STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO

9 November 1988

EXAMINER HEARING

IN THE MATTER OF:

Application of Yates Petroleum Corporation for a unit agreement, Lea County, New Mexico.	CASE 9518

BEFORE: David R. Catanach, Examiner

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Division:	Robert G. Stovall Attorney at Law Legal Counsel to the Division State Land Office Bldg. Santa Fe, New Mexico
For the Applicant:	Chad Dickerson Attorney at Law DICKERSON, FISK & VANDIVER Seventh & Mahone/Suite E Artesia, New Mexico 88210

I N D E X

E X H I B I T S

MR. CATANACH: Call next Case 9518.

MR. STOVALL: Application of Yates Petroleum Corporation for a unit agreement, Lea County, New Mexico.

MR. CATANACH: Are there appearances in this case?

MR. DICKERSON: Mr. Examiner, I'm Chad Dickerson of Artesia, New Mexico, on behalf of the applicant and I have two witnesses.

MR. DICKERSON: Any other appearances?

Will the witness please stand and be sworn in?

(Witness sworn.)

KEN BEARDEMPHL,

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

DIRECT EXAMINATION

BY MR. DICKERSON:

Q Mr. Beardemphl, would you please state your name, your occupation and by whom you're employed,

please?

A My name is Ken Beardemphl, employed by Yates Petroleum Corporation, Artesia, New Mexico.

Q And what is your occupation?

A I'm a landman.

Q Are you familiar with the land situation surrounding the proposed Yates Petroleum Corporation Winter Queen Unit Area, Lea County, New Mexico?

A Yes, sir.

Q You have testified before this Division as a landman in the recent past, have you not?

A Yes, sir.

MR. DICKERSON: Is Mr. Beardemphl qualified, Mr. Catanach?

MR. CATANACH: Yes, sir. Could I get him to spell his last name?

A B-E-A-R-D-E-M-P-H-L.

MR. CATANACH: Thank you.

Q Mr. Beardemphl, what is the purpose of Yates' application in Case 9518?

A Yates is seeking approval of the Winter Queen State Unit Area, comprising 2085.55 acres, more or less, of state lands underlying all of Section 3 and Section 10, east half of Section 4, east half of the west half and east half of Section 9, in Township 12 South, Range 32

East, approximately 5-1/2 miles south of Caprock, New Mexico.

Q Mr. Beardemphl, refer to what we have submitted as Yates Exhibit Number One and orient the Examiner with respect to the location of your proposed unit.

A Exhibit One is a plat of one of our latest updated land maps and it shows the outline in red, the Winter Queen State Unit Area, and it has the -- the approximate well location in Section 3.

Q Indicate that. You're indicating the well symbol in the southeast quarter of Section 3?

A Yes, sir. That's -- Yates plans on re-entering that well that's located 660 from the south, 1933 from the east in Section 3 and proposes to test the Queen formation at approximately 3,100 foot.

Q When and by whom was that well drilled, Mr. Beardemphl?

A The well was drilled by Texas Company. The well was called the Texas Company "BX" No. 1, State of New Mexico, drilled in September 8th, 1953. It was completed in December 28th, 1953. It was plugged. They drilled to approximately 11,518 feet, to test the Devonian, I believe.

Q And does the information available to Yates concerning that well indicate that a re-entry of it

would be feasible?

A Yes, sir. Approximately 9-5/8ths casing was set to 3,660 feet and it appears there are only a couple little plugs to drill through.

Q And what is Yates principal objective in re-entering this well and the objective of the unit formation?

A The Queen formation, like I said, approximately 3,100 feet.

Q If re-entry of that well proves impracticable, Mr. Beardemphl, what would Yates propose to do as far as testing the Queen objective for purposes of the unit?

A Probably attempt a well at a location 1980 from the south and 660 from the west in the same Section 3.

Q You'd merely move the location, if the re-entry proves impossible, to that location and drill the well vertically?

A Yes, sir.

Q Mr. Beardemphl, refer to what we have submitted as Yates Exhibit Number Two and tell the Examiner what this instrument is.

A Exhibit Number Two is the unit agreement for the development and operation of the Winter Queen State

Unit Area and it is on a standard State-approved form and it is unitized as the substances to all formations in the unitized area.

Q What -- what paragraph and page is that?

A Paragraph 2, page 2.

