would hate to drill a relief well if the Hanson  
8 well were blowing out and we had a need to get twenty to  
9 thirty feet from it.

10 Q Well, as you drill the first seventy-five hundred  
11 feet of this Boyd No. 1 Well and as you are taking the  
12 continuous survey, in the event that you found that you were  
13 not going in the proper direction, could you correct the hole  
14 at that time?

15 A Yes, sir.

16 Q And would you immediately recommend that it be  
17 corrected?

18 A Yes, sir.

19 MR. HUNKER: I have no further questions of this  
20 witness, Mr. Examiner.

21  
22 CROSS EXAMINATION

23 BY MR. STAMETS:

24 Q Mr. Harbert, when will the survey be run on the  
25 kickoff point?

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1 A My proposal is to after the conductor pipe is set or  
2 surface pipe, I should say, is set, the well will be monitored  
3 with a non-magnetic drill collar in the hole as it is drilled  
4 with single-shots taken at intervals down to the kickoff point.

5 Q The normal order that the Commission issues in a  
6 case like this requires that the kickoff point be determined  
7 by a continuous multi-shot survey as well as the final bottom-  
8 hole but you will know on your way down where you are from,  
9 what, thirty-one fifty, is that right? You will start your  
10 single-shots at thirty-one fifty?

11 A Yes, sir.

12 Q I believe I'm wrong, I believe it says here --

13 A Well, now, this is where the casing is set, below  
14 the surface pipe and on my notes here, I don't have or on the  
15 recommended procedure I don't have the depth of the surface  
16 pipe.

17 Q Okay.

18 A But below the surface pipe.

19 Q Okay, you have indicated that you would run a  
20 continuous survey from the total depth to the surface following  
21 completion of the well?

22 A Yes, sir.

23 Q You feel that is sufficient, will all of these tests  
24 be sufficient so you can hit this two hundred foot target area?

25 A Yes, sir, the single-shot surveys will be accurate

1 enough so that there would be very little deviation from the  
2 gyro survey or the continuous multi-shot survey that would be -  
3 the multi-shot gyro survey that would be run at TD.

4 Q As a rule of thumb, how close can you safely drill  
5 to another well?

6 A I have been involved in a number where the surface  
7 locations were just a few feet apart with one well going, not  
8 having a directional survey on it, still here again working on  
9 the assumption that any straight hole unless there is a fault  
10 between the two wellbores that the placement of the wellbore  
11 at any depth will be basically the same distance.

12 Q A few feet, twenty-five feet or less?

13 A Yes, sir, twenty-five foot or less.

14 Q Now in this particular well how severe is that  
15 twenty-four degree angle, is it quite severe or moderately  
16 severe in your experience?

17 A That's not severe, it's a minor amount of angle.

18 MR. STAMETS: Any other questions of the witness?

19 Mr. Ramey.

20

21

CROSS EXAMINATION

22 BY MR. RAMEY:

23 Q Assuming you have, say, a twelve thousand foot well  
24 and you want to set a surface location within a hundred feet  
25 of that and directionally drill perhaps two twelve thousand

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1 foot to vertical depth wells and you don't have a directional  
2 survey on the original well, would you consider that a safe  
3 operation?

4 A I would say -- you mean getting within this limita-  
5 tions of the --

6 Q You've got a hundred foot surface location and the  
7 other two wells you are going to drill from the existing  
8 vertical well?

9 A Yes, sir, that would be very safe with two hundred  
10 foot, yes, sir.

11 MR. RAMEY: Thank you.

12 MR. STAMETS: Any other questions? The witness may  
13 be excused.

14 (THEREUPON, the witness was excused.)

15 MR. STAMETS: Let's go off the record a minute.

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

18 MR. STAMETS: Go back on the record.

19  
20 JOHNNY W. MULLOY

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

23  
24 DIRECT EXAMINATION

25 BY MR. HUNKER:

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1 Q Will you state your name and address, please, for  
2 the record, Mr. Mulloy?

3 A Johnny W. Mulloy, 2503 Camarie, Midland, Texas.

4 Q What is your occupation?

5 A I'm a Petroleum Engineer.

6 Q What is your scholastic background?

7 A I have a degree in petroleum engineering from Texas  
8 Tech University and I'm a registered professional engineer in  
9 the State of Texas.

10 Q For whom did you work when you first got out of  
11 college?

12 A I worked for Texaco five years in Hobbs, New Mexico  
13 and two years in Texas for Texaco. I left Texaco and went to  
14 Coastal States for four years where I was the operations  
15 engineer. I left them and went to American Trading where I  
16 was Operations Manager for three years. For the last three  
17 years I have been Manager of all of the operations for Foy  
18 Boyd and Associates, a consulting engineering firm that special  
19 izes basically in drilling and completion and prepare planning  
20 and drilling completions of oil and gas wells.

21 Q And have you had a good deal of experience with  
22 Foy Boyd in the area of intentionally deviated wells?

23 A In about the last two or three years we have  
24 deviated several wells, four of which I have a specific record  
25 here of, several others that were minor and uncontrolled. The

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1 most recent well that we supervised was in conjunction with  
2 the previous witness, Mr. Harbert, Transwestern's Winfield "D"  
3 No. 2, Pecos County. We had a kickoff point at eighteen  
4 thousand two fifty and we built a maximum angle of thirty-three  
5 degrees and fifteen minutes at a measured depth of twenty-one  
6 thousand three hundred and twenty-four feet. We had built to a  
7 thirty-three degree angle. Our true vertical depth at the  
8 completion of the well was twenty-two thousand five hundred  
9 and thirty-one and a measured depth of twenty-three thousand  
10 one hundred and fifty feet. That was a horizontal displacement  
11 of nineteen hundred and twenty-one feet from the surface  
12 location to the bottom of the hole.

13 Two other wells we drilled for Mid-American Oil and  
14 Gas, both in Pecos County, one we kicked off at forty-three  
15 hundred and forty-nine feet, built only to a maximum angle of  
16 eleven degrees. We continued to drill this well to a true  
17 vertical depth of twenty-two thousand, six hundred and twenty-  
18 eight and a measured depth of twenty-two six ninety. The  
19 horizontal displacement was eight hundred and eighty-one feet  
20 and on the Sibley No. 1 also in Pecos County, we kicked off at  
21 sixteen four and built to an angle of about eighteen degrees.  
22 I don't have that in my notes, I'm not sure what that was for  
23 a horizontal displacement of nine hundred and eighty-five feet.

