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BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
CONFERENCE ROOM, STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO

July 25, 1973

EXAMINER HEARING

IN THE MATTER OF:

Application of Amoco Production
Company for a unit agreement,
Eddy County, New Mexico.

Case No. 5029

BEFORE: Richard L. Stamets,
Examiner.

TRANSCRIPT OF HEARING

1 MR. STAMETS: Case 5029: Application of Amoco
2 Production Company for a unit agreement, Eddy County, New
3 Mexico.

4 I will call for appearances in this case.

5 MR. BUELL: For the Applicant, Amoco Production
6 Company, Guy Buell. I should be joined by the firm of
7 Atwood and Malone in Roswell.

8 MR. STAMETS: Yes. We have a letter to that effect
9 in our file. Are there other appearances in this case?

10 (No response)

11 MR. BUELL: Our first witness will be Mr. Jack
12 Anderson.

13 * * * *

14 JACK D. ANDERSON,
15 was called as a witness, and after being duly sworn according
16 to law, testified as follows:

17 DIRECT EXAMINATION

18 BY MR. BUELL:

19 Q Would you state your name, by whom you are employed,
20 in what capacity, and at what location?

21 A Jack D. Anderson. I am employed by Amoco Production
22 Company as a landman. I am working out of Houston,
23 Texas at this time.

24 Q Mr. Anderson, how long have you been employed by Amoco
25 in the capacity of a landman?

1 A Seventeen years.

2 Q In your capacity with Amoco, have you been involved
3 in the background and the negotiations that have
4 resulted in the formation of the Old Indian Draw Unit
5 Area in Eddy County, New Mexico?

6 A Yes.

7 MR. BUELL: Do you have any questions, Mr. Examiner?

8 MR. STAMETS: None.

9 Q (By Mr. Buell) Mr. Anderson, in connection with your
10 testimony, I wish you would look first at what has been
11 identified as Amoco Exhibit One. What is that exhibit?

12 A Exhibit One is the Old Indian Draw Unit agreement,
13 which contains an outline of the proposed unit area.

14 Q Sir, I notice that the area within the Old Indian
15 Draw Unit is shaded in two different colors. What is
16 the significance of that?

17 A The area shaded in pink is Federal acreage, and the
18 green area is fee acreage.

19 Q Also I notice that in the Southeast quarter of Section
20 18, there is a dark blue dot. What is the significance
21 of that?

22 A That is the proposed location for the test well to be
23 drilled in accordance with the unit agreement.

24 Q The notice of hearing pointed out that there is
25 approximately 3128 acres within the Old Indian Draw

1 Unit, and all the land is located within Township 22
2 South, Range 28 East, Eddy County, New Mexico?

3 A That's right.

4 Q I wish you would describe for the record the acreage
5 within the Old Indian Draw Unit.

6 A All the acreage is located within 22 South, 28 East.
7 The unit would comprise all of Sections 7, 18, 19, and 20.
8 Also Section 8, the west half of the west half; and
9 Section 17, the south half and the south half of the
10 north half.

11 One other point I would like to make here is that
12 the acreage, the total acreage has changed to 3117.82
13 acres. We have made the necessary corrections in the
14 unit agreement.

15 MR. STAMETS: What was that figure again?

16 THE WITNESS: Three thousand one hundred seventeen
17 point eighty-two acres.

18 Q (By Mr. Buell) What is the status of the commitment with
19 respect to the working interest owners?

20 A All of the working interest owners have executed the
21 unit agreement.

22 Q You have mentioned, sir, that there are both Federal
23 and fee royalty owners, and their acreage is distinguished
24 by the different colors on Exhibit One. Would you name
25 for the record, please, the royalty interest owners

1 within the unit?

2 A The United States Government under Federal acreage,
3 and the Pecos Irrigation Company under fee acreage.

4 Q What is the status of the sign-up with respect to
5 royalty owners and-- Let's take the Federal Government
6 first.

7 A We have had a preliminary visit with the USGS in Roswell,
8 and they have concurred that this would be a logical
9 area to form a unit in. We also requested preliminary
10 approval from them, and we have received that from
11 their Denver office.