Q There is no depth limitation or anything like that. All lands and hydrocarbon substances are unitized by this agreement?

A That's true.

Q Mr. Beardemphl, refer to Exhibit A to your unit agreement and tell the Examiner what that map shows.

A Exhibit A is the map of the Winter Queen State Unit that has the map boundary outline and it shows the names of the owners of the lease. It shows the lease numbers and the expiration dates and each lease is numbered and circled.

Q Those are the tract numbers?

A Tract numbers, yes, sir.

Q Okay. Identify Exhibit B to that unit agreement and summarize the information shown on it.

A Exhibit B has the lease information. It starts off with tract number, then it has a land description, the number of acres, serial number, and expiration date, the basic royalty ownership percentage, the lessee of

record, overriding royalty, if any, and then the working interest of each lease.

Q Mr. Beardemphl, Tract 6 shows to be unleased, as I understand it, what is the status of that Tract 6 and what does Yates propose to do with that unleased tract within the unit area?

A Tract 6 is 40 acres unleased State land. It is coming up on the next State lease land sale, I believe next week, and as per paragraph 23 on page 11, I believe, subsequent joinder. whoever buys the tract will be sent all the information and have a --

Q Invited to join the unit?

A Invited to join the unit.

Q Mr. Beardemphl, from your Exhibit B to the unit agreement, what is the expiration date of the earliest lease expiring to be committed to this proposed unit?

A Expiration date, the earliest lease, I believe it's Tract No. 1. That is the date of December 1, 1988.

Q And you would request approval, if possible, prior to that date, since Yates will have to be drilling prior to December 1st?

A Yes, sir, that would --

Q Identify Exhibit Number Three, Mr. Bear-

demphl and tell us what it is.

A Exhibit Number Three is the standard Form AAPL 610, 1977, Model Form Operating Agreement for the Winter Queen State Unit, dated October 17th, 1988. It covers the contract area

Q This form is not complete in all particulars, is it, Mr. Beardemphl? The initial well location, for instance, is not filled in on page 4.

A No, sir.

Q And these instruments, Exhibits Two and Three, will be completed when you know the status of joinder by the various parties prior to final approval of this unit?

A Yes, sir, that's true.

Q Refer to Exhibit A to your unit operating agreement, Mr. Beardemphl, and summarize for Mr. Catanach the interests of the parties to the unit and the status of their joinder or lack of joinder to this proposed unit.

A Exhibit A shows the subject agreement lands and down on paragraph 2, percentage interest of the parties under the agreement as per acreage, and as of right now we have 80.77 percent have agreed to join and then we have the 1.9 percent that is the open acreage, and approximately -- well, the rest of it is they have not decided

yet. They're either talking farmout to the unit or they don't know exactly what they're going to do yet.

Q Indicate the parties shown in paragraph 2 of Exhibit A who have to signed a ratification and joinder of the proposed unit to this date.

A The parties are Terra Oil Company, and Texaco USA.

Q And with the exception of those parties and the open tracts, all the other interests are committed?

A Yes, sir.

Q Mr. Beardemphl, Exhibit Number Four, tell us what that letter is.

A Exhibit Number Four is a letter to the Commissioner of Public Lands for preliminary approval of the Winter Queen State Unit.

Q And have you visited with personnel in that office to determine --

A Yes, sir.

Q -- the status of that application for preliminary approval?

A Yes, sir, they were still looking at it this morning and hadn't had time to give me an answer yet.

Q You have no reason to believe that there will be any problem with --

A I have not.

Q -- obtaining preliminary approval?

A I don't see any problem

MR. DICKERSON: Mr. Catanach, I move admission of Yates Exhibits One, Two, Three and Four, and I have no further questions of Mr. Beardemphl.

MR. CATANACH: Exhibits One, Two, Three and Four will be admitted as evidence.

CROSS EXAMINATION

BY MR. CATANACH:

Q Mr. Beardemphl, does Yates -- does Yates plan to bid on the acreage that's --

A Yes.

Q -- going to come up for lease? And what was the status on the -- on the joinder of Terra and Texaco at this point, did you say?

A Well the status right now is Terra is talking farmout to us and Texaco says they do not know right now if they're going to join or not, so we're kind of waiting on something in writing when they make their decision, and I don't know exactly what will be at this date because they haven't given me anything conclusive.

Q The principal objective within the unit is the Queen formation, is that correct?