24 Probably the most outstanding deviation job that we  
25 have been associated with was for an operator, Dalton H. Cobb,

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General Court Reporting Service  
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Phone (505) 962-9212

1 on his Foote Paine No. 1, also in Pecos County. This well  
2 had deviated itself in a southeasterly direction and had  
3 become deviated to a critical point. At the same time we  
4 decided we were going to have to straighten up the hole  
5 mechanically to be able to actually stay on the lease. It  
6 looked like we were crooked enough that there was actually a  
7 possibility of getting off the lease. The geological informa-  
8 tion indicated that it would have been very convenient had  
9 the well been staked some distance to the north and east of  
10 where it was staked so the decision was made to deviate the  
11 well, we dropped angle and turned it back under itself and  
12 almost reversed its direction one hundred and eighty degrees.  
13 We ended up with a maximum angle of forty-eight degrees. The  
14 true vertical depth of that well was twenty-two thousand  
15 two hundred and twenty feet and the measured depth was twenty-  
16 eight eleven. We achieved a horizontal displacement of  
17 thirteen hundred and fourteen feet and we were probably close  
18 to seven or eight hundred feet in the wrong direction when  
19 we started the deviation. That actual deviation is from the  
20 surface location.

21 Several other wells have been unintentionally  
22 deviated around junk, generally around some piece of junk. There  
23 were all intentionally deviated to reach a more opportune  
24 position on the structure.

25 Q Will Foy Boyd supervise the engineering in connection



1 with Trainer's No. 1 Boyd Well?

2 A. Yes, sir.

3 Q. During the drilling of that well, will you as the  
4 supervising engineer be furnished with the survey data that  
5 is developed as the well is drilled?

6 A. Yes.

7 Q. What do you do with that data, do you plot it or --

8 A. A plot, a copy of this actual plat will be kept in  
9 our office and on the rig. Normally on the morning report,  
10 sometimes you may not make a check on where you are every day,  
11 it depends on the footage you made and the condition of the  
12 hole but each time a point comes in you plot it actually on  
13 this plat as a representation of how close you are to what  
14 you plan to do, both horizontally and vertically. You have  
15 a north-south direction here and a true vertical depth and  
16 a displacement here that allows you to put a point where you  
17 are in the vertical plane and the horizontal plane at all  
18 times. Very seldom would you drill over fifty feet, maybe  
19 more, maybe a hundred feet, without having that type of  
20 information.

21 Q. Have you reviewed the recommended directional  
22 drilling procedures prepared by Mr. Harbert?

23 A. Yes, sir, I have.

24 Q. Are you familiar with the procedures that he has  
25 recommended?

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1 A. Yes, I am.

2 Q. For example, you are familiar with the rock bits and  
3 the dyna-drills and those devices that are used in deviating  
4 holes?

5 A. Yes, sir.

6 Q. And based on your experience in this area, in your  
7 opinion can Mr. Trainer's goal be accomplished in this  
8 particular well?

9 A. Yes, sir.

10 MR. STAMETS: I don't believe you qualified your  
11 witness but the Examiner after hearing everything at this  
12 point considers him well qualified.

13 MR. HUNKER: I appreciate that.

14 Q. (Mr. Hunker continuing.) Have you reviewed the  
15 maximum horizontal displacement calculations made by Mr.  
16 Harbert in connection with those recommendations?

17 A. Yes, I have. I have not duplicated his calculations.  
18 I assume his calculations are mathematically correct but his  
19 maximum displacement is well within the range of what his  
20 angle build up program would permit.

21 Q. Were you furnished with copies of the daily drilling  
22 log in connection with the Flag-Redfern well?

23 A. Yes, I was.

24 Q. Do you anticipate any difficulty at all will be  
25 encountered in drilling the Boyd No. 1 Well as regards the

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1 borehole of the Flag-Redfern well?

2 A. No.

3 Q. Do you feel that the procedures that have been  
4 recommended can safely be followed by the operator in this  
5 particular instance?

6 A. Yes, sir.

7 Q. Are you aware of wells that have been drilled in  
8 Alaska or in offshore locations where the wellbores are located  
9 relatively close to each other?

10 A. By hearsay only. Personally I have not been associated  
11 with any of that type.

12 Q. But you know it's done?

13 A. I know it's done, yes, sir.

14 MR. HUNKER: I have no other questions of this  
15 witness. I neglected to cover one exhibit with my other witness,  
16 though, Mr. Harbert, and I would like to recall him, but you  
17 may examine Mr. Mulloy.

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

20 (THEREUPON, the witness was excused and  
21 Mr. Harbert was recalled.)

22

23

GLEN HARBERT

24 recalled as a witness, having been previously sworn, was  
25 examined and testified as follows:

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Phone (505) 982-9212

REDIRECT EXAMINATION

1  
2 BY MR. HUNKER:

3 Q Mr. Harbert, did you prepare an inclination survey  
4 based on the Hanson State No. 1 Well?

5 A Yes, sir.

6 Q And is that Exhibit Number Five?

7 A Yes.

8 Q Is there anything unusual about that particular  
9 well that you would like to call the Examiner's attention to,  
10 the deviations, in other words, are they relatively normal?

11 A Normal of a field top well from the records that I  
12 have looked at in that area.

13 MR. HUNKER: We would like to offer into evidence  
14 Applicant's Exhibits One through Five and we have nothing further  
15 to offer at this time.

16 MR. STAMETS: These exhibits will be admitted.

17 (THEREUPON, Applicant Exhibits One through  
18 Five were admitted into evidence.)

19 MR. STAMETS: Is there anything further in this  
20 case? The case will be taken under advisement.

21

22

23

24

25

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General Court Reporting Service  
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Phone (505) 982-9212

## 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.

*Sidney F. Morrish*  
Sidney F. Morrish, C.S.R.

