Page 1 NEW MEXICO OIL CONSERVATION COMMISSION EXAMINER HEARING SANTA FE , NEW MEXICO FEBRUARY 25, 1981 Time: 9:00 A.M. Hearing Date_ REPRESENTING NAME LOCATION Wieliand. Berl Ron Westbrook John H. Hendrix Corp. Senta Vie initionstax Toquell Jenny & thesty Dames 1 Xmmp Sine Sally Jack Brynberg Asso, brynberg & Assoc. Santa te M. Ettinger Denver. Ken Bateman White Coast Kellyd de Couty PA Santak H.T. Humanell Twin Montane Inc. Graham Tay Montgoy r'archen PA Jay & Liberto Soit & MM Royce W. Lubke ARCO Dil \$ GAS midland, Tax ARCO Oil & Goo Huan Q. Pham Midland, Tex cal A phallinge Romer m RM Richalm Carl A Schellinger Roswell, 71 Ma H. R. Reddy Denver, Bo. Consolidated did , 600 Lynn Teachendorg municaros ac E Gos Them ware of hom You Fishardon USGS, Conservation Albuq, NM Sue Umshler JAMES Cooks Ey Josh EL. Howow Ineres ail longany Anto oil lo. Incens, TP Houston, Tx Mr. Ames M.L. Feldman Houston, Tx. Houston TI Thema Oil Ca

Page

2

NEW MEXICO OIL CONSERVATION COMMISSION

EXAMINER HEARING

SANTA FE , NEW MEXICO

Hearing Date _____ FEBRUARY 25, 1981 Time: 9:00 A.M.

NAME Victor F. Vasicek J.M. Fullinwider Jack G. Elam John E. Casey Charles E Verquer N Durton N.V. Kellahin api Laruson

REPRESENTING V-F PETROLEUM INC. Midle V-F Petroleum INC. Midle Jake L. Homon Caulkins Oil Co. Tar. Greve Will SGAN Vellerlin tofellerlin CAURCADE Oil CORP

LOCATION Milland, TX Midland, TX Midland, TX Midland, TA Midl, Tax Jarmingher, J.M. Dallas, TX Soubote

Opelshad

1 Page __ 1 STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT 2 OIL CONSERVATION DIVISION STATE LAND OFFICE BLDG. SANTA FE, NEW MEXICO 3 25 February 1981 4 EXAMINER HEARING 5 6)) IN THE MATTER OF: 7) Application of Carl A. Schellinger) for a unit agreement, Chaves) 8 CASE 7157 County, New Mexico.) 9 10 BEFORE: Daniel S. Nutter Legister Themserp 11 12 TRANSCRIPT OF HEARING 13 14 APPEARANCES 15 16 For the Oil Conservation Ernest L. Padilla, Esq. 17 Legal Counsel to the Division Division: State Land Office Bldg. 18 Santa Fe, New Mexico 87501 19 20 Randolph M. Richardson, Esq. For the Applicant: Roswell, New Mexico 21 22 23 24 25

1		2
2		
3	INDEX	
4		
5	GEORGE REDDY	
6	Direct Examination by Mr. Richardson	3
7	Cross Examination by Mr. Nutter	10
8		
9		
10		
11		
12		
13	EXHIBITS	
14		
15	Applicant Exhibit One, Map	6
16	Applicant Exhibit Two, Map	7
17	Applicant Exhibit Three, Map	7
18	Applicant Exhibit Four, Map	7
19	Applicant Exhibit Five, Report	8
20		
21		
22		
23		
24		
25		

1	3
2	MR. NUTTER: The hearing will come to
3	order, please.
4	Call Case Number 7157 first.
5	MR. PADILLA: Application of Carl A.
6	Schellinger for a unit agreement, Chaves County, New Mexico.
7	MR. RICHARDSON: Randolph M. Richardson,
8	Roswell, New Mexico, appearing on behalf of applicant.
9	The Division has already been furnished
10	a copy of the unit agreement. I'd like to hand you some
11	revised Exhibits A and B, and also a geologic report.
12	And I have one witness to be sworn.
13	
14	(Witness sworn.)
15	
16	GEORGE REDDY
17	being called as a witness and being duly sworn upon his oath,
18	testified as follows, to-wit:
19	
20	DIRECT EXAMINATION
21	BY MR. RICHARDSON:
22	0. Mr. Reddy, would you please state your
23	name and present occupation?
24	A. My name is George Reddy, I'm a con-
25	sulting geologist in Roswell, New Mexico.