A Yes, sir.

Q Are there any other prospective formations that you plan plan on testing?

A Not that I know of. That's more in Tom's field.

MR. CATANACH: I have no further questions of the witness.

He may be excused.

THOMAS A. SIWULA,

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

DIRECT EXAMINATION

BY MR. DICKERSON:

Q Mr. Siwula, will you state your name, your occupation, by whom you're employed, please?

A My name is Thomas A. Siwula. I'm a geologist and I am working for the Yates Petroleum Company in Artesia.

Q Mr. Siwula, you have not previously testified before this Division as a petroleum geologist, have you ?

A No, I have not.

Q Will you briefly summarize your educa-

tion and employment background for the Examiner?

A I received a Bachelor of Science degree from the University of Cincinnati in June of 1952 and took graduate work in early 1953, and I have been working as a geologist since January of 1955 up to the current time.

I had 17 years at Atlantic Richfield and then 4 years with a subsidiary of Southern Union Gas, known as Aztec Oil, and then I worked for Lone Star Gas, Holly Energy Corporation, and for the past 5-1/2 years for the Yates Petroleum Company in Artesia.

Q Mr. Siwula, have you made a study of the available geologic data and are you familiar with the geological basis for the formation of the proposed Winter Queen State Area?

A Yes, I am.

MR. DICKERSON: Tender Mr. Siwula as an expert geologist, Mr. Catanach.

MR. CATANACH: He is so qualified.

Q Mr. Siwula, briefly -- or refer to Exhibit Number Five that we have submitted to the Examiner, if you would, and tell us what information is shown on that map.

A Exhibit Five is an area map showing the location of the proposed Winter Queen Unit with respect to

the nearby Queen production.

The Queen oil production is marked in green on this map and the Queen gas production is marked in red.

The proposed unit, the Winter Queen Unit, is colored yellow and it's located immediately north of the Northeast Caprock Queen Unit.

Both the Northeast Caprock Queen Unit and the Caprock Queen Field have been prolific oil producers from stratigraphic traps in the Queen sand. The combined cumulative of the Caprock Queen and the Northeast Caprock Queen oil production as of January the 1st, 1988, was 73,571,000 barrels of oil.

The proposed Winter Queen Unit, as you can see, should be on a northeast extension of the Caprock -- Northeast Caprock producing trend.

Q And what is your principal objective to be tested in this initial unit well, Mr. Siwula?

A The primary objective of the proposed re-entry within the Winter Queen Unit is to establish new production in the Queen formation.

The well to be re-entered, the Texas Company "BX" State No. 1, is located 660 from the south and 1983 from the east line of the Section 3, and the well is only 43 feet east of the Amerada State SCA No. 1, and

the porous section in the Amerada State "SCA" Well No. 1 from 3025 to 3050 feet was not tested.

The well is no shape to be re-entered, whereas our engineering examination of the Amerada State "SCA" No. 1 indicates a very clean and efficient re-entry. As previously stated, casing was going to a depth of 3660 feet and 2500 sacks of cement were circulated to the surface so there's a good cement job behind the pipe and we'd only have to drill out several plugs and perforate.

Q Mr. Siwula, identify what we have submitted as Yates Exhibit No. Six and tell us what that instrument is.

Q Yates Exhibit Number Six a structure contour map. The mapping horizon is the top of the Queen formation and the area and subsea datums utilized in making this map are located by the respective well spots. The contour interval is 20 feet and the scale of the map is one inch equals 2000 feet.

The proposed Winter Queen Unit is outlined in a dashed line and the initial proposed re-entry is so noted.

The porous Queen sandstone trends are shown as gray shaded areas. Penetrations that encountered nonporous, impermeable Queen sandstone are labeled with a capital T alongside the well spot.

The other symbols that are by some of the wells are noted in the legend at the bottom of the map.

The solid line connecting the wells that are circled in red denotes a cross section, A-A', which is Exhibit Number Seven.

What the map shows is that Queen production in this area is from stratigraphic accumulations that are structurally influenced.

The Northeast Caprock Unit, which is the nearest production to the Winter proposed unit, is located on the south/southeastward flank of a southeastward plunging nose. The productive belt of porous Queen sandstone parallels in general the strike in an east/west orientation. A small structural re-entrant situated in the middle of the field appears to divide the production into two distinct pools. An up-dip pinchout of porosity controls the production to the north/northwest and loss of porosity defines the southern boundary of the field, as well.