**sid morrish reporting service**

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

I do hereby certify that the foregoing is  
a complete record of the proceedings in  
the Examiner hearing of Case No. 5715  
heard by me on 10-25-1977  
*Richard A. Smith*, Examiner  
New Mexico Oil Conservation Commission

BEFORE THE  
NEW MEXICO OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico  
May 11, 1977

EXAMINER HEARING

IN THE MATTER OF:

Application of C. W. Trainer for  
directional drilling, Lea County,  
New Mexico.

CASE  
5915

BEFORE: Richard L. Stamets, Examiner

TRANSCRIPT OF HEARING

A P P E A R A N C E S

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

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Phone (505) 962-9212

1 MR. STAMETS: We will call next Case 5915.

2 MS. TESCHENDORF: Case 5915, application of C. W.  
3 Trainer for directional drilling, Lea County, New Mexico.

4 The applicant in this case has asked that we  
5 continue the case to the May 25th Examiner Hearing.

6 MR. STAMETS: Case 5915 will be so continued.

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Phone (505) 982-9212

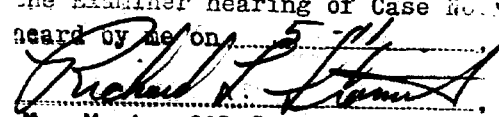
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REPORTER'S CERTIFICATE

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.

  
Sidney F. Morrish, C.S.R.

**sid morrish reporting service**  
General Court Reporting Service  
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501  
Phone (505) 962-9212

I do hereby certify that the foregoing is  
a true and correct record of the proceedings in  
the Examiner hearing of Case No. 5915  
heard by me on 5-11, 1977  
, Examiner  
New Mexico Oil Conservation Commission





# OIL CONSERVATION COMMISSION

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



DIRECTOR  
JOE D. RAMEY

LAND COMMISSIONER  
PHIL R. LUCERO  
June 9, 1977

STATE GEOLOGIST  
EMERY C. ARNOLD

Mr. George Hunker  
Hunker-Pedric  
Attorneys at Law  
Post Office Box 1837  
Roswell, New Mexico 88201

Re: CASE NO. 5915  
ORDER NO. R-5438

Applicant:

C. W. Trainer

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 OCC X  
Artesia OCC X  
Aztec OCC           

Other Jeff Fornaciari

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. 5915  
Order No. R-5438

APPLICATION OF C. W. TRAINER 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 May 25, 1977,  
at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 8th day of June, 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, C. W. Trainer, seeks approval for  
the directional drilling of his Boyd Well No. 1, the surface  
location of which would be 830 feet from the South line and 2130  
feet from the West line of Section 13, Township 20 South, Range  
32 East, NMPM, Lea County, New Mexico.

(3) That the applicant proposes to vertically drill said  
well to a depth of from 5100 feet to 7900 feet and to then  
directionally drill in a southerly direction, bottoming said well  
in the Morrow formation at a true vertical depth of approximately  
13,500 feet within 200 feet of the center of Unit F of Section 24,  
Township 20 South, Range 32 East, NMPM, Lea County, New Mexico.

(4) That the N/2 of said Section 24 is to be dedicated to  
the well.

(5) That the proposed directional drilling will permit  
said well to penetrate the salt section in proximity to an  
existing well thereby minimizing the risk to potash mining  
operations in the area, and the loss of mineable potash reserves.

-2-

Case No. 5915  
Order No. R-5438

(6) 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.

(7) That approval of the subject application will permit the drilling of the proposed well without unduly reducing the total quantity of commercially recoverable potash reserves in the area and will otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That the applicant, C. W. Trainer, is hereby authorized to directionally drill his Boyd Well No. 1 at a surface location 830 feet from the South line and 2130 feet from the West line of Section 13, Township 20 South, Range 32 East, NMPM, Lea County, New Mexico, and to vertically drill said well to a depth of from 5100 feet to 7900 feet and to then directionally drill in a southerly direction, bottoming said well in the Morrow formation at a true vertical depth of approximately 13,500 feet within 200 feet of the center of Unit F of Section 24, Township 20 South, Range 32 East, NMPM, Lea County, New Mexico.

PROVIDED HOWEVER, 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 wellbore from total depth to the surface 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 N/2 of said Section 24 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. 5915

Order No. R-5438

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

jr/

CASE 5888: (Continued from April 20, 1977 Examiner Hearing)

Application of Dalport Oil Corporation for an unorthodox gas well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its A. L. Christmas Well No. 3 to be drilled 330 feet from the South line and 2310 feet from the East line of Section 25, Township 22 South, Range 36 East, Jalmat Gas Pool, Lea County, New Mexico.

CASE 5910: (Continued from April 20, 1977 Examiner Hearing)