4 1 2 MR. NUTTER: How do you spell your last 3 name, please? 4 A. R-E-D-D-Y. 5 MR. NUTTER: Thank you. 6 Would you please state your educational Q. 7 and professional background which would enable you to testi-8 fy as an expert witness in this case? 9 A. I have a Bachelor of Science and Master 10 of Science degrees from University of New Mexico; worked 11 in the petroleum industry approximately twenty years; the 12 past five and a half years I've lived and worked in Roswell, 13 New Mexico, as a consulting geologist. 14 Are you familiar with the Campbell 0. 15 Station Unit area and the matters contained in the applica-16 tion to the Division for approval of the unit agreement? 17 A. Yes. 18 Have you ever testified before the Divi-0. 19 sion before as an expert witness? 20 A. Yes. 21 MR. RICHARDSON: Are the qualifications 22 acceptable? 23 MR. NUTTER: They are. 24 Has the unit area been designated by 0. 25 the United States Geological Survey as an area logical,

5 1 2 suitable for development under a unit plan of operation? 3 No, it has not. There are no --- there's A. 4 no Federal acreage in this proposed unit. 5 Would you please tell the Division the Q. 6 total number of acres within the unit area and the number 7 and percentages of acres of Federal, fee, and State? 8 3840.98 acres in the unit, and it's A. 9 100 percent State acreage. 10 Would you please tell the Division the 0. 11 township and range in which this unit is located and the 12 approximate location with reference to the nearest town? 13 The unit is located in portions of Town-A. 14 ships 8 and 9 South, Range 27 East. It's approximately 22 15 miles northeast of Roswell in Chaves County. 16 Mr. Reddy, would you please refer to the 0. 17 geological report which has been handed to the Division and 18 marked as Exhibits One through Five? Was this report pre-19 pared by you? 20 Yes. A. 21 And would you please review the report 0. 22 briefly, referring to the maps by name and indicating the 23 significance of such maps and written report? 24 A. Okay, the report is based on four maps 25 that are presented with it.

	6	
1		
2	The first of these is Exhibit One. It's a structure	
3	map on top of the Queen formation. Contour interval on this	
4	map is 25 feet. The scale on all the maps presented is one	
5	inch equal one mile.	
6	It's on this uppermost unit, the Queen,	
7	that this prospect is based upon in many respects because	
8	it offers more control. There are more wells drilled to it	
9	than any of the other zones of interest.	
10	And on the Queen formation the structure	
11	here is indicated to be a strong nose plunging eastward over	
12	the prospect. There's a possibility of closure in the east	
13	half of Section 32, the west half of Section 33 of Township	
14	8 South, Range 27 East.	
15	The Queen was the objective for some of	
16	the shallower wells drilled in the prospect area where they	
17	cored it in some cases, and in one case, in the northwest	
18	corner of Section 32, of 8 South, 27 East, a completion	
19	attempt was made in the Shannon Well. The cores that were	
20	cut in the Queen sand indicated shows of oil but most cases	
21	it was also very tight, having salt flood porosity. The	
22	one well in which a test was attempted I mean a completion	
23	was attempted proved also that the formation was tight; how-	
24	ever, we do consider it a secondary objective on this pros-	
25	pect and as I said before, it offers the basic structural	

7 1 2 data for the deeper zones. 3 Exhibit Two is also a structure map on 4 top of the uppermost porosity zone in the San Andres forma-5 tion, the P-1 zone; contour interval on this map is 50 feet, and many of the points from these shallower Queen wells have 6 7 been projected to the P-1 horizon on the basis of the thick-8 ness in here by wells, and on the basis of that, these pro-9 jected points, again a strong east plunging nose is indi-10 cated to occur over the prospect area. 11 Cores in the P-1 zone and attempted com-12 pletions on the west side of the estimated permeability 13 limit indicated that it was very tight. But porosity in-14 creases to the east and we believe that permeability will 15 increase to the east, and it's on that basis that we've 16 drawn the prospect area in color. 17 Exhibit Three is a structure map on top of the pre-Woodford Paleozoics and it's the deepest zone 18 19 to be tested here. Again it's projected from the shallower 20 structure. The nearest control are the two wells to the 21 north in Sections 16 and 17 -- or Section 17, where they 22 encountered the pre-Woodford Paleozoics, and this structure 23 is based strictly on projection from these shallower beds. 24 Exhibit Four is a composite prospect 25 map showing the limits of the three prospects that have been

8 1 2 shown on the previous maps, the light green being the Queen 3 prospect; the brown is the P-1 zone; and the dark green are 4 the pre-Woodford Paleozics rocks prospect and their rela-5 tion to our proposed unit boundary. 6 Could you please refer to Exhibit Five. 0. 7 which is the written report, and just briefly run through 8 and tell the Division the formations likely to be encountered 9 and considered prospective or productive? 10 A. Okay, the Permian we expect to encounter 11 at about 250 feet, and as I mentioned earlier, the Queen 12 is considered a secondary objective. Also in the Permian 13 section the P-1 zone, a primary objective, and the deepest 14 Permian prospective zone is the Abo, which again is a pri-15 mary objective. 16 The Pennsylvanian rocks, carbonates, 17 are expected to be secondary objectives and the Silurian, 18 Ordovician, or pre-Woodford rocks are primary objectives. 19 0. Would you please tell the Division the 20 projected depth and location of the initial test well? 21 The projected depth is 7000 feet and Α. 22 the proposed location for the well is the southwest quarter 23 of Section 34, Township 8 South, Range 27 East. 24 Will 7000 feet penetrate the basement 0. 25 granite?

