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STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING)	
CALLED BY THE OIL CONSERVATION)	
DIVISION FOR THE PURPOSE OF)	
CONSIDERING:)	
)	CASE NO. 10255
APPLICATION OF MOBIL EXPLORATION)	
& PRODUCING U.S. INC.)	
)	

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: JIM MORROW, Hearing Examiner

March 7, 1991

Santa Fe, New Mexico

This matter came on for hearing before the Oil Conservation Division on March 7, 1991, at 8:35 a.m. at Oil Conservation Division Conference Room, State Land Office Building, 310 Old Santa Fe Trail, Santa Fe, New Mexico, before Freda Donica, RPR, Certified Court Reporter No. 417, for the State of New Mexico.

FOR: OIL CONSERVATION	BY: FREDA DONICA, RPR
DIVISION	Certified Court Reporter
	CCR No. 417

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I N D E X

March 7, 1991
Examiner Hearing
CASE NO. 10255

PAGE

APPEARANCES

3

MOBIL'S WITNESSES:

JORGE J. FAZ

Direct Examination by Mr. Pearce
Examination by Mr. Stovall
Direct Examination by Mr. Pearce

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REPORTER'S CERTIFICATE

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E X H I B I T S

Applicant's 1-7

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A P P E A R A N C E S

FOR THE DIVISION: ROBERT G. STOVALL, ESQ.
 General Counsel
 Oil Conservation Commission
 State Land Office Building
 310 Old Santa Fe Trail
 Santa Fe, New Mexico 87501

FOR THE APPLICANT: MONTGOMERY & ANDREWS
 325 Paseo de Peralta
 Santa Fe, New Mexico 87504
BY: W. PERRY PEARCE, ESQ.

1 HEARING EXAMINER: And we'll now call case 10255.

2 MR. STOVALL: Application of Mobil Exploration &
3 Producing U.S. Inc. for an unorthodox oil well location and
4 a non-standard oil proration unit, Rio Arriba County, New
5 Mexico.

6 HEARING EXAMINER: Call for appearances.

7 MR. PEARCE: May it please the Examiner, I'm W. Perry
8 Pearce with the Santa Fe law firm of Montgomery & Andrews,
9 appearing in this matter on behalf of Mobil Exploration &
10 Producing Company U.S. Inc. I have one witness who needs to
11 be sworn.

12 HEARING EXAMINER: Any other appearances?

13 The witness please stand and be sworn.

14 (Witness sworn.)

15 JORGE J. FAZ

16 the witness herein, having been first duly sworn, was
17 examined and testified as follows:

18 DIRECT EXAMINATION

19 BY MR. PEARCE:

20 Q. For the record, would you please state your name
21 and your place of residence?

22 A. My name is Jorge J. Faz. I live in Midland,
23 Texas.

24 Q. Mr. Faz, by whom are you employed?

25 A. I'm employed with Mobil Exploration & Producing

1 Services U.S.

2 Q. In what capacity?

3 A. I'm a production geologist.

4 Q. And, Mr. Faz, have you appeared before the New
5 Mexico Oil Conservative Division or one of its examiners
6 previously and had your credentials accepted?

7 A. No, I have not.

8 Q. If you would, please, briefly describe your
9 educational background and work experience in the field of
10 petroleum geology.

11 A. My education is as follows: 1978 to 1982,
12 Occidental College, Eagle Rock, California, A.B. in
13 geology. Master's in science from Purdue University, 1982
14 to 1984. Employed with Mobil Oil since November 1984.

15 Q. And since your employment by Mobil, you have been
16 acting in the capacity as a petroleum geologist; is that
17 correct?

18 A. That is correct.

19 Q. Are you familiar with the subject matter of
20 Mobil's application in case 10255 being heard this morning?

21 A. Yes, I am.

22 MR. PEARCE: Mr. Examiner, at this time I would ask
23 recognition of Mr. Faz as an expert in the field of
24 petroleum geology.