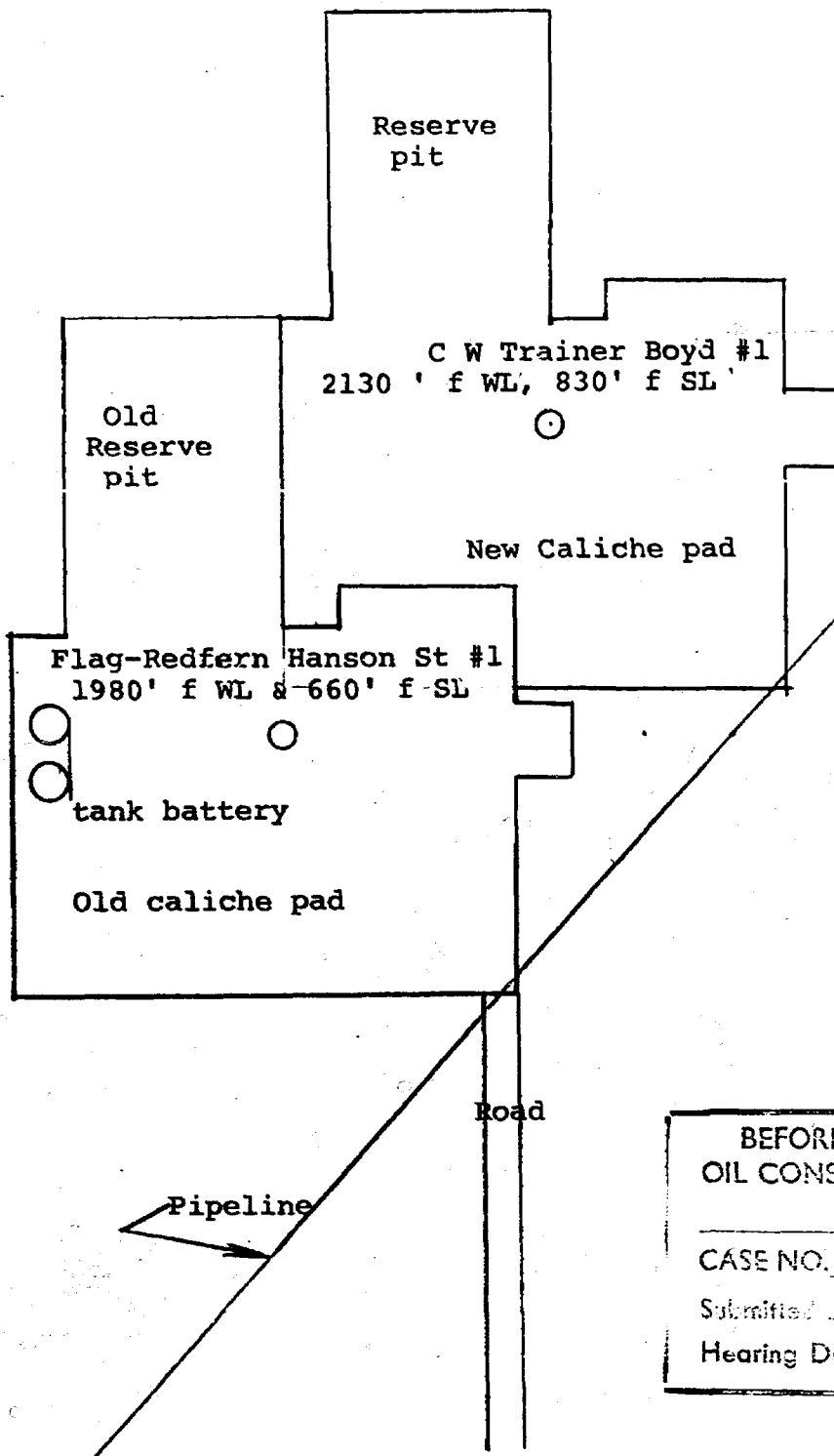
Application of Yates Petroleum Corporation for gas pool creations and downhole commingling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the creation of three Pennsylvanian gas pools in Townships 17 and 18 South, Ranges 24, 25, and 26 East, Eddy County, New Mexico, including the Richard Knob- and East Eagle Creek-Lower Penn Gas Pools with provisions in each for commingling Strawn, Atoka, and Morrow production in the wellbores of wells drilled therein, and the Eagle Creek Permo-Penn Gas Pool with provision for commingling Wolfcamp, Cisco, Canyon, and Strawn production in the wellbores of wells drilled therein.

CASE 5915: (Continued from May 11, 1977 Examiner Hearing)

Application of C. W. Trainer for directional drilling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the directional drilling of his Boyd Well No. 1, the surface location of which would be 830 feet from the South line and 2130 feet from the West line of Section 13, Township 20 South, Range 32 East, Lea County, New Mexico. Applicant proposes to vertically drill said well to a depth of from 5100 feet to 7900 feet and to then directionally drill in a southerly direction, bottoming said well in the Morrow formation at a true vertical depth of approximately 13,500 feet within 200 feet of the center of Unit F of Section 24, Township 20 South, Range 32 East. The N/2 of said Section 24 would be dedicated to the well.

CASE 5917: (Continued from May 11, 1977 Examiner Hearing)

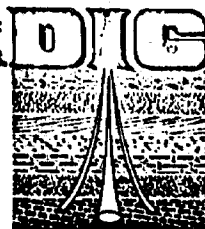
Application of Hanagan Petroleum Corporation for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Round Mountain Well No. 1, to be located 2310 feet from the North line and 660 feet from the East line of Section 34, Township 21 South, Range 25 East, Catclaw Draw-Morrow Gas Pool, Eddy County, New Mexico, all of said Section 34 to be dedicated to the well.



SURFACE PLAT  
C W Trainer  
Boyd #1  
Sec 13-20S-32E  
Lea Co., N.M.  
Scale 1"=100'  
5-23-77

BEFORE EXAMINER STAMETS	
OIL CONSERVATION COMMISSION	
EXHIBIT NO.	1
CASE NO.	5915
Submitted by	CW Trainer
Hearing Date	5-25-77

*CW Trainer*



2° PER 100' ANGLE BUILD-UP SCHEDULE

Mr. C.W. Trainer  
C.W. Trainer

Boyd Well No. 1  
Lea County, New Mexico

<u>Measured Depth</u>	<u>Angle</u>	<u>True Vertical Depth</u>	<u>Total Horizontal Displacement</u>
6650	ASSUMED VERTICAL		
6750	2°	6749.98	1.75
6850	4°	6849.84	6.98
6950	6°	6949.46	15.70
7050	8°	7048.71	27.89
7150	10°	7147.48	43.53
7250	12°	7245.64	62.61
7350	14°	7343.08	85.11
7450	16°	7439.67	110.99
7550	18°	7535.30	140.23
7650	20°	7629.85	172.79
7750	22°	7723.21	208.63
7850	24°	7815.26	247.70
10,467	24°21'	10,200.00	1326.88
14,088	24°20'	13,500.00	2819.02

Surface location: 830' FSL & 2130' FWL of Sec. 13

Bottom Hole location: 1980' FNL & 1980' FWL OF Sec. 24

Closure: 2819.02' S 3°3' W

Averaging Method Used In Calculations.

BEFORE EXAMINER STAMETS  
OIL CONSERVATION COMMISSION

EXHIBIT NO. 2

CASE NO. 5915

Submitted by C.W. Trainer

Hearing Date 11-28-77



RECOMMENDED DIRECTIONAL DRILLING PROCEDURES  
(Condensed)

Mr. C.W. Trainer  
C.W. Trainer

Boyd Well No.1  
Lea County, N.M.

