STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
STATE LAND OFFICE BLDG.
SANTA FE, NEW MEXICO
25 February 1981

EXAMINER HEARING

IN THE MATTER OF:

Application of Inexco Oil Company for a unit agreement, Chaves County, New Mexico.

CASE 7167

BEFORE: Daniel S. Nutter

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation Division: Ernest L. Padilla, Esq.
Legal Counsel to the Division
State Land Office Bldg.
Santa Fe, New Mexico 87501

For the Applicant: William F. Carr, Esq.
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I N D E X

E X H I B I T S

MR. NUTTER: Call now Case Number 7167.

MR. PADILLA: Application of Inexco Oil Company for a unit agreement, Chaves County, New Mexico.

MR. CARR: May it please the Examiner, my name is William F. Carr, with the law firm Campbell, Byrd, and Black, P. A., Santa Fe, appearing on behalf of Inexco Oil Company.

I would like the record to reflect that Mr. Feldman is under oath. He will be the only witness I call -- will call in this case.

MR. NUTTER: Mr. Feldman is still under oath in this case.

MENHART L. FELDMAN

being called as a witness and having been previously sworn upon his oath, testified as follows, to-wit:

DIRECT EXAMINATION

BY MR. CARR:

Q. Mr. Feldman, are you familiar with the application of Inexco in this case?

A. Yes, I am.

Q. And with the Made Well Anticline Unit agreement?

A. Yes. It was named after -- this anticline was named after a water well that was made on this anticline, hopefully -- a shallow water well. Hopefully that's not prophetic.

MR. CARR: Are the witness' qualifications acceptable?

MR. NUTTER: They are.

Q. Mr. Feldman, will you briefly state what Inexco seeks with this application?

A. We seek approval of the Made Well Anticline Unit agreement in Townships 12, 13, and 14 South, Ranges 21 and 22 East, Chaves County, New Mexico.

Q. Have you prepared certain exhibits for introduction in this case?

A. Yes.

Q. Will you please refer to what has been marked for identification as Inexco Exhibit One and identify this for the Examiner?

A. This is the unit agreement for the development and operation of the Made Well Anticline Unit area.

Q. Are you proposing any changes in this agreement in the form in which it was originally presented?

A. Yes. We would like to delete Section

33 in its entirety.

Q. Has this agreement been approved by the State Land Office as to form?

A. Verbally, and we will submit the -- the written approval as soon as we receive it. We'll submit it to this -- to this board.

Q. Has the unit area been designated by the USGS as an area logically suited for development under a unit plan of development?

A. We have preliminary verbal approval and will submit the written approval to this board as soon as we receive it.

Q. Will you please refer to Inexco Exhibit One-A, which is the acreage plat, and by using this exhibit tell the Examiner how many acres are in the unit area and break this acreage down by Federal, State, and fee lands?

A. All right. We have within this unit, this proposed unit covers 39,238 acres. The Federal portion -- Federal acreage portion of this 28,049.59 acres, which would be 71.4 percent.

The State -- State portion of this unit is 6763.07 acres, which comprises 17.24 percent of the unit.

Patented or fee land covers 4425.49 acres, which equals 11.27 percent of the unit.

Q. Mr. Feldman, what is the present status of commitment of working interest to the unit?

A. We presently have verbal commitment of 76 percent, including Inexco's portion of the -- of it, and we have indications that considerably more will be willing to join.

Q. Is this 76 percent figure sufficient acreage to afford effective control of unit operations?

A. Yes.

Q. And Inexco is designated operator in the unit agreement, is it not?

A. Yes.

Q. Will you please refer to what has been marked for identification as Inexco Exhibit Number Two and explain to the Examiner what this shows?

A. This is a -- this is a geologic report entitled Geology of the Proposed Made Well Anticline Unit, Chaves County, New Mexico.

And enclosures and attachments for this geologic report include a Exhibit A within the report, which is Glorieta structure map; Exhibit B, cross section A-A'; Exhibit C is the Unit Well No. 1 prognosis; Exhibit D is the Unit Well No. 2 prognosis; Exhibit E is the current -- is the AFE for Well No. 1; and Exhibit F is the AFE for Well

No. 2.

And within this report we cover the purpose, the purpose being two 5500-foot Precambrian tests, located on this large anticline, which has never been -- no well has been drilled within six miles of this large surface feature;

The location, being some eight miles southwest of Roswell, New -- the town of Roswell, New Mexico;

The general geology, describing that this is on the northwest flank of the Permian Basin, the southeast flank of the cratonic element known as the Pedernal land mass;

A description of the interpretation of the ridge faults, referred to as the Border, Six-Mile, and Y. O. Buckles, with which this anticline is associated;

The local geology, possible pay zones, and unit outline, and why we feel that it would be a feasible unit.