12 Q What about the Pecos Irrigation Company? Have they
13 executed the agreement as yet?

14 A No, they have not. We are working with them attempting
15 to secure their ratification.

16 Q Are there overriding royalty interests here?

17 A Yes, there are nine different royalty owners.

18 Q What is the status of their commitment?

19 A We approached them around July 11th with registered
20 letters, and all of them are in receipt of the letters.
21 We have received executed ratifications from four out
22 of the nine.

23 Q Have there been any refusal letters?

24 A No refusals.

25 Q Do you have any other comments on Exhibit Number One?

1 A No, sir.

2 Q Let's turn to Exhibit Number Two. What is that?

3 A The proposed unit agreement for the Old Indian Draw Unit
4 Area.

5 Q Since this proposed unit does involve Federal acreage,
6 I am sure it is more or less the latest such type
7 agreement acceptable to the Federal agencies, is that
8 correct?

9 A Yes, it is. It's their standard form, which is known
10 as the 1968 Reprint for Unproven Areas.

11 Q Mr. Anderson, in our letter requesting this hearing,
12 we attached copies of the unit agreement as it stood
13 at that time. Have there been any changes in the
14 agreement since that date, other than the change in the
15 number of acres which you have already mentioned?

16 A Yes, we have made three changes. The first one would
17 be on the certification and determination page where
18 we requested to add the word "area" in front of "oil
19 and gas supervisors". So it now reads, "Area oil and
20 gas supervisors". We were also requested to make a
21 change by the USGS on page nine, so that the zone which
22 we were drilling to would be-- would state that we
23 would test all of the formations of Pennsylvanian age.

24 The other change was on Exhibit A, which is the
25 plat. We had mistakenly indicated the fee acreage to

1 be one parcel, where actually there are two separate
2 leases. So we changed the tract numbers. Those are
3 the only changes.

4 Q All of those changes are very minor.

5 A Yes, sir.

6 Q But we had furnished the Commission with an earlier copy,
7 and we wanted to point out those changes.

8 Are we operating within this unit, this may not be
9 a good way to describe it, but on a short-time fuse?

10 A Yes, we are.

11 Q Do we have some leases with early expiration dates?

12 A Yes, we have two Federal leases with expiration dates
13 of August 31st, 1973.

14 Q So it is fairly obvious what the answer to this question
15 is going to be. We will immediately start drilling the
16 test well on approval, will we not?

17 A Yes, we would start probably in the middle of August.

18 Q Do you have any other statements you would like to make
19 at this time, Mr. Anderson?

20 A No, I don't.-- I might add that the projected depth is
21 of 12,400 at the location indicated on Exhibit One.

22 MR. BUELL: That's all we have from Mr. Anderson
23 at this time.

24 MR. STAMETS: Are there any questions of the witness?

25 (No response)

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MR. STAMETS: If not, he may be excused.

(Witness excused.)

* * * *

K. J. GAIZUTIS,

was called as a witness, and after being duly sworn according to law, testified as follows:

DIRECT EXAMINATION

BY MR. BUELL:

Q Would you state your complete name, by whom you are employed, and at what location, sir?

A My name is K. J. Gaizutis, and I am a geologist with Amoco in the Houston office. I have been employed there for five and a half years. In that capacity, I have worked on the Gulf Coast sand section for three and a half years, and I have worked in New Mexico primarily in the Morrow for three and a half years.

Q You have never testified before this Commission before?

A No, sir.

Q Let me ask you then to state your educational background in preparation for your profession as a geologist.

A I received a bachelor of science degree from Western University in Cleveland, Ohio, and am currently working on a masters thesis at the University of Houston.

Q How long have you been active in the Southeastern New Mexico area?