- 1] Drill surface hole with conventional drilling assembly. Keep hole straight. Run surface pipe & w.o.c.
- 2] Drill out surface pipe with 7 3/4" OD non-magnetic drill collar, running single shot survey @ 200'± intervals to 3150'±. Run intermediate casing & w.o.c.
- 3] Drill out intermediate casing with 7 3/4" OD non-magnetic drill collar running single shot surveys @ 300'± intervals to 5000'±. Run casing & w.o.c.
- 4] Drill out of casing with 6 1/2" OD non-magnetic drill collar in drilling assembly. Run single shot surveys @ 200'± intervals to 6650' k.o.p. Keep hole straight.
- 5] Run 8 1/2" OD Rock Bit, 6 1/2" OD Dyna Drill, 2° Bent sub, 6 1/2" OD Non-Magnetic drill collar & steel collars. Orient toward proper direction. Drill to 6700'± P.O.H.
- 6] Run 8 1/2" OD Rock Bit, extension sub, 8 1/2" OD B.H. reamer, 6 1/2" OD Non-Magnetic drill collar & steel drill collar's. Drill and increase angle @ 2° per 100' to desired angle. Run Dyna Drill if needed for angle and/or direction correction. After desired angle is achieved, run proper drilling assembly to maintain angle and direction. Drill to casing point of 11,150'± T.V.D. Care should be taken in having well bore on target before getting casing point. Run casing & w.o.c.
- 7] Vary weight on bit, rotary speed, and drilling assemblies as needed to drill into the target @ 13,500'± T.V.D. Run Gyro Survey on wireline from surface to 13,500' ± T.V.D.

BEFORE EXAMINER TAMETS	
OIL CONSERVATION COMMISSION	
EXHIBIT NO.	4
CASE NO.	5915
Submitted by	CW Trainer
Hearing Date	5-25-77



# INCLINATION SURVEY

Flag-Redfern Oil Company

Hanson State #1  
Lea County, N.M.

<u>Depth</u>	<u>Angle</u>	<u>Displacement</u>	<u>Depth</u>	<u>Angle</u>	<u>Displacement</u>
100	1/2°	.87	3150	1/2°	56.10
250	1/4°	1.52	3342	3/4°	58.61
434	1/2°	3.13	3907	1 1/2°	76.02
760	2°	11.02	4090	1 1/4°	77.83
824	2 1/4°	13.53	4260	1 3/4°	83.02
1005	2 1/2°	21.43	4620	1°	89.30
1098	2 1/2°	25.49	5325	1 1/2°	107.68
1130	2 1/4°	26.75	5531	3/4°	110.38
1279	1 3/4°	28.25	5929	1°	117.33
1405	1 1/4°	31.00	6462	3/4°	124.31
1720	1°	36.50	7120	1°	135.79
1942	3/4°	39.41	7600	1°	144.17
2163	1°	43.27	8122	1 1/4°	155.56
2321	1°	46.03	8615	2 1/4°	174.92
2479	1/4°	46.72	8831	2 1/4°	183.40
2627	1/4°	47.37	8989	2 1/2°	190.29
3105	1°	55.71	9113	2 1/2°	195.70
			9265	2 1/2°	202.33

BEFORE EXAMINER STAMETS  
OIL CONSERVATION COMMISSION

EXHIBIT NO. 5

CASE NO. 5915

Submitted by C.W. Tramer

Hearing Date 5-25-77

GEORGE H. HUNKER, JR.  
DON M. FEDRIC  
ROBERT I. WALDMAN

LAW OFFICES OF  
**HUNKER-FEDRIC, P.A.**  
210 HINKLE BUILDING  
POST OFFICE BOX 1837  
ROSWELL, NEW MEXICO 88201

**RECEIVED**

MAY 19 1977

TELEPHONE 622-2700  
AREA CODE 505

OIL CONSERVATION COMMISSION

May 18, 1977

Mr. J. D. Ramey  
Director  
New Mexico Oil Conservation Commission  
P.O. Box 2088  
Santa Fe, New Mexico 87501

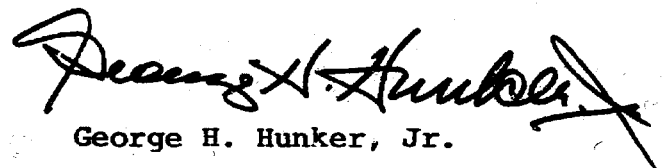
Re: C. W. Trainer  
Case #5915  
Directional Drilling  
Lea County, New Mexico

Dear Mr. Ramey:

In connection with the above matter and your Docket 17-77 we hand you herewith C. W. Trainer's formal application for approval of Directional Control Procedures for the drilling of his Boyd #1 Well located in Lea County, New Mexico. Will you please cause this application to be properly filed.

Sincerely yours,

HUNKER-FEDRIC, P.A.

  
George H. Hunker, Jr.

GHH/rp  
Enc.

BEFORE THE OIL CONSERVATION COMMISSION

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. 5915  
Order No.           

APPLICATION OF C.W. TRAINER  
FOR DIRECTIONAL DRILLING,  
LEA COUNTY, NEW MEXICO.

A P P L I C A T I O N

COMES NOW C.W. Trainer, by and through his Attorneys,  
Hunker-Fedric, P.A., P.O. Box 1837, Roswell, New Mexico 88201,  
and makes application (pursuant to Rule 111(a)) to intentionally  
deviate through directional drilling his Boyd No. 1 Well, the  
surface location of which would be 830 feet from the South line and  
2,130 feet from the West line of Section 13, Township 20 South,  
Range 32 East, N.M.P.M., Lea County, New Mexico, to bottom said well  
in Unit F, Section 24, Township 20 South, Range 32 East, and in  
support of said application, states:

1. That Applicant is one of the working interest owners of  
the oil and gas leasehold estate and has authority from the  
operator representing the other owners to locate a test well for  
oil and gas at a surface location 830 feet from the South line and  
2,130 feet from the West line of Section 13, Township 20 South,  
Range 32 East, N.M.P.M., Lea County, New Mexico, which surface  
location is a distance of 150 feet East from the Flag-Redfern  
Hanson State Well on said quarter section and which said well is  
a Bone Springs oil well located 660 feet from the South line and  
1,980 feet from the West line.