25 HEARING EXAMINER: His qualifications are accepted.

1 MR. PEARCE: Thank you, sir.

2 Q. (By Mr. Pearce) Mr. Faz, at this time I'd like to
3 begin, and I want to refer your attention to what we have
4 marked as MEPUS Exhibit Number 1. And would you describe
5 what Exhibit Number 1 is, please?

6 A. This one here is basically all the paperwork for
7 the design, the location and the completion -- drilling and
8 completion procedure for the Lindrith B-78 Well.

9 Q. And looking at the top sheet of that, I notice it
10 is a copy of a letter addressed to the director of division,
11 Mr. Lemay. That is copies of papers which already exist in
12 the division's record relating to this application; is that
13 correct?

14 A. That is correct.

15 MR. PEARCE: Mr. Examiner, at this time, if I may, I'd
16 like to ask Mr. Faz to approach the map, the topographical
17 map that I've hung on the wall. And I have a portion of
18 that exhibit copied, and I'd like for him to discuss with
19 you and highlight for you why we're appearing before you
20 today for the unorthodox location.

21 THE WITNESS: Mr. Examiner, let me introduce the map a
22 little bit. These are standard U.S.G.S. seven-and-a-half
23 minute quadrangle topo sheets. This is the Billy Rice
24 spliced onto the Lindrith quadrangle map, showing the
25 location of the Lindrith unit outline. This is a section --

1 this scale here would be one mile.

2 HEARING EXAMINER: What's a section? Is this a
3 section?

4 THE WITNESS: Yes, this is a section.

5 Q. (By Mr. Pearce) Could you look at the copy of
6 Exhibit 2 in your hand and indicate for the Examiner what
7 portion of the large map we've reduced to make it an
8 exhibit?

9 A. The exhibit you have in your hand, if I overlay
10 it, it is approximately this area right here. The well in
11 question is located in Section 6, and it's highlighted in
12 yellow as the B-78 location.

13 Let me give you some of the topographic
14 information on what we're developing here as a geologic
15 plan, some of the well locations. Mobil drilled three
16 wells. We drilled the B-75 in '89, the 76 in '90, and we
17 completed the 77 January 1st of '91.

18 We were planning on the 78 location to be in
19 Section 1, approximately where my finger is right here. And
20 if you see, this is on a ridge, a northeast to southwest
21 trending ridge, which when we had the surface anthropology
22 looked at, it contains some Anasazi burial dwellings right
23 on the ridge, a burial tower, I think is what the report
24 stated.

25 So I went on-site to see what would be a good

1 area where we could mutually agree on an area that did not
2 have relics and artifacts, yet where we would still stay on
3 this northwest-to-southeast trend where we believed that the
4 play was best.

5 Q. Mr. Faz, when you say "we went on-site," who
6 accompanied you on that site visit? Not names, but
7 organizations, at least.

8 A. Ed Barber and Bill Leese of BLM. Ed Barber is
9 with Mobil.

10 Q. And this is federal acreage?

11 A. Yes, it's a federal lease. And the
12 anthropologist from Moore Anthropological.

13 Will we refer to that sketch in a minute?

14 Q. Yes, we will.

15 A. So what we did was move off this ridge and then
16 moved down into the southeast slope of that ridge, and that
17 contained a series of streams and rivulets which had washed
18 some of the relics down on the stream, and that was an
19 unacceptable site. So as we kept moving --

20 HEARING EXAMINER: Unacceptable because of the relics?

21 A. Because of the relics. And we eventually kept
22 moving further and further to the southeast 'til we were on
23 the section line. The section line between Sections 1 and 6
24 has both a fence and a power line.

25 MR. PEARCE: Let me break in and pass out what we've

1 marked as Exhibit 3 because he's going to start discussing
2 that exhibit or at least the matters contained on it.

3 A. This was a sketch I made on-site just kind of as
4 a reference. Let me place you on the sketch. You would be
5 standing at the approximate location where the current B-78
6 is staked, looking towards the northwest, that is, you'd be
7 -- if you were the artist for this sketch, you'd be
8 standing in Section 6, looking up towards Section 1.