Q. Will you now refer to what's been marked Inexco Exhibit Two-A and review this for Mr. Nutter?

A. Exhibit Two-A is a top of the Glorieta structure map, Permian-Glorieta structure map, showing the large surface feature that we just referred to in the report as the Made Well Anticline.

This anticline is an anticline which was formed by the -- by wrench movement, right lateral wrench movement, along the Six Mile Buckle. This Six Mile Buckle is a wrench fault, which was generated by the northwest -- northeast tilting of the Permian Basin during the Laramide Revolution, which occurred in late Cretaeous, early Tertiary.

When this movement occurred, when this tilt occurred, this old down to the basement normal faults which were present on the northwest shelf of the Delaware Basin, the blocks between these faults moved differentially to the northeast due to the stable block, which was the Pedernal land mass, which was part of the stable craton. They were compressional because each -- each block moved separately and moved a little further to the northeast away from this non-movable area.

So that put a compressional force on each block to the southeast and caused these to buckle at the surface and they are actual surface topographic features, these buckles, and at the same time this buckling, as well illustrated in clay modeling. formed these anticlines along this buckle, and these are right lateral ridge faults, and as a result it formed these right lateral anticlines which are sub-parallel to the buckle, meeting it at an acute -- intersecting the buckle at an acute angle.

And across this proposed unit we have a long cross section which we show here. I believe we call that Exhibit Three?

Q. Two-B.

A. Two-B. On Exhibit Two-B we see the location of Inexco's proposed two wildcats, because this is a large unit over 25,000 acres, the USGS requires in a unit of this size for you to commit two wildcat wells to the unit, and we propose to drill two wildcat wells at the locations shown on this map, on this cross section. This cross section at this point is running almost north/south.

And our proposed Unit Well No. 1 is in the southwest quarter of the northeast quarter of Section 17, 12 South, 22 East. That would be the location, the southern location, shown on the -- on Exhibit Two-A.

MR. NUTTER: That would be 13 South, then.

A. I stand corrected. It's 13 South, 22 East, Section 17. I am correct then that it is the southwest of the northeast quarter, of 17.

The proposed second well is in Section 28 of 12 South 22 East, and it will be in the northwest corner of the northeast corner of Section 28.

We propose to take these, both of these

wells to the Precambrian. Our major objectives are the Abo sands that are shown within this red bed sequence. The red beds were left as white here and no stipling on them.

Some, at least 33 wells have been completed in this red bed in the sands which are within this red bed sequence within the past two years further north in Chaves County, and so our major objectives are these sands within this red bed sequence that were sourced by the unique movement on the -- on the faults during -- during the Laramide Revolution that formed the Rocky Mountains. That's when these old down to the basin faults, normal faults, were rejuvenated as wrench faults during the Late Cretaceous, Early Tertiary.

That is one of our primary objectives.

The other one is what is marked on here as Cambro-Ordovician and the Cambro-Ordovician consists in this area of rhyolitic flows, reached and weathered rhyolite flows, which are salicic volcanics, and granite -- interbedded granite washes, which on density neutron logs show gas effect, and which have reported to have shows in some wells in the area.

And in both cases we hope to go into unweathered, true Precambrian granite below it, below this Cambro-Ordovician.

We have labeled it Cambro-Ordovician be-

cause similar rhyolite flows are present in Texas in the Middle and Lower Ordovician.

The various -- this cross section extends towards the edge of the Pecos Basin on east/west leg going to the east, and illustrates the pinchouts of the various pre-Pennsylvanian stratigraphic layers as you come upon the Pedernal land mass. You can see that the Devonian pinches out under a Pennsylvanian unconformity; inches out under Strawn as a cuesta or hogback, between WEll s two and three on this cross section.

And also the Silurian pinches out in about that same position.

The Montoya, which is your Upper Ordovician, precedes and oversteps the thin Ellenburger wedge that's present here as part of the Lower Ordovician.

We interpret this -- these granit wash and rhyolite flows sediments to actually be CAmbro-Ordovician.

Q. Mr. Feldman, in your opinion will granting this application be in the best interest of conservation, the prevention of waste, and the protection of correlative rights?

A. Yes.

Q. Were Exhibits One, One-A, Two, Two-A, and Two-B prepared by you or under your direction and super-

vision?

A. Yes, they were.

MR. CARR: At this time, Mr. Examiner, we would offer these exhibits into evidence.

MR. NUTTER: Applicant's Exhibits One, One-A, Two, Two-A, and Two-B will be admitted in evidence.

Are there any questions of the witness? He may be excused.

Do you have anything further, Mr. Carr?

MR. CARR: Nothing further in this case.

MR. NUTTER: Does anyone have anything they wish to offer in Case Number 7167?

We'll take the case under advisement and recess the hearing until 1:30.

(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 C.S.R.

I do hereby certify that the foregoing is a complete record of the proceedings in the examiner hearing of Case No. 7167, heard by me on 2/25 1981.

, Examiner
Oil Conservation Division

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