2. That the Applicant is the owner of a working interest and  
is the designated Operator of a tract composed of the N $\frac{1}{4}$  of  
Section 24, Township 20 South, Range 32 East, embraced in Federal

Oil and Gas Leases NM 16640 and NM 25878, and has the right to drill and develop the Morrow gas formation (and other formations not material to this Application) underlying said tract.

3. That Applicant proposes to intentionally deviate the Boyd #1 Well from the surface location in the following manner. Applicant proposes to vertically drill said well to a depth of from 5,100 feet to 7,900 feet; and to then directionally drill in a southerly direction, bottoming said well in the Morrow formation at a true vertical depth of approximately 13,500 feet within 200 feet of the center of Unit F of Section 24, Township 20 South, Range 32 East. That the bottom hole location will be an orthodox location for the N<sub>2</sub> of Section 24, which tract will be dedicated to the well. Applicant agrees that an Affidavit will be filed with the Commission showing that all directional surveys have been filed before seeking the assignment of an allowable.

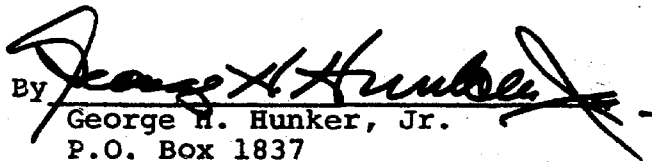
4. That Sections 13 and 24, Township 20 South, Range 32 East, are within the limits of the Potash Oil area as defined in Order R-111 as amended. In this connection, Applicant states that a Notice of Intention to Drill, with a plat showing the location of Applicant's Boyd #1 Well and the prognosis for the well, has been filed in the office of the Commission, and copies have been sent to all potash operators holding potash leases within a radius of one mile of the proposed well. Proof of service has been filed. The Commission has advised Applicant that no objection to the location of the proposed well has been made by a potash operator. That Applicant will obtain approval from the United States Geological Survey representatives to bottom said well under the subject federally leased lands.

5. That the drilling of the test well in the manner proposed by Applicant will prevent waste, protect correlative

rights, and assure maximum conservation of the oil, gas and potash resources of New Mexico, and will permit the economic recovery of the oil, gas and potash minerals underlying said lands.

Respectfully submitted,

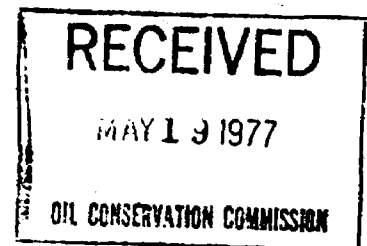
HUNKER - FEDRIC, P.A.

By  -

George H. Hunker, Jr.  
P.O. Box 1837  
Roswell, New Mexico 88201  
Telephone (505) 622-2700

Attorneys for Applicant,  
C.W. Trainer  
8201 Espanola  
Austin, Texas 78749

BEFORE THE OIL CONSERVATION COMMISSION  
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. 5915  
Order No. \_\_\_\_\_

APPLICATION OF C.W. TRAINER  
FOR DIRECTIONAL DRILLING,  
LEA COUNTY, NEW MEXICO.

A P P L I C A T I O N

COMES NOW C.W. Trainer, by and through his Attorneys,  
Hunker-Fedric, P.A., P.O. Box 1837, Roswell, New Mexico 88201,  
and makes application (pursuant to Rule 111(a)) to intentionally  
deviate through directional drilling his Boyd No. 1 Well, the  
surface location of which would be 830 feet from the South line and  
2,130 feet from the West line of Section 13, Township 20 South,  
Range 32 East, N.M.P.M., Lea County, New Mexico, to bottom said well  
in Unit F, Section 24, Township 20 South, Range 32 East, and in  
support of said application, states:

1. That Applicant is one of the working interest owners of  
the oil and gas leasehold estate and has authority from the  
operator representing the other owners to locate a test well for  
oil and gas at a surface location 830 feet from the South line and  
2,130 feet from the West line of Section 13, Township 20 South,  
Range 32 East, N.M.P.M., Lea County, New Mexico, which surface  
location is a distance of 150 feet East from the Flag-Redfern  
Hanson State Well on said quarter section and which said well is  
a Bone Springs oil well located 660 feet from the South line and  
1,980 feet from the West line.

2. That the Applicant is the owner of a working interest and  
is the designated Operator of a tract composed of the N $\frac{1}{2}$  of  
Section 24, Township 20 South, Range 32 East, embraced in Federal

Oil and Gas Leases NM 16640 and NM 25878, and has the right to drill and develop the Morrow gas formation (and other formations not material to this Application) underlying said tract.

3. That Applicant proposes to intentionally deviate the Boyd #1 Well from the surface location in the following manner. Applicant proposes to vertically drill said well to a depth of from 5,100 feet to 7,900 feet; and to then directionally drill in a southerly direction, bottoming said well in the Morrow formation at a true vertical depth of approximately 13,500 feet within 200 feet of the center of Unit F of Section 24, Township 20 South, Range 32 East. That the bottom hole location will be an orthodox location for the N $\frac{1}{2}$  of Section 24, which tract will be dedicated to the well. Applicant agrees that an Affidavit will be filed with the Commission showing that all directional surveys have been filed before seeking the assignment of an allowable.

4. That Sections 13 and 24, Township 20 South, Range 32 East, are within the limits of the Potash Oil area as defined in Order R-111 as amended. In this connection, Applicant states that a Notice of Intention to Drill, with a plat showing the location of Applicant's Boyd #1 Well and the prognosis for the well, has been filed in the office of the Commission, and copies have been sent to all potash operators holding potash leases within a radius of one mile of the proposed well. Proof of service has been filed. The Commission has advised Applicant that no objection to the location of the proposed well has been made by a potash operator. That Applicant will obtain approval from the United States Geological Survey representatives to bottom said well under the subject federally leased lands.

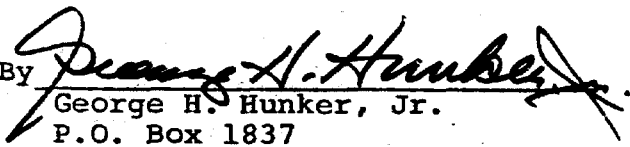
5. That the drilling of the test well in the manner proposed by Applicant will prevent waste, protect correlative

rights, and assure maximum conservation of the oil, gas and potash resources of New Mexico, and will permit the economic recovery of the oil, gas and potash minerals underlying said lands.