9 And on the sketch you can see the ridge, which is
10 this one here. And that contained the described burial
11 tower, and then the streams and rivulets that had washed the
12 scattered artifacts down here, and then the section line
13 between Sections 1 and 6 where we have both a fence and a
14 power line. And then the discussion became if we have it
15 right on the section line, we're going to have to move both
16 of these.

17 So we continued to extend the well location until
18 we staked it about 140 feet east of the section line. And
19 that was the closest spot nearest to the 77 where the
20 anthropologist said this is a good spot. We were down in
21 the gully here, and there was at least no preliminary
22 indications of any kind of artifacts or relics. So we were
23 in the clear there. That is why we're applying for this
24 location.

25 MR. PEARCE: I think you can return to your seat at

1 this point. I think that's the last thing we need to be up
2 for.

3 Q. (By Mr. Pearce) Let me refer your attention at
4 this time, please, to what we have marked -- by the way, Mr.
5 Examiner, these are marked on the back -- as Exhibit Number
6 4 to this proceeding. And could you describe for us what's
7 on this exhibit?

8 A. This is a close-up location plat of Sections 1,
9 6, 7 and 12 along the north part of the Lindrith B Unit. On
10 this location plat I'd like to point out well locations for
11 the Lindrith B-75, B-76, B-77 and the staked location for
12 B-78.

13 Q. I notice that the majority of the acreage
14 reflected on that exhibit is shaded pink; however, there is
15 one block there in the center of the exhibit that is not
16 shaded. Could you describe that acreage for us, please, the
17 unshaded acreage?

18 A. Yes. This is a window in the Lindrith B Unit.

19 Q. And that acreage is operated by whom?

20 A. I believe that acreage is operated by Jerome P.
21 McCue.

22 Q. Thank you, sir. You mentioned in your discussion
23 of Exhibit 4 that you showed a line of cross-section. I
24 would now like to direct your attention to what we have
25 marked as Exhibit Number 5 to this proceeding.

1 And contemporaneously, if I may, Mr. Examiner, I
2 want to pass out Exhibit 6. We have taken the relevant
3 portions of the logs shown on Exhibit Number 5 and blown
4 them up because we found that scale was a little restricted,
5 and so you will find those -- Exhibit 6 to be the pertinent
6 portions of the three logs blown up some more.

7 Looking at Exhibits 5 and 6, Mr. Faz, will you
8 describe what they demonstrate for us?

9 A. Yes. I just want to give a little geologic
10 back-up to the trendology and why we believe that we should
11 continue this trend towards the southeast. If you look at
12 our B-75 well, again, I mentioned this was drilled and
13 completed March of '89. The Dakota D sand is shown in
14 yellow. This is an SP gamma ray resistivity log, and what
15 we're calling clean sand or net pay is all sand with a
16 resistivity greater than 100 O meters on the deep tool.

17 We have this display indicating that there are
18 approximately 21 feet of net pay. In its peak production,
19 B-75 did up to 300 barrels a day of oil. It's currently
20 doing about 200. B-76, a little further to the south, shows
21 significantly less sand.

22 HEARING EXAMINER: Where is B-75 completed?

23 THE WITNESS: In the Dakota D sand.

24 HEARING EXAMINER: How is that marked on this here?

25 THE WITNESS: Let me point it out. The Dakota D sand

1 is the lower-most yellow unit on the cross-section. If you
2 look to the right of each log, there will be a small D
3 there.

4 HEARING EXAMINER: That 7756 that was throwing me on
5 that one. Maybe it should be 7856 at the top of that
6 Dakota?

7 THE WITNESS: Yes, that's correct.

8 HEARING EXAMINER: Go ahead.

9 A. We were looking at 76. The signature in 76 is
10 different for the Dakota D sand. You'll notice that on the
11 SP gamma ray it's not a blocky sand anymore, a clean, blocky
12 shape. It's more funnel shaped, with the cleanest sand
13 being toward the top. In it you'll see that we only had JHM
14 five feet of net pay, that is, pay with greater than 100 ohm
15 meters resistivity. This is similarly reflected in the
16 production results from 76. 76 peaked out at 55 to 60
17 barrels a day, and it's currently doing about 50.