The Queen penetrations in the tight, nonproductive areas, encountered impermeable red sands rather than the permeable productive gray sands that produce and often this facies change corresponds directly to a structural trough.

The eastern production limit for the Northeast Caprock Queen Unit appears to be coinciding with

the narrow band of steep dip trending in a north/south direction that reflects the deeper Caprock fault.

The Winter Queen Unit appears to be an analog to the Northeast Caprock Unit. Structurally it's very similar. The proposed unit, as you can see, is situated on the flank of a broad, southeastward plunging nose and it is expected that porous, clean sandstone would be encountered on the southern and eastern flanks of the positive area, and this is substantiated by the porosity development in the Queen at the Amerada State "SCA" No. 1, located in the southwest of the southeast of Section 3. This porous section was not tested.

We have the northern and western boundaries of the unit coinciding with the up-dip porosity pinchout.

The Kelly State No. 1 Well, located in the northeast northeast of Section 4, is a tight well and the Amerada -- excuse me, the Antweil Buddy No. 1, located in the northwest northwest of Section 9, encountered approximately 6 feet total of scattered porosity stringers in the Queen based on the examination of a behind the casing neutron log, indicating that it is near the northeast or northwest edge of the porosity pinchout.

The steep dip that is associated with the Caprock Devonian structure immediately to the east of

the unit, marks the expected limit of porosity developed to the east and provides the justification for the eastern unit boundary and the area and land south of the proposed unit is located in a structural trough and is believed to be nonproductive. It's a general phenomena in this part of the county for the low areas to correspond to nonproductive, nonporous, red, impermeable Queen sand facies.

Q Mr. Siwula, identify Exhibit Number Seven for us, if you would, and review the information shown on the cross section.

A Exhibit Number Seven, a structural cross section extending in a southward direction from the proposed drillsite to existing Queen production in the northeast Caprock Queen Unit and then hence into the Caprock Queen Field, respectively.

Generally the section illustrates the alternating bands of porous, productive sands, which are colored yellow on the cross section and separated by the impermeable nonproductive sands that are colored purple on the cross section.

To elaborate on cross section A-A', the southernmost well, the Phillips Petroleum Rock State No. 2, is located in the Caprock Field and is fairly representative of most of the other producers in the field.

The next well to the north, as you can

see, the Caprock porosity pinches out. A test through open hole at 3016 to 3035 after a treatment with 10,000 gallons of lease oil with one pound of sand per gallon, the well was swabbed and the records indicate that not -- no -- there were no shows. They did not even recover the load.

As you go, next well, the third well from the lefthand side of the cross section, the Sunray State "B" No. 1, which was the discovery well for the Northeast Caprock Queen Unit, you see that the porosity is present as indicated by the flow of 65 barrels of oil natural through open hole on July of 1954. It should be noted that this well has a cumulative oil production of over 154,000 barrels of oil.

The Gulf Lee "SH" No. 1 is located in the impermeable band that separates the Northeast Caprock Field from the Winter Queen Unit and here again the well was substantiated to be tight by a core which found tight sand with a slight amount of stain and odor.

And the final well, the Amerada State "SCA", which is the key well to the prospect, indicated a porous band of Queen sandstone that Yates plans to test by re-entry of the twin, the Texas Company "BX" No. 1 Well.

Q Mr. Siwula, what conclusions do you draw from your review of this information?

A Well, it's been demonstrated that the

lands encompassed by the proposed Winter Queen State Unit are on trend with prolific Queen Sand production from Exhibit One, and the geological considerations appear to be very similar in the unit as compared to what we have in the Northeast Caprock Unit, which is a field that is approaching producing nearly 6-million barrels of oil to date, and we expect similar production in the Queen formation under the lands described in the proposed unit and this provides the necessary justification for the formation of such a unit; therefore Yates Petroleum respectfully requests approval for the proposed Winter State Queen Unit as offering an effective method to explore and develop oil reserves for the State of New Mexico.

Q Mr. Siwula, were Exhibits Five, Six and Seven prepared by you or under your direction and supervision?

A Yes, they were.

Q And in your opinion will approval of this application be in the interest of conservation, the prevention of waste, and the protection of correlative rights?

A Yes.

MR. DICKERSON: Mr. Examiner, I move admission of Yates Exhibits Five, Six and Seven, and I have no further questions of Mr. Siwula.