Respectfully submitted,

HUNKER - FEDRIC, P.A.

By



George H. Hunker, Jr.

P.O. Box 1837

Roswell, New Mexico 88201

Telephone (505) 622-2700

Attorneys for Applicant,

C.W. Trainer

8201 Espanola

Austin, Texas 78749



RECEIVED

MAY 19 1977

OIL CONSERVATION COMMISSION

BEFORE THE OIL CONSERVATION COMMISSION

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. 5915  
Order No.           

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FOR DIRECTIONAL DRILLING,  
LEA COUNTY, NEW MEXICO.

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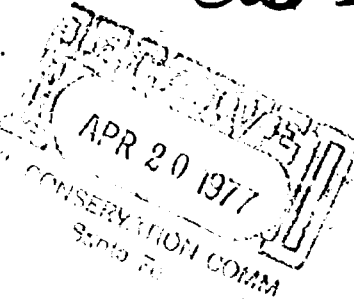
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5. That the drilling of the test well in the manner proposed by Applicant will prevent waste, protect correlative

LAW OFFICES OF  
HUNKER - FEDRIC, P.A.  
210 HINKLE BUILDING  
POST OFFICE BOX 1837  
ROSWELL, NEW MEXICO 88201  
TELEPHONE (505) 622-2700

Case 5915



April 19, 1977

Mr. Dan Nutter, Chief Engineer  
New Mexico Oil Conservation Commission  
P.O. Box 2088  
Santa Fe, New Mexico 87501

Re: C.W. Trainer Application for  
Directional Drilling  
20-S, 32-E, Lea County, N.M.

Dear Mr. Nutter:

Mr. Hunker asked me to send you a copy of his proposed  
Application for Directional Drilling on behalf of C.W. Trainer.  
Thank you.

Sincerely yours,

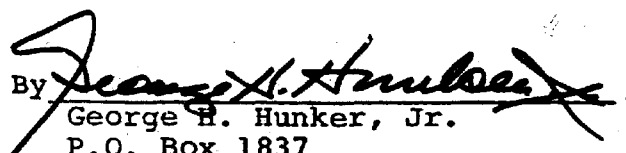
Delores Downs, Secretary to  
George H. Hunker, Jr.

dd  
Enc.

rights, and assure maximum conservation of the oil, gas and potash resources of New Mexico, and will permit the economic recovery of the oil, gas and potash minerals underlying said lands.

Respectfully submitted,

HUNKER - FEDRIC, P.A.

By   
George H. Hunker, Jr.

P.O. Box 1837

Roswell, New Mexico 88201

Telephone (505) 622-2700

Attorneys for Applicant,

C.W. Trainer

8201 Espanola

Austin, Texas 78749

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**HUNKER-FEDRIC, P.A.**

210 HINKLE BUILDING  
POST OFFICE BOX 1837

ROSWELL, NEW MEXICO 88201

TELEPHONE 622-2700  
AREA CODE 505

GEORGE H. HUNKER, JR.  
DON M. FEDRIC  
ROBERT I. WALDMAN

May 10, 1977

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

*Case No. 5915*

Attention: Ms. Lynn Teschendorf,  
General Counsel

Re: C.W. Trainer Application for  
Directional Drilling  
T-20-S, R-32-E, Lea County, N.M.  
Docket 15-77  
Case No. 5915

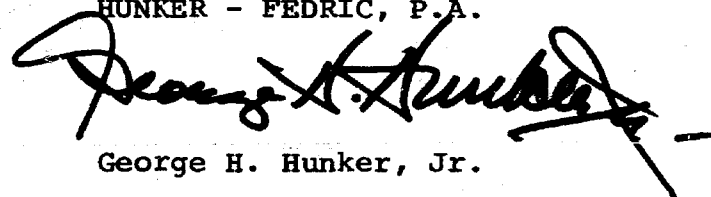
Gentlemen:

This letter will confirm the request made by us last week to have the above styled case continued until the hearing of May 25, 1977. We have had illness and death in the families of the principals, and we have found it necessary to ask you to continue the hearing until later in the month.

We appreciate very much your helpful understanding.

Sincerely yours,

HUNKER - FEDRIC, P.A.



George H. Hunker, Jr.

GHH:dd

cc: Mr. C.W. Trainer

Dockets Nos. 17-77 and 18-77 are tentatively set for hearing on May 25 and June 8, 1977. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: COMMISSION HEARING - THURSDAY - MAY 5, 1977

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

CASE 5912: In the matter of the hearing called by the Oil Conservation Commission on its own motion to consider the establishment of categories of plugging bonds, including blanket bonds not exceeding \$50,000, and one-well bonds in amounts determined sufficient to reasonably pay the cost of plugging the wells covered by each bond. Also to be considered will be the exclusion from future bond forms of provisions conditioning performance on recompense for damages to livestock, range, water, crops or tangible improvements. Also to be considered will be the amendment of Rule 101 of Commission Rules and Regulations concerning the above provisions.

Docket No. 16-77

DOCKET: EXAMINER HEARING - WEDNESDAY - MAY 11, 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:

- ALLOWABLE: (1) Consideration of the allowable production of gas for June, 1977, from seventeen prorated pools in Lea, Eddy, Chaves, and Roosevelt Counties, New Mexico.
- (2) Consideration of the allowable production of gas for June, 1977, from four prorated pools in San Juan, Rio Arriba, and Sandoval Counties, New Mexico.

CASE 5913: In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Kent Shannon, American Employers' Insurance Company, and all other interested parties to appear and show cause why the following wells in Chaves County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program:

Hi Lonesome Well No. 1, located in Unit D of Section 32, Township 8 South, Range 27 East;  
El Paso Well No. 1, located in Unit M of Section 36, Township 10 South, Range 26 East; and  
Karma Well No. 1, located in Unit O of Section 16, Township 10 South, Range 27 East.

