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2 STATE OF NEW MEXICO
3 ENERGY AND MINERALS DEPARTMENT
4 OIL CONSERVATION DIVISION
5 STATE LAND OFFICE BUILDING
6 SANTA FE, NEW MEXICO

7
8 30 January 1985

9 EXAMINER HEARING

10 IN THE MATTER OF:

11 Application of Bison Petroleum Corporation for an unorthodox oil well location, Chaves County, New Mexico. CASE 8465

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13
14 BEFORE: Michael E. Stogner, Examiner

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16 TRANSCRIPT OF HEARING

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18 A P P E A R A N C E S

19 For the Oil Conservation Division: Jeff Taylor
20 Attorney at Law
21 Legal Counsel to the Division
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23 Santa Fe, New Mexico 87501

24 For the Applicant: W. Thomas Kellahin
25 Attorney at Law
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I N D E X

BRUCE O. BARTHEL

Direct Examination by Mr. Kellahin 3

E X H I B I T S

Bison Exhibit One, Plat 4

Bison Exhibit One-A, Structure Map 5

Bison Exhibit Two, Cross Section 7

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MR. STOGNER: Call now Case S465, which is the application of Bison Petroleum Corporation for an unorthodox oil well location, Chaves County, New Mexico.

We will now call for appearances in this matter.

MR. KELLAHIN: If the Examiner please, I'm Tom Kellahin of Santa Fe, New Mexico, appearing on behalf of the applicant, and I have one witness to be sworn.

MR. STOGNER: Are there any other appearances?

If not, will you please stand at this time and raise your right hand?

(Witness sworn.)

BRUCE O. BARTHEL,
being called as a witness and being duly sworn upon his oath, testified as follows, to-wit:

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q Would you please state your name and occupation?

A My name is Bruce O. Barthel and I'm a

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petroleum engineer and now President of Bison Petroleum Corporation.

Q Mr. Barthel, have you previously testified as a petroleum engineer before the Oil Conservation Division?

A Yes, I have.

Q And have you prepared certain exhibits and reviewed the information surrounding this application by Bison?

A Yes, I have.

MR. KELLAHIN: Mr. Examiner, we tender Mr. Barthel as an expert petroleum engineer.

MR. STOGNER: Mr. Barthel is so qualified.

Q Would you please refer to the ownership plat that we have marked as Exhibit Number One and identify for the Examiner that portion of Section 34 that's the subject of this application?

A On the west half of Section 4 -- Section 34, Bison Petroleum has the Walters B Lease in the northwest quarter and the Walters Lease in the southwest quarter.

Q The application proposes to do what, Mr. Barthel?

A We propose to drill Well No. B-1 as a Queen oil well. It is located off spot and unorthodox in that it is closer to -- or is not in the middle of a quarter quarter section, but it is a regular spacing to all lease-

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lines.

Q All right. This well is a Queen gas well in the Southeast Chaves Queen Gas Area Associated Pool?

A An oil well.

Q Yes, sir, it's an oil well in that pool?

A That's correct.

Q All right, sir, let's turn to what I've marked as Exhibit One-A, which is a structure map, and directing your attention to the red square, which is the 40-acre tract outlined on the exhibit, would you identify what that 40-acre tract is?

A Yes, sir. That 40-acre tract offsets Bison's Walters Federal No. 2 Well, which originally was a gas well. After it continued production it was -- the gas/oil ratio reduced and it was reclassified June 1 of 1983 to an oil well.

The west half initially initially composed a communitized area, 320 acres. Upon reclassification it was de-communitized and the northwest quarter now is a separate lease.

Q In the west half of 34 would you identify for us the wells that have penetrated or produced from this pool?

A Initially Well No. 1 was drilled in 1973, tested for gas and water, and was plugged and abandoned.

Well No. 2 was drilled in 1974, came in as a gas well, and continued to produce, has been a good

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producer.

Upon the de-communitization we looked for additional oil production and drilled Well No. 3. That was in 1983.

In drilling it had a good show of oil. We set pipe, perforated, and after fracing it was primarily water with a show of oil. This located an oil/water contact which was considerably further up-dip than what we had anticipated when we drilled the well.

Q Have you identified on the structure map the oil/water contact that you've just described?

A After having drilled Well No. 3, then we feel pretty confident that the gas/oil contact is located where we have there at roughly 1756 feet subsea, or plus 1756 feet.

The oil/water contact is approximately 1730 foot subsea, also.

Q Within the 40-acre tract, why are you not proposing to drill at a standard location?

A The Queen gas in this area is 70 percent nitrogen. A gas well is economic but not very lucrative. It is also a poorer way of using reservoir energy when there is an oil rim.

If we drilled on a -- the center of that quarter quarter, we would be almost at the gas/oil contact. Going down dip and locating where we have proposed, this is about the ideal position trying to recover the maximum

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amount of oil.

Q Is Bison the operator of the 40-acre tract immediately to the east of this 40-acre tract?

A No, they are not. Oh, to the east, yes, we are. Yes, that's correct.

Q And are the interests -- is this the same lease involved in both the proposed 40-acre tract and the one in which you are moving towards with this location?

A Yes, it is.

Q So you're not infringing upon anyone's correlative rights, neither a royalty owner nor working interest owner by moving to this location.

A That's correct.

Q And this location is a location that gives you the optimum place in this 40-acre tract in which to test for oil.

A That is correct.

Q Let's go to Exhibit Number Two and have you show us the cross section.

A Exhibit Two, we have -- we show an inset, a structure map which is identical, just shot-down from the one we showed previously.

On this cross section we have two logs of wells. These are Wells No. 2, the Bison Walters Federal No. 2 and 3, which are shown with a short red line on that structure map.

The Well No. 2 on the left shows the per-

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2 perforated interval in a little red box there; also identifies
3 the gas/oil contact in blue and the water/oil contact in
4 green.

5 On the right is the well we drilled a
6 little over a year ago, Well No. 3. Once again it shows the
7 location of the perforated interval. It shows that we split
8 the oil/water contact and it does identify the gas/oil con-
9 tact, also.

10 On this location we have approximately
11 identified where the unorthodox location will occur and we
12 show the anticipated production interval, that this would be
13 appreciably above the oil/water contact but still would be
14 in a safe area located, as best we could, between the two
15 contacts for maximum production.

16 Q Were Exhibits One, One-A, and Two pre-
17 pared or compiled under your direction?

18 A That's correct.

19 MR. KELLAHIN: If the Examiner
20 please, we move the introduction of the three exhibits.

21 MR. STOGNER: Exhibits One
22 through Three will be admitted into evidence.

23 MR. KELLAHIN: I'm sorry,
24 that's One, One-A, and Two.

25 MR. STOGNER: I'm sorry --

MR. KELLAHIN: I said three ex-
hibits but they're numbered --

MR. STOGNER: We'll change it.

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Anyway, they are admitted.

I have no further questions of
this witness.

If there are no other questions
of him, he may be excused.

Is there anything further in
Case Number 8465 this morning?

MR. KELLAHIN: Not in this case.

MR. STOGNER: This afternoon.

MR. KELLAHIN: No, sir.

MR. STOGNER: If not, this case
will be taken under advisement.

(Hearing concluded.)

C E R T I F I C A T E

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

Sally W. Boyd CSR

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 8465, heard by me on January 30, 1985.
Michael E. Meyer, Examiner
Oil Conservation Division

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