MR. DICKERSON: Exhibits Five, Six and Seven will be admitted as evidence in this case.

CROSS EXAMINATION

BY MR. CATANACH:

Q Mr. Siwula, is the Queen formation the only perspective formation that you plan to test in this unit?

A At this depth the Queen formation is the only prospective producing formation. All other producing formations are at a deeper depth.

Q You said the wells to the east of the unit are Devonian wells?

A That is right. Immediately to the east of the unit and in Sections 2 and in Sections 11 we have the East Caprock Devonian Field, which is a prolific anticlinal accumulation that trapped Devonian oil and I believe that field was drilled around 1952, or so, and examination of the records indicated that all the wells that border the proposed unit along the western side of the Caprock Devonian Field just merely drilled with rotary through the Queen and set casing without any testing, as near as we could ascertain from examining all the records.

There is no shallow production in the East Caprock Devonian Field except for one marginal well

that has been plugged. It's located in Section 2, identified as the Elk Oil State "DK" No. 1, total depth 11,286, plug back 4250 feet, which would put it in the San Andres, and I do not have the exact potential, but it was only on the order of several barrels per day pumping and one of the other wells perforated that interval after it depleted in the Devonian and found water.

So that's the situation at East Caprock.

Q Okay, so it is your opinion that your unit area probably encompasses what you think will be productive in the Queen?

A Yes. By a process of elimination we have tight wells, as indicated by cores, logs, or cable tool bailing tests, in the area to the west of the unit, and then in the area to the south of the unit, and also to the north, and we feel that structural situation with the Caprock Queen Field is making the justification for the eastern limits of the unit.

The unit is pretty much shaped around the flanks of that southeastward plunging nose, which is a common occurrence of Queen oil accumulations.

MR. CATANACH: I have no further questions of this witness. He may be excused.

Mr. Dickerson, when you anticipate the approval for the unit by the Land Commissioner

to be?

MR. DICKERSON: I expect preliminary approval by the end of this week, Mr. Catanach.

MR. CATANACH: As I understand it, negotiations by Terra and Texaco are still going on?

MR. DICKERSON: Yes, sir.

And as you know, your unit -- or your -- any order issued by your office will require submittal to you of an executed original of the unit agreement and unit operating agreement on final approval, and that will be done.

MR. CATANACH: Okay, and I also need a -- will you submit a copy of the preliminary approval from the State Land Office?

MR. DICKERSON: Yes, sir.

MR. CATANACH: When you receive that.

Is there anything further in this case?

If not, it 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 (Commission) 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. 9518, heard by me on November 9, 1984.

David R. Catanach, Examiner
Oil Conservation Division

NEW MEXICO OIL CONSERVATION COMMISSION

EXAMINER HEARING

SANTA FE, NEW MEXICO

Hearing Date NOVEMBER 9, 1988 Time: 8:15 A.M.

NAME	REPRESENTING	LOCATION
William F. Carr	Campbell & Black, P.A.	Santa Fe
Cindy Ellis	ARCO Oil & Gas	Midland
E.R. Manning	El Paso Natural Gas	El Paso, TX
Bernard R. Johnson	Berry Lee Hobbs, et al	Hobbs, NM
Chad DICKERSON	Dugan Prod. Corp.	Artesia, NM
Brad Bennett	M. GRAD PETROLEUM INC.	Midland, Texas
Paul F. Kautz	NMOCD	HOBBS, NM
W. Perry Pearce	Kellahin & Kellahin	Santa Fe
James Bruce	Hinkle Law Firm	Albuquerque
R. Bryan	Bryan	Santa Fe
Ken Beardemphl	YPC	Artesia, NM
Bill Duncan	Exxon	Midland, TX
Joe B. Thomas	"	"
Ben Gregson	"	"
Charles A Caffrey	Inexco Oil Co.	Houston, TX

ILLEGIBLE

NEW MEXICO OIL CONSERVATION COMMISSION

EXAMINER HEARING

SANTA FE, NEW MEXICO

Hearing Date NOVEMBER 9, 1988 Time: 8:15 A.M.

NAME	REPRESENTING	LOCATION
Tim L. Burr	Pennzoil	Houston
Thom O'Brien	OGS Operating Co.	Midland TX
Michael W. Gates	"	"

ILLEGIBLE