CASE 5914: Application of Atlantic Richfield Company for an unorthodox oil well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Wimberly WN Well No. 11, to be located 990 feet from the North line and 1490 feet from the West line of Section 24, Township 25 South, Range 37 East, Justis-Fusselman Pool, Lea County, New Mexico.

CASE 5915: Application of C. W. Trainer for directional drilling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the directional drilling of his Boyd Well No. 1, the surface location of which would be 830 feet from the South line and 2130 feet from the West line of Section 13, Township 20 South, Range 32 East, Lea County, New Mexico. Applicant proposes to vertically drill said well to a depth of from 5100 feet to 7900 feet and to then directionally drill in a southerly direction, bottoming said well in the Morrow formation at a true vertical depth of approximately 13,500 feet within 200 feet of the center of Unit F of Section 24, Township 20 South, Range 32 East. The N/2 of said Section 24 would be dedicated to the well.

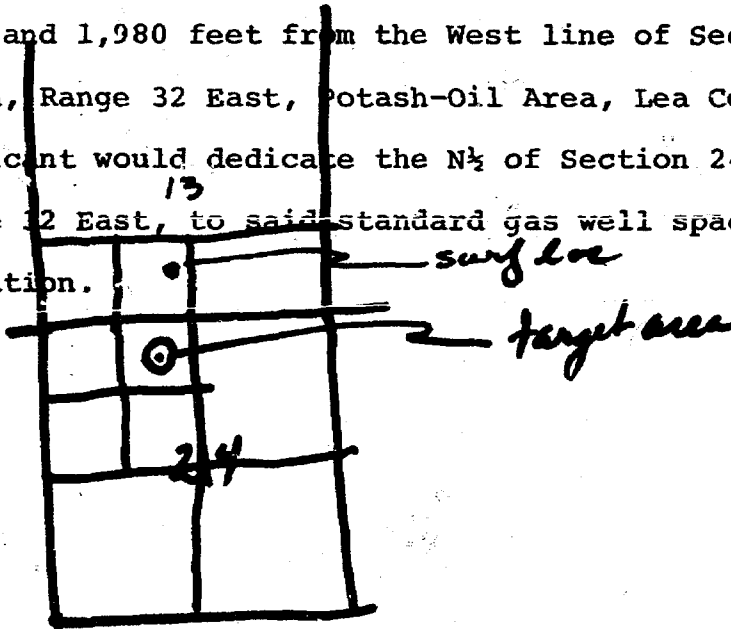
CASE 5916: Application of Marathon Oil Company for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of North Vacuum-Abo, Vacuum-Wolfcamp and Vacuum Upper-Pennsylvanian production in the wellbore of its McCallister State Well No. 7 located in Unit N of Section 25, Township 17 South, Range 34 East, Lea County, New Mexico.

CASE 5917: Application of Hanagan Pet. Corp. for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Round Mountain Well No. 1, to be located 2310 feet from the North line and 660 feet from the East line of Section 34, Township 21 South, Range 25 East, Catclaw Draw-Morrow Gas Pool, Eddy County, New Mexico, all of said Section 34 to be dedicated to the well.

CASE 5918: Application of Marbob Energy Corporation for an unorthodox oil well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its NG Phillips State Well No. 10 located 2645 feet from the South line and 1325 feet from the East line of Section 27, Township 17 South, Range 28 East, Artesia Queen-Grayburg-San Andres Pool, Eddy County, New Mexico.

S 915

Range 12 E  
formation.



DAN NUTTER

Geo Hunter

C.W. Trainer Can  
5915

dir drlg

CW

Boyd Well No 1

Oil-  
Pet  
Area

13500 Marrow  
surf 2130 FWL  
830 FSL

13-20S-32 Sea

West at least 5100 to 7900

Southerly

13500 TWD within

Red  
H/2

c diam of 200 ft  
1930 N & W of 24-20-32



ROUGH DRAFT

dr/

*in*

*Gall*

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:

*JS*

*Mc*

CASE NO. 5915

Order No. R- 5438

APPLICATION OF C. W. TRAINER 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 May 25, 1977,  
at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this \_\_\_\_\_ day of \_\_\_\_\_, 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, C. W. Trainer, seeks approval for  
the directional drilling of his Boyd Well No. 1, the surface  
location of which would be 830 feet from the South line and 2130  
feet from the West line of Section 13, Township 20 South, Range 32  
East, NMPM, Lea County, New Mexico.

(3) That the applicant proposes to vertically drill said  
well to a depth of from 5100 feet to 7900 feet and to then  
directionally drill in a southerly direction, bottoming said well  
in the Morrow formation at a true vertical depth of approximately  
13,500 feet within 200 feet of the center of Unit F of Section 24,  
Township 20 South, Range 32 East, NMPM, Lea County, New Mexico.

*(4) That the N/2 of said Section 24  
is to be dedicated to the well.*

*(5) That the proposed directional  
drilling will permit said well to  
penetrate the salt section in ~~the~~  
proximity to an existing well thereby  
minimizing the risk to potash mining  
operations in the area and the  
loss of minable potash reserves.*

(6) 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.

(7) That approval of the subject application will ~~prevent~~ <sup>permit</sup> the drilling of ~~unnecessary~~ <sup>the proposed</sup> well ~~without unduly reducing~~ <sup>the total quantity of recoverable pore reserves</sup> ~~avoid the augmentation of~~ <sup>in the area and will</sup> 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, C. W. Trainer, is hereby authorized to directionally drill his Boyd Well No. 1 <sup>at a</sup> ~~the~~ surface location ~~of which would be~~ 830 feet from the South line and 2130 feet from the West line of Section 13, Township 20 South, Range 32 East, NMPM, Lea County, New Mexico, and to vertically drill said well to a depth of from 5100 feet to 7900 feet and to then directionally drill in a southerly direction, bottoming said well in the Morrow formation at a true vertical depth of approximately 13,500 feet within 200 feet of the center of Unit F of Section 24, Township 20 South, Range 32 East, NMPM, Lea County, New Mexico.

PROVIDED HOWEVER, 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 wellbore from total depth to the ~~whipstock~~ <sup>surface</sup> 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 N/2 of said Section 24 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 Santa Fe, New Mexico, on the day and year hereinabove designated.