18 So we use this as the basis for our
19 interpretation that hitting clean, net pay sand was the key
20 to establishing an economic wealth.

21 We went ahead and put 77 down, and the results
22 from it show that it is -- that the reservoir is kind of a
23 combination between 76 and 75. The outline of the gamma ray
24 is trying to get blocky. There are a few shaley stringers
25 in it. We'll see on the resistivity that there are a total

1 of 13 feet of net pay. And, similarly, the production
2 results show that this is somewhere between 75 and 76
3 production rates. 77 is currently doing 130 barrels a day.

4 On the cross-section, what I wanted to illustrate
5 was that it is essential to stay within this linear sand
6 fairway, and that is why we request the location of B-78 as
7 currently staked.

8 Q. (By Mr. Pearce) Anything further on Exhibits 5 or
9 6?

10 A. I have nothing further to say.

11 Q. Mr. Faz, do you believe that in order to recover
12 the maximum hydrocarbon reserves from this area of the
13 Lindrith B Unit, it is necessary to drill this well at this
14 unorthodox location, in view of the archaeological finds in
15 the area?

16 A. Yes, I do.

17 Q. And do you believe that the correlative rights,
18 being the ownership interests of all parties in the area,
19 will be protected if this well is drilled in this unorthodox
20 location, in view of the fact that we're dealing with a unit
21 area?

22 A. Yes, I do.

23 MR. PEARCE: Mr. Examiner, at this time I have no
24 further questions of the witness. I have one further
25 exhibit which is an affidavit of service. Since we are in a

1 unit area, the only party to whom we provided notice of the
2 hearing was Jerome P. ^{McHugh} (McCue) who operates that non-unitized
3 tract to the southwest of the proposed location.

4 And with that, Mr. Examiner, I have nothing
5 further, and the witness is available if you or the counsel
6 have questions.

7 HEARING EXAMINER: All right. The advertisement was
8 for a non-standard proration unit as well as a non-standard
9 location. Is there anything --

10 THE WITNESS: If you look at that, we're non-standard
11 because the way the section lines are drawn, we've got
12 151.34 acres, and it's a surveying problem rather than
13 taking in more than one section. 151.34, which is just
14 outside the allowable overage.

15 HEARING EXAMINER: And so you need 160 acres, and you
16 would assign a quarter section to it, which in this case
17 turned out to be less?

18 THE WITNESS: That's correct.

19 HEARING EXAMINER: The wells, the El Paso natural gas
20 well in Section 6 and the other wells indicated to be gas
21 wells on your Exhibit Number 4, tell me something about
22 those, please, sir.

23 THE WITNESS: I know little about them. If you'll
24 notice on the location plat, there's a "TD" on that. For
25 the El Paso Natural Gas 100 in Section 6, TD is 3383.

1 Similarly, I guess -- did you also ask about the Jerome
2 wells?

3 HEARING EXAMINER: Yes, I just asked about all the gas
4 wells in general.

5 THE WITNESS: All the gas wells in general that are in
6 the Lindrith B, the -- Mobil operates the unit as to base of
7 Picture Cliffs, as to all formations, base of Picture Cliffs
8 down. I believe that El Paso Natural Gas operates all the
9 shallower gas ends.

10 HEARING EXAMINER: All right. How many wells are there
11 in the pool of interest, the --

12 MR. PEARCE: The Dakota D wells, Mr. Examiner?

13 HEARING EXAMINER: Yes, the west -- the Gallup
14 Dakota --

15 THE WITNESS: I have to ask for a clarification. Are
16 you asking how many Dakota D wells there are within the
17 whole Lindrith B Unit, or just in this --

18 HEARING EXAMINER: Go ahead and answer both.

19 THE WITNESS: Okay. Well, as far as all wells in
20 Dakota D within the unit, I don't have an exact count. I
21 can give you a ballpark.