1 A Some two years.

2 Q All right, sir. Our primary objective in our test
3 exploratory well will be the Morrow, will it not?

4 A Yes, sir.

5 Q In connection with your testimony, I wish you would go
6 over to the map on the wall, which is identified as
7 Exhibit Three-- Can you see it, Mr. Examiner?

8 MR. STAMETS: Yes.

9 Q (By Mr. Buell) Mr. Gaizutis, will you describe that
10 exhibit, please?

11 A Exhibit Three comprises two parts of the structure. The
12 isopack map on the right is structured on the top of
13 the Atoca-Morrow section, and the isopack on the left
14 is of the Lower Morrow sand.

15 Q Let's first take the map portion on the right-hand side
16 of the exhibit so the Examiner will have some conception
17 of the size of the area.

18 A It's located here (indicating).

19 Q We can't put that in the record, so could you approximate
20 the center of the area?

21 A The approximate center of the area is located in
22 Township 22 South, Range 28 East, directly east of the
23 South Carlsbad field in the City of Carlsbad, New Mexico.

24 Q I am sure the Examiner is familiar with the South
25 Carlsbad Gas Pool. Do we have any productive Morrow

1 wells reflected on that portion of this exhibit?

2 A Yes, the newly discovered Burton Flat field north of
3 Section 22, and the Crawford-Black River to the south
4 in Section 23-- I'm sorry, Section 24. All of these
5 fields are west of our proposed unit.

6 Q Have you also located within the Old Indian Draw Unit
7 the approximate location of our first test well?

8 A Yes. It is located in Section 18, 1980 feet from the
9 east line and 1980 feet from the south line.

10 Q I notice you have without exception colored certain
11 intervals on the logs. Would you give the color and
12 the particular interval on the cross section?

13 A The fence type depiction depicts the Morrow interval.
14 The blue line or shading indicates what we call our
15 Upper Morrow which is primarily carbonate. The orange
16 and purple designate respectively the Middle Morrow
17 and the Lower Morrow.

18 We have delineated our Morrow Clastic section
19 into two separate entities. The sands within the Morrow
20 interval are colored yellow.

21 Q Let's talk about your map for just a minute. You said
22 that it is structured-- contoured on top of the Atoca,
23 in what color are those contour lines?

24 A Those are in blue.

25 Q You also stated that you have prepared an isopack of

1 the Lower Morrow. How have you shown the colored
2 contour intervals reflecting that isopack?

3 A Those are colored in lavender.

4 Q Would you briefly comment at this time on your isopack,
5 and how it has lead you to the opinion that we have
6 a good prospect here for a Lower Morrow producer?

7 A The Lower Morrow sand which is delineated by the fenced
8 diagram exhibits a trend in the north-south direction
9 immediately east of the South Carlsbad field. The
10 isopack values depicted on the map reflect the net clean
11 sand of that particular unit.

12 The sand is also productive, or has recently been
13 found to be productive, in the Burton Flats field out
14 of the Basil sand, where there is thick annulation of
15 the Basil-Morrow interval. We feel that a similar
16 situation exists in our area where we have the clean
17 sands where the isopack trends in the north-south direction.

18 Q Mr. Gaizutis, to me as a layman, my inclination would
19 be to crowd in closer to the South Carlsbad Pool to
20 the west, or to snug up closer to the Burton Flats to
21 the north. Why is that layman's view wrong in this
22 particular case in your opinion?

23 A The South Carlsbad field-- Most of the production from
24 the South Carlsbad field is from the Middle Morrow
25 section. There are three or four wells that have

1 production out of this Basil unit, but it's a very
2 thin zone, ten feet or less.

3 We feel that the best production out of the zone
4 would be the area where we have marked the Clastic
5 intervals similar to the situation we saw in the Burton
6 Flats field. We feel that the Pan Am Well in Section
7 26 of 22, 27, since it has encountered some 75 feet
8 of net sand in the Lower Morrow, we believe we will
9 find a thick Lower Morrow section within the Old
10 Indian Draw Unit.