9 1 2 Yes, we believe it will. A. 3 In other words, this is a granite base-Q. 4 ment test? 5 It is. A. Have the other working interest owners 6 0. 7 within the unit area been contacted? 8 Yes. À. 9 Q. In your opinion what percentage of the 10 working interest will be committed and what percentage of 11 the royalty will be committed? 12 About 98 percent of the working interest A. 13 and 100 percent of the royalty interest. 14 In your opinion will the operation of 0. 15 this area under the proposed unit plan of operation be in 16 the interest of conservation and prevention of waste? 17 A. Yes. 18 Will the different institutions of the Q. 19 State, if any, receive their fair share of production, if 20 established? 21 A. Yes. 22 In the event of production will the Q. 23 correlative rights of all parties to the unit agreement be 24 protected? 25 A. Yes.

1	10	
2	MP. RICHARDSON: I would like to move	
3	that the geological report be entered in evidence at this	
4	time.	
5	MR. NUTTER: And that includes all of	
6	these other exhibits?	
7	MR. RICHARDSON: Right.	
8	MR. NUTTER: Applicant's exhibits will	
9	be admitted. I believe they're numbered One through Five.	
10	MR. RICHARDSON: Right.	
11	MR. NUTTER: One through Five.	
12	MR. RICHARDSON: And I have nothing	
13	further.	
14		
15	CROSS EXAMINATION	
16	BY MR. NUTTER:	
17	Q. Mr. Reddy, now you mentioned going from	
18	the Pennsylvanian on into the pre-Woodford formation.	
19	A. Yes.	
20	Q. And on your Exhibit Five you go you	
21	mention the Siluro-Ordovician. Is the Devonian not present	
22	in this area?	
23	A. Well, it is not, except possibly some	
24	Woodford section, which is partially Devonian.	
25	Q. Well, the Woodford is normally a shale,	

11 1 2 isn't it? 3 A. Right. 4 And then the Devonian is immediately Q. 5 below that. 6 A. Well, there's a little bit of difference 7 of opinion on that. Some people call it the Siluro-Devonian 8 but the Siluro, what is called the Siluro-Devonian on a 9 regional scale is pinching out very near this prospect. 10 Q. I see. 11 A. And we've -- I chose to refer to it as 12 simply pre-Woodford. We will either have Silurian or Mon-13 toya section below the --14 And that's down in the Ordovician, then. 0. 15 A. Right. Each of these are prospective 16 in this area. 17 And then the Queen would be a secondary 0, 18 objective --19 A. Right. 20 -- as well as some of these other form-0. 21 ations, Abo, and so forth. 22 That's correct. A. 23 There's a possibility of that. 0. 24 Now, if you're expecting the Precambrian 25 at 7000 feet, why would the unit agreement call for drilling

12 1 2 to a depth sufficient to penetrate the granite and in any 3 case not be required to drill in excess of 11,800? 4 MR. RICHARDSON: That's some of my 5 damned foolishness by not changing the unit agreement. 6 MR. NUTTER: Oh, that's taken from an 7 old unit agreement and that number could have been changed? 8 You're not going to drill deeper than 11,800 anyway, are 9 you? 10 MR. RICHARDSON: That's one of my little 11 Just strike that and put 7000. doings. 12 MR. NUTTER: Okay. 13 Are there any other questions of the 14 witness? He may be excused. 15 Do you have anything further, Mr. 16 Richardson? 17 MR. RICHARDSON: No, sir. 18 MR. NUTTER: Does anyone have anything 19 they wish to offer in Case Number 7157? 20 We'll take the case under advisement. 21 22 (Hearing concluded.) 23 24 25

Page _____

CERTIFICATE

I, SALLY W. BOYD, C.S.R., DO HEREPY 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.

Sacley W. Boyd C.S.E.

the foregoing is gs In $\rho_{\rm C}$, Examiner

Oil Conservation Division

SALLY W. BOYD, C.S.R. kt. 1 Box 193-B Santa Fe, New Mexico 87501 Phone (505) 455-7409