22 HEARING EXAMINER: All right.

23 THE WITNESS: My latest count on the west third of the
24 unit are approximately 40 wells.

25 HEARING EXAMINER: They're spotted here.

1 Q. Well, under the unit operations, is it a single
2 participating area?

3 A. Mobil operates the unit. Mobil has 75 percent
4 gross working interest. Our two partners are Amoco and
5 Conoco, each with 12-and-a-half gross working interest.

6 Q. Are the interests, the revenue interests, in
7 Sections 1 and 6 the same? Is that a common participating
8 area with a common division of interest?

9 A. I believe so.

10 Q. Is there any Gallup development in this
11 particular portion of the pool that you are aware of?

12 A. On this location plat?

13 Q. Yes.

14 A. Not that I'm aware of, no.

15 Q. It's all Dakota production?

16 A. Right.

17 Q. Have you looked through the quarter section to
18 determine if there are other legal locations which are
19 topographically suitable?

20 A. Which quarter section?

21 Q. In the southwest quarter of Section 6. That's
22 essentially your proration unit?

23 A. Yes. On that one, as we move toward the north,
24 we get back on to that ridge which will again contain the
25 artifacts.

1 Q. What about to the east? Have you been in the
2 eastern section, or did you eliminate that for geologic
3 reasons?

4 A. We eliminated that for geologic reasons. We
5 could move it to the east, but then we'd be getting out of
6 the clean sand, as we believe the trend extends.

7 Q. To the best of your knowledge, the only interests
8 that is not the same through here because of the unit
9 agreement is the McCue tract in Section 12?

10 A. Yes, the shallow gas.

11 Q. Does ^{M = Hugh} (McCue) ^{JHM} have a west Lindrith well in there, a
12 Dakota Gallup well in that tract?

13 A. In this approximate area?

14 Q. I'm looking at -- the specific tract is Section
15 12.

16 A. No, not that I know.

17 MR. STOVALL: I have nothing further.

18 MR. PEARCE: If I may address one other issue.

19 DIRECT EXAMINATION (Continued)

20 BY MR. PEARCE:

21 Q. Mr. Faz, is Mobil prepared to drill this well as
22 quickly as possible?

23 A. Yes, they are.

24 Q. Do we ask for expedited consideration so that we
25 can begin the drilling?

1 A. Yes.

2 MR. PEARCE: I have nothing further.

3 MR. STOVALL: Is that because of weather conditions?

4 THE WITNESS: Well, actually, what's driving us is we
5 have a very tight volume plan to meet.

6 HEARING EXAMINER: What kind of plan?

7 THE WITNESS: Volume plan, meet certain amount of
8 crudes for our yearly expectation.

9 HEARING EXAMINER: You'd like to produce more.

10 MR. PEARCE: Mr. Faz's manager has indicated they want
11 it up out of the ground.

12 Mr. Examiner, I don't think I moved the admission
13 of Exhibits 1 through 7, and I would like to do that now, if
14 I may.

15 HEARING EXAMINER: Exhibits 1 through 7 are admitted
16 into evidence. The witness may be excused. And this case
17 will be taken under advisement.

18 (The foregoing hearing was adjourned at the
19 approximate hour of 8:56 a.m.)

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1 STATE OF NEW MEXICO)

2 :

3 COUNTY OF SANTA FE)

4 I, FREDA DONICA, RPR, a Certified Court Reporter, DO
 5 HEREBY CERTIFY that I stenographically reported these
 6 proceedings before the Oil Conservation Division; and that
 7 the foregoing is a true, complete and accurate transcript of
 8 the proceedings of said hearing as appears from my
 9 stenographic notes so taken and transcribed under my
 10 personal supervision.

11 I FURTHER CERTIFY that I am not related to nor employed
 12 by any of the parties hereto, and have no interest in the
 13 outcome hereof.

14 DATED at Santa Fe, New Mexico, this 5th day of
 15 April, 1991.

16 
 17 Freda Donica
 18 Certified Court Reporter
 19 CCR No. 417

20 I do hereby certify that the foregoing is
 21 a complete record of the proceedings in
 22 the Examiner hearing of Case No. 10255,
 23 heard by me on March 7 1991.
 24 ; Examiner
 25 Oil Conservation Division