11 Q We know we have good porosity and good permeability,
12 and if it just contains gas, we are in business?

13 A Right. The wells to the north and east of it have had
14 significant shows of gas out of the same interval.

15 Q Approximately how many wells did you have in the area
16 to help you in forming your opinion with respect to
17 the Old Indian Draw Unit?

18 A I would guess somewhere in the order of fifty wells.

19 Q And you have used approximately fifteen of those logs
20 in your cross section to the left of Exhibit Three?

21 A That's right, sir.

22 Q Do you have anything else that you care to add, Mr.
23 Gaizutis?

24 A Yes. We have depicted our main objective as the Basil
25 sand. However, the Middle Morrow Clastic intervals,

1 which are the most productive in the South Carlsbad
2 area, but which are not well displayed in the Pan Am
3 Well, might affect our opinion. We conceivable could
4 see a build-up of this interval in this area. In
5 addition, there has been production in the South Carlsbad
6 area from the Upper Morrow as well as the Atoca. There
7 is production from the Strawn within the area outlined
8 by our map on the right. There is also production out
9 of the Delaware sands.

10 Q Anything else, Mr. Gaizutis?

11 A No. So we feel we have a multiple objective in this
12 area, but we have delineated what we think as our
13 primary objective.

14 MR. BUELL: That's all we have by way of direct
15 examination, Mr. Examiner.

16 * * * *

17 CROSS EXAMINATION

18 BY MR. STAMETS:

19 Q What is your title, Mr. Gaizutis?

20 A I am a geologist with Amoco.

21 MR. STAMETS: In case the record does not reflect
22 it, the Examiner considers the witness's qualifications to
23 be acceptable in this case.

24 MR. BUELL: Thank you, Mr. Examiner.

25 Q (By Mr. Stamets) I notice that you have divided this

1 into three broad sections. In these three areas that
2 you have described, the top of the Morrow, the middle
3 of the Morrow, and the Lower Morrow, are the individual
4 sands continuous over a broad area, or do they tend
5 to be discontinuous between wells?

6 A They tend to be discontinuous. There is some indication
7 that the Basil sand may be a more continuous member,
8 although even in the Burton Flats, the Basil sand varies
9 very abruptly in a short space.

10 You are looking at three miles within that field,
11 and there are abrupt changes. However, over all, the
12 Basil we are contouring here on the isopack tends to
13 have the most continuous correlative values and would
14 lead one to feel that it would be easier to predict
15 than the Middle sands, the rest of the Clastic interval
16 in the Morrow.

17 Q So even though you have been able to extend these
18 intervals over a very large area doesn't mean you think
19 the production from the south end is going to be the
20 same as a well a mile away?

21 A I think the intervals are predictable, but I don't
22 think the sands are predictable.

23 MR. STAMETS: Are there other questions of this
24 witness?

25 (No response)

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MR. STAMETS: He may be excused.

(Witness excused.)

MR. STAMETS: Is there anything further in this case?

MR. BUELL: Just a very short statement, Mr. Examiner.

We do feel this is a solid conservation project that we are asking for in that it will permit us to drill a deep and expensive test well, and we certainly hope it will be productive of Morrow gas. In view of the early expiration dates on some of our leases, I would ask the Examiner's cooperation for speedy action.

I would like to offer Exhibits One, Two and Three.

MR. STAMETS: Without objection, Amoco Exhibits One, Two and Three will be admitted into evidence.

(Whereupon Applicant's Exhibits One through Three were admitted in evidence.)

MR. STAMETS: Is there anything further in this case?

(No response)

MR. STAMETS: The case will be taken under advisement.

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JACK D. ANDERSON

Direct Examination by Mr. Buell

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K. J. GAIZUTIS

Direct Examination by Mr. Buell

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Cross Examination by Mr. Stamets

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Applicant's #1

Sketch

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Applicant's #2

Unit agreement

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Applicant's #3

Map and cross section

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